



**SYNTHESIS AND ASSESSMENT REPORT ON THE GREENHOUSE GAS
INVENTORIES SUBMITTED IN 2008**

Note by the secretariat

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I. MANDATE

1. The Conference of the Parties (COP), by its decision 19/CP.8, adopted the revised guidelines for the technical review of greenhouse gas (GHG) inventories from Parties included in Annex I to the Convention¹ (Annex I Parties) to be applied from the year 2003.
2. The COP, by its decision 14/CP.11, updated the UNFCCC reporting guidelines on annual inventories², including the revisions to the tables of the common reporting format (CRF) for reporting on the LULUCF sector and decided that Annex I Parties shall use these tables for the purpose of submission of the annual inventory due in and after 2007. For the inventory submissions due in 2008, Parties used the updated UNFCCC reporting guidelines adopted by decision 14/CP.11.
3. As part of the inventory review process, the COP, by its decision 19/CP.8, requested the secretariat to conduct an annual synthesis and assessment of GHG inventories for all Annex I Parties. The purposes of the synthesis and assessment are to facilitate the consideration of inventory data and other information across Parties, and to identify issues for further consideration during the reviews of individual inventories. The synthesis and assessment is to be prepared in two parts. Part I is to provide information to allow comparisons across Annex I Parties, as well as descriptions of common methodological issues. Part II is to provide a preliminary analysis of individual Annex I Party inventories, in particular to identify outstanding issues requiring clarification during the individual review stage of the process.
4. As part of the annual inventory review process under the guidelines for review under Article 8 of the Kyoto Protocol³, the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (CMP), by its decision 22/CMP.1, requested the secretariat to conduct a standardized set of data comparisons to be performed on the CRF submissions to be used in the review process. Part I of this synthesis and assessment report provides information of such data comparisons across Annex I Parties.
5. In accordance with decision 19/CP.8, Part I of this synthesis and assessment report has been sent to Parties for comment prior to publication on the UNFCCC web site. Part II will be sent to the respective Party for comments and, together with the comments from the respective Party, will be provided to the corresponding expert review team as input for the individual review; Part II will not be published on the UNFCCC web site.

II. COMPARISON OF GHG INVENTORY INFORMATION

A. Approach

6. This document contains Part I of the synthesis and assessment report, covering the 2008 submissions of the national GHG inventories of Annex I Parties, in accordance with the UNFCCC reporting guidelines adopted by decision 14/CP.11, including the 2008 inventory information voluntarily reported under Article 7, paragraph 1, of the Kyoto Protocol, in accordance with decision 15/CMP.1.
7. This document covers only the inventory information submitted in the CRF in the 2008 submission. It does not cover information contained in the national inventory reports, or information contained in inventory submissions from previous years. Information in this document is not intended as a judgment of whether inventory problems exist, but as an indication of potential issues that need to be considered further during the third stage of the review process (individual review) by the expert review teams.
8. The completeness of this report is limited by the fact that only 40 out of 41 Annex I Parties submitted their inventory at the time of the preparation of this report (13 June 2008). Accordingly, this report covers inventories submitted by: Australia, Austria, Belarus, Belgium, Bulgaria, Canada, Croatia, Czech Republic, Denmark, Estonia, European Community, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Latvia, Liechtenstein, Lithuania, Luxembourg, Monaco, the Netherlands,

¹ The full text of the guidelines is contained in document FCCC/CP/2002/8.

² The full text of the guidelines is contained in document FCCC/SBSTA/2006/9.

³ The full text of the guidelines is contained in document FCCC/KP/CMP/2005/8/Add.3.

New Zealand, Norway, Poland, Portugal, Romania, Russian Federation, Slovakia, Slovenia, Spain, Sweden, Switzerland, Ukraine, United Kingdom and the United States. In this report, the inventory information for Denmark corresponds to the Kingdom of Denmark (Denmark, Greenland and Faroe Islands) and for France corresponds to the metropolitan France, the French Overseas Departments, the French Overseas Collectivities and New Caledonia.

9. This synthesis and assessment report contains GHG inventory information from those Parties, compiled in tabular format. The tables provide comparisons of implied emission factors and activity data as reported in the CRF, data from international sources, emissions, information on methods used and emission factors as reported by Parties in Summary table 3 of the CRF, and other information relating to GHG inventory estimates. Where possible, this information is provided for all 40 Parties for both the base year and for the year 2006. For some categories, however, trend comparisons across all Parties were not possible due to the lack of data or use of notation keys for some or all of the years in the time series.

10. The inventory data were analyzed according to the sectors, subsectors and categories specified in the CRF, which correspond to those of the *Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories* (hereinafter referred to as the Revised 1996 IPCC Guidelines) and the *IPCC Good Practice Guidance for Land Use, Land-use Change and Forestry* (hereinafter referred to as the IPCC good practice guidance for LULUCF).

11. To facilitate the analysis of the inventory data, the secretariat considers, for each individual Party, those categories that are *key* in terms of their absolute level of emissions and impact on the trend, applying the tier 1 level and trend assessment as described in chapter 5.4 “Methodological choice – Identification of key categories” of the IPCC good practice guidance for LULUCF and chapter 7 “Methodological choice and recalculations” of the *IPCC Good Practice Guidance and Uncertainty Management*. This identification has been performed at the level of detail recommended in that guidance and includes the LULUCF sector.

B. Explanatory notes to the tables

12. Blank cells in a main table indicate that a Party did not report information for a given category and gas in the appropriate table of the CRF. Where a Party’s value is very small compared to that of other Parties, it has been rounded to zero (0.0 or 0.00) for this report. Where a Party reports a zero numerical value in the corresponding CRF tables, a zero value (0) is shown in this report. In some cases, when a Party’s value is exceptionally small compared to that of other Parties and the numerical format used for these values is not including decimal places, the Party’s value has been rounded to zero (0).

13. Blank cells in a trend table indicate that a Party did not provide information for two consecutive years. Very small positive or negative inter-annual changes are shown as zero (0.0) for this report. When no change of numerical values between two consecutive years (or between base year and the latest reported year) is occurring, the inter-annual change between these years is shown as zero value (0). When there has been a change from notation key to a numerical value or vice versa between two consecutive years or two consecutive years both contain notation keys, the symbol “*” is shown in this report.

14. The differences in activity data between the CRF and international data sources were calculated as percentage deviations from the activity data provided in the CRF. A positive number indicates that the data from the international data source are higher than the data reported in the CRF. Similarly, a negative number indicates that data from the international data source are lower than the data reported in the CRF.

15. References to the base year refer to 1990, except for the following Parties with economies in transition which, in accordance with decisions 9/CP.2 and 11/CP.4, use base years other than 1990: Bulgaria (1988), Hungary (average 1985–1987), Poland (1988), Romania (1989) and Slovenia (1986).

16. Key categories identified by the secretariat’s analysis are indicated by “L” for level and “T” for trend assessments in the “key category” columns.

17. The column “Share of national total” in main tables indicates the contribution of that category to the Party’s national total of GHG emissions in terms of CO₂ equivalent, excluding emissions and removals from LULUCF.

18. In tables, where shares or contributions of categories, gases, activity data or other parameters to a total are shown (e.g., contribution of specific fuel type to the total emissions of a combustion category), blank cells indicate that a Party did not report information for a given category, gas, activity data or parameter in the appropriate table of the CRF. Where the value of share or contribution is very small, it has been rounded to zero (0.0) for this report. Where a Party reports a zero numerical value for a given category, gas, activity data or parameter in the corresponding CRF tables, its share or contribution is shown as a zero value (0). Where a Party reports a notation key for a given category, gas, activity data or parameter in the corresponding CRF tables, its share or contribution to the total is shown using the symbol “-”. Where a Party reports notation keys for two parameters (e.g. implied emission factors) in the corresponding CRF tables, their ratio is shown using the symbol “-”.

19. Where Parties used notation keys (NO, NE, NA, IE, C) these have been reproduced verbatim from the CRF tables provided by Parties. The notation keys, as described in the UNFCCC reporting guidelines (FCCC/SBSTA/2006/9), are as follows:

NO	Not occurring	IE	Included elsewhere
NE	Not estimated	C	Confidential
NA	Not applicable		

20. Tables on energy indicate whether implied emission factors (IEFs) given in the CRF are based on gross calorific value (GCV) or net calorific value (NCV). The difference between the NCV and the GCV for each fuel is the latent heat of vaporization of the water produced during combustion of the fuel. For coal and oil, NCV is 5 per cent less than GCV, and for most forms of natural and manufactured gas the difference is 9 to 10 per cent. Australia, Canada, Japan, New Zealand and the United States reported energy data on a GCV basis. The IEFs included in the energy section of this report for these Parties have been converted into NCV-based values (using 5 per cent of difference for liquid, solid, other fuels and biomass and 10 per cent for gaseous fuels) and are not reflecting the reported IEFs.

21. The following chemical formulae or abbreviations for greenhouse gases are used in the synthesis and assessment report:

C	carbon
CF ₄	perfluoromethane
C ₂ F ₆	perfluoroethane
C ₃ F ₈	perfluoropropane
C ₄ F ₁₀	perfluorobutane
c-C ₄ F ₈	perfluorocyclobutane
C ₅ F ₁₂	perfluoropentane
C ₆ F ₁₄	perfluorohexane
CH ₄	methane
CO ₂	carbon dioxide
HFCs	hydrofluorocarbons
N ₂ O	nitrous oxide
PFCs	perfluorocarbons
SF ₆	sulphur hexafluoride

22. To indicate the methods and emission factors used by Parties the following abbreviations have been used (see also footnotes to Summary table 3 of the CRF) in the synthesis and assessment report:

<u>Methods:</u>		<u>Emission factors:</u>	
D	IPCC default	D	IPCC default
RA	Reference approach	CR	CORINAIR
T1	IPCC tier 1	CS	Country specific
T1a, T1b, T1c	IPCC tier 1a, tier 1b, and tier 1c, respectively	PS	Plant specific
T2	IPCC tier 2	M	Model
T3	IPCC tier 3	OTH	Other
CR	CORINAIR		
CS	Country specific		
M	Model		
OTH	Other		

23. The following units have been used in the synthesis and assessment report:

kg	kilogram (10^3 grams)
Mg	megagram (10^6 grams) – same as tonne
Gg	gigagram (10^9 grams)
Gg CO ₂ equ.	Gg of CO ₂ equivalent
t	tonne (10^6 grams)
kt	kilotonne (10^9 grams)
Mt	megatonne (10^{12} grams)
TJ	terajoule (10^{12} joules)
PJ	petajoule (10^{15} joules)
km	kilometer
ha	hectare
kha	thousand hectares
Mha	million hectares
m ³	cubic meter
l	liter
Bbl (oil US)	barrel of oil (United States)
ft ³	cubic feet
Btu	British thermal unit

24. The following other abbreviations have been used in the synthesis and assessment report:

A	actual emissions
AD	activity data
CRF	common reporting format
dm	dry matter
EF	emission factor
FAO	Food and Agriculture Organization of the United Nations
Frac _{BURN}	fraction of crop residue burned
Frac _{FUEL}	fraction of livestock nitrogen excretion in excrements burned for fuel
Frac _{GASF}	fraction of synthetic fertilizer nitrogen applied to soils that volatilises as NH ₃ and NO _x
Frac _{GASM}	fraction of livestock nitrogen excretion that volatilises as NH ₃ and NO _x
Frac _{GRAZ}	fraction of livestock nitrogen excreted and deposited onto soil during grazing
Frac _{LEACH}	fraction of nitrogen input to soils that is lost through leaching and run-off
Frac _{NCRBF}	fraction of nitrogen in N-fixing crop
Frac _{NCRO}	fraction of nitrogen in non-N-fixing crop
Frac _R	fraction of total above-ground crop biomass that is removed from the field as a crop product
GCV	gross calorific value

GHG	greenhouse gas
GWP	global warming potential
IEA	International Energy Agency
IEF	implied emission factor
L	level (key category applying the IPCC good practice guidance tier 1 level assessment)
LPG	liquefied petroleum gas
LTO	landing and take off cycle
N	nitrogen
NCV	net calorific value
NGL	natural gas liquids
NH ₃	ammonia
NIR	national inventory report
NMVOC	non-methane volatile organic compounds
NO _x	nitrogen oxides
P	potential emissions
T	trend (key category applying the IPCC good practice guidance tier 1 trend assessment)
yr	year

C. List of tables in Part I**General**

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Energy

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Solvent and other product use

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3.1 Solvent and other product use – CO₂ and N₂O (2006)

Agriculture

Figure 4.1 Contribution of subsectors to total GHG emissions in the Agriculture sector

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 CH₄ emissions (Gg)
 Relative change (%)

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 Relative change (%)

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 Relative change (%)

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 Relative change (%)

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 CH₄ emissions (Gg)
 Relative change (%)

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Land Use, Land-use Change and Forestry (continued)

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	Relative change (%)
5.33	Biomass burning – CO ₂ emissions from forest land (base year and 2006)
5.34	CH ₄ emissions from biomass burning in forest land – trend information
	CH ₄ emissions (Gg)
	Relative change (%)
5.35	N ₂ O emissions from biomass burning in forest land – trend information
	N ₂ O emissions (Gg)
	Relative change (%)
5.36	CH ₄ emissions from biomass burning in land converted to cropland – trend information
	CH ₄ emissions (Gg)
	Relative change (%)
5.37	N ₂ O emissions from biomass burning in land converted to cropland – trend information
	N ₂ O emissions (Gg)
	Relative change (%)
5.38	CH ₄ emissions from biomass burning in grassland – trend information
	CH ₄ emissions (Gg)
	Relative change (%)
5.39	N ₂ O emissions from biomass burning in grassland – trend information
	N ₂ O emissions (Gg)
	Relative change (%)

Waste

Figure 6.1	Contribution of subsectors to total GHG emissions in the Waste sector
6.1	Solid waste disposal on land, waste-water handling and waste incineration (2006)
6.2	CH ₄ emissions from solid waste disposal on land – trend information
	CH ₄ emissions (Gg)
	Relative change (%)
6.3	Solid waste disposal on land: CH ₄ emissions per capita – trend information
	CH ₄ emissions per capita (kg/capita)
	Relative change (%)
6.4	CH ₄ recovered from managed solid waste disposal sites – trend information
	CH ₄ emissions (Gg)
	Relative change (%)
6.5	Waste generation rate – trend information
	Waste generation (kg/person/day)
	Relative change (%)
6.6a	CH ₄ emissions from waste-water handling – trend information
	CH ₄ emissions (Gg)
	Relative change (%)
6.6b	N ₂ O emissions from waste-water handling – trend information
	N ₂ O emissions (Gg)
	Relative change (%)
6.7	CO ₂ emissions from waste incineration – trend information
	CO ₂ emissions (Gg)
	Relative change (%)

Table G.1**Submissions used in the Synthesis and Assessment report: Part I**

Party	Initial submission date	CRF for years	NIR	CRF submission date and version used in the S&A report	CRF Reporter version (version used in S&A report)	Sources of data for the trend tables ^a
Australia	13 June 2008	1990-2006	√	13 June 2008 (v.1.1)	CRF Reporter v. 3.2.0	1990-2006: S2008
Austria	15 April 2008	1990-2006	√	15 April 2008 (v.1.2)	CRF Reporter v. 3.2.0	1990-2006: S2008
Belarus	14 May 2008	1990-2006	√	6 June 2008 (v.1.1)	CRF Reporter v. 3.2.1	1990-2006: S2008
Belgium	15 April 2008	1990-2006	√	15 April 2008 (v. 1.2)	CRF Reporter v. 3.2.0	1990-2006: S2008
Bulgaria	15 April 2008	1988-2006	√	15 April 2008 (v.1.1)	CRF Reporter v. 3.2.0	1988-2006: S2008
Canada	22 May 2008	1990-2006	√	22 May 2008 (v. 1.1)	CRF Reporter v. 3.2.1	1990-2006: S2008
Croatia	24 May 2008	1990-2006	√	24 May 2008 (v. 1.1)	CRF Reporter v. 3.2.1	1990-2006: S2008
Czech Republic	9 April 2008	1990-2006	√	9 April 2008 (v. 1.1)	CRF Reporter v. 3.2.1	1990-2006: S2008
Denmark	15 April 2008	1990-2006	√	15 April 2008 (v. 1.1)	CRF Reporter v. 3.2.0	1990-2006: S2008
Estonia	15 April 2008	1990-2006	√	15 May 2008 (v. 2.2)	CRF Reporter v. 3.2.0	1990-2006: S2008
European Community	15 April 2008	1990-2006	√	27 May 2008 (v. 2.1)	CRF Reporter v. 3.2.1	1990-2006: S2008
Finland	11 April 2008	1990-2006	√	11 April 2008 (v. 1.4)	CRF Reporter v. 3.2.1	1990-2006: S2008
France	10 April 2008	1990-2006	√	10 April 2008 (v. 1.1)	CRF Reporter v. 3.2.1	1990-2006: S2008
Germany	15 April 2008	1990-2006	√	15 April 2008 (v. 1.1)	CRF Reporter v. 3.2.0	1990-2006: S2008
Greece	7 April 2008	1990-2006	√	7 April 2008 (v. 1.2)	CRF Reporter v. 3.2.1	1990-2006: S2008
Hungary	14 April 2008	1985-1987, 1985-2006	√	14 April 2008 (v. 1.3)	CRF Reporter v. 3.2.2	1985-1987, 1985-2006: S2008
Iceland	28 April 2008	1990-2006	√	28 April 2008 (v. 1.1)	CRF Reporter v. 3.2.1	1990-2006: S2008
Ireland	11 April 2008	1990-2006	√	11 April 2008 (v. 1.4)	CRF Reporter v. 3.2.1	1990-2006: S2008
Italy	16 April 2008	1990-2006	√	16 April 2008 (v. 1.2)	CRF Reporter v. 3.2.1	1990-2006: S2008
Japan	16 May 2008	1990-2006	√	16 May 2008 (v. 1.1)	CRF Reporter v. 3.2.1	1990-2006: S2008
Latvia	15 April 2008	1990-2006	√	15 April 2008 (v. 1.3)	CRF Reporter v. 3.2.0	1990-2006: S2008
Liechtenstein	29 February 2008	1990-2006	√	29 February 2008 (v. 1.1)	CRF Reporter v. 3.2.1	1990-2006: S2008
Lithuania	11 April 2008	1990-2006	√	11 April 2008 (v. 1.2)	CRF Reporter v. 3.2.1	1990-2006: S2008
Luxembourg	23 April 2008	1990-2006	√	23 April 2008 (v. 1.2)	CRF Reporter v. 3.2.1	1990-2006: S2008
Monaco	7 May 2008	1990-2006	√	7 May 2008 (v. 1.1)	CRF Reporter v. 3.2.1	1990-2006: S2008
Netherlands (The)	15 April 2008	1990-2006	√	26 May 2008 (v. 1.3)	CRF Reporter v. 3.2.1	1990-2006: S2008
New Zealand	14 April 2008	1990-2006	√	14 April 2008 (v. 1.1)	CRF Reporter v. 3.2.0	1990-2006: S2008
Norway	15 April 2008	1990-2006	√	15 April 2008 (v. 1.1)	CRF Reporter v. 3.2.1	1990-2006: S2008
Poland	15 April 2008	1988-2006	√	27 May 2008 (v. 1.2)	CRF Reporter v. 3.2.1	1988-2006: S2008
Portugal	15 April 2008	1990-2006	√	15 April 2008 (v. 1.5)	CRF Reporter v. 3.2.1	1990-2006: S2008
Romania	15 April 2008	1989-2006	√	15 April 2008 (v. 1.1)	CRF Reporter v. 3.2.1	1989-2006: S2008
Russian Federation	19 May 2008	1990-2006	√	4 June 2008 (v. 1.2)	CRF Reporter v. 3.2.0	1990-2006: S2008
Slovakia	15 April 2008	1990-2006	√	15 April 2008 (v. 1.2)	CRF Reporter v. 3.2.1	1990-2006: S2008
Slovenia	15 April 2008	1986-2005	√	15 April 2008 (v. 1.3)	CRF Reporter v. 3.2.1	1986-2006: S2008
Spain	16 April 2008	1990-2006	√	27 May 2008 (v. 1.4)	CRF Reporter v. 3.2.0	1990-2006: S2008
Sweden	14 April 2008	1990-2006	√	14 April 2008 (v. 1.1)	CRF Reporter v. 3.2.0	1990-2006: S2008
Switzerland	15 April 2008	1990-2006	√	15 April 2008 (v. 1.1)	CRF Reporter v. 3.2.1	1990-2006: S2008
Turkey						
Ukraine	21 May 2008	1990-2006	√	21 May 2008 (v. 1.1)	CRF Reporter v. 3.2.1	1990-2006: S2008
United Kingdom	15 April 2008	1990-2006	√	15 April 2008 (v. 1.5)	CRF Reporter v. 3.2.0	1990-2006: S2008
United States	10 April 2008	1990-2006	√	10 April 2008 (v. 1.1)	CRF Reporter v. 3.2.1	1990-2006: S2008

^a Legend: v.1/2/3/4 - version of the CRF used in the Synthesis and Assessment report; S200x - submission in year 200x; T200x - trend tables from submission in year 200x.

Key categories^a: base year^b

-16-

Key categories^a: base year^b

-17-

Key categories^a: base year^b

-18-

Key categories^a: base year^b

^a Source: UNFCCC secretariat key category analysis.

^b In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

^c Japan has not reported a complete time series of actual emissions for 2.F.1 Consumption of halocarbons and SF₆, but has reported a complete time series of potential emissions. The potential emissions have been aggregated to total national emissions in the base year.

Key categories^a: 2006

-20-

Key categories^a: 2006

-21-

Key categories^a: 2006

-22-

Table G.3 (continued)

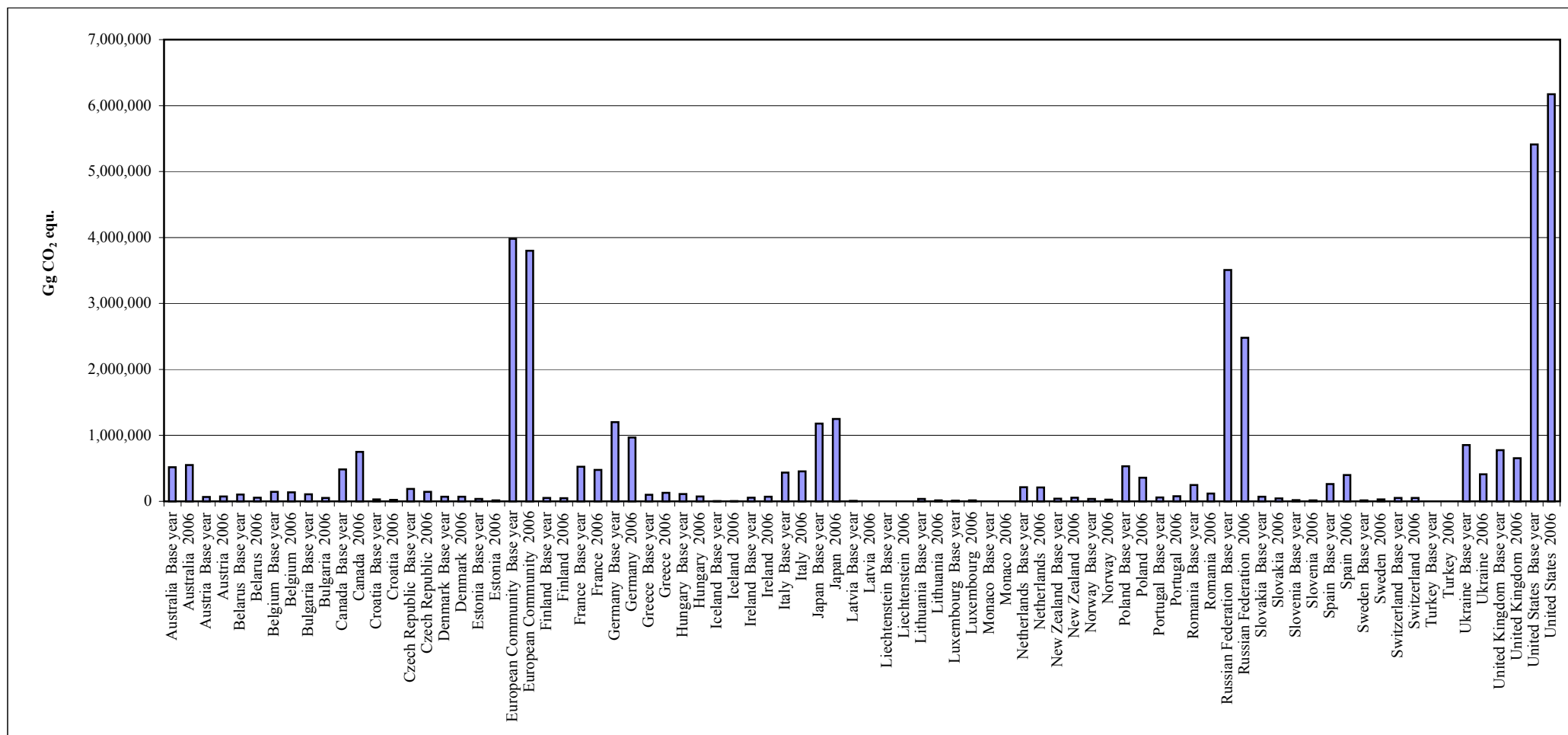
Key categories^a: 2006

Source categories	Australia	Austria	Belarus	Belgium	Bulgaria	Canada	Croatia	Czech Republic	Denmark	Estonia	European Community	Finland	France	Germany	Greece	Hungary	Iceland	Ireland	Italy	Japan ^b	Latvia	Liechtenstein	Lithuania	Luxembourg	Monaco	Netherlands	New Zealand	Norway	Poland	Portugal	Romania	Russian Federation	Slovakia	Slovenia	Spain	Sweden	Switzerland	Turkey	Ukraine	United Kingdom	United States			
LULUCF																																												
5.A.1 Forest Land remaining Forest Land - CO ₂	L, T	L, T	L, T	L, T	L, T	L, T	L, T	L, T	L, T	L, T	L, T	L, T	L, T	L, T	L, T	L, T		L, T	L, T	L, T	L, T	L, T	L, T			L	L, T	L, T	L, T	L, T	L, T	L, T	L, T	L, T	L, T	L, T	L, T	L, T		L, T		L, T		
5.A.1 Forest Land remaining Forest Land - CH ₄						L																																					L, T	
5.A.1 Forest Land remaining Forest Land - N ₂ O																																											T	
5.A.2 Land converted to Forest Land - CO ₂	L, T	L, T							T		L, T		L, T	T	T	T	L, T	T	L	T	L, T		L, T			T	L, T	L, T	L, T	L, T			L, T		L, T	L, T			L, T	L, T				
5.A.2 Land converted to Forest Land - CH ₄																																												
5.A.2 Land converted to Forest Land - N ₂ O																																												
5.B.1 Cropland remaining Cropland - CO ₂		T	L		L, T	L, T		T	L, T		T	L, T		L, T	L, T	L, T			L, T			L, T					L		L, T			L, T	T				L, T	L		L, T		L, T		
5.B.1 Cropland remaining Cropland - CH ₄																																												
5.B.1 Cropland remaining Cropland - N ₂ O																																												
5.B.2 Land converted to Cropland - CO ₂	L, T	L				L, T					L, T		L, T							T																						L, T	T	
5.B.2 Land converted to Cropland - CH ₄																																												
5.B.2 Land converted to Cropland - N ₂ O																																												
5.C.1 Grassland remaining grassland - CO ₂				L							L	L, T		L, T				T			L	T				L		L, T	T				T				L, T						T	
5.C.1 Grassland remaining grassland - CH ₄																																												
5.C.1 Grassland remaining grassland - N ₂ O																																												
5.C.2 Land converted to Grassland - CO ₂	L, T	L, T						T				L, T					L, T			T		T						L, T						L, T			L					L, T		
5.C.2 Land converted to Grassland - CH ₄	T																																											
5.C.2 Land converted to Grassland - N ₂ O																																												
5.D.1 Wetlands remaining Wetlands - CO ₂					L, T																								L, T	L, T														
5.D.1 Wetlands remaining Wetlands - CH ₄																																												
5.D.1 Wetlands remaining Wetlands - N ₂ O																																												
5.D.2 Land converted to Wetlands - CO ₂						T						L	T																															
5.D.2 Land converted to Wetlands - CH ₄																																												
5.D.2 Land converted to Wetlands - N ₂ O																																												
5.E Settlements - CO ₂						L, T							L						T	L, T		L																						

^a Source: UNFCCC secretariat key category analysis.^b Japan has not reported a complete time series of actual emissions for 2.F.1 Consumption of halocarbons and SF₆, but has reported a complete time series of potential emissions. The potential emissions have been aggregated to total national emissions in the base year, while actual emissions have been aggregated to total national emissions in the latest year. Therefore only actual emissions are considered for the trend assessment.

Figure G.1

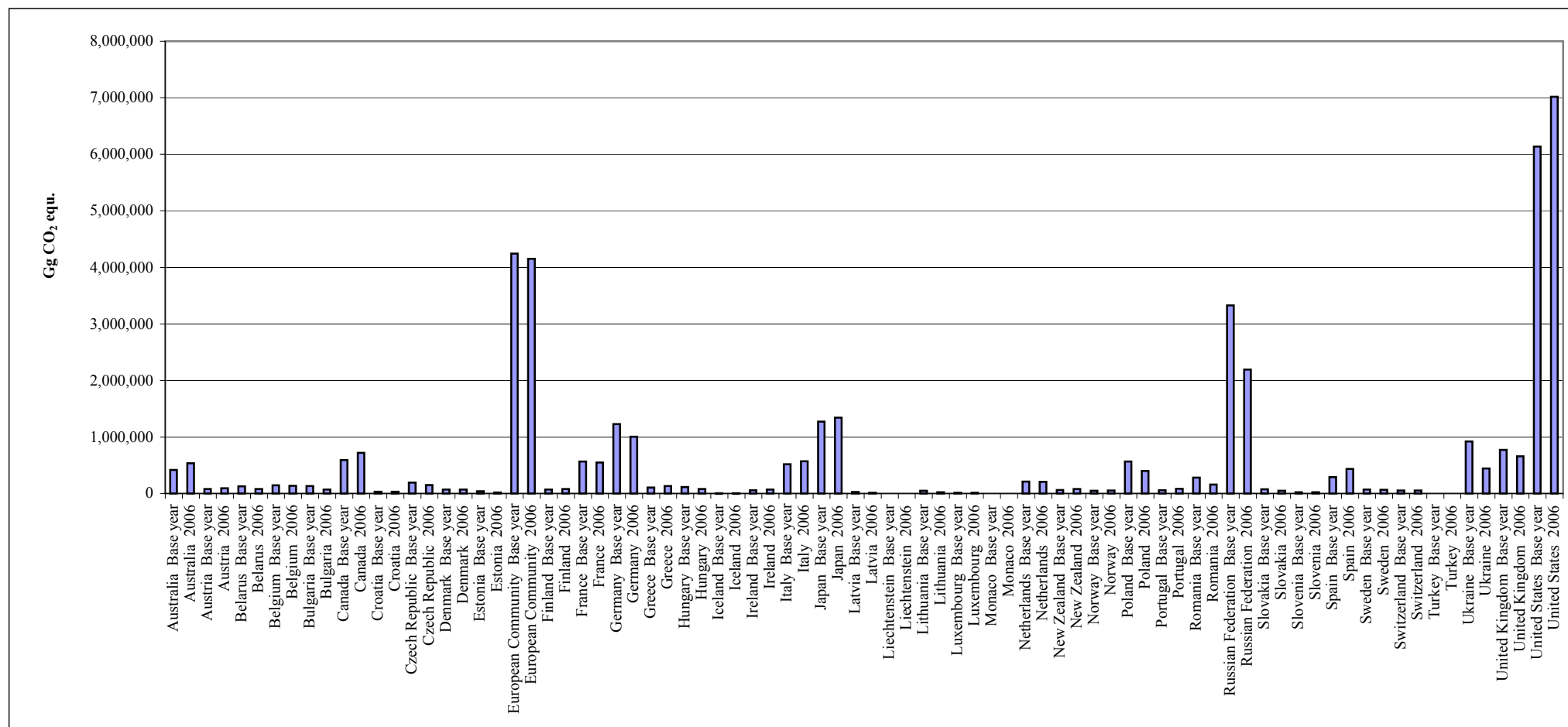
Total GHG emissions (including LULUCF): base year^a and 2006



^a In accordance with the UNFCCC reporting guidelines on annual inventories of Annex I Parties the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Figure G.2

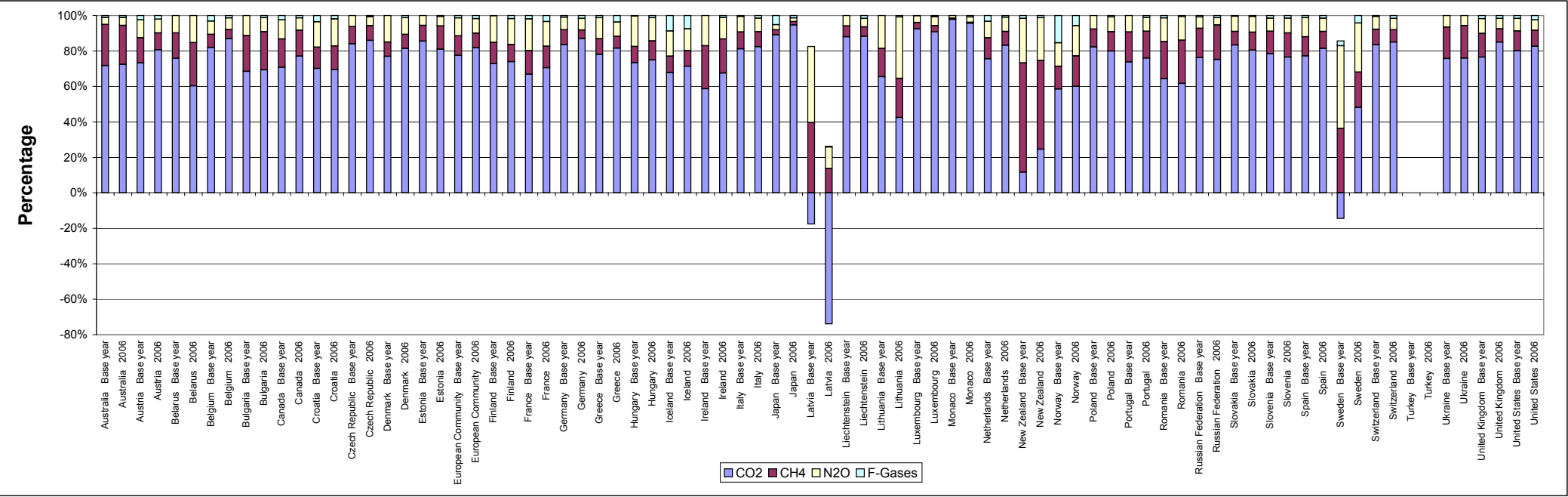
Total GHG emissions (excluding LULUCF): base year^a and 2006



^a In accordance with the UNFCCC reporting guidelines on annual inventories of Annex I Parties the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Figure G.3

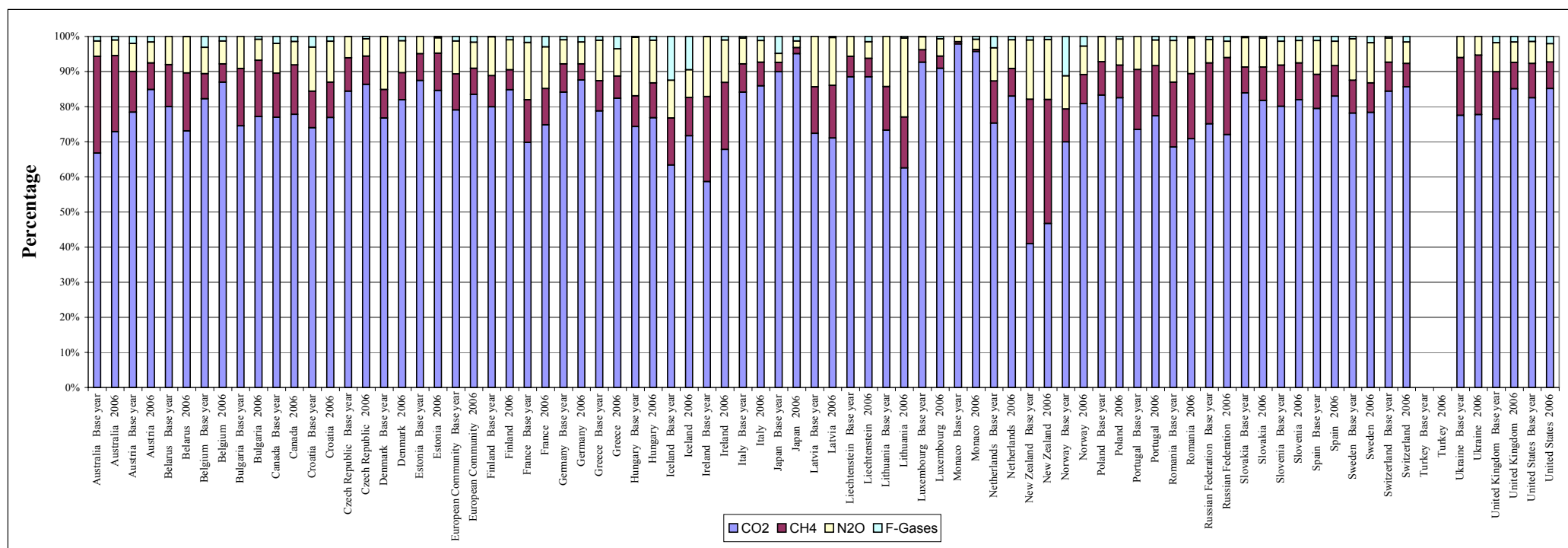
GHG emissions by gas (including LULUCF): base year^a and 2006



^a In accordance with the UNFCCC reporting guidelines on annual inventories of Annex I Parties the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Figure G.4

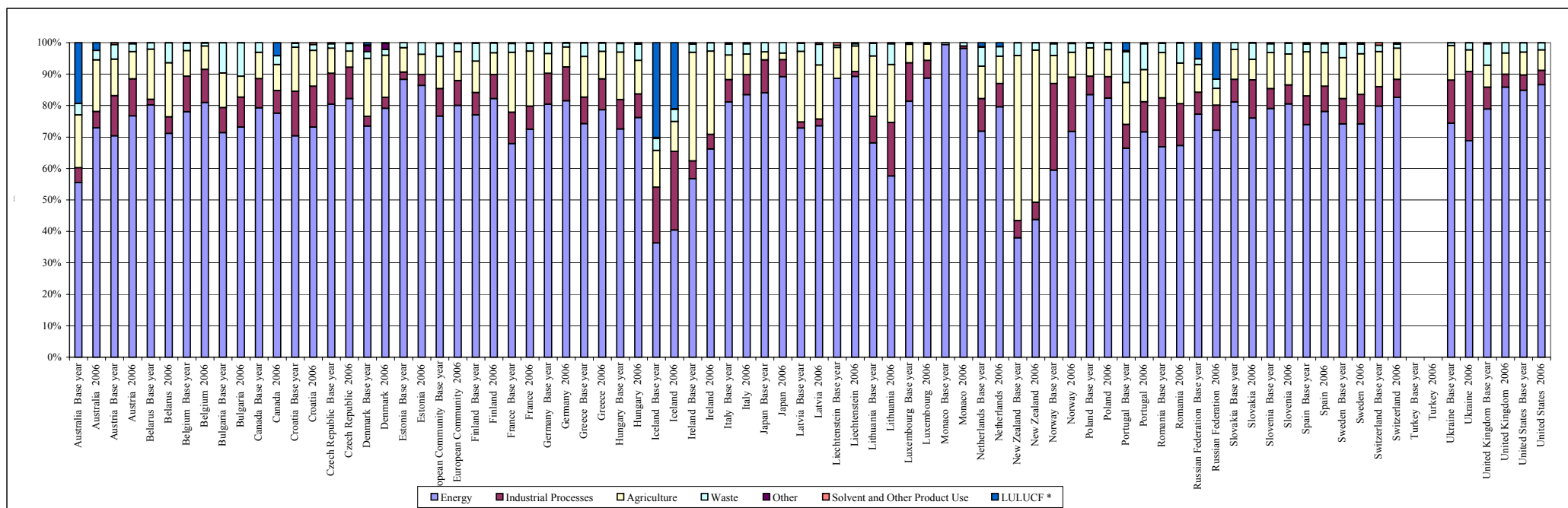
GHG emissions by gas (excluding LULUCF): base year^a and 2006



^a In accordance with the UNFCCC reporting guidelines on annual inventories of Annex I Parties the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Figure G.5

GHG emissions by sector: base year^a and 2006



* In this graph emissions from the LULUCF sector are included only if this sector is a net source of emissions.

^a In accordance with the UNFCCC reporting guidelines on annual inventories of Annex I Parties the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table G.4**Reported recalculations by year for total GHG emissions excluding LULUCF (%)**

	Base year ^a	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Australia			0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	-0.01	-0.04	0.09	0.14	0.04
Austria	0.15	0.15	0.17	0.17	0.09	0.19	0.41	0.08	0.07	-0.02	0.33	0.02	0.26	0.56	0.37	0.53	-0.02
Belarus					0.00			0.00			0.00				0.00		
Belgium	-0.85	-0.85	-1.03	-2.13	-1.36	-0.87	-1.28	-1.16	-1.30	-1.02	-1.48	-1.37	-1.19	-1.14	-1.18	-1.01	-1.04
Bulgaria	0.00	0.09	0.29	0.50	0.69	0.91	1.04	1.26	1.50	1.91	2.16	2.25	2.24	2.34	2.12	2.10	0.72
Canada	-0.29	-0.29	-0.36	-0.30	-0.28	-0.42	-0.42	-0.25	-0.29	-0.39	-0.33	-0.49	-0.58	-0.63	-1.23	-1.39	100.00
Croatia	3.07	3.07	2.46	3.12	1.77	2.17	1.57	1.07	1.09	1.04	1.09	1.52	1.52	0.60	0.64	0.19	0.27
Czech Republic	-1.00	-1.00	-1.15	-0.70	-1.07	-3.44	-1.00	-1.04	-0.91	-3.59	-1.11	-1.39	-0.23	0.51	-1.34	-0.35	0.09
Denmark	-0.14	-0.14	-0.15	-0.16	0.04	0.19	-0.15	-0.23	-0.30	-0.36	-0.41	-0.46	-0.51	-0.52	-0.64	-0.63	-0.76
Estonia	-2.42	-2.42	-2.88	-5.15	-4.72	-6.17	-7.44	-7.54	-7.90	-5.34	-4.40	-5.06	-6.60	-6.29	-7.13	-6.62	-7.76
European Community	-0.33	-0.33	-0.29	-0.39	-0.37	-0.34	-0.39	-0.40	-0.42	-0.40	-0.42	-0.41	-0.40	-0.39	-0.38	-0.28	-0.16
Finland	-0.08	-0.08	-0.29	-0.29	-0.21	-0.25	-0.29	-0.05	-0.12	-0.21	-0.20	-0.34	-0.13	-0.24	-0.49	-0.13	-0.31
France	-0.16	-0.16	0.07	-0.38	-0.42	-0.53	-0.65	-0.70	-0.78	-0.87	-0.80	-0.74	-0.79	-0.90	-0.71	-0.70	0.35
Germany	-0.01	-0.01	-0.04	-0.05	-0.04	-0.03	-0.06	-0.04	-0.05	0.03	-0.01	-0.03	-0.04	-0.02	-0.07	0.26	0.35
Greece	-3.74	-3.74	-2.76	-2.58	-2.78	-2.58	-2.35	-2.32	-2.31	-2.28	-2.16	-2.60	-2.68	-2.70	-2.60	-2.70	-3.89
Hungary	0.14	0.13	0.12	0.11	0.12	0.13	0.14	0.12	0.13	0.39	0.36	0.36	0.37	0.21	0.40	0.34	-0.03
Iceland	1.69	1.69	1.87	1.90	1.87	1.98	1.98	1.92	1.72	1.51	1.36	1.34	1.36	1.15	2.78	1.87	0.09
Ireland	0.27	0.27	0.17	0.19	0.17	-0.07	-0.01	-0.14	-0.16	-0.15	0.04	-0.14	-0.26	-0.20	-0.23	0.06	0.57
Italy	0.01	0.01	0.01	0.00	0.01	0.05	0.04	0.04	0.04	0.10	0.11	0.12	0.07	0.25	0.22	0.03	-0.28
Japan	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.03	0.05	0.05	0.06	0.05	0.03	0.05	0.06	-0.17	-0.14
Latvia	0.05	0.05	0.11	0.14	-0.51	-1.42	0.07	-0.01	-0.08	-0.30	-0.24	-0.29	-0.76	-0.08	0.44	1.10	2.30
Liechtenstein	-0.39	-0.39	-0.36	-0.33	-0.29	-0.29	-0.26	-0.24	-0.20	-0.16	-0.13	-0.11	-0.08	-0.06	-0.02	0.01	0.06
Lithuania				0.00				0.00					-0.01	0.00	-0.01	-0.01	0.00
Luxembourg	0.14	0.14	0.12	0.19	0.22	0.20	0.28	0.29	0.41	0.48	0.35	0.45	0.36	0.25	0.09	0.40	0.26
Monaco	0.27	0.27	0.30	0.33	0.31	0.31	0.38	0.69	0.36	0.53	0.36	2.54	0.40	0.46	1.04	1.80	0.24
Netherlands	-0.62	-0.62	-0.65	-0.64	-0.60	-0.49	-0.48	-0.45	-0.44	-0.43	-0.48	-0.37	-0.42	-0.40	-0.25	-0.33	-0.18
New Zealand	0.08	0.08	0.22	-0.66	-0.92	0.24	0.01	-0.21	0.62	-0.75	-0.46	0.55	-0.01	-0.28	0.34	-0.24	0.25
Norway	-0.11	-0.11	-0.07	0.06	-0.06	-0.21	-0.18	0.01	0.10	-0.11	-0.03	-0.10	-0.16	-0.20	-0.24	-0.15	-0.65
Poland	-4.00	-6.56	-5.05	-5.26	0.07	-3.54	-2.77	-5.40	-4.15	-4.41	-4.37	-3.85	-4.13	-3.78	-4.24	-3.14	-3.16
Portugal	-1.36	-1.36	-1.31	-1.06	-1.17	-1.21	-1.23	-1.23	-1.21	-1.17	-1.31	-0.91	-0.29	-0.23	-0.23	0.16	1.95
Romania	-0.20	-0.42	-0.59	-0.84	-1.36	-1.50	-1.54	-1.40	-1.77	-1.60	-0.68	0.10	0.51	-0.37	-0.39	-0.82	-1.09
Russian Federation	0.12	0.12	-0.14	-0.12	-0.29	-0.20	-0.22	-0.15	-0.25	-0.18	-0.23	-0.20	-0.21	-0.15	-0.40	-0.18	-0.33
Slovakia	2.26	2.26	5.89	6.58	4.58	6.16	0.46	-3.70	-5.96	-2.42	-1.43	2.22	-0.87	0.76	2.29	2.89	3.06
Slovenia	0.13	0.22	0.22	0.30	0.42	0.47	0.50	0.56	0.63	0.61	0.58	0.63	0.59	0.58	0.57	0.55	0.37
Spain	0.11	0.11	0.13	0.13	0.14	0.13	0.13	0.13	0.15	0.12	0.11	0.15	0.17	0.11	0.16	0.19	0.05
Sweden	-0.20	-0.20	-0.03	-0.10	-0.07	-0.04	-0.06	-0.06	-0.06	-0.06	-0.06	-0.05	-0.04	-0.04	-0.02	-0.02	-0.08
Switzerland	0.10	0.10	0.08	0.07	0.07	0.10	0.11	0.04	0.00	0.02	0.06	0.10	0.11	0.07	0.10	0.13	0.29
Turkey																	
Ukraine	-0.20	-0.20	-0.31	-0.25	-0.20	-0.23	-0.22	-0.20	-0.13	0.98	-0.35	0.11	0.15	0.68	0.44	0.92	1.61
United Kingdom	0.07	0.07	0.06	0.04	0.04	0.05	0.04	-0.02	-0.01	-0.01	-0.05	-0.03	-0.02	-0.06	-0.04	0.09	0.20
United States	-1.51	-1.51	-1.35	-1.54	-1.60	-1.35	-1.23	-1.56	-1.41	-1.75	-1.44	-1.73	-1.61	-1.34	-1.56	-1.79	-1.86

Note: The values included in this table are those reported by Parties in CRF table 8(a). An empty cell can either depict that a Party did not recalculate its inventory for a given category-gas combination (i.e. 0% difference), or that it has reported for the first time, or ceased reporting emissions for a category-gas combination (i.e. 100% difference).

^a In accordance with the UNFCCC reporting guidelines on annual inventories of Annex I Parties the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table G.5a

Reported recalculations by gas: base year and 2005 (%)

	Energy						Industrial Processes						Solvents			
	CO ₂		CH ₄		N ₂ O		CO ₂		CH ₄		N ₂ O		CO ₂		N ₂ O	
	Base year ^a	2005	Base year ^a	2005	Base year ^a	2005	Base year ^a	2005	Base year ^a	2005	Base year ^a	2005	Base year ^a	2005	Base year ^a	2005
Australia				0.00	0.00	0.00										
Austria	0.29	-0.21	0.40	0.91	-10.95	4.67		0.03					7.18			
Belarus																
Belgium	0.46	-0.25	51.73	15.10	-53.88	-45.66	-7.91	4.75				0.00			0.00	
Bulgaria		-1.92		-0.01		-0.04							100.00	100.00	100.00	100.00
Canada	-0.30		-1.99		-0.14		-0.87				2.05				-58.08	
Croatia	1.76	-1.71	0.92	-1.01	-3.13	-8.06	17.20	16.93	4.77	14.68	0.02	0.03				
Czech Republic	-0.81	-0.79	2.16	3.46	-53.04	-32.31		8.63		19.54						
Denmark	0.00	-0.22	-1.34	-5.54	-6.09	-40.50	0.09	0.00					4.25	-11.19		100.00
Estonia	-3.59	-10.02	-0.20	-1.21	-9.31	-2.30	-0.29	-1.10								
European Community	0.02	0.21	0.10	-0.88	-19.86	-21.88	-0.66	0.06	0.07	0.80	-1.11	-0.16	0.05	0.15	0.22	1.36
Finland	-0.08	-0.58	0.76	-0.19	0.12	1.82	-0.45	-0.03		-0.02		3.61				
France	0.61	1.07	-1.01	-4.98	-28.19	-49.50	-7.41	-3.68			1.16			0.33		0.20
Germany	-0.02	0.46	0.00	0.04	0.04	-2.00		0.24		8.92		-2.02				
Greece	-2.36	-0.76	-8.77	-6.75	-70.00	-72.83		-4.64								
Hungary	0.07	-0.40		-0.01	0.00	-0.54	1.93	2.07					-0.24	-0.03		
Iceland	4.04	4.85	0.01	-0.84	0.00	-6.44	0.00	0.00	0.00	-2.23			100.00	100.00		
Ireland	-0.02	0.96	3.30	-8.74	-1.76	-15.44	-0.11	-0.08					0.36	3.25		
Italy	0.00	-0.42	0.28	-2.05		0.04		1.22		0.23				0.86		3.90
Japan		0.02	0.00	0.04	0.00	-0.01		-0.04		0.66						
Latvia	0.19	3.50	0.06	-1.38	0.22	-7.18	-2.83	-18.48		-0.01						
Liechtenstein	0.00	0.06	0.20	-0.66	6.11	6.62							0.00	0.01	0.01	
Lithuania		0.00		0.00		0.00		-0.06								
Luxembourg		0.01	0.00	-0.14	0.00	2.24										
Monaco	0.26	0.32	0.46	0.48	0.91	0.45										
Netherlands		0.00	0.00	0.54	2.36	10.28	-0.43	0.43			-16.56	-8.84		-5.85		
New Zealand	-0.34	0.22	-0.01	3.63	-0.07	0.16	-0.53	0.42								-8.33
Norway	-0.07	-0.83	0.33	0.10	-0.79	0.61	0.14	0.46	-58.61	-62.67	-2.61	-3.42				
Poland	-6.63	-3.28	19.62	9.57	-28.51	-1.78	25.35	9.98	-12.95	23.40						
Portugal	0.24	1.33	-0.07	0.59	2.56	-2.94	0.01	-0.64		0.00		0.00		0.00		
Romania	-0.88	-5.12	-3.72	7.62	-1.18	-4.94	2.15	0.38								
Russian Federation		0.00	0.00	0.00	-0.03	-0.04	-1.48	-4.34	1.04	2.03						
Slovakia	2.10	1.53	0.03	0.22	0.69	0.45	10.22	14.76	100.00	100.00	-1.57	2.16			100.00	18.68
Slovenia	0.08	0.12	1.28	2.08	3.80	-0.32	0.00	-1.47								
Spain	0.00	-0.01	-0.05	1.47	0.00	0.23	3.44	0.46	0.04	3.45	0.06	19.11	-0.34	-0.32		
Sweden	-0.23	0.00	-0.02	0.03	-0.18	-0.17	0.00	-0.32		-1.42				1.43		-6.65
Switzerland	0.11	0.18	0.60	1.72	0.23	0.11		0.96					0.05	0.22	0.67	1.57
Turkey																
Ukraine	0.09	2.63	0.01	0.13	0.60	3.44	0.01	1.06		-0.07	51.81	5.34				
United Kingdom	-0.01	0.14	-0.02	2.55	0.42	-0.35	2.37	2.36	0.24	3.37	0.00	0.00				
United States	0.00	-0.37	0.46	-2.29	0.53	-1.35	-0.27	-0.61			-2.35	0.28			2.41	2.39

Note: The values included in this table are those reported by Parties in CRF table 8(a). An empty cell can either depict that a Party did not recalculate its inventory for a given category-gas combination (i.e. 0% difference), or that it has reported for the first time, or ceased reporting emissions for a category-gas combination (i.e. 100% difference).

^a In accordance with the UNFCCC reporting guidelines on annual inventories of Annex I Parties the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table G.5b

Reported recalculations by gas: base year a and 2005 (%)

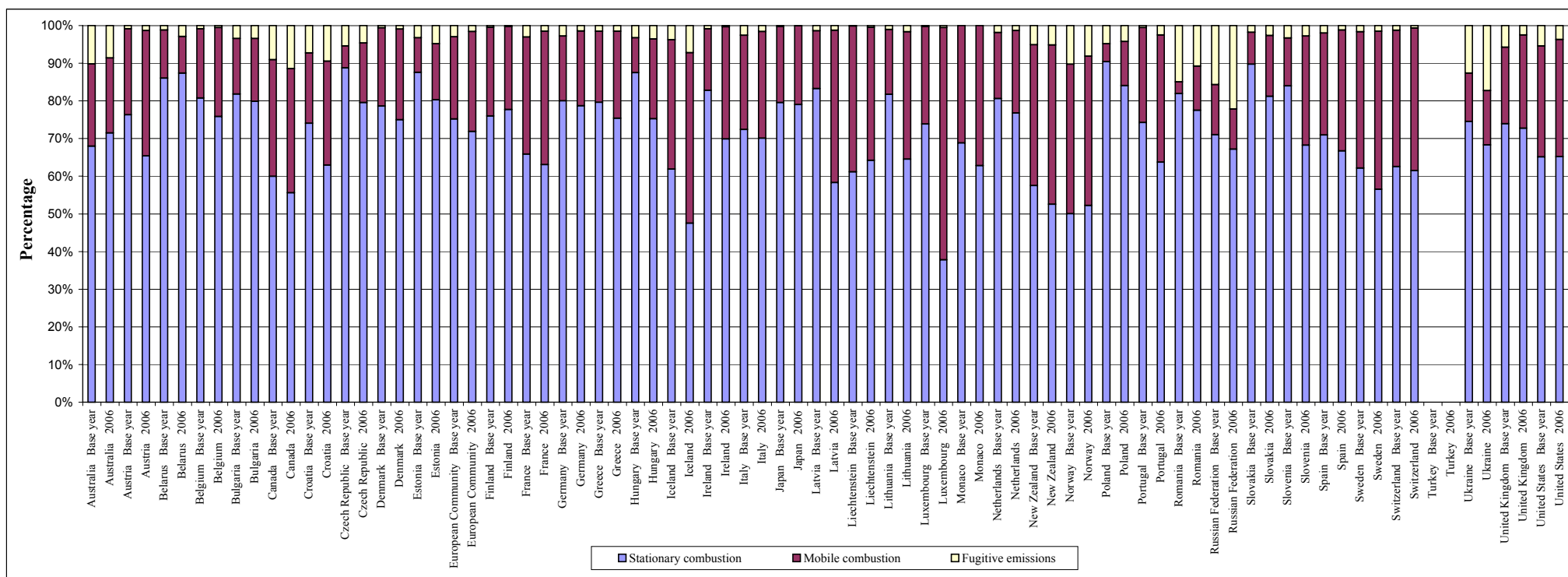
	Agriculture				LULUCF						Waste					
	CH ₄		N ₂ O		CO ₂		CH ₄		N ₂ O		CO ₂		CH ₄		N ₂ O	
	Base year ^a	2005	Base year ^a	2005	Base year ^a	2005	Base year ^a	2005	Base year ^a	2005	Base year ^a	2005	Base year ^a	2005	Base year ^a	2005
Australia		0.19		0.40												
Austria		-0.33	1.05	1.20	22.49	7.93			2,120.55	2,512.54			0.00	0.97	-0.26	5.09
Belarus																
Belgium	-13.79	-11.74	-5.05	-4.91	0.00						-24.98		4.95	8.90	-2.27	0.41
Bulgaria					404.76	170.60							-0.59	22.23		
Canada	1.67		3.87		27.77		-7.41		-7.31		0.00		-4.54		0.31	
Croatia	1.91	0.15	2.20	2.53	-33.37	-0.68	100.00	100.00	100.00	100.00	100.00	138.23	44.69	3.75	2.04	
Czech Republic		-1.61	-0.07	-0.14	130.07	38.70	70.77	57.14	526.32	173.03			-10.59	21.44		
Denmark	0.00	1.09	-0.03	0.52	0.01	-56.42	0.00		-50.00	-50.00	-100.00			-0.58		-17.14
Estonia	-0.63	-0.66	11.69	-0.63	-42.60	-45.33	-32.74	-32.74	-32.74	-32.74			13.49	23.22	77.40	166.56
European Community	-0.62	0.04	0.26	0.23	20.69	-9.51	71.76	108.03	-17.23	-12.63	-13.98	-11.65	-0.53	1.07	5.46	6.38
Finland	0.00	-0.12	-0.01	0.48	-13.77	1.74	-31.58	-19.59	-1.35	-1.08						0.64
France	0.02	2.04	0.00	0.31	16.04	4.16	85.15	122.98	-27.57	-26.26	-0.02	5.15	0.15	0.07	-14.20	-12.85
Germany	0.00	0.00	0.00	0.00	0.00									0.37		1.84
Greece		-2.67		3.88		-3.61		111.70		-42.13						
Hungary					31.24	61.74						6.39		3.34	1.42	7.11
Iceland	0.29	0.26	1.48	1.32	-29.11	-36.16	-96.31	-83.78	-22.54	-22.44	1.86	1.86	36.51	13.59	5.98	7.94
Ireland	1.46	1.59	-0.07	0.67	42.12	-30.75	100.00	100.00	100.00	100.00			0.02	-0.25	0.00	0.00
Italy	0.01	-0.02	0.00	0.13	-0.88	3.02			-53.10	-97.38		47.39	0.13	0.12	0.03	0.11
Japan	0.00	-0.08		0.41	-0.29	-0.18	0.00	-1.93	-0.17	-0.53	0.00	-8.53	0.12	-1.80		1.64
Latvia			-0.24	4.75	0.08	0.16		0.08		12.36						
Liechtenstein	0.00	-7.09	-9.81	-0.69	13.26	2.18				100.00			50.74	3.57	0.94	0.00
Lithuania				0.00	2.90	3.42										
Luxembourg		0.02	4.75	8.24										0.00		
Monaco					0.00	-25.64										
Netherlands	-0.03	-0.02	1.06	1.18	11.52	10.26								2.08		-2.43
New Zealand	-0.02	0.17	0.07	0.71	7.71	-3.45	-54.37	-41.68	-48.13	68.77	100.00	100.00	-0.07	2.93	1.13	0.85
Norway		0.04		-0.02	-6.99	26.62	-0.05	0.32	-1.31	0.77		-99.66	0.15	-0.54	28.54	18.27
Poland	-1.36	0.00	-3.70	-9.56		17.49		84,100.16		337.33		-41.37	3.16	-27.03		-42.64
Portugal	-0.40	3.40	6.23	-8.06	-62.58	-188.39	-0.01	0.29	0.00	0.13		-62.69	-16.81	17.05	-5.95	-1.44
Romania	-5.64	-0.01	-1.38	1.59	0.00	0.16					-100.00	100.92	53.96	28.29	-12.50	11.54
Russian Federation			0.03													
Slovakia											100.00	-91.40	0.11	24.27	39.02	23.28
Slovenia	0.00	-0.18		-1.49										13.37		
Spain	1.43	1.06	0.33	-0.56	-36.58	-32.90	100.00	100.00	100.00	100.00	-68.71	-87.37	0.74	-1.36	-3.97	-4.08
Sweden	1.12	-0.31	0.00		1,498.40	-655.44	-84.81	-60.78	-41.55	-22.76		-36.63	0.00		0.00	0.69
Switzerland		0.65	0.00	1.22	51.65	231.60	444.83	-25.56	140.84	-46.07			0.00	0.00	0.00	-0.01
Turkey																
Ukraine	-6.20	-5.36	-0.56	0.28	30.04	-49.70		-2.58	-77.68	-70.18						
United Kingdom	0.00	-0.05	0.66	0.77	0.62	-0.10	34.57	9.23	542.47	89.16		-0.53	0.09	-0.14	0.00	0.05
United States	7.31	7.94	-25.03	-25.45	2.50	5.11	-36.79	6.29	-74.62	-58.05			-6.92	-5.34	3.83	21.51

Note: The values included in this table are those reported by Parties in CRF table 8(a). An empty cell can either depict that a Party did not recalculate its inventory for a given category-gas combination (i.e. 0% difference), or that it has reported for the first time, or ceased reporting emissions for a category-gas combination (i.e. 100% difference).

^a In accordance with the UNFCCC reporting guidelines on annual inventories of Annex I Parties the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Figure 1.1

Contribution of subsectors to total GHG emissions in the Energy sector^a



^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 1.1

CO₂ emissions from Fuel combustion: reference approach and sectoral approach

	Reference approach	Sectoral approach	Difference (%)	Explanation of the differences as reported in table 1.A(c) of the CRF
	(Gg CO ₂)			
Australia Base year	253,682	253,293	0.15	1.AA Fuel Combustion - Sectoral Approach: Estimates are based on Gross Calorific Values (GCV)
Australia 2006	365,406	362,059	0.92	1.AC Difference - Reference and Sectoral Approach: The discrepancy for liquid fuels, in part, arises from the uncertainty of the crude oil density values used to convert reported indigenous production and imports from volumetric units into energy units.
Austria Base year	56,457	54,094	4.37	1.AA Fuel Combustion - Sectoral Approach/1990: Usage of "NO" notation keys in table 1.A(a)s1 to s4 : Energy statistics does not inquire all consumers but is limited to statistical samples. In the case that a statistical inquiry results in zero consumption of a specific sector and fuel group it is not always possible to decide if there occurs a consumption of a specific fuel category in a specific sector and year. However, as the energy statistics is based on a top down/bottom up approach it is assured that total national fuel consumption is equivalent to category 1A fuel consumption. Thus "NO" may be sometimes interpreted as "included elsewhere".
				1.AC Difference - Reference and Sectoral Approach/1990: Solid fuels: CO ₂ emissions: Reference Approach includes process emissions from blast furnaces which are included in category 2 C 1 and process emissions from carbide production which are included in category 2 B 4. Liquid fuels: CO ₂ emissions: Heat values and carbon contents are sector and fuel specific. The reference approach considers a share of feedstocks used for plastics production and solvent production as non-carbon-stored. In the sectoral approach a share of emissions from waste incineration of plastics and solvents use (including imported products) is included in category 1A1a and category 3. In the sectoral approach a share of municipal solid waste without energy recovery is considered in category 6C for the years 1990 and 1991. Gaseous fuels: CO ₂ emissions: National approach uses sector specific carbon contents and heating values (different from IPCC reference factors). Process emissions from ammonia-production are included in category 2 B 1. Other fuels: The sectoral approach considers waste as an additional fuel type (e.g. municipal solid waste and industrial fuel waste).
Austria 2006	72,106	67,818	6.32	1.AA Fuel Combustion - Sectoral Approach/2006: Usage of "NO" notation keys in table 1.A(a)s1 to s4 : Energy statistics does not inquire all consumers but is limited to statistical samples. In the case that a statistical inquiry results in zero consumption of a specific sector and fuel group it is not always possible to decide if there occurs a consumption of a specific fuel category in a specific sector and year. However, as the energy statistics is based on a top down/bottom up approach it is assured that total national fuel consumption is equivalent to category 1A fuel consumption. Thus "NO" may be sometimes interpreted as "included elsewhere".
Belarus Base year	100,080	100,071	-0.13	
Belarus 2006	56,694	55,465	2.04	
Belgium Base year	108,712	110,546	-1.66	
Belgium 2006	108,588	108,885	-0.27	
Bulgaria Base year*	91,159	90,726	0.48	
Bulgaria 2006	50,988	49,823	2.34	
Canada Base year	449,657	414,098	8.59	1.AB Fuel Combustion - Reference Approach: Refer to section 3.5.1, section 3.5.2 and Annex 4 of the NIR for additional details.
Canada 2006	535,763	501,499	6.83	1.AB Solid Fuels: Coke Oven Gas has been allocated to the Gaseous Fuels category.
Croatia Base year	21,068	20,898	0.82	1.AC Difference - Reference and Sectoral Approach: Refer to Annex 4 of the NIR for a discussion on the comparison of the reference approach and the sectoral approach.
Croatia 2006	20,924	20,063	4.30	1.AA Fuel Combustion - Sectoral Approach: CO ₂ emissions from Biomass are excluded from Total Fuel Combustion
Czech Republic Base year	161,238	145,613	10.73	1.AC Difference - Reference and Sectoral Approach: The National approach is based on Sectoral approach recommended by IPCC methodology.
Czech Republic 2006	125,556	114,516	9.64	The differences between Reference and National approach, in energy consumption and CO ₂ emission from liquid and solid fuels, are relatively small and therefore acceptable.
Denmark Base year	51,172	51,198	-0.05	1.AC Difference - Reference and Sectoral Approach: Detailed comparison of the results from Sectoral and Reference Approach (SA and RA), respectively, is given in NIR
Denmark 2006	55,256	55,423	-0.30	Annex 1 Reference Approach and Comparison with Sectoral Approach.
Estonia Base year	36,706	35,413	3.65	1.AC Difference - Reference and Sectoral Approach: Non-energy use of fuels is not included in the Danish National Approach. Fuel consumption for non-energy is subtracted in Reference Approach to make results comparable
				CO ₂ emission from plastic part of municipal wastes is included in the Danish National Approach.
				CO ₂ emission from the plastic part of municipal wastes is added in Reference Approach to make results comparable. (Other fuels of sources 1A1, 1A2 and 1A4)
				1.AA Fuel Combustion - Sectoral Approach: to the "f.Other" in the Table 1.A(a)s2 are included "Machinery"; "Mining"; "Production of transport equipment"; "Production of non-ferrous mineral products"; "Wood industry"; "Construction"; "Textile, leather and clothing industry" and Other industry
				1.AA Fuel Combustion - Sectoral Approach/1990: Energy Balance of the Statistics of Estonia
				1.AA Liquid Fuels/1990: Energy Balance, Yearbook of the Statistics of Estonia
				1.AA Solid Fuels/1990: Energy Balance, Yearbook of the Statistics of Estonia
				1.AA Gaseous Fuels/1990: Energy Balance, Yearbook of the Statistics of Estonia
				1.AA Other Fuels/1990: Energy Balance, Yearbook of the Statistics of Estonia
				1.AB Fuel Combustion - Reference Approach/1990: Energy Balance, Yearbook of the Statistics of Estonia
				1.AB Liquid Fuels/1990: Energy Balance, Yearbook of the Statistics of Estonia
				1.AB Solid Fuels/1990: Energy Balance, Yearbook of the Statistics of Estonia
				1.AB Gaseous Fuels/1990: Energy Balance, Yearbook of the Statistics of Estonia
				1.AC Difference - Reference and Sectoral Approach/1990: Energy Balance, Yearbook of the Statistics of Estonia
				1.AC Liquid Fuels/1990: Energy Balance, Yearbook of the Statistics of Estonia
				1.AC Solid Fuels/1990: Energy Balance, Yearbook of the Statistics of Estonia
				1.AC Gaseous Fuels/1990: Energy Balance, Yearbook of the Statistics of Estonia
				1.AC Other Fuels/1990: Energy Balance, Yearbook of the Statistics of Estonia
Estonia 2006	16,056	15,392	4.31	1.AA Fuel Combustion - Sectoral Approach: to the "f.Other" in the Table 1.A(a)s2 are included "Machinery"; "Mining"; "Production of transport equipment"; "Production of non-ferrous mineral products"; "Wood industry"; "Construction"; "Textile, leather and clothing industry" and Other industry.

Table 1.1 (continued)

CO₂ emissions from Fuel combustion: reference approach and sectoral approach

European Community Base year	3,128,357	3,110,388	0.58	
European Community 2006	3,228,507	3,222,675	0.18	
Finland Base year	54,579	53,068	2.85	1.AC Difference - Reference and Sectoral Approach:The relatively high difference in liquid fuels CO2 emissions is due to statistical differences in national oil balance.Allocation of Peat is different in SA ('Other fuels') compared to RA ('Solid fuels').
				1.AC Liquid Fuels:The relatively high difference in liquid fuels CO2 emissions is due to statistical differences in national oil balance.
				1.AC Solid Fuels:Allocation of Peat is different in SA ('Other fuels') compared to RA ('Solid fuels')
Finland 2006	63,281	64,057	-1.21	1.AC Other Fuels:Allocation of Peat is different in SA ('Other fuels') compared to RA ('Solid fuels').
France Base year	358,502	365,007	-1.78	
France 2006	363,345	383,317	-5.21	
Germany Base year	971,473	948,015	2.20	
Germany 2006	803,128	799,359	-0.85	
Greece Base year	76,009	75,316	0.92	
Greece 2006	102,344	101,665	0.67	
Hungary Base year*	80,095	79,768	0.41	
Hungary 2006	57,011	56,471	0.96	
Iceland Base year	1,678	1,674	0.27	1.AA Fuel Combustion - Sectoral Approach:1A2f Other manufacturing industries & construction includes: mineral industry, construction and other industries not included
Iceland 2006	2,276	1,935	17.62	above.
Ireland Base year	30,602	30,233	1.22	
Ireland 2006	44,497	44,641	-0.32	
Italy Base year	396,059	402,039	-1.49	
Italy 2006	451,830	456,795	-1.09	
Japan Base year	1,047,665	1,059,144	-1.08	
Japan 2006	1,177,531	1,185,874	-0.70	
Latvia Base year	18,762	18,591	0.92	1.AB Fuel Combustion - Reference Approach:Activity data are taken from Annual Questionnaires 2008 prepared by Central Statistical Bureau for EUROSTAT.
Latvia 2006	7,958	7,999	-0.64	1.AC Difference - Reference and Sectoral Approach:Difference of the Reference approach over the National approach is due to statistical differences.
Liechtenstein Base year	202	202	0.06	
Liechtenstein 2006	241	241	0.12	
Lithuania Base year	32,870	32,672	0.61	
Lithuania 2006	15,301	12,770	19.82	
Luxembourg Base year	10,532	10,615	-0.78	1.AB Fuel Combustion - Reference Approach:(1) data for the Reference Approach are coming from Eurostat databases on energy. The data have been extracted from Eurostat's web site on 14 January 2008; (2) the unit for the conversion factor is Eurostat's default since we use Eurostat's default factors; (3) the unit for the fraction of carbon oxidized is the default one too.
Luxembourg 2006	11,267	11,435	-1.47	1.AB Municipal Solid Waste (Garbage) Incineration:in order to have accurate comparisons in table 1.A(c), this energy source has to be recorded under one of the three main fuels of the Reference Approach (i.e. Liquid, Solid and Gaseous). If not, the total for the Reference Approach would not include municipal waste incineration on the contrary of the Sectoral Approach, hence leading to incomplete comparisons. The source "Other Solid Fossil Fuels" has been selected for recording municipal waste incineration data.
Monaco Base year	105	105	-0.50	1.AB Solid Fuels:M
Monaco 2006	89	90	-0.51	1.AC Difference - Reference and Sectoral Approach:Some little differences in the net calorific values and in the carbon emission factors between both methods.
Netherlands Base year	155,641	149,980	3.77	1.AB Fuel Combustion - Reference Approach: NE; NOT INCLUDED IN ENERGY STATISTIC! IE: Ethane INCLUDED IN LPG Petroleum Coke INCLUDED IN Other oil Refinery Feedstocks INCLUDED IN the other primary and secondary fuel: Anthracite INCLUDED IN Other Bit. Coal Coking Coal INCLUDED IN Other Bit. Coal Lignite INCLUDED IN Other Bit. Coal 1.AC Difference - Reference and Sectoral Approach:In 1A but not in RA 1A1a-other fuels: CO2 from fossil waste incineration (AVIs) Not in NA-1A: CO2 fossil fuel sources in sector 1B: 1. B. 1. b. Solid Fuel Transformation 1.B.2.c Flaring CO2 fossil fuel sources in sector 2: 2A4 Soda Ash Production 2B1. Ammonia production 2B5. Other chemicals, excl. activated carbon 2C1. Coke and coal inputs in blast furnace (net) 2D1. Pulp and Paper 2G. Process emissions in other economic sectors
Netherlands 2006	164,439	163,500	0.57	After these corrections, the differences are between -1.2% and +0.7%
New Zealand Base year	21,009	22,020	-4.59	1.AB Gaseous Fuels:The gas emission factor is based on a weighted average of the emission factors for all gas streams where the weightings are the amount of gas produced at each field (info from the Energy Data file). The emission factors for Maui and Kapuni treated gas are based on gas composition data provided yearly
New Zealand 2006	31,564	31,902	-1.06	by NGC. Most of the other gas emission factors are from NZEIH.

Table 1.1 (continued)

CO₂ emissions from Fuel combustion: reference approach and sectoral approach

Norway Base year	29,372	25,955	13.17	
Norway 2006	26,967	34,481	-21.79	
Poland Base year ^a	443,174	440,389	0.63	
Poland 2006	313,178	310,341	0.91	
Portugal Base year	40,892	39,056	4.70	1.AC Difference - Reference and Sectoral Approach:Differences between Sectoral and Reference approach (CO ₂ from fuel combustion): the sectoral approach CO ₂ estimates depends partially on combustion information from point sources, and the reference approach results from national energy balances.
Portugal 2006	57,331	56,362	1.72	Furthermore, feedstock emissions were estimated differently in the two approaches: in the sectoral approach, emissions were estimated from production activity data; in the reference approach, a global percentage of carbon stored (e.g. lubricants, naphta) was used. In the sectoral approach, emissions from lubricants may not have been totally estimated, because it is uncertain if road traffic emission factors take into account these materials.
Romania Base year ^a	192,424	159,419	20.70	1.AC Difference - Reference and Sectoral Approach:The difference between RA and SA is caused by the fact that the Reference Approach treats the non-energy use of fuels as if it were combustion. A correction is done by the carbon stored from non energy fuel use, but the information related to this area are limited in the
Romania 2006	101,013	92,817	8.83	national energy balance.
Russian Federation Base year	2,492,636	2,264,873	10.06	1.AA Fuel Combustion - Sectoral Approach:Explanation of lacking data and notation keys to be added in the following inventory submission
Russian Federation 2006	1,431,524	1,384,937	3.36	1.AB Fuel Combustion - Reference Approach:Explanation of lacking data and notation keys to be added in the following inventory submission
Slovakia Base year	56,377	57,931	-2.68	
Slovakia 2006	37,038	35,837	3.35	
Slovenia Base year ^a	15,038	15,175	-0.90	
Slovenia 2006	15,689	15,710	-0.13	
Spain Base year	209,042	205,409	1.77	1.AB Other non-specified:No information on other fuels, not specified in the CRF Reporter, is available.
Spain 2006	329,284	328,664	0.19	
Sweden Base year	49,529	50,732	-3.74	1.AC Difference - Reference and Sectoral Approach:Please note the national method for comparing RA-SA (3.3.6 in the Swedish NIR) includes also other fuels.
Sweden 2006	45,650	46,120	-3.63	
Switzerland Base year	41,558	41,168	0.95	1.AB Fuel Combustion - Reference Approach:Documentation Box to table 1.A(b) The fraction for carbon oxidized is consequently set to 1.0 due to the following reason: combustion installations in Switzerland have very good combustion properties; combined emissions of CO and unburnt VOC lie in the range of only 0.1 to 0.3 percent of CO ₂ emissions for oil and gas combustion. Since most of the coal used in Switzerland goes to the cement industry, also for coal a fraction factor of 1.0 was chosen. The conversion factors are country specific (see Swiss Energy Statistics 2004, on the back cover). The carbon emission factor for crude oil stems from the 1996 IPCC reference manual; the other carbon emission factors are country specific. Internet address for the Swiss Energy Statistics: http://www.energie-schweiz.ch/internet/00008/index.html?lang=en 1.AC Difference - Reference and Sectoral Approach:Differences in energy consumption: allocation problems: Only bitumen production from national refineries is shown in table 1.A(d). It is a refinery product and included in the crude oil amount. In the Swiss inventories bitumen emissions (NMVOC) appear under industrial processes and not under energy use. Gaseous fuels: gas distribution emissions (including emissions from compressor stations) are shown in table 1.B.1 and do not appear in the column "National approach" above. Liquid fuels/Solid fuels: in the national approach, petroleum coke is subsumed under solid fuels (cement industry use; there, petroleum coke is treated as coal).
Switzerland 2006	43,922	43,175	1.73	Other: Waste fuels from waste incineration (energy use) and waste fuels from cement production (energy use). In the reference approach subsumed in "Solid fuels" (Other oil):
Turkey Base year				
Turkey 2006				
Ukraine Base year	586,969	593,126	-1.04	1.AA Fuel Combustion - Sectoral Approach:In 1991-1997 emissions for each fuel type were estimated according to category 1.A «Fuel Combustion». Disaggregating to IPCC categories is impossible, since there is insufficient disaggregated data on activity
Ukraine 2006	236,146	250,980	-5.91	1.AC Difference - Reference and Sectoral Approach:See NIR Chapter 3.5.1 1.AC Liquid Fuels:See NIR Chapter 3.5.1 1.AC Solid Fuels:See NIR Chapter 3.5.1 1.AC Gaseous Fuels:See NIR Chapter 3.5.1

Table 1.1 (continued)

CO₂ emissions from Fuel combustion: reference approach and sectoral approach

United Kingdom Base year	564,023	567,495	-0.61	<p>1.AA Liquid Fuels:The liquid fuel allocation is as follows: gasoline, diesel oil, residual fuel oil, orimulsion, kerosene, LPG, refinery gas, waste oils, petroleum coke, lubricants, naphtha, other oil products. Liquid fuel emission factors for methane in 1A1, 1A2, 1A4 are mainly from CORINAIR.</p> <p>1.AA Solid Fuels:The solid fuel allocation is as follows: coal, coke, anthracite, patent fuel, blast furnace gas, coke oven gas. Solid fuel emission factors for methane are mainly based on Brain et al (1994). Emission of VOC from Coal Fired Appliances, DTI, Coal R&D, Report No COAL R033. Solid fuel emission factors for N2O are from Fynes et al (1994) Emissions of Greenhouse gases from coal fired Plant, British coal, CRE. Contract JOUF 0047-C(SMA).</p> <p>1.AA Gaseous Fuels:The gaseous fuel allocation is as follows: Natural gas, colliery methane Natural gas emission factors for methane are IPCC defaults. 1.AA Other Fuels:Other fuel allocation is as follows: municipal solid waste, scrap tyres 1.AB Fuel Combustion - Reference Approach:A significant proportion of fuel consumption emissions occur in 1B1b Solid Fuel Transformation, 2C Metal Production, 2B1 Ammonia Production This discrepancy arises from three sources: (1) The statistical difference between 'apparent consumption' used in the reference inventory and actual consumption used in the sectoral inventory This statistical difference results from losses and errors in the estimates. (2) The sectoral inventory includes emissions from the non-energy use of fuel where they can be specifically identified e.g. catalytic crackers, iron & steel, lubricants combustion, ammonia production. The reference approach implicitly treats the non-energy use of fuel as if it were combustion. A correction is then applied by deducting an estimate of carbon stored from non-energy fuel use. The carbon stored is estimated from an approximate procedure which does not identify specific processes. The result is that the reference approach is based on a higher estimate of non-energy use emissions than the sectoral inventory.</p> <p>(3) The reference approach uses data on primary fuels such as crude oil and natural gas liquids which are then corrected for imports, exports and stock changes of secondary fuels. Thus the estimates obtained will be highly dependent on the default carbon contents used for the primary fuels. Sectoral approach based on consumption of secondary fuels. 1.AC Difference - Reference and Sectoral Approach:The discrepancy in fuel consumption arises from 3 sources:(1) The statistical difference between 'apparent consumption' used in the reference inventory and actual consumption used in the sectoral inventory. This difference results from losses and errors in the estimates. (2) The sectoral inventory includes emissions from the non-energy use of fuel where they can be specifically identified e.g. catalytic crackers, iron&steel, lubricants combustion, ammonia production. The reference approach implicitly treats the non-energy use of fuel as combustion. A correction is then applied by deducting an estimate of carbon stored from non-energy fuel use. The carbon stored is estimated from an approximate procedure which does not identify specific processes. The result is that the reference approach is based on a higher estimate of non-energy use emissions than the sectoral inventory. (3) The reference approach uses data on primary fuels which are then corrected for imports, exports and stock changes of secondary fuels. Thus the estimates obtained are highly dependent on the default carbon contents used for the primary fuels. The sectoral approach is based wholly on the consumption of secondary fuels where carbon contents are known with greater certainty. In particular the carbon contents and calorific values of the primary liquid fuels are likely to vary more than those of secondary fuels 1.AC Difference - Reference and Sectoral Approach/1990:A significant proportion of fuel consumption emissions occur in 1B1b Solid Fuel Transformation, 2C Metal Production, 2B1 Ammonia Production. Including these sources with 1A in the comparison reduces the discrepancy to -0.7% 1.AC Solid Fuels:So</p>
United Kingdom 2006	551,282	538,479	2.38	<p>1.AA Liquid Fuels:The liquid fuel allocation is as follows: gasoline, diesel oil, residual fuel oil, orimulsion, kerosene, LPG, refinery gas, waste oils, petroleum coke, lubricants, naphtha, other oil products. Liquid fuel emission factors for methane in 1A1, 1A2, 1A4 are mainly from CORINAIR.</p> <p>1.AA Solid Fuels:The solid fuel allocation is as follows: coal, coke, anthracite, patent fuel, blast furnace gas, coke oven gas. Solid fuel emission factors for methane are mainly based on Brain et al (1994). Emission of VOC from Coal Fired Appliances, DTI, Coal R&D, Report No COAL R033. Solid fuel emission factors for N2O are from Fynes et al (1994) Emissions of Greenhouse gases from coal fired Plant, British coal, CRE. Contract JOUF 0047-C(SMA).</p> <p>1.AA Gaseous Fuels:The gaseous fuel allocation is as follows: Natural gas, colliery methane Natural gas emission factors for methane are IPCC defaults. 1.AA Other Fuels:Other fuel allocation is as follows: municipal solid waste, scrap tyres 1.AB Fuel Combustion - Reference Approach:A significant proportion of fuel consumption emissions occur in 1B1b Solid Fuel Transformation, 2C Metal Production, 2B1 Ammonia Production This discrepancy arises from three sources: (1) The statistical difference between 'apparent consumption' used in the reference inventory and actual consumption used in the sectoral inventory This statistical difference results from losses and errors in the estimates. (2) The sectoral inventory includes emissions from the non-energy use of fuel where they can be specifically identified e.g. catalytic crackers, iron & steel, lubricants combustion, ammonia production. The reference approach implicitly treats the non-energy use of fuel as if it were combustion. A correction is then applied by deducting an estimate of carbon stored from non-energy fuel use. The carbon stored is estimated from an approximate procedure which does not identify specific processes. The result is that the reference approach is based on a higher estimate of non-energy use emissions than the sectoral inventory.</p> <p>(3) The reference approach uses data on primary fuels such as crude oil and natural gas liquids which are then corrected for imports, exports and stock changes of secondary fuels. Thus the estimates obtained will be highly dependent on the default carbon contents used for the primary fuels. Sectoral approach based on consumption of secondary fuels. 1.AC Difference - Reference and Sectoral Approach:The discrepancy in fuel consumption arises from 3 sources:(1) The statistical difference between 'apparent consumption' used in the reference inventory and actual consumption used in the sectoral inventory. This difference results from losses and errors in the estimates. (2) The sectoral inventory includes emissions from the non-energy use of fuel where they can be specifically identified e.g. catalytic crackers, iron&steel, lubricants combustion, ammonia production. The reference approach implicitly treats the non-energy use of fuel as combustion. A correction is then applied by deducting an estimate of carbon stored from non-energy fuel use. The carbon stored is estimated from an approximate procedure which does not identify specific processes. The result is that the reference approach is based on a higher estimate of non-energy use emissions than the sectoral inventory. (3) The reference approach uses data on primary fuels which are then corrected for imports, exports and stock changes of secondary fuels. Thus the estimates obtained are highly dependent on the default carbon contents used for the primary fuels. The sectoral approach is based wholly on the consumption of secondary fuels where carbon contents are known with greater certainty. In particular the carbon contents and calorific values of the primary liquid fuels are likely to vary more than those of secondary fuels 1.AC Solid Fuels:So</p>
United States Base year	4,811,275	4,852,266	0.84	<p>1.AA Fuel Combustion - Sectoral Approach:Estimates of biomass consumption for fuel combustion exclude wood wastes, liquors, municipal solid waste, tires, etc. 1.AB Fuel Combustion - Reference Approach:In order to accommodate the differences and limitations between the Reference Approach table of the CRF and that of the U.S. Inventory, the following adaptations were made to section 1.AB: U.S. Territories consumption is included in the Imports column (applies to Natural Gas Liquids, Gasoline, Other Kerosene, Gas/Diesel Oil, Lubricants, Other Oil, Other Bit. Coal, and Natural Gas). Adjustments for fuels accounted for in the Industrial Processes sector are included in the stock change column. These adjustments include petroleum coke for aluminum, ferroalloy, titanium dioxide, and ammonia production; coking coal for iron and steel production; natural gas for ammonia production; and other oil and residual fuel for carbon black production.Table 1.A(b) - The United States Reference Approach is also provided in a separate Excel spreadsheet, which is more detailed than this table allows information to be reported. Specifically, the fuel types provided in the CRF tables differ from the fuel types as defined in the U.S., and no "other" options were offered in the CRF table. The U.S. suggests revising the table to allow for additional fuel types. 1.AB Other Fuels:Other (3) includes waste combustion and geothermal emissions. The inclusion of emissions from waste combustion and geothermal in this table gives higher totals for energy consumption and CO2 emissions in the CRF Reference Approach than in the U.S. Inventory Reference Approach which does not include these sources.</p>
United States 2006	6,002,550	5,796,834	3.55	<p>1.AC Difference - Reference and Sectoral Approach:Refer to section 3.11 of the NIR.</p>

* In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 1.2**CO₂ emissions from stationary combustion - trend information**

CO ₂ Emissions (Gg)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	192,107	284,559	1.5	2.5	3.3	5.7	3.5	1.8	3.0	1.3	4.8	0.5	2.5	2.0	48.1
Austria	41,634	44,884	5.3	5.4	0.5	-5.1	-1.2	-3.3	7.8	-1.2	9.8	-2.8	1.6	-3.0	7.8
Belarus	87,162	49,862	-7.4	1.6	3.5	-3.5	-3.8	-3.7	-1.8	-2.2	0.6	6.1	0.2	2.2	-42.8
Belgium	90,288	83,568	3.5	4.9	-6.5	5.6	-6.3	0.6	0.1	-2.3	3.9	-1.8	-2.6	-4.5	-7.4
Bulgaria	76,912	41,202	-16.2	-1.7	-0.4	-13.0	-9.4	-1.4	3.7	-6.6	8.6	-2.8	-0.2	1.0	-46.4
Canada	275,669	317,272	-2.0	2.7	1.7	1.2	4.0	6.7	-1.3	1.5	4.4	-2.9	-3.3	-4.2	15.1
Croatia	16,716	14,040	-28.2	3.0	4.8	7.7	1.9	-4.6	6.3	5.9	7.6	-5.0	1.1	-2.5	-16.0
Czech Republic	136,670	95,949	-3.5	6.0	-7.1	-7.0	-2.0	5.1	1.7	-4.0	-1.3	-1.1	-0.7	0.5	-29.8
Denmark	40,551	41,879	24.0	28.3	-16.8	-7.9	-7.1	-9.2	4.1	-1.0	12.2	-13.9	-9.3	20.4	3.3
Estonia	32,061	12,979	-5.8	5.6	-4.1	-10.2	-6.0	-1.9	-1.1	-2.0	13.7	0.0	-4.6	-5.5	-59.5
European Community	2,409,623	2,359,377	0.9	3.1	-3.0	1.0	-1.7	0.9	2.9	-0.9	3.0	0.0	-0.7	-1.1	-2.1
Finland	40,460	50,206	-2.8	13.4	-4.7	-7.0	-1.8	-4.4	12.6	5.1	15.1	-7.9	-22.7	28.2	24.1
France	246,149	244,236	9.1	5.7	-3.3	7.4	-4.8	-1.2	1.4	-3.2	3.1	1.0	2.5	-3.9	-0.8
Germany	780,088	637,947	-4.4	4.2	-5.3	-1.5	-4.5	0.5	4.3	-2.0	3.2	-0.5	-2.0	0.6	-18.2
Greece	60,941	78,313	-0.6	2.8	5.9	4.5	-1.5	8.6	1.8	-0.5	3.9	-0.2	-0.3	-2.2	28.5
Hungary	72,147	44,204	-1.8	2.7	-4.0	-2.9	-0.8	-4.0	2.5	-4.0	6.3	-5.0	-1.2	-3.9	-38.7
Iceland	1,073	997	-5.3	8.5	2.8	-3.1	0.6	-7.8	-3.2	6.0	-7.4	1.1	-4.2	-8.4	-7.2
Ireland	25,193	31,157	2.8	2.1	3.0	3.1	2.6	4.5	5.0	-4.1	-1.2	0.2	3.0	-3.3	23.7
Italy	299,538	327,282	-1.0	-1.6	0.7	2.6	1.4	1.1	1.1	0.1	3.8	0.1	0.5	-1.7	9.3
Japan	848,090	939,072	-0.5	0.7	-0.6	-3.3	3.8	2.2	-1.8	5.0	0.8	0.0	1.0	-1.5	10.7
Latvia	15,734	4,654	-8.7	1.5	-7.8	-5.7	-9.7	-14.5	0.3	-1.8	0.5	-3.0	-0.3	3.5	-70.4
Liechtenstein	124	155	-4.7	0.7	6.7	8.3	-4.6	-7.5	1.6	7.0	6.5	1.2	-0.2	2.9	25.5
Lithuania	27,020	8,340	5.6	1.7	-8.1	5.2	-20.3	-11.1	5.6	-0.9	0.2	3.8	4.9	-1.4	-69.1
Luxembourg	7,895	4,438	-3.0	0.8	-16.6	-18.9	5.8	-4.0	3.0	16.1	-2.9	15.1	-5.7	4.2	-43.8
Monaco	73	57	-5.2	6.2	2.8	-1.1	0.3	-0.2	1.1	-2.4	-6.5	-7.9	0.2	-13.9	-21.7
Netherlands	123,406	127,476	3.9	5.3	-5.4	1.3	-4.9	1.4	4.5	-0.8	2.4	0.7	-3.8	-3.6	3.3
New Zealand	13,386	17,701	2.2	7.4	14.2	-10.5	7.0	0.8	9.4	-2.9	6.1	-7.6	12.6	0.7	32.2
Norway	14,452	19,639	-1.6	13.2	-0.5	-2.0	-1.8	0.3	9.8	0.5	6.8	-2.4	-2.8	1.5	35.9
Poland	418,542	272,960	1.3	2.2	-2.5	-8.4	-3.7	-3.4	-0.1	-3.7	3.3	-0.8	-0.6	3.3	-34.8
Portugal	29,133	37,033	3.9	-9.5	5.5	7.7	18.0	-7.7	1.3	8.6	-10.7	5.1	5.6	-11.0	27.1
Romania	153,634	80,535	-22.2	3.5	-12.4	-13.5	-11.9	2.5	4.8	4.2	6.6	-3.0	-5.2	3.8	-47.6
Russian Federation	1,906,799	1,194,797	-5.6	-1.5	-5.0	-3.5	1.4	3.9	0.6	-1.4	1.4	-1.2	-0.8	3.2	-37.3
Slovakia	53,039	30,036	-8.8	-4.4	-3.7	-1.2	-1.9	-0.3	2.4	-5.5	5.0	-4.2	-4.0	-1.0	-43.4
Slovenia	13,193	11,104	-6.0	1.7	2.2	3.1	-4.2	-0.8	7.3	0.6	-3.6	1.8	0.1	-1.2	-15.8
Spain	148,903	223,071	3.6	-10.1	11.8	-0.1	11.9	4.0	-0.3	8.2	-0.3	5.9	5.4	-5.2	49.8
Sweden	31,714	25,910	2.4	12.4	-11.8	1.3	-8.6	-4.2	2.0	2.5	2.5	-4.8	-9.4	-2.9	-18.3
Switzerland	26,095	26,705	5.8	3.2	-3.9	3.9	-1.5	-4.8	4.1	-2.9	3.9	0.9	1.9	-2.1	2.3
Turkey															
Ukraine	505,988	207,346	1.1	-10.5	-7.5	-27.2	-1.2	-7.3	0.7	0.1	7.1	-3.2	3.7	4.6	-59.0
United Kingdom	445,243	404,744	2.4	3.8	-5.1	1.0	-2.3	2.6	3.1	-4.3	2.6	-0.2	-0.4	-0.4	-9.1
United States	3,367,208	3,940,787	0.2	4.2	1.4	0.2	0.4	3.4	-1.4	0.2	1.8	0.9	0.7	-2.0	17.0

Note: This table includes data from categories 1.A.1 Energy industries, 1.A.2 Manufacturing industries and construction, 1.A.4 Other sectors and 1.A.5.a Other (stationary combustion).

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 1.3

Stationary combustion: liquid fuels - CO₂ (2006)

	Key category	Share of national total	IEF in CRF based on GCV or NCV	Energy industries				Manufacturing industries and construction			Other sectors						Other (Not specified elsewhere)				
				Methods and EF used ^a		CO ₂ IEF				Method and EF used ^b		CO ₂ IEF	Method and EF used ^c		CO ₂ IEF				Method and EF used ^d		CO ₂ IEF
				Methods	EF	Total	Public electricity and heat production	Petroleum refining	Manufacture of solid fuels and other energy industries	Methods	EF	Total	Methods	EF	Total	Commercial / Institutional	Residential	Agriculture / Forestry / Fisheries	Methods	EF	Stationary
		%										(t/TJ)									(t/TJ)
Australia ^e	L	6.7	GCV	T2	CS, PS	72.16	73.13	71.34	72.60	T2	CS	72.11	T1, T2	CS	71.55	71.87	65.55	72.52	T1, T2	CS, D	20.94
Austria	L, T	16.5	NCV	T2	CS, PS	67.20	78.70	62.26	NO	T2	CS, PS	74.54	T2	CS	73.64	73.55	74.73	70.33	CS, M	CS	NA
Belarus	L, T	12.6	NCV	D, T1	D	76.48	76.48	47.73	IE	D, T1	D	73.73	D, T1	D	70.41	70.16	62.77	72.50	D, T1	D	70.21
Belgium	L, T	18.2	NCV			50.90	76.88	47.73				79.16			73.35	73.19	73.21	74.34			NA
Bulgaria	L, T	5.9	NCV	T2	CS	70.55	75.05	NO	69.67	T2	CS	83.76	T2	CS	72.19	75.54	63.10	73.22	NA	NA	NO
Canada ^e	L, T	4.1	GCV	T2	CS	76.76	76.98	76.49	NA	T2	CS	76.91	T2	CS	74.52	74.98	73.79	75.42	NA	NA	NA
Croatia	L, T	23.1	NCV	T1, T2	D, PS	79.11	76.55	81.71	73.33	T1	D	80.49	T1	D	71.75	71.62	70.89	72.99	NA	NA	NO
Czech Republic	L, T	4.4	NCV	T1	CS, D	75.45	76.35	75.03	72.60	T1	CS, D	72.85	T1	CS, D	71.14	72.71	68.08	71.66	T1	D	NO
Denmark	L, T	11.9	NCV	CR	CR, CS, D	67.11	77.81	57.68	74.00	CR	CS	72.00	CR	CS	74.29	73.76	74.52	74.11	OTH	CS	NA
Estonia	L, T	3.5	NCV	T1, T2	CS, D	75.74	75.74	NO	NO	T1, T2	CS, D	72.78	T1, T2	CS, D	72.45	72.99	70.28	73.32	NA	NA	NO
European Community	L, T	14.5	NCV	CR, CS, OTH, T1, T2, T3	CR, CS, D, PS	71.12	76.64	68.03	75.75	CR, CS, M, OTH, T1, T2, T3	CR, CS, D, PS	74.96	CR, CS, M, T1, T2, T3	CR, CS, D	72.95	73.44	72.66	73.26	CS, M, OTH, T1, T2, T3	CR, CS, D	72.02
Finland	L, T	15.2	NCV	T3	CS, D, PS	71.93	78.21	68.39	NO	CS, M, T3	CS, PS	72.83	CS, M, T1, T3	CS, D	74.19	74.92	73.77	74.30	CS, T1	CS	71.41
France	L, T	17.7	NCV	CR	CS	68.37	77.92	63.01	NO	CR	CS	78.74	CR	CS	73.65	74.53	73.13	73.66	NA	NA	NO
Germany	L, T	12.2	NCV	CS	CS	71.08	80.22	68.99	75.09	CS, T2	CS	65.48	CS	CS	73.65	73.72	73.61	73.81	CS	CS	73.99
Greece	L, T	22.8	NCV	T2	CS, PS	70.09	75.89	61.90	NO	T2	PS	62.14	T2	D	73.08	72.40	73.13	73.28	NA	NA	NA
Hungary	L, T	6.3	NCV	T1, T2, T3	CS, D, PS	77.02	75.00	76.18	99.83	T1, T2	CS, D, PS	31.82	T1	D	68.51	62.71	62.44	73.09	NA	NA	NO
Iceland	L, T	21.6	NCV	T1	D	73.39	73.39	NO	NO	T1	D	73.91	T1	D	73.79	62.44	64.44	73.91	T1	D	73.33
Ireland	L, T	17.1	NCV	T1, T3	CS, PS	75.40	77.41	65.38	NO	T1	CS	79.80	T1	CS	72.50	73.16	71.97	73.30	NA	NA	NO
Italy	L, T	17.3	NCV	T3	CS	75.71	76.59	74.93	76.68	T2	CS	83.22	T2	CS	71.26	70.08	70.58	72.92	T2	CS	NA
Japan ^e	L, T	23.5	GCV	T1	CS	68.31	73.65	56.54	63.08	T1	CS	70.90	T1	CS	70.16	70.82	68.36	72.97	T1	CS	72.52
Latvia	L, T	9.0	NCV	T1	CS	76.12	76.47	NO	74.42	T1	CS, PS	73.24	T1	CS, D	72.02	73.44	64.35	73.97	T1	CS	NA
Liechtenstein	L, T	28.4	NCV	T2	CS	NO	NO	NO	NO	T2	CS	73.70	CS, T1, T2	CS	73.64	73.63	73.70	73.60	T1	CS	NA
Lithuania	L, T	12.5	NCV	T1, T2	CR, CS, D	75.08	78.18	73.88	73.88	T2	CR, CS	76.86	T2	CS	69.14	73.25	65.15	73.88	T2	CS	NE, NO
Luxembourg	L, T	7.2	NCV	T1, T2	D	74.10	74.10	NO	NO	T1	D	79.05	T1	D	74.05	74.10	74.06	73.82	NA	NA	IE
Monaco	L, T	25.3	NCV	T1	D	78.41	78.41	NO	NO	NA	NA	NA, NO	T1	D	73.33	IE	73.33	NO	NA	NA	NO
Netherlands	L, T	9.8	NCV	T2	CS	70.41	63.24	71.15	74.41	T2	CS	63.57	T2	CS, D	73.56	69.51	71.93	74.26	T2	D	NA
New Zealand ^e	L, T	3.9	GCV	D	CS	76.99	72.36	77.19	NO	D	CS	70.46	D	CS	71.12	71.06	62.95	72.51	NA	NA	NA
Norway	L, T	13.4	NCV	T1, T2, T3	CS, PS	47.71	72.73	39.21	74.28	T1, T2, T3	CS	65.18	T2	CS	73.38	73.42	72.84	73.58	T2	CS	73.76
Poland	L, T	5.2	NCV	T2, T3	CS, D, PS	74.40	76.60	74.12	73.05	T2, T3	CS, D, PS	69.14	T2, T3	CS, D, PS	71.11	69.74	66.57	72.91	NA	NA	IE
Portugal	L, T	19.5	NCV	T2	CR, D, PS	71.82	74.35	69.29	NO	T2	CR, D, PS	75.26	T2	CR, D	68.58	71.96	63.31	72.97	T1	CR, D	NO
Romania	L, T	8.9	NCV	T1	D	72.49	72.49	IE	IE	T1	D	71.70	T1	D	69.15	70.77	66.76	72.95	NA	NA	NE
Russian Federation	L, T	8.1	NCV	T1	CS, D	73.80	76.66	69.16	72.54	T1	D	73.39	T1	D	69.40	77.18	62.46	72.59	D, T1	CS, D	72.58
Slovakia	L, T	4.8	NCV	T1, T1a	CS, D	67.08	75.67	66.87	NO	T1	CS	75.78	T1	CS	71.72	70.19	NO	74.36	T1	CS	75.34
Slovenia	L	13.8	NCV	T1	CS, D	73.05	73.04	75.70	71.81	T1	CS, D	77.25	T1	CS, D	72.19	72.17	72.05	72.88	NA	NA	NA
Spain	L, T	17.6	NCV	T2	CR, CS, PS	70.93	76.09	65.50	97.03	T2, T3	CR, CS, PS	82.85	T2, T3	CR, CS	71.32	72.22	69.75	72.58	NA	NA	NO
Sweden	L, T	24.2	NCV	T1, T2, T3	CS	66.88	75.19	62.76	74.26	T1, T2, T3	CS	71.50	T1, T2, T3	CS	73.37	74.36	73.89	72.75	T1	CS	NO
Switzerland	L, T	32.3	NCV	CS, T2	CS	61.02	73.54	60.17	NO	CS, T2	CS	74.02	CS, T2	CS	73.51	73.50	73.50	73.63	T2	CS	NO
Turkey																					
Ukraine	L, T	0.9	NCV	T1	D	66.89	76.52	63.95	70.82	T1	D	75.67	T1	D	65.54	72.92	62.78	73.40	T1	D	74.35
United Kingdom	L, T	8.4	NCV	OTH, T1, T2	CS	73.88	75.55	74.30	62.23	OTH, T1, T2	CS	72.27	T2	CS	71.96	75.85	71.05	73.65	T2, T3	CS	NA
United States ^e	L, T	10.0	GCV	T1	CS	85.65	85.65	IE	IE	T1	CS	73.12	T1	CS	70.13	72.35	68.94	IE	CS, T1	CS	29.81

Note: This table includes data from categories 1.A.1 Energy industries, 1.A.2 Manufacturing industries and construction, 1.A.4 Other sectors and 1.A.5.a Other (stationary).

^a Information on methods and emission factors in this table is as reported by Parties in table Summary 3 of the CRF. It may not reflect the actual method or type of emission factor used for all subcategories within the category 1.A.1 Energy industries.

^b Information on methods and emission factors in this table is as reported by Parties in table Summary 3 of the CRF. It may not reflect the actual method or type of emission factor used for all subcategories within the category 1.A.2 Manufacturing industries and construction.

^c Information on methods and emission factors in this table is as reported by Parties in table Summary 3 of the CRF. It may not reflect the actual method or type of emission factor used for all subcategories within the category 1.A.4 Other sectors.

^d Information on methods and emission factors in this table is as reported by Parties in table Summary 3 of the CRF. It may not reflect the actual method or type of emission factor used for all subcategories within the category 1.A.5 Other (not specified elsewhere).

^e Australia, Canada, Japan, New Zealand and United States reported energy data on a gross calorific value (GCV) basis. This means that reported IEFs are about 5 per cent lower for liquid and solid fuels and biomass, and about 10 per cent lower for gaseous fuels than would have been the case if the data were given on a net calorific value (NCV) basis. The IEFs included in this table have been converted into NCV-based values and are not reflecting the reported IEFs.

Table 1.4

Stationary combustion: solid fuels - CO₂ (2006)

Key category	Share in national total	IEF in CRF based on GCV or NCV	Energy industries						Manufacturing industries and construction			Other sectors						Other (Not specified elsewhere)			
			Methods and EF used ^d		CO ₂ IEF				Method and EF used ^d		CO ₂ IEF	Method and EF used ^d		CO ₂ IEF				Method and EF used ^d		CO ₂ IEF	
			Methods	EF	Total	Public electricity and heat production	Petroleum refining	Manufacture of solid fuels and other energy industries	Methods	EF	Total	Methods	EF	Total	Commercial / Institutional	Residential	Agriculture / Forestry / Fisheries	Methods	EF	Stationary	
	%		(t/TJ)						(t/TJ)			(t/TJ)						(t/TJ)			
Australia ^a	L, T	36.7	GCV	T2	CS, PS	95.90	96.00	NA	88.99	T2	CS	85.30	T1, T2	CS	96.64	96.71	95.42	NA	T1, T2	CS, D	NA
Austria	L, T	13.0	NCV	T2	CS, PS	93.73	93.73	NO	NCV	T2	CS, PS	100.63	T2	CS	93.58	95.23	93.36	93.73	CS, M	CS	NA
Belarus	L, T	3.1	NCV	D, T1	D	95.97	95.97	IE	IE	D, T1	D	103.45	D, T1	D	92.75	92.71	92.74	93.50	D, T1	D	103.37
Belgium	L, T	15.0	NCV	T2	CS, PS	117.17	126.41	NO	40.02	T2	CS	68.17	T2	CS	92.71	92.71	92.71	92.71	NA	NA	NA
Bulgaria	L, T	43.1	NCV	T2	CS	106.58	107.37	NO	49.36	T2	CS	133.58	T2	CS	100.59	100.37	100.60	100.61	NA	NA	NO
Canada ^e	L, T	15.2	GCV	T2	CS	95.53	94.41	120.15	98.09	T2	CS	43.64	T2	CS	97.73	NO	97.73	NO	NA	NA	NA
Croatia	L, T	8.0	NCV	T1, T2	D, PS	92.71	92.71	NO	NO	T1	D	94.67	T1	D	96.08	94.30	96.64	NO	NA	NA	NO
Czech Republic	L, T	48.2	NCV	T1	CS, D	95.81	96.62	NO	69.21	T1	CS, D	88.84	T1	CS, D	96.81	98.45	95.85	97.48	T1	D	NO
Denmark	L, T	30.0	NCV	CR	CR, CS, D	92.62	92.62	NO	NO	CR	CS	94.77	CR	CS	95.00	NO	95.46	95.00	OTH	CS	NO
Estonia	L, T	53.4	NCV	T1, T2	CS, D	94.10	99.22	54.95	NO	T1, T2	CS, D	98.94	T1, T2	CS, D	97.55	99.02	97.53	97.57	NA	NA	NO
European Community	L, T	20.5	NCV	CR, CS, OTH, T1, T2, T3	CR, CS, D, PS	100.73	100.45	104.44	107.34	CR, CS, M, OTH, T1, T2, T3	CR, CS, D, PS	79.08	CR, CS, M, T1, T2, T3	CR, CS, D	99.20	95.17	100.19	95.32	CS, M, OTH, T1, T2, T3	CR, CS, D	0.38
Finland	L, T	23.8	NCV	T3	CS, D, PS	94.11	93.65	93.65	114.93	CS, M, T3	CS, PS	146.78	CS, M, T1, T3	CS, D	93.25	NO	89.87	93.65	CS, T1	CS	NO
France	L, T	9.4	NCV	CR	CS	107.81	106.69	268.00	106.47	CR	CS	129.63	CR	CS	95.00	95.00	95.00	95.00	NA	NA	NO
Germany	L, T	33.0	NCV	CS	CS	101.63	102.80	40.00	85.19	CS, T2	CS	42.28	CS	CS	98.69	98.04	98.87	98.00	CS	CS	98.00
Greece	L, T	31.5	NCV	T2	CS, PS	122.00	122.00	NO	NO	T2	PS	83.65	T2	D	97.53	NO	93.27	99.18	NA	NA	NA
Hungary	L, T	16.2	NCV	T1, T2, T3	CS, D, PS	105.19	107.76	NO	44.80	T1, T2	CS, D, PS	97.63	T1	D	94.43	94.19	94.45	93.33	NA	NA	NO
Iceland	L	1.5	NCV	T1	D	NO	NO	NO	NO	T1	D	96.93	T1	D	NO	NO	NO	NO	T1	D	NO
Ireland	L, T	14.1	NCV	T1, T3	CS, PS	98.39	97.77	NO	154.96	T1	CS	94.60	T1	CS	99.24	94.96	99.46	NO	NA	NA	NO
Italy	L, T	11.7	NCV	T3	CS	107.78	94.53	NO	203.77	T2	CS	66.70	T2	CS	94.53	NO	94.53	NO	T2	CS	NA
Japan ^e	L, T	32.6	GCV	T1	CS	93.92	94.68	NO	75.78	T1	CS	98.10	T1	CS	97.05	97.05	NO	113.40	T1	CS	111.61
Latvia	L, T	2.8	NCV	T1	CS	94.81	94.08	NO	103.87	T1	CS, PS	92.10	T1	CS, D	92.43	92.61	92.20	92.20	T1	CS	NA
Liechtenstein	L, T	0.0	NCV	T2	CS	NO	NO	NO	NO	T2	CS	NO	CS, T1, T2	CS	94.00	NO	94.00	NO	T1	CS	NO
Lithuania	L, T	4.8	NCV	T1, T2	CR, CS, D	99.09	97.54	NO	102.00	T2	CR, CS	95.02	T2	CS	95.75	95.13	96.69	95.36	T2	CS	NE, NO
Luxembourg	L, T	2.3	NCV	T1, T2	D	NO	NO	NO	NO	T1	D	97.32	T1	D	97.50	97.50	97.50	NO	NA	NA	NO
Monaco	L, T	22.4	NCV	T1	D	55.57	55.57	NO	NO	NA	NA	NA, NO	T1	D	NO	NO	NO	NO	NA	NA	NO
Netherlands	L, T	13.5	NCV	T2	CS	104.50	104.50	NO	NO	T2	CS	131.73	T2	CS, D	101.34	107.55	94.69	NO	T2	D	NA
New Zealand ^f	L, T	8.7	GCV	D	CS	95.93	95.93	NO	NO	D	CS	94.21	D	CS	94.38	94.37	96.63	93.62	NA	NA	NA
Norway	L, T	1.8	NCV	T1, T2, T3	CS, PS	294.78	90.40	NO	NO	T1, T2, T3	CS	111.03	T2	CS	101.41	NO	101.41	NO	T2	CS	NO
Poland	L, T	57.0	NCV	T2, T3	CS, D, PS	97.33	98.27	141.79	65.28	T2, T3	CS, D, PS	106.89	T2, T3	CS, D, PS	94.32	94.84	94.12	94.99	NA	NA	IE
Portugal	L, T	15.4	NCV	T2	CR, D, PS	90.16	90.16	NO	NO	T2	CR, D, PS	98.63	T2	CR, D	NO	NO	NO	NO	T1	CR, D	NO
Romania	L, T	23.4	NCV	T1	D	99.08	99.08	IE	IE	T1	D	151.30	T1	D	98.90	98.13	99.18	99.68	NA	NA	NE
Russian Federation	L, T	14.1	NCV	T1	CS, D	92.58	92.89	47.46	93.52	T1	D	69.55	T1	D	93.00	89.26	93.44	94.95	D, T1	CS, D	93.20
Slovakia	L, T	21.7	NCV	T1, T1a	CS, D	100.38	100.15	110.22	NO	T1	CS	99.01	T1	CS	19.50	95.56	17.90	98.66	T1	CS	98.93
Slovenia	L, T	31.2	NCV	T1	CS, D	101.30	101.30	NO	NO	T1	CS, D	99.36	T1	CS, D	NO	NO	NO	NO	NA	NA	NA
Spain	L, T	16.5	NCV	T2	CR, CS, PS	97.55	97.88	NA	78.19	T2, T3	CR, CS, PS	122.61	T2, T3	CR, CS	88.24	81.65	90.38	NA	NA	NA	NO
Sweden	L, T	10.7	NCV	T1, T2, T3	CS	138.17	147.98	NO	72.05	T1, T2, T3	CS	80.46	T1, T2, T3	CS	NO	NO	NO	NO	T1	CS	NA
Switzerland	L, T	1.7	NCV	CS, T2	CS	94.00	NO	94.00	NO	CS, T2	CS	96.35	CS, T2	CS	94.00	NO	94.00	NO	T2	CS	NO
Turkey																					
Ukraine	L, T	20.7	NCV	T1	D	90.82	95.61	96.30	58.93	T1	D	78.52	T1	D	96.58	96.52	96.61	96.40	T1	D	94.66
United Kingdom	L, T	24.1	NCV	OTH, T1, T2	CS	92.32	92.54	NO	72.73	OTH, T1, T2	CS	145.94	T2	CS	105.56	92.58	107.73	88.09	T2, T3	CS	NA
United States ^e	L, T	29.7	GCV	T1	CS	94.22	94.22	IE	IE	T1	CS	93.77	T1	CS	95.13	95.13	95.13	IE	CS, T1	CS	69.68

Note: This table includes data from categories 1.A.1 Energy industries, 1.A.2 Manufacturing industries and construction, 1.A.4 Other sectors and 1.A.5.a Other (stationary).

^a Information on methods and emission factors in this table is as reported by Parties in table Summary 3 of the CRF. It may not reflect the actual method or type of emission factor used for all subcategories within the category 1.A.1 Energy industries.

^b Information on methods and emission factors in this table is as reported by Parties in table Summary 3 of the CRF. It may not reflect the actual method or type of emission factor used for all subcategories within the category 1.A.2 Manufacturing industries and construction.

^c Information on methods and emission factors in this table is as reported by Parties in table Summary 3 of the CRF. It may not reflect the actual method or type of emission factor used for all subcategories within the category 1.A.4 Other sectors.

^d Information on methods and emission factors in this table is as reported by Parties in table Summary 3 of the CRF. It may not reflect the actual method or type of emission factor used for all subcategories within the category 1.A.5 Other (not specified elsewhere).

^e Australia, Canada, Japan, New Zealand and United States reported energy data on a gross calorific value (GCV) basis. This means that reported IEFs are about 5 per cent lower for liquid and solid fuels and biomass, and about 10 per cent lower for gaseous fuels than would have been the case if the data were given on a net calorific value (NCV) basis. The IEFs included in this table have been converted into NCV-based values and are not reflecting the reported IEFs.

Table 1.5

Stationary combustion: gaseous fuels - CO₂ (2006)

Key category	Share in national total	IEF in CRF based on GCV or NCV	Energy industries						Manufacturing industries and construction			Other sectors						Other (Not specified elsewhere)			
			Methods and EF used ^a		CO ₂ IEF				Method and EF used ^b		CO ₂ IEF	Method and EF used ^c		CO ₂ IEF				Method and EF used ^d		CO ₂ IEF	
			Methods	EF	Total	Public electricity and heat production	Petroleum refining	Manufacture of solid fuels and other energy industries	Methods	EF	Total	Methods	EF	Total	Commercial / Institutional	Residential	Agriculture / Forestry / Fisheries	Methods	EF	Stationary	
		%	(t/TJ)						(t/TJ)			(t/TJ)						(t/TJ)			
Australia ^e	L, T	9.7	GCV	T2	CS, PS	56.95	57.04	56.84	56.84	T2	CS	56.88	T1, T2	CS	56.90	56.90	56.90	56.84	T1, T2	CS, D	NA
Austria	L, T	17.9	NCV	T2	CS, PS	55.40	55.40	55.40	55.40	T2	CS, PS	55.36	T2	CS	55.40	55.40	55.40	55.40	CS, M	CS	NA
Belarus	L, T	45.7	NCV	D, T1	D	55.87	55.87	IE	IE	D, T1	D	59.91	D, T1	D	55.82	55.82	55.82	55.82	D, T1	D	56.80
Belgium	L, T	23.2	NCV			55.96	55.96	55.82	56.04			55.86			55.81	55.81	55.81	55.82			NA
Bulgaria	L	8.7	NCV	T2	CS	55.82	55.82	55.82	55.82	T2	CS	55.82	T2	CS	55.80	55.80	55.80	55.80	NA	NA	NO
Canada ^e	L, T	24.8	GCV	T2	CS	57.41	55.09	36.05	64.89	T2	CS	56.60	T2	CS	55.38	55.55	55.15	57.78	NA	NA	NA
Croatia	L, T	14.4	NCV	T1, T2	D, PS	55.92	55.95	55.82	55.82	T1	D	56.83	T1	D	56.51	56.85	56.45	55.82	NA	NA	NO
Czech Republic	L, T	12.2	NCV	T1	CS, D	55.82	55.82	55.82	NO	T1	CS, D	55.82	T1	CS, D	55.82	55.82	55.82	55.82	T1	D	NO
Denmark	L, T	15.2	NCV	CR	CR, CS, D	56.78	56.78	NO	56.78	CR	CS	59.65	CR	CS	56.78	56.78	56.78	56.78	OTH	CS	NO
Estonia	L, T	11.8	NCV	T1, T2	CS, D	68.78	68.78	NO	NO	T1, T2	CS, D	55.82	T1, T2	CS, D	55.82	55.82	55.82	55.82	NA	NA	NO
European Community	L, T	20.5	NCV	CR, CS, OTH, T1, T2, T3	CR, CS, D, PS	56.37	56.29	56.41	57.25	CR, CS, M, OTH, T1, T2, T3	CR, CS, D, PS	56.27	CR, CS, M, T1, T2, T3	CR, CS, D	56.43	56.39	56.44	56.63	CS, M, OTH, T1, T2, T3	CR, CS, D	55.53
Finland	L, T	10.9	NCV	T3	CS, D, PS	54.76	54.76	54.76	NO	CS, M, T3	CS, PS	54.82	CS, M, T1, T3	CS, D	54.76	54.76	54.76	54.76	CS, T1	CS	54.76
France	L, T	15.9	NCV	CR	CS	56.79	57.00	55.89	NO	CR	CS	57.18	CR	CS	57.00	57.00	57.00	57.00	NA	NA	NO
Germany	L, T	17.0	NCV	CS	CS	55.99	56.00	56.00	55.80	CS, T2	CS	56.00	CS	CS	56.00	56.00	56.00	56.00	CS	CS	56.00
Greece	L, T	4.6	NCV	T2	CS, PS	55.08	55.01	NO	58.29	T2	PS	51.78	T2	D	55.82	55.82	55.82	NO	NA	NA	NA
Hungary	L, T	33.6	NCV	T1, T2, T3	CS, D, PS	55.82	55.82	55.82	55.82	T1, T2	CS, D, PS	52.09	T1	D	55.82	55.82	55.82	55.82	NA	NA	NO
Iceland		0.0	NCV	T1	D	NO	NO	NO	NO	T1	D	NO	T1	D	NO	NO	NO	NO	T1	D	NO
Ireland	L, T	13.5	NCV	T1, T3	CS, PS	55.86	55.86	NO	NO	T1	CS	56.80	T1	CS	56.83	56.83	56.83	NO	NA	NA	NO
Italy	L, T	27.9	NCV	T3	CS	55.71	55.71	55.71	55.71	T2	CS	55.71	T2	CS	55.71	55.71	55.71	55.71	T2	CS	NA
Japan ^e	L, T	13.9	GCV	T1	CS	54.91	54.90	54.94	55.08	T1	CS	55.12	T1	CS	55.30	55.12	55.60	55.08	T1	CS	56.62
Latvia	L, T	28.1	NCV	T1	CS	55.82	55.82	NO	55.82	T1	CS, PS	55.82	T1	CS, D	55.82	55.82	55.82	55.82	T1	CS	NA
Liechtenstein	L, T	28.5	NCV	T2	CS	55.00	55.00	NO	NO	T2	CS	55.00	CS, T1, T2	CS	55.00	55.00	55.00	NO	T1	CS	NA
Lithuania	L, T	18.7	NCV	T1, T2	CR, CS, D	56.90	56.90	56.90	56.90	T2	CR, CS	56.90	T2	CS	56.90	56.90	56.90	56.90	T2	CS	NE, NO
Luxembourg	L, T	23.4	NCV	T1, T2	D	56.10	56.10	NO	NO	T1	D	56.08	T1	D	56.10	56.10	56.10	NO	NA	NA	NO
Monaco	L, T	13.0	NCV	T1	D	56.72	56.72	NO	NO	NA	NA	NA, NO	T1	D	56.72	IE	56.72	NO	NA	NA	NO
Netherlands	L, T	37.1	NCV	T2	CS	56.81	56.80	56.80	56.87	T2	CS	56.80	T2	CS, D	56.80	56.80	56.80	56.80	T2	D	NA
New Zealand ^d	L, T	10.2	GCV	D	CS	59.33	57.77	66.89	61.02	D	CS	64.51	D	CS	57.86	57.86	57.86	NE	NA	NA	NA
Norway	L, T	21.1	NCV	T1, T2, T3	CS, PS	66.86	65.21	NO	66.86	T1, T2, T3	CS	74.06	T2	CS	65.21	65.21	65.21	65.21	T2	CS	NO
Poland	L, T	6.0	NCV	T2, T3	CS, D, PS	56.93	58.04	55.74	55.82	T2, T3	CS, D, PS	53.75	T2, T3	CS, D, PS	55.82	55.81	55.82	55.63	NA	NA	IE
Portugal	L, T	9.7	NCV	T2	CR, D, PS	55.82	55.82	55.82	NO	T2	CR, D, PS	55.82	T2	CR, D	55.31	55.82	55.82	9.12	T1	CR, D	NO
Romania	L, T	19.2	NCV	T1	D	55.82	55.82	IE	IE	T1	D	55.82	T1	D	55.82	55.82	55.82	55.82	NA	NA	NE
Russian Federation	L, T	31.4	NCV	T1	CS, D	55.28	55.26	55.82	55.82	T1	D	55.82	T1	D	55.82	55.82	55.82	55.82	D, T1	CS, D	55.82
Slovakia	L, T	34.9	NCV	T1, T1a	CS, D	73.90	55.22	52.29	208.75	T1	CS	107.16	T1	CS	55.25	55.25	55.25	55.25	T1	CS	55.24
Slovenia	L, T	8.8	NCV	T1	CS, D	55.01	55.01	55.02	NO	T1	CS, D	55.02	T1	CS, D	55.02	55.02	55.02	NO	NA	NA	NA
Spain	L, T	17.1	NCV	T2	CR, CS, PS	56.75	56.67	58.55	56.00	T2, T3	CR, CS, PS	55.87	T2, T3	CR, CS	56.00	56.00	56.00	56.00	NA	NA	NO
Sweden	L, T	2.6	NCV	T1, T2, T3	CS	56.50	56.50	56.50	NO	T1, T2, T3	CS	56.50	T1, T2, T3	CS	56.50	56.50	56.50	56.50	T1	CS	NO
Switzerland	L, T	11.5	NCV	CS, T2	CS	55.00	55.00	NO	NO	CS, T2	CS	55.00	CS, T2	CS	55.00	55.00	55.00	55.00	T2	CS	NO
Turkey																					
Ukraine	L, T	24.8	NCV	T1	D	55.82	55.82	55.82	55.82	T1	D	55.82	T1	D	55.82	55.82	55.82	55.82	T1	D	55.82
United Kingdom	L, T	28.9	NCV	OTH, T1, T2	CS	57.21	57.10	57.07	57.60	OTH, T1, T2	CS	57.07	T2	CS	57.07	57.07	57.07	57.07	T2, T3	CS	NA
United States ^e	L, T	16.1	GCV	T1	CS	55.88	55.88	IE	IE	T1	CS	55.88	T1	CS	55.88	55.88	55.88	IE	CS, T1	CS	24.13

Note: This table includes data from categories 1.A.1 Energy industries, 1.A.2 Manufacturing industries and construction, 1.A.4 Other sectors and 1.A.5.a Other (stationary).

^a Information on methods and emission factors in this table is as reported by Parties in table Summary 3 of the CRF. It may not reflect the actual method or type of emission factor used for all subcategories within the category 1.A.1 Energy industries.

^b Information on methods and emission factors in this table is as reported by Parties in table Summary 3 of the CRF. It may not reflect the actual method or type of emission factor used for all subcategories within the category 1.A.2 Manufacturing industries and construction.

^c Information on methods and emission factors in this table is as reported by Parties in table Summary 3 of the CRF. It may not reflect the actual method or type of emission factor used for all subcategories within the category 1.A.4 Other sectors.

^d Information on methods and emission factors in this table is as reported by Parties in table Summary 3 of the CRF. It may not reflect the actual method or type of emission factor used for all subcategories within the category 1.A.5 Other (not specified elsewhere).

^e Australia, Canada, Japan, New Zealand and United States reported energy data on a gross calorific value (GCV) basis. This means that reported IEFs are about 5 per cent lower for liquid and solid fuels and biomass, and about 10 per cent lower for gaseous fuels than would have been the case if the data were given on a net calorific value (NCV) basis. The IEFs included in this table have been converted into NCV-based values and are not reflecting the reported IEFs.

Table 1.6

Stationary combustion: other fuels - CO₂ (2006)

Key category	Share in national total	IEF in CRF based on GCV or NCV	Energy industries						Manufacturing industries and construction			Other sectors						Other (Not elsewhere specified)			
			Methods and EF used ^d		CO ₂ IEF				Method and EF used ^b		CO ₂ IEF	Method and EF used ^e		CO ₂ IEF				Method and EF used ^d		CO ₂ IEF	
			Methods	EF	Total	Public electricity and heat production	Petroleum refining	Manufacture of solid fuels and other energy industries	Methods	EF	Total	Methods	EF	Total	Commercial / Institutional	Residential	Agriculture / Forestry / Fisheries	Methods	EF	Stationary	
																					(t/TJ)
Australia ^a		-	GCV	T2	CS, PS	NA	NA	NA	NA	T2	CS	NA	T1, T2	CS	NA	NA	NA	NA	T1, T2	CS, D	NA
Austria	L, T	1.8	NCV	T2	CS, PS	55.40	55.40	NO	NO	T2	CS, PS	70.64	T2	CS	104.17	104.17	NO	NO	CS, M	CS	NA
Belarus		0.1	NCV	D, T1	D	NO	NO	NO	NO	D, T1	D	80.42	D, T1	D	NO	NO	NO	NO	D, T1	D	NO
Belgium	L, T	4.5	NCV			96.49	96.49					60.58			53.78	51.77	66.00				NA
Bulgaria		-	NCV	T2	CS	NO	NO	NO	NO	T2	CS	NO	T2	CS	NO	NO	NO	NO	NA	NA	NO
Canada ^a		-	GCV	T2	CS	NA	NA	NA	NA	T2	CS	IE, NA	T2	CS	NA	NA	NA	NA	NA	NA	NA
Croatia		-	NCV	T1, T2	D, PS	NO	NO	NO	NO	T1	D	NO	T1	D	NO	NO	NO	NO	NA	NA	NO
Czech Republic		-	NCV	T1	CS, D	NO	NO	NO	NO	T1	CS, D	NO	T1	CS, D	NO	NO	NO	NO	T1	D	NO
Denmark	L, T	1.0	NCV	CR	CR, CS, D	IE, NO	IE	NO	NO	CR	CS	IE, NO	CR	CS	IE, NO	IE	NO	NO	OTH	CS	NO
Estonia		-	NCV	T1, T2	CS, D	NO	NO	NO	NO	T1, T2	CS, D	NA, NO	T1, T2	CS, D	NO	NO	NO	NO	NA	NA	NO
European Community	L, T	1.3	NCV	CR, CS, OTH, T1, T2, T3	CR, CS, D, PS	85.00	81.68	NA, NO	135.54	CR, CS, M, OTH, T1, T2, T3	CR, CS, D, PS	74.97	CR, CS, M, T1, T2, T3	CR, CS, D	111.78	107.43	170.88	100.98	CS, M, OTH, T1, T2, T3	CR, CS, D	NA, NO
Finland	L, T	12.6	NCV	T3	CS, D, PS	101.74	101.74	NO	NO	CS, M, T3	CS, PS	96.51	CS, M, T1, T3	CS, D	100.98	100.98	100.98	100.98	CS, T1	CS	NO
France	L, T	1.7	NCV	CR	CS	108.62	95.50	NO	135.54	CR	CS	52.68	CR	CS	57.00	57.00	57.00	NO	NA	NA	NO
Germany	L, T	1.3	NCV	CS	CS	91.51	91.51	NO	NO	CS, T2	CS	74.40	CS	CS	NO	NO	NO	NO	CS	CS	NO
Greece		-	NCV	T2	CS, PS	NO	NO	NO	NO	T2	PS	NA, NO	T2	D	NO	NO	NO	NO	NA	NA	NA
Hungary		0.1	NCV	T1, T2, T3	CS, D, PS	NO	NO	NO	NO	T1, T2	CS, D, PS	4.61	T1	D	NO	NO	NO	NO	NA	NA	NO
Iceland	T	0.5	NCV	T1	D	91.48	91.48	NO	NO	T1	D	NO	T1	D	NO	NO	NO	NO	T1	D	NO
Ireland		-	NCV	T1, T3	CS, PS	NO	NO	NO	NO	T1	CS	NO	T1	CS	NO	NO	NO	NO	NA	NA	NO
Italy	L, T	0.8	NCV	T3	CS	94.00	94.00	NO	NO	T2	CS	260.40	T2	CS	113.68	113.68	NO	NO	T2	CS	NA
Japan ^a		-	GCV	T1	CS	NO	NO	NO	NO	T1	CS	NO	T1	CS	NO	NO	NO	NO	T1	CS	NO
Latvia		0.1	NCV	T1	CS	NO	NO	NO	NO	T1	CS, PS	82.76	T1	CS, D	NO	NO	NO	NO	T1	CS	NA
Liechtenstein		-	NCV	T2	CS	NO	NO	NO	NO	T2	CS	NO	CS, T1, T2	CS	NO	NO	NO	NO	T1	CS	NA
Lithuania		-	NCV	T1, T2	CR, CS, D	NO	NO	NO	NO	T2	CR, CS	NO	T2	CS	NO	NO	NO	NO	T2	CS	NE, NO
Luxembourg		0.5	NCV	T1, T2	D	42.26	42.26	NO	NO	T1	D	NO	T1	D	NO	NO	NO	NO	NA	NA	NO
Monaco		-	NCV	T1	D	NO	NO	NO	NO	NA	NA	NA, NO	T1	D	NO	NO	NO	NO	NA	NA	NO
Netherlands	L, T	1.0	NCV	T2	CS	72.77	72.77	NO	NO	T2	CS	NA, NO	T2	CS, D	NO	NO	NO	NO	T2	D	NA
New Zealand ^a		-	GCV	D	CS	IE, NO	NO	IE	NO	D	CS	NO	D	CS	NO	NO	NO	NO	NA	NA	NA
Norway		0.4	NCV	T1, T2, T3	CS, PS	23.90	23.90	NO	NO	T1, T2, T3	CS	20.85	T2	CS	NO	NO	NO	NO	T2	CS	NO
Poland		-	NCV	T2, T3	CS, D, PS	NA	NA	NA	NA	T2, T3	CS, D, PS	NA	T2, T3	CS, D, PS	NA	NA	NA	NA	NA	NA	IE
Portugal		0.1	NCV	T2	CR, D, PS	NO	NO	NO	NO	T2	CR, D, PS	66.71	T2	CR, D	NO	NO	NO	NO	T1	CR, D	NO
Romania		-	NCV	T1	D	IE, NE	NE	NE	IE	T1	D	IE, NE	T1	D	NE	NE	NE	NE	NA	NA	NE
Russian Federation	L, T	1.0	NCV	T1	CS, D	142.29	142.29	142.29	142.29	T1	D	142.29	T1	D	142.29	142.29	NO	142.29	D, T1	CS, D	126.56
Slovakia		0.1	NCV	T1, T1a	CS, D	IE, NO	IE	NO	NO	T1	CS	NO	T1	CS	NO	NO	NO	NO	T1	CS	NO
Slovenia		0.2	NCV	T1	CS, D	NO	NO	NO	NO	T1	CS, D	69.91	T1	CS, D	NA, NO	NO	NA	NO	NA	NA	NA
Spain	T	0.2	NCV	T2	CR, CS, PS	36.03	36.03	NA	NA	T2, T3	CR, CS, PS	80.51	T2, T3	CR, CS	NA	NA	NA	NA	NA	NA	NO
Sweden	L, T	1.9	NCV	T1, T2, T3	CS	28.56	28.56	NO	NO	T1, T2, T3	CS	60.00	T1, T2, T3	CS	NO	NO	NO	NO	T1	CS	NO
Switzerland	L, T	4.7	NCV	CS, T2	CS	44.61	44.61	NO	NO	CS, T2	CS	57.65	CS, T2	CS	NO	NO	NO	NO	T2	CS	NO
Turkey																					
Ukraine		0.4	NCV	T1	D	81.17	73.48	71.87	93.93	T1	D	85.08	T1	D	96.05	95.07	96.03	96.23	T1	D	96.30
United Kingdom	T	0.3	NCV	OTH, T1, T2	CS	57.46	57.46	NO	NO	OTH, T1, T2	CS	90.95	T2	CS	202.74	30.47	NA	NO	T2, T3	CS	NA
United States ^a	T	0.3	GCV	T1	CS	62.95	62.95	NA	NA	T1	CS	NA	T1	CS	IE, NA	NA	NA	IE	CS, T1	CS	NA, NA

Note: This table includes data from categories 1.A.1 Energy industries, 1.A.2 Manufacturing industries and construction, 1.A.4 Other sectors and 1.A.5.a Other (stationary).

^a Information on methods and emission factors in this table is as reported by Parties in table Summary 3 of the CRF. It may not reflect the actual method or type of emission factor used for all subcategories within the category 1.A.1 Energy industries.

^b Information on methods and emission factors in this table is as reported by Parties in table Summary 3 of the CRF. It may not reflect the actual method or type of emission factor used for all subcategories within the category 1.A.2 Manufacturing industries and construction.

^c Information on methods and emission factors in this table is as reported by Parties in table Summary 3 of the CRF. It may not reflect the actual method or type of emission factor used for all subcategories within the category 1.A.4 Other sectors.

^d Information on methods and emission factors in this table is as reported by Parties in table Summary 3 of the CRF. It may not reflect the actual method or type of emission factor used for all subcategories within the category 1.A.5 Other (not specified elsewhere).

^e Australia, Canada, Japan, New Zealand and United States reported energy data on a gross calorific value (GCV) basis. This means that reported IEFs are about 5 per cent lower for liquid and solid fuels and biomass, and about 10 per cent lower for gaseous fuels than would have been the case if the data were given on a net calorific value (NCV) basis. The IEFs included in this table have been converted into NCV-based values and are not reflecting the reported IEFs.

Table 1.7**Fuel consumption in stationary combustion: all fuels - trend information**

Fuel consumption (TJ)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	2,692,115	3,929,653	0.5	2.8	2.9	5.3	3.1	1.3	2.8	0.8	4.5	0.5	3.2	1.4	46.0
Austria	657,821	806,522	5.8	6.1	-0.6	-3.1	0.9	-4.3	7.5	-0.5	7.5	-1.6	4.4	-0.8	22.6
Belarus	1,267,202	875,495	-8.6	2.4	7.1	-2.7	-2.2	-2.4	-0.7	-1.1	1.4	6.5	1.4	2.4	-30.9
Belgium	1,211,189	1,315,771	6.2	6.3	-6.4	7.0	-4.0	-0.5	1.3	-2.1	4.4	-2.0	-0.8	-1.7	8.6
Bulgaria	916,095	482,031	-17.0	-2.3	-3.8	-10.9	-9.9	-0.1	2.0	-5.2	6.8	-1.7	0.3	1.6	-47.4
Canada	4,925,099	5,920,023	-1.6	2.5	0.9	1.4	4.5	5.9	-2.4	2.8	3.8	-1.8	-3.3	-2.4	20.2
Croatia	253,278	212,448	-26.9	5.6	4.2	5.3	1.1	-3.8	4.1	5.2	7.8	-4.2	-0.3	-3.3	-16.1
Czech Republic	1,563,685	1,245,356	-1.5	7.5	-6.8	-5.7	-1.1	3.6	2.0	-3.4	1.2	-0.1	-0.1	0.0	-20.4
Denmark	537,273	656,846	20.7	24.6	-13.3	-5.6	-4.3	-6.7	4.6	-0.1	9.9	-9.2	-5.6	15.0	22.3
Estonia	368,869	169,461	-4.8	7.3	-3.2	-10.8	-5.6	-0.4	0.0	-1.5	11.8	1.7	-3.3	-6.7	-54.1
European Community	32,436,488	35,405,599	2.5	4.0	-2.3	1.7	-0.9	1.0	3.0	-1.0	3.3	0.8	0.1	-0.6	9.2
Finland	673,051	930,778	-2.2	8.3	0.3	-2.0	1.2	-2.8	6.3	5.3	10.0	-3.7	-15.8	19.8	38.3
France	3,664,679	3,852,348	10.7	6.4	-4.0	6.6	-4.1	-0.5	2.1	-3.7	3.6	1.1	2.7	-3.5	5.1
Germany	9,870,882	9,122,456	-2.1	4.7	-3.5	-1.1	-4.1	0.7	4.2	-2.1	3.2	0.7	-1.2	1.3	-7.6
Greece	661,561	916,855	-0.4	4.6	4.7	5.2	-0.2	10.0	1.4	-0.1	4.6	-0.6	0.0	1.3	38.6
Hungary	1,022,142	767,813	-1.9	2.0	-2.7	-1.7	-2.7	-2.8	3.2	-3.2	5.9	-2.2	5.3	-3.8	-24.9
Iceland	14,307	13,243	-5.3	8.8	2.6	-3.1	0.8	-7.8	-3.5	6.4	-7.1	0.8	-4.5	-9.0	-7.4
Ireland	306,782	434,735	3.6	3.1	3.2	5.1	3.9	4.4	5.1	-2.7	-0.5	1.0	2.5	-0.6	41.7
Italy	4,285,668	5,019,357	0.2	-0.9	0.8	3.0	2.5	1.0	1.1	-0.5	5.0	0.7	1.6	-1.8	17.1
Japan	12,091,879	13,527,716	0.1	0.7	-0.7	-2.8	3.8	1.8	-2.1	4.6	0.8	-0.3	1.2	-0.7	11.9
Latvia	254,853	126,733	-4.9	1.3	-3.2	-3.4	-6.4	-10.0	5.9	-0.7	3.8	0.8	0.1	2.3	-50.3
Liechtenstein	1,869	2,598	-3.5	2.1	5.7	8.6	-2.8	-4.8	0.8	6.0	7.2	2.1	0.8	3.2	39.0
Lithuania	400,063	157,395	4.9	2.9	-6.5	3.7	-15.0	-5.2	5.2	0.5	2.1	3.5	3.6	-1.5	-60.7
Luxembourg	67,996	73,606	1.3	4.5	-7.5	-3.9	4.3	-2.5	3.0	21.5	-2.2	14.5	-5.1	5.3	8.3
Monaco	1,146	922	-3.7	6.0	3.9	-1.7	0.6	0.6	1.7	-3.3	-7.8	-7.9	0.3	-14.6	-19.6
Netherlands	1,915,189	2,022,042	5.2	7.2	-5.3	0.8	-4.4	1.5	4.4	-1.9	1.5	1.5	-3.3	-2.1	5.6
New Zealand	265,473	308,609	-0.8	2.2	8.9	-9.3	10.2	-0.1	9.6	-4.5	8.0	-7.7	16.3	0.5	16.2
Norway	248,191	335,738	-2.8	10.8	0.8	-2.7	-1.1	0.9	7.2	1.4	6.6	-2.9	-2.8	3.7	35.3
Poland	4,419,948	3,252,339	1.5	2.7	-1.9	-7.4	-3.4	-3.0	0.8	-3.0	3.4	-0.4	0.3	4.1	-26.4
Portugal	475,700	627,616	3.3	-7.3	5.4	7.8	17.3	-7.2	2.0	8.0	-8.5	6.4	4.5	-8.8	31.9
Romania	2,119,111	1,212,815	-20.2	5.4	-15.7	-12.1	-10.8	1.2	0.5	4.6	7.7	-2.1	-4.3	2.4	-42.8
Russian Federation	27,659,599	18,528,589	-5.4	-1.2	-4.6	-3.5	1.8	3.0	0.9	-0.9	2.2	-0.9	-0.4	3.1	-33.0
Slovakia	632,335	386,162	-6.4	-2.3	-3.1	-0.8	-1.3	-3.6	3.9	-6.6	2.8	-2.3	-1.7	-4.9	-38.9
Slovenia	170,411	154,563	-3.1	3.2	1.2	3.2	-4.2	-1.6	4.0	0.2	-1.2	1.0	1.6	-2.1	-9.3
Spain	1,935,813	3,250,300	3.9	-7.7	11.2	0.8	10.0	5.1	1.0	7.9	2.3	6.7	6.9	-3.3	67.9
Sweden	563,216	610,819	3.2	11.0	-9.5	0.9	-5.4	-4.8	7.0	0.3	2.1	-2.9	-2.9	0.9	8.5
Switzerland	409,345	448,161	6.5	4.3	-4.0	3.8	-0.9	-4.3	4.5	-2.5	4.0	1.1	2.1	-1.4	9.5
Turkey															
Ukraine	7,372,401	3,090,394	0.8	-8.2	-7.9	-26.1	-1.5	-6.1	-0.6	-0.6	7.9	-2.0	2.6	2.3	-58.1
United Kingdom	5,628,266	5,795,722	3.2	5.4	-4.2	2.3	-0.5	3.0	2.9	-3.7	2.2	0.5	-1.0	-1.6	3.0
United States	54,005,244	62,217,744	0.2	3.8	1.1	-0.3	0.8	2.9	-2.2	0.6	1.0	1.0	0.4	-1.8	15.2

Note: This table includes data from categories 1.A.1 Energy industries, 1.A.2 Manufacturing industries and construction, 1.A.4 Other sectors and 1.A.5.a Other (stationary).

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 1.8**Fuel consumption in stationary combustion: liquid fuels – trend information**

Fuel consumption (TJ)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	420,098	540,481	-0.3	1.8	-5.5	1.8	2.0	1.3	1.3	1.9	8.1	-3.1	13.1	1.2	28.7
Austria	214,559	208,079	5.2	6.8	1.3	0.1	-6.2	-10.3	7.7	-5.8	7.2	-5.4	0.2	2.6	-3.0
Belarus	644,377	139,860	-3.4	-5.0	-9.0	-2.3	-11.5	-17.6	-6.2	-10.6	-7.7	2.5	-6.8	7.9	-78.3
Belgium	403,815	366,970	15.6	10.1	-8.1	2.8	-10.3	-8.2	11.4	-6.1	6.6	-6.1	-0.8	-2.9	-9.1
Bulgaria	276,792	53,275	-26.3	-12.5	-9.3	-6.2	-5.3	-19.6	-4.2	-0.9	1.8	-7.2	-5.4	2.4	-80.8
Canada	656,828	406,886	-11.1	2.1	1.6	3.8	-6.4	1.4	4.6	-8.2	19.4	-2.3	-11.2	-20.4	-38.1
Croatia	125,778	92,312	-29.6	-0.5	0.2	11.7	5.6	-18.2	4.3	1.6	12.4	-14.7	3.4	-4.4	-26.6
Czech Republic	184,964	88,794	-7.9	14.4	-37.5	7.9	23.7	-13.4	-9.4	-6.4	-9.8	14.0	-6.5	-4.1	-52.0
Denmark	158,622	119,658	3.7	15.8	-10.2	-5.6	-1.8	-6.6	1.2	-3.9	-11.6	-7.4	-4.4	1.5	-24.6
Estonia	82,534	8,856	-0.5	10.4	-12.1	-3.9	-9.4	-37.5	1.0	4.5	-1.4	-7.9	-5.4	-23.3	-89.3
European Community	9,867,289	8,264,432	5.1	1.9	-3.9	0.0	-5.2	-4.1	4.3	-4.6	-0.8	-3.5	-1.2	-2.4	-16.2
Finland	203,350	167,481	-3.7	2.9	-3.9	4.2	-0.7	-6.6	2.7	1.3	-1.6	-3.1	-2.6	-0.5	-17.6
France	1,499,368	1,312,795	7.4	3.4	-3.2	4.2	-5.2	-5.9	4.3	-8.3	2.6	0.6	1.1	-4.4	-12.4
Germany	1,982,471	1,705,772	15.2	6.7	-5.5	-3.7	-11.9	-4.7	9.6	-8.3	0.0	-6.2	-0.4	3.6	-14.0
Greece	300,526	436,777	2.4	12.4	1.0	0.1	-2.8	8.4	1.6	2.8	8.1	-6.4	1.2	6.8	45.3
Hungary	254,351	103,934	-2.4	-12.4	7.9	-7.4	-13.7	0.6	-11.1	-15.4	-13.0	-3.3	13.9	0.7	-59.1
Iceland	13,761	12,370	-5.2	9.2	2.0	-3.7	0.8	-8.2	-4.3	7.6	-7.1	-1.0	-5.0	-10.6	-10.1
Ireland	98,437	159,408	11.8	-4.6	13.0	10.0	14.1	-5.5	7.2	-9.0	-6.0	4.1	3.8	-6.7	61.9
Italy	2,050,491	1,284,024	-2.7	-3.3	-2.0	-2.2	-4.5	-3.0	-1.4	-1.3	-4.6	-10.6	-7.4	-3.7	-37.4
Japan	6,433,479	4,738,553	-1.8	-2.1	-4.9	-4.3	1.9	-2.5	-6.3	4.1	-2.8	-3.0	0.7	-9.1	-26.3
Latvia	98,894	14,436	-13.0	13.9	-21.5	-1.6	-10.6	-38.2	-21.1	-5.3	-2.5	-3.5	-11.7	4.0	-85.4
Liechtenstein	1,303	1,051	-12.3	-6.9	13.4	7.1	-12.0	-12.0	-4.8	12.8	6.0	-2.8	-4.4	4.3	-19.3
Lithuania	187,288	38,768	6.2	1.1	-8.4	22.0	-31.2	-25.9	12.9	-9.1	-16.3	5.5	4.3	-10.2	-79.3
Luxembourg	17,205	12,725	9.9	9.6	-7.1	16.2	-6.5	-9.8	11.6	-23.2	-8.5	20.8	-8.9	-8.5	-26.0
Monaco	507	323	-15.4	7.7	-7.6	4.7	-2.3	-8.8	-5.5	9.4	7.0	-7.9	-0.8	-7.8	-36.3
Netherlands	367,079	299,062	-3.6	0.3	-2.3	3.4	-3.8	-1.6	4.7	-13.2	4.6	-1.1	-2.5	-3.5	-18.5
New Zealand	37,068	44,483	-6.2	-1.3	-2.7	-0.5	1.7	2.3	-2.0	2.5	7.9	1.3	11.9	-2.7	20.0
Norway	120,304	111,804	-8.1	19.1	-6.5	0.9	2.3	-11.5	5.3	-0.3	7.4	-11.2	-7.9	6.0	-7.1
Poland	255,226	291,991	-6.4	12.6	12.2	-1.1	-1.1	9.0	0.7	-0.6	8.5	-0.8	-3.7	-9.9	14.4
Portugal	260,657	224,296	2.6	-10.3	7.0	11.7	0.0	-10.3	4.7	6.2	-16.2	2.0	7.4	-19.9	-13.9
Romania	446,052	194,227	-27.9	13.5	-1.3	-19.0	-21.0	-4.1	10.6	1.9	-12.1	7.0	-7.7	-9.1	-56.5
Russian Federation	8,134,471	2,430,065	-5.2	-5.0	-2.9	-8.2	-0.2	5.7	-1.8	-6.9	-0.8	-0.6	-2.0	1.1	-70.1
Slovakia	81,347	32,486	-12.2	-6.9	-5.5	-4.1	-2.8	-7.5	1.2	1.7	6.8	9.8	-22.7	-2.3	-60.1
Slovenia	37,559	38,623	-0.9	15.0	-2.0	-0.2	3.6	-8.0	0.7	-6.2	-5.2	-1.3	-1.6	-3.7	2.8
Spain	855,492	1,018,693	4.3	-7.4	2.3	2.6	6.2	-1.5	3.2	1.6	-1.1	2.7	-0.5	-5.1	19.1
Sweden	301,169	224,466	-0.2	12.2	-12.9	0.3	-8.5	-4.2	-1.3	1.1	0.9	-8.3	-11.1	-1.8	-25.5
Switzerland	261,408	236,126	7.8	3.5	-4.2	4.3	-3.2	-8.4	4.5	-3.6	3.7	-0.5	0.5	-3.4	-9.7
Turkey															
Ukraine	1,351,836	58,476	59.8	-20.5	-14.0	-73.2	-33.2	-38.7	9.9	0.5	-13.0	-4.7	19.9	-26.4	-95.7
United Kingdom	1,168,072	754,389	2.0	0.3	-11.9	-3.6	-7.0	-3.8	5.0	-8.4	-2.8	2.9	3.5	-5.0	-35.4
United States	12,408,904	13,382,927	-1.9	6.1	1.3	0.4	2.4	-0.3	2.6	-5.0	4.8	3.3	0.6	-3.9	7.8

Note: This table includes data from categories 1.A.1 Energy industries, 1.A.2 Manufacturing industries and construction, 1.A.4 Other sectors and 1.A.5.a Other (stationary).

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 1.9**Fuel consumption in stationary combustion: solid fuels – trend information**

Fuel consumption (TJ)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	1,448,771	2,175,685	3.3	4.2	4.8	6.5	3.0	1.0	2.9	0.9	4.2	0.6	1.2	2.3	50.2
Austria	139,782	122,497	4.5	0.7	5.3	-21.4	2.1	14.4	7.9	-1.1	13.6	-2.5	-1.8	0.1	-12.4
Belarus	105,401	26,576	-9.0	5.7	-18.9	-8.5	-14.4	8.3	-11.4	-13.6	-5.5	-7.6	5.0	-6.1	-74.8
Belgium	423,131	233,559	-2.9	-3.7	-9.4	5.7	-14.7	6.8	-9.3	0.0	-2.5	-1.9	-8.0	-5.3	-44.8
Bulgaria	422,902	281,694	-12.2	0.7	4.8	-12.8	-10.0	0.8	8.8	-6.6	9.7	-2.3	-1.6	0.3	-33.4
Canada	1,103,278	1,303,911	3.9	1.3	5.5	7.5	0.7	7.8	-1.0	-2.0	1.6	-4.1	-2.2	-2.7	18.2
Croatia	28,889	26,378	-38.9	-19.0	64.9	-3.2	-13.6	119.2	5.4	22.1	12.5	7.3	-1.7	-7.5	-8.7
Czech Republic	1,134,431	757,475	-1.8	4.1	-5.0	-9.8	-5.5	9.6	1.7	-4.0	-0.9	-2.5	0.0	1.0	-33.2
Denmark	254,835	232,976	35.7	37.4	-25.6	-15.1	-16.0	-16.2	5.7	0.2	36.6	-23.5	-15.6	50.3	-8.6
Estonia	232,508	107,002	-7.8	3.6	-2.5	-11.2	-6.1	0.3	-2.8	-3.5	16.6	1.6	-5.0	-5.8	-54.0
European Community	12,078,817	8,814,787	-4.5	-2.0	-5.4	-0.5	-5.1	3.7	0.7	0.1	4.4	-0.6	-2.3	1.3	-27.0
Finland	145,480	188,856	-7.9	29.9	-10.3	-26.3	1.5	-1.8	15.1	12.7	36.6	-11.4	-45.7	81.0	29.8
France	661,768	443,173	10.5	6.4	-11.0	20.1	-10.2	-1.9	-13.3	-0.4	6.6	-0.3	8.1	-8.3	-33.0
Germany	5,537,085	3,622,502	-11.6	-0.6	-4.3	-1.9	-4.3	3.3	0.5	-0.4	3.5	-0.3	-2.8	0.7	-34.6
Greece	337,294	349,368	-3.5	-2.7	7.8	4.6	-3.8	7.2	2.2	-3.7	0.1	3.1	-2.1	-8.2	3.6
Hungary	348,762	124,375	-3.6	2.3	-5.2	-6.8	1.7	-2.5	-5.3	-2.0	5.4	-6.9	-11.7	-2.5	-64.3
Iceland	546	640	-8.4	-23.4	59.7	28.1	0.6	5.5	22.1	-28.4	-9.3	61.5	-0.6	20.2	17.2
Ireland	144,698	99,727	-1.1	1.7	-6.9	0.8	-14.4	6.9	5.1	-2.1	-6.5	-5.9	11.5	-10.1	-31.1
Italy	630,359	698,326	-6.0	-8.0	-1.2	3.7	0.1	1.6	11.4	3.2	8.4	11.7	-0.8	1.1	10.8
Japan	3,353,693	4,790,700	-0.6	2.7	2.6	-4.0	4.8	6.9	2.5	6.3	2.7	2.5	1.8	-0.4	42.8
Latvia	30,332	3,506	-12.9	-5.8	-12.5	-28.0	-25.2	2.4	-5.9	-19.7	-14.9	-20.9	22.8	7.7	-88.4
Liechtenstein	1	0	-5.4	-26.9	5.3	5.0	-47.6	118.2	-45.8	-7.7	8.3	-23.1	-10.0	-33.3	-83.8
Lithuania	33,624	11,658	11.6	-8.2	-17.7	-13.1	-15.1	-27.3	-10.1	63.2	28.1	-2.0	10.3	35.8	-65.3
Luxembourg	30,305	3,104	-2.6	-2.9	-32.4	-59.7	60.8	-14.1	-16.4	-20.4	-7.2	10.8	-6.4	-4.5	-89.8
Monaco	471	377	1.8	7.1	12.8	-6.0	1.0	3.5	6.1	-10.7	-17.2	-10.9	0.4	-27.5	-20.0
Netherlands	300,497	260,184	-8.9	-4.5	-4.4	3.9	-14.8	7.4	6.7	0.2	2.5	-2.1	-5.7	-2.7	-13.4
New Zealand	35,219	74,533	-8.8	-1.0	17.1	-14.9	1.6	-8.1	32.7	-2.7	58.5	6.2	15.2	-1.5	111.6
Norway	8,443	6,527	-2.0	-1.9	7.7	-5.3	-19.1	-1.1	-9.7	-3.6	1.9	-3.0	-14.8	8.8	-22.7
Poland	3,846,191	2,334,513	3.2	2.0	-4.2	-9.4	-4.1	-5.6	-0.2	-4.7	2.4	-1.9	0.0	6.0	-39.3
Portugal	108,813	140,979	6.3	-7.1	1.2	-10.3	22.4	0.3	-11.1	7.7	-5.8	2.0	2.1	0.1	29.6
Romania	537,493	348,338	-21.1	2.1	-16.1	-16.8	-8.4	12.0	8.9	4.3	11.6	-5.3	-3.4	13.5	-35.2
Russian Federation	6,562,420	3,389,818	-6.6	-0.7	-10.1	-4.8	0.9	11.3	0.1	-3.0	-0.4	-4.8	-2.3	4.2	-48.3
Slovakia	293,371	132,833	-11.1	-7.4	-8.2	-1.5	-2.8	1.3	4.1	-10.5	7.5	-2.6	4.9	-3.6	-54.7
Slovenia	85,059	63,422	-6.7	-7.1	6.7	6.7	-11.0	1.8	9.7	6.0	-5.7	2.3	-0.3	1.8	-25.4
Spain	737,620	725,712	2.2	-17.9	13.3	-2.4	13.7	5.7	-8.5	12.8	-6.9	4.4	0.2	-12.8	-1.6
Sweden	99,589	93,238	1.6	13.4	-9.3	1.1	-8.2	0.5	8.2	1.3	1.8	6.3	-6.3	-2.7	-6.4
Switzerland	15,843	9,719	-23.2	-34.1	-9.7	-11.4	-1.4	43.9	2.0	-7.0	1.6	20.1	24.4	7.5	-38.7
Turkey															
Ukraine	2,008,966	1,023,436	-13.3	-21.8	-2.5	-15.8	2.6	-6.2	9.0	4.4	2.7	-5.7	3.1	16.9	-49.1
United Kingdom	2,532,121	1,609,005	0.5	-6.9	-11.9	0.8	-12.5	7.4	6.5	-7.0	8.3	-4.4	1.4	8.8	-36.5
United States	19,134,449	23,372,125	-0.5	4.9	1.9	1.6	0.6	4.1	-2.6	0.3	2.0	1.8	1.2	-1.3	22.1

Note: This table includes data from categories 1.A.1 Energy industries, 1.A.2 Manufacturing industries and construction, 1.A.4 Other sectors and 1.A.5.a Other (stationary).

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 1.10**Fuel consumption in stationary combustion: gaseous fuels – trend information**

Fuel consumption (TJ)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	644,046	1,018,239	-5.1	-0.2	3.3	5.5	5.1	1.6	5.0	2.8	2.5	2.6	3.2	0.9	58.1
Austria	199,931	295,042	5.8	6.7	-3.8	2.0	1.3	-5.5	7.3	2.3	7.6	-1.4	9.1	-9.0	47.6
Belarus	493,858	656,851	-12.9	6.8	18.6	-3.2	2.6	2.4	1.1	2.2	4.0	8.3	2.1	1.0	33.0
Belgium	328,859	569,289	5.9	11.6	-6.2	12.4	6.7	0.0	0.2	0.1	6.4	-0.7	1.7	-0.8	73.1
Bulgaria	201,521	111,102	-16.3	-1.8	-17.0	-15.6	-14.4	6.5	-9.5	-10.4	3.9	0.1	12.5	4.1	-44.9
Canada	2,650,766	3,508,003	-1.7	3.7	-0.8	-1.8	7.3	7.1	-3.3	5.9	3.0	-2.5	-1.8	-1.0	32.3
Croatia	75,930	78,995	-16.5	15.9	4.4	1.9	-2.4	1.1	9.5	5.9	-2.6	5.9	-2.8	-1.2	4.0
Czech Republic	222,830	323,142	5.1	15.2	2.1	0.1	0.7	-3.0	7.1	-2.6	0.1	-0.6	-1.1	0.2	45.0
Denmark	76,092	191,015	13.2	17.8	5.3	8.6	5.1	-0.9	4.1	-0.1	1.4	-0.8	-3.7	1.9	151.0
Estonia	45,469	33,355	1.7	17.4	-4.3	-11.6	-4.0	29.3	8.0	2.0	2.9	3.5	3.8	3.6	-26.6
European Community	8,647,190	15,127,710	8.4	11.3	-0.1	4.6	4.5	3.0	3.4	0.4	4.8	3.0	1.6	-1.6	74.9
Finland	90,756	159,839	4.5	4.6	-1.6	14.6	0.1	3.0	9.0	-1.6	10.7	-3.6	-8.6	6.8	76.1
France	975,267	1,525,522	12.6	11.3	-1.3	5.9	-2.1	6.5	7.7	-1.2	2.2	1.7	3.8	-2.1	56.4
Germany	2,043,698	3,048,790	7.4	11.7	-4.4	1.5	0.3	0.1	5.0	-0.6	4.4	2.0	-2.4	0.2	49.2
Greece	6,404	112,385	-1.2	9.3	178.7	308.2	68.2	38.8	-1.9	7.8	12.5	10.4	3.5	16.7	1,654.8
Hungary	383,623	478,016	-0.8	11.6	-5.2	0.7	1.3	-2.5	10.9	0.3	9.8	-2.3	5.0	-5.6	24.6
Iceland	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Ireland	59,137	166,830	2.1	18.0	3.1	2.3	10.1	18.9	2.0	5.7	11.3	2.1	-5.5	13.6	182.1
Italy	1,537,487	2,840,426	6.1	3.6	3.7	7.9	9.2	3.7	0.4	-0.6	10.4	3.8	7.1	-2.1	84.7
Japan	2,106,359	3,765,279	7.2	5.1	4.2	2.4	6.0	3.5	0.0	3.2	4.1	0.0	-0.1	11.8	78.8
Latvia	98,125	58,543	-0.5	-13.9	22.4	-2.1	-4.2	10.2	16.1	2.4	4.1	-0.8	2.6	3.3	-40.3
Liechtenstein	506	1,417	21.4	14.4	-3.0	10.2	7.6	-1.6	9.3	1.1	7.1	5.8	4.3	1.6	180.3
Lithuania	167,235	76,173	2.6	4.9	-5.3	-17.9	4.6	16.3	0.4	2.4	12.4	3.6	4.3	-2.1	-54.5
Luxembourg	18,564	55,521	-0.1	6.6	4.4	1.7	4.0	4.5	1.9	55.8	-0.2	13.5	-4.0	9.7	199.1
Monaco	160	214	16.8	-1.5	-3.9	4.1	5.3	9.5	-2.0	5.0	-0.6	0.9	2.2	6.9	34.2
Netherlands	1,207,669	1,354,956	11.6	11.2	-6.9	-0.6	-2.8	0.9	3.9	-0.1	0.7	2.2	-4.3	-1.9	12.2
New Zealand	168,159	145,080	0.9	5.0	13.5	-12.6	11.8	0.6	10.1	-8.9	-3.4	-19.6	22.2	3.2	-13.7
Norway	83,671	168,287	5.2	6.3	6.9	-4.7	-5.9	15.6	9.7	2.2	6.9	4.0	-0.3	3.2	101.1
Poland	283,300	430,379	-8.4	4.5	7.3	0.5	0.7	4.7	5.3	4.0	5.7	7.3	4.3	2.0	51.9
Portugal	NO	143,217	*	*	*	755.2	263.0	-18.1	23.6	23.4	1.0	20.0	6.0	-4.8	*
Romania	1,109,201	538,028	-16.5	-1.7	-17.8	-5.9	-7.8	-0.8	-2.8	5.1	12.3	-5.9	-4.9	1.5	-51.5
Russian Federation	12,258,856	12,400,337	-5.1	0.3	-3.2	-1.6	2.0	0.2	1.9	1.1	4.0	-0.1	0.5	3.2	1.2
Slovakia	254,493	218,989	1.1	1.7	0.3	0.1	-0.2	-5.4	4.2	-5.7	0.1	-4.2	-1.8	-6.1	-14.0
Slovenia	26,669	32,913	2.1	7.1	-4.0	3.6	2.4	2.0	2.4	-2.3	9.7	0.9	1.2	-1.4	23.4
Spain	188,874	1,318,738	12.1	12.7	32.8	2.8	15.4	17.6	10.0	13.3	16.0	13.7	20.7	3.7	598.2
Sweden	24,368	30,633	9.4	7.6	1.0	-1.2	1.0	-10.1	17.3	1.7	-5.2	-9.8	-5.6	0.8	25.7
Switzerland	67,044	110,839	12.7	8.2	-3.5	2.8	3.5	-0.6	4.0	-1.9	6.0	3.1	2.7	-2.8	65.3
Turkey															
Ukraine	3,915,259	1,966,799	-11.1	2.8	-8.0	-18.6	-0.3	-4.2	-4.9	-3.0	11.3	0.0	2.0	-2.9	-49.8
United Kingdom	1,890,083	3,315,508	7.6	16.4	2.6	4.6	6.7	3.0	0.8	-1.4	0.7	2.0	-2.9	-5.5	75.4
United States	19,710,479	22,864,066	2.5	1.7	0.7	-1.6	0.2	3.7	-3.6	4.1	-2.0	-1.5	-0.5	-1.3	16.0

Note: This table includes data from categories 1.A.1 Energy industries, 1.A.2 Manufacturing industries and construction, 1.A.4 Other sectors and 1.A.5.a Other (stationary).

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 1.11**Fuel consumption in stationary combustion: biomass – trend information**

Fuel consumption (TJ)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	179,200	195,247	-0.4	5.2	4.2	1.0	-1.7	2.6	-4.1	-11.0	8.3	-1.8	-0.1	-3.8	9.0
Austria	94,559	155,424	9.0	6.4	-2.1	-2.6	14.9	-5.6	6.3	1.1	1.4	2.0	8.1	8.7	64.4
Belarus	21,720	51,530	-52.5	7.0	45.5	15.9	6.6	4.8	12.0	2.4	2.7	3.6	16.3	10.4	137.3
Belgium	21,781	52,084	-17.2	7.6	-2.2	6.3	14.0	0.6	14.4	6.4	19.9	8.8	9.8	15.4	139.1
Bulgaria	14,879	35,960	-0.4	3.2	4.4	42.9	0.4	22.5	-2.7	17.9	0.6	8.3	-7.1	3.4	141.7
Canada	514,227	701,223	-1.1	-0.5	0.0	3.2	8.8	0.0	-5.9	6.7	0.8	7.4	-6.7	4.8	36.4
Croatia	22,680	14,763	-31.0	19.4	3.5	-12.2	-5.0	12.3	-21.7	1.3	28.8	-0.6	-6.9	0.0	-34.9
Czech Republic	21,460	75,945	2.0	3.5	9.6	4.6	6.3	3.0	2.1	16.1	91.2	11.3	11.7	-5.5	253.9
Denmark	47,723	113,197	8.4	6.9	4.1	-0.7	5.7	4.6	10.2	6.7	11.9	7.2	7.4	2.3	137.2
Estonia	8,358	20,249	-1.9	16.1	4.5	-14.7	-1.0	3.0	3.2	-0.1	9.5	5.4	-2.9	-17.1	142.3
European Community	1,557,567	2,566,912	7.0	3.4	5.2	1.5	4.5	-0.4	3.1	1.4	5.3	7.4	4.1	5.2	64.8
Finland	178,494	314,590	-1.5	0.0	13.8	3.5	7.0	-0.6	-4.2	7.9	1.9	4.3	-6.7	12.8	76.2
France	475,005	479,469	17.8	5.1	-5.9	3.1	-1.5	-2.4	-4.5	-1.8	6.8	2.5	0.0	-1.6	0.9
Germany	223,188	591,846	-1.8	-0.9	35.7	3.6	6.8	3.0	8.2	2.1	7.6	18.1	13.6	8.6	165.2
Greece	17,337	18,325	12.9	2.8	-3.1	-2.8	10.1	14.7	-7.0	-11.7	-9.5	9.9	0.6	-5.4	5.7
Hungary	13,095	39,344	42.8	-8.8	1.5	-7.7	0.3	9.7	-9.3	7.8	33.9	33.9	67.5	-10.2	200.5
Iceland	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Ireland	4,510	8,770	-3.9	14.5	12.2	16.9	-3.8	6.3	9.0	-3.2	-4.4	16.8	24.8	1.0	94.5
Italy	56,679	163,904	13.8	3.1	12.1	-2.0	17.4	4.1	9.9	-3.3	18.0	20.1	-0.4	7.1	189.2
Japan	198,347	233,183	0.7	0.4	3.1	-8.1	4.0	3.3	-8.7	4.2	2.1	-0.6	19.6	1.1	17.6
Latvia	27,501	50,116	17.3	4.5	0.2	-1.3	-1.8	-7.1	10.8	-0.5	7.6	5.6	0.0	0.6	82.2
Liechtenstein	60	130	-21.6	-2.9	14.8	10.8	9.1	53.7	-32.1	2.2	25.0	8.3	7.8	13.1	115.2
Lithuania	11,916	30,796	0	9.6	2.3	10.2	3.7	4.8	5.5	5.8	3.4	2.1	-1.0	1.8	158.4
Luxembourg	709	738	0	0.8	0	0	0	0	0	0	0	0	3.3	0	4.0
Monaco	8	7	1.6	0.3	0.3	0	0.5	-3.9	0.4	17.8	-15.6	2.2	-6.0	-8.4	-6.1
Netherlands	30,311	78,773	-1.7	14.5	8.9	4.3	3.9	9.2	6.2	11.3	-6.7	14.9	24.5	0.8	159.9
New Zealand	25,028	44,513	7.4	-1.8	-5.9	4.4	23.1	2.1	0.9	6.0	1.3	4.5	6.3	-0.9	77.9
Norway	31,598	40,791	-5.0	3.7	5.6	-8.8	5.9	-2.1	8.5	5.7	1.8	-3.4	2.1	0.0	29.1
Poland	35,231	195,456	-13.9	-1.5	-0.1	0.5	-4.0	1.4	6.9	1.8	0.6	3.8	2.9	10.4	454.8
Portugal	104,991	117,453	2.0	0.6	3.5	-0.5	1.7	0.2	-0.9	0.4	-0.9	7.2	-0.7	2.3	11.9
Romania	26,366	132,223	-6.3	30.2	-32.7	-10.5	-5.5	-2.0	-22.8	10.1	21.0	9.8	2.4	-1.1	401.5
Russian Federation	574,305	150,695	-2.0	-14.1	-13.4	-21.7	28.7	-15.9	-3.1	-4.3	-0.8	-3.5	0.0	0.4	-73.8
Slovakia	3,124	1,854	-16.9	-14.5	-11.3	-7.3	-2.7	-8.2	23.4	31.3	-24.3	23.4	42.8	11.2	-40.6
Slovenia	20,985	19,158	-2.8	2.1	1.5	0.9	-12.0	0.8	-2.3	1.9	6.2	0.3	16.7	-11.7	-8.7
Spain	150,724	163,563	-0.1	-1.9	5.5	-2.4	0.6	1.2	1.0	1.3	2.9	2.7	0.3	1.1	8.5
Sweden	119,953	220,895	7.1	8.9	-6.4	0.7	1.5	-8.3	19.5	-2.6	1.4	-1.3	7.0	6.9	84.2
Switzerland	32,235	37,257	9.0	9.3	-11.1	1.3	-0.8	-5.0	4.9	-2.1	5.9	-0.1	5.7	1.8	15.6
Turkey															
Ukraine	36,374	20,562	*	*	*	*	-6.0	10.5	11.2	16.7	8.6	-8.7	-20.0	1.3	-43.5
United Kingdom	31,604	82,486	4.5	2.2	4.0	-1.7	7.7	-3.2	6.3	3.1	10.2	8.2	-1.4	2.6	161.0
United States	2,339,598	2,242,376	-0.1	2.8	-2.7	-7.9	1.4	2.2	-11.2	-0.5	0.4	6.0	-0.2	0.0	-4.2

Note: This table includes data from categories 1.A.1 Energy industries, 1.A.2 Manufacturing industries and construction, 1.A.4 Other sectors and 1.A.5.a Other (stationary).

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 1.12**Fuel consumption in stationary combustion: other fuels – trend information**

Fuel consumption (TJ)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	NA	NA	*	*	*	*	*	*	*	*	*	*	*	*	*
Austria	8,990	25,481	12.1	28.4	-6.4	-6.4	-6.4	5.9	18.1	13.2	12.1	20.7	-7.8	25.6	183.4
Belarus	1,847	677	*	*	*	*	*	*	*	*	*	*	*	*	-63.3
Belgium	33,603	93,869	25.8	3.7	17.6	4.7	3.1	6.3	-0.3	-6.4	0.0	4.2	0.5	-0.8	179.3
Bulgaria	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Canada	IE,NA	IE,NA	*	*	*	*	*	*	*	*	*	*	*	*	*
Croatia	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Czech Republic	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Denmark	IE,NO	IE,NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Estonia	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
European Community	285,626	631,758	4.1	5.9	10.7	3.9	1.7	5.0	7.1	1.2	8.3	9.9	-1.6	2.1	121.2
Finland	54,971	100,012	4.5	9.8	0.8	-6.5	-10.3	-13.5	37.5	6.5	10.8	-10.8	-20.1	31.9	81.9
France	53,271	91,389	7.7	-0.3	-1.5	3.1	10.8	5.8	0.8	3.4	9.4	0.6	-3.6	-0.4	71.6
Germany	84,441	153,546	-12.1	-2.2	24.9	1.2	17.2	16.5	3.7	-3.6	3.6	39.6	3.8	-10.2	81.8
Greece	NO	NA,NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Hungary	22,311	22,144	-16.6	-27.5	-17.9	56.2	-24.4	-43.7	44.9	-22.3	1.5	10.6	20.4	30.1	-0.7
Iceland	NO	233	*	27.5	0	0	2.0	0	0	4.1	89.8	30.0	27.7	*	*
Ireland	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Italy	10,653	32,677	-9.8	16.9	19.7	25.7	-28.0	12.8	10.8	-4.7	9.5	27.0	4.2	-1.7	206.7
Japan	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Latvia	NA,NO	131	*	*	*	*	*	257.0	87.1	35.4	-12.3	7.9	-41.7	-28.4	*
Liechtenstein	NA,NO	NA,NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Lithuania	NE,NO	NE,NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Luxembourg	1,213	1,518	2.2	-22.6	18.5	22.4	12.0	-0.7	-1.3	1.5	3.3	8.1	-8.3	5.4	25.1
Monaco	NA,NO	NA,NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	9,634	29,065	-0.1	33.6	19.5	8.1	6.1	0.3	0.9	4.3	10.8	4.1	-1.5	0.3	201.7
New Zealand	IE,NA,NO	IE,NA,NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Norway	4,174	8,329	3.3	-1.4	3.6	11.0	12.9	7.4	5.2	-1.2	18.6	0.0	4.3	0.3	99.6
Poland	NA,NO	IE,NA	*	*	*	*	*	*	*	*	*	*	*	*	*
Portugal	1,239	1,672	-5.0	9.2	16.8	26.9	14.8	1.6	-38.8	-34.2	29.0	38.1	-1.3	-0.1	34.9
Romania	IE,NE	IE,NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Russian Federation	129,546	157,674	-1.3	-29.5	20.4	3.1	24.2	13.8	4.1	6.9	-25.2	42.3	-2.9	12.4	21.7
Slovakia	IE,NO	IE,NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Slovenia	139	448	-37.4	4.3	-7.1	29.7	59.8	-5.9	-26.9	1.4	36.3	153.0	-19.4	5.6	222.3
Spain	3,103	23,593	0.8	37.7	46.0	-0.9	11.9	1.0	1.4	12.0	28.1	11.7	6.8	5.9	660.3
Sweden	18,138	41,587	34.8	5.8	2.3	12.2	-12.8	5.0	-0.6	9.0	30.3	12.5	13.0	-4.5	129.3
Switzerland	32,815	54,219	-4.2	3.6	4.9	7.7	3.4	7.7	5.4	2.5	0.2	3.6	3.3	8.1	65.2
Turkey															
Ukraine	59,966	21,122	-23.2	-10.5	-7.5	-7.7	-1.5	-11.4	-1.4	-10.0	5.7	-17.2	26.8	9.3	-64.8
United Kingdom	6,386	34,334	4.8	-1.0	17.4	30.2	-3.7	1.9	6.4	9.5	5.6	-5.1	0.8	10.4	437.7
United States	411,814	356,251	-14.1	1.1	-5.2	-7.1	-3.9	5.0	-0.4	0.3	0.4	0.7	-0.1	0.2	-13.5

Note: This table includes data from categories 1.A.1 Energy industries, 1.A.2 Manufacturing industries and construction, 1.A.4 Other sectors and 1.A.5.a Other (stationary).

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 1.13**Contribution of fuels to total energy consumption in stationary combustion (%)**

	Liquid Fuels		Solid Fuels		Gaseous Fuels		Other Fuels		Biomass	
	Base year ^a	2006	Base year ^a	2006	Base year ^a	2006	Base year ^a	2006	Base year ^a	2006
Australia	15.6	13.8	53.8	55.4	23.9	25.9	-	-	6.7	5.0
Austria	32.6	25.8	21.2	15.2	30.4	36.6	1.4	3.2	14.4	19.3
Belarus	50.9	16.0	8.3	3.0	39.0	75.0	0.1	0.1	1.7	5.9
Belgium	33.3	27.9	34.9	17.8	27.2	43.3	2.8	7.1	1.8	4.0
Bulgaria	30.2	11.1	46.2	58.4	22.0	23.0	-	-	1.6	7.5
Canada	13.3	6.9	22.4	22.0	53.8	59.3	-	-	10.4	11.8
Croatia	49.7	43.5	11.4	12.4	30.0	37.2	-	-	9.0	6.9
Czech Republic	11.8	7.1	72.5	60.8	14.3	25.9	-	-	1.4	6.1
Denmark	29.5	18.2	47.4	35.5	14.2	29.1	-	-	8.9	17.2
Estonia	22.4	5.2	63.0	63.1	12.3	19.7	-	-	2.3	11.9
European Community	30.4	23.3	37.2	24.9	26.7	42.7	0.9	1.8	4.8	7.3
Finland	30.2	18.0	21.6	20.3	13.5	17.2	8.2	10.7	26.5	33.8
France	40.9	34.1	18.1	11.5	26.6	39.6	1.5	2.4	13.0	12.4
Germany	20.1	18.7	56.1	39.7	20.7	33.4	0.9	1.7	2.3	6.5
Greece	45.4	47.6	51.0	38.1	1.0	12.3	-	-	2.6	2.0
Hungary	24.9	13.5	34.1	16.2	37.5	62.3	2.2	2.9	1.3	5.1
Iceland	96.2	93.4	3.8	4.8	-	-	-	1.8	-	-
Ireland	32.1	36.7	47.2	22.9	19.3	38.4	-	-	1.5	2.0
Italy	47.8	25.6	14.7	13.9	35.9	56.6	0.2	0.7	1.3	3.3
Japan	53.2	35.0	27.7	35.4	17.4	27.8	-	-	1.6	1.7
Latvia	38.8	11.4	11.9	2.8	38.5	46.2	-	0.1	10.8	39.5
Liechtenstein	69.7	40.5	0.1	0.0	27.1	54.5	-	-	3.2	5.0
Lithuania	46.8	24.6	8.4	7.4	41.8	48.4	-	-	3.0	19.6
Luxembourg	25.3	17.3	44.6	4.2	27.3	75.4	1.8	2.1	1.0	1.0
Monaco	44.3	35.1	41.1	40.9	13.9	23.2	-	-	0.7	0.8
Netherlands	19.2	14.8	15.7	12.9	63.1	67.0	0.5	1.4	1.6	3.9
New Zealand	14.0	14.4	13.3	24.2	63.3	47.0	-	-	9.4	14.4
Norway	48.5	33.3	3.4	1.9	33.7	50.1	1.7	2.5	12.7	12.1
Poland	5.8	9.0	87.0	71.8	6.4	13.2	-	-	0.8	6.0
Portugal	54.8	35.7	22.9	22.5	-	22.8	0.3	0.3	22.1	18.7
Romania	21.0	16.0	25.4	28.7	52.3	44.4	-	-	1.2	10.9
Russian Federation	29.4	13.1	23.7	18.3	44.3	66.9	0.5	0.9	2.1	0.8
Slovakia	12.9	8.4	46.4	34.4	40.2	56.7	-	-	0.5	0.5
Slovenia	22.0	25.0	49.9	41.0	15.6	21.3	0.1	0.3	12.3	12.4
Spain	44.2	31.3	38.1	22.3	9.8	40.6	0.2	0.7	7.8	5.0
Sweden	53.5	36.7	17.7	15.3	4.3	5.0	3.2	6.8	21.3	36.2
Switzerland	63.9	52.7	3.9	2.2	16.4	24.7	8.0	12.1	7.9	8.3
Turkey										
Ukraine	18.3	1.9	27.2	33.1	53.1	63.6	0.8	0.7	0.5	0.7
United Kingdom	20.8	13.0	45.0	27.8	33.6	57.2	0.1	0.6	0.6	1.4
United States	23.0	21.5	35.4	37.6	36.5	36.7	0.8	0.6	4.3	3.6

Note: This table includes data from categories 1.A.1 Energy industries, 1.A.2 Manufacturing industries and construction, 1.A.4 Other sectors and 1.A.5.a Other (stationary).

^a In accordance with the UNFCCC reporting guidelines on annual inventories of Annex I Parties the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 1.14**CO₂ emissions from energy industries: all fuels - trend information**

CO ₂ emissions (Gg)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	142,609	218,610	2.3	3.0	4.1	7.4	4.0	1.6	3.8	0.7	5.0	0.5	1.1	2.3	53.3
Austria	13,792	15,426	6.0	6.9	0.6	-6.4	-1.2	-3.8	14.4	-3.2	17.9	1.5	-1.6	-4.2	11.8
Belarus	65,141	32,448	-10.2	0.2	5.8	-5.9	-4.0	-4.3	1.5	-1.0	-0.5	6.6	-1.7	1.4	-50.2
Belgium	29,947	27,554	-0.9	-0.9	-3.9	8.2	-11.5	4.4	-6.1	6.1	5.4	0.2	-1.3	-5.8	-8.0
Bulgaria	43,217	29,041	-6.3	-2.9	0.9	-11.1	-6.3	1.8	10.8	-8.9	7.0	-0.1	1.4	1.2	-32.8
Canada	144,534	181,409	-0.8	-0.3	5.1	9.5	4.8	6.5	1.8	-0.3	3.1	-4.3	-3.0	-4.5	25.5
Croatia	7,268	6,636	-32.8	-1.4	9.1	12.4	2.6	-8.5	7.1	14.2	9.2	-13.2	0.4	-3.3	-8.7
Czech Republic	57,707	56,631	-0.5	4.7	-0.4	-5.7	-5.7	13.5	-1.4	-2.9	1.3	-1.0	0.0	-1.1	-1.9
Denmark	26,173	29,470	34.2	38.8	-20.8	-10.6	-10.0	-11.0	5.1	0.6	18.3	-19.1	-12.8	33.1	12.6
Estonia	28,783	12,103	-6.1	4.8	-3.3	-10.7	-4.6	-2.9	-1.7	-2.1	14.7	0.1	-5.4	-5.4	-58.0
European Community	1,151,325	1,193,524	0.5	1.3	-3.1	3.1	-1.8	2.9	2.1	2.9	2.8	-0.3	-0.3	-0.1	3.7
Finland	19,055	32,541	-1.2	23.7	-8.1	-12.0	-2.1	-6.6	24.4	9.9	23.0	-11.5	-33.4	50.0	70.8
France	66,363	65,243	18.5	7.8	-5.4	21.2	-8.3	-1.8	-11.5	7.9	2.6	0.0	8.2	-5.1	-1.7
Germany	414,936	366,139	-3.2	1.8	-5.9	1.0	-3.2	4.0	2.5	0.6	4.2	-1.0	-2.0	1.1	-11.8
Greece	42,445	54,744	-1.0	-1.8	7.8	5.3	0.6	8.9	0.9	-1.0	2.3	2.4	0.4	-5.0	29.0
Hungary	26,953	19,198	2.6	3.6	-0.7	5.2	-0.8	-7.3	-0.2	-8.3	5.2	-10.9	-9.0	4.8	-28.8
Iceland	21	33	7.6	-15.0	-20.8	124.2	-42.0	-26.6	0.7	3.4	-8.9	25.1	13.8	42.0	59.5
Ireland	11,159	14,907	4.1	5.4	4.7	2.6	4.3	2.0	7.6	-5.3	-4.3	-2.3	2.4	-4.8	33.6
Italy	134,092	159,108	-4.2	-3.3	1.3	7.7	-2.7	4.3	2.3	4.6	0.5	-0.7	0.9	-0.1	18.7
Japan	317,760	387,049	0.8	0.0	-1.0	-3.0	5.3	2.1	-2.4	9.2	3.7	-0.9	4.1	-2.6	21.8
Latvia	6,332	2,091	-8.3	3.6	-6.7	1.2	-12.6	-15.4	-1.9	-4.4	-2.8	-8.5	-0.5	1.1	-67.0
Liechtenstein	0	3	550.0	25.3	-2.4	15.7	0	-5.7	6.1	-14.3	12.5	4.4	6.4	-9.3	2,166.7
Lithuania	13,849	5,414	7.7	11.9	-7.2	10.2	-20.5	-12.1	9.5	-3.0	-1.2	3.6	3.8	-8.0	-60.9
Luxembourg	1,302	1,462	-4.3	-13.4	-39.0	-71.6	34.4	91.2	3.3	258.1	-1.1	26.0	-2.7	3.3	12.3
Monaco	27	22	-1.8	7.4	12.1	-5.9	1.1	3.2	5.9	-10.5	-16.9	-11.1	0.2	-23.0	-18.3
Netherlands	52,492	61,913	1.2	1.6	1.6	3.6	-6.0	2.7	6.6	-0.9	2.2	2.2	-3.8	-8.1	17.9
New Zealand	6,033	9,538	1.2	12.1	30.7	-24.4	23.7	-5.2	20.2	-11.0	19.3	-4.8	29.8	-0.6	58.1
Norway	6,648	12,440	5.0	10.1	3.9	-4.2	-0.3	9.5	12.7	1.7	6.2	1.0	0.4	-0.1	87.1
Poland	268,295	187,501	-1.7	3.0	-2.7	-3.4	-3.0	-1.1	1.2	-3.0	5.1	-0.8	-0.6	4.2	-30.1
Portugal	15,944	21,772	4.2	-20.1	4.5	15.5	32.0	-15.9	3.0	15.7	-17.7	7.6	14.2	-12.3	36.5
Romania	106,012	48,788	-19.7	4.1	-14.9	-10.8	-12.5	0.5	6.8	1.8	3.4	-6.6	-5.6	5.4	-54.0
Russian Federation	1,172,334	901,740	-6.3	-0.3	-5.8	0.7	-1.4	1.5	-0.2	1.1	1.2	-1.7	1.0	3.6	-23.1
Slovakia	15,967	11,152	-9.3	-0.7	0.5	1.3	1.7	-0.1	6.6	-2.5	4.1	-2.3	-7.7	-5.7	-30.2
Slovenia	6,701	6,350	-14.7	-5.0	7.5	4.2	-11.9	5.3	13.6	2.7	-3.8	2.1	1.1	-0.1	-5.2
Spain	77,357	116,322	1.0	-14.7	16.4	-1.2	19.3	4.2	-5.5	13.7	-6.3	8.8	8.8	-7.1	50.4
Sweden	10,050	10,867	11.4	34.9	-26.0	9.0	-11.4	-13.3	14.2	11.1	8.9	-6.0	-9.4	-2.1	8.1
Switzerland	2,493	3,602	11.2	8.0	-1.5	11.6	-5.2	-3.1	4.5	1.9	-0.7	10.7	4.5	5.8	44.5
Turkey															
Ukraine	271,267	110,409	*	*	*	*	3.1	-7.0	3.6	-0.2	6.5	-7.0	1.7	8.4	-59.3
United Kingdom	236,423	216,471	-0.2	0.5	-6.0	2.4	-4.9	6.0	5.2	-0.9	4.0	-0.5	1.1	1.9	-8.4
United States	1,820,564	2,349,076	-0.1	3.8	3.4	4.1	0.5	4.7	-1.6	0.4	1.3	1.4	2.8	-2.2	29.0

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 1.15

CO₂ emissions from energy industries: liquid fuels - trend information

CO ₂ emissions (Gg)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	8,982	10,087	4.5	-1.7	-8.6	3.6	6.2	-9.9	-1.4	-0.8	10.4	-4.8	13.6	0.6	12.3
Austria	3,190	3,324	6.9	0.2	9.6	7.1	-12.9	-16.8	9.9	-14.4	15.2	7.1	-12.2	2.6	4.2
Belarus	39,471	3,052	-7.5	-12.4	-17.7	-9.1	-17.9	-27.9	1.6	-12.0	-18.2	-8.5	-24.3	14.5	-92.3
Belgium	4,949	5,166	4.0	16.5	3.5	14.9	-24.4	-3.5	10.9	-3.6	11.5	0.5	-7.4	-2.3	4.4
Bulgaria	8,520	856	-39.9	-11.3	-26.8	-60.1	-2.6	-27.2	2.6	5.9	-6.1	0.9	17.4	-2.0	-90.0
Canada	15,625	8,135	-10.3	-11.1	17.7	31.2	-15.9	-4.3	10.2	-14.0	18.5	0.0	-16.3	-31.6	-47.9
Croatia	4,723	3,208	-34.0	-6.8	0.6	18.8	6.3	-34.1	5.3	4.4	23.1	-25.5	4.5	-4.3	-32.1
Czech Republic	1,790	1,147	29.5	3.3	-8.8	-12.1	-7.0	2.4	-4.9	6.5	-4.3	1.7	-6.2	-25.5	-35.9
Denmark	1,844	2,150	12.2	44.4	-11.7	-8.9	-4.1	-6.2	0.0	-7.0	-31.0	-19.7	-8.5	7.3	16.6
Estonia	4,825	409	1.9	1.4	-13.7	2.7	-6.9	-45.8	1.2	-12.0	-6.4	-8.9	-3.4	-24.3	-91.5
European Community	226,486	177,380	4.6	-1.4	-5.1	2.8	-5.4	-2.8	0.5	0.7	-6.1	-5.7	-0.9	-7.4	-21.7
Finland	2,845	2,899	1.6	13.7	-14.6	2.1	2.2	-14.9	9.9	9.8	-2.1	-12.7	-4.1	5.1	1.9
France	20,968	20,272	22.3	0.4	2.8	9.4	-6.7	-1.5	-4.9	-1.5	4.1	2.1	-1.6	-6.1	-3.3
Germany	24,931	24,507	15.3	-1.0	-7.6	1.9	-4.9	3.2	-1.3	1.5	4.0	-0.3	8.6	-6.3	-1.7
Greece	7,840	10,125	6.0	1.8	-1.5	-1.1	-0.9	11.1	-4.0	0.1	4.5	-5.4	9.4	1.0	29.1
Hungary	5,350	1,535	47.3	-13.5	11.3	2.2	-10.5	-14.6	-0.9	-40.3	-11.6	-43.5	6.9	12.4	-71.3
Iceland	21	12	7.6	-24.8	-28.9	192.0	-50.2	-36.8	1.2	5.4	-16.3	-19.8	2.6	49.1	-43.3
Ireland	1,269	2,599	55.1	-0.1	30.9	32.8	26.0	-20.9	13.0	-23.4	-27.9	23.0	2.3	-12.6	104.8
Italy	80,168	47,056	-0.3	-3.6	-2.0	-1.9	-10.7	-1.4	-2.9	1.3	-11.2	-16.9	-11.3	-3.6	-41.3
Japan	151,894	63,527	-5.2	-6.4	-14.0	-11.2	-1.4	-10.8	-23.9	21.8	2.7	-9.8	14.0	-16.5	-58.2
Latvia	3,076	115	-17.9	33.3	-36.2	17.9	-15.5	-55.0	-32.7	-3.7	-28.8	-12.5	-24.3	-37.0	-96.3
Liechtenstein	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Lithuania	7,648	2,309	17.2	12.1	-7.4	29.9	-33.1	-32.5	21.7	-5.9	-16.9	6.6	3.6	-11.1	-69.8
Luxembourg	9	12	142.9	-27.7	12.1	-62.4	50.4	147.0	4.4	0	0	44.0	0	0	34.8
Monaco	1	0	-85.7	68.3	-72.8	60.0	31.8	-65.5	*	*	*	*	*	*	-87.6
Netherlands	10,207	8,762	0.5	-3.8	1.3	4.3	-6.1	2.8	5.3	-15.1	7.1	-3.2	-2.0	-20.4	-14.2
New Zealand	226	146	1.5	-25.0	-24.4	24.0	14.9	-22.9	7.2	-5.3	22.0	-14.0	-3.5	-15.5	-35.4
Norway	1,013	1,278	2.6	28.6	-4.8	-0.5	8.3	-17.9	4.7	-10.6	6.9	-13.2	2.7	11.0	26.2
Poland	9,302	5,533	-5.4	10.6	-8.9	-7.1	-7.9	-0.1	10.4	-0.5	-0.6	-1.2	-6.1	12.9	-40.5
Portugal	8,260	5,382	2.4	-36.6	6.1	45.9	2.2	-20.9	17.9	18.6	-35.5	-1.9	38.9	-32.8	-34.8
Romania	17,864	6,407	-25.9	10.8	0.0	-22.0	-18.0	-20.2	24.7	-9.6	-13.7	-6.0	-3.2	-16.3	-64.1
Russian Federation	237,660	98,182	-5.2	-6.3	-10.0	14.7	-13.3	-6.5	-4.0	-2.1	-1.9	-8.8	2.7	2.3	-58.7
Slovakia	1,540	973	-6.7	0.1	0.7	1.1	1.2	-21.7	14.7	2.2	6.1	26.6	-36.7	-7.7	-36.8
Slovenia	309	44	-6.9	6.3	-0.2	-14.8	-57.3	59.0	74.3	-39.0	-17.5	-40.0	12.0	23.9	-85.6
Spain	16,924	23,719	3.8	-8.2	-4.3	10.3	21.1	-2.1	5.7	5.0	-12.9	5.7	2.9	-6.5	40.2
Sweden	3,276	3,683	18.5	62.2	-38.8	11.5	-17.5	-21.9	17.0	13.2	11.0	-19.5	-11.3	3.9	12.4
Switzerland	691	912	52.3	13.3	-11.4	28.0	-22.5	-18.2	7.7	3.0	-5.1	20.4	-2.9	10.6	32.0
Turkey															
Ukraine	52,890	1,853	*	*	*	*	-40.3	-50.2	35.9	10.4	-22.9	-12.4	-6.6	-2.4	-96.5
United Kingdom	40,013	18,488	-2.8	-2.7	-18.4	-6.2	-8.6	-4.1	-1.7	4.9	-2.8	-0.3	3.5	-14.0	-53.8
United States	101,766	55,712	-7.0	8.1	13.9	40.5	-7.4	-6.0	11.5	-22.5	24.0	2.0	2.2	-45.5	-45.3

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 1.16

CO₂ emissions from energy industries: solid fuels - trend information

CO ₂ emissions (Gg)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	120,219	183,380	4.0	3.8	5.1	7.6	3.2	2.1	3.2	0.6	4.9	0.3	0.1	2.3	52.5
Austria	6,247	5,643	9.1	3.7	6.5	-30.1	8.3	27.3	21.7	-6.2	25.5	-3.5	-12.4	-3.4	-9.7
Belarus	2,283	592	2.6	21.5	-32.0	-2.7	-25.0	13.4	2.8	-15.1	-7.1	-7.3	-11.2	-10.2	-74.1
Belgium	21,482	10,803	-4.0	-7.3	-7.7	-3.1	-20.8	11.7	-12.0	6.3	-3.3	0.9	-4.0	-13.5	-49.7
Bulgaria	31,318	25,530	15.4	-1.3	5.4	-4.4	-7.4	3.8	12.8	-9.7	8.4	0.1	0.2	1.6	-18.5
Canada	85,657	102,100	3.9	1.4	6.6	6.0	0.3	7.8	0.2	-1.2	2.2	-4.4	-2.5	-4.3	19.2
Croatia	635	1,909	-27.2	-43.3	314.4	2.4	-10.8	181.5	7.5	26.6	8.2	-6.9	8.3	-7.1	200.7
Czech Republic	54,051	53,417	-1.4	4.0	0.1	-5.5	-6.3	14.9	-1.0	-3.2	1.8	-1.1	0.3	-0.4	-1.2
Denmark	22,462	20,525	37.6	40.2	-26.8	-15.7	-16.2	-17.2	7.1	1.4	38.3	-25.0	-16.5	50.0	-8.6
Estonia	21,414	9,721	-8.3	3.3	-1.5	-11.3	-4.5	-1.6	-3.4	-2.2	18.9	-0.1	-6.8	-6.3	-54.6
European Community	826,317	718,561	-0.9	-0.6	-5.8	1.6	-4.6	5.1	2.4	2.0	4.7	-1.0	-2.4	1.4	-13.0
Finland	9,640	15,320	-8.1	41.2	-12.7	-31.5	2.5	-2.9	23.2	17.0	43.9	-12.9	-53.3	111.2	58.9
France	38,372	29,412	18.0	12.4	-11.9	36.4	-13.6	-2.8	-20.2	12.0	4.8	-5.5	10.4	-7.5	-23.4
Germany	362,850	300,187	-4.6	1.1	-6.1	0.5	-3.9	4.4	2.9	0.2	3.8	-1.4	-3.6	1.5	-17.3
Greece	34,503	40,280	-2.6	-2.7	9.9	5.1	-1.8	6.3	2.3	-1.8	1.2	3.6	-1.2	-8.3	16.7
Hungary	14,582	8,913	-5.9	3.7	3.0	-0.8	1.7	-2.8	-5.3	-3.6	9.1	-7.1	-18.8	-3.2	-38.9
Iceland	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Ireland	8,009	7,086	-1.7	2.5	-3.0	-5.0	-8.4	8.5	7.8	-3.0	-7.6	-8.1	10.5	-11.6	-11.5
Italy	37,209	51,946	-8.6	-8.7	-0.1	12.0	-0.6	10.0	15.3	10.9	8.0	14.7	1.1	0.0	39.6
Japan	89,106	211,654	6.0	2.9	7.2	-1.3	9.0	9.3	6.7	9.6	4.4	4.1	5.8	-4.0	137.5
Latvia	519	13	-9.0	-19.6	-4.0	-30.0	-37.0	57.5	-41.0	-21.4	-32.5	-69.8	-13.0	-44.8	-97.5
Liechtenstein	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Lithuania	220	66	-13.1	-13.7	-5.3	-3.4	11.8	-28.6	6.1	-7.9	21.6	-3.7	-10.5	11.0	-69.9
Luxembourg	1,234	NO	-5.2	-16.4	-47.2	*	*	*	*	*	*	*	*	*	*
Monaco	26	21	1.8	7.1	12.8	-6.0	1.0	3.5	6.1	-10.7	-17.2	-10.9	0.4	-27.5	-20.0
Netherlands	25,776	23,617	-8.1	-4.7	-3.5	5.0	-13.7	6.8	7.2	0.7	2.7	-2.4	-4.4	-8.2	-8.4
New Zealand	474	4,646	-53.4	9.6	94.9	-36.0	45.5	-19.3	53.1	0.2	118.8	32.3	25.4	-5.5	879.4
Norway	366	374	0.6	5.5	-8.6	0.0	-27.4	17.7	-1.1	-1.3	2.9	-1.5	17.7	-1.6	2.3
Poland	257,338	176,037	-1.5	2.5	-2.5	-3.6	-3.2	-1.6	1.0	-3.5	5.2	-1.3	-0.6	3.8	-31.6
Portugal	7,685	12,150	6.1	-7.9	3.1	-8.1	27.5	-3.1	-7.5	10.7	-4.5	2.1	2.2	-0.1	58.1
Romania	46,030	30,501	-23.8	1.3	-17.1	-15.7	-7.4	13.9	11.4	3.7	8.0	-5.5	-5.5	14.2	-33.7
Russian Federation	408,091	272,037	-6.6	2.9	-9.3	-4.4	-1.6	7.8	-1.9	1.2	-0.3	-5.5	-1.2	4.9	-33.3
Slovakia	11,553	5,970	-17.5	-4.5	-0.9	2.1	4.0	7.4	11.7	-1.4	6.8	-5.7	-3.7	-5.7	-48.3
Slovenia	6,195	6,050	-13.2	-5.9	9.5	4.6	-11.5	5.1	13.0	3.7	-5.6	3.3	0.7	-0.2	-2.3
Spain	59,635	66,478	-0.5	-18.3	17.6	-1.4	19.0	5.3	-9.3	13.4	-7.6	5.0	0.8	-13.6	11.5
Sweden	5,737	5,417	5.2	20.4	-14.9	6.9	-7.6	-7.7	11.6	10.4	8.5	2.0	-11.7	-6.4	-5.6
Switzerland	47	188	-78.9	*	*	*	*	*	*	*	*	*	78.1	0	299.8
Turkey															
Ukraine	96,018	74,325	*	*	*	*	0.9	-5.6	13.0	3.3	3.6	-8.8	6.7	20.9	-22.6
United Kingdom	185,476	129,699	0.3	-5.7	-13.8	3.9	-15.4	12.5	10.8	-5.9	9.4	-3.9	3.3	10.6	-30.1
United States	1,531,251	1,932,421	0.0	5.5	2.6	1.6	0.3	4.9	-3.0	0.9	2.0	0.6	2.1	-1.3	26.2

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 1.17

CO₂ emissions from energy industries: gaseous fuels - trend information

CO ₂ emissions (Gg)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	13,409	25,143	-14.3	-1.3	2.2	8.1	10.7	3.0	10.9	2.2	3.5	4.9	3.5	2.5	87.5
Austria	4,237	5,764	0.4	15.0	-11.5	7.2	2.5	-17.7	7.7	6.8	11.2	3.1	20.1	-11.6	36.0
Belarus	23,386	28,804	-16.2	7.9	23.1	-4.8	2.4	2.2	1.4	2.0	3.0	9.3	1.3	0.4	23.2
Belgium	2,767	10,100	19.9	6.4	0.6	41.4	22.4	-2.5	-7.3	9.5	17.0	-1.4	5.1	0.8	265.0
Bulgaria	3,379	2,655	-23.6	-4.0	-1.1	-22.1	1.0	-3.8	-3.8	-4.9	-0.8	-2.8	8.7	-1.2	-21.4
Canada	43,253	71,174	-6.7	-0.9	-0.2	11.1	19.4	6.6	2.9	3.9	2.1	-4.8	-1.3	-0.5	64.6
Croatia	1,909	1,519	-31.7	34.4	2.8	-3.2	-5.1	18.6	11.1	24.1	-16.3	13.1	-15.8	4.3	-20.5
Czech Republic	1,866	2,067	-4.0	22.5	-3.8	-3.1	6.8	-3.5	-6.8	-1.0	-5.8	-1.5	-2.7	-2.5	10.8
Denmark	1,540	6,153	16.2	25.8	12.2	14.1	7.5	2.8	4.0	3.5	-0.3	-0.3	-6.1	5.4	299.6
Estonia	2,544	1,973	-2.1	23.3	-5.7	-19.2	-2.1	36.6	7.8	3.1	0.0	4.9	2.4	5.2	-22.5
European Community	80,990	262,522	2.6	17.2	12.7	9.6	13.6	2.3	1.6	7.7	5.1	6.7	7.0	-0.2	224.1
Finland	2,620	6,094	4.8	9.0	-1.4	25.2	0.1	3.0	10.4	-0.7	14.2	-5.1	-8.1	6.6	132.6
France	1,583	7,124	19.4	43.4	-4.5	-9.2	-3.4	3.7	5.0	59.9	-22.4	29.4	66.9	3.1	349.9
Germany	22,404	32,158	0.3	14.3	-4.6	4.6	1.1	-0.3	1.9	3.6	8.4	-0.7	4.9	-0.2	43.5
Greece	102	4,339	6.3	5.4	109.1	305.2	127.4	51.2	-1.5	6.7	10.4	8.8	-2.6	16.7	4,152.7
Hungary	7,021	8,751	0.2	19.5	-15.1	19.8	2.2	-10.0	9.4	2.8	5.2	-7.4	3.0	13.0	24.6
Iceland	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Ireland	1,881	5,223	-5.5	20.7	8.8	-3.6	11.7	19.7	2.1	8.2	18.9	-4.9	-8.9	12.0	177.7
Italy	16,562	59,918	-13.5	7.2	20.3	42.3	22.1	12.0	1.5	5.1	13.8	7.1	13.6	3.0	261.8
Japan	76,761	111,868	6.5	4.6	3.7	2.9	6.2	2.4	-0.6	1.4	3.2	-4.0	-5.5	11.2	45.7
Latvia	2,737	1,963	2.6	-21.9	51.1	-4.8	-5.0	12.1	16.3	-3.0	4.9	-5.0	2.9	5.5	-28.3
Liechtenstein	0.1188	3	550.0	25.3	-2.4	15.7	0	-5.7	6.1	-14.3	12.5	4.4	6.4	-9.3	2,166.7
Lithuania	5,982	3,039	-3.7	12.6	-6.8	-22.9	14.1	22.8	-1.6	0.5	15.2	1.4	4.3	-5.8	-49.2
Luxembourg	25	1,386	-20.5	13.8	-9.5	-29.3	50.4	147.0	4.4	325.5	-1.3	26.9	-2.5	3.2	5,413.1
Monaco	NO	1	*	*	*	*	*	*	*	722.8	113.2	-38.0	-39.6	1,667.2	*
Netherlands	15,917	27,418	16.7	12.1	6.9	1.7	1.7	-1.0	6.9	3.8	-0.6	8.0	-4.4	-3.9	72.3
New Zealand	5,333	4,746	6.1	15.0	24.5	-23.3	20.2	-1.5	14.8	-13.8	-7.8	-28.3	37.0	5.3	-11.0
Norway	5,172	10,612	5.8	7.3	6.5	-5.2	-0.8	15.1	14.7	3.5	6.0	2.9	-0.4	-1.3	105.2
Poland	1,654	5,930	-15.1	52.2	2.7	28.6	19.0	25.9	0.1	15.5	8.8	17.4	4.9	7.5	258.4
Portugal	NO	4,240	*	*	*	1,270.8	360.5	-45.1	15.7	28.9	-17.2	52.1	13.9	-9.0	*
Romania	42,118	11,880	-12.1	3.4	-23.6	9.9	-15.2	-3.6	-12.1	7.7	6.4	-9.4	-7.2	-0.2	-71.8
Russian Federation	518,483	510,923	-6.6	0.2	-2.7	-0.2	1.7	-0.5	1.5	1.6	3.5	0.9	1.9	2.8	-1.5
Slovakia	2,844	4,160	22.1	3.2	1.7	0.5	-0.5	-2.6	-0.6	-5.3	0.0	-5.4	-2.8	-5.3	46.2
Slovenia	197	255	-53.5	12.1	-31.2	3.9	-1.3	-3.2	10.7	-5.0	67.7	-15.7	11.0	-2.8	29.8
Spain	678	25,437	58.7	167.9	286.3	-43.4	14.1	29.1	-0.9	78.2	33.5	47.0	65.2	14.8	3,653.8
Sweden	485	651	21.2	-1.1	1.1	-2.8	1.4	-13.1	28.1	1.7	-4.5	-11.6	-14.7	4.1	34.3
Switzerland	235	321	9.9	23.8	5.6	-2.3	-1.2	-13.5	8.6	-3.9	12.4	0.3	2.1	-15.9	36.8
Turkey															
Ukraine	121,652	33,762	*	*	*	*	14.1	-4.4	-9.7	-5.4	13.7	-3.3	-5.2	-11.0	-72.2
United Kingdom	10,189	66,518	-0.1	24.6	22.0	3.3	16.0	0.7	-1.2	5.6	-2.0	5.1	-2.8	-7.6	552.8
United States	176,201	339,640	2.3	-10.2	6.8	12.8	4.9	8.0	3.1	5.7	-9.0	6.6	7.5	6.4	92.8

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 1.18**Contribution of fuels to CO₂ emissions from energy industries (%)**

	Liquid Fuels		Solid Fuels		Gaseous Fuels		Other Fuels	
	Base year ^a	2006	Base year ^a	2006	Base year ^a	2006	Base year ^a	2006
Australia	6.3	4.6	84.3	83.9	9.4	11.5	-	-
Austria	23.1	21.5	45.3	36.6	30.7	37.4	0.9	4.5
Belarus	60.6	9.4	3.5	1.8	35.9	88.8	-	-
Belgium	16.5	18.7	71.7	39.2	9.2	36.7	2.5	5.4
Bulgaria	19.7	2.9	72.5	87.9	7.8	9.1	-	-
Canada	10.8	4.5	59.3	56.3	29.9	39.2	-	-
Croatia	65.0	48.3	8.7	28.8	26.3	22.9	-	-
Czech Republic	3.1	2.0	93.7	94.3	3.2	3.7	-	-
Denmark	7.0	7.3	85.8	69.6	5.9	20.9	1.3	2.2
Estonia	16.8	3.4	74.4	80.3	8.8	16.3	-	-
European Community	19.7	14.9	71.8	60.2	7.0	22.0	1.5	2.9
Finland	14.9	8.9	50.6	47.1	13.8	18.7	20.7	25.3
France	31.6	31.1	57.8	45.1	2.4	10.9	8.2	12.9
Germany	6.0	6.7	87.4	82.0	5.4	8.8	1.1	2.5
Greece	18.5	18.5	81.3	73.6	0.2	7.9	-	-
Hungary	19.8	8.0	54.1	46.4	26.0	45.6	-	-
Iceland	100.0	35.6	-	-	-	-	-	64.4
Ireland	11.4	17.4	71.8	47.5	16.9	35.0	-	-
Italy	59.8	29.6	27.7	32.6	12.4	37.7	0.1	0.1
Japan	47.8	16.4	28.0	54.7	24.2	28.9	-	-
Latvia	48.6	5.5	8.2	0.6	43.2	93.9	-	-
Liechtenstein	-	-	-	-	100.0	100.0	-	-
Lithuania	55.2	42.6	1.6	1.2	43.2	56.1	-	-
Luxembourg	0.7	0.8	94.8	-	1.9	94.8	2.6	4.4
Monaco	4.1	0.6	95.9	93.9	-	5.5	-	-
Netherlands	19.4	14.2	49.1	38.1	30.3	44.3	1.1	3.4
New Zealand	3.7	1.5	7.9	48.7	88.4	49.8	-	-
Norway	15.2	10.3	5.5	3.0	77.8	85.3	1.5	1.4
Poland	3.5	3.0	95.9	93.9	0.6	3.2	-	-
Portugal	51.8	24.7	48.2	55.8	-	19.5	-	-
Romania	16.9	13.1	43.4	62.5	39.7	24.4	-	-
Russian Federation	20.3	10.9	34.8	30.2	44.2	56.7	0.7	2.3
Slovakia	9.6	8.7	72.4	53.5	17.8	37.3	0.2	0.4
Slovenia	4.6	0.7	92.5	95.3	2.9	4.0	-	-
Spain	21.9	20.4	77.1	57.2	0.9	21.9	0.2	0.6
Sweden	32.6	33.9	57.1	49.8	4.8	6.0	5.5	10.3
Switzerland	27.7	25.3	1.9	5.2	9.4	8.9	61.0	60.6
Turkey								
Ukraine	19.5	1.7	35.4	67.3	44.8	30.6	0.3	0.4
United Kingdom	16.9	8.5	78.5	59.9	4.3	30.7	0.3	0.8
United States	5.6	2.4	84.1	82.3	9.7	14.5	0.6	0.9

^a In accordance with the UNFCCC reporting guidelines on annual inventories of Annex I Parties the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 1.19

CO₂ emissions from manufacturing industries and construction: all fuels - trend information

CO ₂ emissions (Gg)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	36,027	46,938	-1.3	0.3	0.4	-0.3	2.0	2.3	-2.1	3.7	1.6	2.7	10.6	2.3	30.3
Austria	13,445	15,812	2.9	0.7	11.0	-8.2	-4.5	4.4	-0.5	2.5	2.8	0.6	4.1	-0.6	17.6
Belarus	7,215	8,539	7.3	4.7	1.1	4.1	-1.4	-2.9	-6.7	2.8	8.6	11.4	3.9	3.9	18.4
Belgium	33,126	27,523	1.8	-1.3	-2.9	8.0	-4.5	2.4	-1.3	-5.8	-0.9	-3.1	-5.0	-1.1	-16.9
Bulgaria	24,755	10,264	-32.4	-2.9	1.1	-19.6	-13.6	-3.4	-9.1	-5.5	13.1	-6.2	-3.7	-1.5	-58.5
Canada	62,340	63,481	-6.1	4.4	0.3	-5.6	0.3	5.0	-6.8	3.1	7.0	1.2	-4.4	-0.1	1.8
Croatia	5,805	3,752	-31.1	1.5	0.9	9.5	-10.0	4.1	4.6	-6.4	5.3	12.2	2.8	2.7	-35.4
Czech Republic	46,616	27,706	5.4	11.8	-20.6	-1.7	4.8	-5.9	4.4	-5.2	-5.5	-1.4	2.4	4.0	-40.6
Denmark	5,424	5,630	9.6	3.2	0.7	0.5	1.1	-3.4	1.4	-4.7	-0.5	0.8	-3.6	0.4	3.8
Estonia	1,759	539	-2.1	25.2	-12.4	4.2	-41.3	30.3	22.4	-28.3	12.6	0.5	14.7	-0.3	-69.3
European Community	611,921	537,347	-3.6	-1.4	1.9	-1.9	-0.7	0.8	-0.5	-3.4	3.0	0.7	-0.8	-1.0	-12.2
Finland	13,231	11,548	-3.8	-0.8	1.5	-2.4	-0.2	0.4	-3.8	-2.6	3.4	0.9	-2.9	2.2	-12.7
France	85,974	78,447	0.2	1.6	1.3	1.7	-5.7	2.0	1.6	-3.8	2.7	-1.8	1.5	-3.2	-8.8
Germany	154,482	101,394	-13.7	-3.6	-0.2	-4.0	-1.7	-3.6	-3.2	-2.3	3.4	6.1	1.6	-2.2	-34.4
Greece	10,370	9,549	-2.0	7.0	1.0	1.7	-11.0	10.1	0.2	-3.6	-1.5	-6.9	-12.0	15.4	-7.9
Hungary	20,860	8,650	-14.8	0.0	-11.0	-5.5	-9.8	2.8	0.8	-3.8	6.5	-5.8	13.3	-14.8	-58.5
Iceland	361	382	-20.9	11.4	17.3	-5.6	5.7	-10.1	7.7	0.3	-7.0	-0.6	-4.7	-4.1	5.9
Ireland	3,969	5,688	2.9	-4.4	10.0	0.2	4.7	18.1	-0.4	-5.1	0.3	7.2	1.4	-2.5	43.3
Italy	88,937	82,083	-3.3	-2.5	3.6	-6.5	4.5	1.7	-3.1	-4.5	5.9	-0.2	-5.4	0.5	-7.7
Japan	367,681	373,821	-1.4	2.2	0.5	-6.1	2.0	3.2	-2.7	1.9	0.1	1.5	-2.0	1.8	1.7
Latvia	3,773	1,188	-25.1	-2.1	-3.1	-12.6	-9.5	-17.9	-8.1	5.2	-0.1	-0.2	1.9	5.4	-68.5
Liechtenstein	35	37	-3.1	-0.1	4.5	6.5	-1.5	-8.7	0.6	3.2	7.4	-2.4	-3.2	3.4	6.0
Lithuania	6,197	1,565	0.9	-14.9	-3.5	6.5	-27.1	-1.0	-2.5	3.3	3.7	8.0	8.5	15.7	-74.7
Luxembourg	5,303	1,665	-9.6	0.2	-19.0	-25.7	13.2	-2.4	-3.8	-14.2	-4.9	21.5	-10.5	9.5	-68.6
Monaco	NA, NO	NA, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	33,045	27,487	-1.7	2.4	-5.3	0.9	-0.8	-1.9	-2.6	2.8	2.2	-0.9	0.1	1.1	-16.8
New Zealand	4,539	5,013	8.7	10.0	7.0	1.3	-6.8	2.8	2.5	5.7	-3.5	-16.1	-5.5	5.4	10.5
Norway	3,613	3,919	-3.7	12.9	-0.5	2.0	-8.0	-5.3	1.6	-6.8	8.3	-4.4	-6.8	9.3	8.5
Poland	42,536	33,724	-6.3	6.2	-3.4	-14.5	-14.1	0.5	-12.1	-7.6	-0.9	0.4	-10.0	-1.9	-20.7
Portugal	9,155	9,817	2.6	2.9	9.7	-1.3	-0.3	4.3	-3.9	-2.0	-3.1	1.1	-5.7	-3.9	7.2
Romania	37,425	19,303	-32.8	4.1	-15.8	-26.0	-5.9	8.0	4.3	10.0	5.5	1.8	-4.7	-6.7	-48.4
Russian Federation	216,339	120,984	-3.1	0.8	-0.2	-16.8	9.6	18.8	1.3	-2.7	-1.3	3.5	3.2	1.1	-44.1
Slovakia	24,291	13,324	-7.8	-6.9	-6.5	-5.9	-5.3	0.8	-2.2	-4.5	10.7	-7.0	-1.4	9.5	-45.1
Slovenia	4,353	2,551	-1.5	-6.5	-9.9	2.9	0.9	-1.4	-2.7	1.6	-3.9	6.1	8.7	3.9	-41.4
Spain	46,266	69,840	5.0	-10.1	11.7	0.0	4.4	3.9	7.4	2.3	6.9	2.7	1.5	-1.5	51.0
Sweden	10,943	10,742	-1.1	0.5	2.6	-4.3	-8.0	3.0	0.3	0.4	0.1	0.3	-8.1	2.4	-1.8
Switzerland	5,995	5,974	-1.8	-2.0	1.3	3.2	1.5	1.6	1.9	-3.1	1.0	0.3	2.0	1.6	-0.4
Turkey															
Ukraine	143,311	49,103	*	*	*	*	-4.8	-1.2	-3.1	-1.4	11.5	3.2	4.4	0.0	-65.7
United Kingdom	99,422	82,336	0.0	1.3	0.0	-1.9	0.6	-0.4	-0.4	-9.2	1.2	-1.9	0.6	-1.6	-17.2
United States	844,937	862,187	-1.9	4.4	-0.2	-4.8	-2.7	1.7	-0.9	0.3	0.1	0.2	-1.2	1.8	2.0

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 1.20

CO₂ emissions from manufacturing industries and construction: liquid fuels - trend information

CO ₂ emissions (Gg)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	11,844	16,165	-3.3	5.6	-7.6	0.4	-1.5	9.3	-3.7	4.3	0.4	1.2	20.8	9.6	36.5
Austria	3,900	3,000	11.0	-5.7	20.9	-5.8	-21.0	-1.3	2.7	-10.9	2.6	7.0	-0.8	-3.6	-23.1
Belarus	3,938	3,155	13.9	4.7	-1.2	5.1	-5.9	-10.4	-10.2	-4.1	2.6	15.8	-1.3	6.0	-19.9
Belgium	7,533	4,194	17.5	-12.1	-0.7	1.6	-26.2	-3.8	23.5	-7.5	-5.5	-0.2	-8.3	-5.3	-44.3
Bulgaria	7,740	2,986	73.3	-9.4	13.6	32.6	-9.5	-16.8	-11.9	7.7	7.9	-7.9	-8.5	1.4	-61.4
Canada	12,940	6,440	-15.7	5.6	-2.4	-6.8	-4.8	0.9	8.2	-17.8	23.9	-2.1	-13.5	-19.1	-50.2
Croatia	2,136	1,892	-29.3	3.8	-4.2	21.5	-6.6	3.0	8.2	-9.3	2.9	-0.7	21.3	9.2	-11.4
Czech Republic	9,110	5,094	-9.8	14.3	-49.7	36.9	38.2	-17.8	-13.8	-8.1	-11.0	19.6	-6.0	4.2	-44.1
Denmark	2,685	2,461	11.4	5.1	-4.6	-0.5	1.3	-1.9	3.1	1.4	-1.6	0.8	-5.7	0.5	-8.3
Estonia	775	131	0.4	95.1	-2.9	-48.1	-43.9	15.7	9.9	27.6	42.5	-5.8	-9.5	-19.8	-83.1
European Community	193,698	162,637	1.0	-3.4	1.3	-1.3	-4.4	-4.0	2.2	-4.4	3.1	0.3	-2.5	1.3	-16.0
Finland	4,539	3,873	-5.6	-3.2	1.5	2.7	2.5	-2.6	-2.0	-0.6	-0.4	4.1	-4.3	-1.1	-14.7
France	30,726	24,200	-1.2	1.9	-1.7	5.5	-10.0	-8.9	1.5	-7.1	2.7	0.9	5.2	-5.4	-21.2
Germany	25,897	17,106	8.3	-2.5	-7.1	-5.7	-9.5	-8.5	-4.2	-3.1	8.6	-3.0	-5.5	11.9	-33.9
Greece	5,638	6,710	-3.9	13.3	3.6	-4.5	-8.1	6.3	-0.6	3.8	1.1	-10.7	-14.3	30.1	19.0
Hungary	4,164	2,045	-4.6	-3.8	-11.2	-18.5	-12.2	-0.1	-24.2	4.5	16.6	8.4	11.0	-5.6	-50.9
Iceland	310	320	-23.0	13.8	15.3	-7.8	6.1	-11.5	6.3	3.7	-6.8	-5.6	-5.9	-7.6	3.3
Ireland	2,225	3,299	2.9	-13.0	18.0	-1.1	8.0	13.5	-0.8	-6.6	0.2	0.0	2.2	-10.9	48.2
Italy	34,529	27,269	-9.7	-3.5	4.6	-5.0	6.6	-1.3	-0.6	-4.5	10.7	-0.7	-7.3	0.9	-21.0
Japan	145,502	129,838	1.2	1.2	0.9	-5.6	1.7	0.5	-5.0	-1.3	-1.8	0.5	-3.8	-2.8	-10.8
Latvia	2,189	312	-35.2	-2.3	-2.1	-19.3	-12.1	-33.3	-35.4	-6.2	2.1	-5.7	-18.3	16.4	-85.7
Liechtenstein	19	15	-12.3	-7.2	13.8	7.4	-12.2	-12.2	-4.8	13.0	6.0	-2.9	-4.3	4.1	-19.3
Lithuania	3,897	284	-3.9	-20.9	-8.8	5.0	-28.5	-8.2	-10.1	-37.1	-33.5	16.3	15.6	-0.9	-92.7
Luxembourg	480	241	-12.4	26.3	-24.7	36.0	-15.2	-3.9	17.8	-62.2	-0.3	107.0	-20.2	-11.8	-49.8
Monaco	NA, NO	NA, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	8,993	8,392	-2.5	4.1	-11.5	4.1	7.7	-10.4	-1.5	17.7	12.9	-5.4	1.3	13.7	-6.7
New Zealand	728	915	-3.7	6.4	-5.6	-14.7	-8.7	37.5	-2.9	4.0	-0.1	20.3	-1.7	2.0	25.7
Norway	2,893	2,704	-5.7	16.2	-8.9	5.9	-7.3	-6.1	4.7	-6.3	10.2	-11.8	-8.6	9.0	-6.5
Poland	4,188	5,136	-11.1	25.7	12.3	14.5	-8.3	-0.8	-7.6	-0.5	14.2	-1.5	1.9	-19.6	22.6
Portugal	6,458	6,146	2.4	4.8	13.0	-1.1	-4.9	-8.7	-2.4	-1.0	-8.5	2.6	-6.9	-6.0	-4.8
Romania	10,195	4,960	-33.8	33.8	-21.4	-19.9	-13.8	28.3	3.5	17.0	-18.7	13.7	-8.0	0.0	-51.4
Russian Federation	70,035	28,271	-5.1	-4.8	32.4	-26.8	15.3	20.9	-6.7	-5.6	-7.4	0.2	-0.3	-0.2	-59.6
Slovakia	4,163	1,297	-13.9	-10.8	-9.3	-7.6	-5.8	-0.4	-11.5	2.4	8.5	-7.4	-3.7	2.6	-68.9
Slovenia	1,656	847	-13.6	-15.1	-16.0	-3.2	4.3	-5.8	-10.0	-10.5	-10.0	13.6	20.9	9.7	-48.8
Spain	24,520	26,680	3.5	-15.7	13.4	-0.6	-1.2	-5.1	4.3	-0.2	3.9	0.8	-2.7	-2.5	8.8
Sweden	8,247	8,129	-5.2	-0.5	2.3	-4.8	-6.2	1.1	-0.8	1.9	0.8	-2.3	-10.1	3.5	-1.4
Switzerland	3,387	2,864	2.7	2.5	2.2	4.6	0.9	-7.4	2.5	-4.1	-0.1	-2.0	-0.7	-0.9	-15.4
Turkey															
Ukraine	39,844	1,290	*	*	*	*	-29.3	-33.8	-12.0	-15.1	-0.7	4.9	51.9	-50.0	-96.8
United Kingdom	28,069	22,352	6.1	-2.6	-7.6	-1.7	-4.8	-1.1	9.3	-15.8	-2.8	5.8	7.8	1.8	-20.4
United States	276,274	350,896	-6.6	9.4	-1.1	-8.6	1.5	2.5	10.2	-3.3	5.2	5.7	4.7	6.0	27.0

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 1.21

CO₂ emissions from manufacturing industries and construction: solid fuels - trend information

CO ₂ emissions (Gg)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	11,100	12,897	-1.9	-2.1	1.3	-4.5	3.9	-1.1	-6.0	3.0	5.0	6.4	9.1	0.0	16.2
Austria	5,016	5,666	-5.1	-1.3	14.0	-14.8	1.4	7.6	-4.7	9.2	2.8	-0.1	9.8	3.4	13.0
Belarus	942	366	-3.6	6.5	-4.4	-5.1	-6.1	2.7	10.7	-4.9	-2.4	6.2	30.3	-27.6	-61.2
Belgium	15,755	9,228	0.4	-4.1	-10.1	12.7	-4.0	3.9	-4.7	-6.5	1.4	-8.0	-13.6	2.3	-41.4
Bulgaria	9,353	4,010	-57.4	-1.8	16.1	-41.8	-8.3	-4.0	-3.4	-7.4	19.9	-9.1	-10.4	-8.8	-57.1
Canada	5,931	7,361	-17.1	2.3	0.7	-2.3	2.7	5.5	-1.8	0.3	7.0	6.5	-2.3	7.3	24.1
Croatia	1,677	515	-41.0	-9.0	-8.0	-18.3	-19.5	25.8	2.5	-1.7	34.7	82.7	-27.0	-8.5	-69.3
Czech Republic	31,522	15,175	8.9	8.1	-15.3	-10.5	-2.8	-0.3	8.6	-4.6	-5.5	-9.0	7.0	4.6	-51.9
Denmark	1,444	887	9.0	-1.1	1.6	-3.7	-13.0	-4.7	-12.3	-15.9	2.1	11.2	-6.2	0.9	-38.6
Estonia	808	288	-5.4	-3.8	-22.5	61.3	-40.5	37.7	24.9	-43.6	-20.4	12.7	37.7	5.1	-64.3
European Community	234,910	119,880	-10.3	-5.0	-0.1	-7.5	-3.7	-4.7	-3.8	-7.9	3.9	2.5	-2.4	-2.1	-49.0
Finland	4,904	3,807	-4.7	-1.3	4.8	-1.3	0.3	3.9	-11.4	-2.1	3.7	-0.8	2.2	-2.5	-22.4
France	31,284	21,563	-2.0	-2.4	3.1	-4.8	-2.8	0.8	-2.3	-10.9	2.6	7.0	1.5	-4.2	-31.1
Germany	80,146	26,044	-28.6	-6.3	2.3	-9.5	-4.7	-14.8	-8.1	-1.5	9.1	10.8	1.7	-12.3	-67.5
Greece	4,555	1,589	0.4	-2.6	-6.9	0.5	-20.5	17.1	1.5	-20.5	-12.2	-3.4	-16.3	-17.0	-65.1
Hungary	7,815	2,849	-15.6	-2.6	-22.6	14.1	0.5	9.0	-15.0	-0.1	-6.1	8.2	7.3	-4.0	-63.5
Iceland	51	62	-8.3	-23.2	59.3	28.2	1.4	5.7	21.2	-28.7	-9.3	62.7	4.0	19.2	21.9
Ireland	871	526	0.4	65.0	-23.9	-12.7	-18.5	73.0	13.9	-5.5	6.1	13.8	12.0	-21.6	-39.6
Italy	21,265	14,410	-1.5	-7.8	2.1	-6.9	0.1	-6.2	-4.2	-15.5	13.2	0.4	-8.8	9.9	-32.2
Japan	214,631	222,871	-3.6	2.7	0.2	-6.2	2.0	5.1	-1.2	3.9	0.8	1.6	-2.3	3.6	3.8
Latvia	141	126	-40.9	-8.6	-21.6	-11.2	3.2	-42.0	0	0.2	3.3	-15.4	326.5	44.5	-11.1
Liechtenstein	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Lithuania	189	538	46.1	-8.1	-17.4	7.3	-13.0	-21.0	-14.5	391.9	56.9	0.5	9.0	43.0	184.2
Luxembourg	4,226	297	-9.2	-3.3	-33.1	-68.0	68.7	-14.4	-17.4	-17.2	-7.3	10.1	-6.9	-3.5	-93.0
Monaco	NA, NO	NA, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	5,033	4,451	-12.8	-1.8	-3.2	0.3	-6.4	-1.5	6.7	-0.9	4.6	7.9	-4.8	3.6	-11.6
New Zealand	1,896	1,527	2.2	2.7	2.8	0.0	-14.8	-0.5	20.6	-4.1	31.8	-38.0	10.9	4.6	-19.5
Norway	720	580	4.4	1.6	2.8	-16.0	-26.4	3.9	-13.6	-11.6	3.5	21.3	-19.1	15.5	-19.4
Poland	30,601	21,972	-2.3	4.0	-5.9	-18.7	-15.6	-0.6	-14.5	-10.1	-5.5	-1.7	-16.1	2.3	-28.2
Portugal	2,615	613	3.5	-3.2	-6.2	-22.7	-11.2	34.1	-34.6	-38.6	-26.8	0.8	-0.6	2.6	-76.5
Romania	10,639	6,043	-30.0	5.2	2.6	-14.8	-22.8	-1.2	-2.6	13.4	41.7	-1.9	4.1	1.8	-43.2
Russian Federation	39,429	17,260	-6.6	-4.9	-37.5	1.0	19.6	49.7	16.1	-11.2	1.0	0.4	2.9	-11.5	-56.2
Slovakia	9,179	3,988	-7.4	-7.7	-7.5	-7.1	-6.6	-4.2	-1.0	-15.7	11.6	-4.0	0.5	1.5	-56.6
Slovenia	1,446	368	-10.0	-13.9	-14.0	27.4	3.0	-11.8	17.6	33.1	-14.3	1.2	2.2	0.9	-74.6
Spain	13,307	4,665	9.8	-15.6	-2.3	-23.3	-4.3	-7.6	13.4	-1.2	-10.2	-7.3	-14.1	-0.2	-64.9
Sweden	1,865	1,597	6.2	0.8	1.0	-2.9	-15.8	20.8	-0.1	-5.4	-14.4	11.3	5.2	5.2	-14.4
Switzerland	1,388	708	-22.8	-33.0	-9.5	-10.4	-1.4	45.4	1.9	-7.1	1.6	-2.7	16.6	11.8	-49.0
Turkey															
Ukraine	25,149	10,564	*	*	*	*	34.0	-5.5	-0.7	9.9	14.2	2.4	10.7	19.8	-58.0
United Kingdom	43,056	25,337	-1.2	-3.7	-0.7	-8.9	-3.0	-9.1	-2.1	-10.4	4.5	-2.2	-1.6	3.1	-41.2
United States	152,340	122,021	-2.8	-1.6	-2.3	-3.6	-3.3	4.3	0.0	-7.6	0.5	1.8	-3.4	0.1	-19.9

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 1.22

CO₂ emissions from manufacturing industries and construction: gaseous fuels - trend information

CO ₂ emissions (Gg)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	13,084	17,877	1.0	-2.0	6.3	2.1	3.3	-0.2	1.8	3.8	0.4	1.5	4.5	-1.9	36.6
Austria	4,265	6,285	2.3	5.4	4.2	-3.5	1.8	4.5	-1.2	3.4	1.5	-3.8	4.3	-2.9	47.3
Belarus	2,216	4,964	5.8	4.5	4.3	4.1	4.0	3.8	-5.5	9.3	13.9	9.1	5.0	4.8	124.0
Belgium	7,784	9,451	-10.4	6.9	-2.6	7.7	3.8	1.7	-4.7	-0.9	-4.3	-0.8	2.6	-3.4	21.4
Bulgaria	7,661	3,268	-7.2	-0.9	-26.3	-10.7	-25.9	16.6	-14.7	-15.8	7.6	2.0	14.4	6.0	-57.3
Canada	43,469	49,680	-1.8	4.4	0.8	-5.8	1.0	5.7	-10.0	7.9	4.3	1.1	-3.0	2.0	14.3
Croatia	1,993	1,345	-24.6	3.0	8.8	6.6	-11.5	1.1	1.2	-4.3	0.7	3.7	0.2	-1.1	-32.5
Czech Republic	5,984	7,438	10.0	19.8	-5.9	-1.4	-3.6	-5.5	11.6	-4.4	-2.0	1.8	-0.1	2.8	24.3
Denmark	1,294	2,211	6.5	3.8	7.1	4.3	9.3	-4.9	5.0	-7.0	-0.3	-3.4	-0.9	0.1	70.9
Estonia	176	120	1.6	8.3	-8.0	22.2	-40.6	21.1	28.6	-26.7	67.2	-9.3	12.5	16.4	-31.7
European Community	175,211	240,772	0.6	3.2	3.1	1.8	4.0	7.5	-0.4	-0.2	1.9	-1.0	0.8	-1.3	37.4
Finland	2,191	2,135	2.2	-5.2	-3.3	-2.8	-0.4	4.3	4.6	-3.6	-2.0	3.4	-9.1	5.4	-2.5
France	23,963	32,041	4.9	5.2	3.1	3.6	-3.4	13.0	4.5	2.9	2.0	-8.4	-0.8	-0.7	33.7
Germany	45,540	54,370	0.0	-1.6	-0.3	0.9	2.9	3.8	-0.7	-1.5	-1.3	1.7	2.8	3.4	19.4
Greece	177	1,251	-5.0	37.1	430.4	314.3	11.8	14.7	1.1	8.7	12.1	10.1	9.9	3.7	607.0
Hungary	8,828	3,653	-19.3	4.7	-3.7	-11.5	-15.0	3.0	24.1	-7.2	9.9	-18.1	19.2	-26.2	-58.6
Iceland	0	0	-4.3	0	4.8	-5.2	-8.5	9.9	-15.2	-3.6	-3.7	19.9	3.1	14.2	-20.6
Ireland	873	1,863	5.3	2.1	4.5	9.7	2.1	19.1	-4.2	-0.4	-1.9	25.7	-4.7	27.4	113.4
Italy	32,087	39,011	3.6	0.8	2.9	-7.7	4.3	7.1	-4.4	-1.2	1.4	-0.3	-2.7	-2.8	21.6
Japan	7,549	21,112	13.0	8.6	1.8	-11.5	5.8	5.3	-1.7	6.3	8.3	9.7	18.6	13.2	179.7
Latvia	1,442	739	-8.3	-1.1	-3.4	2.5	-6.5	7.7	17.7	10.8	-0.8	2.7	3.5	-2.3	-48.7
Liechtenstein	16	22	7.4	6.0	-2.4	5.8	7.9	-6.3	4.3	-2.8	8.4	-2.1	-2.4	3.0	34.7
Lithuania	2,111	743	5.7	-3.1	8.1	8.6	-26.8	12.5	7.5	9.7	4.3	9.4	5.4	7.7	-64.8
Luxembourg	597	1,127	-9.7	-4.8	15.1	2.1	6.9	5.8	-5.6	10.8	-4.9	10.1	-8.5	19.9	88.9
Monaco	NA, NO	NA, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	19,020	14,644	1.6	2.8	-3.5	-0.1	-2.5	1.2	-5.0	-1.6	-2.9	-1.0	0.9	-5.6	-23.0
New Zealand	1,915	2,572	19.8	15.1	12.1	5.0	-2.9	-1.1	-3.4	10.8	-18.9	-9.9	-14.5	7.2	34.3
Norway	NO	614	*	38.2	375.5	17.7	25.1	-10.6	3.2	-4.1	1.2	19.1	15.9	5.3	*
Poland	7,747	6,616	-25.2	15.0	8.0	-5.0	-8.7	10.5	-0.6	-0.6	7.4	12.3	3.0	1.7	-14.6
Portugal	NO	2,946	*	*	*	415.2	108.7	63.8	27.3	16.9	18.4	-2.9	-4.2	-0.9	*
Romania	16,591	8,300	-33.3	-5.6	-19.9	-34.0	8.5	3.3	7.5	5.1	4.8	-1.5	-7.7	-15.2	-50.0
Russian Federation	97,745	73,824	-0.5	6.6	-4.1	-13.7	4.7	11.4	6.2	1.2	2.7	3.8	5.6	4.9	-24.5
Slovakia	10,948	8,039	-5.7	-5.3	-5.1	-4.7	-4.3	4.4	-1.1	1.3	10.7	-8.5	-2.0	15.2	-26.6
Slovenia	1,238	1,304	12.7	4.2	-4.1	2.2	-2.6	4.7	-2.0	0.5	2.6	2.1	5.0	1.3	5.4
Spain	8,439	38,131	1.9	5.8	17.3	12.8	15.1	18.2	9.2	5.3	12.9	6.1	6.9	-1.0	351.9
Sweden	687	866	-2.6	15.2	3.2	-2.0	0.4	-9.2	13.4	1.1	-3.8	7.2	-8.0	2.9	26.0
Switzerland	1,063	2,095	10.6	2.8	3.6	2.5	4.6	6.6	1.3	-2.6	2.8	4.2	1.8	1.7	97.0
Turkey															
Ukraine	74,454	36,158	*	*	*	*	-7.1	2.8	-3.2	-2.9	11.3	3.3	0.6	-1.8	-51.4
United Kingdom	28,296	34,441	-4.2	10.5	6.4	4.9	6.9	6.5	-4.1	-4.7	1.1	-5.5	-1.8	-6.8	21.7
United States	416,323	389,270	1.4	3.4	0.9	-3.0	-4.8	0.6	-7.6	5.2	-3.2	-4.0	-5.1	-1.3	-6.5

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 1.23**Contribution of fuels to CO₂ emissions from manufacturing industries and construction (%)**

	Liquid Fuels		Solid Fuels		Gaseous Fuels		Other Fuels	
	Base year ^a	2006	Base year ^a	2006	Base year ^a	2006	Base year ^a	2006
Australia	32.9	34.4	30.8	27.5	36.3	38.1	-	-
Austria	29.0	19.0	37.3	35.8	31.7	39.7	2.0	5.4
Belarus	54.6	36.9	13.1	4.3	30.7	58.1	1.6	0.6
Belgium	22.7	15.2	47.6	33.5	23.5	34.3	6.2	16.9
Bulgaria	31.3	29.1	37.8	39.1	30.9	31.8	-	-
Canada	20.8	10.1	9.5	11.6	69.7	78.3	-	-
Croatia	36.8	50.4	28.9	13.7	34.3	35.8	-	-
Czech Republic	19.5	18.4	67.6	54.8	12.8	26.8	-	-
Denmark	49.5	43.7	26.6	15.8	23.9	39.3	0.0	1.2
Estonia	44.1	24.3	45.9	53.4	10.0	22.3	-	-
European Community	31.7	30.3	38.4	22.3	28.6	44.8	1.3	2.6
Finland	34.3	33.5	37.1	33.0	16.6	18.5	12.1	15.0
France	35.7	30.8	36.4	27.5	27.9	40.8	0.0	0.8
Germany	16.8	16.9	51.9	25.7	29.5	53.6	1.9	3.8
Greece	54.4	70.3	43.9	16.6	1.7	13.1	-	-
Hungary	20.0	23.6	37.5	32.9	42.3	42.2	0.2	1.2
Iceland	85.9	83.7	14.1	16.2	0.0	0.0	-	-
Ireland	56.1	58.0	21.9	9.3	22.0	32.8	-	-
Italy	38.8	33.2	23.9	17.6	36.1	47.5	1.2	1.7
Japan	39.6	34.7	58.4	59.6	2.1	5.6	-	-
Latvia	58.0	26.3	3.7	10.6	38.2	62.2	-	0.9
Liechtenstein	53.2	40.5	-	-	46.8	59.5	-	-
Lithuania	62.9	18.2	3.1	34.3	34.1	47.5	-	-
Luxembourg	9.1	14.5	79.7	17.8	11.3	67.7	-	-
Monaco	-	-	-	-	-	-	-	-
Netherlands	27.2	30.5	15.2	16.2	57.6	53.3	-	-
New Zealand	16.0	18.2	41.8	30.5	42.2	51.3	-	-
Norway	80.1	69.0	19.9	14.8	-	15.7	-	0.5
Poland	9.8	15.2	71.9	65.2	18.2	19.6	-	-
Portugal	70.5	62.6	28.6	6.2	-	30.0	0.9	1.1
Romania	27.2	25.7	28.4	31.3	44.3	43.0	-	-
Russian Federation	32.4	23.4	18.2	14.3	45.2	61.0	4.2	1.3
Slovakia	17.1	9.7	37.8	29.9	45.1	60.3	-	-
Slovenia	38.0	33.2	33.2	14.4	28.4	51.1	0.3	1.2
Spain	53.0	38.2	28.8	6.7	18.2	54.6	-	0.5
Sweden	75.4	75.7	17.0	14.9	6.3	8.1	1.3	1.4
Switzerland	56.5	47.9	23.1	11.9	17.7	35.1	2.6	5.1
Turkey								
Ukraine	27.8	2.6	17.5	21.5	52.0	73.6	2.7	2.2
United Kingdom	28.2	27.1	43.3	30.8	28.5	41.8	0.0	0.2
United States	32.7	40.7	18.0	14.2	49.3	45.1	-	-

^a In accordance with the UNFCCC reporting guidelines on annual inventories of Annex I Parties the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 1.24

CO₂ emissions from other sectors (commercial/institutional, residential, agriculture/forestry/fisheries): all fuels - trend information

CO ₂ emissions (Gg)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	12,911	18,523	0.7	2.9	2.0	1.7	1.5	3.4	5.2	2.3	10.8	-4.7	0.9	-0.4	43.5
Austria	14,396	13,646	6.7	8.5	-9.1	-0.6	2.0	-10.2	10.9	-2.8	9.3	-10.4	2.6	-4.4	-5.2
Belarus	14,227	8,238	-1.6	2.6	-1.0	-0.6	-5.3	-3.9	-9.1	-7.7	-2.0	-0.6	4.7	3.9	-42.1
Belgium	27,215	28,490	10.2	17.2	-11.9	0.9	-3.2	-4.6	7.7	-5.8	7.4	-2.5	-1.7	-6.4	4.7
Bulgaria	8,940	1,897	-24.1	23.5	-17.3	11.6	-16.6	-23.9	-13.6	26.6	6.3	-20.3	-3.3	11.6	-78.8
Canada	68,795	72,383	-0.8	7.4	-3.6	-10.6	5.0	8.7	-4.4	4.9	5.7	-2.7	-2.8	-6.9	5.2
Croatia	3,644	3,652	-14.3	12.7	1.4	-2.3	13.0	-4.6	6.4	2.4	6.3	-2.3	0.8	-6.0	0.2
Czech Republic	32,347	11,611	-21.8	-0.3	-1.8	-20.5	-1.0	-3.4	9.5	-6.5	-3.6	-1.3	-10.0	0.1	-64.1
Denmark	8,954	6,779	2.8	6.4	-8.9	-3.0	-2.0	-7.2	2.7	-3.6	0.4	-2.9	-1.4	-3.7	-24.3
Estonia	1,519	336	-5.7	9.0	-19.7	-10.1	3.6	-1.0	-11.3	52.0	-11.5	-5.0	0.2	-14.9	-77.9
European Community	638,907	626,650	6.2	10.0	-6.6	0.1	-2.4	-2.5	7.1	-5.3	3.4	-0.1	-1.4	-2.9	-1.9
Finland	7,040	5,036	-2.2	2.0	0.2	1.6	-1.5	-6.4	3.8	-1.1	-2.9	-1.2	-3.8	-2.7	-28.5
France	93,813	100,546	10.5	7.9	-5.7	3.8	-1.6	-3.4	9.7	-8.8	3.7	3.9	-0.2	-3.6	7.2
Germany	204,341	169,638	0.6	13.1	-6.7	-4.2	-8.3	-3.8	12.3	-6.9	1.0	-2.8	-4.1	1.4	-17.0
Greece	8,126	14,020	3.6	23.6	2.7	3.3	-1.5	5.8	7.7	4.6	15.3	-5.6	4.7	-0.7	72.5
Hungary	24,334	16,357	3.0	3.3	-4.0	-13.6	5.7	-2.5	8.1	2.3	7.7	3.3	0.3	-6.8	-32.8
Iceland	692	555	2.5	8.2	-3.3	-5.0	0.0	-6.0	-11.4	9.8	-5.7	-4.0	-2.3	-13.0	-19.8
Ireland	10,065	10,563	1.3	0.4	-2.7	5.1	-1.2	1.8	4.0	-1.3	3.0	0.3	4.7	-1.7	4.9
Italy	76,508	86,091	7.3	2.4	-3.4	4.1	5.9	-5.0	3.5	-3.2	8.3	2.0	5.5	-6.3	12.5
Japan	161,641	177,235	-0.8	-1.1	-2.4	2.3	4.7	0.6	1.2	3.6	-3.5	-0.8	0.6	-5.8	9.6
Latvia	5,630	1,375	2.0	1.3	-15.7	-13.6	-1.8	-7.7	14.8	-2.7	7.6	4.4	-1.7	5.7	-75.6
Liechtenstein	88	115	-6.1	0.5	7.8	8.8	-5.8	-7.1	1.9	9.1	6.0	2.4	0.7	3.1	30.4
Lithuania	6,974	1,361	5.7	-14.0	-14.6	-15.5	-12.3	-15.1	-4.8	5.8	3.3	0.7	6.6	11.2	-80.5
Luxembourg	1,290	1,312	25.5	10.2	-2.1	6.2	-3.9	-16.1	12.4	-2.5	-2.1	-0.7	-3.0	-0.8	1.7
Monaco	45	34	-7.3	5.0	-6.2	4.4	-0.6	-3.7	-4.4	7.8	4.5	-5.3	0.2	-6.8	-23.7
Netherlands	37,868	38,076	12.4	12.7	-14.6	-2.2	-5.7	1.8	6.1	-2.9	3.0	-0.7	-6.2	1.1	0.6
New Zealand	2,815	3,150	-6.3	-4.5	-2.5	-0.9	5.6	10.5	1.1	-0.3	-2.2	1.8	1.4	-2.3	11.9
Norway	4,130	3,242	-10.2	20.9	-10.5	-0.4	2.2	-15.5	10.1	5.3	7.2	-10.6	-9.2	-0.5	-21.5
Poland	107,711	51,735	20.8	-4.2	-0.9	-17.9	5.1	-14.3	7.3	-2.5	-0.1	-1.9	7.0	3.8	-52.0
Portugal	4,025	5,443	5.5	7.7	-0.1	3.6	7.8	3.9	5.5	3.4	3.1	3.9	-3.5	-17.4	35.2
Romania	10,197	12,444	-13.9	-3.3	19.3	-0.8	-18.7	3.3	-5.6	5.7	29.4	4.8	-4.9	16.6	22.0
Russian Federation	256,627	137,332	-4.6	-10.2	-3.5	-5.4	9.3	5.8	4.0	-13.7	1.5	-2.9	-15.5	1.5	-46.5
Slovakia	10,908	4,506	-11.5	-5.3	-5.1	5.8	-0.9	-3.6	6.4	-11.3	-2.3	-10.2	-0.4	-8.5	-58.7
Slovenia	2,139	2,203	19.1	27.5	2.5	1.0	7.2	-10.1	3.0	-4.8	-3.0	-2.2	-9.4	-9.4	3.0
Spain	25,280	36,910	8.9	3.9	0.7	2.6	4.8	3.7	3.0	2.8	5.9	3.4	2.1	-5.7	46.0
Sweden	10,721	4,301	-2.6	0.4	-7.7	-0.4	-5.5	-1.8	-9.7	-6.7	-4.7	-11.4	-12.1	-15.6	-59.9
Switzerland	17,607	17,129	7.6	4.1	-5.7	3.0	-1.8	-7.1	4.9	-3.6	5.6	-0.5	1.5	-4.8	-2.7
Turkey															
Ukraine	91,409	46,444	*	*	*	*	-7.6	-12.9	-1.8	6.1	4.3	-0.2	7.3	2.0	-49.2
United Kingdom	109,397	105,937	10.4	11.8	-7.4	1.1	-0.5	-0.3	2.5	-6.2	1.0	1.8	-3.9	-4.1	-3.2
United States	556,253	536,662	2.5	6.9	-3.6	-8.0	3.7	4.9	-2.4	-0.5	6.2	-3.3	-3.1	-7.5	-3.5

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 1.25

CO₂ emissions from other sectors (commercial/institutional, residential, agriculture/forestry/fisheries): liquid fuels - trend information

CO ₂ emissions (Gg)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	5,921	9,033	0.8	0.4	3.0	1.6	2.9	3.6	12.8	2.5	17.3	-8.2	2.8	-2.5	52.6
Austria	8,818	8,718	2.7	14.5	-8.3	-0.1	4.5	-12.3	9.2	-0.9	9.3	-13.6	2.6	0.6	-1.1
Belarus	5,209	3,980	13.4	8.4	5.3	5.2	-5.4	-8.8	-11.9	-13.0	-1.8	4.5	4.5	5.1	-23.6
Belgium	17,376	15,586	6.8	17.0	-11.5	0.3	-4.3	-7.9	6.7	-6.3	7.8	-4.7	-1.6	-11.0	-10.3
Bulgaria	3,778	396	-55.7	-26.2	7.4	72.8	42.3	-14.8	40.4	-27.9	-21.0	-20.3	-1.6	25.0	-89.5
Canada	19,199	14,668	-8.8	9.0	-4.6	-11.8	2.3	6.6	-1.4	2.3	18.5	-4.3	-6.0	-13.7	-23.6
Croatia	2,401	2,027	-20.8	11.1	1.9	-6.0	15.3	1.3	1.6	5.1	2.0	-2.8	-5.0	-6.9	-15.6
Czech Republic	2,618	261	-23.0	27.9	-17.8	-50.7	-18.0	7.3	15.2	-35.3	-16.3	-7.6	-9.6	-7.5	-90.0
Denmark	7,128	3,970	-1.0	3.1	-9.9	-4.8	-1.2	-9.5	1.5	-4.1	-3.6	-4.9	-1.5	-6.2	-44.3
Estonia	656	120	-17.8	26.4	-12.8	38.7	5.4	22.7	-6.5	86.6	-16.4	-5.4	-8.2	-23.6	-81.7
European Community	300,477	261,610	7.7	7.5	-5.1	-1.3	-4.7	-5.0	8.3	-7.3	1.1	-4.0	-1.2	-2.5	-12.9
Finland	6,768	4,688	-1.8	1.8	0.1	1.7	-1.7	-6.5	3.6	-1.4	-3.2	-1.0	-3.8	-3.1	-30.7
France	59,285	52,215	7.2	4.6	-5.4	1.4	-1.5	-7.4	9.5	-9.4	2.8	0.6	-1.5	-3.7	-11.9
Germany	91,461	80,747	17.4	11.2	-4.9	-4.6	-13.6	-5.7	15.1	-11.5	-2.6	-8.7	-1.4	5.3	-11.7
Greece	8,006	13,472	3.2	23.9	2.6	3.5	-1.3	5.8	7.8	5.0	15.1	-6.2	3.5	-2.0	68.3
Hungary	7,114	1,352	-18.3	-18.0	-7.5	-14.2	-5.0	-3.8	-3.1	-2.9	-22.1	9.8	-16.4	5.2	-81.0
Iceland	692	555	2.5	8.2	-3.3	-5.0	0.0	-6.0	-11.4	9.8	-5.7	-4.0	-2.3	-13.0	-19.8
Ireland	3,827	6,062	3.7	-2.6	4.8	2.5	11.3	-1.0	6.5	-0.3	2.7	-0.8	5.5	-3.1	58.4
Italy	38,602	23,863	-2.1	-1.1	-5.1	0.5	6.5	-6.9	2.7	-4.4	-0.6	-4.7	-0.4	-8.2	-38.2
Japan	137,095	121,422	-1.8	-2.3	-4.2	1.4	4.7	-0.8	0.9	2.7	-5.8	-3.0	-1.2	-12.1	-11.4
Latvia	2,156	624	16.2	-0.5	-12.4	-11.7	6.6	-7.8	7.5	-6.3	13.1	1.6	-3.1	10.6	-71.1
Liechtenstein	77	62	-12.3	-6.9	13.4	7.1	-11.9	-12.0	-4.8	12.7	6.0	-2.8	-4.5	4.3	-19.2
Lithuania	2,759	299	-9.4	-18.8	-13.6	-8.9	-19.5	-5.3	-8.5	-4.8	-5.2	-7.2	2.2	-9.2	-89.2
Luxembourg	779	704	22.6	2.7	1.6	8.4	-2.7	-12.8	10.5	-2.1	-10.0	3.2	-5.4	-7.2	-9.5
Monaco	36	24	-13.3	7.3	-7.0	4.5	-2.5	-8.5	-5.3	9.4	7.0	-7.9	-0.8	-8.3	-34.8
Netherlands	4,020	3,133	-5.6	-4.4	-4.4	0.0	-2.9	-2.2	6.6	-8.6	-1.5	-2.0	-3.2	0.9	-22.1
New Zealand	1,593	1,947	-8.5	-1.3	1.0	3.7	3.6	-6.0	-3.1	2.7	10.7	-6.5	21.9	-4.0	22.3
Norway	4,090	3,156	-10.3	21.1	-10.5	-0.4	2.2	-15.5	9.8	5.1	7.4	-11.2	-10.3	-0.8	-22.8
Poland	5,090	10,192	-4.8	5.7	27.9	-7.0	7.4	18.5	0.9	-0.7	10.4	-0.7	-4.3	-16.8	100.2
Portugal	4,025	4,643	5.5	7.7	-0.2	2.7	5.8	1.5	2.8	1.6	1.1	4.1	-4.5	-20.4	15.3
Romania	4,772	2,536	-24.4	-3.6	36.9	-7.5	-39.7	13.1	-22.6	17.9	10.8	37.4	-19.7	-6.8	-46.9
Russian Federation	77,913	30,434	-4.9	-31.3	1.7	-20.7	30.3	40.2	1.0	-23.7	-3.7	19.4	-19.8	-6.6	-60.9
Slovakia	387	40	-17.0	-22.0	-22.7	-23.0	-22.3	-28.6	1.1	-7.9	-18.8	12.2	24.5	9.1	-89.6
Slovenia	814	1,952	14.4	32.3	3.4	1.0	5.3	-9.7	2.1	-3.9	-4.0	-3.4	-7.6	-8.7	139.9
Spain	21,679	25,836	5.4	2.3	-0.9	0.5	3.6	3.5	0.5	0.0	4.3	1.6	-0.7	-6.5	19.2
Sweden	10,359	4,087	-2.6	0.3	-7.8	-0.7	-5.9	-1.6	-10.3	-7.3	-4.4	-9.4	-13.9	-15.7	-60.5
Switzerland	15,161	13,414	6.6	3.1	-5.2	2.9	-2.9	-8.1	4.8	-4.1	5.2	-1.5	1.0	-5.0	-11.5
Turkey															
Ukraine	8,028	744	*	*	*	*	-21.3	-18.8	0.5	3.3	-6.7	-4.3	11.2	-10.8	-90.7
United Kingdom	18,477	14,025	6.4	7.7	-8.3	-2.5	-8.7	-5.4	6.7	-13.6	-3.7	2.7	-1.9	-0.9	-24.1
United States	158,639	138,281	0.3	8.2	-8.2	-7.1	6.5	7.4	2.3	-8.8	13.3	-1.7	-5.8	-4.3	-12.8

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 1.26

CO₂ emissions from other sectors (commercial/institutional, residential, agriculture/forestry/fisheries): solid fuels - trend information

CO ₂ emissions (Gg)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	566	349	-7.9	-7.5	-8.2	-24.5	-12.1	41.5	36.1	-4.7	2.4	2.5	0	-9.2	-38.4
Austria	2,654	561	10.6	-5.1	-21.9	-12.9	-5.4	-10.8	-2.7	-17.5	-9.0	-19.2	1.9	-2.0	-78.9
Belarus	6,652	1,424	-13.9	-3.7	-11.8	-12.0	-10.6	2.9	-21.8	-10.4	-5.7	-12.1	6.1	3.0	-78.6
Belgium	1,976	556	14.6	13.7	-14.6	-16.5	-9.3	-14.7	4.3	-16.5	-6.3	6.7	-4.8	-7.2	-71.9
Bulgaria	4,953	1,221	-5.5	29.0	-18.0	4.7	-26.8	-27.9	-36.1	74.0	14.1	-23.0	-8.5	2.6	-75.3
Canada	191	129	-0.7	-0.3	-7.0	-12.2	-3.8	-2.0	-2.5	-36.3	-0.5	11.6	26.8	-0.6	-32.8
Croatia	514	33	-47.8	1.9	-7.3	45.6	-12.1	-10.6	-45.0	44.3	31.5	-44.0	22.2	-15.8	-93.5
Czech Republic	25,140	2,818	-26.1	-8.5	-10.7	-37.5	-5.1	-9.0	12.1	-11.8	-16.0	1.6	-29.6	4.9	-88.8
Denmark	320	191	26.5	-29.5	-13.0	-24.0	-24.1	34.2	14.0	-30.3	38.3	18.8	22.4	11.7	-40.3
Estonia	722	76	-0.4	18.7	-27.1	-36.5	8.5	-18.1	-25.2	16.0	-27.1	39.7	-7.4	-25.8	-89.5
European Community	106,284	12,969	-19.7	-1.6	-16.9	-18.8	-10.6	-9.8	-2.6	-16.0	-14.0	-8.6	0.1	-5.6	-87.8
Finland	46	11	-25.4	-11.5	-18.2	10.3	-10.1	0.9	-22.4	18.6	-3.5	0	-31.8	-4.8	-75.5
France	4,401	382	0.3	-0.7	-39.9	-26.5	-24.6	-11.6	-10.9	-38.7	-4.9	0	-10.4	11.7	-91.3
Germany	67,075	5,208	-34.6	-7.1	-21.0	-35.8	-6.0	0.3	3.2	-8.7	-21.2	-10.1	25.3	-7.7	-92.2
Greece	102	21	33.8	8.2	4.0	-13.2	-25.5	11.0	-6.3	-74.5	-39.6	65.5	22.0	-27.5	-79.7
Hungary	12,281	987	6.0	3.1	-17.6	-56.6	7.0	-25.6	41.5	7.6	1.1	-28.7	1.6	1.4	-92.0
Iceland	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Ireland	5,745	2,197	-2.7	-0.1	-13.1	5.1	-25.7	-0.7	-5.4	-1.8	-1.9	-2.3	4.2	-3.0	-61.8
Italy	920	32	6.3	-3.6	-41.2	-44.5	-2.9	-3.1	10.8	-78.0	0.0	-52.2	-9.3	1.4	-96.5
Japan	4,744	2,433	-8.3	5.7	-2.6	-2.4	-3.5	6.3	-1.2	-0.1	-1.8	-3.0	-3.7	-3.2	-48.7
Latvia	2,175	185	-11.7	8.4	-17.2	-28.0	-20.0	-23.6	36.2	-20.4	-7.4	-2.9	-3.8	-2.7	-91.5
Liechtenstein	0	0	-5.4	-26.9	5.3	5.0	-47.6	118.2	-45.8	-7.7	8.3	-23.1	-10.0	-33.3	-83.8
Lithuania	2,792	511	11.2	-7.6	-18.8	-16.6	-18.9	-28.2	-12.5	22.8	9.5	-4.1	15.7	32.3	-81.7
Luxembourg	92	5	98.5	16.8	-21.8	-35.8	-18.1	-5.4	6.7	-69.7	-1.6	1.5	-9.2	-21.9	-94.3
Monaco	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	189	41	-21.2	-1.0	-3.6	5.8	2.4	0.0	12.3	-8.4	2.2	9.9	-64.3	-13.9	-78.2
New Zealand	778	581	-7.4	-14.5	-15.3	-15.5	-8.8	-4.6	28.7	-4.1	-10.1	44.3	-31.4	18.5	-25.3
Norway	36	3	-6.2	-22.1	9.8	-3.7	-16.6	-7.0	-22.2	47.7	-29.3	-13.4	-47.1	-24.9	-91.6
Poland	96,209	30,206	25.8	-5.3	-7.6	-24.2	5.6	-26.8	9.1	-5.3	-6.6	-3.6	14.5	16.0	-68.6
Portugal	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Romania	2,219	56	-30.4	97.8	-12.5	-84.4	149.3	-9.3	-69.2	239.3	-51.5	76.6	-63.9	1.6	-97.5
Russian Federation	120,680	12,757	-6.6	-7.2	-4.5	-6.1	18.8	2.9	5.1	-37.7	-3.2	-6.5	-39.5	9.9	-89.4
Slovakia	7,680	643	-15.9	-23.8	-23.5	3.9	-15.7	13.6	-14.3	-42.0	-8.3	-22.0	-9.6	8.8	-91.6
Slovenia	1,291	NO	27.3	-16.9	-41.6	-18.3	4.7	-40.3	-23.0	-16.3	-1.3	-40.1	-64.1	*	*
Spain	2,282	543	20.4	-4.8	-1.5	-6.8	-28.0	-39.8	-29.7	14.8	21.7	1.6	1.3	-1.6	-76.2
Sweden	157	NO	-33.3	-59.0	214.2	-50.0	-36.3	0	*	*	*	*	*	*	*
Switzerland	57	35	15.4	-43.5	-15.4	-36.4	0	-7.1	0	0	0	207.7	0	0	-38.5
Turkey															
Ukraine	60,906	6,283	*	*	*	*	-0.9	-22.3	-7.6	14.8	-7.4	-2.8	-13.1	-9.8	-89.7
United Kingdom	20,323	3,219	5.9	4.4	-8.9	-9.3	-6.3	-16.1	-5.4	-22.2	-16.8	-12.6	-24.2	-7.3	-84.2
United States	14,709	6,770	-8.8	1.7	6.4	-21.9	2.2	-16.5	2.9	0.6	-4.5	20.7	-8.7	-32.4	-54.0

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 1.27

CO₂ emissions from other sectors (commercial/institutional, residential, agriculture/forestry/fisheries): gaseous fuels - trend information

CO ₂ emissions (Gg)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	6,423	9,141	1.4	5.4	1.5	2.7	0.7	2.4	-2.1	2.4	4.9	-1.3	-0.9	2.2	42.3
Austria	2,574	4,291	20.3	-0.7	-5.3	4.8	-1.0	-5.2	20.5	-3.6	12.6	-2.9	2.7	-13.7	66.7
Belarus	2,351	2,834	0.3	0.3	0.3	0.3	0.3	0.3	7.9	2.2	-0.1	-0.9	4.3	2.7	20.5
Belgium	7,812	12,256	17.0	18.1	-12.3	4.1	-0.9	1.8	9.4	-4.3	7.8	0.1	-1.7	0.1	56.9
Bulgaria	209	279	-86.2	91.6	-63.3	81.8	4.0	16.0	30.0	6.5	36.2	20.9	42.9	44.8	33.9
Canada	49,405	57,586	2.3	7.0	-3.3	-10.3	5.8	9.3	-5.2	5.7	2.4	-2.3	-1.9	-5.0	16.6
Croatia	728	1,592	30.8	16.0	1.0	1.9	11.1	-13.5	17.4	-2.7	13.0	0.2	9.2	-4.6	118.6
Czech Republic	4,589	8,532	2.5	7.8	13.8	2.6	2.9	-0.7	7.7	-1.4	3.4	-2.4	-1.5	-1.2	85.9
Denmark	1,486	2,589	15.8	18.9	-6.5	2.6	-3.2	-3.8	4.9	-1.7	6.4	-0.5	-1.7	-1.7	74.2
Estonia	141	140	23.6	-22.9	-0.1	18.7	-4.6	1.4	0.1	45.6	7.4	-27.3	20.3	3.4	-0.1
European Community	230,738	348,520	16.1	14.2	-6.9	3.5	0.5	0.2	6.7	-2.8	6.2	3.2	-1.7	-3.2	51.0
Finland	104	218	15.3	9.1	3.3	-2.3	5.3	-3.9	9.8	4.5	-0.2	-6.0	1.3	1.5	110.1
France	30,057	47,862	18.4	14.0	-4.1	8.7	-1.0	2.3	10.4	-7.6	5.0	7.8	1.3	-3.5	59.2
Germany	45,804	83,683	18.4	20.1	-6.7	1.0	-1.5	-2.0	10.0	-1.4	6.5	3.1	-7.8	-1.5	82.7
Greece	17	527	8.9	0	4.5	2.9	29.8	19.0	29.4	53.5	73.5	68.6	86.3	55.0	3,005.9
Hungary	4,939	14,018	21.5	10.2	0.7	-3.6	7.7	0.1	7.4	2.5	12.6	5.7	1.9	-8.3	183.8
Iceland	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Ireland	493	2,304	29.6	17.0	-0.2	16.0	12.5	16.1	9.3	-3.9	9.8	6.2	2.8	3.7	366.9
Italy	36,418	59,319	17.3	4.9	-1.7	6.9	5.5	-4.5	3.5	-2.0	12.9	4.2	8.1	-5.9	62.9
Japan	19,802	53,380	7.6	5.2	6.8	6.7	5.5	6.2	2.4	7.7	5.3	6.9	6.4	12.5	169.6
Latvia	1,299	566	1.5	-4.9	-19.2	4.3	3.5	5.3	12.9	14.7	8.6	10.5	0.5	3.4	-56.5
Liechtenstein	11	53	36.3	19.8	-3.5	12.8	8.0	1.7	12.5	4.2	6.1	10.0	7.3	1.7	373.3
Lithuania	1,423	552	24.3	-15.4	-10.3	-21.6	5.4	-12.7	5.3	5.0	6.1	10.5	3.2	8.5	-61.2
Luxembourg	419	602	14.9	22.0	-5.5	6.2	-5.0	-21.8	16.0	-0.1	10.8	-5.9	0.5	8.2	43.6
Monaco	9	11	16.8	-1.5	-3.9	4.1	5.3	9.5	-2.1	4.3	-1.5	1.5	2.7	-3.2	20.7
Netherlands	33,659	34,902	14.8	14.5	-15.5	-2.4	-6.0	2.2	6.1	-2.3	3.4	-0.6	-6.3	1.1	3.7
New Zealand	443	621	3.3	1.6	4.7	1.9	25.7	62.7	-3.8	-2.7	-18.0	-5.6	-12.1	-12.0	40.0
Norway	NO	83	*	32.1	37.4	323.1	106.4	6.2	439.8	9.2	-3.1	115.7	89.4	10.9	*
Poland	6,412	11,337	6.2	-6.2	7.8	-1.7	1.3	-4.3	10.7	2.5	3.6	0.6	4.7	-1.6	76.8
Portugal	NO	801	*	*	*	1,784.3	221.3	86.4	56.7	26.4	22.9	2.0	4.6	5.8	*
Romania	3,206	9,852	16.8	-8.3	12.8	11.1	-8.8	-0.1	3.6	-0.3	38.9	-5.8	2.9	24.7	207.3
Russian Federation	57,045	94,033	-0.2	-2.6	-4.7	-0.7	1.9	-4.0	5.0	-2.0	4.2	-8.8	-9.1	3.4	64.8
Slovakia	2,842	3,823	1.1	13.5	7.5	7.3	6.0	-9.5	15.7	-1.2	-1.1	-8.2	0.9	-11.0	34.5
Slovenia	34	251	26.6	25.8	37.5	10.4	29.3	-5.1	15.7	-10.3	4.8	10.7	-18.6	-12.5	639.7
Spain	1,319	10,531	47.6	20.5	12.5	17.9	19.9	11.6	15.9	12.4	10.2	8.9	9.9	-3.9	698.6
Sweden	205	214	20.4	5.6	-5.9	9.0	5.0	-7.7	5.6	4.5	-10.0	-48.7	46.3	-14.5	4.4
Switzerland	2,389	3,680	14.0	9.4	-7.8	3.6	3.5	-3.1	5.2	-1.3	7.2	2.8	3.2	-4.0	54.0
Turkey															
Ukraine	22,442	39,192	*	*	*	*	-9.2	-9.8	0.0	3.6	8.4	0.5	11.6	4.4	74.6
United Kingdom	70,372	88,422	12.8	14.0	-7.0	3.4	1.9	2.4	2.5	-3.6	3.0	2.5	-3.3	-4.5	25.6
United States	382,905	391,611	3.8	6.7	-2.4	-7.9	2.8	4.6	-4.0	2.5	4.2	-4.3	-2.0	-8.0	2.3

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 1.28**Contribution of fuels to CO₂ emissions from other sectors (%)**

	Liquid Fuels		Solid Fuels		Gaseous Fuels		Other Fuels	
	Base year ^a	2006	Base year ^a	2006	Base year ^a	2006	Base year ^a	2006
Australia	45.9	48.8	4.4	1.9	49.8	49.3	-	-
Austria	61.3	63.9	18.4	4.1	17.9	31.4	2.4	0.6
Belarus	36.6	48.3	46.8	17.3	16.5	34.4	0.1	-
Belgium	63.8	54.7	7.3	2.0	28.7	43.0	0.2	0.3
Bulgaria	42.3	20.9	55.4	64.4	2.3	14.7	-	-
Canada	27.9	20.3	0.3	0.2	71.8	79.6	-	-
Croatia	65.9	55.5	14.1	0.9	20.0	43.6	-	-
Czech Republic	8.1	2.2	77.7	24.3	14.2	73.5	-	-
Denmark	79.6	58.6	3.6	2.8	16.6	38.2	0.2	0.4
Estonia	43.2	35.6	47.6	22.6	9.3	41.8	-	-
European Community	47.0	41.7	16.6	2.1	36.1	55.6	0.2	0.6
Finland	96.1	93.1	0.7	0.2	1.5	4.3	1.7	2.4
France	63.2	51.9	4.7	0.4	32.0	47.6	0.1	0.1
Germany	44.8	47.6	32.8	3.1	22.4	49.3	-	-
Greece	98.5	96.1	1.3	0.1	0.2	3.8	-	-
Hungary	29.2	8.3	50.5	6.0	20.3	85.7	-	-
Iceland	100.0	100.0	-	-	-	-	-	-
Ireland	38.0	57.4	57.1	20.8	4.9	21.8	-	-
Italy	50.5	27.7	1.2	0.0	47.6	68.9	0.7	3.3
Japan	84.8	68.5	2.9	1.4	12.3	30.1	-	-
Latvia	38.3	45.4	38.6	13.5	23.1	41.1	-	-
Liechtenstein	87.2	54.0	0.1	0.0	12.7	46.0	-	-
Lithuania	39.6	21.9	40.0	37.5	20.4	40.5	-	-
Luxembourg	60.3	53.7	7.2	0.4	32.5	45.9	-	-
Monaco	80.0	68.3	-	-	20.0	31.7	-	-
Netherlands	10.6	8.2	0.5	0.1	88.9	91.7	-	-
New Zealand	56.6	61.8	27.7	18.5	15.8	19.7	-	-
Norway	99.0	97.4	0.9	0.1	-	2.5	0.1	-
Poland	4.7	19.7	89.3	58.4	6.0	21.9	-	-
Portugal	100.0	85.3	-	-	-	14.7	-	-
Romania	46.8	20.4	21.8	0.5	31.4	79.2	-	-
Russian Federation	30.4	22.2	47.0	9.3	22.2	68.5	0.4	0.1
Slovakia	3.5	0.9	70.4	14.3	26.1	84.8	-	-
Slovenia	38.0	88.6	60.4	-	1.6	11.4	-	-
Spain	85.8	70.0	9.0	1.5	5.2	28.5	-	-
Sweden	96.6	95.0	1.5	-	1.9	5.0	-	-
Switzerland	86.1	78.3	0.3	0.2	13.6	21.5	-	-
Turkey								
Ukraine	8.8	1.6	66.6	13.5	24.6	84.4	0.0	0.5
United Kingdom	16.9	13.2	18.6	3.0	64.3	83.5	0.2	0.3
United States	28.5	25.8	2.6	1.3	68.8	73.0	-	-

^a In accordance with the UNFCCC reporting guidelines on annual inventories of Annex I Parties the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 1.29a

CO₂ emissions from transport: all fuels - trend information

CO ₂ emissions (Gg)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	60,738	76,751	-0.5	3.4	1.9	0.0	1.1	2.7	-1.9	2.2	0.7	5.2	1.3	-2.0	26.4
Austria	12,426	22,808	12.8	10.9	-6.7	14.6	-3.3	6.9	6.5	9.8	9.3	2.7	3.1	-5.0	83.6
Belarus	12,909	5,603	-1.5	-0.6	-8.9	-7.0	-17.7	-6.8	-0.1	34.3	-7.6	14.3	1.1	26.5	-56.6
Belgium	20,092	25,222	2.5	1.9	0.9	2.9	1.5	1.9	2.6	1.3	2.1	3.9	-3.4	-1.7	25.5
Bulgaria	13,814	8,622	-39.9	-4.2	-19.4	22.6	-4.1	-5.2	2.3	5.1	12.4	4.3	9.4	6.2	-37.6
Canada	138,429	184,226	-3.3	2.4	3.8	2.1	2.5	0.8	-0.9	1.3	2.7	3.1	2.3	-0.1	33.1
Croatia	4,181	6,023	-28.1	7.9	9.5	5.2	7.1	-0.1	2.2	6.5	7.6	2.8	4.0	6.5	44.0
Czech Republic	7,342	17,515	-9.1	10.8	6.1	4.8	1.9	1.6	6.7	4.3	12.9	4.8	8.1	2.0	138.5
Denmark	10,528	13,417	3.6	2.1	1.5	-0.2	0.0	-1.7	0.0	0.9	3.8	2.5	1.0	2.8	27.4
Estonia	3,352	2,413	-4.0	4.3	5.8	3.1	-9.6	-1.2	17.7	7.5	0.5	2.7	3.1	8.9	-28.0
European Community	687,086	857,583	2.2	2.3	1.2	3.1	2.4	0.2	1.2	1.2	0.7	1.6	-0.5	0.4	24.8
Finland	12,551	13,680	-2.7	-0.2	5.0	1.1	1.6	-0.7	0.9	1.6	1.5	2.8	-0.2	1.4	9.0
France	118,858	139,082	2.2	1.1	1.7	1.6	2.4	-0.4	2.4	0.6	-0.2	0.5	-1.2	-0.6	17.0
Germany	162,458	160,642	2.2	0.1	0.3	1.9	3.1	-2.0	-2.0	-0.8	-3.6	0.3	-4.2	-2.1	-1.1
Greece	14,375	23,352	6.0	2.9	4.5	9.9	2.1	-4.4	4.2	1.1	5.7	1.8	3.1	4.8	62.4
Hungary	7,621	12,266	-12.5	0.0	6.1	13.6	4.4	-0.4	3.8	4.8	3.4	5.7	16.1	4.1	61.0
Iceland	600	938	1.9	-1.6	2.0	0.5	3.6	0.4	1.7	0.6	14.7	7.0	0.7	18.0	56.4
Ireland	5,039	13,483	4.0	17.0	4.7	17.9	10.9	7.5	4.8	1.8	1.6	5.5	6.4	5.4	167.6
Italy	101,461	128,531	2.8	1.1	1.5	3.3	1.1	0.4	1.9	1.7	1.1	1.7	-1.0	1.2	26.7
Japan	211,054	246,802	5.4	2.2	0.8	-0.3	0.8	-0.3	1.0	-2.0	-0.8	0.0	-1.9	-1.1	16.9
Latvia	2,857	3,342	-6.0	-1.6	-0.4	-1.1	-1.4	10.9	18.0	3.1	5.4	4.9	4.7	10.2	17.0
Liechtenstein	75	82	17.5	1.6	4.4	-0.3	6.7	4.3	-3.8	-4.9	-0.3	-1.4	-0.5	-3.4	8.4
Lithuania	5,652	4,418	10.4	9.2	12.4	5.4	-11.1	-10.9	8.9	3.1	1.7	9.6	6.0	7.1	-21.8
Luxembourg	2,720	6,997	21.7	2.4	7.7	4.7	9.0	13.7	5.4	4.5	10.1	16.7	2.8	-2.6	157.3
Monaco	33	33	14.3	-0.4	-4.8	-3.5	1.3	-5.0	0.5	-0.5	-1.1	-2.4	-4.3	0.0	-0.4
Netherlands	26,009	35,644	1.1	2.5	1.3	2.4	3.2	1.1	1.5	2.1	2.0	1.0	0.1	2.8	37.0
New Zealand	8,634	14,201	0.1	0.8	2.9	1.7	2.2	5.0	3.1	4.5	4.5	2.1	-1.0	1.6	64.5
Norway	11,109	14,603	-0.8	5.3	1.9	2.6	4.5	-6.3	2.1	-1.0	2.2	3.4	0.8	4.2	31.5
Poland	21,847	37,381	-5.5	11.4	2.4	2.8	0.2	-4.0	-2.6	-1.0	2.7	6.0	5.0	5.7	71.1
Portugal	9,828	19,254	6.8	5.0	5.6	12.1	5.1	10.0	1.6	2.6	-0.6	-0.3	-0.9	0.1	95.9
Romania	5,785	12,282	-14.6	35.5	-3.5	-0.5	-21.8	11.4	18.9	7.9	1.2	19.7	-18.6	3.9	112.3
Russian Federation	358,073	190,140	-3.0	-4.9	-7.1	16.2	1.2	-29.5	6.0	4.3	4.7	4.4	4.0	4.6	-46.9
Slovakia	4,892	5,801	-15.8	1.3	3.9	6.3	-2.2	-10.2	13.7	2.9	2.1	5.6	17.8	-6.6	18.6
Slovenia	1,983	4,606	-5.6	15.8	1.6	-13.6	-4.9	4.2	3.6	0.3	3.6	3.7	6.7	5.0	132.3
Spain	56,506	105,592	4.0	6.9	0.9	9.6	5.9	3.2	4.8	2.3	4.9	4.2	3.3	2.9	86.9
Sweden	18,174	19,969	-1.4	-1.2	0.7	1.0	1.6	-1.0	0.8	2.4	1.3	1.2	1.1	-0.4	9.9
Switzerland	14,615	15,867	3.2	0.3	3.9	1.4	3.9	1.6	-1.8	-0.7	1.2	0.7	0.5	0.6	8.6
Turkey															
Ukraine	87,138	43,635	*	*	*	*	-14.7	-2.8	1.7	8.7	0.5	6.8	4.6	2.8	-49.9
United Kingdom	116,967	130,989	-0.5	4.1	1.2	-0.6	0.6	-0.6	-0.3	1.7	1.1	1.1	1.0	1.3	12.0
United States	1,437,679	1,834,782	-2.6	2.6	1.2	1.7	3.7	3.1	-1.3	3.1	-1.2	2.7	1.0	-0.5	27.6

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 1.29b**N₂O emissions from transport: all fuels - trend information**

N ₂ O emissions (Gg)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	2.41	5.58	6.8	5.9	4.3	7.7	8.0	9.6	4.1	8.4	5.2	6.8	-1.9	-5.9	131.7
Austria	0.58	0.93	22.3	2.8	-2.3	13.3	-2.8	2.1	3.4	8.8	3.6	-2.4	-3.4	-7.0	60.8
Belarus	0.11	0.03	-3.4	-5.0	-14.0	-13.4	-25.0	-21.7	-5.5	24.2	-18.3	30.3	-19.7	97.2	-73.7
Belgium	1.25	2.66	5.2	6.7	5.9	7.6	6.8	4.4	3.0	2.7	0.9	2.6	1.0	0.0	113.0
Bulgaria	0.33	0.21	-40.2	-2.3	-16.4	15.0	-0.7	0.7	5.5	5.7	14.9	2.9	15.7	2.9	-35.4
Canada	20.37	23.54	1.0	3.5	3.1	-3.8	1.9	0.0	-5.3	-3.1	1.0	0.6	-0.5	-3.2	15.6
Croatia	0.17	0.55	-27.4	12.3	19.8	15.6	14.0	9.5	12.4	10.9	13.7	8.4	1.1	12.5	229.4
Czech Republic	0.27	2.09	13.7	15.7	13.3	30.5	15.4	1.3	4.5	2.8	11.3	2.2	3.2	0.1	674.8
Denmark	0.37	0.44	6.0	4.6	2.1	-1.6	-1.1	-2.5	-3.2	-1.9	-0.1	0.4	-3.1	-0.9	18.5
Estonia	0.03	0.02	-4.5	4.6	5.9	2.9	-9.6	-2.7	16.9	7.7	0.4	2.3	2.9	9.7	-28.2
European Community	21.62	60.08	7.4	9.4	8.0	9.8	7.5	4.3	4.6	5.4	3.0	3.9	1.3	1.5	177.8
Finland	0.56	2.04	13.3	9.0	11.4	9.6	9.6	6.8	6.6	7.5	7.0	8.2	5.6	4.3	263.6
France	1.62	2.36	-0.6	7.4	5.8	2.0	4.1	0.4	2.7	1.9	0.8	2.1	-0.8	0.1	45.3
Germany	2.18	3.89	35.0	4.6	2.3	1.3	0.8	-3.0	-3.0	-3.1	-6.5	-2.3	-6.4	-5.6	79.0
Greece	0.54	1.89	4.2	11.6	11.3	16.1	9.5	3.6	12.4	10.1	11.3	6.9	18.2	0.0	251.1
Hungary	0.36	1.26	-11.2	-2.9	3.4	9.9	1.4	-2.2	2.7	2.1	4.2	-8.0	11.2	-8.4	247.1
Iceland	0.02	0.13	2.5	-0.5	59.5	2.1	48.9	-0.9	0.9	0.9	4.5	4.2	17.2	6.4	658.6
Ireland	0.27	0.67	1.2	16.5	13.4	17.6	5.5	7.7	5.6	-4.7	-0.4	2.8	2.1	-1.4	150.4
Italy	5.54	13.24	1.2	8.2	6.9	13.0	8.6	3.6	4.3	9.9	3.5	5.4	0.2	2.4	139.0
Japan	13.56	9.69	3.9	1.9	1.0	-2.2	-0.3	-2.1	-4.0	-6.0	-6.5	-7.9	-8.9	-7.0	-28.6
Latvia	0.26	0.32	-1.0	2.4	3.5	-0.7	-2.3	8.8	5.6	7.8	14.1	15.9	1.2	13.2	21.3
Liechtenstein	0.00	0.00	36.8	-1.8	5.4	-5.4	3.5	4.8	-8.4	-13.4	-9.2	-8.3	-8.0	-5.3	28.5
Lithuania	0.22	0.19	9.7	8.5	18.2	8.7	-8.8	-10.1	11.7	3.6	1.2	11.8	7.3	7.8	-12.7
Luxembourg	0.13	0.87	38.5	9.1	13.3	10.1	15.2	12.6	6.9	6.2	10.9	21.8	8.4	-4.3	571.4
Monaco	0.00	0.00	15.0	18.6	8.6	7.5	12.3	1.4	4.2	4.1	-2.2	-1.7	-3.7	-1.8	319.8
Netherlands	0.88	1.46	19.7	1.8	1.2	-1.0	-1.0	-2.8	-0.3	-0.3	-1.9	-1.7	-1.8	1.4	66.6
New Zealand	0.24	0.49	1.0	2.8	4.5	2.6	3.5	7.0	3.2	5.5	4.7	1.8	-0.2	1.8	103.7
Norway	0.47	1.08	2.4	18.9	4.2	2.5	16.7	-14.2	5.8	-0.5	6.1	5.9	-0.2	3.8	130.1
Poland	0.90	3.63	-11.5	36.3	28.6	22.8	6.9	10.4	-3.9	-4.4	0.1	2.4	5.8	6.2	304.1
Portugal	0.49	1.90	5.4	11.1	10.1	15.4	9.5	11.6	2.3	4.5	0.3	0.3	0.1	2.6	287.7
Romania	0.05	0.10	-16.3	38.4	-2.7	-1.9	-20.9	9.6	20.6	8.4	0.8	19.6	-18.7	4.4	107.2
Russian Federation	2.99	1.12	-3.8	-7.7	-3.5	7.8	2.5	-49.3	11.0	5.2	1.9	7.2	-0.8	6.9	-62.4
Slovakia	0.39	0.57	-18.8	8.7	10.0	10.8	2.9	-6.7	18.6	-0.7	5.3	0.9	17.8	-6.7	44.4
Slovenia	0.10	0.55	-3.5	26.8	10.9	-5.9	3.1	10.5	7.1	3.7	5.7	3.8	7.4	6.5	429.5
Spain	2.53	9.19	5.2	12.1	8.9	15.3	10.6	6.5	8.4	6.3	7.1	6.4	4.7	4.7	263.8
Sweden	0.52	0.60	-8.9	-1.9	6.8	-2.1	5.0	2.0	-6.6	-2.9	-1.6	-2.2	-1.3	-4.9	16.4
Switzerland	0.33	0.40	23.2	6.4	4.4	-0.1	1.2	-2.9	-7.0	-7.3	-6.4	-6.5	-7.0	-6.9	20.7
Turkey															
Ukraine	0.77	0.39	*	*	*	*	-13.0	-3.2	1.0	8.9	1.0	7.1	4.0	2.1	-49.0
United Kingdom	4.19	17.96	3.4	15.7	13.7	12.2	10.4	7.4	7.1	6.5	3.9	4.0	1.3	2.2	328.3
United States	136.40	102.02	4.9	1.4	1.2	-0.1	-2.3	-2.1	-5.3	-8.2	-8.2	-6.7	-8.7	-9.3	-25.2

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 1.30**Road transportation - CO₂, N₂O (2006)**

	CO ₂ emissions							N ₂ O emissions						
	Key category	Share of national total	Methods and EF used ^a		CO ₂ IEF		Key category	Share of national total	Method and EF used ^a		N ₂ O IEF			
			Methods	EF	IEF in CRF based on GCV or NCV	Gasoline			Diesel oil	Methods	EF	IEF in CRF based on GCV or NCV	Gasoline	Diesel oil
		(%)						(t/TJ)						
IPCC default EF ^b					NCV	72.1 (US) 73.0 (Europe)	72.1 (US) 74.0 (Europe)					NCV	3-43 (US) 1-20 (Europe)	1-14 (US) 3-4 (Europe)
Australia ^c	L, T	12.4	T1	CS, D	GCV	70.24	72.84		0.31	T1, T2, T3	CS, D	GCV	7.97	1.57
Austria	L, T	24.1	CS, M	CS	NCV	72.98	69.74		0.30	CS, M	CS	NCV	5.36	1.96
Belarus	L, T	5.0	D, T1	D	NCV	68.61	73.33		0.00	D, T1	D	NCV	0.05	0.21
Belgium	L, T	17.8			NCV	68.61	73.33	T	0.56			NCV	11.48	6.45
Bulgaria	L, T	10.7	T1, T2	CS, D	NCV	72.16	76.14		0.08	T1, T2	CS, D	NCV	1.14	1.91
Canada ^c	L, T	18.0	CS, T1, T2, T3	CS	GCV	68.84	73.19		0.46	CS, T1, T2, T3	CS, D	GCV	7.32	2.49
Croatia	L, T	18.3	T1, T3	CR, D	NCV	96.30	56.78	T	0.55	T1, T3	CR, D	NCV	10.43	4.78
Czech Republic	L, T	11.5	T1	D	NCV	72.60	73.62	T	0.43	T1, T2	CS, D	NCV	16.13	4.74
Denmark	L, T	17.5	OTH	CS	NCV	72.76	74.00		0.17	OTH	OTH	NCV	2.24	2.43
Estonia	L, T	11.1	T1	D	NCV	68.61	73.33		0.03	T1	D	NCV	0.60	0.60
European Community	L, T	19.1	CR, CS, D, M, OTH, T1, T2, T3	CR, CS, D, M, OTH	NCV	71.27	73.45	L, T	0.42	CR, CS, D, IE, M, OTH, T1, T2, T3	CR, CS, D, IE, M, OTH	NCV	7.25	3.92
Finland	L, T	14.9	CS, M, T1, T3	CS, D	NCV	72.90	73.60	L, T	0.77	CS, M, T1, T3	CS, D	NCV	22.92	3.33
France	L, T	23.8	CR, T3	CS	NCV	71.68	74.59		0.12	CR, T3	CS	NCV	1.56	1.03
Germany	L, T	14.8	CS, T1, T3	CS	NCV	72.00	74.00		0.11	T1, T3	CS, M	NCV	1.88	1.50
Greece	L, T	14.9	CR, M, T1, T2	D, M	NCV	70.08	77.41	T	0.41	CR, M, T2	CR, D, M	NCV	7.59	4.29
Hungary	L, T	15.4	T1	CS, D	NCV	68.61	73.33	L, T	0.49	T1, T1c, T2	CS, D	NCV	12.38	3.93
Iceland	L, T	20.3	T1	D	NCV	68.61	73.33	L, T	0.91	T2	D	NCV	15.30	2.74
Ireland	L, T	18.8	T1, T2	CS	NCV	69.96	73.30		0.27	T1, T3	CR, M	NCV	4.26	2.65
Italy	L, T	20.8	D, M, T1, T2	CS	NCV	71.15	73.16	L, T	0.70	D, M, T1, T2	CR, CS	NCV	9.63	6.99
Japan ^c	L, T	16.6	T1	CS	GCV	70.59	72.29		0.20	D, T2	CS, D	GCV	3.23	2.01
Latvia	L, T	26.4	CR, T1, T2	CS, D	NCV	68.60	73.84	T	0.57	CR, T1	D, OTH	NCV	6.77	4.07
Liechtenstein	L, T	29.9	T1	CS	NCV	73.90	73.60		0.24	T1	CS, D	NCV	2.25	1.36
Lithuania	L, T	18.0	T2	CS	NCV	73.00	74.00		0.24	T2	CS	NCV	2.00	4.00
Luxembourg	L, T	52.3	T1, T3	D	NCV	70.94	73.76	L	2.01	T1, T3	D	NCV	20.65	6.02
Monaco	L, T	33.4	T1	D	NCV	73.00	74.00	T	1.35	T1	D	NCV	12.65	3.90
Netherlands	L, T	16.8	CS, T2	CS	NCV	72.00	74.04		0.22	CS, T2	CS, D	NCV	3.97	2.33
New Zealand ^c	L, T	16.2	D	CS	GCV	69.15	72.43		0.18	D	D	GCV	1.50	3.90
Norway	L, T	18.4	T1, T2	CS, PS	NCV	71.30	73.55		0.31	CS, T2, T3	CR, CS, D	NCV	6.01	2.19
Poland	L, T	9.0	T1, T2	CS, D	NCV	70.39	73.16	T	0.27	T1, T2	D	NCV	14.66	3.23
Portugal	L, T	22.4	CR, T1, T2	CR, D, OTH	NCV	71.06	72.41	L, T	0.70	CR, T1, T2, T3	CR, D	NCV	9.55	6.15
Romania	L, T	7.6	T1	D	NCV	68.61	73.33		0.02	T1	D	NCV	0.60	0.60
Russian Federation	L, T	4.6	T1	D	NCV	68.61	73.33		0.01	T1	D	NCV	0.60	0.62
Slovakia	L, T	11.6	D, M, T1, T2	D	NCV	73.01	73.83		0.33	D, M, T1, T2	D	NCV	10.63	4.58
Slovenia	L, T	22.2	M, T1	D, M	NCV	73.89	73.48	L, T	0.81	CS, M, T1	D, M	NCV	11.14	6.70
Spain	L, T	22.0	CR, T2	CR, D	NCV	71.09	72.63	L, T	0.63	CR, T1, T2	CR, D	NCV	8.44	6.11
Sweden	L, T	28.2	CS, T1	CS	NCV	72.60	72.03		0.20	CS, IE, M, T1,	CR, CS, D, IE,	NCV	2.01	1.12
Switzerland	L, T	29.0	T1, T2, T3	CS	NCV	73.90	73.60		0.22	T1, T2, T3	CS, D	NCV	2.04	1.41
Turkey														
Ukraine	L, T	6.3	T1, T2	D, OTH	NCV	68.61	73.33		0.02	T1	D	NCV	0.60	0.60
United Kingdom	L, T	18.4	CS, OTH, T2, T3	CS	NCV	70.06	73.05	L, T	0.79	OTH, T2, T3	CR, CS, D	NCV	15.13	5.30
United States ^c	L, T	22.3	T1, T2	CS	GCV	70.71	72.98	T	0.42	M, T1, T2	CS, D, M	GCV	5.72	0.19

^a Information on methods and emission factors in this table is as reported by Parties in table Summary 3 of the CRF. It may not reflect the actual method or type of emission factor used for all subcategories within the category 1.A.3 Transport.

^b Source of default emission factors: IPCC Guidelines, volume 3, pages 1.70–1.83. For updates on the default emission factors for N₂O for US gasoline vehicles, see table 2.7, page 2.47 in the IPCC good practice guidance.

^c Australia, Canada, Japan, New Zealand and United States reported energy data on a gross calorific value (GCV) basis. This means that reported IEFs are about 5 per cent lower for liquid and solid fuels and biomass, and about 10 per cent lower for gaseous fuels than would have been the case if the data were given on a net calorific value (NCV) basis. The IEFs included in this table have been converted into NCV-based values and are not reflecting the reported IEFs.

Table 1.31a

CO₂ emissions from road transportation - trend information

CO ₂ emissions (Gg)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	53,153	66,735	-1.9	3.1	1.9	1.6	2.0	2.5	-2.4	3.4	1.0	5.0	0.5	-3.0	25.6
Austria	11,943	21,932	13.3	11.3	-6.9	14.3	-4.2	6.5	7.4	11.2	8.7	2.3	2.8	-4.9	83.6
Belarus	12,851	4,035	-2.2	-2.9	-11.7	-10.3	-21.4	-21.7	-1.0	46.3	-13.5	19.4	3.1	25.7	-68.6
Belgium	19,270	24,441	1.0	2.0	1.2	3.1	1.5	1.7	2.8	1.3	2.2	4.0	-3.4	-2.0	26.8
Bulgaria	7,747	7,618	-41.8	-1.6	-24.3	28.3	3.4	-5.8	3.6	5.7	14.3	4.5	9.4	6.1	-1.7
Canada	94,923	129,687	-2.4	-1.1	4.4	3.1	2.6	0.9	2.0	1.6	2.3	3.6	1.1	2.1	36.6
Croatia	3,561	5,635	-25.6	7.7	11.4	6.2	6.1	0.8	1.2	6.7	8.5	2.9	3.8	6.6	58.2
Czech Republic	5,995	17,064	-9.8	11.8	7.2	5.2	2.6	1.9	7.4	4.9	13.8	5.1	8.6	2.2	184.6
Denmark	9,275	12,594	4.5	1.7	2.0	1.7	1.3	-1.0	0.2	1.1	4.0	2.6	0.9	3.0	35.8
Estonia	2,148	2,099	-9.9	2.5	8.6	1.9	-8.3	-0.6	22.1	1.9	-0.6	3.8	4.9	8.5	-2.2
European Community	636,699	794,907	2.4	2.1	1.2	3.0	2.3	0.3	1.4	1.4	0.5	1.5	-0.8	0.3	24.8
Finland	10,872	11,944	-2.8	-0.7	5.0	0.9	1.5	-0.8	1.7	2.1	1.6	3.2	-0.1	1.3	9.9
France	111,404	130,091	2.4	0.8	1.7	1.6	2.2	-0.4	2.7	0.4	-0.1	0.3	-1.3	-0.3	16.8
Germany	150,358	148,882	2.5	0.0	0.6	2.1	3.2	-2.1	-2.0	-1.1	-3.7	0.1	-4.9	-2.2	-1.0
Greece	11,759	19,825	7.3	4.8	2.3	5.0	1.8	1.2	2.2	3.7	6.1	0.6	4.0	5.2	68.6
Hungary	6,807	12,072	-12.2	0.1	6.4	14.3	4.7	-0.1	4.2	5.1	3.3	6.2	16.7	4.0	77.3
Iceland	509	859	3.5	-3.7	6.0	1.4	4.5	2.1	1.1	1.4	13.0	5.3	4.0	15.0	68.8
Ireland	4,701	13,093	4.4	17.5	5.4	19.2	10.8	8.0	4.4	2.7	1.6	5.5	6.4	6.0	178.5
Italy	93,616	118,271	2.5	0.4	1.5	3.1	0.8	0.0	2.5	1.9	1.1	1.7	-1.1	1.1	26.3
Japan	189,228	221,895	5.4	2.2	0.2	0.4	1.1	-0.5	1.3	-2.4	-0.8	0.7	-2.2	-1.5	17.3
Latvia	2,314	3,069	-6.9	-1.9	-1.1	0.0	0.1	-11.9	20.0	3.1	4.8	5.3	5.2	12.5	32.7
Liechtenstein	75	82	17.5	1.6	4.4	-0.3	6.7	4.3	-3.8	-4.9	-0.3	-1.4	-0.6	-3.5	8.3
Lithuania	5,281	4,175	10.4	5.9	13.5	6.2	-10.8	-12.0	10.2	2.9	1.3	10.1	6.4	7.8	-20.9
Luxembourg	2,686	6,969	21.9	2.4	7.8	4.7	9.1	13.8	5.4	4.4	10.2	16.8	2.8	-2.6	159.4
Monaco	32	31	14.1	-0.2	-5.5	-3.2	0.8	-5.9	-0.5	0.1	-1.6	-2.9	-4.5	0.1	-3.4
Netherlands	25,472	34,880	1.1	2.7	1.2	2.4	2.8	1.1	1.6	2.1	1.8	1.2	0.2	2.9	36.9
New Zealand	7,535	12,607	1.2	1.7	4.2	2.3	2.3	2.6	1.9	5.8	3.9	2.3	0.0	1.5	67.3
Norway	7,630	9,871	-1.0	3.2	0.0	2.8	-0.6	-2.0	6.0	1.0	1.6	3.5	2.0	2.8	29.4
Poland	16,068	36,226	-2.3	11.1	3.7	3.4	2.0	-4.0	-2.5	-0.8	2.6	6.5	5.3	6.0	125.4
Portugal	9,249	18,541	6.7	5.2	5.8	12.4	5.4	10.5	1.7	2.6	-0.4	-0.4	-0.9	0.0	100.5
Romania	4,574	11,953	-16.1	39.8	-5.3	0.5	-23.3	11.2	28.4	6.7	1.7	20.4	-16.9	4.0	161.3
Russian Federation	176,308	100,715	-4.4	-5.2	-2.0	15.5	0.8	-33.4	11.6	2.7	3.1	-1.4	11.8	8.6	-42.9
Slovakia	4,501	5,674	-15.0	1.4	4.5	7.0	-2.0	-10.5	14.3	3.2	2.8	5.8	18.2	-6.9	26.1
Slovenia	1,914	4,567	-6.0	16.1	1.6	-13.7	-4.9	4.2	3.7	0.3	3.7	3.8	6.7	5.0	138.6
Spain	50,442	95,140	5.7	6.5	1.0	9.6	5.2	2.9	4.9	2.7	4.9	3.9	2.4	2.7	88.6
Sweden	16,629	18,523	-0.2	-1.1	0.0	0.3	1.2	-0.8	1.1	2.9	1.0	1.2	1.4	0.1	11.4
Switzerland	13,987	15,428	3.6	0.4	4.1	1.5	4.2	1.6	-1.8	-0.6	1.3	0.8	0.6	0.6	10.3
Turkey															
Ukraine	46,346	28,032	*	*	*	*	-24.3	4.2	10.8	18.3	0.8	11.2	9.4	7.1	-39.5
United Kingdom	109,686	120,528	-0.7	3.9	1.2	-0.6	0.8	-0.7	0.0	2.1	-0.2	1.0	0.4	0.3	9.9
United States	1,180,830	1,564,190	-1.7	2.6	2.5	2.9	3.8	1.1	0.6	2.8	0.8	2.5	0.3	0.0	32.5

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 1.31b

N₂O emissions from road transportation - trend information

N ₂ O emissions (Gg)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	2.20	5.30	6.3	5.9	4.6	9.1	8.7	9.9	4.2	9.2	5.5	6.8	-2.3	-6.5	140.4
Austria	0.54	0.89	23.8	3.2	-2.3	13.7	-3.2	2.1	3.6	9.1	3.8	-2.3	-3.3	-7.3	64.9
Belarus	0.11	0.01	-4.1	-8.6	-18.2	-19.6	-32.9	-39.0	-10.6	44.8	-34.8	64.4	-33.8	11.7	-92.7
Belgium	1.08	2.49	6.6	7.4	6.8	8.0	7.4	4.0	3.5	3.0	1.1	2.7	1.3	-0.2	132.0
Bulgaria	0.16	0.19	-40.2	3.4	-22.5	24.3	7.6	1.0	7.9	6.5	17.4	3.7	16.5	2.4	20.8
Canada	10.33	10.81	9.3	-1.5	0.5	-2.8	-1.6	-5.1	-1.3	-3.7	-4.3	-3.5	-5.2	-3.3	4.6
Croatia	0.16	0.54	-24.8	12.7	20.3	15.9	13.5	10.0	12.2	11.1	14.0	8.4	1.0	12.6	250.9
Czech Republic	0.23	2.08	18.0	16.3	13.5	31.0	15.8	1.4	4.6	2.9	11.4	2.2	3.3	0.1	810.4
Denmark	0.31	0.40	7.5	4.0	2.9	1.0	0.7	-1.4	-3.2	-2.0	-0.2	0.3	-3.5	-0.9	29.1
Estonia	0.02	0.02	-9.8	2.5	9.1	1.5	-8.2	-0.8	22.1	2.0	-0.7	3.2	4.6	8.6	-3.3
European Community	18.81	56.70	8.7	9.8	8.6	10.2	7.8	4.4	4.9	5.8	3.0	4.0	1.3	1.5	201.5
Finland	0.51	1.99	14.8	9.2	11.6	9.9	9.9	7.1	6.9	7.8	7.2	8.4	5.8	4.3	286.8
France	1.41	2.09	-0.7	7.4	6.5	2.1	3.8	0.6	3.7	1.8	1.3	1.8	-1.0	1.1	48.8
Germany	1.96	3.54	38.9	4.7	2.7	1.4	0.7	-5.3	-3.0	-3.5	-6.9	-2.6	-7.5	-6.3	80.3
Greece	0.40	1.75	9.3	14.7	12.1	14.6	11.8	7.2	13.0	12.5	12.2	7.2	19.9	0.0	341.2
Hungary	0.29	1.24	-11.0	-2.9	3.5	10.2	1.5	-2.1	2.9	2.2	4.2	-8.0	11.6	-8.6	321.4
Iceland	0.01	0.12	4.2	-1.3	64.4	2.3	50.2	-0.6	0.8	1.1	4.1	3.8	18.2	5.8	777.0
Ireland	0.18	0.61	2.7	18.6	17.7	21.4	5.5	9.5	6.1	0.2	-1.2	2.5	3.2	2.1	247.6
Italy	5.18	12.84	0.9	8.4	7.4	13.4	8.8	3.6	4.7	10.2	3.6	5.5	0.4	2.3	147.9
Japan	12.59	8.72	4.0	1.9	0.7	-2.1	-0.1	-2.3	-4.1	-6.5	-6.9	-8.3	-9.7	-7.9	-30.8
Latvia	0.05	0.21	1.2	6.3	3.5	11.9	10.7	15.4	9.1	12.8	16.5	29.2	1.6	29.8	317.0
Liechtenstein	0.00	0.00	36.8	-1.8	5.4	-5.4	3.5	4.8	-8.4	-13.5	-9.2	-8.3	-8.0	-5.3	28.4
Lithuania	0.20	0.18	9.6	4.7	20.2	9.8	-8.3	-11.1	13.4	3.4	0.7	12.5	7.8	8.5	-11.0
Luxembourg	0.12	0.86	42.0	9.4	13.6	10.3	15.5	12.8	7.0	6.1	11.1	22.1	8.5	-4.4	624.8
Monaco	0.00	0.00	14.8	18.8	8.4	7.7	12.2	1.2	4.0	4.3	-2.3	-1.8	-3.7	-1.8	321.4
Netherlands	0.87	1.46	19.8	1.9	1.2	-1.0	-1.1	-2.8	-0.3	-0.3	-1.9	-1.7	-1.8	1.5	66.7
New Zealand	0.21	0.44	2.0	3.9	5.7	3.3	3.6	4.9	2.6	6.9	4.2	2.0	0.8	1.7	112.4
Norway	0.15	0.54	12.0	18.4	10.2	9.0	6.4	4.3	9.1	3.5	2.6	2.9	0.0	-0.6	258.1
Poland	0.49	3.49	-8.3	39.0	33.8	28.9	9.2	11.7	-3.4	-4.4	-0.1	2.0	6.3	6.5	607.3
Portugal	0.44	1.87	5.3	12.0	10.7	16.0	9.8	12.0	2.5	4.6	0.5	0.4	0.2	2.6	321.6
Romania	0.04	0.10	-17.0	44.0	-4.5	-0.1	-22.4	9.4	30.1	7.2	1.2	20.2	-16.9	4.6	160.0
Russian Federation	1.49	0.86	-4.4	-5.1	-1.8	14.8	0.7	-32.6	11.0	2.8	3.5	3.9	5.8	7.7	-42.3
Slovakia	0.23	0.52	-14.7	12.7	15.4	15.9	5.3	-7.7	22.5	0.3	8.9	1.3	19.8	-7.8	124.9
Slovenia	0.08	0.54	-7.1	29.1	11.7	-6.0	3.3	10.9	7.5	3.6	6.1	3.9	7.6	6.7	602.8
Spain	2.19	8.76	7.0	12.6	9.5	15.9	10.8	6.7	8.7	6.7	7.3	6.5	4.5	4.8	299.8
Sweden	0.32	0.42	-7.5	-1.9	7.6	-5.2	6.3	4.1	-7.9	-3.0	-3.1	-3.0	-1.5	-5.8	32.3
Switzerland	0.31	0.39	25.1	6.7	4.5	-0.1	1.3	-3.0	-7.1	-7.4	-6.4	-6.6	-7.2	-7.1	24.1
Turkey															
Ukraine	0.39	0.23	*	*	*	*	-23.4	3.7	11.3	18.0	0.2	11.6	9.4	6.6	-39.1
United Kingdom	3.31	16.74	3.6	16.9	14.8	13.0	11.2	7.9	7.4	7.0	3.8	3.9	1.1	2.0	406.2
United States	130.01	95.08	5.5	1.3	1.5	0.0	-2.7	-2.6	-5.1	-8.7	-8.0	-7.3	-9.5	-9.7	-26.9

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 1.31c

N₂O implied emissions factor for road transportation: gasoline - trend information

N ₂ O IEF (kg/TJ)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia ^b	3.56	7.97	9.9	4.7	4.1	9.2	7.7	8.4	7.8	6.4	4.5	1.2	-2.8	-3.5	124.2
Austria	4.22	5.36	13.7	3.9	3.4	5.8	2.1	0.8	-0.9	-1.6	-3.4	-5.0	-6.4	-9.8	27.1
Belarus	0.60	0.05	-2.9	-8.7	-11.2	-14.9	-20.7	-30.4	-14.0	-5.0	-42.5	35.6	-42.5	-20.0	-91.2
Belgium	1.53	11.48	8.5	19.0	17.4	10.9	14.7	11.2	4.8	6.2	-1.6	8.7	6.9	19.3	651.3
Bulgaria	1.20	1.14	-2.6	1.0	1.3	-12.2	6.5	2.7	-3.0	1.4	2.8	-4.7	6.2	-0.1	-4.9
Canada ^b	9.36	7.32	12.7	-0.8	-3.3	-6.5	-4.9	-6.3	-3.2	-6.4	-6.7	-6.7	-6.3	-5.7	-21.8
Croatia	1.88	10.43	0.1	12.2	19.1	20.1	14.9	14.4	23.4	10.2	10.0	5.1	3.9	36.0	455.9
Czech Republic	2.44	16.13	65.4	3.9	9.4	29.1	11.0	2.9	0	0	0	0	0	0	561.8
Denmark	3.08	2.24	3.5	2.1	0.0	-2.3	-1.3	-1.0	-5.0	-6.0	-7.3	-6.0	-9.1	-11.0	-27.1
Estonia	0.60	0.60	-0.1	-0.6	0.3	0.2	0.3	-0.8	0.1	0.1	0.3	-0.3	-0.7	0.5	-0.1
European Community	1.63	7.25	13.9	11.8	11.0	10.5	7.6	6.7	5.6	5.5	3.8	3.8	2.8	2.7	345.7
Finland	3.63	22.92	28.7	15.6	11.0	13.7	12.6	12.6	6.5	6.7	7.3	7.4	7.7	5.7	530.9
France	1.26	1.56	0.1	10.7	5.4	-0.3	-0.7	-1.3	-1.8	-1.0	0.3	0.3	-4.8	-2.3	24.0
Germany	1.02	1.88	53.4	4.3	1.3	-1.8	-3.5	-4.9	-3.7	-4.9	-6.2	-6.2	-8.3	-9.1	84.7
Greece	1.47	7.59	-0.6	21.2	19.6	14.9	16.3	10.1	15.0	11.7	8.2	9.0	14.4	1.0	417.1
Hungary	2.44	12.38	0	0	0	0	0	0	0	0	0	-0.1	-5.5	-12.5	407.8
Iceland	1.71	15.30	1.2	0.0	67.3	0.0	50.1	0.0	0.0	0.0	0.0	0.0	15.6	0.0	793.3
Ireland	3.50	4.26	3.0	8.3	10.7	8.3	-5.9	0.8	-2.0	-4.8	-7.1	-5.7	-8.5	-8.5	21.7
Italy	1.82	9.63	2.6	15.4	13.5	19.8	11.7	7.8	6.8	9.2	3.8	5.2	2.2	4.1	427.6
Japan ^b	6.82	3.23	-0.1	-0.7	-0.9	-4.4	-2.8	-5.2	-6.6	-7.8	-9.4	-10.2	-8.7	-9.2	-52.6
Latvia	0.77	6.77	7.6	16.2	16.4	21.6	18.0	24.4	8.1	16.7	21.0	45.2	0.3	11.5	780.4
Liechtenstein	1.85	2.25	22.2	-2.9	0.3	-1.4	-2.8	-4.3	-5.7	-7.6	-8.2	-7.9	-8.5	0.0	21.6
Lithuania	2.00	2.00	0	0	0.0	0.0	0	0	0	0	-0.1	0.1	0	0	0
Luxembourg	3.36	20.65	12.4	8.9	7.0	8.8	19.3	-0.5	6.0	7.1	9.1	20.1	25.3	0.2	514.9
Monaco	1.70	12.65	0.4	24.3	18.1	13.8	12.3	9.1	6.9	4.5	2.8	2.8	2.2	-0.8	644.4
Netherlands	3.33	3.97	24.5	-1.1	-0.2	-4.3	-4.8	-5.3	-4.4	-2.6	-4.8	-3.8	-3.2	-3.2	19.2
New Zealand ^b	1.50	1.50	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
Norway	1.03	6.01	24.2	22.6	16.8	10.9	10.2	9.6	5.1	4.1	2.4	1.3	1.1	-0.5	481.4
Poland	1.55	14.66	-4.5	41.4	45.7	36.7	9.9	28.0	2.1	0.7	3.0	1.8	12.0	0.1	844.4
Portugal	1.72	9.55	-0.6	13.4	9.4	8.8	7.4	5.6	3.2	2.5	1.5	1.1	1.3	1.8	455.2
Romania	0.60	0.60	0	0	0	0	0	0	0	0	0	0	0	0	0
Russian Federation	0.60	0.60	0.0	0	0	0	0	0	0	0	0	0.0	0.0	0	0.0
Slovakia	1.78	10.63	5.4	27.8	25.9	16.8	11.1	7.0	10.5	4.9	8.0	-0.3	9.5	2.7	496.3
Slovenia	1.86	11.14	-0.8	16.8	14.5	13.5	11.8	8.9	5.7	5.7	4.7	4.6	4.3	4.2	498.2
Spain	1.76	8.44	2.0	12.6	12.6	11.0	10.5	8.7	8.5	6.9	5.0	5.4	5.1	5.9	380.3
Sweden	1.50	2.01	-10.6	-1.5	10.7	-4.7	5.0	5.0	-10.5	-6.3	-3.8	-2.5	-2.2	-7.3	33.5
Switzerland	1.85	2.04	22.4	4.6	0.3	-1.5	-2.8	-4.4	-5.6	-7.4	-8.3	-7.9	-8.6	-9.4	10.5
Turkey															
Ukraine	0.60	0.60	*	*	*	*	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
United Kingdom	1.72	15.13	3.0	18.1	18.7	18.0	12.6	11.4	10.3	7.4	7.3	5.0	3.8	3.6	778.9
United States ^b	9.50	5.72	7.1	-1.0	0.4	-3.0	-5.7	-2.7	-5.8	-10.9	-8.6	-8.9	-8.6	-9.0	-39.8

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

^b Australia, Canada, Japan, New Zealand and United States reported energy data on a gross calorific value (GCV) basis. This means that reported IEFs are about 5 per cent lower for liquid and solid fuels and biomass, and about 10 per cent lower for gaseous fuels than would have been the case if the data were given on a net calorific value (NCV) basis. The IEFs included in this table have been converted into NCV-based values and are not reflecting the reported IEFs.

Table 1.31d

N₂O implied emissions factor for road transportation: diesel oil - trend information

N ₂ O IEF (kg/TJ)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia ^b	1.40	1.57	0.7	1.0	1.3	1.8	-1.1	-0.7	-2.4	1.3	0.0	-1.6	5.0	4.7	12.5
Austria	1.89	1.96	-0.3	-2.4	5.5	0.1	3.5	-0.1	0.3	1.6	0.1	0.8	-2.4	-0.6	3.6
Belarus	0.59	0.21	-1.1	-3.0	-4.3	-6.1	-9.3	-15.7	-10.3	3.4	-14.3	27.7	-32.7	-12.9	-63.7
Belgium	5.94	6.45	5.2	-1.3	-0.7	2.1	1.8	-1.7	-0.5	0.0	-0.9	-4.1	5.0	-1.8	8.7
Bulgaria	1.91	1.91	0	0	3.5	0	0	0	0	0	0	0	0.0	0.0	0.0
Canada ^b	2.33	2.49	0.8	0.1	0.2	1.4	0.0	0.4	-0.1	0.5	0.1	0.0	0.2	0.4	7.0
Croatia	5.88	4.78	4.3	1.3	-0.2	3.1	-0.1	4.1	-2.5	-2.4	1.0	7.1	-7.6	-19.0	-18.8
Czech Republic	3.00	4.74	-0.2	5.0	10.5	18.4	11.7	3.0	0	0	0	0	0	0	58.2
Denmark	1.80	2.43	0.0	3.2	2.1	2.5	2.6	1.1	1.3	2.8	2.6	3.6	1.2	2.4	35.2
Estonia	0.60	0.60	0.1	0.2	0.5	-0.7	-0.6	0.4	0.1	0.9	-0.2	-0.4	0.3	-0.3	0.4
European Community	2.78	3.92	-0.6	2.4	2.9	4.0	4.1	2.9	2.4	5.1	3.3	3.7	3.5	1.8	41.3
Finland	3.26	3.33	2.6	-0.9	-3.4	-0.8	-0.2	0.2	0.8	1.4	1.1	-1.5	2.6	0.1	2.1
France	0.55	1.03	-4.2	3.6	8.0	6.0	7.7	7.6	7.3	6.3	5.0	4.4	4.9	4.3	88.4
Germany	0.82	1.50	-0.6	6.4	8.1	9.2	8.1	6.1	6.9	4.1	2.4	4.0	3.2	2.0	82.4
Greece	3.93	4.29	-0.3	0.1	-0.5	1.3	0.8	-1.3	1.6	1.2	1.2	-1.8	22.5	-12.6	9.1
Hungary	3.90	3.93	0	0	0	0	0	0	0	0	0	-34.6	-0.1	0.1	0.7
Iceland	2.74	2.74	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ireland	1.42	2.65	-13.7	5.7	10.1	-1.0	7.6	10.0	15.4	5.4	10.9	6.1	7.7	4.8	86.3
Italy	5.71	6.99	-0.3	3.1	-1.0	1.8	4.2	-0.5	-1.7	9.3	2.7	4.5	2.4	0.6	22.4
Japan ^b	1.94	2.01	-1.2	0.6	0.8	-0.5	1.8	6.0	-1.9	4.6	2.2	-5.6	-4.6	1.8	3.4
Latvia	3.92	4.07	5.4	3.4	-12.5	-0.5	4.0	-12.9	-24.1	3.4	3.8	3.6	-4.1	20.6	3.8
Liechtenstein	0.75	1.36	-1.3	2.8	8.1	7.5	10.5	9.5	5.8	7.3	5.1	4.8	4.6	0	81.3
Lithuania	4.00	4.00	0	0	0	0	0	0	0	0	0	0	0	0	0
Luxembourg	3.16	6.02	17.7	4.7	4.5	2.2	-6.1	3.9	0.8	0.7	-3.8	1.2	0.0	0	90.4
Monaco	3.67	3.90	1.2	1.0	0.1	-0.1	0.0	0.1	0.5	-0.1	0.0	-0.2	0.3	0.5	6.1
Netherlands	1.45	2.33	0.3	4.4	7.4	7.0	7.0	6.5	5.7	1.7	1.6	1.8	0.7	1.4	60.7
New Zealand ^b	3.90	3.90	0.0	0	0.0	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
Norway	2.41	2.19	-0.6	0.3	-3.2	-4.7	-1.9	-1.5	-0.5	0.5	2.0	1.8	0.2	0.9	-9.0
Poland	3.10	3.23	-0.4	0.9	0.2	0.2	0.5	-5.9	0.3	0.6	0.2	0.8	0.0	0.5	4.1
Portugal	4.96	6.15	0.2	0.2	1.0	0.1	2.6	0.1	1.1	1.0	1.4	1.5	2.0	1.5	24.0
Romania	0.60	0.60	0	0	0	0	0	0	0	0	0	0	0	0	0
Russian Federation	0.61	0.62	0.0	0	0	0	0	0.1	0.0	0.0	0.0	49.6	-30.6	-0.4	2.4
Slovakia	4.68	4.58	3.7	2.2	0.0	0.3	2.3	-1.1	1.2	-6.4	2.7	-2.6	-4.7	-2.8	-2.1
Slovenia	5.13	6.70	-0.2	0.0	0.8	-0.5	0.2	-0.1	0.8	1.2	1.3	1.6	0.1	2.0	30.5
Spain	4.61	6.11	0.3	1.7	5.3	1.7	2.0	0.9	1.1	2.8	1.5	2.0	1.7	1.4	32.5
Sweden	1.11	1.12	4.6	4.0	-2.6	0.6	8.2	7.6	1.2	0.1	-1.5	-4.5	-0.8	1.9	0.9
Switzerland	0.75	1.41	-1.7	2.8	7.3	8.1	9.8	9.3	6.4	7.2	5.2	4.3	4.6	3.9	86.9
Turkey															
Ukraine	0.60	0.60	*	*	*	*	0.0	0.0	0	0	0	0	0	0	0
United Kingdom	3.16	5.30	5.6	2.1	3.1	4.0	4.8	3.2	2.5	2.4	2.7	3.2	0.4	2.7	67.6
United States ^b	0.22	0.19	5.9	-0.6	-2.8	0.0	-2.1	-2.3	4.3	-2.0	-0.9	-3.2	-3.9	-1.5	-12.5

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

^b Australia, Canada, Japan, New Zealand and United States reported energy data on a gross calorific value (GCV) basis. This means that reported IEFs are about 5 per cent lower for liquid and solid fuels and biomass, and about 10 per cent lower for gaseous fuels than would have been the case if the data were given on a net calorific value (NCV) basis. The IEFs included in this table have been converted into NCV-based values and are not reflecting the reported IEFs.

Table 1.32**Civil aviation, navigation and international bunkers - CO₂ (2006)**

	Methods and EF used ^a		IEF in CRF based on GCV or NCV	Civil aviation				Aviation bunkers		Navigation				Marine bunkers	
				Key category	Share of national total	CO ₂ IEF		CO ₂ IEF		Key category	Share of national total	CO ₂ IEF		CO ₂ IEF	
	Jet kerosene	Aviation gasoline				Jet kerosene	Aviation gasoline	Residual oil	Gas/diesel oil			Residual oil	Gas/diesel oil		
														(%)	(t/TJ)
IPCC default EF ^b			NCV			72.80	72.10	72.80	72.10			77.60	73.00	77.60	75.00 - 77.60
Australia ^c	T1	CS, D	GCV	L, T	1.12	72.53	69.82	72.53	NA	T	0.39	76.70	72.84	76.70	72.84
Austria	CS, M	CS	NCV	T	0.25	72.75	72.75	72.75	NO		0.06	NO	69.74	NO	NO
Belarus	D, T1	D	NCV		0.01	71.18	68.52	71.15	NE		-	NE	NE	NE	NE
Belgium			NCV		0.01		70.37	70.79	70.80		0.36		105.35	76.59	73.33
Bulgaria	T1, T2	CS, D	NCV	T	0.17	70.60	70.80	70.60	NO	T	-	NO	NO	NO	76.14
Canada ^c	CS, T1, T2, T3	CS	GCV	L, T	1.14	71.32	73.55	71.32	NA	L	0.75	77.37	73.19	77.37	73.19
Croatia	T1, T3	CR, D	NCV	T	0.59	70.79	68.61	70.79	NO		0.34	NO	73.33	76.59	73.33
Czech Republic	T1	D	NCV		0.01	75.47	74.60	75.47	NE		0.01	NO	73.62	NO	NO
Denmark	OTH	CS	NCV		0.20	72.00	73.00	72.00	73.00	T	0.63	78.00	74.00	78.00	74.00
Estonia	T1	D	NCV		0.05	70.72	NO	70.78	NO	T	0.18	NO	73.33	76.59	73.33
European Community	CR, CS, D, M, OTH, T1, T2, T3	CR, CS, D, M, OTH	NCV	L, T	0.61	72.24	63.77	71.97	70.76	L	0.56	77.17	74.59	77.20	73.70
Finland	CS, M, T1, T3	CS, D	NCV	T	0.40	73.20	71.30	73.20	NO	L	0.71	78.80	74.10	78.80	74.10
France	CR, T3	CS	NCV	L, T	0.88	71.59	IE	71.59	IE	L, T	0.54	78.00	75.00	78.00	75.00
Germany	CS, T1, T3	CS	NCV	L, T	0.53	73.27	IE	73.27	IE		0.09	NO	74.00	78.00	74.00
Greece	CR, M, T1, T2	D, M	NCV	L, T	0.84	70.66	70.67	70.69	NO	L	1.71	77.40	73.16	76.59	73.33
Hungary	T1	CS, D	NCV		0.01	NO	68.61	70.79	NO		0.00	NO	73.33	NA	NA
Iceland	T1	D	NCV		0.66	70.79	68.61	70.79	69	L, T	1.20	76.59	73.33	76.59	73.33
Ireland	T1, T2	CS	NCV		0.16	71.36	IE	71.37	NO		0.01	NO	73.30	76.00	73.30
Italy	D, M, T1, T2	CS	NCV	L, T	0.49	70.74	70.74	70.74	NO	L	1.07	76.54	73.27	76.54	73.27
Japan ^c	T1	CS	GCV	L, T	0.83	70.67	70.59	74.39	NO	L	0.98	IE	72.29	IE	72.29
Latvia	CR, T1, T2	CS, D	NCV		0.02	72.10	70.20	72.10	NO		0.40	NO	74.00	76.60	74.00
Liechtenstein	T1	CS	NCV		0.05	73.20	NO	73.20	NO		-	NO	NO	NO	NO
Lithuania	T2	CS	NCV		0.01	74.00	72.00	74.00	NO		0.08	78.00	74.00	78.00	74.00
Luxembourg	T1, T3	D	NCV		0.00	NO	69.30	71.50	NO		0.04	NO	74.10	NE	NE
Monaco	T1	D	NCV		-	NO	NO	70.79	NO	L, T	1.58	NO	74.00	NO	74.00
Netherlands	CS, T2	CS	NCV		0.02	71.50	72.00	71.50	NO	T	0.30	NO	74.30	77.40	74.30
New Zealand ^c	D	CS	GCV	L, T	1.43	70.97	67.74	70.97	NO		0.42	75.38	NE	76.51	72.43
Norway	T1, T2	CS, PS	NCV	L, T	1.61	73.09	71.30	NO	NO	L, T	4.69	78.82	73.66	NO	NO
Poland	T1, T2	CS, D	NCV		0.02	73.26	72.10	73.26	NO		0.00	77.60	73.12	77.60	74.10
Portugal	CR, T1, T2	CR, D, OTH	NCV	T	0.53	69.17	60.48	69.23	60.50		0.24	77.37	74.07	77.37	74.07
Romania	T1	D	NCV		0.01	70.79	68.61	70.79	68.61		0.03	76.59	73.33	76.59	73.33
Russian Federation	T1	D	NCV	T	0.08	72.60	IE	71.50	NE	T	0.07	76.59	73.33	77.40	74.10
Slovakia	D, M, T1, T2	D	NCV		0.02	73.05	73.60	73.05	73.60		-	NO	NO	NO	75.01
Slovenia	M, T1	D, M	NCV		0.01	NO	71.50	71.50	NO		-	NO	IE	77.60	NO
Spain	CR, T2	CR, D	NCV	L, T	1.66	72.97	IE	73.42	NO	L	0.64	76.78	72.64	76.78	72.64
Sweden	CS, T1	CS	NCV	L	0.95	73.10	72.30	73.10	NO	L	0.74	77.61	74.45	77.61	74.45
Switzerland	T1, T2, T3	CS	NCV	T	0.23	73.20	IE	73.20	IE		0.22	NO	73.72	NO	NO
Turkey															
Ukraine	T1, T2	D, OTH	NCV		0.04	71.50	68.61	71.50	NO	T	0.06	76.59	73.33	76.59	73.33
United Kingdom	CS, OTH, T2, T3	CS	NCV		0.36	71.76	69.46	71.76	NO	L, T	0.84	78.35	73.64	78.35	73.64
United States ^c	T1, T2	CS	GCV	L, T	2.21	71.29	69.03	70.72	NA	L, T	0.53	78.62	71.31	78.62	72.98

^a Information on methods and emission factors in this table is as reported by Parties in table Summary 3 of the CRF. It may not reflect the actual method or type of emission factor used for all subcategories within the category 1.A.3 Transport.

^b Source of default emission factors: IPCC Guidelines, volume 3, pages 1.89, 1.91 (for gas/diesel oil: single value for internal waterways and range for sea-going ships, boats).

^c Australia, Canada, Japan, New Zealand and United States reported energy data on a gross calorific value (GCV) basis. This means that reported IEFs are about 5 per cent lower for liquid and solid fuels and biomass, and about 10 per cent lower for gaseous fuels than would have been the case if the data were given on a net calorific value (NCV) basis. The IEFs included in this table have been converted into NCV-based values and are not reflecting the reported IEFs.

Table 1.33**Domestic and international aviation - activity data (2006)**

	Activity data in CRF based on GCV or NCV	Civil aviation						Aviation bunkers						Total jet kerosene and aviation gasoline		
		Jet kerosene ^b			Aviation gasoline			Jet kerosene ^c			Aviation gasoline			Total jet kerosene and aviation gasoline		
		CRF	IEA ^a	Difference	CRF	IEA ^a	Difference	CRF	IEA ^a	Difference	CRF	IEA ^a	Difference	CRF	IEA ^a	Difference
		(TJ)		(%)	(TJ)		(%)	(TJ)		(%)	(TJ)		(%)	(TJ)		(%)
Australia	GCV	83,260	86,553	4.0	3,902	3,657	-6.3	107,600	102,929	-4.3	NA	0		194,762	193,138	-0.8
Austria	NCV	2,999	4,773	59.2	124	0	-100.0	24,881	24,725	-0.6	NO	0		28,004	29,498	5.3
Belarus	NCV	77			30	0	-100.0	4,093			NE	0		4,200	0	-100.0
Belgium	NCV		0		143	88	-38.6	45,533	49,278	8.2	6,754	0	-100.0	52,431	49,366	-5.8
Bulgaria	NCV	1,715			15	0	-100.0	6,859			NO	0		8,588	0	-100.0
Canada	GCV	117,875	206,056	74.8	2,973	2,822	-5.1	134,867	35,680	-73.5	NA	0		255,715	244,558	-4.4
Croatia	NCV	2,532			49	0	-100.0	1,701			NO	0		4,282	0	-100.0
Czech Republic	NCV	130	602	363.4	88	88	0.5	14,073	13,975	-0.7	NE	0		14,290	14,665	2.6
Denmark ^d	NCV	1,868	1,118	-40.1	92	88	-4.6	35,878	36,206	0.9	2	0	-100.0	37,839	37,412	-1.1
Estonia	NCV	132			NO	0		1,349			NO	0		1,481	0	-100.0
European Community	NCV	346,365	379,690	9.6	4,715	5,940	26.0	1,718,176	1,700,650	-1.0	6,796	0	-100.0	2,076,109	2,086,280	0.5
Finland	NCV	4,391	5,977	36.1	50	308	520.9	19,598	19,479	-0.6	NO	0		24,039	25,764	7.2
France ^e	NCV	67,398	57,104	-15.3	IE	968		234,092	238,134	1.7	IE	0		301,490	296,206	-1.8
Germany	NCV	72,200	73,057	1.2	IE	660		288,800	292,314	1.2	IE	0		361,000	366,031	1.4
Greece	NCV	15,071	15,179	0.7	669	0	-100.0	40,497	39,044	-3.6	NO	0		56,237	54,223	-3.6
Hungary	NCV	NO	0		84	88	4.8	9,210	11,352	23.3	NO	0		9,294	11,440	23.1
Iceland	NCV	359	344	-4.3	39	44	11.7	5,507	7,439	35.1	IS	0	-100.0	5,921	7,827	32.2
Ireland	NCV	1,589	2,236	40.7	IE	308		39,836	33,927	-14.8	NO	0		41,425	36,471	-12.0
Italy	NCV	38,479	38,786	0.8	703	704	0.2	130,397	127,194	-2.5	NO	0		169,578	166,684	-1.7
Japan	GCV	166,218	157,886	-5.0	282	268	-5.1	280,284	280,261	0.0	NO	0		446,784	438,415	-1.9
Latvia	NCV	30			6	0	-100.0	2,765			NO	0		2,802	0	-100.0
Liechtenstein ^f	NCV	2			NO			10			NO			12		
Lithuania	NCV	16			20	0	-100.0	2,189			NO	0		2,225	0	-100.0
Luxembourg	NCV	NO	0		8.4	0	-100.0	17,359	16,942	-2.4	NO	0		17,367	16,942	-2.4
Monaco ^g	NCV	NO			NO			50			NO			50		
Netherlands ^h	NCV	230	2,150	834.0	342	88	-74.3	153,491	152,779	-0.5	NO	0		154,063	155,017	0.6
New Zealand	GCV	15,997	16,331	2.1	555	580	4.5	35,352	33,909	-4.1	NE	0		51,904	50,820	-2.1
Norway	NCV	11,694	13,416	14.7	79	88	12.0	17,008	15,738	-7.5	NO	0		28,781	29,242	1.6
Poland	NCV	892	0	-100.0	132	0	-100.0	16,953	17,845	5.3	NO	132		18,628	17,977	-3.5
Portugal	NCV	6,256	6,450	3.1	58	88	51.0	32,679	32,164	-1.6	42	0	-100.0	39,036	38,702	-0.9
Romania	NCV	166			2	0	-100.0	6,299			28	0	-100.0	6,495	0	-100.0
Russian Federation	NCV	23,126			IE	0		135,405			NE	0		158,531	0	-100.0
Slovakia	NCV	154	0	-100.0	7	132	1,782.0	1,383	1,677	21.3	1	0	-100.0	1,544	1,809	17.1
Slovenia	NCV	NO			21	0	-100.0	1,028			NO	0		1,049	0	-100.0
Spain	NCV	98,731	97,911	-0.8	434	440	1.5	136,367	135,235	-0.8	NO	0		235,532	233,586	-0.8
Sweden	NCV	8,492	8,600	1.3	33	176	438.2	27,446	27,649	0.7	NO	0		35,970	36,425	1.3
Switzerland ^f	NCV	1,658	1,290	-22.2	IE	176		50,109	51,987	3.7	IE	0		51,766	53,453	3.3
Turkey			32,981			0			41,108			0			74,089	
Ukraine	NCV	2,700			60	0	-100.0	10,530			NO	0		13,290	0	-100.0
United Kingdom	NCV	30,548	66,349	117.2	2,062	2,024	-1.9	496,108	475,580	-4.1	NO	0		528,718	543,953	2.9
United States	GCV	2,257,772	2,706,417	19.9	34,800	34,093	-2.0	1,058,925	676,627	-36.1	615	0	-100.0	3,352,112	3,417,137	1.9

^a Source: IEA [unpublished]. Data downloaded on 3 July 2008 from <http://data.iea.org/IEASTORE/DEFAULT.ASP> (restricted access to the public).

^b UNFCCC have clustered under 'jet kerosene' quantities from the IEA online database of 'gasoline type jet fuel' consumed by this activity for Austria, Canada and Greece.

^c UNFCCC have clustered under 'jet kerosene' quantities from the IEA online database of 'gasoline type jet fuel' consumed by this activity for Lithuania.

^d IEA data for Denmark does not include Faroe Islands and Greenland.

^e IEA data for France includes data for Monaco, but excludes data for the following overseas territories: Guadeloupe, Guyana, Martinique, New Caledonia, French Polynesia, Reunion and Saint Pierre Miquelon.

^f No IEA data for Liechtenstein are available. These data are not included in the data of Switzerland.

^g IEA data for Monaco are included in the data of France.

^h IEA data for the Netherlands excludes data for the following territories: Suriname and the Netherlands Antilles.

Table 1.34

Domestic and international navigation - activity data (2006)

	Activity data in CRF based on GCV or NCV	Navigation						Marine bunkers						Total					
		Residual oil			Gas / diesel oil			Residual oil			Gas / diesel oil			Residual oil			Gas / diesel oil		
		CRF	IEA ^a	Difference	CRF	IEA ^a	Difference	CRF	IEA ^a	Difference	CRF	IEA ^a	Difference	CRF	IEA ^a	Difference	CRF	IEA ^a	Difference
		(TJ)		(%)	(TJ)		(%)	(TJ)		(%)	(TJ)		(%)	(TJ)		(%)	(TJ)		(%)
Australia	GCV	6,497	6,347	-2.3	2,400	3,706	54.4	34,300	33,952	-1.0	8,900	8,307	-6.7	40,797	40,300	-1.2	11,300	12,013	6.3
Austria	NCV	NO	0		626	426	-31.9	NO	0		NO	0		NO	0		626	426	-31.9
Belarus	NCV	NE			NE	0		NE	0		NE	0		NE	0		NE	0	
Belgium	NCV		320	100.0	4,727	8,264	74.8	323,508	318,440	-1.6	34,178	27,434	-19.7	323,508	318,760	-1.5	38,905	35,699	-8.2
Bulgaria	NCV	NO			NO	0		NO	0		4,443		-100.0	NO	0		4,443	0	-100.0
Canada	GCV	36,142	33,165	-8.2	39,108	37,062	-5.2	20,787	19,095	-8.1	3,458	3,280	-5.2	56,929	52,260	-8.2	42,567	40,342	-5.2
Croatia	NCV	NO			1,414	0	-100.0	535	0	-100.0	273		-100.0	535	0	-100.0	1,687	0	-100.0
Czech Republic	NCV	NO	0		253	256	0.9	NO	0		NO	0		NO	0		253	256	0.9
Denmark ^b	NCV	645	1,280	98.4	5,090	3,706	-27.2	31,565	31,040	-1.7	13,116	13,078	-0.3	32,210	32,320	0.3	18,206	16,784	-7.8
Estonia	NCV	NO			465	0	-100.0	6,904	0	-100.0	1,921		-100.0	6,904	0	-100.0	2,386	0	-100.0
European Community	NCV	105,248	52,200	-50.4	181,040	181,646	0.3	1,883,193	1,882,480	0.0	258,967	303,482	17.2	1,988,441	1,934,680	-2.7	440,007	485,129	10.3
Finland	NCV	2,081	2,040	-2.0	3,203	4,856	51.6	20,616	20,360	-1.2	2,586	2,599	0.5	22,697	22,400	-1.3	5,789	7,455	28.8
France ^c	NCV	1,366	0	-100.0	31,218	2,556	-91.8	108,195	107,480	-0.7	11,549	9,457	-18.1	109,561	107,480	-1.9	42,767	12,013	-71.9
Germany	NCV	NO	0		11,556	11,459	-0.8	92,008	84,560	-8.1	18,988	22,195	16.9	92,008	84,560	-8.1	30,544	33,654	10.2
Greece	NCV	14,428	14,360	-0.5	15,512	15,251	-1.7	110,965	110,440	-0.5	17,245	16,955	-1.7	125,393	124,800	-0.5	32,757	32,206	-1.7
Hungary	NCV	NO	0		49	43	-13.1	NA	0		NA	0		NA,NO	0		49	43	-13.1
Iceland	NCV	248	240	-3.3	435	426	-2.0	357	120	-66.4	1,498	1,363	-9.0	605	360	-40.5	1,933	1,789	-7.4
Ireland	NCV	NO	1,040		53	85	61.8	2,031	1,960	-3.5	3,408	3,195	-6.2	2,031	3,000	47.7	3,460	3,280	-5.2
Italy	NCV	37,350	0	-100.0	35,812	10,139	-71.7	82,962	117,000	41.0	242	25,858	10,572.4	120,311	117,000	-2.8	36,055	35,997	-0.2
Japan	GCV	IE	115,574		7,383	51,503	597.6	IE	236,260		1,463	7,072	383.4	IE	351,833		8,846	58,575	562.2
Latvia	NCV	NO			589	0	-100.0	5,481	0	-100.0	2,762		-100.0	5,481	0	-100.0	3,351	0	-100.0
Liechtenstein ^b	NCV	NO			NO			NO			NO			NO			NO		
Lithuania	NCV	14		-100.0	247	0	-100.0	5,044	0	-100.0	637		-100.0	5,058	0	-100.0	884	0	-100.0
Luxembourg	NCV	NO	0		80	0	-100.0	NE	0		NE	0		NE,NO	0		80	0	-100.0
Monaco ^d	NCV	NO			16			NO			193			NO			209		
Netherlands ^e	NCV	NO	0		8,432	11,161	32.4	654,608	640,520	-2.2	69,387	82,175	18.4	654,608	640,520	-2.2	77,819	93,337	19.9
New Zealand	GCV	4,537	0	-100.0	NE	0		10,570	10,693	1.2	1,516	1,832	20.8	15,107	10,693	-29.2	1,516	1,832	20.8
Norway	NCV	3,699	3,640	-1.6	29,808	29,735	-0.2	12,729	7,360	-42.2	16,878	13,632	-19.2	16,428	11,000	-33.0	46,686	43,367	-7.1
Poland	NCV	41	0	-100.0	143	128	-10.6	8,560	8,560	0.0	3,680	3,706	0.7	8,601	8,560	-0.5	3,823	3,834	0.3
Portugal	NCV	1,831	0	-100.0	807	852	5.6	17,898	20,560	14.9	3,851	5,751	49.3	19,729	20,560	4.2	4,658	6,603	41.8
Romania	NCV	15		-100.0	519	0	-100.0	34	0	-100.0	1,155		-100.0	49	0	-100.0	1,674	0	-100.0
Russian Federation	NCV	10,241		-100.0	10,852	0	-100.0	9,170	0	-100.0	11,870		-100.0	19,411	0	-100.0	22,722	0	-100.0
Slovakia	NCV	NO	0		NO	0		NO	0		407	0	-100.0	NO	0		407	0	-100.0
Slovenia	NCV	NO			IE	0		1,206	0	-100.0	NO			1,206	0	-100.0	IE,NO	0	
Spain	NCV	25,322	10,800	-57.3	11,275	59,470	427.4	299,020	297,680	-0.4	45,230	44,602	-1.4	324,342	308,480	-4.9	56,505	104,072	84.2
Sweden	NCV	2,346	2,200	-6.2	3,056	2,939	-3.8	85,939	79,920	-7.0	6,309	6,092	-3.4	88,285	82,120	-7.0	9,365	9,031	-3.6
Switzerland ^d	NCV	NO	0		1,555	341	-78.1	NO	0		NO	383		NO	0		1,555	724	-53.4
Turkey			4,480			14,697			23,240			17,423			27,720			32,120	
Ukraine	NCV	401		-100.0	3,140	0	-100.0	920	0	-100.0	2,004		-100.0	1,321	0	-100.0	5,144	0	-100.0
United Kingdom	NCV	20,736	20,160	-2.8	51,339	50,481	-1.7	53,999	52,520	-2.7	34,967	44,091	26.1	74,735	72,680	-2.8	86,306	94,572	9.6
United States	GCV	237,000	2,975	-98.7	284,711	0	-100.0	632,366	864,099	36.6	125,879	299,648	138.0	869,366	867,074	-0.3	410,590	299,648	-27.0

^a Source: IEA [unpublished]. Data downloaded on 3 July 2008 from <http://data.iea.org/IEASTORE/DEFAULT.ASP> (restricted access to the public).

^b IEA data for Denmark does not include Faroe Islands and Greenland.

^c IEA data for France includes data for Monaco, but excludes data for the following overseas territories: Guadeloupe, Guyana, Martinique, New Caledonia, French Polynesia, Reunion and Saint Pierre Miquelon.

^d No IEA data for Liechtenstein are available. These data are not included in the data of Switzerland.

^e IEA data for Monaco are included in the data of France.

^f IEA data for the Netherlands excludes data for the following territories: Suriname and the Netherlands Antilles.

Table 1.35

CO₂ emissions from civil aviation - trend information

CO ₂ emissions (Gg)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	2,895	5,996	23.6	8.7	4.1	-10.8	-4.9	5.4	9.2	-11.5	-2.5	2.8	5.7	17.8	107.1
Austria	32	227	17.2	10.2	11.0	9.6	5.0	1.2	-4.7	-0.5	108.3	18.5	13.1	4.5	609.9
Belarus	C	8	*	*	*	*	*	*	3.6	-13.5	27.4	27.2	3.5	13.6	*
Belgium	12	10	8.2	-15.0	-10.6	11.1	30.5	0.9	1.4	22.0	-7.8	-41.6	7.7	17.0	-16.8
Bulgaria	612	122	-14.7	-22.5	-14.3	-34.5	-70.4	-10.1	45.4	3.1	17.6	84.9	15.1	2.0	-80.0
Canada	6,182	8,194	-11.4	4.7	2.5	2.2	1.6	-0.2	-6.1	9.7	7.4	8.4	9.4	-1.6	32.6
Croatia	349	183	-71.4	-15.2	5.0	7.5	81.5	-18.5	30.2	-4.0	-9.8	13.0	8.6	5.8	-47.7
Czech Republic	149	16	-9.0	-10.7	-8.2	-85.6	1.4	1.4	33.3	25.0	0	0	-20.0	25.0	-89.1
Denmark	243	141	-17.9	3.1	3.5	-8.6	-10.2	-11.5	4.8	-13.4	-2.3	-7.3	5.4	5.8	-41.8
Estonia	12	9	0	0	1.2	34.1	76.3	-56.3	-91.0	315.9	-58.6	112.9	-20.7	454.3	-24.2
European Community	16,244	25,321	-4.2	9.4	5.6	6.4	7.9	4.7	-3.0	-3.1	0.8	4.1	7.4	0.9	55.9
Finland	385	325	-11.8	16.4	11.0	14.2	-0.9	-1.0	-2.0	-13.2	1.1	1.6	-0.9	-1.2	-15.6
France	4,298	4,825	2.7	9.9	3.4	2.1	3.1	1.9	-6.9	-3.0	-8.2	0.2	-2.1	-4.8	12.3
Germany	2,869	5,290	-1.9	4.7	3.9	2.8	7.3	6.0	-2.6	-0.9	1.5	2.8	15.1	4.3	84.4
Greece	588	1,112	5.7	7.3	13.6	1.7	19.6	9.7	-7.8	-14.2	12.6	3.5	0.9	-10.2	89.2
Hungary	1	6	*	*	*	*	*	*	-13.3	*	*	*	*	*	611.5
Iceland	32	28	-3.7	13.1	-6.3	5.0	-3.8	-12.1	-12.1	-12.3	2.7	6.0	11.5	8.2	-11.3
Ireland	59	113	0.1	2.9	7.4	15.1	6.2	13.7	13.5	-3.8	-2.3	2.5	2.6	5.2	91.9
Italy	1,597	2,772	-1.3	12.0	8.1	8.8	15.3	5.7	-5.0	3.8	3.5	-3.7	-0.6	4.5	73.6
Japan	7,162	11,178	8.4	-1.9	6.5	-0.3	-1.7	1.4	0.4	2.0	1.2	-3.6	1.3	3.5	56.1
Latvia	0	3	3.1	50.1	33.3	25.0	20.0	16.7	14.3	11.0	7.0	5.3	6.0	5.1	3,846.1
Liechtenstein	0	0	0	1.0	1.0	1.0	1.0	0.9	0.9	4.4	4.4	-28.4	35.1	60.7	79.5
Lithuania	1	3	0	0	44.4	23.1	-12.5	0	885.5	-21.8	-85.7	269.4	-38.0	3.1	264.4
Luxembourg	0	1	52.0	3.1	1.7	-13.9	2.1	-4.6	-0.7	-7.3	16.3	-12.3	-1.0	-14.8	146.5
Monaco	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	41	41	0	0	0	0	0	0	0	0	0	0	0.0	0	0.0
New Zealand	773	1,114	-15.2	-3.7	-2.3	3.7	-10.0	11.0	32.7	-6.3	12.2	2.9	-14.9	9.9	44.2
Norway	679	860	2.6	11.1	2.8	2.4	14.9	-8.6	0.6	-14.1	4.5	-0.9	-15.9	8.2	26.6
Poland	121	75	203.6	-10.1	-16.8	-11.8	-14.9	49.0	-5.0	23.6	-27.0	-7.0	11.1	28.0	-38.0
Portugal	165	436	23.3	0.9	3.7	17.9	6.2	5.4	5.5	5.9	-4.7	3.5	3.7	4.9	164.7
Romania	26	12	-4.1	-38.7	15.3	-41.7	28.6	-41.6	7.1	1.2	69.2	-5.3	7.5	-17.7	-53.7
Russian Federation	36,903	1,679	-3.3	-12.7	-2.6	-3.5	5.2	-94.8	98.5	38.8	-22.1	51.8	-55.9	12.4	-95.5
Slovakia	8	12	-7.0	17.2	-11.4	-8.1	1.4	3.6	-4.9	4.3	28.1	29.8	16.2	11.5	51.8
Slovenia	1	2	-77.8	11.8	6.8	23.8	-3.1	0.1	-18.2	-0.5	2.7	-21.3	-11.1	-10.4	142.1
Spain	4,130	7,204	-15.1	15.8	7.3	14.7	9.8	6.0	-0.5	-7.0	4.8	10.7	16.6	5.1	74.4
Sweden	673	623	-8.9	-3.0	8.3	2.0	4.7	-7.9	-2.9	-4.0	-3.0	14.6	-0.7	-6.0	-7.5
Switzerland	253	121	-7.4	-3.3	-4.1	-3.8	-2.1	-5.4	-9.6	-11.7	-3.8	0.6	-13.5	-2.4	-52.0
Turkey															
Ukraine	781	197	*	*	*	*	-6.4	-6.2	1.0	16.7	33.1	17.0	-5.1	12.0	-74.8
United Kingdom	1,210	2,335	-2.4	8.8	3.9	8.6	10.7	9.8	5.3	1.0	2.6	7.3	9.2	-2.8	93.1
United States	146,087	155,191	-5.3	6.3	0.5	1.1	3.9	3.5	-6.8	-4.4	-1.8	1.4	4.8	-4.9	6.2

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 1.36

CO₂ emissions from aviation bunkers - trend information

CO ₂ emissions (Gg)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	4,339	7,414	4.0	7.8	3.6	10.6	0.5	0.9	6.3	-14.1	-11.5	1.1	13.2	9.5	70.9
Austria	886	1,810	12.2	10.5	4.0	3.5	-2.3	8.6	-2.8	-6.3	-14.5	17.4	13.0	4.6	104.3
Belarus	5,558	291	*	-10.1	-6.5	-43.1	15.2	63.2	8.1	22.4	8.5	-3.4	-20.9	39.7	-94.8
Belgium	3,096	3,701	-16.0	15.8	7.8	12.9	12.7	1.6	-9.5	-16.8	8.9	-2.5	-4.9	4.6	19.6
Bulgaria	749	484	-64.1	-14.1	-9.4	14.7	-34.9	-15.5	45.8	1.5	21.5	-16.4	16.6	2.4	-35.4
Canada	6,878	9,138	-10.0	17.3	2.5	3.1	6.9	1.5	-10.4	0.7	-7.2	12.1	-0.7	-0.8	32.9
Croatia	149	120	*	-5.3	5.6	7.0	-41.0	-11.1	-37.5	-5.0	21.1	21.7	37.9	0.3	-19.4
Czech Republic	617	1,062	-10.1	8.6	1.3	8.7	-5.3	11.5	7.4	8.1	16.1	28.8	3.9	2.8	72.2
Denmark	1,736	2,583	-6.0	5.6	2.0	7.4	6.1	2.6	1.5	-13.6	4.0	14.3	5.2	0.3	48.8
Estonia	95	95	3.2	-12.5	42.5	-35.1	31.6	11.7	-17.9	12.1	1.3	54.8	68.8	-33.1	0.0
European Community	61,303	124,135	-0.1	5.6	5.1	7.9	8.0	5.5	-2.2	-1.8	3.3	6.6	5.6	4.1	102.5
Finland	1,008	1,435	-5.9	7.0	4.0	2.5	7.0	-2.8	2.5	-1.1	3.3	15.1	0.6	11.2	42.4
France	8,861	16,759	-3.5	6.0	2.2	6.9	10.4	4.4	1.1	0.3	0.9	6.9	1.4	5.7	89.1
Germany	11,474	21,139	-1.9	4.7	3.9	2.8	7.3	6.1	-2.6	-0.9	1.5	2.8	15.1	4.3	84.4
Greece	2,448	2,863	-13.8	-4.2	-3.3	5.0	12.3	-12.3	-7.1	0	30.2	2.8	-23.2	19.9	17.0
Hungary	431	652	-20.9	6.8	-5.1	4.6	7.3	6.3	-15.1	7.2	2.6	3.0	8.8	-1.7	51.1
Iceland	220	391	1.1	15.0	7.6	15.8	7.5	12.2	-14.4	-11.3	7.5	14.1	11.0	-7.3	77.9
Ireland	1,061	2,843	-3.5	-8.2	21.0	2.6	18.9	16.0	20.4	6.6	-2.2	-5.6	16.0	15.7	168.1
Italy	4,116	9,224	20.0	7.2	2.0	8.7	9.7	7.1	-10.0	-1.4	15.8	0.2	5.9	8.0	124.1
Japan	13,189	19,808	5.5	9.0	3.8	4.5	-2.1	-0.2	-4.2	13.0	-3.6	3.9	0.7	-7.2	50.2
Latvia	221	199	35.2	28.0	0	-9.4	0	-10.3	0	3.8	44.5	20.5	21.3	12.3	-9.8
Liechtenstein	0	1	0	2.8	2.7	2.7	2.6	2.5	2.5	-10.3	10.1	-28.4	35.1	60.7	79.5
Lithuania	418	162	19.9	-16.7	0.3	-16.3	-9.5	-1.2	17.9	-10.5	12.8	10.4	35.7	13.8	-61.2
Luxembourg	400	1,241	4.2	8.7	14.8	26.4	12.8	-4.7	8.2	8.3	4.2	8.8	1.6	-6.4	210.0
Monaco	2	4	2.0	1.0	6.1	12.4	5.7	15.8	-7.6	-8.1	0.0	-10.1	8.2	5.8	45.5
Netherlands	4,540	10,975	6.7	6.5	8.2	9.4	2.8	-0.8	-2.2	4.6	-1.6	7.0	3.5	0.9	141.7
New Zealand	1,341	2,383	-4.5	4.2	4.5	-0.5	14.2	-9.5	7.0	2.1	18.9	12.4	-2.4	-4.8	77.7
Norway	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Poland	1,106	1,242	6.3	2.8	-31.4	-1.6	-11.6	62.4	-5.8	21.9	-32.3	-1.8	13.5	33.4	12.3
Portugal	1,486	2,265	-0.7	-1.1	3.1	4.5	11.0	4.3	-2.9	-5.6	10.5	9.4	3.7	4.9	52.4
Romania	156	448	7.5	-26.9	-17.1	-21.4	35.1	24.1	-5.4	-5.0	34.2	3.9	16.0	9.5	187.7
Russian Federation	4,593	9,681	-14.1	18.2	3.7	-13.3	-2.3	-6.8	6.0	5.4	4.2	15.1	16.6	11.1	110.8
Slovakia	63	101	-7.0	18.0	-11.4	-7.8	0.9	1.6	-5.9	3.8	32.2	35.2	16.0	12.1	60.2
Slovenia	97	73	-65.3	-7.4	5.5	-8.0	19.4	15.0	12.9	2.9	-4.4	-23.8	7.2	13.8	-24.6
Spain	3,432	10,012	19.2	5.5	7.9	5.7	3.5	7.5	1.9	-3.8	4.9	10.9	0.4	5.2	191.8
Sweden	1,335	2,006	-18.5	2.7	5.7	7.2	12.3	2.5	-2.9	-13.9	-2.8	13.1	9.3	3.6	50.3
Switzerland	3,066	3,668	-2.4	4.1	3.9	4.8	7.4	4.7	-5.6	-7.7	-10.3	-5.8	1.7	5.1	19.6
Turkey															
Ukraine	2,368	753	-13.7	-43.0	-3.0	-4.5	-8.4	-0.9	0.4	12.6	16.8	21.2	10.7	18.0	-68.2
United Kingdom	15,737	35,602	-1.4	6.0	6.3	11.3	8.7	10.2	-2.5	-1.9	2.4	9.5	7.9	1.5	126.2
United States	45,731	71,141	0.6	2.8	7.1	1.4	3.8	2.9	-1.9	4.1	-3.8	10.3	4.0	5.4	55.6

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 1.37

CO₂ emissions from navigation - trend information

CO ₂ emissions (Gg)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	2,919	2,094	2.3	3.5	-0.3	-12.6	-11.6	4.8	-10.5	-0.3	-0.3	9.3	5.1	-8.2	-28.3
Austria	52	52	-9.2	2.0	-0.7	7.4	-2.0	7.7	3.7	9.4	-17.6	-19.8	-1.1	0.6	0.5
Belarus	NA, NE	NA, NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Belgium	411	498	46.0	0.0	2.1	1.2	5.5	10.2	2.3	2.6	-1.5	3.5	-0.9	2.7	21.1
Bulgaria	1,088	NA, NO	-93.8	143.0	-83.1	85.6	-13.8	*	*	*	*	*	*	*	*
Canada	4,693	5,376	4.4	2.4	1.4	14.8	-3.9	2.8	8.6	-0.5	13.8	7.0	-2.9	-11.1	14.5
Croatia	133	104	-19.6	51.4	-20.7	-23.5	-3.1	-2.1	7.2	20.6	0.3	-18.0	9.3	4.1	-22.0
Czech Republic	56	19	-0.8	-16.8	-16.1	-2.6	-41.7	-28.3	60.0	-50.0	0	50.0	-16.7	20.0	-66.7
Denmark	713	455	0.0	9.3	-3.3	-18.8	-17.7	-13.8	-3.0	-0.7	0.8	3.0	-0.8	-1.5	-36.2
Estonia	578	34	17.6	77.4	-13.8	-1.9	-7.8	39.7	-8.1	52.4	-22.1	0.5	-4.2	36.4	-94.1
European Community	19,479	23,165	2.3	2.8	-0.9	4.8	-0.1	-7.2	2.4	-1.9	11.4	1.9	2.8	8.1	18.9
Finland	441	569	0.6	6.5	6.4	-2.1	4.5	0.4	-8.5	5.4	2.0	-2.2	1.6	7.0	28.9
France	1,873	2,961	-10.6	-7.4	-0.8	1.6	9.4	-9.8	16.7	13.8	6.6	5.3	3.3	5.5	58.1
Germany	2,050	855	1.0	-8.1	-20.9	-8.4	-18.5	-7.2	-3.6	-12.8	4.4	12.7	15.0	-14.3	-58.3
Greece	1,825	2,281	1.4	-14.3	21.4	54.1	-1.2	-42.8	35.8	-9.7	-0.7	12.0	-3.8	10.1	25.0
Hungary	113	4	-8.3	17.9	71.7	-26.6	-48.3	6.7	-6.3	180.0	361.9	-85.8	-34.5	36.1	-96.8
Iceland	59	51	-8.6	17.6	-38.9	-23.4	-11.2	-30.6	62.2	-9.5	84.6	42.1	-53.6	127.1	-14.3
Ireland	84	4	-0.1	3.0	6.0	5.6	13.4	2.5	-7.1	-51.4	-5.2	4.2	0.8	-93.6	-95.4
Italy	5,401	6,105	6.8	12.4	3.7	4.8	-2.6	2.1	-0.1	-2.3	1.6	1.2	-1.4	-0.1	13.0
Japan	13,731	13,083	4.2	5.9	6.3	-11.1	-0.4	1.6	-3.1	1.2	-3.0	-8.7	0.5	0.9	-4.7
Latvia	17	46	16.6	3.0	-5.2	-0.3	4.5	4.4	0.2	-3.3	-1.2	-4.6	2.1	3.0	165.8
Liechtenstein	NA, NO	NA, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Lithuania	16	19	75.0	46.9	62.3	-16.7	-54.8	-6.1	17.2	13.9	11.2	28.7	-1.3	13.7	23.5
Luxembourg	6	6	0	0	0	0	0	0	0	0	0	0	0	0	0
Monaco	1	1	28.7	-14.9	61.8	-19.7	36.3	40.1	32.4	-15.4	14.0	10.0	-1.3	-2.0	192.2
Netherlands	405	626	2.3	-8.0	9.0	5.3	32.8	-2.1	-0.4	3.8	16.4	-7.6	-5.5	0	54.7
New Zealand	248	325	4.6	-14.4	-26.2	-31.3	50.5	73.6	-13.0	10.9	2.8	-10.5	16.5	-16.0	31.1
Norway	1,929	2,509	-0.2	5.5	10.4	4.8	9.2	-8.5	-10.3	-1.5	-0.4	2.0	3.2	7.1	30.0
Poland	143	14	-43.7	2.0	-15.2	-21.8	44.4	-63.8	-43.6	16.5	-33.9	-36.0	25.3	31.3	-90.4
Portugal	240	201	-0.4	5.6	4.4	3.0	-9.5	-10.3	-3.4	4.7	0.7	2.3	-9.5	5.2	-16.3
Romania	257	40	36.2	28.1	146.4	-13.4	35.0	-51.5	-89.4	144.6	-62.7	81.8	85.3	-13.1	-84.5
Russian Federation	16,018	1,591	-4.7	-9.4	39.3	-33.1	99.2	135.7	-10.2	8.1	-10.3	-41.1	1.0	-2.8	-90.1
Slovakia	NA, NO	NA, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Slovenia	IE, NA, NO	IE, NA, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Spain	1,500	2,763	-0.9	3.1	-20.2	0.4	34.0	4.5	13.3	11.5	3.8	1.9	3.9	9.9	84.2
Sweden	538	484	-24.5	-2.7	21.9	22.6	14.4	3.0	-1.2	-2.3	15.6	-12.2	-5.6	-9.7	-10.0
Switzerland	111	115	-1.1	0.9	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.4	3.4
Turkey															
Ukraine	2,564	261	*	*	*	*	0.4	1.0	4.0	0.1	0.8	8.3	-3.7	6.9	-89.8
United Kingdom	4,122	5,502	4.3	8.1	-3.6	-6.6	-9.2	-3.3	-17.5	-16.0	71.8	-1.8	13.7	31.7	33.5
United States	39,576	36,988	-11.0	-5.7	-35.5	-23.0	3.2	128.6	-30.9	44.2	-51.2	27.5	12.7	-6.2	-6.5

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 1.38

CO₂ emissions from marine bunkers - trend information

CO ₂ emissions (Gg)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	2,057	3,115	-9.6	1.6	-7.3	-12.0	10.5	13.0	-6.1	9.1	-2.5	0.8	7.3	4.0	51.4
Austria	NA, NO	NA, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Belarus	NA, NE	NA, NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Belgium	13,303	27,285	1.2	22.7	10.8	4.5	-19.3	8.1	0.9	39.8	1.5	5.6	2.9	9.3	105.1
Bulgaria	969	338	0.5	-17.1	49.3	-6.4	-97.5	704.1	49.0	9.9	29.6	-15.9	-4.6	-3.2	-65.1
Canada	3,003	1,768	3.6	-6.9	-1.2	24.0	-10.1	1.5	7.8	-24.3	-42.3	21.9	-2.0	-9.3	-41.1
Croatia	109	61	-34.3	12.6	-35.9	10.0	-18.9	-13.2	56.7	-18.0	-6.2	6.4	8.1	-22.8	-43.8
Czech Republic	NA, NO	NA, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Denmark	3,087	3,433	-10.5	-5.1	-8.3	0.2	-5.9	3.0	-15.8	-17.7	5.5	-18.7	3.6	30.2	11.2
Estonia	574	670	3.8	4.6	10.8	6.2	6.7	-9.3	-4.8	18.5	-4.9	33.0	-20.1	77.6	16.6
European Community	102,855	165,019	-0.7	6.7	8.9	4.6	-4.7	5.4	3.7	3.1	1.2	6.1	5.4	6.1	60.4
Finland	1,842	1,816	-4.7	13.3	8.7	28.2	7.1	15.3	-10.5	12.8	-0.6	-19.4	-1.7	10.0	-1.4
France	8,137	9,305	3.7	4.9	10.0	10.1	1.6	3.4	-14.8	-3.0	8.4	13.6	-8.6	3.9	14.4
Germany	7,980	8,582	-15.6	-0.9	6.9	-5.1	1.8	5.0	1.1	7.0	10.3	2.5	0	0	7.5
Greece	8,028	9,800	-8.2	-12.0	0.3	11.4	-11.0	15.5	-2.9	-10.3	2.4	0.9	-11.2	7.9	22.1
Hungary	NA	NA	*	*	*	*	*	*	*	*	*	*	*	*	*
Iceland	99	137	-62.0	-13.9	20.0	18.7	-7.2	33.4	-31.8	39.1	-30.7	36.5	-43.4	23.7	38.6
Ireland	57	404	88.5	35.1	-4.4	4.6	8.9	-12.2	6.7	-10.7	18.7	-12.2	-30.4	22.4	611.8
Italy	4,389	6,541	-17.7	-29.2	7.1	0.6	-0.1	24.8	13.6	14.6	12.2	7.1	3.5	5.3	49.0
Japan	17,640	19,027	5.5	-41.1	30.2	6.5	-5.3	4.5	-13.6	4.9	9.9	4.7	12.9	-5.9	7.9
Latvia	1,500	624	-70.1	-35.3	-27.2	-79.0	-33.2	-20.0	2,349.3	5.5	-8.7	7.9	28.7	-24.3	-58.4
Liechtenstein	NA, NO	NA, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Lithuania	304	441	64.9	-6.9	-54.1	-17.2	45.1	27.3	7.6	10.8	-0.3	0.3	30.8	-4.2	45.1
Luxembourg	NA, NE	NA, NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Monaco	4	15	29.3	-8.3	39.3	-6.1	41.3	40.2	38.2	-16.0	17.5	13.3	-0.5	-2.0	253.1
Netherlands	34,357	56,158	2.8	2.2	6.2	1.1	3.4	6.3	10.1	-1.2	-6.7	8.7	14.9	3.8	63.5
New Zealand	1,033	873	-11.5	-5.6	4.6	-3.5	-14.7	-18.5	6.0	33.7	-20.7	-12.0	35.0	-12.4	-15.5
Norway	NA, NO	NA, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Poland	1,648	937	-57.7	15.3	-31.6	74.9	104.7	-47.0	-8.6	3.4	5.4	-11.0	26.9	-8.3	-43.1
Portugal	1,421	1,670	-1.0	5.3	-2.6	0.6	30.5	10.0	-30.4	5.9	23.5	16.7	-11.3	6.4	17.5
Romania	1,352	89	23.7	48.5	128.8	-1.2	-52.0	-46.9	-87.8	183.9	-60.5	53.9	97.2	3.4	-93.4
Russian Federation	7,586	1,589	-6.9	-1.5	-22.1	-0.6	-20.2	-1.2	10.8	-0.5	-5.1	4.2	-15.2	-3.5	-79.0
Slovakia	65	31	-12.2	-14.8	-40.4	39.8	-78.9	*	*	7.9	-24.3	-61.1	-92.0	4371.5	-53.3
Slovenia	NA	94	*	*	*	*	*	*	*	*	*	*	*	*	*
Spain	11,528	26,244	6.0	46.0	23.3	5.3	-2.4	2.2	11.9	2.4	1.9	3.1	9.8	4.4	127.7
Sweden	2,228	7,140	18.5	5.9	17.3	15.4	-2.2	-2.8	-2.4	-11.8	34.5	17.8	2.1	7.5	220.5
Switzerland	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Turkey															
Ukraine	3,528	217	*	*	*	*	-19.2	-9.2	7.2	-40.5	-29.3	20.8	13.5	3.7	-93.8
United Kingdom	6,680	6,807	-3.3	9.3	12.1	9.1	-27.5	-12.0	12.2	-16.7	-4.0	14.4	-0.3	16.2	1.9
United States	67,952	55,956	9.0	0.4	7.7	7.3	-19.8	-12.0	-5.8	-28.0	60.0	20.8	1.8	1.6	-17.7

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 1.39

Fugitive emissions from fuels: coal mining and handling - CH₄ (2006)

	Key category	Share of national total	Methods and EF used ^a		Activity data					CH ₄ IEF			
					CRF			IEA ^b		Underground mines		Surface mines	
			Methods	EF	Underground mines	Surface mines	Total	Total	Difference	Mining activities	Post-mining activities	Mining activities	Post-mining activities
		(%)			(Mt)				(%)	(kg/t)			
IPCC default EF ^c										4.50-16.75	0.60-2.68	0.20-1.34	0-0.13
Australia	L, T	4.16	T2, T3	CS, D, PS	86.5	379.7	466.2	367.5	-21.2	7.49	0.37	1.01	NE
Austria		0.00	T1	CR	NO	0.0	0.0	0.0	-85.0	NO	NO	0.21	IE
Belarus		-	NA	NA	NE	NE	NE	0		NE	NE	NE	NE
Belgium		-			NO		NO	0		NO	NO	NE	NE
Bulgaria	L	1.66	T1	D	2.7	23.0	25.7	25.5	-0.8	11.73	1.68	0.80	0.07
Canada	T	0.09	CS	CS	666.3	76,691.5	77,357.8	66.4	-99.9	0.00	IE	0.00	IE
Croatia		-	NA	NA	NO	NO	NO	0.1		NO	NO	NO	NO
Czech Republic	L, T	3.35	T1, T2	CS, D	14.3	44.8	59.1	62.4	5.6	12.26	1.64	0.77	0.07
Denmark ^d		-	NA	NA	NO	NO	NO	0		NO	NO	NO	NO
Estonia	L, T	1.39	T1, T2	CS	7.2	6.9	14.1	14.2	0.8	1.34	0.13	0.20	0.07
European Community	T	0.26	CR, CS, T1, T1b, T2, T3	CR, CS, D, PS	40.1	261.4	301.5	318.8	5.7	11.41	0.85	0.28	0.00
Finland		-	NA	NA	NO	NO	NO	13.2		NO	NO	NO	NO
France ^e	T	0.00	CR	CS, PS	NA	NA	NA	0		NA	IE	NA	IE
Germany	T	0.48	CS, T2	CS	20.7	176.3	197.0	200.2	1.6	10.47	0.58	0.01	NE
Greece	L	1.02	T1	D	NO	64.5	64.5	64.5	0.0	NO	NO	1.01	IE
Hungary	T	0.03	D, T2	CS	1.5	8.5	10.0	10.0	0	0.67	0.07	0.00	0.00
Iceland		-	NA	NA	NO	NO	NO	0		NO	NO	NO	NO
Ireland		-	NA	NA	NE	NE	NE	3.7		NO	NO	NO	NO
Italy		0.00	T1	CR, CS, D	0.0	NO	0.0	0.0	0	10.05	0.30	NO	NA
Japan	T	0.01	T1, T3	D, OTH	0.7	0.6	1.4	0	-100.0	2.03	1.64	0.77	0.07
Latvia		-	NA	NA	NO	NO	NO	0.0		NO	NO	NO	NO
Liechtenstein ^f		-	NA	NA	NO	NO	NO			NO	NO	NO	NO
Lithuania		-	NA	NA	NO	NO	NO	0.0		NO	NO	NO	NO
Luxembourg		-	NA	NA	NO	NO	NO	0		NO	NO	NO	NO
Monaco ^g		-	NA	NA	NO	NO	NO			NO	NO	NO	NO
Netherlands		-	T1b	D	NA	NA	NA	0		NA	NA	NA	NA
New Zealand		0.58	T1	D	1.1	4.7	5.8	5.8	0.0	14.32	1.60	0.77	0.07
Norway		0.08	T2	CS	0.1	2.5	2.5	2.4	-5.9	7.16	IE	0.54	IE
Poland	L, T	2.30	CS, T1	CS	89.3	60.9	150.2	155.3	3.4	4.55	0.34	0.01	NE
Portugal		-	NA	NA	NO	NO	NO	0		NO	IE	NO	IE
Romania	L, T	1.66	T1	D	7.5	27.9	35.4	35.0	-1.0	11.73	1.64	0.77	0.07
Russian Federation	L	2.13	T2	CS, D	109.0	201.0	310.0	309.0	-0.3	13.00	0.00	4.29	IE
Slovakia		0.63	T2	CS	2.2	NO	2.2	2.2	-0.2	6.05	0.60	NO	NO
Slovenia	L, T	1.24	T1	CS	4.5	NO	4.5	4.5	0.0	1.84	0.84	NO	NO
Spain	T	0.21	CR, CS, T2	CR, CS	9.9	12.0	21.9	18.4	-15.7	2.97	1.12	0.19	0.04
Sweden		-	T2, T3	CS	NO	NO	NO	0.6		NO	NO	NO	NO
Switzerland		-	NA	NA	NO	NO	NO	0		NO	NO	NO	NO
Turkey								64.3					
Ukraine	L, T	6.54	T1, T3	CS, D	79.9	0.3	80.2	61.7	-23.1	17.20	1.34	0.94	0.13
United Kingdom	L, T	0.58	T3	CS	9.4	8.6	18.1	18.1	0.0	22.34	1.16	0.34	NO
United States	L, T	0.83	T2, T3	CS	325.7	728.5	1,054.2	1,054.1	0.0	7.98	0.92	0.92	0.15

^a Information on methods and emission factors in this table is presented as reported by Parties in table Summary 3 of the CRF. It may not reflect the actual method or type of emission factor used for all subcategories within the category 1.B.1 Solid fuels.

^b Source: IEA [unpublished]. Data downloaded on 3 July 2008 from <http://data.iaea.org/IEASTORE/DEFAULT.ASP> (restricted access to the public).

^c Source of default emission factors: IPCC Guidelines, volume 3, pages 1.105–1.110 (Tier 1).

^d IEA data for Denmark does not include Faroe Islands and Greenland.

^e IEA data for France includes data for Monaco, but excludes data for the following overseas territories: Guadeloupe, Guyana, Martinique, New Caledonia, French Polynesia, Reunion and Saint Pierre Miquelon.

^f No IEA data for Liechtenstein are available. These data are not included in the data of Switzerland.

^g IEA data for Monaco are included in the data of France.

Table 1.40

Fugitive emissions from fuels: CH₄ emissions from coal mining and handling - trend information

CH ₄ emissions (Gg)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	756	1,062	0.4	-4.3	16.2	0.6	-5.6	-1.6	4.7	-0.8	0.2	-0.8	8.7	9.9	40.5
Austria	1	0	-15.0	-14.6	2.0	0.9	-0.2	10.3	-4.8	18.2	-18.4	-79.6	-97.4	8.3	-99.7
Belarus	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Belgium	14	NO	-38.8	*	*	*	*	*	*	*	*	*	*	*	*
Bulgaria	95	57	-14.1	-2.7	-9.9	5.0	-12.1	1.9	1.1	1.4	-1.6	2.0	-10.2	7.3	-40.4
Canada	91	30	9.0	3.1	-7.2	-16.8	-20.7	-12.2	4.3	-4.0	-7.8	-24.8	10.1	-11.8	-66.6
Croatia	2	NO	-10.9	-19.3	-26.8	4.7	-69.9	*	*	*	*	*	*	*	*
Czech Republic	362	236	-11.3	-2.9	-1.9	-4.0	-9.5	4.4	2.4	-3.0	-3.9	-2.7	-0.3	6.7	-34.7
Denmark	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Estonia	19	12	-9.6	11.0	-3.3	-17.4	-9.5	15.5	-2.0	-3.5	2.7	3.1	9.2	1.5	-35.7
European Community	2,109	519	-2.4	-8.2	-3.9	-14.0	-2.2	-8.8	-12.8	-0.6	-10.6	-17.4	-12.7	-10.5	-75.4
Finland	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
France	204	0	-7.2	-24.0	-14.9	-3.0	-5.0	-3.6	-36.0	-10.7	-28.9	-90.8	-95.5	0	-99.9
Germany	877	230	-5.2	-5.9	-1.2	-18.3	12.8	-10.0	-11.7	0.1	-7.7	-18.2	-12.0	-15.0	-73.7
Greece	52	65	1.5	3.7	-1.6	3.5	1.9	3.0	3.8	6.2	-3.1	2.6	-0.9	-7.0	24.3
Hungary	44	1	-1.9	5.9	-0.4	-5.3	-9.0	0.0	-18.0	14.7	-9.6	-55.7	-81.3	4.9	-97.5
Iceland	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Ireland	NE, NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Italy	3	0	-11.9	-17.6	-39.5	-86.6	-20.8	4730.7	17.0	17.3	53.4	-60.8	-3.1	-77.9	-91.7
Japan	134	3	-9.6	-3.5	-22.4	-13.3	-0.8	-11.2	-25.9	-79.2	-20.7	-29.1	10.6	-7.4	-97.6
Latvia	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Liechtenstein	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Lithuania	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Luxembourg	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Monaco	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	NA	NA	*	*	*	*	*	*	*	*	*	*	*	*	*
New Zealand	13	21	-32.6	3.5	-0.5	17.2	3.6	-3.9	4.8	-0.7	-6.2	-6.1	-1.9	47.1	65.4
Norway	3	2	6.4	2.2	-12.5	3.9	28.4	9.2	-9.3	-7.7	53.6	-36.0	-27.6	-2.7	-27.2
Poland	879	438	-5.8	-0.3	-1.4	-7.6	-0.2	-4.7	-9.5	-5.7	3.0	-1.1	-3.3	-3.9	-50.2
Portugal	3	IE, NO	-3.2	*	*	*	*	*	*	*	*	*	*	*	*
Romania	304	124	-12.1	4.6	-19.0	-22.8	-13.0	19.3	8.2	-6.0	-0.4	-4.6	-3.4	4.2	-59.3
Russian Federation	3,202	2,223	-15.4	-5.3	-6.3	-8.4	8.2	2.3	5.0	-6.4	7.4	3.3	4.1	4.9	-30.6
Slovakia	27	15	6.0	1.3	1.8	1.8	-5.4	-2.3	-8.6	-2.4	-17.8	-6.4	-18.2	-9.3	-46.1
Slovenia	17	12	-6.7	-4.5	7.2	-1.2	-6.7	-1.8	-7.7	13.4	3.1	-0.4	-5.6	-0.4	-29.1
Spain	85	43	-11.3	1.3	-0.7	-10.3	-7.2	0.9	-12.1	-3.3	-2.0	-5.1	-5.4	-1.1	-49.3
Sweden	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Switzerland	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Turkey															
Ukraine	2,638	1,380	-8.7	-4.1	-1.7	0.7	-1.2	11.1	-15.8	12.1	-2.5	1.4	-2.7	1.7	-47.7
United Kingdom	870	180	2.8	-7.2	-4.2	-14.7	-16.2	-12.5	-9.5	0.0	-14.0	-9.6	-17.1	-7.4	-79.3
United States	4,003	2,784	-3.6	-0.4	2.2	-1.7	-6.1	-4.1	0.0	-5.8	0.1	5.0	-4.5	2.5	-30.5

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 1.41a**Fugitive emissions from fuels: oil and natural gas - CH₄, CO₂ (2006)**

	CH ₄				CO ₂			
	Key category	Share of national total (%)	Methods and EF used ^a		Key category	Share of national total (%)	Methods and EF used ^a	
			Methods	EF			Methods	EF
Australia	L, T	0.90	T1, T2, T3	CS, PS	L, T	1.08	T1, T2, T3	CS, PS
Austria		0.77	T1	CS, D	L, T	0.25	CS, T1	CS, PS
Belarus		2.06	CS	CS	L, T	-	NA	NA
Belgium		0.30				0.10		
Bulgaria		0.85	T1	D	L	-	NA	NA
Canada	L, T	6.77	CS	CS	L, T	2.41	CS	CS
Croatia	L, T	4.77	T1	D	L, T	2.15	CS	CS
Czech Republic		0.47	T1, T2	CS, D		-	NA	NA
Denmark	T	0.14	CR	CR		0.58	CR	CR
Estonia		2.77	T1	CS, D	L, T	-	NA	NA
European Community		0.55	CR, CS, M, OTH, T1, T1b, T2, T3	CR, CS, D, M, OTH, PS	L, T	0.39	CR, CS, D, T1, T2, T3	CR, CS, D, PS
Finland	T	0.07	CS, M, T1	CS, D, M		0.14	CS	CS, D
France	L	0.35	CR	CS	T	0.76	CR	CS
Germany		0.68	CS	CS	L	0.00	CS, T1	CS
Greece		0.11	T1	D		0.01	T1	D
Hungary		2.61	CS, D	CS, OTH	L, T	0.10	D	D
Iceland	L, T	-	NA	NA		3.70	CS	
Ireland		0.15	CS	CS		0.09	CS	CS
Italy	T	0.91	T1, T2	CS, D	L, T	0.39	T1, T2	CS, D
Japan		0.03	CS, T1	CS, D, OTH		0.00	T1	D
Latvia		0.91	CS	PS	L	-	NA	NA
Liechtenstein		0.39	T3	CS		-	NA	NA
Lithuania		0.88	T1	D	L	0.07	T1	D
Luxembourg		0.45	CR	CR		-	NA	NA
Monaco		-	NA	NA		-	NA	NA
Netherlands	L, T	0.33	T1b, T2, T3	CS, D, PS	T	0.51	CS, T2, T3	CS, PS
New Zealand	L, T	0.46	D	D		1.24	D	CS
Norway	L, T	1.02	T2	CS	L, T	4.72	T2	CS, PS
Poland		1.09	T1	CS, D	L, T	0.06	T1	CS, D
Portugal	L, T	0.90	CR, OTH	CR, OTH	L, T	0.90	D	D
Romania		5.60	T1	D	L, T	-	NA	NA
Russian Federation	L, T	14.59	T1, T1b, T2	CS, D	L, T	1.34	T1, T1b	D
Slovakia		1.38	T1	CS	L, T	0.00	T1	CS
Slovenia		0.15	T1	CS, D		-	NA	NA
Spain	L	0.14	CR, CS, T1	CR, CS		0.52	CS, T1, T2	CS, PS
Sweden	T	0.01	CS, T1, T2	CS, PS		0.25	T1, T2	CS, D
Switzerland		0.33	CS	CS	T	0.21	CS	CS
Turkey								
Ukraine		5.36	T1	CS, D	L, T	0.01	T1	D
United Kingdom	L	0.80	T2, T3	CS, PS	L, T	0.73	T2, T3	CS, PS
United States	T	1.86	M	M	L, T	0.41	M	M

^a Information on methods and emission factors in this table is presented as reported by Parties in table Summary 3 of the CRF. It may not reflect the actual method or type of emission factor used for all subcategories within the category 1.B.2 Oil and natural gas.

Table 1.41b

Fugitive emissions from fuels: oil and natural gas - oil - CH₄, CO₂ (2006)

	Oil															
	Exploration				Production				Transport				Refining (R) / Storage (S)			
	CH ₄ IEF ^a	CO ₂ IEF	Activity data		CH ₄ IEF ^a	CO ₂ IEF	Activity data		CH ₄ IEF ^a	CO ₂ IEF	Activity data		CH ₄ IEF ^a	CO ₂ IEF	Activity data	
	Value		Unit	Description	Value		Unit	Description	Value		Unit	Description	Value		Unit	Description
IPCC default EF ^b					300 - 5,000		PJ	Oil produced	745.00		PJ	Oil tankered	20 - 250 (S) 90 - 1,400 (R)		PJ	Oil refined
Australia	NA	NA	Not specified	NA	550	NA	PJ	Crude oil and ORF produced	745	NA	PJ	Quantity shipped	1,625	291,085	PJ	Oil refined
Austria	IE	IE	Not specified	number of wells drilled	6,433,411	163,551,402	Mt	Oil throughput	IE	IE	Not specified	oil loaded in tankers	32	NA	Mt	Oil refined (SNAP 040)
Belarus	NO	NO	Not specified	number of wells drilled	2,681	NA	PJ	PJ of oil produced	NO	NO	Not specified	PJ oil loaded in tankers	741	NA	PJ	(e.g. PJ oil refined)
Belgium			Not specified	(SPEC)			Not specified	(spec)			Not specified	(spec)	126		PJ	(e.g. PJ oil refined)
Bulgaria	NE	NE	Not specified	(e.g. number of wells drilled)	2,650	NE	PJ	(e.g. PJ of oil produced)	745	NE	PJ	(e.g. PJ oil loaded in tankers)	745	NE	PJ	(e.g. PJ oil refined)
Canada	IE	IE	Not specified	NA	2,231	1,632	10 ³ m ³	Conventional Oil, Heavy Oil and Crude Oil Production	11	0	m ³	Convention, Heavy, and Crude Oil Production	12	3	TJ	Energy Consumption of Refineries
Croatia	NE	NO	Not specified		2,650	NO	PJ	(e.g. PJ of oil produced)	745	NO	PJ	(e.g. PJ oil loaded in tankers)	135	NO	PJ	(e.g. PJ oil refined)
Czech Republic	NE	NE	Not specified	(e.g. number of wells drilled)	5,287	NE	PJ	(e.g. PJ of oil produced)	NO	NO	Not specified	(e.g. PJ oil loaded in tankers)	1,150	IE	PJ	(e.g. PJ oil refined)
Denmark	IE	NA	Not specified	(e.g. number of wells drilled)	184	NA	10 ³ m ³	Oil produced	IE	NA	10 ³ m ³	Oil transported by pipelines	IE	NA	Not specified	(e.g. PJ oil refined)
Estonia	NO	NO	PJ	Shale Oil	4,000	NO	PJ	(e.g. PJ of oil produced)	745	NO	PJ	(e.g. PJ oil loaded in tankers)	200	NO	PJ	(e.g. PJ oil refined)
European Community	NE	NE	Not specified	not estimated	NE	NE	Not specified	not estimated	NE	NE	Not specified	not estimated	NE	NE	Not specified	not estimated
Finland	NO	NO	Not specified	(e.g. number of wells drilled)	NO	NO	Not specified	(e.g. PJ of oil produced)	NO	NO	Not specified	kt oil loaded in tankers	37	102	kt	kt oil refined
France	NO	NO	Not specified		35,000	1,675,000	PJ	PJ Produced	NA	NA	PJ	PJ Loaded	44	930,096	PJ	PJ Refined
Germany	NE	NE	t	(crude oil)	NE	NE	t	(e.g. PJ of oil produced)	1	NO	t	(e.g. PJ oil loaded in tankers)	0	NO	t	(crude oil & products)
Greece	NE	NE	Not specified	(e.g. number of wells drilled)	1,450	270	10 ³ m ³	Crude oil and NGL production	NA	NA	PJ	Crude oil imports	880	NE	PJ	Refinery input (crude oil and NGL)
Hungary	IE	IE	Not specified	(e.g. number of wells drilled)	49,476	NO	PJ	oil produced	6	IE	10 ³ m ³	pipeline and tankers	1,400	NO	PJ	oil refined
Iceland	NO	NO	Not specified		NO	NO	Not specified		NO	NO	Not specified		NO	NO	Not specified	
Ireland	NO	NO	Not specified	(e.g. number of wells drilled)	NO	NO	Not specified	(e.g. PJ of oil produced)	NO	NO	Not specified	(e.g. PJ oil loaded in tankers)	NO	NE	Not specified	(e.g. PJ oil refined)
Italy	IE	IE	Not specified	number of wells drilled	1,680	56,082	Gg	(Gg of oil produced)	NA	NA	Not specified	oil loaded in tankers	24	15,659	Gg	(Gg oil refined)
Japan	174	3,664	Not specified	number of wells drilled	1	0	10 ³ l	oil produced	0	0	10 ³ l	Oil & Condensate produced	91	NE	PJ	oil refined
Latvia	NO	NO	Not specified	(e.g. number of wells drilled)	NO	NO	PJ	(e.g. PJ of oil produced)	NO	NO	PJ	(e.g. PJ oil loaded in tankers)	NO	NO	PJ	(e.g. PJ oil refined)
Liechtenstein	NO	NO	Not specified	number of wells drilled	NO	NO	Not specified	oil produced	NO	NO	Not specified	oil loaded in tankers	NO	NO	Not specified	oil refined
Lithuania	270	5,700	Not specified	(wells drilled)	1,450	270	10 ³ m ³	(conventional oil production)	5	0	10 ³ m ³	oil transported by pipelines	745	NO	PJ	(e.g. PJ oil refined)
Luxembourg	NO	NO	Not specified	number of wells drilled	NO	NO	Not specified	oil produced	NO	NO	Not specified	oil loaded in tankers	NO	NO	Not specified	oil refined
Monaco	NO	NO	Not specified		NO	NO	Not specified		NO	NO	Not specified		NO	NO	Not specified	
Netherlands	IE	IE	Not specified	number of wells drilled/tested	IE	IE	10 ⁶ m ³	Refery input: crude oil, NGL	NE	NE	Not specified	(e.g. PJ oil loaded in tankers)	116	392,702	PJ	Refery input: crude oil, NGL
New Zealand	NE	NE	Not specified	(e.g. number of wells drilled)	NE	NE	Not specified	(e.g. PJ of oil produced)	1	NE	TJ	(e.g. PJ oil loaded in tankers)	1	NE	TJ	(e.g. PJ oil refined)
Norway	IE	IE	kg	number of wells drilled	IE	IE	Not specified	oil produced	NA	NA	PJ	Oil loaded	3,946	1,682,069	PJ	Oil refined
Poland	NE	NE	Not specified	NE	61,800	7,315,000	PJ	Production	6	1	Gg	oil ltransported by pipeline	745	NA	PJ	oil refined
Portugal	NO	NO	Not specified		NO	NO	Not specified		60,000	1,100,000	Mt	Consumption of crude	76,475	29,949,454	Mt	Production (crude and other materials)
Romania	NE	NE	Not specified	number of wells drilled	300	NE	PJ	(e.g. PJ of oil produced)	745	NE	PJ	(e.g. PJ oil loaded in tankers)	110	NE	PJ	(e.g. PJ oil refined)
Russian Federation	64	0	Not specified	number of wells drilled	1,690,370	314,760	Mt	oil produced	6,295	571	Mt	(oil transported in pipelines)	37,027	NE	Mt	oil refined
Slovakia	NO	NO	Not specified	(e.g. number of wells drilled)	36,145	197	PJ	production	130	1	PJ	transport of crude oil (transfer)	130	1	PJ	refinin/storage
Slovenia	NO	NO	Not specified	(e.g. number of wells drilled)	NO	NO	TJ	(e.g. PJ of oil produced)	NO	NO	Not specified	(e.g. PJ oil loaded in tankers)	NO	NO	TJ	(e.g. PJ oil refined)
Spain	NE	NE	Not specified		9	NE	Gg	Crude oil produced	27	NE	Gg	Transport of crude oil	1	32,254	Gg	Oil refined
Sweden	NO	NO	Not specified		NO	NO	Not specified		NE	NE	Not specified	(e.g. PJ oil loaded in tankers)	12,869	NA	Mt	(e.g. PJ oil refined)
Switzerland	NO	NO	Not specified		NO	NO	Not specified		NO	NO	Not specified		1,042	31,387	PJ	Crude oil used
Turkey																
Ukraine	NE	NE	Not specified	number of wells drilled	4,500	NE	PJ	Oil and natural gas liquids produced	5	0	10 ³ m ³	Crude oil transported by pipeline	1,200	NE	PJ	Oil refined
United Kingdom	48,309	4,169,275	Not specified	Wells drilled	565	131,678	PJ	Oil and gas produced.	72	NO	Gg	Offshore loading of oil only	418	NO	PJ	Oil refinery throughput
United States	IE	NA	Not specified	IE	704,605	156,146	10 ⁶ Bbl(oil US)	(e.g. Domestic Oil Production)	926	NA	10 ⁶ Bbl(oil US)	Refinery Feed	4,943	NA	0 ⁶ Bbl(oil US)	Refinery Feed

^a The units of the implied emission factors (IEF) vary from Party to Party depending on the unit of the activity data used. The unit of the IEF is kg/unit of activity data.^b Source of emissions factors: IPCC Guidelines, vol. 3, pages 1.119–1.121. For updated detailed emission factors on CH₄ and implied emissions factors on CO₂ and N₂O also look at the IPCC good practice guidance, table 2.16, pages 2.86–2.87.

Table 1.41c

Fugitive emissions from fuels: oil and natural gas - natural gas - CH₄, CO₂ (2006)

	Natural Gas															
	Production (P) / Processing (Pr)				Transmission				Distribution				Other leakage			
	CH ₄ IEF ^a	CO ₂ IEF	Activity data		CH ₄ IEF ^a	CO ₂ IEF	Activity data		CH ₄ IEF ^a	CO ₂ IEF	Activity data		CH ₄ IEF ^a	CO ₂ IEF	Activity data	
	Value		Unit	Description	Value		Unit	Description	Value		Unit	Description	Value		Unit	Description
	15000-314000 (P) 288000-628000 (Pr)		PJ	Gas produced	57,000 - 628,000		PJ	Gas consumed/produced	57,000 - 628,000		PJ	Gas consumed/produced	0 - 384,000		PJ	Gas consumed
IPCC default EF ^b																
Australia	596	IE	PJ	Gas produced	8,504	487	PJ	Gas transmitted	233,081	13,954	PJ	Utility sales	NE	NE	Not specified	NE
Austria	IE	50,577	10 ⁶ m ³	Gas throughput (a)	2,900	25	km	Pipelines length (km)	651	NA	km	Distribution network length	NO	NO	PJ	(e.g. PJ gas consumed)
Belarus	287,653	NA	PJ	PJ gas produced	7,539	NA	PJ	PJ gas consumed	IE	NA	Not specified	PJ gas consumed	84,424	NA	PJ	PJ gas consumed
Belgium	4,415		Not specified	(speci)	11,312	2,328	PJ	(e.g. PJ gas consumed)	25,336	722	PJ	PJ gas consumed			Not specified	(speci)
Bulgaria	83,682	NE	PJ	(e.g. PJ gas produced)	10,642	NE	PJ	(e.g. PJ gas consumed)	9,510	NE	PJ	(e.g. PJ gas consumed)	269,959	NE	PJ	(e.g. PJ gas consumed)
Canada	1,363	44	10 ⁶ m ³	Gross New Production of Natural Gas (also includes oil and Gas Well Drilling and Servicing)	3,243	24	km	Pipeline Distance	744	NE	km	Pipeline Distance - leakage	1,027	201	Not specified	
Croatia	458,000	7,032,692	PJ	(e.g. PJ gas produced)	IE	NO	PJ	(e.g. PJ gas consumed)	IE	NO	Not specified	(e.g. PJ gas consumed)	248,433	NO	Not specified	(e.g. PJ gas consumed)
Czech Republic	39,365	NO	PJ	(e.g. PJ gas produced)	9,011	NO	PJ	(e.g. PJ gas consumed)	129,316	NO	PJ	(e.g. PJ gas consumed)	14,762	NO	PJ	(e.g. PJ gas consumed)
Denmark	IE	NA	10 ⁶ m ³	Gas produced	29	NA	10 ⁶ m ³	Gas transmission	29	NA	10 ⁶ m ³	Gas distributed	NO	NO	Not specified	Incl. in transmission
Estonia	NO	NO	PJ	(e.g. PJ gas produced)	458,000	NO	PJ	(e.g. PJ gas consumed)	NO	NO	PJ	Natural Gas	271,623	NO	PJ	
European Community	NE	NE	Not specified	not estimated	NE	NE	Not specified	not estimated	NE	NE	Not specified	not estimated	NE	IE, NA, NE, NO	Not specified	
Finland	NO	NO	Not specified	(e.g. PJ gas produced)	2,787	7,664	PJ	PJ gas consumed	233,516	642,170	PJ	PJ gas distributed via local networks	NO	NO	Not specified	t of natural gas released from pipelines
France	53,242	NA	PJ	PJ Production	NA	NA	PJ	PJ Consumed	NO	NO	Not specified		NO	NO	Not specified	
Germany	89	0	TJ	(natural gas from crude oil extraction)	12	NE	TJ	(total amount of gas consumed)	NE	NE	km	(distribution net)	42	NE	TJ	(gas consumed)
Greece	317	101	10 ⁶ m ³	Natural gas production	2,569	16	km	Length of transmission pipeline	615	NA	km	Length of distribution mains	NE	NE	Not specified	(e.g. PJ gas consumed)
Hungary	111,407	NO	PJ	gas produced	31,692	NO	PJ	gas consumed	520	NO	km	Pipeline, length	NO	NO	Not specified	(e.g. PJ gas consumed)
Iceland	NO	NO	Not specified		NO	NO	Not specified		NO	NO	Not specified		NO	NO	Not specified	
Ireland	153,185	3,515,550	PJ	PJ of Gas produced	IE	IE	Not specified	(e.g. PJ gas consumed)	33,965	NO	PJ	PJ of gas consumed	NO	NO	PJ	(e.g. PJ gas consumed)
Italy	1,611	1,895	10 ⁶ m ³	(Mm3 gas produced)	414	NA	10 ⁶ m ³	(Mm3 gas transported)	5,195	NA	10 ⁶ m ³	(Mm3 gas transported)	IE	NA	Not specified	
Japan	4	0	10 ³ m ³	gas produced	363	NA	km	Pipelines length	1,115	NA	PJ	LNG & NG Consumption with Town Gas Production	NE	NE	Not specified	not estimated
Latvia	NO	NO	TJ	(e.g. PJ gas produced)	C	NO	TJ	(e.g. PJ gas consumed)	C	NO	TJ	(e.g. PJ gas consumed)	C	NO	Not specified	
Liechtenstein	NO	NO	Not specified	gas produced	NO	NO	Not specified	gas consumed	452	NO	TJ	gas consumed	IE	NO	Not specified	
Lithuania	NO	NO	PJ	(e.g. PJ gas produced)	IE	IE	km	pipeline	IE	IE	kha	distribution mains	NE	NE	PJ	(e.g. PJ gas consumed)
Luxembourg	NO	NO	Not specified	gas produced	54,111	NO	PJ	gas consumed	IE	IE	Not specified	gas consumed	IE	IE	Not specified	
Monaco	NO	NO	Not specified		NO	NO	Not specified		NO	NO	Not specified		NO	NO	Not specified	
Netherlands	IE	NO	PJ	gas produced	1,791	NO	PJ	gas transported	107,059	3,294	10 ³ km	natural gas distribution network	IE	NE	Not specified	
New Zealand	NE	NE	Not specified	(e.g. PJ gas produced)	IE	IE	TJ	(e.g. PJ gas consumed)	239	38	TJ	(e.g. PJ gas consumed)	NE	NE	Not specified	(e.g. PJ gas consumed)
Norway	IE	IE	Not specified	gas produced	IE	IE	Not specified	gas consumed	IE	IE	Not specified	gas consumed	NE, NO	NE, NO	Not specified	
Poland	94,970	22,022	PJ	Production	53,337	524	PJ	gas consumed	310,661	1,171	PJ	gas consumed	1,300	10	Not specified	NE
Portugal	NO	NO	Not specified		7,153	19,834	Gg	gas consumed	IE	IE	Gg	gas consumed	IE	IE	Not specified	
Romania	288,000	NE	PJ	(e.g. PJ gas produced)	364,300	NE	PJ	(e.g. PJ gas consumed)	IE	IE	Not specified	gas consumed	158,563	NE	PJ	(e.g. PJ gas consumed)
Russian Federation	3,629	122	10 ⁶ m ³	gas produced	8,953	4	kt	(total gas transmission)	20,690	NE	10 ⁶ m ³	gas consumed	8,806	NE	Not specified	gas consumed
Slovakia	118,003	642	PJ	production	2,900	16	km	transfer	710	4	km	distribution	IE	IE	PJ	consumed
Slovenia	39	NA	TJ	PJ gas produced	254	NE	km	length of transport pipelines	222	NA	km	length of pipelines	1	NA, NE	Not specified	(e.g. PJ gas consumed)
Spain	70,889	NE	PJ	PJ gas produced (NCV)	552	7	PJ	PJ gas (NCV)	16,759	203	PJ	PJ gas consumed (NCV)	NE	NE	Not specified	(e.g. PJ gas consumed)
Sweden	NO	NO	Not specified		NO	NO	TJ	Pressure levelling losses	NO	NO	Not specified	(e.g. PJ gas consumed)	NO	NO	Not specified	
Switzerland	NO	NO	Not specified		379	2,320	km	See documentation box	IE	IE	Not specified		IE	IE	Not specified	
Turkey																
Ukraine	2,900	95	10 ⁶ m ³	Natural Gas Produced	5,846,900	NO	10 ³ km	Length of natural gas transmission pipeline	820,000	NO	10 ³ km	Length of natural gas distribution network	242,903	NO	PJ	Residential and Non-residential Gas Consumed
United Kingdom	IE	NE	Not specified	(e.g. PJ gas produced)	IE	NE	Not specified	(e.g. PJ gas consumed)	66,554	NE	PJ	Gas consumed	NE	NE	Not specified	(e.g. PJ gas consumed)
United States	102,381	1,166,380	10 ⁹ ft ³	(e.g. Total Natural Gas Produced)	83,268	2,720	10 ⁹ ft ³	(e.g. Total Natural Gas Consumed)	53,870	1,717	10 ⁹ ft ³	(e.g. Total Natural Gas Consumed)	IE	IE	Not specified	(e.g. PJ gas consumed)

^a The units of the implied emission factors (IEF) vary from Party to Party depending on the unit of the activity data used. The unit of the IEF is kg/unit of activity data.^b Source of emissions factors: IPCC Guidelines, vol. 3, pages 1.119–1.121. For updated detailed emission factors on CH₄ and implied emissions factors on CO₂ and N₂O also look at the IPCC good practice guidance, table 2.16, pages 2.86–2.87.

Table 1.41d

Fugitive emissions from fuels: oil and natural gas - venting and flaring - CO₂, CH₄ (2006)

	Venting and flaring																							
	Oil								Gas								Combined							
	Venting ^a				Flaring ^a				Venting ^a				Flaring ^a				Venting ^a			Flaring ^a				
	CH ₄ IEF ^b		Activity data		CH ₄ IEF ^b		CO ₂ IEF		CH ₄ IEF ^b		Activity data		CH ₄ IEF ^b		CO ₂ IEF		Activity data		CH ₄ IEF ^b		Activity data			
	value	unit	Description		value	unit	Description		value	unit	Description		value	unit	Description		value	unit	Description		value	unit	Description	
IPCC default EF ^c	1,000 -3,000	PJ	Oil produced		1,000 -3,000		PJ	Oil produced	6,000 -209,000	PJ	Gas produced		6,000 -209,000		PJ	Gas produced	3,000 -14,000	PJ	Oil produced	3,000 -14,000		PJ	Oil and gas produced	
Australia	NA	Not specified	NA		IE	IE	Not specified	IE	24,403	PJ	PJ gas produced		IE	IE	Not specified	IE	NA	Not specified	NA	10,335		PJ	PJ gas and oil produced	
Austria	IE	Not specified			IE	IE	Not specified	IE	5,966	Not specified	PJ gas produced		IE	IE	Not specified	PJ gas consumption (spec)	NE	Not specified		NE	IE	Not specified		
Belarus	NE	Not specified	PJ oil produced		NE	NE	Not specified	PJ gas consumption (spec)	Not specified	Not specified	PJ gas produced (spec)		IE	NA	Not specified	PJ gas consumption (spec)	NE	Not specified		NE	NE	Not specified		
Belgium	Not specified	Not specified	(spec)		Not specified	Not specified	(spec)	Not specified	Not specified	Not specified	(spec)		Not specified	Not specified	Not specified	(spec)	Not specified	Not specified		Not specified	Not specified	Not specified	(spec)	
Bulgaria	2,000	PJ	(e.g. PJ oil produced)		9	NE	PJ	(e.g. PJ gas consumption)	18,000	PJ	(e.g. PJ gas produced)		329	NE	PJ	(e.g. PJ gas consumption)	NE	Not specified		NE	NE	Not specified		
Canada	7,023	m ³	Conventional oil, Heavy Oil, and Crude Oil Production		814	1,134,839	10 ⁶ m ³	Flared Gas and Flare	1,036	10 ⁶ m ³	gross new production of natural Gas		90	137,737	10 ⁶ m ³	Flared Gas and Flare	264,064,943	10 ⁶ m ³	Number of Wells Drilled (Number)	32,648,181	50,437,263,107	10 ⁶ m ³	Number of Wells Drilled (Number)	
Croatia	NO	PJ	(e.g. PJ oil produced)		IE	NO	Not specified	(e.g. PJ gas consumption)	18,000	PJ	(e.g. PJ gas produced)		IE	NO	Not specified	(e.g. PJ gas consumption)	NO	Not specified		NO	NO	Not specified		
Czech Republic	NE	Not specified	(e.g. PJ oil produced)		NE	NE	Not specified	(e.g. PJ gas consumption)	NE	Not specified	(e.g. PJ gas produced)		NE	NE	Not specified	(e.g. PJ gas consumption)	NE	Not specified		NE	NE	Not specified		
Denmark	NO	Not specified	(e.g. PJ oil produced)		0	57	GJ	Refinery gas consumption	IE	Not specified	Incl. in transmission		0	57	GJ	Gas consumption	NO	Not specified		NO	NO	Not specified		
Estonia	4,000	PJ	(e.g. PJ oil produced)		NA	NO	PJ	Shale Oil	NO	NO	PJ (e.g. PJ gas produced)		NA	NA	PJ	Natural Gas	NO	NO	PJ	Natural Gas	NO	NO	PJ	Oil and Gas
European Community	NE	Not specified	not estimated		NE	NE	Not specified	not estimated	NE	Not specified	not estimated		NE	NE	Not specified	not estimated	NE	Not specified	not estimated	NE	NE	Not specified	not estimated	
Finland	NO	kt	kt oil refined		0	4,853	kt	kt oil refined	NO	NO	Not specified (e.g. PJ gas produced)		NO	NA	Not specified	(e.g. PJ gas consumption)	NO	Not specified		NO	NO	Not specified		
France	NO	Not specified			1	25,031	PJ	PJ Consumed	NO	Not specified			IE	IE	Not specified		NO	Not specified		NA	49,899,331	PJ	PJ Consumed	
Germany	NE	Not specified	(e.g. PJ oil produced)		NE	NE	Not specified	(e.g. PJ gas consumption)	NE	Not specified	(e.g. PJ gas produced)		NE	NE	10 ³ m ³	(natural gas)	IE	Not specified		IE	IE	Not specified		
Greece	5,002	10 ³ m ³	Crude oil and NGL production		135	67,000	10 ³ m ³	Crude oil and NGL production	192,000	10 ⁶ m ³	Sour Natural gas production		17	2,720	10 ⁶ m ³	Natural gas production	NO	Not specified		NO	NO	Not specified		
Hungary	2,000	PJ	PJ oil produced		NE	1,841,624	PJ	Oil production	24,000	PJ	PJ gas produced		NE	3,899	10 ⁶ m ³	gas production	NA	Not specified		NA	NA	Not specified	Oil and gas produced, oil refining	
Iceland	NO	Not specified			NO	NO	Not specified		NO	Not specified			NO	NO	Not specified		NO	Not specified		NO	NO	Not specified		
Ireland	NO	Not specified	(e.g. PJ oil produced)		NO	NO	Not specified	(e.g. PJ gas consumption)	IE	Not specified	(e.g. PJ gas consumed)		NO	NO	NO	PJ	quantity of gas flared	NO	Not specified		NO	NO	Not specified	
Italy	IE	Not specified			6,175	2,541,500	10 ⁶ m ³	(Mm3 gas consumption)	IE	Not specified			IE	IE	10 ³ m ³	gas produced	NO	Not specified		NO	NO	Not specified		
Japan	1	10 ³ l	oil produced		13	6,473	10 ³ l	oil produced	IE	km	pipeline length		0	4	10 ³ m ³	gas produced	IE	Not specified	included elsewhere	IE	IE	Not specified	included elsewhere	
Latvia	NO	PJ	(e.g. PJ oil produced)		NO	NO	PJ	(e.g. PJ gas consumption)	NO	NO	PJ (e.g. PJ gas produced)		NO	NO	PJ	(e.g. PJ gas consumption)	NO	NO	PJ		NO	NO	PJ	
Liechtenstein	NO	Not specified	oil produced		NO	NO	Not specified	gas consumed	NO	Not specified	gas produced		NO	NO	Not specified	gas consumed	NO	Not specified	gas produced	NO	NO	Not specified	Gas/Oil Produced	
Lithuania	1,381	10 ³ m ³	(conventional oil production and oil transported by tanker truck)		138	67,000	10 ³ m ³	(conventional oil production)	IE	km	(transmission pipeline)		NO	NO	PJ	(e.g. PJ gas consumption)	NO	NO	PJ		NO	NO	PJ	
Luxembourg	NO	Not specified	oil produced		NO	NO	Not specified	gas consumed	NO	Not specified	gas produced		NO	NO	Not specified	gas consumed	NO	Not specified	combined oil and gas production	NO	NO	Not specified	combined oil and gas consumption	
Monaco	NO	Not specified			NO	NO	Not specified		NO	Not specified			NO	NO	Not specified		NO	Not specified		NO	NO	Not specified		
Netherlands	IE	10 ⁶ m ³	oil produced		IE	IE	10 ⁶ m ³	oil produced	IE	PJ	gas produced		IE	IE	PJ	gas produced	IE	Not specified		IE	IE	Not specified	(specify)	
New Zealand	IE	Not specified	(e.g. PJ oil produced)		IE	IE	Not specified	(e.g. PJ gas consumption)	IE	Not specified	(e.g. PJ gas produced)		379	707,559	TJ	(e.g. PJ gas consumption)	IE	Not specified		IE	IE	TJ	venting & flaring from oil & gas	
Norway	IE	Not specified	(e.g. PJ oil produced)		NE	75,650,118	PJ	Oil flared	IE	Not specified	(e.g. PJ gas produced)		26,258	58,482,167	PJ	Gas flared	1,439	PJ	Oil and gas produced	IE	IE	Not specified		
Poland	NE	Not specified			NE	NE	Not specified		NE	Not specified			NE	NE	Not specified		NE	Not specified		NE	NE	Not specified		
Portugal	7	Mt	Oil refined		IE	IE	Not specified		IE	Not specified			IE	IE	Not specified		IE	Not specified		IE	IE	Not specified		
Romania	NE	PJ	(e.g. PJ oil produced)		NE	NE	Not specified	(e.g. PJ gas consumption)	18,000	PJ	(e.g. PJ gas produced)		NE	NE	Not specified	(e.g. PJ gas consumption)	NE	Not specified	(PJ gas and oil produced)	NE	NE	Not specified	(PJ gas and oil combined consumption)	
Russian Federation	1,610	kt	oil produced		IE	IE	kt	oil production	IE	km	length of pipelines		23	3,777	10 ⁶ m ³	gas production	NE	Not specified	(oil produced)	12,000	2,000,000	10 ⁶ m ³	(Assotated gas flaring)	
Slovakia	6,506	PJ	PJ production		6,506	35	PJ	production	1,200	km	transfer		7,529	41	PJ	production	NO	Not specified		NO	NO	Not specified		
Slovenia	NO	Not specified	(e.g. PJ oil produced)		NO	NO	Not specified	(e.g. PJ gas consumption)	NO	Not specified	(e.g. PJ gas produced)		NO	NO	Not specified	(e.g. PJ gas consumption)	NO	Not specified		NO	NO	Not specified		
Spain	NE	Not specified	(e.g. PJ oil produced)		1	3,639	Gg	(e.g. PJ gas consumption)	17,288,861	PJ	(e.g. PJ gas produced)		5,484	55,999,859	PJ	(e.g. PJ gas consumption)	NE	Not specified		NE	NE	Not specified		
Sweden	NE	Not specified	(e.g. PJ oil produced)		1	59,545	TJ	Refinery gas other liquid fuels	NE	Not specified	(e.g. PJ gas produced)		NE	NE	Not specified	(e.g. PJ gas consumption)	NE	Not specified		NA	NA	Not specified		
Switzerland	IE	Not specified			81	192,130	PJ	Crude oil used	IE	Not specified			NO	NO	Not specified		NO	Not specified	(specify)	NO	NO	Not specified		
Turkey																								
Ukraine	NE	Not specified	(e.g. PJ oil produced)		IE	IE	Not specified	(e.g. PJ gas consumption)	NE	Not specified	(e.g. PJ gas produced)		11	1,800	10 ⁶ m ³	Natural Gas Produced	NE	Not specified	—	NE	NE	Not specified	—	
United Kingdom	IE	Not specified	(e.g. PJ oil produced)		IE	IE	Not specified	(e.g. PJ gas consumption)	IE	Not specified	(e.g. PJ gas produced)		IE	IE	Not specified	(e.g. PJ gas consumption)	NA	Not specified		237,948	61,553,016	PJ	Gas consumption	
United States	IE	Not specified	oil produced		IE	IE	Not specified	(e.g. Total Natural Gas Consumption)	IE	Not specified	(e.g. Total Natural Gas Produced)		IE	IE	Not specified	(e.g. Total Natural Gas Consumption)	IE	Not specified		IE	54,706,667	10 ¹² Btu	Gas Flared	

^a The units of the implied emission factors (IEF) vary from Party to Party depending on the unit of the activity data used. The unit of the IEF is kg/unit of activity data.^b Source of emissions factors: IPCC Guidelines, vol. 3, pages 1.119–1.121. For updated detailed emission factors on CH₄ and implied emissions factors on CO₂ and N₂O also look at the IPCC good practice guidance, table 2.16, pages 2.86–2.87.

Table 1.42a

Fugitive emissions from fuels: CO₂ emissions from oil and natural gas - trend information

CO ₂ emissions (Gg)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	5,982	5,789	-3.9	-6.9	-3.3	4.3	8.3	12.6	6.6	-6.5	-10.5	-4.4	-3.1	4.2	-3.2
Austria	102	232	8.8	-44.1	69.7	17.7	20.2	-3.5	11.1	-8.6	39.5	-9.9	-2.4	13.2	127.4
Belarus	NA, NE, NO	NA, NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Belgium	85	132	-2.4	10.7	1.1	6.4	10.0	50.7	-10.8	3.4	-26.6	-8.0	1.9	24.6	54.5
Bulgaria	NA, NE, NO	NA, NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Canada	10,559	17,352	4.3	6.3	1.9	10.5	-10.0	2.1	0.6	3.3	0.6	-0.9	-1.9	6.7	64.3
Croatia	416	663	9.6	-7.6	-6.9	-1.8	-10.8	20.5	8.6	-3.2	2.8	3.8	-2.7	-4.1	59.4
Czech Republic	IE, NE, NO	IE, NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Denmark	263	415	96.6	9.9	41.2	-25.3	113.0	-33.9	6.5	-15.6	2.8	10.7	-28.3	-4.6	57.4
Estonia	NA, NO	NA, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
European Community	17,151	16,366	1.6	1.0	-7.2	-3.3	-4.7	-2.0	-0.8	2.6	0.1	-3.1	2.9	-2.6	-4.6
Finland	226	113	-4.9	-9.8	28.1	-27.6	-10.2	-0.4	-7.5	4.4	-4.0	-5.1	11.3	-12.4	-49.8
France	4,508	4,156	6.3	1.4	5.1	-2.2	-3.7	1.7	3.1	-7.0	-1.4	2.4	-2.3	5.3	-7.8
Germany	0	0	14.7	8.3	-1.7	-2.3	6.8	-5.4	1.0	-0.3	4.1	-7.5	0	0	27.7
Greece	0	9	0.0	79.2	3.9	22.6	-16.0	18.3	6.9	-0.7	-7.5	45,620.1	-15.3	-4.6	52,770.8
Hungary	196	80	-1.6	-9.6	-9.2	-7.8	-3.9	-7.7	-10.0	-1.5	6.6	-4.8	-10.5	-5.4	-59.0
Iceland	67	156	0	0.6	-13.1	31.8	30.7	33.0	-5.5	3.1	-13.5	-10.0	-0.6	26.8	134.9
Ireland	139	60	2.5	-3.6	-12.3	-23.5	8.5	-39.5	89.2	-51.2	-10.0	21.1	-15.6	0.3	-56.6
Italy	3,341	2,189	-2.3	-4.4	6.9	-3.9	-22.9	7.5	-5.6	-7.4	25.4	-24.1	-1.9	3.6	-34.5
Japan	37	36	46.5	-3.1	-2.8	-10.9	-10.9	-5.3	-10.0	-4.6	11.4	1.6	7.4	-4.5	-2.0
Latvia	IE, NE, NO	IE, NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Liechtenstein	NA, NO	NA, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Lithuania	2	15	105.4	23.4	35.7	27.5	-14.3	36.0	48.5	-7.9	-11.7	-20.8	-27.9	-15.9	846.6
Luxembourg	IE, NA, NE, NO	E, NA, NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Monaco	NA, NO	NA, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	775	1,068	-8.6	-13.0	28.8	-37.3	-29.3	22.0	-36.3	559.1	-6.7	-4.5	7.6	-0.5	37.9
New Zealand	621	963	14.0	2.3	8.7	-4.1	-7.1	-6.5	7.2	-2.5	6.1	36.4	2.9	4.7	55.1
Norway	2,650	2,526	-20.7	16.0	-8.3	3.3	21.3	5.7	-8.4	-14.2	-2.5	-5.7	-2.2	-3.1	-4.7
Poland	46	250	-0.2	8.5	-7.9	23.7	19.5	49.7	17.4	-5.6	5.2	15.8	-4.1	8.5	443.6
Portugal	115	748	1.6	-9.7	23.3	-2.4	-4.9	-11.1	29.4	-0.2	10.1	-4.0	11.2	0.9	549.8
Romania	IE, NE, NO	E, NA, NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Russian Federation	22,479	29,335	3.2	1.3	7.5	0.6	8.2	-0.4	1.4	43.2	-1.7	14.4	4.8	1.5	30.5
Slovakia	0	0	-9.0	2.1	0.8	6.8	-0.1	6.5	2.4	-3.2	6.5	-4.5	-7.0	3.0	20.0
Slovenia	NE, NO	NA, NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Spain	1,744	2,268	-2.2	-1.8	2.8	4.8	-2.7	12.5	-6.1	4.0	-10.8	13.7	-1.3	5.4	30.1
Sweden	93	166	-30.0	-45.1	37.9	37.6	-16.1	99.7	-27.4	9.1	-12.7	-11.0	15.8	81.2	79.6
Switzerland	139	110	-2.3	7.5	-2.6	-2.3	-4.7	-3.0	3.5	-3.5	-10.7	5.2	-0.8	4.4	-20.7
Turkey															
Ukraine	53	40	-13.3	1.4	-1.5	-0.9	0.7	-1.1	2.7	1.7	2.7	6.6	1.6	1.4	-24.9
United Kingdom	5,760	4,809	-1.1	5.7	-26.6	-1.5	-4.3	-9.4	-1.7	0.7	-4.9	-2.9	12.7	-16.3	-16.5
United States	34,104	28,797	-2.7	-6.8	-0.5	-6.4	3.3	-3.0	-2.0	2.9	-4.0	-1.2	4.7	-3.2	-15.6

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 1.42b

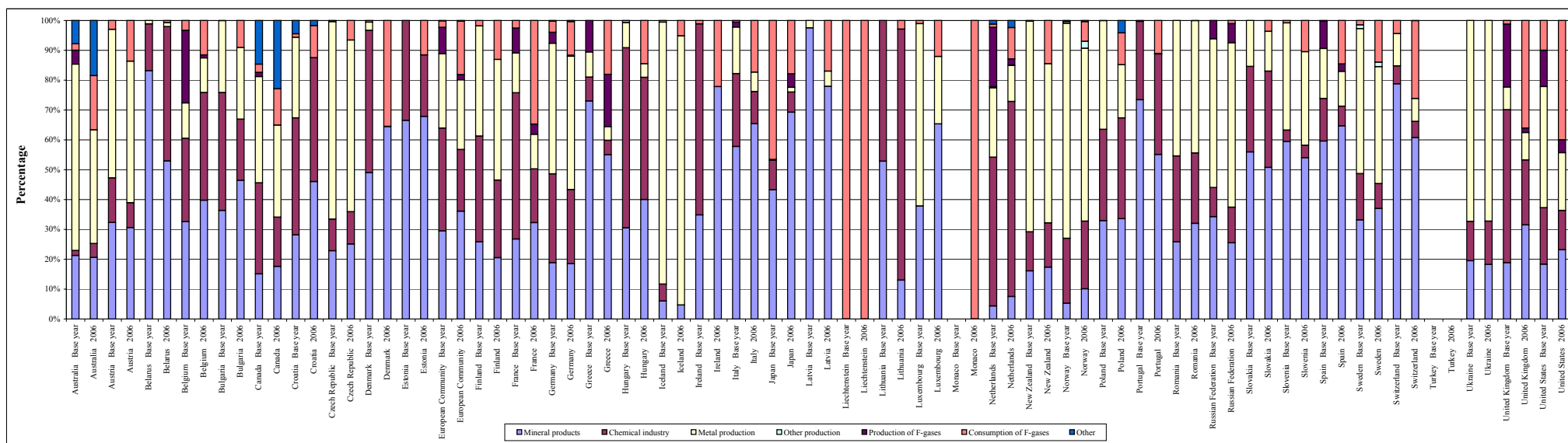
Fugitive emissions from fuels: CH₄ emissions from oil and natural gas - trend information

CH ₄ emissions (Gg)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	331	229	-10.1	-8.5	4.1	-2.9	-16.9	8.2	2.2	-5.9	-6.8	-2.1	-3.6	-2.7	-30.8
Austria	18	33	4.2	5.9	3.7	2.2	4.1	2.8	1.5	3.9	2.2	8.0	2.9	4.1	87.0
Belarus	59	79	-10.1	8.4	8.8	-3.9	-2.2	6.9	0.5	0.9	3.9	6.1	-2.7	4.8	35.0
Belgium	25	19	-0.9	-2.8	-5.4	-3.5	0.3	-2.8	-1.7	-4.6	-4.6	-1.8	0.7	2.5	-22.6
Bulgaria	61	29	-6.2	1.3	-11.9	-9.3	-16.0	34.1	-8.1	-9.1	2.5	10.5	11.8	-3.6	-52.6
Canada	1,436	2,322	4.0	7.2	3.5	1.9	-1.4	5.2	1.6	-1.6	1.3	1.3	-1.1	0.6	61.7
Croatia	57	70	-6.2	-0.1	6.0	-13.0	-1.0	6.0	11.7	4.1	0.8	2.1	0.0	10.6	22.5
Czech Republic	43	33	-14.8	8.3	-1.8	5.2	-2.3	-5.0	-6.2	2.8	-9.0	-7.1	19.6	2.3	-22.9
Denmark	2	5	21.0	-3.9	10.3	0.1	14.2	6.9	0.2	3.3	1.9	20.4	-0.9	-3.1	146.3
Estonia	38	25	-0.3	10.7	-2.6	-5.6	-2.7	14.7	7.5	-16.2	10.3	18.1	3.0	1.3	-34.0
European Community	1,472	1,085	0.5	-1.0	-3.9	-0.1	-3.5	-2.7	0.7	-0.9	-6.6	-3.4	-0.7	-5.1	-26.3
Finland	1	3	272.6	3.4	-13.2	1.8	-19.0	-6.8	23.1	-15.8	7.9	-10.6	16.4	-13.4	396.7
France	133	90	-3.8	-5.2	-0.9	-0.6	-1.1	-2.6	-1.1	-0.1	-0.5	-0.9	-3.0	-1.4	-32.3
Germany	334	326	5.4	4.1	-3.0	-0.8	-1.2	-1.4	1.6	-1.7	0.2	-3.0	-2.3	-1.9	-2.4
Greece	4	7	-3.2	97.3	5.9	13.4	-15.9	27.0	1.1	-0.5	4.8	0.8	-4.6	2.7	60.2
Hungary	76	98	3.0	2.2	1.2	1.0	-1.2	-0.9	0.3	-1.0	1.9	0.9	0.1	0.0	27.9
Iceland	NE, NO	NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Ireland	6	5	-2.8	-3.6	-4.2	-12.7	-3.0	-4.1	7.4	-24.9	806.0	-89.5	-13.9	79.4	-22.2
Italy	348	247	-0.4	-1.6	-0.5	1.4	-2.9	-3.4	-5.7	-0.4	-2.7	-3.0	-2.4	-5.7	-29.0
Japan	11	17	11.1	-0.7	2.7	-1.8	-0.6	4.8	-1.7	8.2	3.2	4.4	5.9	6.6	55.3
Latvia	13	5	-3.7	-3.6	-6.7	-4.1	-4.7	-7.5	-3.0	4.3	-21.8	-1.1	11.8	-27.5	-61.4
Liechtenstein	0	0	18.1	9.8	3.7	8.7	6.8	4.0	7.1	5.4	5.8	5.2	12.6	3.5	231.5
Lithuania	17	10	3.0	8.3	-3.5	-6.7	-0.1	16.0	11.8	-1.0	5.2	-3.1	1.9	-1.6	-42.6
Luxembourg	1	3	6.9	6.9	2.1	1.0	6.7	2.4	3.3	27.1	0.7	4.3	-2.7	0	116.0
Monaco	NA, NO	NA, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	78	33	0.0	-7.4	-33.8	1.1	-14.2	-7.1	-1.7	-4.0	-0.7	-5.8	6.2	-9.1	-58.2
New Zealand	15	17	-4.6	0.6	16.3	8.6	10.2	-2.9	5.6	-1.1	1.0	-4.3	4.2	-11.9	14.0
Norway	15	26	11.4	4.1	11.9	-6.1	-6.0	18.1	14.9	-9.8	-6.8	8.8	-14.5	-11.1	71.2
Poland	197	208	-5.2	4.7	-0.3	1.3	-3.0	8.2	4.5	-2.4	10.1	6.0	2.6	0.9	5.5
Portugal	2	35	-8.5	-8.6	113.3	82.4	29.8	-5.8	165.9	18.2	16.5	-39.6	105.0	-12.8	2,011.5
Romania	1,039	418	-15.6	-1.2	-19.5	-3.5	-5.6	-1.0	-2.5	0.4	8.9	-5.2	-5.1	-0.7	-59.8
Russian Federation	15,956	15,215	0.2	0.4	-5.4	4.2	0.5	2.7	0.2	3.2	4.1	2.2	1.0	2.6	-4.6
Slovakia	24	32	2.1	2.1	0.8	6.8	-0.1	6.5	2.3	-3.2	6.5	-4.5	-6.9	0.5	31.4
Slovenia	3	2	2.4	-3.3	-4.5	-7.5	-3.2	-4.1	-5.4	-7.0	-3.5	-8.4	-1.7	-4.1	-44.1
Spain	30	30	13.9	-4.6	16.3	5.0	-26.1	11.4	10.4	9.0	-26.9	20.3	9.3	-31.1	-1.1
Sweden	0	0	-0.6	0.5	-0.1	0.1	-10.1	0.2	-2.6	8.9	-13.3	13.7	-11.1	13.9	16.0
Switzerland	18	8	-5.1	-8.1	-5.9	-2.0	3.1	-7.4	2.0	-10.9	-9.7	-1.3	-1.2	-0.7	-54.1
Turkey															
Ukraine	1,492	1,132	-7.3	1.8	-3.2	-7.4	2.0	-0.3	-1.9	0.2	7.0	1.6	2.2	-0.8	-24.2
United Kingdom	491	251	-2.1	-2.8	-5.7	-2.1	-4.0	-4.8	0.6	-2.5	-26.0	4.0	-6.5	-6.3	-48.9
United States	7,549	6,230	0.9	1.2	-1.1	-1.9	-3.2	3.0	-0.8	-0.5	-1.4	-6.5	-8.4	0.1	-17.5

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Figure 2.1

Contribution of subsectors to total GHG emissions in the Industrial Processes sector^a



^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 2.1**Mineral products - CO₂ (2006)**

	Methods and EF used ^a		Cement production					Lime production		
			Key category	Share of national total	Activity data (production)			Key category	Share of national total	CO ₂ IEF
	Description ^b	Value			CO ₂ IEF					
		(%)		(kt)	(t/t)					
IPCC default EF ^c							0.499 (cement)			
IPCC default EF ^d							0.51 (clinker)			0.59-0.86
Australia	T2	CS	L	0.7	Clinker production	7,076	0.55		0.2	0.7
Austria	CS, T1	CS, D	L, T	2.1	Clinker Production [kt]	3,653	0.53	L, T	0.6	0.8
Belarus	T1	D	L, T	1.9	Used clincer production data	3,002	0.51		0.8	0.8
Belgium			L, T	2.3	(e.g. cement or clinker production)	5,752	0.54	L	1.6	0.8
Bulgaria	D, T1, T2	D	L, T	2.1	Klinker - kt	2,860	0.52	L, T	1.5	0.8
Canada	D, T1, T2	CS, D	L, T	1.0	Clinker Production Data	14,150	0.52		0.2	0.8
Croatia	T2	CS, D	L, T	5.1	(e.g. cement or clinker production)	3,151	0.50	L, T	0.8	0.8
Czech Republic	CS, T1, T2	CR, CS	L	1.2	(clinker production)	3,288	0.53		0.3	0.5
Denmark	CS	CS	L, T	1.9	Production of Cement	2,842	0.49		0.1	0.7
Estonia	CS, T1	CS, D	L, T	2.2	(e.g. cement or clinker production)	774	0.53		0.2	0.8
European Community	CR, CS, D, OTH, T1, T2, T3	CR, CS, D, OTH, PS	L, T	2.1	2.A.1-Cement Production,,,Activity Data,,, (kt)	NE	NE	L	0.4	NE
Finland	T1, T2	CS, D	L, T	0.7	clinker production	1,147	0.50		0.6	0.7
France	CR	D, PS	L, T	1.7	kt of Clinker	17,731	0.52	L	0.5	0.8
Germany	CS, D, T1	CS, D	L	1.3	(clinker production)	24,921	0.53	L	0.5	0.8
Greece	T3	PS	L, T	4.9	clinker production	12,305	0.53		0.3	0.7
Hungary	CS, D, T2, T3	CS, D, PS	L	1.6	Clinker Production	2,533	0.51		0.4	0.8
Iceland	T2	D, PS	L	1.4	clinker production	112	0.54		-	NO
Ireland	T2	PS	L, T	3.4	Clinker production	4,400	0.53		0.3	0.8
Italy	D, T2	CS, D, PS	L	3.2	(clinker production)	33,210	0.54	L	0.5	0.8
Japan	CS, D, T2	CS, D	L, T	2.3	Clinker produced	62,404	0.50	L	0.6	0.8
Latvia	CR, T2	CR, CS, PS	L	1.1	(e.g. cement or clinker production)	C	C	T	0.0	C
Liechtenstein	NA	NA		-	Production	NO	NO		-	NO
Lithuania	CS, T1, T2	CS, D, PS	L, T	1.8	(clinker production)	837	0.51		0.2	0.8
Luxembourg	CS, T2	CS, PS	L	3.2	clinker production	826.131	0.52		-	NO
Monaco	NA	NA		-		NO	NO		-	NO
Netherlands	CS	CS, D, PS		0.2	Clinker production	785	0.51		-	NE
New Zealand	T1, T2	CS, D, PS	L	0.7	Cement production	C	C		0.2	0.7
Norway	T2	CS	L	1.5	Production quantity	1,507	0.53		0.2	
Poland	T1, T2, T3	CS, D, OTH, PS	L, T	1.5	Clinker production	11,220	0.53	T	0.4	0.8
Portugal	CR, D, OTH, T2	CR, CS, D, OTH	L, T	4.4	Total clinker production	7,105	0.51	T	0.6	0.7
Romania	CR, CS, D, OTH, T2	CR, D, PS	L, T	2.3	(clinker production data)	6,916	0.53	L	1.3	0.8
Russian Federation	D, T2	D	L	1.1	(clinker production)	46,686	0.52		0.4	0.7
Slovakia	T1, T1a	CS	L, T	2.8	Clinker Production	2,589	0.53	L, T	1.7	0.8
Slovenia	CS, D, T2	CS, D	L	2.5	Clinker produced	972	0.54	L, T	0.7	0.8
Spain	CS, D, T2	CS, D, PS	L, T	4.0	Clinker production	32,212	0.54		0.4	0.7
Sweden	CS, D, T2	CS, D, PS	L, T	2.2	Produced amount of clinker	2,660	0.55	L, T	1.0	0.8
Switzerland	CS, D, T2	CS, D	L, T	3.4	clinker production	3,452	0.53		0.1	0.6
Turkey										
Ukraine	T1, T2	CS, D	L, T	1.2	(clinker production)	10,522	0.52	L	0.8	0.7
United Kingdom			L	0.9	clinker production kt	10,802	0.55		0.1	0.4
United States	CS, T1, T2	CS, D	L, T	0.7	Clinker Production	88,453	0.52		0.2	0.8

^a Information on methods and emission factors in this table is presented as reported by Parties in table Summary 3 of the CRF. It may not reflect the actual method or type of emission factor used for all subcategories within the category 2.A Mineral products.

^b The CRF requests Parties to specify the activity data used (e.g. cement or clinker) for estimating the emissions from cement production. The descriptions included in this column are as reported in the CRF by Parties.

^c Source of default emission factors: IPCC Guidelines, volume 3, page 2.6.

^d Source of default emission factors: IPCC good practice guidance, pages 3.13 and 3.22.

Table 2.2a

CO₂ emissions from cement production - trend information

CO ₂ emissions (Gg)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	3,463	3,888	-8.1	-3.4	-1.8	9.1	1.3	2.9	-2.2	-1.5	2.8	-0.8	2.5	6.7	12.3
Austria	2,033	1,954	-1.4	0.2	7.8	-9.2	0.5	6.5	0.5	0.9	1.1	2.0	0.4	8.7	-3.9
Belarus	966	1,523	-3.9	14.1	47.5	-3.3	-3.3	-2.7	-5.1	19.4	18.6	11.0	12.6	7.2	57.6
Belgium	2,824	3,116	2.0	-7.6	5.1	0.4	-1.9	5.0	-9.6	1.2	-2.0	-3.3	3.4	6.2	10.3
Bulgaria	2,006	1,488	-40.8	-1.5	-13.1	-51.1	30.3	7.0	3.7	-0.8	4.7	13.6	12.8	-4.1	-25.8
Canada	5,436	7,319	-18.2	-5.3	7.6	2.6	4.2	1.5	-2.8	3.0	1.1	4.2	1.2	1.9	34.6
Croatia	1,069	1,572	-36.2	6.7	16.1	8.7	28.5	14.4	13.1	-2.4	0.7	6.3	2.1	5.7	47.0
Czech Republic	2,489	1,748	-7.2	5.6	-1.6	-0.8	-5.1	-1.3	-15.9	-13.8	6.9	10.7	-2.2	7.6	-29.8
Denmark	882	1,395	23.3	6.5	12.4	0.8	-6.0	3.0	1.8	1.4	-5.6	12.4	-5.4	-4.2	58.1
Estonia	483	414	-2.5	3.9	9.6	1.9	-10.5	4.9	2.2	-6.0	-6.6	8.8	0.9	10.9	-14.4
European Community	80,547	85,342	-5.2	-3.5	2.9	2.8	1.7	1.9	-1.9	0.0	1.7	2.9	-0.1	1.1	6.0
Finland	786	571	-21.9	1.9	17.9	1.0	7.7	5.3	-0.5	-4.2	-3.3	4.1	4.2	5.3	-27.3
France	10,948	9,165	-5.0	-2.3	-3.8	7.1	-3.5	2.1	1.1	-0.1	-1.0	4.2	0.5	2.2	-16.3
Germany	15,146	13,208	-10.2	-4.8	3.1	1.8	1.5	-3.3	-11.5	-5.0	5.3	4.2	-7.2	2.2	-12.8
Greece	5,778	6,461	-0.8	0.3	0.5	-0.4	-0.3	2.7	0.4	-3.8	0.9	-0.1	4.2	-2.8	11.8
Hungary	1,765	1,295	-38.6	-4.6	5.7	0.2	2.6	12.5	0.4	6.0	-0.5	-9.1	-10.6	8.1	-26.6
Iceland	52	61	-6.9	10.8	11.4	17.0	13.6	6.7	-10.5	-31.7	-18.5	55.1	8.4	13.2	18.4
Ireland	884	2,348	-11.5	11.8	16.5	-7.5	10.1	45.9	8.8	0.5	14.4	7.9	2.7	-0.4	165.6
Italy	16,084	17,933	-1.0	-8.6	1.8	2.1	5.1	3.8	3.6	-0.4	4.2	3.0	0.2	0.3	11.5
Japan	37,966	31,376	4.3	1.0	-6.2	-11.4	-1.0	0.3	-2.1	-5.7	-1.5	-2.1	3.2	-0.9	-17.4
Latvia	366	133	-10.6	0.8	1.7	-2.8	32.0	-36.3	23.9	7.4	10.4	5.7	-2.9	10.7	-63.6
Liechtenstein	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Lithuania	1,571	424	-7.1	3.1	15.4	12.5	-16.0	-14.8	-3.6	1.9	0.7	20.4	10.0	16.7	-73.0
Luxembourg	557	431	-4.5	-1.4	3.3	0.4	4.9	5.6	-12.8	3.5	-12.2	9.9	-1.8	-0.9	-22.6
Monaco	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	416	400	19.7	-26.2	19.0	14.9	19.7	-9.3	1.9	2.3	-11.2	2.8	-5.6	-4.9	-3.8
New Zealand	442	561	-2.5	-5.3	4.5	-8.2	8.8	-0.2	0.8	3.0	-3.0	-8.8	18.5	-1.4	26.9
Norway	649	805	-8.8	-1.4	6.9	-5.8	-0.4	0.8	-4.2	0.6	2.7	-16.0	7.5	3.1	24.0
Poland	7,028	5,984	-0.7	-6.7	8.4	-6.0	-2.5	-1.0	-18.9	-5.8	-2.2	11.0	-0.3	18.3	-14.9
Portugal	3,107	3,602	3.0	-2.1	5.1	-0.7	8.2	-0.5	-4.8	7.9	-7.5	3.3	-1.1	-0.4	15.9
Romania	5,572	3,631	-28.0	1.7	-6.1	-3.0	-9.3	0.4	4.2	-4.6	0.3	12.9	6.1	15.1	-34.8
Russian Federation	34,051	24,148	-5.1	-23.6	-3.5	-2.9	10.5	14.7	5.0	7.9	9.1	12.0	6.4	10.3	-29.1
Slovakia	1,438	1,364	-29.1	-4.7	10.4	50.0	0.3	-34.9	1.6	-3.6	-20.9	32.0	3.2	10.6	-5.1
Slovenia	515	523	-11.4	7.4	1.2	4.2	0.9	5.6	3.1	-12.1	1.5	5.1	2.5	5.1	1.6
Spain	12,534	17,395	-4.7	-2.0	5.3	8.3	4.5	2.1	1.9	3.4	3.3	1.6	3.1	1.5	38.8
Sweden	1,272	1,470	-10.6	-5.5	-9.8	2.5	0.5	13.0	3.4	-3.8	-5.8	6.5	4.4	9.6	15.5
Switzerland	2,525	1,813	-12.9	-10.0	-10.3	0.0	-0.1	7.4	1.9	-3.8	-2.2	6.0	5.4	0.3	-28.2
Turkey															
Ukraine	9,287	5,524	-5.1	-36.6	11.8	15.4	-9.2	-10.8	9.5	13.9	28.2	19.7	13.1	14.6	-40.5
United Kingdom	7,295	5,893	-17.8	2.1	4.6	1.9	-4.5	-3.0	-7.7	2.5	-2.0	1.9	-0.6	-0.8	-19.2
United States	33,278	45,739	-2.2	0.6	3.4	2.3	2.0	3.0	0.4	3.7	0.4	5.9	0.7	-0.4	37.4

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 2.2b**CO₂ implied emission factors for cement production - trend information**

CO ₂ IEF (t/t)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	0.558	0.550	-0.1	0.0	0.1	-0.5	-0.9	-0.1	-0.2	-0.4	-0.6	0.3	0.0	0.4	-1.5
Austria	0.551	0.535	0.2	0.7	1.2	-1.8	-0.2	0.9	0.2	-0.9	1.0	-1.2	0.5	-4.1	-2.8
Belarus	0.507	0.507	0	0	0	0	0	0	0	0	0	0	0	0	0
Belgium	0.534	0.542	0.2	-0.2	0.1	0.0	-0.1	0.1	-0.6	0.4	3.8	-1.4	-3.8	2.6	1.5
Bulgaria	0.520	0.520	0	0	0	0	0	0	0	0	0	0	0	0	0
Canada	0.517	0.517	0	0	0	0	0	0	0	0	0	0	0	0	0
Croatia	0.512	0.499	-1.6	-2.2	-1.1	1.4	-1.5	3.3	-1.7	-0.9	0.4	0.5	-0.6	-0.4	-2.6
Czech Republic	0.527	0.532	0.4	0.4	1.1	1.1	0.6	-1.0	0.7	-0.1	0	0	-3.1	-0.3	1.0
Denmark	0.545	0.491	-0.1	0.1	0	-0.5	1.1	0.9	0	0	0	0	0	-8.7	-9.9
Estonia	0.531	0.535	-0.2	-0.4	-0.5	0.5	0.0	-0.2	0.5	0.2	-0.5	0.4	1.0	0.0	0.7
European Community	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Finland	0.534	0.498	0.2	1.0	-0.2	1.5	0.8	-0.2	-0.3	-0.5	0.4	-8.0	-0.1	1.9	-6.9
France	0.525	0.517	0	0	0	0	0	0	0	0	0	-0.9	-0.5	-0.1	-1.5
Germany	0.530	0.530	0	0	0	0	0	0	0	0	0	0	0	0	0
Greece	0.543	0.525	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	-0.1	-2.7	-0.6	-3.3
Hungary	0.556	0.511	-0.8	2.5	0.1	-2.8	2.2	0.9	0.8	-0.6	-0.7	-1.8	-5.2	0.4	-8.1
Iceland	0.532	0.544	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	2.3
Ireland	0.549	0.534	0.0	-0.1	0.0	0.0	0.0	-0.3	-0.1	-0.3	-1.6	-0.1	0.0	-0.4	-2.8
Italy	0.540	0.540	0	0	0	0	0	0	0	0	0	0	0	0	0
Japan	0.498	0.503	0	0	0	0	0	-0.5	0.5	0.2	0.2	0.2	0.3	0.1	1.0
Latvia	0.548	C	-3.3	-10.6	-0.1	0.2	*	*	*	*	*	*	*	*	*
Liechtenstein	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Lithuania	0.514	0.507	-0.5	-0.1	1.1	-0.2	0.0	-0.3	0.8	0.5	0.2	0.2	-4.5	1.6	-1.4
Luxembourg	0.532	0.522	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2	0	-1.8
Monaco	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	0.540	0.509	0	-0.2	0.2	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	-4.3	-1.5	-5.7
New Zealand	C	C	*	*	*	*	*	*	*	*	*	*	*	*	*
Norway	0.521	0.534	-1.1	0.3	-0.4	-0.1	0.3	1.6	-0.7	-1.9	-0.1	6.7	-2.1	-0.5	2.4
Poland	0.525	0.533	0	0	23.6	-5.3	-4.7	6.5	0.4	-0.2	-0.4	-0.2	1.3	-0.1	1.6
Portugal	0.507	0.507	0.0	0	0	0	0	0.0	0.0	0	0	0	0	0	0
Romania	0.527	0.525	-0.1	0.0	0.0	0.1	0.3	-0.3	0.0	-0.1	0.1	-0.4	0	0.0	-0.4
Russian Federation	0.52	0.52	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
Slovakia	0.507	0.527	0	0	0	0	0	-0.4	-0.7	0.9	1.9	2.0	-0.3	0.5	3.9
Slovenia	0.541	0.538	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	-0.2	-0.4	-0.6
Spain	0.540	0.540	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sweden	0.542	0.552	0.0	0.8	-0.6	-0.3	0.0	0.1	-0.1	0.2	0.0	-0.2	1.3	1.3	2.0
Switzerland	0.525	0.525	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Turkey															
Ukraine	0.532	0.525	0.0	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	0	0.0	0	0	0.0	-1.3
United Kingdom	0.553	0.546	0.0	0.0	0.0	0	0.0	0	0.0	0	0	0	0.0	-1.3	-1.3
United States	0.517	0.517	0.0	0	0	0	0	0.0	0.0	0	0.0	0	0	0	0

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 2.3**Chemical industry - CO₂ and N₂O (2006)**

	CO ₂						N ₂ O									
	Methods and EF used ^a		Ammonia production				Methods and EF used ^a		Nitric acid production					Adipic acid production		
	Methods	EF	Key category	Share of national total	Activity data (production)	CO ₂ IEF	Methods	EF	Key category	Share of national total	Activity data (production)	N ₂ O IEF	Key category	Share of national total	N ₂ O IEF	
				(%)	(kt)	(t/t)				(%)	(kt)	(t/t)		(%)	(t/t)	
IPCC default EF ^b						1.5-1.6						0.002-0.019			0.59-0.86	
Australia	T2	CS		-	C	IE	NA	NA		-	C	IE		-	NO	
Austria	CS	CS, PS	L	0.6	502	1.1	CS	PS	T	0.3	580	0.002		-	NO	
Belarus	D, T1	D	L, T	1.8	992	1.5	T1	D		0.5	267	0.005		-	NO	
Belgium			L, T	0.9	362	3.6			L, T	1.5	1,873	0.004			NE	
Bulgaria	D, T1	CS, D	T	0.7	378	1.2	D	D	L, T	1.3	484	0.006		-	NO	
Canada	CS	CS	L	0.9	4,215	1.9	T2, T3	CS, OTH		0.2	1,180	0.003	T	0.2	C	
Croatia	T1a	PS	L	2.8	344	2.6	T1	D	L, T	2.5	278	0.009		-	NO	
Czech Republic	T1	CS		0.4	242	2.4	CS, T1	CS, PS	L	0.6	543	0.005		-	NO	
Denmark	CS	CS		-	NO	NO	NA	NA	T	-	NO	NO		-	NO	
Estonia	T1a, T1b	CS		0.7	211	0.6	NA	NA		-	NO	NO		-	NO	
European Community	CR, CS, D, T1, T1b, T2	CR, CS, D, OTH, PS		0.4	NE	NE	CR, CS, D, T1, T2	CR, CS, D, OTH, PS	L, T	0.7	NE	NE	T	0.2	NE	
Finland	T2	CS, D		-	NO	NO	T1	PS	L, T	1.8	599	0.008		-	NO	
France	CR	D, PS	T	0.2	761	1.7	CR	PS	L, T	0.7	2,367	0.005	T	0.3	C	
Germany	CS, D	CS, D	L, T	0.5	2,831	1.8	CS	CS, D, PS	L, T	0.8	4,973	0.006	T	0.3	C	
Greece	NA	NA		-	201	IE	D	D		0.5	454	0.005		-	NO	
Hungary	T2	D, PS	L, T	1.0	316	2.4	T3	D, PS	L, T	2.1	461	0.011		-	NO	
Iceland	T2	D, PS		-	NO	NO	NA	NA		-	NO	NO		-	NO	
Ireland	NA	NA	T	-	NO	NO	NA	NA	T	-	NO	NO		-	NO	
Italy	D	CR, PS	T	0.1	559	1.2	D	D, PS	T	0.2	526	0.008	T	0.3	0.05	
Japan	T1	CS		0.2	1,337	1.6	D, T1	CS, PS		0.1	683	0.003	T	0.1	C	
Latvia	NA	NA		-	NO	NO	NA	NA		-	NO	NO		-	NO	
Liechtenstein	NA	NA		-	NO	NO	NA	NA		-	NO	NO		-	NO	
Lithuania	T2	PS	L, T	4.9	C	C	T1	D	L, T	9.4	C	C		-	NO	
Luxembourg	NA	NA		-	NO	NO	NA	NA		-	NO	NO		-	NO	
Monaco	NA	NA		-	NO	NO	NA	NA		-	NO	NO		-	NO	
Netherlands	CS, T1, T1b	CS, D, PS	L	1.5	C	C	T2	PS	L, T	2.7	C	C		-	NO	
New Zealand	T2	CS, PS		0.5	267	1.4	NA	NA		-	NO	NO		-	NO	
Norway	T2	CS, D	L, T	0.7	414	1.4	CS, T2, T3	PS	L, T	3.0	1,627	0.003		-	NO	
Poland	T1, T2	CR, CS, D	L, T	1.1	2,327	1.8	T1	CS	L, T	1.1	2,201	0.006		-	NO	
Portugal	D, T2	CS, PS	L, T	2.3	C	C	D	CR, OTH	L, T	0.7	C	C		-	NO	
Romania	D, T1b	D	L, T	1.5	1,580	1.5	D	D	L, T	1.6	878	0.009	T	-	NA	
Russian Federation	D, T1b, T3	CS, D	L, T	0.9	12,954	1.5	D	D		0.1	5,183	0.002		-	NO	
Slovakia	T2	PS		0.7	355	1.0	T1, T2	D, PS	L, T	3.2	564	0.009		-	NO	
Slovenia	D	D		-	NO	NO	NA	NA		-	NO	NO		-	NO	
Spain	D	CS, D, PS		0.1	488	1.2			T	0.4	717	0.007		-	NA	
Sweden	D	PS		-	NO	NO	CS, T2	PS	L, T	0.7	272	0.005		-	NO	
Switzerland	CS	CS		0.0	40	0.0	D	CS		0.3	93	0.005		-	NO	
Turkey																
Ukraine	T1, T2	CS, D	L, T	2.4	5,147	2.1	T1	D		-	C	IE		-	IE	
United Kingdom	CS	CS, OTH		0.2	38	41.0	CS	CS	T	0.3	1,468	0.004	T	0.1	C	
United States	CS, T1	CS, D	T	0.2	9,962	1.2	D, T1	D		0.2	6,637	0.008	T	0.1	0.02	

^a Information on methods and emission factors in this table is as reported by Parties in table Summary 3 of the CRF. It may not reflect the actual method or type of emission factor used for all subcategories within the category 2.B Chemical industry.^b Source of default emission factors: ammonia; IPCC Guidelines, volume 3, page 2.16 nitric acid and adipic acid; IPCC good practice guidance, pages 3.34 and 3.44.

Table 2.4a

CO₂ emissions from ammonia production - trend information

CO ₂ emissions (Gg)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	IE	IE	*	*	*	*	*	*	*	*	*	*	*	*	*
Austria	517	542	5.6	0.3	-1.2	-1.3	1.0	-2.3	-8.8	2.9	8.3	-10.7	7.1	7.7	4.9
Belarus	NA	1,489	*	*	*	*	*	*	*	*	*	*	*	*	*
Belgium	420	1,290	-8.8	-4.8	0.8	18.7	-2.7	-2.7	-5.7	2.8	1.7	-0.7	5.1	-3.0	206.8
Bulgaria	1,662	467	-16.5	-0.7	-17.7	-46.4	-28.2	71.1	-10.4	-36.4	6.0	21.0	1.9	-21.7	-71.9
Canada	4,994	6,575	-1.6	-0.6	1.4	-0.2	3.5	0.1	-10.0	1.3	-1.0	11.6	-7.4	3.9	31.7
Croatia	862	879	5.5	-3.7	9.9	-21.6	19.4	-0.3	-18.3	-9.3	14.0	4.9	-1.4	-3.2	2.0
Czech Republic	807	581	-3.1	7.6	-8.4	3.1	-14.8	14.4	-15.8	-12.8	30.2	-0.7	-12.8	-4.6	-28.0
Denmark	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Estonia	317	135	-8.0	1.8	5.3	8.6	-10.2	-13.4	7.9	-86.0	226.8	84.7	-16.3	-6.1	-57.5
European Community	17,038	16,055	-2.3	-3.5	1.8	4.2	-8.4	3.9	-1.9	-3.2	-1.9	2.0	1.8	-2.7	-5.8
Finland	44	NO	1.1	*	*	*	*	*	*	*	*	*	*	*	*
France	3,066	1,312	-0.7	5.8	-2.7	-1.7	-4.8	4.3	-12.3	-13.7	-5.9	2.1	8.0	-36.6	-57.2
Germany	4,596	5,138	-16.2	-1.1	-0.7	0.4	-3.4	6.6	-1.2	1.9	9.1	-1.6	1.6	-2.2	11.8
Greece	IE	IE	*	*	*	*	*	*	*	*	*	*	*	*	*
Hungary	1,996	773	-40.8	11.6	-4.1	-11.4	-10.8	29.3	-9.8	-28.7	-0.5	28.7	12.9	-6.0	-61.3
Iceland	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Ireland	989	NO	4.2	-5.2	16.5	-1.5	-10.9	-6.3	17.4	-22.0	*	*	*	*	*
Italy	1,710	657	-4.3	-32.9	12.2	-8.3	-10.3	12.7	4.0	10.3	21.9	10.0	-5.7	-6.9	-61.6
Japan	3,385	2,163	-1.5	0.7	-2.5	-11.2	10.0	-3.2	-7.0	-8.1	-10.2	0.5	-12.3	0.4	-36.1
Latvia	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Liechtenstein	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Lithuania	1,190	1,129	9.0	26.8	-16.6	6.1	-1.7	4.6	5.9	5.3	-3.4	-6.7	7.6	-2.2	-5.1
Luxembourg	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Monaco	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	3,096	3,071	12.7	-5.3	5.2	1.6	-0.7	0.6	-16.0	-4.2	-1.1	7.4	0.6	-1.1	-0.8
New Zealand	275	382	-0.4	-12.9	13.4	9.8	15.2	-5.5	11.7	-7.6	13.0	-1.6	-8.5	10.2	39.0
Norway	500	370	-11.7	-6.5	8.2	-48.6	-35.4	124.1	-7.2	-5.7	35.5	6.8	-32.6	10.4	-26.0
Poland	4,347	4,230	-0.9	-1.8	1.5	-7.6	-11.3	23.8	-4.7	-22.3	45.8	2.6	6.1	-4.9	-2.7
Portugal	569	1,903	-21.5	-18.7	46.9	24.9	-52.9	10.9	53.4	6.5	6.1	5.8	5.5	5.2	234.3
Romania	5,006	2,370	-36.9	1.8	-48.3	-50.8	78.2	50.5	-8.0	-1.6	27.1	-1.6	13.3	-1.9	-52.7
Russian Federation	18,888	19,431	-5.2	-0.1	-9.5	-8.8	16.5	14.6	-0.6	-0.8	5.7	8.0	4.1	3.9	2.9
Slovakia	356	351	-2.3	7.3	-0.4	-11.1	-0.1	10.7	2.2	-2.9	-11.6	15.3	4.5	-16.8	-1.5
Slovenia	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Spain	709	582	20.8	4.3	5.7	-5.9	-7.3	-1.7	0.5	-2.5	2.8	-7.3	3.4	-5.0	-17.9
Sweden	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Switzerland	0.32	0.32	0	0	0	0	0	0	0	0	0	0	0	0	0
Turkey															
Ukraine	11,756	10,720	-7.0	5.0	1.9	-4.9	12.0	-4.7	2.7	-0.9	5.9	-0.1	9.1	-1.3	-8.8
United Kingdom	1,322	1,560	0.2	0.2	-34.4	25.0	0.2	16.9	5.6	-9.4	-6.4	8.5	-11.3	39.3	18.1
United States	16,889	12,376	-0.2	-0.6	1.5	5.7	-7.3	-6.8	-18.9	6.7	-12.0	6.0	-3.2	-3.4	-26.7

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 2.4b

CO₂ implied emission factors for ammonia production - trend information

CO ₂ IEF (t/t)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	IE	IE	*	*	*	*	*	*	*	*	*	*	*	*	*
Austria	1.12	1.08	2.5	-2.1	-0.2	-2.2	-0.3	-0.7	-1.8	-0.6	-1.6	-10.6	14.1	2.6	-3.8
Belarus	NA	1.50	*	*	*	*	*	*	*	*	*	*	*	*	*
Belgium	1.17	3.56	12.0	-9.7	3.6	21.6	-18.9	11.4	-10.7	13.4	-9.1	5.3	-7.3	4.0	205.1
Bulgaria	1.24	1.24	0	0	0	0	0	0	0	0	0	*	*	*	0
Canada	1.89	1.87	-0.1	-1.6	3.8	-1.0	1.9	-0.4	-2.4	4.0	-4.4	1.4	1.1	-0.9	-1.1
Croatia	2.51	2.56	-1.6	0.4	0.4	0.0	0.2	-0.2	-0.5	-0.1	-0.3	0.7	0.0	-0.4	2.0
Czech Republic	2.40	2.40	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denmark	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Estonia	1.08	0.64	0.1	1.0	3.8	6.1	-5.0	-2.4	4.1	-45.5	56.6	-10.0	-20.5	-5.6	-40.9
European Community	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Finland	1.55	NO	0.1	*	*	*	*	*	*	*	*	*	*	*	*
France	1.59	1.72	-1.6	0.8	-0.1	-0.1	-0.6	-2.2	-2.8	1.4	-4.3	4.8	2.4	20.3	8.4
Germany	1.82	1.82	0	0	0	0	0	0	0	0	0	0	0	0	0
Greece	IE	IE	*	*	*	*	*	*	*	*	*	*	*	*	*
Hungary	2.55	2.44	-1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-4.2
Iceland	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Ireland	2.30	NO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*	*	*	*	*
Italy	1.18	1.17	0	0	0	0	0	0	0	0.0	0.0	-1.8	0.6	1.1	-0.1
Japan	1.81	1.62	0.6	-0.1	-0.6	-4.6	7.5	-2.3	1.7	0.7	-1.7	-4.0	-9.4	-1.7	-10.7
Latvia	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Liechtenstein	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Lithuania	C	C	*	*	*	*	*	*	*	*	*	*	*	*	*
Luxembourg	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Monaco	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	C	C	*	*	*	*	*	*	*	*	*	*	*	*	*
New Zealand	1.60	1.43	-0.3	2.2	-1.7	-8.4	0.4	-4.1	1.3	-1.2	-1.7	1.1	2.0	-2.8	-11.0
Norway	1.44	1.37	2.1	-0.8	21.9	-16.2	9.7	-8.5	-4.3	-4.1	13.9	-10.9	-0.1	-2.6	-5.1
Poland	1.82	1.82	-2.8	1.0	-1.5	1.5	1.8	-1.5	1.7	2.5	3.5	-6.0	3.1	3.2	-0.1
Portugal	C	C	*	*	*	*	*	*	*	*	*	*	*	*	*
Romania	1.50	1.50	0	0	0	0	0	0	0	0	0	0	0	0	0
Russian Federation	1.50	1.50	0	0	0	0	0	0	0	0	0	0	0	0	0
Slovakia	0.99	0.99	0	0	0	0	0	0	0	0	0	0	0	0	0
Slovenia	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Spain	1.24	1.19	1.4	1.6	0.3	0.4	-2.6	-2.2	1.5	0.4	0.7	-0.9	-6.3	5.5	-3.6
Sweden	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Switzerland	0.01	0.01	0	0	0	0	0	0	0	0	0	0	0	0	0
Turkey															
Ukraine	2.38	2.08	-1.1	-1.1	-1.1	-1.2	-1.2	-1.2	-0.7	-0.7	-0.7	0.0	0.0	0.0	-12.5
United Kingdom	29.59	40.97	-1.3	0.2	-19.7	14.5	-6.9	9.4	33.5	-4.8	1.2	9.3	-8.9	14.7	38.4
United States	1.09	1.24	-1.2	-3.5	1.7	2.4	-1.2	2.2	4.9	-5.9	7.6	-0.4	4.4	-1.7	13.5

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 2.5a**N₂O emissions from nitric acid production - trend information**

N ₂ O emissions (Gg)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	IE	IE	*	*	*	*	*	*	*	*	*	*	*	*	*
Austria	3	1	1.7	2.0	-1.3	4.0	3.0	3.0	-17.4	2.6	9.4	-68.2	-2.4	2.2	-69.3
Belarus	1	1	-18.2	-12.5	28.6	11.1	0	-10.0	11.1	20.0	-8.3	18.2	14.8	-13.1	17.9
Belgium	11	7	-2.9	10.6	-4.7	2.1	-2.7	-5.6	-4.3	-8.6	-18.9	4.4	-1.7	-32.1	-41.5
Bulgaria	8	3	-27.9	2.1	-17.7	-40.0	-24.4	79.5	-1.5	-15.9	6.5	-26.0	15.6	-9.3	-62.8
Canada	3	4	4.4	10.2	-4.4	-2.2	12.7	5.4	4.4	-2.2	0.7	-2.9	1.9	-1.4	21.9
Croatia	3	2	-12.2	-6.9	5.1	-24.7	18.0	17.7	-15.9	-2.9	-5.7	22.0	-2.4	-1.1	-16.5
Czech Republic	4	3	-34.8	-9.4	9.0	7.7	-17.8	13.8	-1.1	-13.5	-0.3	20.7	-5.8	-9.3	-18.8
Denmark	3	NO	-8.4	-7.7	1.7	-4.9	17.8	5.6	-11.8	-12.6	15.6	-40.7	*	*	*
Estonia	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
European Community	119	90	-5.1	1.0	-1.1	-0.5	5.6	-0.9	-12.2	-9.7	8.1	5.3	7.9	-16.3	-24.3
Finland	5	5	-13.1	0.0	-1.4	-4.7	-2.1	1.3	-5.3	3.4	5.5	6.3	8.6	-11.5	-13.1
France	21	12	1.4	0	2.7	-0.5	1.9	1.0	-15.7	-11.4	-0.5	0.7	-6.9	-13.8	-44.0
Germany	15	27	-20.7	-4.8	0.3	-0.6	4.1	6.9	-12.2	9.9	64.4	14.1	47.1	-23.3	81.4
Greece	2	2	-17.6	14.2	-12.2	-17.7	3.8	2.4	-16.0	-3.7	-7.7	-4.9	80.0	0	-11.1
Hungary	15	5	-49.5	42.9	-3.7	-16.0	-12.4	31.7	8.6	-35.7	5.6	33.5	9.8	-16.1	-64.1
Iceland	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Ireland	3	NO	-21.5	0	0	0.0	0	0.0	-28.1	-50.0	*	*	*	*	*
Italy	7	4	-4.2	-4.2	1.5	-14.8	-14.1	36.0	-3.6	-17.1	12.5	58.5	-6.5	-27.4	-41.3
Japan	2	2	-0.4	-2.4	-3.3	9.9	-3.1	4.1	-8.2	2.9	6.8	1.9	-4.7	-9.4	-7.7
Latvia	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Liechtenstein	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Lithuania	2	7	4.9	37.3	10.4	29.3	5.3	17.4	10.3	8.1	3.1	7.1	26.9	0.3	184.3
Luxembourg	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Monaco	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	20	18	1.4	-0.3	0	-0.5	-4.3	-1.1	-9.4	-5.8	0.6	11.0	0.7	-1.1	-11.6
New Zealand	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Norway	7	5	-7.6	-1.1	-0.8	5.1	13.7	-9.6	-2.9	13.5	-10.4	8.0	5.8	-16.8	-21.6
Poland	14	14	-8.8	-0.1	-6.3	-7.6	-2.1	22.7	2.6	-18.0	20.2	2.7	6.5	-0.8	0.6
Portugal	2	2	-5.7	5.4	1.4	-30.0	66.6	-41.8	33.8	1.3	1.3	1.2	1.2	1.2	9.3
Romania	22	8	-49.2	6.6	-31.6	-28.2	13.8	43.8	-12.3	1.3	19.6	16.6	0.2	-21.0	-62.9
Russian Federation	12	10	-2.9	10.2	-12.8	-14.8	14.6	20.6	5.4	18.7	-7.5	5.6	9.1	0.7	-9.9
Slovakia	4	5	-30.7	16.8	-5.4	-15.0	-24.9	29.9	13.1	-10.6	10.7	14.3	-3.1	22.2	36.3
Slovenia	NO	NO	*	*	*	26.4	-11.8	69.6	-10.5	-9.4	12.0	-19.7	-84.8	*	*
Spain	9	5	-10.4	2.4	-3.3	-7.8	9.4	-2.1	-10.5	-7.1	1.5	-9.0	4.1	-16.4	-46.1
Sweden	3	1	5.3	-4.0	-1.2	12.7	-12.3	-3.7	-25.0	-8.0	-2.2	-0.9	3.0	3.9	-43.8
Switzerland	1	0	-0.8	-3.3	-11.7	6.6	1.6	9.6	5.2	3.5	-10.4	4.8	-15.2	-0.8	-17.2
Turkey															
Ukraine	IE	IE	*	*	*	*	*	*	*	*	*	*	*	*	*
United Kingdom	13	6	1.1	1.8	-5.1	17.2	47.3	-8.1	-22.3	-37.3	9.4	13.5	-23.6	-12.9	-54.9
United States	55	50	-0.1	4.1	2.5	-1.6	-3.7	-2.7	-18.8	8.2	-6.0	-0.8	3.8	-1.1	-7.8

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 2.5b**N₂O implied emission factors for nitric acid production – trend information**

N ₂ O IEF (t/t)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	IE	IE	*	*	*	*	*	*	*	*	*	*	*	*	*
Austria	0.006	0.002	0.7	-0.4	0.0	0.7	1.4	-1.0	-13.6	0.4	2.4	-69.0	0.2	-1.7	-71.9
Belarus	0.005	0.005	0	0	0	0	0	0	0	0	0	0	0.0	-0.2	-0.2
Belgium	0.008	0.004	0.0	-0.7	-1.0	-1.6	-1.3	0.5	-1.7	-5.9	-29.7	7.3	-2.8	-31.2	-55.2
Bulgaria	C	0.006	0	0	0	0	0	*	*	0	*	*	*	*	*
Canada	0.003	0.003	10.5	5.1	-0.7	4.7	4.8	-1.2	6.5	-9.8	4.1	-11.9	8.2	-4.2	-0.3
Croatia	0.009	0.009	0	0	0	0	0	0	0	0	0	0.0	0.0	0	0
Czech Republic	0.007	0.005	-1.2	-6.8	9.4	-2.3	-3.8	2.5	-1.2	0.0	-12.9	13.2	-5.6	-11.1	-20.7
Denmark	0.007	NO	0	0	0	0	0	0	0	0.0	0.0	0.0	*	*	*
Estonia	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
European Community	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Finland	0.010	0.008	-0.8	0.0	-2.0	1.2	-2.4	1.6	-0.6	-0.7	-1.0	0.8	-6.1	-14.1	-20.4
France	0.007	0.005	4.3	-9.3	8.8	2.0	2.8	-4.3	-3.2	-2.9	-8.4	-1.2	-9.0	0.3	-24.4
Germany	0.006	0.006	0	0	0	0	0	0	0	0	0	0	0	0	0
Greece	0.005	0.005	0	0	0	0	0	0	0	0	0	0	0	0	0
Hungary	0.014	0.011	-1.9	-2.3	0.8	2.7	0.3	-2.0	-0.6	-1.0	1.7	-1.5	-5.9	-11.8	-21.1
Iceland	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Ireland	0.010	NO	2.2	0	0	0.0	0	0.0	-28.1	0	*	*	*	*	*
Italy	0.006	0.008	0.6	3.4	-1.1	-0.6	-4.5	5.5	1.8	-19.4	13.1	38.7	0.6	-21.1	15.8
Japan	0.004	0.003	-0.7	1.9	-4.2	18.1	-4.9	1.9	-0.3	-2.6	10.2	3.3	-3.7	-20.1	-4.6
Latvia	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Liechtenstein	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Lithuania	C	C	*	*	*	*	*	*	*	*	*	*	*	*	*
Luxembourg	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Monaco	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	C	C	*	*	*	*	*	*	*	*	*	*	*	*	*
New Zealand	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Norway	0.005	0.003	-9.0	-0.2	1.2	1.0	15.6	-10.9	-4.8	12.5	-13.1	7.7	6.4	-18.8	-36.1
Poland	0.006	0.006	0	0	0	0	0	0	0	0	0	0	0	0	0
Portugal	C	C	*	*	*	*	*	*	*	*	*	*	*	*	*
Romania	0.009	0.009	-1.0	-0.5	0.4	0.3	1.3	0.3	0.9	-2.4	-0.5	3.1	-1.9	0.6	-1.7
Russian Federation	0.002	0.002	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0
Slovakia	0.009	0.009	-8.0	4.3	0.3	-5.1	-7.5	-2.2	-0.8	2.8	-1.7	-1.0	2.2	7.8	-3.2
Slovenia	NO	NO	*	*	*	0	0	2.8	-2.7	0	0	0	-6.5	*	*
Spain	0.007	0.007	0	0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0
Sweden	0.007	0.005	-0.3	0.0	1.4	9.9	-8.5	-14.1	14.3	-1.3	-0.4	-0.3	0.0	0.9	-22.8
Switzerland	0.005	0.005	0	0	0	0	0	0	0	0	0	0	0	0	0
Turkey															
Ukraine	IE	IE	*	*	*	*	*	*	*	*	*	*	*	*	*
United Kingdom	0.005	0.004	0.2	0.1	-1.4	5.6	57.8	10.3	-4.5	-36.6	4.5	14.0	-23.9	1.6	-26.1
United States	0.008	0.008	0.0	0	0	0	0.0	0.0	0.0	0	0	0	0	0.0	0.0

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 2.6a

N₂O emissions from adipic acid production - trend information

N ₂ O emissions (Gg)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Austria	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Belarus	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Belgium															
Bulgaria	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Canada	34.6	3.9	-6.7	6.9	-13.8	-48.8	-65.5	-48.5	-10.6	55.6	-13.3	185.2	-14.4	-54.4	-88.7
Croatia	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Czech Republic	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Denmark	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Estonia	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
European Community	190.1	21.2	2.3	2.7	-4.2	-38.0	-60.7	-7.6	36.6	-10.0	-2.8	-8.8	-13.9	-43.6	-88.9
Finland	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
France	47.8	5.0	-2.1	2.8	-0.9	-44.2	-53.2	-29.6	51.0	-17.8	4.0	-71.6	29.3	1.2	-89.6
Germany	60.7	9.7	5.6	6.3	-11.8	-67.7	-70.0	-27.5	165.6	4.3	-1.8	26.5	-31.5	-8.3	-84.0
Greece	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Hungary	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Iceland	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Ireland	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Italy	14.8	4.6	10.5	-2.7	0.3	4.8	5.1	4.4	5.4	-1.7	-6.8	3.4	-8.5	-76.6	-69.0
Japan	24.2	3.0	-9.7	13.8	6.5	-13.7	-84.1	215.2	-82.4	-28.9	-6.2	84.0	-38.1	76.7	-87.8
Latvia	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Liechtenstein	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Lithuania	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Luxembourg	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Monaco	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
New Zealand	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Norway	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Poland	1.5	NO	-35.2	*	*	*	*	*	*	*	*	*	*	*	*
Portugal	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Romania	2.2	NA	-14.9	0.8	39.7	3.7	-19.7	24.1	-42.6	*	*	*	*	*	*
Russian Federation	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Slovakia	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Slovenia	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Spain	NA	NA	*	*	*	*	*	*	*	*	*	*	*	*	*
Sweden	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Switzerland	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Turkey															
Ukraine	IE	IE	*	*	*	*	*	*	*	*	*	*	*	*	*
United Kingdom	66.9	2.0	0.5	-1.2	2.8	-1.6	-95.0	94.4	20.8	-62.1	-9.4	89.8	-16.1	-22.1	-97.1
United States	49.4	19.1	-2.3	-1.0	-39.2	-41.4	-8.1	10.4	-18.3	19.6	4.4	-6.6	0	0	-61.3

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 2.6b**N₂O implied emission factors for adipic acid production – trend information**

N ₂ O IEF (t/t)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Austria	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Belarus	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Belgium	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Bulgaria	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Canada	C	C	*	*	*	*	*	*	*	*	*	*	*	*	*
Croatia	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Czech Republic	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Denmark	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Estonia	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
European Community	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Finland	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
France	C	C	*	*	*	*	*	*	*	*	*	*	*	*	*
Germany	C	C	*	*	*	*	*	*	*	*	*	*	*	*	*
Greece	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Hungary	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Iceland	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Ireland	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Italy	0.30	0.05	0	0	0	0	0	0	0	0	0	-8.3	-5.2	-79.1	-81.8
Japan	C	C	*	*	*	*	*	*	*	*	*	*	*	*	*
Latvia	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Liechtenstein	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Lithuania	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Luxembourg	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Monaco	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
New Zealand	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Norway	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Poland	0.30	NO	0	*	*	*	*	*	*	*	*	*	*	*	*
Portugal	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Romania	0.30	NA	0	0	0	-0.1	0.2	0.0	-0.1	*	*	*	*	*	*
Russian Federation	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Slovakia	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Slovenia	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Spain	NA	NA	*	*	*	*	*	*	*	*	*	*	*	*	*
Sweden	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Switzerland	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Turkey															
Ukraine	IE	IE	*	*	*	*	*	*	*	*	*	*	*	*	*
United Kingdom	C	C	*	*	*	*	*	*	*	*	*	*	*	*	*
United States	0.07	0.02	1.4	-2.0	-41.4	-40.8	-12.7	8.2	-9.4	8.4	0	-10.4	0.0	0	-71.6

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 2.7**Metal production - CO₂ (2006)**

	Methods and EF used ^a		Iron and steel ^b							Aluminium production			
	Methods	EF	Key category	Share of national total	CO ₂ IEF	Steel		Pig iron		Key category	Share of national total	Activity Data (production)	CO ₂ IEF
						(%)	t/t	(kt)	t/t		(%)	(kt)	t/t
IPCC default EF ^c					1.5-1.6								1.5-1.8
Australia	T1b	CS	L, T	1.3	0.8	6,560	NA	NO	NO		0.6	1,912	1.6
Austria	CS, T2	D, PS	L, T	5.6	0.3	7,127	0.1	5,565	0.8	T	-	NO	NO
Belarus	D, T1	D		0.0	IE, NO	IE	IE	IE	IE		-	NO	NO
Belgium			L	1.2	0.1	6,897	0.1	7,514	0.1				
Bulgaria	D	CS	L, T	2.2	C	C	C	C	NO		-	12	NO
Canada	CS, T2	OTH	L, T	1.1	0.3	15,399	0.0	8,305	0.9	L, T	0.7	2,813	1.8
Croatia	T1	D		0.0	0.0	81	0.0	NO	NO	T	-	NO	NO
Czech Republic	T1	D	L, T	5.7	0.4	7,053	1.2	5,192	IE		-	NO	NO
Denmark	NA	NA		-	NA, NO	NO	NO	NO	NO		-	NO	NO
Estonia	NA	NA		-	NA	NO	NA	NO	NA		-	NO	NO
European Community	CR, CS, D, T1, T1a, T2, T3	CR, CS, D, PS	L, T	1.6	NE	NE	NE	NE	NE		0.1	NE	NE
Finland	CS, T1, T2, T3	CS, D	L, T	3.1	0.4	5,054	0.5	IE	IE		-	NO	NO
France	CR	CS, PS	L	0.6	0.1	20,085	0.1	13,013	0.1		0.1	444	1.7
Germany	CS, T2, T3	CS	L, T	4.5	0.4	47,224	0.9	30,360	IE		0.1	516	1.4
Greece	CR, T3	CR, PS		0.2	0.2	917	0.2	NO	NO		0.2	C	C
Hungary	CS	D		0.3	0.1	2,084	0.1	1,336	IE		-	NO	NO
Iceland	T2	D		-	NA, NO	NO	NO	NO	NO	L, T	12.0	326	1.6
Ireland	NA	NA		-	NO	NO	NO	NO	NO		-	NO	NO
Italy	D	CR, CS, PS	T	0.3	0.0	31,624	0.0	11,492	0.1		0.1	194	1.6
Japan				0.0	NE	NE	IE	NE	IE		-	7	IE
Latvia	T2	PS		0.1	0.1	109	0.1	NO	NO		-	NO	NO
Liechtenstein	NA	NA		-	NO	NO	NO	NO	NO		-	NO	NO
Lithuania	NA	NA		-	NO	NO	NO	NO	NO		-	NO	NO
Luxembourg	T2	CS	L, T	1.3	0.1	2,802	0.1	NO	NO		-	NO	NO
Monaco	NA	NA		-	NA, NO	NO	NO	NO	NO		-	NO	NO
Netherlands	T1a, T2	CS	L, T	0.7	0.2	6,355	0.0	NO	NO		0.2	285	1.5
New Zealand	T2	D, PS	L	2.1	C, IE, NO	C	C	IE	IE		0.7	335	1.6
Norway	T2, T3	CS, PS	L, T	0.6	2.9		NO	114	2.9	L, T	4.1	1,383	1.6
Poland	CS, T1, T2, T3	CS, D	L, T	1.0	0.2	IE	IE	5,543	0.1		0.0	56	1.8
Portugal	D, T2	D, PS		0.0	11.7	1	11.7	IE	IE		-	NO	NO
Romania	D, T1b, T2	CS, D	L, T	5.2	0.4	6,225	0.1	3,985	1.9		0.2	256	1.5
Russian Federation	T1b, T2	CS, D	L, T	3.8	0.5	70,816	0.1	52,362	1.5		0.3	C	C
Slovakia	T1, T2	CS, PS	L, T	1.2	0.1	4,836	0.1	4,415	IE		0.4	158	1.2
Slovenia	D, T2	D, PS		0.1	0.0	655	0.0	NO	NO	L, T	1.0	119	1.7
Spain	D, T2	CS, PS	L, T	0.5	0.1	18,332	0.1	3,578	0.1		0.2	400	1.7
Sweden	CS, D, T1	CS, PS	L, T	2.4	0.3	1,881	0.1	3,711	0.4		0.2	102	1.9
Switzerland	CS, T3	CS	T	0.3	0.1	1,281	0.1	IE	IE	T	0.0	12	1.6
Turkey													
Ukraine	T2	CS	L, T	13.8	0.8	41,552	0.1	32,927	1.8		-	C	IE
United Kingdom	T3	CS		0.2	0.1	2,727	0.0	10,696	IE		0.1	367	1.5
United States	CS, D, T1, T2	CS, D	L, T	0.7	0.5	42,119	1.1	37,904	IE		0.1	2,284	1.7

^a Information on methods and emission factors in this table is as reported by Parties in table Summary 3 of the CRF. It may not reflect the actual method or type of emission factor used for all subcategories within the category 2.C Metal production.

^b CO₂ emission estimates from sinter (2.C.1.3) were reported by Belgium, European Community, Luxembourg (1990-1997), Poland and Spain; CO₂ emission estimates from coke (2.C.1.4) were reported by European Community, Finland, Poland, Portugal (1990-2001) and the United States.

^c Source of default emission factors: IPCC Guidelines, volume 3, pages 2.28 and 2.33.

Table 2.8a

CO₂ emissions from iron and steel production - trend information

CO ₂ emissions (Gg)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	9,018	7,122	-2.6	-0.5	-0.2	-3.8	4.9	-5.6	-7.5	-2.6	-2.9	6.2	-21.2	-0.8	-21.0
Austria	3,546	5,089	-1.0	-5.6	10.7	-4.9	-3.6	11.8	-1.0	10.8	-1.8	-1.7	12.3	1.9	43.5
Belarus	6	11	1.0	19.1	37.7	15.7	2.7	12.0	-0.7	-0.3	5.4	13.3	8.0	10.7	106.5
Belgium	1,946	1,620	-13.5	-17.2	2.9	8.0	5.6	-10.7	-8.0	27.2	-15.9	-2.6	-7.2	5.5	-16.8
Bulgaria	2,360	1,548	-26.1	-9.8	7.0	-14.8	-9.2	-12.6	-4.6	-6.2	25.7	-8.3	-8.5	12.5	-34.4
Canada	7,060	7,757	17.8	-1.7	-2.5	1.8	2.7	0.0	-7.8	-2.3	-1.0	2.3	-2.5	10.4	9.9
Croatia	1	0	-9.6	172.7	52.2	48.4	-26.4	-8.0	-18.4	-41.6	24.8	103.5	-14.3	9.3	-57.5
Czech Republic	12,533	8,425	-29.9	-7.5	6.7	-11.7	-20.6	18.2	-6.7	4.1	10.1	12.1	-13.8	15.1	-32.8
Denmark	28	NA, NO	0.0	-8.8	-0.5	20.5	2.0	-5.4	14.6	*	*	*	*	*	*
Estonia	NA	NA	*	*	*	*	*	*	*	*	*	*	*	*	*
European Community	71,861	66,075	-4.9	-7.9	9.7	-3.9	-5.6	6.3	-3.7	1.9	0.2	2.7	-1.5	2.7	-8.1
Finland	1,861	2,464	0.7	14.2	9.0	-2.8	0.8	-3.3	2.3	-4.8	7.8	3.8	-5.7	2.8	32.4
France	3,151	3,054	1.1	-28.8	13.2	-5.8	-5.8	-8.3	-6.2	23.7	7.6	15.8	-8.5	-14.9	-3.1
Germany	48,326	44,859	-4.1	-7.6	11.9	-3.2	-6.7	10.6	-4.2	0.2	-1.3	2.6	-3.9	5.4	-7.2
Greece	203	222	-1.3	-18.0	26.4	14.8	-13.5	16.0	27.6	37.1	-9.7	19.3	-53.5	0.2	9.5
Hungary	470	270	-34.9	0.6	-9.1	7.4	-0.3	3.5	4.2	5.3	-3.1	-2.0	0.6	6.4	-42.6
Iceland	NA, NO	NA, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Ireland	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Italy	3,124	1,680	-5.1	-19.8	-7.6	-9.2	-24.1	-16.9	0.7	-4.2	-4.5	4.8	29.0	9.5	-46.2
Japan	356	170	-9.3	6.4	1.2	-23.8	-13.2	-2.4	-15.2	4.9	9.3	6.7	-6.2	-29.6	-52.2
Latvia	13	13	-32.1	-21.4	129.5	6.3	-9.3	9.3	-4.6	-5.5	60.0	6.2	-4.3	1.7	-2.0
Liechtenstein	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Lithuania	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Luxembourg	985	170	-4.8	-10.5	-29.4	-52.2	5.0	-1.1	6.0	0.4	-2.2	0.3	-21.9	43.1	-82.7
Monaco	NA, NO	NA, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	2,514	1,410	-13.9	-3.5	16.8	-18.1	-8.5	-15.9	-1.2	7.4	10.6	-15.8	-8.0	16.7	-43.9
New Zealand	1,312	1,622	8.8	-2.6	-10.8	7.6	3.4	-0.8	4.6	-2.2	13.5	0.5	-3.8	0.2	23.6
Norway	200	334	-12.7	8.5	-23.9	13.8	5.4	7.1	14.0	-2.7	10.8	4.4	-21.8	24.8	66.8
Poland	10,889	4,096	-31.0	-14.8	10.2	-24.8	-6.7	37.2	-18.8	2.7	10.9	-3.8	-30.5	41.4	-62.4
Portugal	13	13	4.6	-4.8	34.1	-3.4	8.8	9.7	-12.1	-55.6	9.5	37.0	-19.3	3.1	-5.4
Romania	15,831	8,129	-36.1	-6.2	7.0	-0.2	-39.1	0.9	-7.4	34.0	-11.0	4.4	8.2	19.4	-48.7
Russian Federation	98,634	83,444	-20.1	-6.4	0.4	-7.2	17.9	9.0	2.8	5.0	-1.3	3.9	-2.7	7.9	-15.4
Slovakia	420	564	-11.2	-9.0	5.2	0.9	10.3	2.9	6.6	9.4	10.5	0.9	-6.3	11.4	34.1
Slovenia	40	29	-42.0	-19.1	15.9	2.0	1.9	15.0	-0.5	5.6	9.4	18.6	2.2	-5.7	-28.5
Spain	2,491	2,353	-3.8	3.0	18.5	6.6	2.8	12.1	0.7	5.7	-13.7	6.8	17.8	2.4	-5.5
Sweden	1,813	1,573	2.5	-0.2	-0.4	-3.1	-9.4	-2.6	16.0	-7.1	12.8	-5.4	7.1	-19.9	-13.2
Switzerland	111	176	4.3	3.1	6.9	11.6	46.0	11.3	2.5	7.4	2.9	2.8	2.7	2.6	58.4
Turkey															
Ukraine	80,459	61,220	-15.3	2.8	19.6	4.4	5.6	7.9	1.6	0.5	1.4	0.9	-2.8	7.6	-23.9
United Kingdom	1,859	1,568	-34.0	18.1	-14.9	-12.1	20.7	-9.6	-33.7	-36.0	105.8	13.5	25.5	-16.6	-15.6
United States	86,220	49,119	-10.7	-8.0	6.4	-5.8	-5.7	2.6	-11.0	-5.6	-2.1	-3.6	-11.6	5.3	-43.0

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 2.8b

CO₂ implied emission factors for iron and steel production (steel) - trend information

CO ₂ IEF (t/t)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	NA	NA	*	*	*	*	*	*	*	*	*	*	*	*	*
Austria	0.11	0.11	2.5	-0.5	-1.2	-0.8	-1.3	0.5	-1.6	1.6	-1.3	0.1	3.9	0.6	-3.1
Belarus	IE	IE	*	*	*	*	*	*	*	*	*	*	*	*	*
Belgium	0.13	0.10	-0.9	-15.9	5.9	3.5	-1.4	-4.3	-0.1	1.6	-4.2	-3.7	-0.5	-4.0	-25.6
Bulgaria	C	C	*	*	*	*	*	*	*	*	*	*	*	*	*
Canada	0.05	0.04	7.0	3.4	-5.6	-6.1	-2.5	-2.3	-8.7	3.0	-3.2	6.8	-6.2	2.7	-13.7
Croatia	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0
Czech Republic	1.24	1.19	-11.2	-16.9	14.3	-17.3	2.7	3.7	-8.1	0.6	6.0	8.1	-2.1	1.0	-3.7
Denmark	0.05	NO	0.0	-1.4	-19.1	31.4	-4.3	19.6	0.2	*	*	*	*	*	*
Estonia	NA	NA	*	*	*	*	*	*	*	*	*	*	*	*	*
European Community	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Finland	0.65	0.49	-0.3	9.9	-3.6	-8.1	0.7	-6.6	6.4	-6.3	-9.5	2.4	-3.9	-3.6	-25.1
France	0.09	0.07	7.2	-10.3	-1.6	0.1	-2.4	-21.4	17.5	-0.4	43.1	-18.9	2.3	-0.8	-14.5
Germany	1.10	0.95	-0.1	-2.4	-1.1	-1.1	-2.3	0.3	-0.8	-0.2	-0.8	-0.9	0.1	-0.7	-13.6
Greece	0.20	0.24	0.6	-4.9	0.8	5.3	0.7	0.0	10.0	-4.5	-2.4	3.2	-0.1	0.0	19.2
Hungary	0.13	0.13	0	0	0.7	-0.1	-0.2	0.3	-0.3	0.3	-0.1	-0.2	0.1	0.2	0.8
Iceland	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Ireland	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Italy	0.05	0.02	0.8	-8.4	-9.2	-10.3	-22.7	-25.8	4.6	2.0	-2.7	-0.7	-3.8	3.7	-58.7
Japan	IE	IE	*	*	*	*	*	*	*	*	*	*	*	*	*
Latvia	0.12	0.12	0.0	2.7	-4.5	-1.2	1.6	-0.6	1.3	0.9	-7.6	-0.5	0.7	0.6	-2.3
Liechtenstein	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Lithuania	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Luxembourg	0.11	0.06	1.5	-4.8	-16.4	-19.3	0.0	0.0	0	0.0	0.0	0.0	-4.4	12.1	-46.4
Monaco	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	0.01	0.01	0.0	0	0	0	0.0	-27.7	33.5	36.1	-23.8	0	0.0	0.0	0.0
New Zealand	C	C	*	*	*	*	*	*	*	*	*	*	*	*	*
Norway	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Poland	IE	IE	*	*	*	*	*	*	*	*	*	*	*	*	*
Portugal	0.04	11.66	28.5	-9.2	34.7	4.1	-0.4	1.0	303.8	8,010.2	-6.8	-16.2	11.7	-1.8	31,524.8
Romania	0.06	0.06	-2.8	4.0	1.8	5.7	-3.9	-3.0	0.3	11.9	-2.0	-6.6	-6.0	-4.0	1.4
Russian Federation	0.06	0.06	-5.0	0.5	0.6	1.3	0.5	-5.9	1.0	1.1	-1.1	-1.8	-2.5	-1.8	7.1
Slovakia	0.12	0.12	0	0	0	0	0	0	0	0	3.5	0	-2.2	-2.4	-1.2
Slovenia	0.02	0.04	0.0	0	0.0	0.0	0.0	0.0	0.0	1.5	-2.8	12.5	-3.7	-12.8	170.4
Spain	0.08	0.07	0.0	1.0	1.9	-1.6	13.4	7.8	-1.2	0.9	-16.6	2.0	10.0	-10.5	-11.9
Sweden	0.08	0.10	-0.3	6.4	-9.7	3.6	0.7	-1.1	-1.1	3.4	-0.7	3.9	4.6	0.2	17.6
Switzerland	0.09	0.14	1.8	1.3	0.3	0.2	40.4	0.7	0.7	1.3	0.4	0.0	0.4	0.4	48.2
Turkey															
Ukraine	0.07	0.09	4.7	-0.2	-3.9	0.4	2.8	1.1	2.0	-1.1	3.5	0.9	-0.3	0.0	20.6
United Kingdom	0.01	0.01	-0.9	-1.0	-1.0	-1.0	-1.0	-1.0	0	0	0	0	0	0	-9.1
United States	1.38	1.09	3.3	-3.9	6.2	-8.0	-2.5	-0.4	1.7	-3.5	-3.9	-6.4	2.7	7.8	-21.5

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 2.9a
CO₂ emissions from aluminium production - trend information

CO ₂ emissions (Gg)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	2,021	3,032	0.1	11.8	-1.2	14.2	3.5	1.8	3.7	4.9	1.0	-0.8	1.0	-0.4	50.0
Austria	158	NO	0	*	*	*	*	*	*	*	*	*	*	*	*
Belarus	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Belgium			*	*	*	*	*	*	*	*	*	*	*	*	*
Bulgaria	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Canada	2,715	5,004	15.9	6.1	1.7	1.2	-0.7	-1.3	7.8	5.2	3.7	-7.8	14.6	3.4	84.3
Croatia	111	NO	-31.4	*	*	*	*	*	*	*	*	*	*	*	*
Czech Republic	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Denmark	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Estonia	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
European Community	3,884	3,815	-4.0	1.7	1.8	4.9	4.7	2.8	2.3	1.4	-0.7	2.0	0.0	-4.9	-1.8
Finland	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
France	534	751	-11.2	3.0	6.4	4.6	9.1	-0.5	4.6	4.5	-4.9	-4.5	-1.4	6.6	40.7
Germany	1,012	706	-6.7	0.3	-0.8	7.0	3.3	1.9	1.4	0.3	1.0	1.2	-3.4	-20.0	-30.2
Greece	232	254	1.8	0.0	1.3	10.1	9.5	1.7	-0.3	1.2	1.5	0.2	1.5	-3.1	9.5
Hungary	133	NO	-16.3	4.9	0.6	0.1	-0.2	0.6	2.2	2.0	-0.7	-2.0	-7.5	*	*
Iceland	136	507	2.0	4.1	20.4	40.5	30.8	-0.5	8.2	5.0	2.3	1.4	0.4	24.0	271.4
Ireland	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Italy	359	301	-6.0	3.7	1.8	-0.4	0.1	1.4	-1.2	1.5	0.5	2.1	0.2	-0.8	-16.2
Japan	IE	IE	*	*	*	*	*	*	*	*	*	*	*	*	*
Latvia	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Liechtenstein	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Lithuania	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Luxembourg	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Monaco	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	395	414	-3.1	5.2	2.0	14.3	8.5	5.0	-2.8	-3.0	-0.5	16.7	1.1	-14.5	4.8
New Zealand	443	553	-2.7	10.8	4.1	0.7	5.0	-0.5	-3.0	12.2	-2.2	1.3	0.2	-2.9	24.7
Norway	1,419	2,191	-1.2	0.7	8.4	7.2	1.4	1.6	0.8	3.1	9.2	10.3	4.3	0.8	54.4
Poland	86	101	-0.4	-6.8	3.3	1.0	-5.9	2.7	4.3	7.7	-2.7	3.0	-9.1	4.4	17.2
Portugal	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Romania	398	384	-8.2	-0.3	16.7	6.7	-0.4	-0.5	3.8	3.8	6.1	8.7	11.0	7.0	-3.7
Russian Federation	5,114	6,462	-5.7	3.8	2.3	1.6	3.7	3.3	1.9	1.3	3.5	3.4	1.3	1.7	26.4
Slovakia	121	196	-1.6	184.8	-1.1	-2.0	1.1	0.6	0.2	-0.2	1.6	40.6	-2.0	-14.8	61.9
Slovenia	89	207	-16.6	-7.1	-0.3	-0.3	-0.3	1.1	-0.2	47.5	9.3	2.9	-0.1	-1.7	131.4
Spain	610	682	-0.4	-0.2	0.6	-1.1	0.9	0.8	1.7	1.9	0.4	1.2	2.0	3.0	11.7
Sweden	133	142	0.2	6.1	-0.5	2.1	0.6	3.5	-4.2	5.1	0.0	-3.6	2.0	-0.8	6.9
Switzerland	139	19	-5.9	28.3	2.7	18.3	6.6	3.2	2.1	10.7	9.2	2.3	-0.2	-73.2	-86.2
Turkey															
Ukraine	IE	IE	*	*	*	*	*	*	*	*	*	*	*	*	*
United Kingdom	450	566	1.3	0.9	3.2	4.3	4.2	12.5	11.7	1.0	-0.5	4.9	2.8	-0.6	25.6
United States	6,831	3,923	1.7	5.8	0.5	2.9	1.5	-3.2	-28.0	2.5	0.3	-6.0	-0.6	-6.8	-42.6

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 2.9b

CO₂ implied emission factors for aluminium production - trend information

CO ₂ IEF (t/t)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	1.64	1.59	0	8.0	-5.7	0.3	-2.5	-1.5	1.0	3.7	-1.5	-1.9	0.3	-1.6	-3.1
Austria	1.80	NO	0	*	*	*	*	*	*	*	*	*	*	*	*
Belarus	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Belgium			*	*	*	*	*	*	*	*	*	*	*	*	*
Bulgaria	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Canada	1.74	1.78	-0.7	1.1	-0.3	-0.8	-1.8	-0.1	-1.1	0.3	0.5	-0.6	2.3	6.6	2.4
Croatia	1.50	NO	0	*	*	*	*	*	*	*	*	*	*	*	*
Czech Republic	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Denmark	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Estonia	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
European Community	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Finland	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
France	1.64	1.69	1.1	-1.2	1.3	-0.7	1.6	2.8	0.1	3.3	-1.0	-4.9	-0.5	6.2	3.2
Germany	1.37	1.37	0	0	0	0	0	0	0	0	0	0	0	0	0
Greece	C	C	*	*	*	*	*	*	*	*	*	*	*	*	*
Hungary	1.80	NO	0	0	0	0	0	0	0	0	0.0	0.0	0.0	*	*
Iceland	1.55	1.55	0.5	0.9	0.7	-0.1	2.4	-2.4	0.3	-2.9	1.3	-0.4	-0.1	3.6	0.0
Ireland	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Italy	1.55	1.55	0	0	0	0	0	0	0	0	0	0	0	0	0
Japan	IE	IE	*	*	*	*	*	*	*	*	*	*	*	*	*
Latvia	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Liechtenstein	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Lithuania	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Luxembourg	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Monaco	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	1.45	1.45	0	0	0	0	0	0	0	0	0	0	0	0	0
New Zealand	1.68	1.65	-2.2	5.7	-4.7	-2.4	2.5	-0.8	-1.5	9.1	-2.3	-2.6	-0.1	0.9	-1.8
Norway	1.63	1.58	-2.6	-0.1	0.7	-1.1	-0.2	-0.6	0.0	2.3	-3.6	-0.9	-0.8	1.3	-2.8
Poland	1.80	1.80	0	0	0	0	0	0	0	0	0	0	0	0	0
Portugal	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Romania	1.50	1.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0
Russian Federation	C	C	*	*	*	*	*	*	*	*	*	*	*	*	*
Slovakia	1.80	1.24	0	-16.7	0	0	0	0	0	0	0	0	-3.4	-14.4	-31.1
Slovenia	2.01	1.74	-4.2	-3.9	-3.9	0.5	-1.8	0.0	-0.1	4.6	-1.5	0.9	0.0	-0.1	-13.4
Spain	1.72	1.70	-0.2	-0.2	1.1	-1.3	-0.1	0.4	-1.3	0.9	-1.9	-0.1	1.4	2.2	-0.9
Sweden	1.86	1.88	-0.4	2.3	-0.6	3.8	-2.7	1.8	-4.8	6.4	0.1	-1.0	-2.2	-0.8	0.9
Switzerland	1.60	1.61	0	0	0	0	0	0	0	0	0	0	0	0.8	0.8
Turkey															
Ukraine	IE	IE	*	*	*	*	*	*	*	*	*	*	*	*	*
United Kingdom	1.55	1.54	0.0	0.0	-0.1	0.0	-0.1	-0.5	0	0	0	0	0	0	-0.9
United States	1.69	1.72	-0.1	-0.2	-0.2	-0.2	-0.2	-0.3	0.2	-0.1	0.3	1.0	1.0	1.2	1.8

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 2.10
Metal production - PFCs and SF₆ (2006)

	PFCs								SF ₆							
	Methods and EF used ^a		Aluminium production - PFCs						Methods and EF used ^b		SF ₆ used in magnesium foundries					
			Key category	Share of national total	Activity data (aluminium production)	IEF		Ratio IEF CF ₄ / IEF C ₂ F ₆			Key category	Share of national total	Activity data (production)		SF ₆ IEF	Actual SF ₆ emissions ^c
	Methods	EF				CF ₄	C ₂ F ₆		Description	Value						
								(%)					(kt)	(kg/t)		
IPCC default EF ^c						0.31-1.7	0.04-0.17								1 ^d	
Australia	T1c	CS	T	0.1	1,912	0.04	0.01	7.7	NA	NA		-	(SF6 consumption)	NO	NO	NO
Austria	NA	NA	T	-	NO	NO	NO	-	NA	NA	T	-	cast Magnesium [t]	3,600	NO	NO
Belarus	NA	NA		-	NO	NO	NO	-	NA	NA		-	NO	NO	NO	NO
Belgium				-	NO	NO	NO	-				-	(spec)	NO	NE	
Bulgaria	NA	NA		-	12	NO	NO	-	NA	NA		-		NO	NO	NO
Canada	CS	OTH	T	0.4	2,813	0.13	0.01	13.2	D, T3	D		0.0	SF6 use	8	1,000	8.0
Croatia	NA	NA	T	-	NO	NO	NO	-	NA	NA		-		NO	NO	NO
Czech Republic	NA	NA		-	NO	NO	NO	-	NA	NA		-	NO	NO	NO	NO
Denmark	NA	NA		-	NO	NO	NO	-	NA	NA		-	(SF6 consumption)	NO	NO	NO
Estonia	NA	NA		-	NO	NO	NO	-	NA	NA		-	(Magnesium Foundries)	NO	NO	NO
European Community	CS, T2, T3	CS, D, PS	T	0.0	NE	NE	NE	-	CR, D, T2	CS, D, PS		0.0	2.C.4.2-Magnesium	NE	NE	42.9
Finland	NA	NA		-	NO	NO	NO	-	NA	NA		-	(SF6 consumption)	C	C	C
France	CR	PS	T	0.1	444	0.15	0.04	4.0	CR	CS, PS		0.1	SF6 consumption	NA	NA	13.2
Germany	T3	CS	T	0.0	516	0.05	0.00	9.9	D	D		0.1	Consumption Mg-Production	24	1,000	24.0
Greece				0.1	C	C	C	-	NA	NA		-		NO	NO	NO
Hungary	NA	NA		-	NO	NO	NO	-	NA	NA		-		NO	NO	NO
Iceland			L, T	7.9	326	0.13	0.02	7.8	NA	NA		-			NO	NO
Ireland	NA	NA		-	NO	NO	NO	-	NA	NA		-	NO	NO	NO	NO
Italy	T2	D, PS	T	0.0	194	0.10	0.01	7.8	D	PS		0.0	consumption of SF6	3	1,000	2.6
Japan	T1b	CS		0.0	7	0.30	0.03	10.0	CS	CS		0.1	SF6 consumption	38	1,000	38.0
Latvia	NA	NA		-	NO	NO	NO	-	NA	NA		-		NO	NO	NO
Liechtenstein	NA	NA		-	NO	NO	NO	-	NA	NA		-	NO	NO	NO	NO
Lithuania	NA	NA		-	NO	NO	NO	-	NA	NA		-		NO	NO	NO
Luxembourg	NA	NA		-	NO	NO	NO	-	NA	NA		-	magnesium production	NO	NO	NO
Monaco	NA	NA		-	NO	NO	NO	-	NA	NA		-		NO	NO	NO
Netherlands	T2	PS	T	0.0	285	0.03	0.00	7.3	NA	NA		-		NO	NO	NO
New Zealand	T2	D	T	0.1	335	0.03	0.00	8.3	NA	NA		-	SF6 consumption	NO	NA	NA
Norway			L, T	1.4	1,383	0.07	0.01	11.9	T1	D	T	0.2		5	1,000	5.0
Poland	T1c	D		0.1	56	0.61	0.06	10.0				0.0	Magnesium alloy used for cast	55	1	0.1
Portugal	NA	NA		-	NO	NO	NO	-	NA	NA		-	(SF6 consumption)	NO	NO	NO
Romania	T1	D	T	0.4	256	0.31	0.04	7.8	NA	NA		-		NA	NA	NA
Russian Federation	T1b	D		0.7	C	C	C	-	NA	NA		-	(SF6 consumption)	NO	NO	NO
Slovakia				0.1	158	0.03	0.00	10.0	NA	NA		-		NO	NO	NO
Slovenia	T3	PS	L, T	0.6	119	0.13	0.01	8.7	NA	NA		-		NO	NO	NO
Spain	T2	PS	T	0.0	400	0.05	0.00	14.8	NA	NA		-	NO	NO	NE	NE
Sweden	T2	CS	T	0.4	102	0.35	0.02	22.1	D	D		0.1	SF6 consumption	3	1,000	3.2
Switzerland	T3	PS	T	0.0	12	0.03	0.00	9.0				0.1	(specify)	C	C	1.5
Turkey								-								
Ukraine	T1	D		-	C	IE	IE	-	NA	NA		-	Magnesium Foundries	NO	NE	NE
United Kingdom	CS	CS, PS		0.0	367	IE	IE	-	T2	PS		-	SF6 consumption	IE	IE	IE
United States	T2	CS	T	0.0	2,284	0.14	0.02	8.4	D	CS		0.0	Magnesium Production and Processing	C	C	132.8

^a Information on methods and emission factors in this table is as reported by Parties in table Summary 3 of the CRF. It may not reflect the actual method or type of emission factor used for PFCs for all subcategories within the category 2.C Metal production.

^b Information on methods and emission factors in this table is as reported by Parties in table Summary 3 of the CRF. It may not reflect the actual method or type of emission factor used for SF₆ for all subcategories within the category 2.C Metal production.

^c Source of default emission factors: IPCC good practice guidance, page 3.44.

^d The default SF₆ emission factor is 1 kg/t magnesium produced or smelted.

^e IPCC good practice guidance state that SF₆ emissions equal consumption (IPCC good practice, page 3.48).

Table 2.11**CF₄ emissions from aluminium production - trend information**

CF ₄ emissions (t)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	513.3	76.2	0.1	-7.9	-12.9	35.2	-31.4	13.0	40.0	-4.1	-2.5	1.8	4.3	-61.7	-85.1
Austria	137.3	NO	0	*	*	*	*	*	*	*	*	*	*	*	*
Belarus	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Belgium	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Bulgaria	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Canada	905.4	362.6	6.3	1.0	-1.4	2.5	-17.2	-7.4	-19.1	-14.5	1.4	0.7	0.5	-13.9	-59.9
Croatia	126.2	NO	-31.4	*	*	*	*	*	*	*	*	*	*	*	*
Czech Republic	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Denmark	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Estonia	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
European Community	1,527.7	183.7	-10.0	-5.1	-2.2	-2.2	-4.7	-28.9	-14.7	51.7	-31.3	-34.8	-25.9	-18.8	-88.0
Finland	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
France	368.6	66.7	-13.9	-14.2	2.9	27.2	32.8	-37.9	-23.3	99.1	-14.7	-42.6	-43.4	-15.9	-81.9
Germany	335.5	25.4	-14.5	-5.3	-26.8	8.4	-26.2	-58.6	4.3	16.0	9.7	-5.7	-24.5	-44.1	-92.4
Greece	34.7	9.5	0.0	-13.5	130.5	23.2	-35.4	12.6	-38.4	-2.8	-12.4	-7.8	0	-1.7	-72.6
Hungary	36.2	NO	-13.7	-4.5	-0.3	7.6	2.4	20.3	-5.8	1.6	-6.7	6.2	3.9	*	*
Iceland	54.6	43.4	-17.0	-57.3	227.5	118.7	-3.8	-26.6	-27.9	-20.9	-17.6	-35.5	-32.4	1177.0	-20.6
Ireland	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Italy	198.3	20.1	-21.9	-49.2	1.8	0.6	-0.7	37.8	17.8	-15.2	34.7	-41.2	15.0	-14.6	-89.9
Japan	NE	2.0	*	-5.4	-9.8	-16.9	-41.1	-39.0	-11.7	-5.6	2.0	-2.1	0.0	0.1	*
Latvia	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Liechtenstein	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Lithuania	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Luxembourg	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Monaco	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	277.3	8.0	-0.8	11.5	6.8	-26.4	-25.8	4.7	-4.5	53.6	-77.7	-74.4	-17.4	-28.4	-97.1
New Zealand	83.8	10.8	0.8	60.4	-30.2	-69.9	24.3	-4.5	3.3	18.9	25.3	-12.8	-24.0	39.4	-87.1
Norway	467.4	102.1	-10.9	-8.8	-11.1	-8.8	-6.5	-5.0	0.6	7.4	-37.6	-2.8	-4.4	-12.5	-78.2
Poland	33.7	34.1	*	-6.1	3.3	1.0	-5.9	-7.9	16.3	7.6	-2.6	3.0	-9.1	4.4	1.2
Portugal	NE	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Romania	451.4	79.3	-8.2	-0.3	-78.7	6.7	-0.4	-0.5	3.8	3.8	6.1	8.7	11.1	7.0	-82.4
Russian Federation	2,063.2	2,162.8	-3.1	4.8	2.1	1.5	4.7	3.5	-0.6	-21.5	3.7	4.3	1.0	1.5	4.8
Slovakia	36.6	4.8	-1.6	-69.7	-3.4	-33.1	-49.4	0.6	0.2	-0.2	83.0	-7.4	3.8	78.6	-86.8
Slovenia	37.2	15.3	17.5	-16.2	-18.8	-23.2	-30.2	0	0	10.3	2.7	0.6	2.5	-6.7	-58.9
Spain	122.2	18.9	-6.4	-4.9	2.2	-7.5	-9.9	-44.8	-48.6	5.0	-4.4	-3.6	-20.6	-6.4	-84.6
Sweden	53.7	35.2	0.7	-13.3	-8.5	-2.8	9.7	-17.7	-2.3	9.0	0.4	0.3	2.6	-4.7	-34.4
Switzerland	13.3	0.4	-15.6	17.9	-6.3	6.8	-8.7	-31.2	2.1	10.7	9.2	-4.1	-6.9	-73.4	-97.2
Turkey															
Ukraine	IE	IE	*	*	*	*	*	*	*	*	*	*	*	*	*
United Kingdom	IE	IE	*	*	*	*	*	*	*	*	*	*	*	*	*
United States	2,440.1	326.3	-16.1	5.4	-11.6	-18.1	-1.6	1.8	-60.8	50.3	-28.2	-26.3	4.9	-16.6	-86.6

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 2.12

Production of halocarbons and SF₆ - HFCs, PFCs and SF₆ (2006)

	HFCs						PFCs		SF ₆		
	Methods and EF used ^a		Production of HCFC-22				Methods and EF used ^a		Methods and EF used ^a		
	Methods	EF	Key category	Share of national total	Activity data (HCFC-22 production)		IEF	Methods	EF	Methods	EF
					CRF	International ^b	HFC-23				
				(%)	(t)	(kg/t)					
IPCC default EF ^c							40.0				
Australia	NA	NA	T	-	NO	-13.4	NO	NA	NA	NA	NA
Austria	NA	NA		-	NO		NO	NA	NA	NA	NA
Belarus	NA	NA		-	NO		NO	NA	NA	NA	NA
Belgium						-0.6	NE				
Bulgaria	NA	NA		-	NO		NO	NA	NA	NA	NA
Canada	NA	NA	T	-	NA	81	NO	NA	NA	NA	NA
Croatia	NA	NA		-	NO		NO	NA	NA	NA	NA
Czech Republic	NA	NA		-	NO		NO	NA	NA	NA	NA
Denmark ^e	NA	NA		-	NO	-0.7	NO	NA	NA	NA	NA
Estonia	NA	NA		-	NO		NO	NA	NA	NA	NA
European Community	CR, T1, T2	D, PS	T	0.1	C, IE, NA, NE, NO		C, IE, NA, NE, NO	CR	PS	CR	PS
Finland	NA	NA		-	NO	-1.6	NO	NA	NA	NA	NA
France	CR	PS	T	0.1	C	1,164	C	CR	PS	CR	PS
Germany	CS	PS		-	NE	364	C	NA	NA	NA	NA
Greece	T1	D	L, T	1.7	C		C	NA	NA	NA	NA
Hungary	NA	NA		-	NO		NO	NA	NA	NA	NA
Iceland	NA	NA		-	NO		NO	NA	NA	NA	NA
Ireland	NA	NA		-	NA		NA	NA	NA	NA	NA
Italy	CS	PS		-	C		NA	NA	NA	NA	NA
Japan	CS	CS		0.1	65,905	701	0.9	CS	CS	CS	CS
Latvia	NA	NA		-	NO		NO	NA	NA	NA	NA
Liechtenstein	NA	NA		-	NO		NO	NA	NA	NA	NA
Lithuania	NA	NA		-	NO		NO	NA	NA	NA	NA
Luxembourg	NA	NA		-	NO		NO	NA	NA	NA	NA
Monaco	NA	NA		-	NO		NO	NA	NA	NA	NA
Netherlands ^d	T2	PS	T	0.1	C	1,017	C	NA	NA	NA	NA
New Zealand	NA	NA		-	NO		NO	NA	NA	NA	NA
Norway	NA	NA		-	NO	-0.2	NO	NA	NA	NA	NA
Poland	NA	NA		-	NE		NE	NA	NA	NA	NA
Portugal	NA	NA		-	NO		NO	NA	NA	NA	NA
Romania	NA	NA		-	NA		NA	NA	NA	NA	NA
Russian Federation	D	D		0.5	29,176	268	40.0	D	D	D	CS
Slovakia	NA	NA		-	NO		NO	NA	NA	NA	NA
Slovenia	NA	NA		-	NO		NO	NA	NA	NA	NA
Spain	T2	PS	T	0.1	C		C	NA	NA	NA	NA
Sweden	NA	NA		-	NO		NO	NA	NA	NA	NA
Switzerland	NA	NA		-	NO		NO	NA	NA	NA	NA
Turkey											
Ukraine	NA	NA		-	NE		NE	NA	NA	NA	NA
United Kingdom ^f				-	IE	2	IE			NA	NA
United States	M, T2	CS, M	T	0.2	153,884	4,277	7.7	NA	NA	NA	NA

^a Information on methods and emission factors in this table is as reported by Parties in table Summary 3 of the CRF. It may not reflect the actual method or type of emission factor used for HFCs, PFCs and SF₆ for all subcategories within the category 2.E Production of halocarbons and SF₆.

^b Source of data for HCFC production: Ozone secretariat, downloaded from web site 16 April 2008 from http://ozone.unep.org/Data_Reporting/Data_Access. Data are for total HCFC production in units of ODP (ozone depleting potential).

^c Historical international data for Denmark includes Greenland since 1991 and Faroe Islands since October 2007.

^d International data for the Netherlands excludes data for the following territories: Suriname and the Netherlands Antilles.

^e Source of default emission factors: IPCC Guidelines, volume 3, page 2.35.

^f The United Kingdom reported aggregated HFC emissions from 2.E.1 Production and 2.E.2 Fugitive.

Table 2.13

HFC-23 emissions from production of halocarbons and SF₆ - trend information

HFC-23 emissions (t)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	96	NA, NO	0	*	*	*	*	*	*	*	*	*	*	*	*
Austria	NA	NA	*	*	*	*	*	*	*	*	*	*	*	*	*
Belarus	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Belgium															
Bulgaria	NA, NO	NA, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Canada	66	NA, NO	8.9	*	*	*	*	*	*	*	*	*	*	*	*
Croatia	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Czech Republic	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Denmark	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Estonia	NO	NA, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
European Community	834	319	-5.5	13.0	4.6	3.8	-15.3	-13.3	-46.2	-22.4	-6.6	-21.4	-5.9	0.9	-61.8
Finland	NA, NO	NA, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
France	140	32	30.3	73.8	-6.7	-37.9	98.7	-19.5	4.4	3.3	-34.4	25.2	12.7	8.0	-77.4
Germany	C, NA, NO	C, NA, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Greece	80	196	18.4	15.2	5.7	10.1	15.2	-25.6	-14.8	0.4	-16.7	-4.2	0	-10.2	144.9
Hungary	NA, NO	NA, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Iceland	NA, NO	NA, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Ireland	NA, NO	NA, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Italy	30	NA, NO	0	*	*	*	*	*	*	*	*	*	*	*	*
Japan	NE, NO	58	*	-8.0	-5.9	-6.1	2.3	-11.9	-24.7	-34.9	-17.4	-79.2	-53.6	39.9	*
Latvia	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Liechtenstein	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Lithuania	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Luxembourg	NA, NO	NA, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Monaco	NA, NO	NA, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	379	24	-22.1	19.6	-2.6	16.1	-55.8	-29.6	-81.4	52.2	-39.4	-14.6	-44.7	43.1	-93.7
New Zealand	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Norway	NA, NO	NA, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Poland	NA, NE	NA, NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Portugal	NE, NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Romania	NA	NA	*	*	*	*	*	*	*	*	*	*	*	*	*
Russian Federation	1,265	995	-2.0	-11.8	29.1	18.2	8.9	23.2	-3.4	-26.9	-14.2	49.0	7.0	-3.7	-21.4
Slovakia	NA, NO	NA, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Slovenia	NA, NO	NA, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Spain	205	67	-9.3	9.0	14.4	-12.2	16.0	7.3	-54.1	-62.1	52.6	-57.2	-15.5	29.8	-67.2
Sweden	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Switzerland	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Turkey															
Ukraine	NA, NE	NA, NE	*	*	*	*	*	*	*	*	*	*	*	*	*
United Kingdom	IE, NA	IE, NA	*	*	*	*	*	*	*	*	*	*	*	*	*
United States	3,113	1,184	-10.1	-5.5	-3.4	31.2	-23.0	-5.9	-31.0	6.9	-41.8	40.2	-8.1	-12.6	-62.0

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 2.14a

Consumption of halocarbons and SF₆ - HFCs (2006)

	Methods and EF used ^a		HFC-23			HFC-32			HFC-41			HFC-431-0mcc			HFC-125		
	Methods	EF	P ^b	A ^c	Ratio P / A	P ^b	A ^c	Ratio P / A	P ^b	A ^c	Ratio P / A	P ^b	A ^c	Ratio P / A	P ^b	A ^c	Ratio P / A
			2.F(p)	2.F(a)		2.F(p)	2.F(a)		2.F(p)	2.F(a)		2.F(p)	2.F(a)		2.F(p)	2.F(a)	
			(Gg CO ₂ equivalent)			(Gg CO ₂ equivalent)			(Gg CO ₂ equivalent)			(Gg CO ₂ equivalent)			(Gg CO ₂ equivalent)		
Australia	M	D	IE, NE, NO	IE, NA, NO	IE, NA, NE, NO	IE, NE, NO	IE, NA, NO	IE, NA, NE, NO	IE, NE, NO	IE, NA, NO	IE, NA, NE, NO	IE, NE, NO	IE, NA, NO	IE, NA, NE, NO	IE, NE, NO	IE, NA, NO	IE, NE, NO
Austria	CS	CS	22.23	22.24	1.00	9.91	4.02	2.47	NE, NO	NE, NO	NE, NO	1.97	1.94	1.02	340.39	164.67	2.07
Belarus	D	D	NE, NO	2.16	NE, NO	NE, NO	0.02	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	7.78	NE, NO
Belgium			-1.40	NA, NE, NO	NA, NE, NO	-0.15	8.39	-0.02	NE, NO	NA, NE, NO	NA, NE, NO	NE, NO	NA, NE, NO	NA, NE, NO	-6.55	321.96	-0.02
Bulgaria	NA	NA	0.40	NE, NO	NE, NO	10.52	NE, NO	NE, NO	NA, NE, NO	NE, NO	NA, NE, NO	NA, NE, NO	NE, NO	NA, NE, NO	181.04	NE, NO	NE, NO
Canada	T2	D	11.36	8.13	1.40	32.29	9.20	3.51	IE, NA, NO	IE, NA, NE, NO	IE, NA, NE, NO	1.77	1.55	1.14	1,406.10	989.82	1.42
Croatia	NA	NA	NO	NO	NO	7.29	NE, NO	NE, NO	NO	NO	NO	NO	NO	NO	129.20	NE, NO	NE, NO
Czech Republic	D, T1, T2	D	4.45	3.78	1.18	189.17	14.97	12.64	NA, NE, NO	NO	NA, NE, NO	NA, NE, NO	NO	NA, NE, NO	1,048.60	246.98	4.25
Denmark			0.94	0.94	1.00	14.73	9.41	1.57	NO	NA, NO	NA, NO	NO	NA, NO	NA, NO	293.29	197.75	1.48
Estonia	CS, T1	CS	NA, NO	NA, NE	NA, NE, NO	NA, NO	1.16	NA, NO	NO	NA, NE	NA, NE, NO	NA, NO	NA, NE	NA, NE, NO	NA, NO	9.59	NA, NO
European Community			IE	1,579.97	IE	IE	504.52	IE	IE	IE, NA, NE, NO	IE, NA, NE, NO	IE	289.56	IE	IE	7,371.63	IE
Finland	OTH, T1, T2	D	C, NO	C, NA, NE, NO	C, NA, NE, NO	18.80	8.22	2.29	NO	NO	NO	NO	NO	NO	327.86	217.24	1.51
France	CR, M, T2	CS, PS	NE	33.61	NE	NE	78.65	NE	NE	NO	NE, NO	NE	287.63	NE	NE	1,752.16	NE
Germany	CS, T2	CS, D	2,387.53	171.63	13.91	614.96	29.64	20.75	IE, NO	NA, NO	IE, NA, NO	C, IE, NO	C, NO	C, IE, NO	15,477.29	1,596.56	9.69
Greece			NE	NA, NE, NO	NA, NE, NO	NE	48.66	NE	NE	NA, NE, NO	NA, NE, NO	NE	NA, NE, NO	NA, NE, NO	NE	214.64	NE
Hungary	CS, D, T1	CS	2.83	0.74	3.84	13.02	9.52	1.37	NO	NA, NO	NA, NO	NO	NA, NO	NA, NO	253.05	168.98	1.50
Iceland	NA	NA	NE, NO	NA, NE, NO	NA, NE, NO	0.24	NA, NE, NO	NA, NE, NO	NE, NO	NA, NE, NO	NA, NE, NO	NE, NO	NA, NE, NO	NA, NE, NO	24.27	NA, NE, NO	NA, NE, NO
Ireland	T1, T2, T3	CS	30.73	4.65	6.60	16.54	4.13	4.00	NO	NO	NO	NO	NO	NO	309.91	75.70	4.09
Italy	CS, T2	CS, D, PS	NA, NO	25.85	NA, NO	129.35	276.52	0.47	NA, NO	NO	NA, NO	NA, NO	NO	NA, NO	1,456.00	1,932.31	0.75
Japan			14,980.68	127.84	117.18	IE, NE	82.65	IE, NE	NO	IE, NA, NE, NO	IE, NA, NE, NO	NO	IE, NA, NE, NO	IE, NA, NE, NO	IE, NE	356.07	IE, NE
Latvia	OTH, T2	D, OTH	NO	NO	NO	2.01	0.08	23.83	NO	NO	NO	NO	NO	NO	51.35	3.16	16.24
Liechtenstein	CS	CS	NO	NO	NO	NO	0.04	NO	NO	NO	NO	NO	NO	NO	NO	0.99	NO
Lithuania	T1, T2	CS	NE, NO	NE, NO	NE, NO	NE, NO	0.50	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	36.26	NE, NO
Luxembourg	CS	CS	NE	0.59	NE	NE	0.89	NE	NE	NA, NE, NO	NA, NE, NO	NE	NA, NE, NO	NA, NE, NO	NE	14.86	NE
Monaco	T1a	D	NO	NA, NE, NO	NA, NE, NO	0.06	0.02	2.47	NO	NA, NE, NO	NA, NE, NO	NO	NA, NE, NO	NA, NE, NO	0.40	0.24	1.71
Netherlands	T2	CS	NE, NO	NO	NE, NO	NE, NO	NO	NE, NO	NE, NO	NO	NE, NO	NE, NO	NO	NE, NO	NE	271.21	NE
New Zealand			14.74	5.85	2.52	15.56	5.79	2.69	NO	NA, NO	NA, NO	NO	NA, NO	NA, NO	304.15	119.28	2.55
Norway	T2	CS	1.52	1.44	1.05	11.17	3.47	3.22	NO	NA, NO	NA, NO	NO	NA, NO	NA, NO	202.59	140.12	1.45
Poland			NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NE, NO	NA, NE	NA, NE, NO	NE, NO	NA, NE	NA, NE, NO	NA, NE	NA, NE	NA, NE
Portugal			0.88	3.37	0.26	33.20	34.21	0.97	NO	NO	NO	NO	NO	NO	798.28	197.58	4.04
Romania	T2	D	NA, NE, NO	14.79	NA, NE, NO	2.15	0.02	88.94	NA, NE, NO	0.00	NA, NE, NO	NA, NE, NO	0.04	NA, NE, NO	59.78	0.44	134.66
Russian Federation	T1, T1a, T2	D	NE	157.01	NE	NE	8.58	NE	NE	NA, NE	NA, NE	NE	NA, NE	NA, NE	NE	470.22	NE
Slovakia	D	CS	NO	0.91	NO	11.99	3.27	3.67	NO	NO	NO	NO	NO	NO	132.68	44.73	2.97
Slovenia	T2	D	NO	NA, NO	NA, NO	NO	NA, NO	NA, NO	NO	NA, NO	NA, NO	NO	NA, NO	NA, NO	NO	NA, NO	NA, NO
Spain			NE	1,316.27	NE	C, NE	NA, NO	C, NA, NE, NO	NE	NA, NO	NA, NE, NO	NE	NA, NO	NA, NE, NO	NE	367.07	NE
Sweden	CS, OTH, T1, T2	CS, D, PS	NA, NE, NO	0.81	NA, NE, NO	15.11	2.63	5.75	NO	NA, NE, NO	NA, NE, NO	NO	NA, NE, NO	NA, NE, NO	178.43	67.19	2.66
Switzerland	T2	CS, D, M	4.44	3.70	1.20	33.73	6.04	5.59	NO	NO	NO	NO	NO	NO	512.93	124.09	4.13
Turkey																	
Ukraine	NA	NA	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO
United Kingdom	T2, T3	CS	IE, NE, NO	IE, NA, NO	IE, NA, NE, NO	NA, NE, NO	IE, NA, NO	IE, NA, NE, NO	NA, NE, NO	IE, NA, NO	IE, NA, NE, NO	NA, NE, NO	IE, NA, NO	IE, NA, NE, NO	NA, NE, NO	IE, NA, NO	IE, NA, NE, NO
United States	M, OTH, T2	CS, M	926.93	269.34	3.44	3,259.08	593.30	5.49	NE, NO	NA, NO	NA, NE, NO	C, IE, NE	C, NA, NO	C, IE, NA, NE, NO	30,888.41	12,304.25	2.51

^a Information on methods and emission factors in this table is presented as reported by Parties in table Summary 3 of the CRF. It may not reflect the actual method or type of emission factor used for all HFCs for all subcategories within the category 2.F Consumption of halocarbons and SF₆.^b P = Potential emissions^c A = Actual emissions

Table 2.14b
Consumption of halocarbons and SF₆ - HFCs (2006)

	Methods and EF used ^a		HFC-134			HFC-134a			HFC-152a			HFC-143			HFC-143a		
	Methods	EF	P ^b	A ^c	Ratio P / A	P ^b	A ^c	Ratio P / A	P ^b	A ^c	Ratio P / A	P ^b	A ^c	Ratio P / A	P ^b	A ^c	Ratio P / A
			2.F(p)	2.F(a)		2.F(p)	2.F(a)		2.F(p)	2.F(a)		2.F(p)	2.F(a)		2.F(p)	2.F(a)	
			(Gg CO ₂ equivalent)			(Gg CO ₂ equivalent)			(Gg CO ₂ equivalent)			(Gg CO ₂ equivalent)			(Gg CO ₂ equivalent)		
Australia	M	D	IE, NE, NO	IE, NA, NO	IE, NA, NE, NO	IE, NE, NO	2,713.70	IE, NE, NO	IE, NE, NO	IE, NA, NO	IE, NA, NE, NO	IE, NE, NO	IE, NA, NO	IE, NA, NE, NO	IE, NE, NO	1,007.37	IE, NE, NO
Austria	CS	CS	NE, NO	NO	NE, NO	492.46	380.40	1.29	14.44	58.19	0.25	NE, NO	NO	NE, NO	404.15	187.77	2.15
Belarus	D	D	NE, NO	2.37	NE, NO	NE, NO	5.80	NE, NO	NE, NO	0.00	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	11.92	NE, NO
Belgium			NE, NO	NA, NE, NO	NA, NE, NO	-2.91	790.49	0.00	-0.01	29.17	0.00	NE, NO	NA, NE, NO	NA, NE, NO	-0.38	433.55	0.00
Bulgaria	NA	NA	NA, NE, NO	NE, NO	NA, NE, NO	155.85	NE, NO	NE, NO	62.80	NE, NO	NE, NO	NA, NE, NO	NE, NO	NA, NE, NO	199.80	NE, NO	NE, NO
Canada	T2	D	IE, NA, NO	IE, NA, NE, NO	IE, NA, NE, NO	3,943.48	3,003.97	1.31	25.58	34.20	0.75	IE, NA, NO	IE, NA, NE, NO	IE, NA, NE, NO	1,753.92	1,225.14	1.43
Croatia	NA	NA	NO	NO	NO	86.16	NE, NO	NE, NO	0.00	NE, NO	NE, NO	NO	NO	NO	195.93	NE, NO	NE, NO
Czech Republic	D, T1, T2	D	NA, NE, NO	NO	NA, NE, NO	945.09	325.05	2.91	0.07	0.03	2.73	NA, NE, NO	NO	NA, NE, NO	340.86	263.17	1.30
Denmark			NO	NA, NO	NA, NO	524.57	387.10	1.36	1.63	0.39	4.19	NO	NA, NO	NA, NO	360.16	239.31	1.51
Estonia	CS, T1	CS	NO	NA, NE	NA, NE, NO	NA, NO	56.66	NA, NO	NA, NO	0.83	NA, NO	NO	NA, NE	NA, NE, NO	NA, NO	6.83	NA, NO
European Community			IE	IE, NA, NE, NO	IE, NA, NE, NO	IE	24,189.27	IE	IE	314.99	IE	IE	IE, NA, NE, NO	IE, NA, NE, NO	IE	7,630.72	IE
Finland	OTH, T1, T2	D	NO	NO	NO	505.40	181.73	2.78	15.79	0.46	34.35	NO	NO	NO	355.09	261.14	1.36
France	CR, M, T2	CS, PS	NE	NO	NE, NO	NE	8,048.11	NE	NE	44.66	NE	NE	NO	NE, NO	NE	2,402.42	NE
Germany	CS, T2	CS, D	IE, NO	NA, NO	IE, NA, NO	44,689.44	5,541.46	8.06	8.06	93.67	0.09	IE, NO	NA, NO	IE, NA, NO	19,259.47	1,995.70	9.65
Greece			NE	NA, NE, NO	NA, NE, NO	NE	2,094.32	NE	NE	NA, NE, NO	NA, NE, NO	NE	NA, NE, NO	NA, NE, NO	NE	NA, NE, NO	NA, NE, NO
Hungary	CS, D, T1	CS	NO	NA, NO	NA, NO	389.61	223.25	1.75	2.64	2.55	1.03	NO	NA, NO	NA, NO	306.78	199.68	1.54
Iceland	NA	NA	NE, NO	NA, NE, NO	NA, NE, NO	10.16	NA, NE, NO	NA, NE, NO	0.02	NA, NE, NO	NA, NE, NO	NE, NO	NA, NE, NO	NA, NE, NO	29.37	NA, NE, NO	NA, NE, NO
Ireland	T1, T2, T3	CS	NO	NO	NO	1,099.64	319.49	3.44	5.36	0.97	5.51	NO	NO	NO	358.03	86.67	4.13
Italy	CS, T2	CS, D, PS	NA, NO	NO	NA, NO	6,026.80	2,516.98	2.39	NA, NO	NO	NA, NO	NA, NO	NA, NO	NA, NO	1,691.00	1,062.04	1.59
Japan			NO	IE, NA, NE, NO	IE, NA, NE, NO	12,658.49	3,686.70	3.43	IE, NE	197.29	IE, NE	IE, NE	IE, NA, NE, NO	IE, NA, NE, NO	IE, NE	IE, NA, NE, NO	IE, NA, NE, NO
Latvia	OTH, T2	D, OTH	NO	NO	NO	46.80	27.67	1.69	0.05	0.00	128.28	NO	NO	NO	66.79	4.30	15.55
Liechtenstein	CS	CS	NO	NO	NO	NO	2.16	NO	NO	NO	NO	NO	NO	NO	NO	0.96	NO
Lithuania	T1, T2	CS	NE, NO	NE, NO	NE, NO	NE, NO	21.74	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	54.49	NE, NO
Luxembourg	CS	CS	NE	NA, NE, NO	NA, NE, NO	NE	53.64	NE	NE	0.61	NE	NE	NA, NE, NO	NA, NE, NO	NE	14.48	NE
Monaco	T1a	D	NO	NA, NE, NO	NA, NE, NO	3.18	0.14	22.82	NO	NA, NE, NO	NA, NE, NO	NO	NA, NE, NO	NA, NE, NO	2.13	0.21	10.32
Netherlands	T2	CS	NE, NO	NO	NE, NO	NE	475.18	NE	NE, NO	NO	NE, NO	NE, NO	NO	NE, NO	NE	327.61	NE
New Zealand			NO	NA, NO	NA, NO	189.20	317.53	0.60	NO	NA, NO	NA, NO	NO	NA, NO	NA, NO	364.88	143.26	2.55
Norway	T2	CS	NO	0.09	NO	677.55	217.24	3.12	25.50	5.37	4.75	2.82	0.38	7.40	185.97	146.77	1.27
Poland			NE, NO	NA, NE	NA, NE, NO		2,829.70			0.03		NE, NO	NA, NE	NA, NE, NO		NA, NE	NA, NE
Portugal			NO	NO	NO	1,350.34	515.02	2.62		223.57	38.24	NO	NO	NO	1,040.42	60.04	17.33
Romania	T2	D	NA, NE, NO	0.14	NA, NE, NO	246.80	5.45	45.25	NA, NE, NO	0.00	NA, NE, NO	NA, NE, NO	NE	NA, NE, NO	79.99	0.77	103.75
Russian Federation	T1, T1a, T2	D	NE	NA, NE	NA, NE	NE	692.19	NE	NE	0.00	NE	NE	NA, NE	NA, NE	NE	570.46	NE
Slovakia	D	CS	NO	NO	NO	185.38	99.54	1.86	0.06	0.17	0.38	NO	NO	NO	125.40	47.53	2.64
Slovenia	T2	D	NO	NA, NO	NA, NO	NE, NO	112.05	NE, NO	NO	NA, NO	NA, NO	NO	NA, NO	NA, NO	NO	NA, NO	NA, NO
Spain			NE	NA, NO	NA, NE, NO	NE	2,292.36	NE	NE	15.87	NE	NE	NA, NO	NA, NE, NO	C, NE	513.45	C, NE
Sweden	CS, OTH, T1, T2	CS, D, PS	NO	NA, NE, NO	NA, NE, NO	632.85	646.56	0.98	30.32	32.78	0.93	NO	NA, NE, NO	NA, NE, NO	143.04	72.96	1.96
Switzerland	T2	CS, D, M	NO	NO	NO	884.01	361.36	2.45	1.46	2.75	0.53	NO	NO	NO	531.75	116.05	4.58
Turkey																	
Ukraine	NA	NA	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO
United Kingdom	T2, T3	CS	NA, NE, NO	IE, NA, NO	IE, NA, NE, NO	NA, NE, NO	IE, NA, NO	IE, NA, NE, NO	NA, NE, NO	IE, NA, NO	IE, NA, NE, NO	NA, NE, NO	IE, NA, NO	IE, NA, NE, NO	NA, NE, NO	IE, NA, NO	IE, NA, NE, NO
United States	M, OTH, T2	CS, M	NE, NO	C, NA, NO	C, NA, NE, NO	98,373.30	76,599.29	1.28	C, IE, NE	C, NA, NO	NO	NE, NO	C, NA, NO	C, NA, NE, NO	24,581.78	14,371.29	1.71

^a Information on methods and emission factors in this table is presented as reported by Parties in table Summary 3 of the CRF. It may not reflect the actual method or type of emission factor used for all HFCs for all subcategories within the category 2.F Consumption of halocarbons and SF₆.

^b P = Potential emissions

^c A = Actual emissions

Table 2.14c
Consumption of halocarbons and SF₆ - HFCs (2006)

	Methods and EF used ^a		HFC-227ea			HFC-236fa			HFC-245ca			Unspecified HFCs			Total		
	Methods	EF	P ^b	A ^c	Ratio P / A	P ^b	A ^c	Ratio P / A	P ^b	A ^c	Ratio P / A	P ^b	A ^c	Ratio P / A	P ^b	A ^c	Ratio P / A
			2.F(p) (Gg CO ₂ equivalent)	2.F(a)		2.F(p) (Gg CO ₂ equivalent)	2.F(a)		2.F(p) (Gg CO ₂ equivalent)	2.F(a)		2.F(p) (Gg CO ₂ equivalent)	2.F(a)		2.F(p) (Gg CO ₂ equivalent)	2.F(a)	
Australia	M	D	IE, NE, NO	IE, NA, NE, NO	IE, NA, NE, NO	IE, NE, NO	IE, NA, NO	IE, NA, NE, NO	IE, NE, NO	IE, NA, NO	IE, NA, NE, NO	7,839.80	203.00	38.62	7,839.80	4,648.03	1.69
Austria	CS	CS	23.20	6.86	3.38	NE, NO	NO	NE, NO	NE, NO	NO	NE, NO	27.83	31.70	0.88	1,336.59	857.80	1.56
Belarus	D	D	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	30.05	NE, NO
Belgium			NE, NO	11.79	NE, NO	NE, NO	NA, NE, NO	NA, NE, NO	NE, NO	NA, NE, NO	NA, NE, NO	NE	NE	NE	-11.40	1,595.35	-0.01
Bulgaria	NA	NA	0.26	NE, NO	NE, NO	NA, NE, NO	NE, NO	NA, NE, NO	NA, NE, NO	NE, NO	NA, NE, NO	NA, NE, NO	NE, NO	NA, NE, NO	610.68	NA, NE, NO	NA, NE, NO
Canada	T2	D	1.56	2.04	0.76	IE, NA, NO	IE, NA, NE, NO	IE, NA, NE, NO	IE, NA, NE, NO	IE, NA, NE, NO	IE, NA, NE, NO	NA, NO	NA, NE, NO	NA, NE, NO	7,176.05	5,274.05	1.36
Croatia	NA	NA	5.80	NE, NO	NE, NO	6.30	NE, NO	NE, NO	NO	NO	NO	NO	NO	NO	430.68	NA, NE, NO	NA, NE, NO
Czech Republic	D, T1, T2	D	4.55	1.74	2.62	41.20	16.63	2.48	NA, NE, NO	0.01	NA, NE, NO	NA, NE, NO	NO	NA, NE, NO	2,573.99	872.35	2.95
Denmark			NO	NA, NO	NA, NO	NO	NA, NO	NA, NO	NO	NA, NO	NA, NO	NO	NA, NO	NA, NO	1,195.32	834.89	1.43
Estonia	CS, T1	CS	NO	0.12	NO	NO	NA, NE	NA, NE, NO	NO	NA, NE	NA, NE, NO	NO	NA, NE	NA, NE, NO	NA, NO	75.18	NA, NO
European Community			IE	517.55	IE	IE	15.18	IE	IE	IE, NA, NE, NO	IE, NA, NE, NO	159,154.40	9,237.39	17.23	159,154.40	51,650.78	3.08
Finland	OTH, T1, T2	D	NO	NO	NO	NO	NO	NO	C, NO	NO	C, NO	-7.60	78.87	-0.10	1,215.34	747.66	1.63
France	CR, M, T2	CS, PS	NE	123.49	NE	NE	NO	NE, NO	NE	NO	NE, NO	NE	NO	NE, NO	NE	12,844.98	NE
Germany	CS, T2	CS, D	984.83	88.84	11.09	C, IE, NO	3.34	C, IE, NO	IE, NO	NA, NO	IE, NA, NO	IE, NO	1.82	IE, NO	83,421.58	9,522.66	8.76
Greece			NE	NA, NE, NO	NA, NE, NO	NE	NA, NE, NO	NA, NE, NO	NE	NA, NE, NO	NA, NE, NO	NA, NE, NO	NA, NE, NO	NA, NE, NO	NE	2,357.62	NE
Hungary	CS, D, T1	CS	2.31	2.13	1.09	NO	NA, NO	NA, NO	NO	NA, NO	NA, NO	NO	NA, NO	NA, NO	970.24	606.85	1.60
Iceland	NA	NA	NE, NO	NA, NE, NO	NA, NE, NO	NE, NO	NA, NE, NO	NA, NE, NO	NE, NO	NA, NE, NO	NA, NE, NO	NE, NO	NA, NE, NO	NA, NE, NO	64.06	NA, NE, NO	NA, NE, NO
Ireland	T1, T2, T3	CS	180.51	14.83	12.17	NO	NO	NO	NO	NO	NO	NO	NO	NO	2,000.72	506.45	3.95
Italy	CS, T2	CS, D, PS	NA, NO	97.70	NA, NO	NA, NO	NO	NA, NO	NA, NO	NO	NA, NO	NA, NO	NO	NA, NO	9,303.15	5,911.41	1.57
Japan			NO	122.58	NO	NO	IE, NA, NE, NO	IE, NA, NE, NO	NO	IE, NA, NE, NO	IE, NA, NE, NO	31,927.74	1,113.08	28.68	59,566.91	5,686.21	10.48
Latvia	OTH, T2	D, OTH	NO	0.21	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	167.00	35.43	4.71
Liechtenstein	CS	CS	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	4.15	15.24
Lithuania	T1, T2	CS	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	112.99	NE, NO
Luxembourg	CS	CS	NE	1.98	NE	NE	NA, NE, NO	NA, NE, NO	NE	NA, NE, NO	NA, NE, NO	NE	NA, NE, NO	NA, NE, NO	NE	87.04	NE
Monaco	T1a	D	NO	NA, NE, NO	NA, NE, NO	NO	NA, NE, NO	NA, NE, NO	NO	NA, NE, NO	NA, NE, NO	NO	NA, NE, NO	NA, NE, NO	5.77	0.61	9.52
Netherlands	T2	CS	NE, NO	NO	NE, NO	NE, NO	NO	NE, NO	NE, NO	NO	NE, NO	NE	156.70	NE	NE, NO	1,230.70	NE, NO
New Zealand			84.04	1.25	67.39	NO	NA, NO	NA, NO	NO	NA, NO	NA, NO	NO	NA, NO	NA, NO	972.58	592.95	1.64
Norway	T2	CS	3.55	3.55	1.00	NO	NA, NO	NA, NO	NO	NA, NO	NA, NO	NO	NA, NO	NA, NO	1,110.66	518.44	2.14
Poland			NE, NO	13.80	NE, NO	NE, NO	NA, NE	NA, NE, NO	NE, NO	NA, NE	NA, NE, NO	NE, NO	NA, NE	NA, NE, NO	2,843.53		
Portugal			NO	2.40	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	3,446.69	850.86	4.05
Romania	T2	D	NA, NE, NO	0.03	NA, NE, NO	NA, NE, NO	NE	NA, NE, NO	NA, NE, NO	NE	NA, NE, NO	NA, NE, NO	NE	NA, NE, NO	388.71	21.70	17.91
Russian Federation	T1, T1a, T2	D	NE	38.76	NE	NE	NA, NE	NA, NE	NE	NA, NE	NA, NE	NE	NA, NE	NA, NE	NE	1,937.21	NE
Slovakia	D	CS	3.16	0.02	142.86	13.61	2.72	5.00	NO	NO	NO	NO	NO	NO	472.28	198.90	2.37
Slovenia	T2	D	NO	NA, NO	NA, NO	NO	NA, NO	NA, NO	NO	NA, NO	NA, NO	NO	NA, NO	NA, NO	NE, NO	112.05	NE, NO
Spain			C, NE	169.35	C, NE	NE	11.83	NE	NE	NA, NO	NA, NE, NO	NE	NA, NO	NA, NE, NO	C, NE	4,686.21	C, NE
Sweden	CS, OTH, T1, T2	CS, D, PS	13.38	0.30	44.37	NO	NA, NE, NO	NA, NE, NO	NO	NA, NE, NO	NA, NE, NO	NA, NO	NA, NE, NO	NA, NE, NO	1,013.12	823.22	1.23
Switzerland	T2	CS, D, M	3.47	3.44	1.01	NO	NO	NO	NO	NO	NO	NO	NO	NO	1,971.79	617.43	3.19
Turkey	NA	NA	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NA, NE, NO	NA, NE, NO
Ukraine	T2, T3	CS	NA, NE, NO	IE, NA, NO	IE, NA, NE, NO	NA, NE, NO	IE, NA, NO	IE, NA, NE, NO	NA, NE, NO	IE, NA, NO	IE, NA, NE, NO	56,233.29	8,894.05	6.32	56,233.29	8,894.05	6.32
United Kingdom																	
United States	M, OTH, T2	CS, M	C, IE, NE	C, NA, NO	IE, NA, NE, NO	1,584.45	823.47	1.92	C, NE, NO	C, NA, NO	C, NA, NE, NO	23,256.19	5,716.28	4.07	182,870.14	110,677.22	1.65

^a Information on methods and emission factors in this table is presented as reported by Parties in table Summary 3 of the CRF. It may not reflect the actual method or type of emission factor used for all HFCs for all subcategories within the category 2.F Consumption of halocarbons and SF₆.

^b P = Potential emissions.

^c A = Actual emissions.

Table 2.15a

Consumption of halocarbons and SF₆ - PFCs (2006)

Methods and EF used ^a			CF ₄			C ₂ F ₆			C ₃ F ₈			C ₄ F ₁₀			c-C ₄ F ₈		
Methods	EF		p ^b	A ^c	Ratio P / A	p ^c	A ^d	Ratio P / A	p ^c	A ^d	Ratio P / A	p ^c	A ^d	Ratio P / A	p ^c	A ^d	Ratio P / A
			2.F(p)	2.F(a)		2.F(p)	2.F(a)		2.F(p)	2.F(a)		2.F(p)	2.F(a)		2.F(p)	2.F(a)	
			(Gg CO ₂ equivalent)	(Gg CO ₂ equivalent)		(Gg CO ₂ equivalent)	(Gg CO ₂ equivalent)		(Gg CO ₂ equivalent)	(Gg CO ₂ equivalent)		(Gg CO ₂ equivalent)	(Gg CO ₂ equivalent)		(Gg CO ₂ equivalent)	(Gg CO ₂ equivalent)	
Australia	NA	NA	NE, NO	NA, NE, NO	NA, NE, NO	NE, NO	NA, NE, NO	NA, NE, NO	NE, NO	NA, NE, NO	NA, NE, NO	NE, NO	NA, NE, NO	NA, NE, NO	NE, NO	NA, NE, NO	NA, NE, NO
Austria	CS	CS	IE, NE, NO	IE, NO	IE, NE, NO	IE, NE, NO	IE, NO	IE, NE, NO	IE, NE, NO	IE, NO	IE, NE, NO	IE, NE, NO	0.17	IE, NE, NO	IE, NO	IE, NO	IE, NO
Belarus	NA	NA	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO
Belgium	NA	NA	NO	NA, NE, NO	NA, NE, NO	NO	NA, NE, NO	NA, NE, NO	NO	NA, NE, NO	NA, NE, NO	NO	NA, NE, NO	NA, NE, NO	NO	NA, NE, NO	NA, NE, NO
Bulgaria	NA	NA	NA, NE, NO	NE, NO	NA, NE, NO	NA, NE, NO	NE, NO	NA, NE, NO	0.04	NE, NO	NE, NO	NA, NE, NO	NE, NO	NA, NE, NO	NA, NE, NO	NE, NO	NA, NE, NO
Canada	T2	D	16.19	12.50	1.30	25.14	14.91	1.69	0.10	0.66	0.15	NA, NO	NA, NE, NO	NA, NE, NO	NA, NO	NA, NE, NO	NA, NE, NO
Croatia	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Czech Republic	D, T2	D	9.56	7.26	1.32	13.77	9.37	1.47	7.00	5.94	1.18	NA, NE, NO	NO	NA, NE, NO	NA, NE, NO	NO	NA, NE, NO
Denmark			1.64	1.64	1.00	NO	NA, NO	NA, NO	NO	12.31	NO	NO	NA, NO	NA, NO	1.74	1.74	1.00
Estonia			NO	NA, NE, NO	NA, NE, NO	NO	NA, NE, NO	NA, NE, NO	NO	NA, NE, NO	NA, NE, NO	NO	NA, NE, NO	NA, NE, NO	NO	NA, NE, NO	NA, NE, NO
European Community			IE	337.68	IE	IE	458.66	IE	IE	290.69	IE	IE	4.10	IE	IE	19.39	IE
Finland	T1, T2	D	C, NO	C, NA, NO	C, NA, NO	C, NO	C, NA, NO	C, NA, NO	16.11	14.33	1.12	NO	NO	NO	C, NO	C, NO	C, NO
France	CR, T2	PS	NE	120.23	NE	NE	164.60	NE	NE	5.79	NE	NE	NO	NE, NO	NE	4.23	NE
Germany	CS, T2	CS, D	IE, NO	112.40	IE, NO	364.22	137.29	2.65	451.59	142.79	3.16	IE, NO	NA, NO	IE, NA, NO	IE, NO	1.57	IE, NO
Greece	NA	NA	NE	NA, NE, NO	NA, NE, NO	NE	NA, NE, NO	NA, NE, NO	NE	NA, NE, NO	NA, NE, NO	NE	NA, NE, NO	NA, NE, NO	NE	NA, NE, NO	NA, NE, NO
Hungary	CS	CS	NO	NA, NO	NA, NO	NO	NA, NO	NA, NO	3.09	1.53	2.02	NO	NA, NO	NA, NO	NO	NA, NO	NA, NO
Iceland	NA	NA	NE, NO	NA, NE, NO	NA, NE, NO	NE, NO	NA, NE, NO	NA, NE, NO	NE, NO	NA, NE, NO	NA, NE, NO	NE, NO	NA, NE, NO	NA, NE, NO	NE, NO	NA, NE, NO	NA, NE, NO
Ireland	T2	CS	38.02	27.08	1.40	209.48	116.98	1.79	NO	NO	NO	NO	NO	NO	13.37	4.26	3.14
Italy	CS	PS	159.87	76.33	2.09	67.83	39.79	1.70	17.92	4.33	4.13	NO	NO	NO	28.82	7.59	3.80
Japan			3,594.50	IE, NA, NE, NO	IE, NA, NE, NO	IE, NE	IE, NA, NE, NO	IE, NA, NE, NO	IE, NE	IE, NA, NE, NO	IE, NA, NE, NO	NO	IE, NA, NE, NO	IE, NA, NE, NO	IE, NE	IE, NA, NE, NO	IE, NA, NE, NO
Latvia	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Liechtenstein	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Lithuania	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Luxembourg	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Monaco	T1a	D	NO	NA, NE, NO	NA, NE, NO	NO	NA, NE, NO	NA, NE, NO	0.07	0.07	1.00	NO	NA, NE, NO	NA, NE, NO	NO	NA, NE, NO	NA, NE, NO
Netherlands	CS, T2	PS	C, NE	NO	C, NE, NO	C, NE	NO	C, NE, NO	NE, NO	NO	NE, NO	NE, NO	NO	NE, NO	NE, NO	NO	NE, NO
New Zealand			IE, NA, NO	NA, NO	IE, NA, NO	IE, NA, NO	NA, NO	IE, NA, NO	21.17	8.40	2.52	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO
Norway			NO	NA, NO	NA, NO	NO	NA, NO	NA, NO	-0.46	0.04	-12.43	NO	NA, NO	NA, NO	NO	NA, NO	NA, NO
Poland			NE, NO	NA, NE	NA, NE, NO	NE, NO	NA, NE	NA, NE, NO	NE, NO	NA, NE	NA, NE, NO	NE, NO	NA, NE, NO	NE, NO	NE, NO	NA, NE	NA, NE, NO
Portugal	NA	NA	NO	NO	NO	0.04	NO	NO	11.58	NO	NO	NO	NO	NO	NO	NO	NO
Romania	T2	D	NA, NE, NO	NE	NA, NE, NO	NA, NE, NO	NE	NA, NE, NO	NA, NE, NO	NE	NA, NE, NO	NA, NE, NO	NE	NA, NE, NO	NA, NE, NO	NE	NA, NE, NO
Russian Federation	T1	D	NE	NA, NE, NO	NA, NE, NO	NE	NA, NE	NA, NE	NE	NA, NE, NO	NA, NE, NO	NE	NA, NE	NA, NE	NE	83.79	NE
Slovakia	D	CS	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Slovenia	NA	NA	NO	NA, NO	NA, NO	NO	NA, NO	NA, NO	NO	NA, NO	NA, NO	NO	NA, NO	NA, NO	NO	NA, NO	NA, NO
Spain			NE	NA, NO	NA, NE, NO	NE	NA, NO	NA, NE, NO	NE	109.34	NE	NE	3.92	NE	NE	NA, NO	NA, NE, NO
Sweden	CS, T1	CS, D	NA, NE, NO	NA, NE, NO	NA, NE, NO	NA, NE, NO	NA, NE, NO	NA, NE, NO	6.65	1.81	3.68	NO	NA, NE, NO	NA, NE, NO	NO	NA, NE, NO	NA, NE, NO
Switzerland	T1, T2	D, M	1.30	9.26	0.14	11.04	16.74	0.66	20.99	5.40	3.89	NO	NO	NO	3.48	2.19	1.59
Turkey																	
Ukraine	NA	NA	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO
United Kingdom			IE, NE, NO	IE, NA, NO	IE, NA, NO	NA, NE, NO	IE, NA, NO	IE, NA, NO	NA, NE, NO	IE, NA, NO	IE, NA, NO	NA, NE, NO	IE, NA, NO	IE, NA, NO	NA, NE, NO	IE, NA, NO	IE, NA, NE, NO
United States	M, OTH, T2	CS, M	1,223.15	1,201.17	1.02	3,183.73	2,228.61	1.43	88.70	35.48	2.50	C, IE, NE, NO	C, NA, NO	C, IE, NA, NE, NO	370.93	111.28	3.33

^a Information on methods and emission factors in this table is presented as reported by Parties in table Summary 3 of the CRF. It may not reflect the actual method or type of emission factor used for all PFCs for all subcategories within the category 2.F Consumption of halocarbons and SF₆.^b P = Potential emissions^c A = Actual emissions

Table 2.15b

Consumption of halocarbons and SF₆ - PFCs (2006)

	Methods and EF used ^a		C ₅ F ₁₂			C ₆ F ₁₄			Unspecified PFCs			Total		
	Methods	EF	P ^b	A ^c	Ratio P / A	P ^b	A ^c	Ratio P / A	P ^b	A ^c	Ratio P / A	P ^b	A ^c	Ratio P / A
			2.F(p)	2.F(a)		2.F(p)	2.F(a)		2.F(p)	2.F(a)		2.F(p)	2.F(a)	
			(Gg CO ₂ equivalent)			(Gg CO ₂ equivalent)			(Gg CO ₂ equivalent)			(Gg CO ₂ equivalent)		
Australia	NA	NA	NE, NO	NA, NE, NO	NA, NE, NO	NE, NO	NA, NE, NO	NA, NE, NO	NE, NO	NA, NE, NO	NA, NE, NO	NE, NO	NA, NE, NO	NA, NE, NO
Austria	CS	CS	NO	NO	NO	NO	NO	NO	380.99	135.50	2.81	380.99	135.67	2.81
Belarus	NA	NA	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NA, NE, NO	NA, NE, NO
Belgium	NA	NA	NO	NA, NE, NO	NA, NE, NO	NO	NO	NO	NE		NE	NE, NO	NA, NE, NO	NA, NE, NO
Bulgaria	NA	NA	NA, NE, NO	NE, NO	NA, NE, NO	NA, NE, NO	NE, NO	NA, NE, NO	NA, NE, NO	NE, NO	NA, NE, NO	0.04	NA, NE, NO	NA, NE, NO
Canada	T2	D	NA, NO	0.01	NA, NO	1.66	1.67	1.00	NA, NO	NA, NE, NO	NA, NE, NO	43.10	29.75	1.45
Croatia	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NA, NO	NA, NO
Czech Republic	D, T2	D	NA, NE, NO	NO	NA, NE, NO	NA, NE, NO	NO	NA, NE, NO	NA, NE, NO	NO	NA, NE, NO	30.33	22.56	1.34
Denmark			NO	NA, NO	NA, NO	NO	NA, NO	NA, NO	NO	NA, NO	NA, NO	3.38	15.68	0.22
Estonia			NO	NA, NE, NO	NA, NE, NO	NO	NA, NE, NO	NA, NE, NO	NO	NA, NE, NO	NA, NE, NO	NO	NA, NE, NO	NA, NE, NO
European Community			IE	IE, NA, NE, NO	IE, NA, NE, NO	IE	182.70	IE	1,917.59	413.83	4.63	1,917.59	1,707.05	1.12
Finland	T1, T2	D	NO	NO	NO	NO	NO	NO	1.62	1.10	1.47	17.73	15.43	1.15
France	CR, T2	PS	NE	NO	NE, NO	NE	182.70	NE	NE	NO	NE, NO	NE	477.54	NE
Germany	CS, T2	CS, D	IE, NO	NA, NO	IE, NA, NO	IE, NO	NA, NO	IE, NA, NO	IE, NO	NA, NO	IE, NA, NO	815.82	394.04	2.07
Greece	NA	NA	NE	NA, NE, NO	NA, NE, NO	NE	NA, NE, NO	NA, NE, NO		NA, NO	NA, NO	NE	NA, NE, NO	NA, NE, NO
Hungary	CS	CS	NO	NA, NO	NA, NO	NO	NA, NO	NA, NO	NO	NA, NO	NA, NO	3.09	1.53	2.02
Iceland	NA	NA	NE, NO	NA, NE, NO	NA, NE, NO	NE, NO	NA, NE, NO	NA, NE, NO	NE, NO	NA, NE, NO	NA, NE, NO	NE, NO	NA, NE, NO	NA, NE, NO
Ireland	T2	CS	NO	NO	NO	NO	NO	NO	NO	NO	NO	260.87	148.32	1.76
Italy	CS	PS	NO	NO	NO	NO	NO	NO	NO	NO	NO	274.44	128.05	2.14
Japan			IE, NE	IE, NA, NE, NO	IE, NA, NE, NO	IE, NE	IE, NA, NE, NO	IE, NA, NE, NO	12,899.60	5,443.46	2.37	16,494.10	5,443.46	3.03
Latvia	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NA, NO	NA, NO
Liechtenstein	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NA, NO	NA, NO
Lithuania	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NA, NO	NA, NO
Luxembourg	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NA, NO	NA, NO
Monaco	T1a	D	NO	NA, NE, NO	NA, NE, NO	NO	NA, NE, NO	NA, NE, NO	NO	NA, NE, NO	NA, NE, NO	0.07	0.07	1.00
Netherlands	CS, T2	PS	NE, NO	NO	NE, NO	NE, NO	NO	NE, NO	C, NE	194.46	C, NE	C, NE, NO	194.46	C, NE, NO
New Zealand			NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	NA, NO	21.17	8.40	2.52
Norway			NO	NA, NO	NA, NO	NO	NA, NO	NA, NO	NO	NA, NO	NA, NO	-0.46	0.04	-12.43
Poland			NE, NO	NA, NE	NA, NE, NO	NE, NO	NA, NE	NA, NE, NO	NE, NO	NA	NA, NE, NO	NE, NO	16.56	NE, NO
Portugal	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	11.62	NA, NO	NA, NO
Romania	T2	D	NA, NE, NO	0.02	NA, NE, NO	NA, NE, NO	NE	NA, NE, NO	NA, NE, NO	NE	NA, NE, NO	NA, NE, NO	0.02	NA, NE, NO
Russian Federation	T1	D	NE	NA, NE	NA, NE	NE	NA, NE	NA, NE	NE	NA, NE	NA, NE	NE	83.79	NE
Slovakia	D	CS	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Slovenia	NA	NA	NO	NA, NO	NA, NO	NO	NA, NO	NA, NO	NO	NA, NO	NA, NO	NO	NA, NO	NA, NO
Spain			NE	NA, NO	NA, NE, NO	NE	NA, NO	NA, NE, NO	NE	NA, NO	NA, NE, NO	NE	113.27	NE
Sweden	CS, T1	CS, D	NO	NA, NE, NO	NA, NE, NO	NO	NA, NE, NO	NA, NE, NO	NO	NA, NE, NO	NA, NE, NO	6.65	1.81	3.68
Switzerland	T1, T2	D, M	NO	NO	NO	20.72	19.75	1.05	NO	NO	NO	57.53	53.34	1.08
Turkey														
Ukraine	NA	NA	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NA, NE, NO	NA, NE, NO
United Kingdom			NA, NE, NO	IE, NA, NO	IE, NA, NE, NO	NA, NE, NO	IE, NA, NO	IE, NA, NE, NO	146.10	82.77	1.77	146.10	82.77	1.77
United States	M, OTH, T2	CS, M	C, IE, NE, NO	C, NA, NO	C, IE, NA, NE, NO	C, IE, NE, NO	C, NA, NO	C, IE, NA, NE, NO	IE, NE, NO	NA, NO	IE, NA, NE, NO	4,866.51	3,576.54	1.36

^a Information on methods and emission factors in this table is presented as reported by Parties in table Summary 3 of the CRF. It may not reflect the actual method or type of emission factor used for all PFCs for all subcategories within the category 2.F Consumption of halocarbons and SF₆.

^b P = Potential emissions

^c A = Actual emissions

Table 2.16**Consumption of halocarbons and SF₆ - SF₆ (2006)**

	Methods and EF used ^a		SF ₆		
	Methods	EF	P ^b	A ^c	Ratio P / A
			2.F(p)	2.F(a)	
			(Gg CO ₂ equivalent)		
Australia	T2	CS	NE, NO	521.02	NE, NO
Austria	CS	CS	414.22	480.24	0.86
Belarus	D	D	NE, NO	1.87	NE, NO
Belgium			NE, NO	74.88	0.09
Bulgaria	D	D	4.83	5.30	0.91
Canada	T1	OTH	NE, NO	1,327.45	1.01
Croatia	NA	NA	NE, NO	NE, NO	NE, NO
Czech Republic	T3	D	161.90	83.07	1.95
Denmark			87.24	35.99	2.42
Estonia			NA, NO	0.80	NA, NO
European Community	CS, T1, T2, T3	CS, D, OTH, PS	5,675,837.41	5,376.38	1,055.70
Finland	T1, T2, T3	OTH	87.02	40.44	2.15
France			NE	759.48	NE
Germany	CS, T2, T3	CS	82,218.40	2,302.92	35.70
Greece	CS	CS	NE	4.47	NE
Hungary	CS, D, T1	CS	204.73	244.45	0.84
Iceland	NA	NA	NE, NO	NA, NE, NO	NA, NE, NO
Ireland	T1, T2	CS	110.14	68.60	1.61
Italy	T3	CS	2,182.88	328.61	6.64
Japan	CS	CS	38,902.03	1,932.29	20.13
Latvia	T2	D	NE, NO	7.12	NE, NO
Liechtenstein	CS	CS	1.95	0.05	37.95
Lithuania	T1	CS	NE, NO	1.67	NE, NO
Luxembourg	CS	CS	NE	3.86	NE
Monaco	D	D	0.16	0.08	1.90
Netherlands	CS, T2	D, PS	C, NE	215.08	C, NE
New Zealand	T2, T3	CS	35.99	13.24	2.72
Norway	T2	CS	NE, NO	92.01	2.74
Poland			NE, NO	28.72	NE, NO
Portugal			5,589,558.56	15.50	360,687.85
Romania	T2	D	NA, NE, NO	0.09	NA, NE, NO
Russian Federation	T2	D	NE	99.09	NE
Slovakia	D	CS	70.24	17.15	4.10
Slovenia	T2	D	NE, NO	18.84	NE, NO
Spain			NE	323.62	NE
Sweden			189.00	33.89	5.58
Switzerland			1,681.01	125.78	13.37
Turkey					
Ukraine	NA	NA	NE, NO	NE, NO	NE, NO
United Kingdom	T3	CS	983.45	694.65	1.42
United States	M, T2	CS, M	24,524.80	14,156.21	1.73

^a Information on methods and emission factors in this table is presented as reported by Parties in table Summary 3 of the CRF. It may not reflect the actual method or type of emission factor used for SF₆ for all subcategories within the category 2.F Consumption of halocarbons and SF₆.

^b P = Potential emissions

^c A = Actual emissions

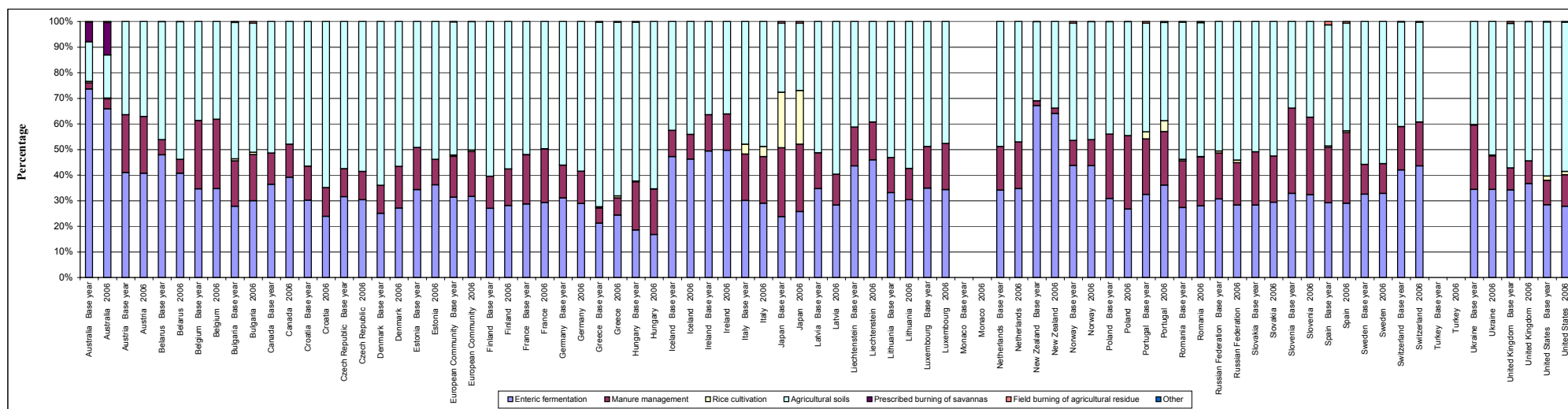
Table 3.1

Solvent and other product use - CO₂ and N₂O (2006)

	Methods and EF used ^a		Key category (CO ₂)	Methods and EF used ^a		Key category (N ₂ O)	Paint application		Degreasing and dry cleaning			
	CO ₂			N ₂ O			CO ₂		CO ₂		N ₂ O	
							Share of national total	CO ₂ IEF	Share of national total	CO ₂ IEF	Share of national total	N ₂ O IEF
	Methods	EF		Methods	EF		(%)	(t/t)	(%)	(t/t)	(%)	(t/t)
Australia	NA	NA		NA	NA		-	NA	-	NA	-	NA
Austria	CR, CS	CS		CS	D		0.1	1.16	0.0	1.42	-	NA
Belarus	NA	NA		T1	D		-	NA	-	NA	-	NA
Belgium												
Bulgaria	D	CS		D	CS		-	NE	-	NE	-	NA
Canada	NA	NA		T1	CS		-	NA	-	NA	-	NA
Croatia	OTH	OTH	T	NA	NA		0.0	1.47	0.0	NA	-	NE
Czech Republic	CR	CS		D	D		0.1	3.14	0.0	3.14	-	NA
Denmark	CR	CS		CS	CS		0.1	0.07	0.0	0.27	-	NA
Estonia	NA	NA		NA	NA		-	NA	-	NA	-	NA
European Community	CR, CS, D, T2	CR, CS, D, OTH, PS		CR, CS	CS, D		0.1	NE	0.0	NE	-	NA, NE, NO
Finland	T2	D		CS	CS		0.0	2.20	0.0	2.20	-	NO
France	CR	CS, PS		CR	CS		0.1	2.54	0.0	1.01	-	NA
Germany	NA	NA		CS	CS		-	NE	-	NE	-	NO
Greece	CR	CR		NA	NA		0.0	0.00	0.0	0.00	-	NE
Hungary	CS	CS		CS, T2	PS		0.1	0.64	0.0	0.05	-	NO
Iceland							0.1	1.56	0.0	3.12	-	NA
Ireland	CR, CS	CR		NA	NA		0.0	3.12	0.0	3.12	-	NA
Italy	CR, CS	CR, CS		CS	CS		0.1	0.74	0.0	2.39	-	NA
Japan	NA	NA		CS	OTH		-	NA	-	NE	-	NA
Latvia	CR	CR		CS	CS		0.2	1.13	0.1	0.00	-	NO
Liechtenstein	CS	CS	T	CS	CS		0.1	0.39	0.0	NA	-	NO
Lithuania	CR	D		NA	NA		0.2	3.12	0.1	3.12	-	NE
Luxembourg	CR	CR		CS	CS		0.0	0.92	0.0	2.90	-	NE
Monaco	NA	NA		NA	NA		-	NE	-	NE	-	NE
Netherlands	CS	CS		CS	CS		0.0	2.43	0.0	NE	-	NO
New Zealand	NA	NA		D	D		-	NA	-	NA	-	NA
Norway	T2	CS		CS	CS		0.0	3.00	0.0	3.00	-	NA
Poland	CS	CS		CS	CS		0.1	3.12	0.0	3.12	-	NE
Portugal	D	CR, CS, OTH		NA	NA		0.1	0.46	0.0	3.12	-	NO
Romania	CR	CR		NA	NA		0.1	NE	0.0	NE	-	NE
Russian Federation	NA	NA		CS	CS		-	NE	-	NE	-	NE
Slovakia	NA	NA		D	CS		-	NE	-	NE	-	NE
Slovenia	NA	NA		D	D		-	NO	-	NE	-	NE
Spain	D	CR		CS	CS		0.1	0.60	0.0	2.81	-	NA
Sweden	CS	CS		CS	CS		0.1	1.58	0.0	0.64	-	NA
Switzerland	CS	CS	T	CS	CS		0.1	0.41	0.0	NA	-	NO
Turkey												
Ukraine	NA	NA		OTH	OTH		-	NE	-	NE	-	NE
United Kingdom	NA	NA		NA	NA		-	NE	-	NE	-	NE
United States	NA	NA		CS	D		-	NE	-	NE	-	NE

^a Information on methods and emission factors in this table is presented as reported by Parties in the table Summary 3 of the CRF. It may not reflect the actual method or type of emission factor used for all subcategories within the Solvent and other product use sector.

Figure 4.1
Contribution of subsectors to total GHG emissions in the Agriculture sector^a



^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 4.1
Enteric fermentation - CH₄ (2006)

Key category	Share of national total	Methods and EF used ^a		Cattle						Sheep				Swine																																																																																																																																																																																																																																																																																																																																																																																																										
				Activity data (population size)			Dairy cattle	Non-dairy cattle	Activity data (population size)			CH ₄ IEF	Activity data (population size)			CH ₄ IEF																																																																																																																																																																																																																																																																																																																																																																																																								
		Methods	EF	CRF	FAO ^b	Difference	CH ₄ IEF (kg/head/yr)	CRF	FAO ^b	Difference	CH ₄ IEF (kg/head/yr)	CRF	FAO ^b	Difference	CH ₄ IEF (kg/head/yr)																																																																																																																																																																																																																																																																																																																																																																																																									
				(thousands of head)	(%)	(thousands of head)		(thousands of head)	(thousands of head)	(thousands of head)		(thousands of head)	(thousands of head)	(thousands of head)		(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)	(thousands of head)

Note: Estonia, Liechtenstein, Luxembourg, Netherlands, Norway and Switzerland are using Option B to report livestock types and emissions within the category 4.A Enteric fermentation. Cattle population and the CH₄ IEFs are included in this table for these Parties.

^a Information on methods and emission factors in this table is presented as reported by Parties in table Summary 3 of the CRF. It may not reflect the actual method or type of emission factor used for the various livestock types within the category 4.A Enteric fermentation - CH₄.

^b Source of international statistics: FAOSTAT data, downloaded on 17 April 2008 from <http://faostat.fao.org/site/573/default.aspx>. Time series population data on cattle, swine and sheep for Belarus, Croatia, Estonia, Latvia, Lithuania, Russian Federation, Slovenia and Ukraine are available from 1992; data for Czech Republic and Slovakia are available from 1993. Data for Luxembourg are included in the data of Belgium for 1990-1999.

^c Source of default emission factors: IPCC Guidelines, volume 3, tables 4-3 and 4-4 (pages 4.10-4.11).

^d For dairy and non-dairy cattle, IPCC default emission factors (in kg CH₄/head/year) are provided by regions as shown below (see footnote c for source reference).

	North America	Western Europe	Eastern Europe	Oceania	Asia
Dairy cattle	118	100.0	81	68	56
Non-dairy cattle	47	48.0	56	53	44

Table 4.2

CH₄ emissions from enteric fermentation - trend information

CH ₄ emissions (Gg)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	3,042	2,822	0.2	-0.4	0.7	-0.1	1.1	0.5	0.7	-2.1	0.1	0.7	0.5	-1.8	-7.2
Austria	179	153	-1.4	-1.4	-1.8	-0.8	-1.0	-0.6	-1.5	-1.8	-1.1	-0.2	-0.8	-0.3	-14.7
Belarus	465	270	-5.2	-4.1	-1.3	-2.4	-6.9	-2.4	-3.2	-2.3	-2.3	0.4	-0.1	-0.4	-41.9
Belgium	194	168	-0.7	-1.7	-1.3	-0.9	0.2	-0.9	0.7	-3.7	-3.1	-1.0	-1.2	-0.9	-13.3
Bulgaria	193	67	-7.9	-3.4	-3.5	2.9	1.5	-4.4	-21.5	10.9	3.7	-0.8	-5.1	0.0	-65.1
Canada	856	1,151	1.8	2.3	0.4	0.6	0.1	2.3	3.2	1.0	0.3	4.0	1.9	-2.9	34.4
Croatia	65	40	-6.6	-6.3	-1.8	-2.2	0.1	-2.2	1.5	-2.7	4.6	5.6	1.0	1.4	-39.1
Czech Republic	232	111	-5.8	-0.9	-6.7	-6.2	2.1	-4.0	0.7	-2.3	-2.6	-3.2	-1.0	-1.9	-52.3
Denmark	155	124	0.1	0.2	-3.5	-0.1	-4.2	-0.8	1.9	-2.7	-1.5	-3.5	-1.4	-2.2	-20.1
Estonia	53	21	-5.7	-6.1	-1.2	-3.5	-15.1	-1.1	4.4	-4.9	1.5	0.8	0.3	-1.3	-60.7
European Community	6,474	5,785	-2.4	0.6	-1.2	-0.3	0.0	-1.3	-0.9	-1.8	-0.6	-1.2	-0.7	-0.2	-10.6
Finland	91	74	-3.8	0.5	1.2	-2.2	-1.5	-0.2	-1.3	0.5	-1.7	-1.3	-0.7	-0.8	-18.5
France	1,470	1,330	-1.8	-0.2	-1.2	-0.7	-0.1	1.0	0.4	-1.4	-2.2	-1.4	0.0	0.1	-9.6
Germany	1,147	873	-11.7	-0.3	-3.3	-0.9	0.4	-1.9	1.6	-3.8	-0.8	-2.7	-0.3	0	-23.8
Greece	136	135	-1.2	0.2	0.1	0.4	0.6	0.9	0.1	-0.1	-0.4	0.1	-1.9	0.0	-1.2
Hungary	154	67	-5.7	-0.6	-3.5	-0.5	0.5	-0.2	-4.5	-3.2	-0.9	-3.2	-1.7	-4.2	-56.4
Iceland	13	11	-2.2	1.0	1.3	1.2	-0.9	-4.3	-0.3	-2.3	-1.7	-1.5	1.0	2.0	-12.5
Ireland	452	436	0.9	2.3	2.2	1.6	-2.4	-4.8	-1.0	-0.7	-0.9	0.0	-0.6	-0.5	-3.6
Italy	580	506	2.2	0.5	0.4	-0.7	1.1	-2.1	-6.8	-2.7	0.2	-2.0	0.1	-2.0	-12.7
Japan	364	335	1.4	-0.8	-0.6	-0.5	-0.8	-0.4	-0.5	-0.4	-1.3	-1.1	-0.9	-0.1	-7.9
Latvia	98	27	-3.4	-5.8	-6.2	-8.8	-13.1	-2.4	4.5	0.4	-3.5	-1.6	2.8	-2.0	-72.5
Liechtenstein	0	0	-1.2	0.3	-1.5	0.3	-2.0	-3.9	8.8	-0.1	1.5	1.7	1.8	3.9	4.5
Lithuania	149	62	-6.4	0.7	-1.6	-6.4	-5.7	-10.9	2.9	3.1	3.7	-1.8	-0.7	3.8	-58.5
Luxembourg	13	11	-0.5	1.2	-2.0	-1.0	-0.1	-1.3	0.5	-2.8	-3.0	-1.0	-0.1	-1.0	-12.1
Monaco	NA, NO	NA, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	358	300	1.5	-4.2	-1.5	-2.8	-0.3	-4.0	2.5	-5.9	2.7	0.0	-0.1	-0.5	-16.1
New Zealand	1,039	1,148	0.0	0.9	2.2	-2.3	1.7	3.3	0.2	-0.8	1.4	0.0	1.1	0.6	10.5
Norway	93	88	1.4	0.3	-0.8	0.9	-0.3	-1.4	-1.8	-2.3	2.5	-2.5	0.6	-3.8	-5.5
Poland	748	437	-10.9	-3.3	3.4	2.4	-5.4	-7.0	-3.9	-2.9	-0.6	-2.8	2.1	2.5	-41.6
Portugal	125	145	1.4	2.1	-3.4	3.6	3.2	1.6	-0.6	-0.2	-2.1	3.4	0.9	0.1	16.1
Romania	527	269	-11.6	-0.5	-2.5	-5.5	-5.5	-4.5	-2.4	2.3	1.0	-3.0	2.2	1.7	-49.0
Russian Federation	4,512	1,770	-2.9	-10.3	-9.6	-10.5	-12.2	0.5	2.1	-0.8	-2.9	-3.2	-6.0	-4.9	-60.8
Slovakia	95	44	-8.3	-6.3	-10.5	-5.7	-4.0	-1.7	3.0	-3.2	-4.3	-7.2	1.6	-1.6	-53.4
Slovenia	36	31	-7.1	-3.7	-5.8	2.0	3.6	5.5	-2.4	1.0	-4.6	-0.9	0.3	-0.1	-14.4
Spain	561	637	1.4	7.6	-1.0	2.4	1.2	0.5	2.6	0.6	1.5	-2.2	-1.5	-0.8	13.6
Sweden	146	133	-2.1	-1.1	0.2	-2.9	-0.9	-2.5	-1.1	-0.6	-1.6	1.5	-1.1	0.0	-8.7
Switzerland	118	110	0.3	-0.8	-1.8	-0.9	-0.7	-0.1	1.1	-0.8	-1.4	-1.0	0.6	0.8	-6.9
Turkey															
Ukraine	1,652	499	-3.3	-11.8	-14.8	-3.5	-13.3	-10.1	2.2	0.4	-14.4	-7.2	-4.5	-2.8	-69.8
United Kingdom	877	770	-1.5	0.9	-1.3	-0.2	-0.1	-3.3	-6.1	-1.0	0.4	0.2	-2.3	1.5	-12.3
United States	6,044	6,010	-0.6	-1.9	-1.8	-1.3	0.0	-0.9	-0.8	0.2	0.6	-1.7	1.7	1.4	-0.6

Note: Estonia, Liechtenstein, Luxembourg, Netherlands, Norway and Switzerland are using Option B to report livestock types and emissions within the category 4.A Enteric fermentation.

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 4.3a

CH₄ emissions from enteric fermentation: dairy cattle - trend information

CH ₄ emissions (Gg)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	275	324	-0.8	3.5	4.3	4.8	2.9	1.9	-0.2	-1.3	-1.7	-0.9	-2.7	-4.1	17.6
Austria	88	61	-2.9	-0.4	4.2	2.1	-3.4	-9.7	-2.3	-0.1	-4.3	-2.6	0.3	-0.3	-31.3
Belarus	191	122	-2.0	-4.4	-2.1	-2.7	-3.1	-2.1	-3.3	-3.8	-3.4	-2.7	-3.0	-3.8	-36.3
Belgium	83	61	-4.8	-4.0	-2.1	1.1	-0.7	-0.6	1.1	-2.4	-1.8	-1.9	-2.0	-1.4	-26.1
Bulgaria	51	28	-2.7	1.0	2.4	8.7	5.4	-0.6	-19.7	6.6	-0.8	1.5	-1.9	-2.6	-44.5
Canada	159	137	-2.2	1.3	-0.6	-2.3	-0.8	-2.6	-0.7	1.4	-1.6	-1.0	-2.0	-2.0	-14.1
Croatia	38	22	0.2	-7.2	-2.3	-1.3	-1.3	-3.0	-2.4	-0.7	0.7	-2.9	0	0.4	-42.2
Czech Republic	119	65	-7.2	-0.7	-8.7	-3.9	2.9	-2.7	0.0	-0.8	-1.9	-2.9	3.8	-1.3	-45.4
Denmark	88	69	-0.7	-1.1	-4.6	0.1	-5.0	-1.1	-0.1	-0.5	-0.1	-3.9	1.7	-3.9	-20.9
Estonia	27	14	-5.8	-4.3	2.2	-2.3	-15.7	0.3	3.3	-10.0	1.8	3.1	-1.1	-0.3	-50.7
European Community	2,518	2,042	-5.2	-0.7	-1.6	-0.7	-0.3	-2.5	0.4	-1.3	-0.7	-1.6	-0.4	-1.0	-18.9
Finland	48	37	-8.2	-1.2	1.7	-1.5	-1.2	1.0	-0.9	-0.2	-3.0	-1.3	-1.2	-3.4	-23.2
France	530	410	-4.7	-1.8	-2.0	-1.1	-0.7	-0.1	-0.1	0.0	-2.3	-1.7	-0.4	-2.1	-22.6
Germany	603	480	-10.6	0.3	-3.3	-2.3	0.2	-2.8	1.4	-2.9	0.2	-1.7	0.3	0	-20.3
Greece	20	18	-2.0	-0.7	-0.7	-0.5	-0.1	-0.4	-1.0	-1.1	-1.4	-1.0	2.3	-0.5	-11.3
Hungary	59	28	-7.4	0.9	-2.1	-1.5	0.9	1.3	-3.3	-8.6	-4.3	-6.3	-3.1	-8.2	-53.0
Iceland	3	3	-1.9	-1.9	-1.2	-1.0	-3.2	-4.3	-3.1	-2.8	-2.4	-2.0	0.6	3.9	-20.9
Ireland	137	121	-1.3	0.4	-0.3	-0.8	-1.0	-1.5	-0.2	-0.5	-0.7	0.2	-2.9	0.6	-11.5
Italy	245	206	-6.7	1.5	0.8	1.5	0.3	-3.7	-0.1	-4.0	0.1	-1.8	1.5	-0.8	-15.9
Japan	193	160	0.5	-0.6	-1.2	-1.5	-1.9	-1.3	-0.8	-0.5	-1.4	-1.6	-2.1	-1.2	-16.9
Latvia	43	15	-0.7	-5.8	-4.4	-8.0	-14.9	-0.7	2.2	-1.9	-9.3	0.1	-0.5	-1.7	-66.0
Liechtenstein	0	0	-0.1	0.5	0.2	0.6	-0.5	-4.3	10.8	-2.4	-0.4	-1.7	0.4	3.7	-0.9
Lithuania	76	39	-4.0	1.7	0.1	-5.8	-9.7	-6.7	3.4	1.4	1.2	-1.5	-2.6	-2.4	-48.6
Luxembourg	6	5	-5.3	-0.9	-2.2	-0.3	-0.8	-2.4	0.3	-0.6	-2.2	-0.6	-0.5	-1.0	-20.6
Monaco	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	203	183	-1.4	-4.3	-1.9	2.1	0.3	-4.5	4.9	-5.1	4.5	0.3	-1.0	-0.2	-9.7
New Zealand	239	410	2.9	5.5	3.0	0.0	3.0	8.3	6.7	4.8	2.7	-1.1	0.1	1.7	71.9
Norway	46	36	-1.5	1.0	-2.4	-1.8	0.7	-6.5	-2.3	-1.0	-1.2	-2.1	-2.8	-1.9	-22.4
Poland	445	266	-8.4	-2.4	1.8	1.4	-4.0	-8.4	-1.5	-4.2	1.3	-3.0	0.6	1.4	-40.1
Portugal	37	38	-1.9	1.5	0.6	0.9	7.2	-1.0	-1.2	0.4	-4.9	0.1	2.8	-1.5	2.8
Romania	176	133	-2.8	-0.9	-2.9	-2.3	-2.0	2.7	0.0	-0.5	0.6	-7.6	3.8	0.8	-24.7
Russian Federation	2,094	952	-2.9	-7.2	-6.2	-8.6	-9.7	0.8	1.6	-3.5	-4.5	-3.9	-6.6	-6.4	-54.5
Slovakia	40	23	-6.3	-3.3	-6.6	-4.1	-2.4	0.3	-0.9	2.9	-4.2	-5.4	1.8	-1.3	-42.2
Slovenia	20	11	-6.9	-19.3	-4.0	-0.3	2.4	-4.5	-2.5	4.7	-7.1	1.7	-8.0	-5.6	-46.7
Spain	116	94	4.0	1.2	-2.0	0.8	-1.5	-3.2	1.7	1.7	-2.3	-2.5	-2.0	-3.0	-19.7
Sweden	69	51	-8.0	-5.1	1.7	-4.5	0.5	-4.8	-0.7	-0.1	-3.1	1.0	-2.3	0.1	-26.4
Switzerland	81	68	0.8	-0.1	-1.3	0.1	-6.9	-1.3	0.6	-1.5	-2.6	-1.9	0.0	-0.4	-16.2
Turkey															
Ukraine	944	347	-2.3	-9.2	-11.9	-3.1	-11.9	-8.3	1.4	-0.6	-12.1	-5.9	-6.4	-4.4	-63.3
United Kingdom	251	212	-2.9	0.3	-1.5	-2.2	1.1	-3.3	-2.5	2.6	-0.6	-2.7	-1.4	-0.7	-15.3
United States	1,488	1,441	0.1	-5.0	0.0	-0.4	1.0	1.4	-0.3	0.5	0.8	-1.1	2.5	2.1	-3.2

Note: Estonia, Liechtenstein, Luxembourg, Netherlands, Norway and Switzerland are using Option B to report livestock types and emissions within the category 4.A Enteric fermentation. For these Parties, emissions from mature dairy cattle are included in this table.

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 4.3b**CH₄ implied emission factors for enteric fermentation: dairy cattle - trend information**

CH ₄ IEF (kg/head/yr)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	107	114	0.7	0.1	0.3	0.2	0.9	0.4	0.7	-0.5	-0.1	-0.3	0.2	0.4	6.2
Austria	98	115	0.2	0.9	0.9	0.9	0.9	1.5	1.5	1.4	1.0	1.0	1.0	1.0	17.8
Belarus	81	81	0	0	0	0	0	0	0	0	0.0	0.0	0	0.0	0.0
Belgium	99	117	0.2	1.3	1.3	-0.1	1.1	1.6	0.3	1.2	1.1	1.1	1.6	1.6	18.3
Bulgaria	81	81	0	0	0	0	0	0	0	0	0	0	0	0	0
Canada	116	135	1.5	1.5	0.4	1.5	1.6	1.5	0.6	1.7	0.1	-0.4	0	0.3	16.6
Croatia	81	81	0	0	0	0	0	0	0	0	0	0	0	0	0
Czech Republic	96	115	-4.0	1.5	-2.3	4.3	3.7	1.6	0.7	1.7	-0.9	0.0	3.6	0.5	19.7
Denmark	117	126	0.9	-0.8	-0.2	0.3	-0.7	-0.4	1.8	1.8	2.2	1.7	1.5	-1.5	8.3
Estonia	98	125	0	3.4	4.6	3.3	-3.4	6.0	5.2	0.1	0.8	3.4	2.1	3.7	27.6
European Community	96	111	1.2	0.3	0.9	0.6	1.0	0.8	1.1	0.8	1.2	0.7	1.2	0.4	15.8
Finland	97	118	0.9	0.4	2.0	0.5	1.6	3.3	1.6	1.8	1.1	1.6	0.5	-0.4	21.7
France	99	104	0.5	0.2	0.4	0.2	0.3	0.2	-0.1	0.5	0.0	0.3	0.8	-0.1	5.6
Germany	95	113	0.9	1.0	0.0	1.6	1.6	1.4	1.9	-0.2	1.4	0.2	1.4	0	19.5
Greece	81	81	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0.0
Hungary	100	100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Iceland	100	100	0	0	0	0	0	0	0	0	0	0	0	0	0
Ireland	102	110	0.2	1.4	0.1	0.4	-0.7	0.6	1.6	-0.1	1.0	-0.4	-1.7	2.5	7.9
Italy	93	113	5.3	1.5	0.9	-0.3	-0.1	-0.9	-0.7	4.3	0.0	2.2	1.3	0.3	22.1
Japan	98	105	0.3	0.9	0.7	0.8	0.6	0.4	0.1	0.2	0.1	0.1	0.0	0.1	7.0
Latvia	81	81	0	0	0	0	0	0	0	0	0	0	0	0	0
Liechtenstein	111	121	0.2	0.1	1.3	0.9	0.5	1.5	2.4	0.6	0.3	1.7	-0.8	-0.3	9.1
Lithuania	91	98	-2.8	1.0	1.3	2.1	-1.8	5.2	2.6	1.1	0.1	1.7	1.4	1.8	8.4
Luxembourg	105	128	0.2	0.4	1.3	0.5	1.1	1.6	1.5	1.2	1.3	1.2	0.9	0.8	21.1
Monaco	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	108	129	0	-1.8	2.7	0.9	1.7	0.9	2.5	-1.7	5.0	0.8	1.6	0.8	19.4
New Zealand	69	79	3.3	3.6	0.8	-2.0	3.7	1.7	0.5	-0.9	3.9	-2.1	1.4	0.1	14.4
Norway	135	116	-2.2	-0.4	-2.4	-2.8	1.3	-5.0	1.7	2.8	-2.4	-1.0	-4.3	2.2	-13.9
Poland	93	94	-1.6	0.9	0.9	-0.1	-0.5	1.1	1.6	0.2	0.5	0.6	0.7	0.3	1.9
Portugal	95	119	-0.3	2.4	0.8	2.0	9.0	1.0	2.0	2.0	-2.4	0.1	4.6	0.6	25.5
Romania	81	81	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0.0
Russian Federation	101	100	-1.8	-2.1	3.1	-0.2	-2.6	3.3	5.5	0.0	-0.8	1.9	1.0	0.6	-0.9
Slovakia	74	107	2.7	2.4	1.1	4.5	1.2	1.3	3.7	2.7	1.3	0.3	2.8	3.6	45.1
Slovenia	86	97	2.0	2.8	0.6	0.5	0.7	1.5	0.7	1.5	-0.5	-0.8	2.5	0.9	12.4
Spain	72	97	6.8	-2.4	0.4	0.6	4.4	3.0	1.8	-0.3	2.8	1.7	1.9	3.5	34.4
Sweden	120	131	0.3	-1.9	1.2	-0.5	0.5	-0.2	1.7	0.1	0.3	0.7	0.4	1.4	9.2
Switzerland	102	110	0.8	-0.3	1.4	0.9	0.4	0.8	0.6	0.2	0.4	0.9	0.1	0	7.8
Turkey															
Ukraine	96	98	-1.1	-0.4	-0.3	4.2	-4.3	1.2	2.6	3.9	-2.3	2.5	2.1	4.0	2.3
United Kingdom	88	103	-0.1	0.9	2.9	0.0	0.4	1.0	1.1	3.7	0.9	0.1	1.8	-0.8	16.7
United States	105	110	1.3	-3.6	1.2	0.7	0.7	1.1	0.5	0.2	1.0	0.2	1.4	0.5	4.2

Note: Estonia, Liechtenstein, Luxembourg, Netherlands, Norway and Switzerland are using Option B to report livestock types and emissions within the category 4.A Enteric fermentation. For these Parties, CH₄ IEF from mature dairy cattle are included in this table.

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 4.4a**CH₄ emissions from enteric fermentation: non-dairy cattle - trend information**

CH ₄ Emissions (Gg)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	1,565	1,743	2.0	0.8	0.8	-0.5	0.7	0.8	2.4	-0.7	0.9	0.7	2.0	0.7	11.4
Austria	81	83	-0.2	-2.5	-7.2	-3.5	2.0	8.2	-1.0	-3.0	1.1	1.8	-1.8	-0.2	1.7
Belarus	258	139	-7.6	-3.6	-0.3	-2.2	-10.9	-2.7	-3.1	-0.5	-1.0	3.7	2.8	2.8	-46.2
Belgium	99	95	3.0	-0.5	-1.1	-2.8	0.6	-0.8	1.3	-4.8	-4.1	-0.3	-0.8	-0.7	-3.6
Bulgaria	56	15	-12.7	-11.5	-7.7	5.5	5.5	-5.3	-1.1	28.1	16.5	-4.3	-13.8	-4.3	-72.4
Canada	668	963	2.7	2.5	0.4	0.9	0.0	2.9	3.6	0.8	0.6	4.9	2.5	-3.2	44.1
Croatia	20	12	-20.7	-5.7	-2.0	-2.7	-0.7	-1.4	12.9	-12.0	18.0	18.3	2.6	6.5	-40.8
Czech Republic	102	40	-4.4	-1.3	-5.0	-9.4	1.5	-5.3	1.9	-4.1	-3.8	-3.5	-7.5	-3.2	-60.9
Denmark	53	35	-0.3	1.6	-3.5	-2.2	-4.0	-0.9	4.7	-7.3	-5.2	-5.8	-7.5	-1.8	-34.5
Estonia	14	4	-0.6	-6.4	-6.7	-7.7	-10.5	-4.8	2.4	10.2	-0.5	-1.6	2.6	-6.8	-71.4
European Community	2,861	2,714	-0.3	0.9	-1.3	-0.5	0.1	-0.5	-0.3	-2.4	-0.7	-1.1	-0.7	0.0	-5.1
Finland	IE	IE	*	*	*	*	*	*	*	*	*	*	*	*	*
France	821	816	0.2	0.6	-0.9	-0.5	0.3	1.8	0.7	-2.2	-2.4	-1.4	0.3	1.4	-0.7
Germany	476	327	-12.8	-1.4	-3.9	0.3	0.4	-1.0	1.7	-5.6	-2.6	-4.5	-1.2	0	-31.2
Greece	21	22	-4.5	0.5	0.7	2.3	3.2	3.6	0.0	-1.1	-1.8	0.0	2.2	3.8	5.0
Hungary	59	21	-4.4	-3.3	-4.3	-3.4	-1.9	-8.5	-6.2	3.8	-0.8	-0.9	-1.0	2.0	-65.1
Iceland	2	2	7.9	3.0	2.8	2.2	-0.1	-2.6	-2.5	-3.9	-2.6	-2.2	3.0	4.2	1.2
Ireland	264	276	1.4	3.8	3.9	2.2	-3.2	-6.0	-0.9	0.1	-0.7	-0.2	1.1	-0.3	4.4
Italy	233	192	13.8	-1.8	0.8	-3.4	1.3	-1.6	-7.1	-1.8	0.1	-3.5	-0.9	-6.1	-17.6
Japan	158	164	3.0	-0.9	0.0	0.7	0.4	0.5	-0.2	-0.3	-1.3	-0.7	0.3	0.9	3.5
Latvia	51	11	-5.8	-4.5	-8.5	-10.3	-10.4	-5.7	8.5	4.0	5.5	-4.2	8.2	-2.5	-78.4
Liechtenstein	0	0	27.0	11.5	10.3	9.3	8.5	7.9	50.7	33.6	33.6	40.2	29.8	11.9	1,925.0
Lithuania	67	20	-9.2	-0.8	-6.6	-8.4	6.9	-21.9	0.9	8.6	10.7	-3.2	3.9	19.5	-71.0
Luxembourg	1	2	12.6	3.9	-1.7	-1.2	2.7	1.0	2.7	-3.3	-4.5	-1.7	1.2	-0.9	26.9
Monaco	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	8	10	16.6	-2.4	0.6	-0.1	8.0	6.7	-1.1	-6.0	2.3	1.4	2.3	-4.8	31.5
New Zealand	233	258	4.1	-4.0	0.1	-7.8	3.1	3.2	-0.3	-2.1	2.1	-2.4	1.1	0.8	10.7
Norway	21	25	5.4	1.8	5.2	6.2	-5.4	2.3	-4.8	-7.1	5.4	1.8	7.9	-7.0	18.1
Poland	219	133	-18.6	-1.9	8.4	4.4	-8.4	-4.3	-9.6	0.2	-4.6	-1.1	4.7	4.7	-39.2
Portugal	49	62	3.9	3.6	-4.1	3.1	2.2	2.7	2.4	-1.8	-0.2	4.0	1.3	-1.6	27.3
Romania	232	70	-19.8	1.9	-0.5	-9.4	-9.8	-16.4	-6.1	8.0	0.7	3.9	-1.4	5.2	-69.8
Russian Federation	1,831	621	-3.7	-13.0	-12.5	-12.4	-15.9	1.3	4.2	3.0	-1.9	-3.6	-6.7	-4.5	-66.1
Slovakia	45	16	-10.2	-10.0	-16.1	-5.0	-7.3	-4.3	10.5	-11.4	-5.1	-9.1	2.0	-2.8	-64.3
Slovenia	14	18	-8.1	14.9	-8.6	2.7	5.3	12.7	-2.4	-2.7	-2.9	-2.8	6.1	3.2	24.4
Spain	192	291	3.7	5.7	-1.5	4.3	3.8	-0.1	6.0	1.8	3.9	-1.1	-2.3	-1.0	51.5
Sweden	59	65	4.1	2.4	-0.6	-1.6	-2.1	-0.5	-1.7	-0.8	-1.5	1.9	-0.8	-0.6	10.1
Switzerland	NO	7	*	*	*	*	*	8.8	12.8	14.8	12.1	7.4	12.1	11.2	*
Turkey															
Ukraine	596	116	-4.3	-16.2	-21.4	-4.1	-18.9	-15.4	4.3	2.4	-21.5	-11.2	1.2	0.5	-80.5
United Kingdom	391	364	-1.3	2.4	-2.9	-0.9	-0.8	-2.3	-4.9	-2.6	2.2	1.9	-1.9	2.0	-7.1
United States	4,281	4,249	-1.0	-0.9	-2.5	-1.8	-0.1	-1.7	-1.1	-0.1	0.2	-2.5	1.1	1.2	-0.7

Note: Estonia, Liechtenstein, Luxembourg, Netherlands, Norway and Switzerland are using Option B to report livestock types and emissions within the category 4.A Enteric fermentation. For these Parties, emissions from mature non-dairy cattle are included in this table.

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 4.4b

CH₄ implied emission factors for enteric fermentation: non-dairy cattle - trend information

CH ₄ IEF (kg/head/yr)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	71	72	0.1	-0.3	0.0	0.0	0.4	0.1	0.3	0.1	0.7	0.3	0.0	-0.1	0.9
Austria	48	56	1.1	0.3	-1.1	-1.2	1.2	2.6	-0.1	-0.2	0.0	0.5	0.6	-0.1	15.8
Belarus	56	56	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
Belgium	41	44	0.6	-0.2	1.4	0.1	0.3	0.4	1.7	0.3	0.1	0.7	0.1	0.2	8.6
Bulgaria	56	56	0	0	0	0	0	0	0	0	0	0	0	0	0
Canada	64	67	0.6	-1.5	0.2	1.2	1.1	1.7	0.1	0.3	0.6	-2.4	0.1	0.5	5.9
Croatia	56	56	0	0	0	0	0	0	0	0	0	0	0	0	0
Czech Republic	44	49	1.4	0.6	1.0	0.0	5.4	0.3	0.7	0.8	0.5	-0.2	-3.9	-1.6	10.8
Denmark	35	35	0.1	1.3	0.7	-0.3	0.8	0.3	0.5	0.3	-0.4	-1.8	-0.4	0.3	-1.1
Estonia	63	62	0	0	-0.9	0.0	-0.9	0.5	0.3	0.1	-0.2	0.0	-1.1	0.5	-0.8
European Community	45	47	1.0	0.2	0.2	-0.1	-0.1	0.4	0.6	-0.2	0.4	0.1	0.2	-0.2	4.5
Finland	IE	IE	*	*	*	*	*	*	*	*	*	*	*	*	*
France	50	52	0.4	0.3	0.3	0.0	0.1	0.0	-0.3	-0.2	0.2	0.0	0.1	0.1	2.8
Germany	36	37	-0.4	-0.5	-0.5	1.2	0.1	0.7	0.8	-0.8	0.5	-0.6	0.0	0	2.6
Greece	56	56	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0
Hungary	48	48	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Iceland	48	48	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
Ireland	57	54	-1.8	1.4	-0.2	-2.0	-4.4	0.5	3.1	-1.5	0.4	2.1	1.1	-0.3	-5.1
Italy	46	45	4.2	0.0	0.8	-1.9	0.8	-0.7	-0.6	-0.5	0.3	-0.8	0.3	-3.6	-1.9
Japan	58	60	-0.1	0.5	0.7	1.0	0.8	0.6	0.0	-0.1	-0.2	0.1	0.0	0.2	4.1
Latvia	56	56	0	0	0	0	0	0	0	0	0	0	0	0	0
Liechtenstein	81	81	0.0	0.0	-8.2	0.0	0.0	7.8	-4.1	0.0	0.0	0	0.0	0.0	0.0
Lithuania	45	44	-1.6	2.4	0	3.1	2.0	1.7	0.9	0.2	2.2	-1.6	-3.1	4.3	-2.5
Luxembourg	54	55	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
Monaco	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	67	73	0.0	-2.6	1.9	-0.7	2.9	-0.3	0.5	0.2	7.3	0.5	-2.0	0.9	9.8
New Zealand	51	58	2.3	2.5	1.1	0.0	-1.6	4.3	0.8	-0.9	-0.9	1.6	1.6	0.5	14.5
Norway	75	91	1.9	-0.3	3.3	4.4	-4.1	6.9	-2.3	-3.0	4.7	2.1	6.9	-2.5	20.9
Poland	40	48	-2.1	-0.5	4.3	16.7	-0.4	0.5	-1.1	2.8	-2.1	0.2	-0.4	1.2	20.5
Portugal	50	56	1.9	1.8	-4.9	1.9	0.5	1.1	1.5	-1.4	-0.3	2.8	-0.6	-2.8	12.5
Romania	56	56	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0	0	0
Russian Federation	48	52	0.3	-2.6	1.3	-0.8	-4.9	2.1	6.0	1.2	-1.1	2.8	1.4	1.9	8.1
Slovakia	45	56	1.6	1.5	-5.4	11.5	-0.3	-0.2	13.2	-6.9	-4.9	2.4	5.4	0.3	25.2
Slovenia	45	52	1.6	3.5	1.6	-0.1	0.2	2.8	1.0	-0.3	1.2	-2.0	1.3	0.4	16.1
Spain	55	54	-0.9	-0.7	-1.4	0.1	-0.1	1.0	0.4	-0.6	0.4	-1.0	0.1	-0.1	-1.8
Sweden	52	54	0.9	0.1	0.3	0.2	-0.1	0.1	0.1	0.2	-0.1	0.2	0.3	0.1	4.4
Switzerland	NO	81	*	*	*	*	*	0	0	0	0	0	0	0	*
Turkey															
Ukraine	40	44	1.0	0.4	0.9	5.9	-8.9	-1.9	2.7	4.6	0.7	1.2	4.5	1.6	9.5
United Kingdom	42	43	0.0	0.3	0.3	0.1	0.1	-0.2	0.2	0.2	-0.4	0.2	0.2	0.6	2.0
United States	50	48	-2.3	-0.8	-0.4	-0.1	0.7	-0.8	-0.4	0.6	1.2	-1.7	0.4	0.1	-2.7

Note: Estonia, Liechtenstein, Luxembourg, Netherlands, Norway and Switzerland are using Option B to report livestock types and emissions within the category 4.A Enteric fermentation. For these Parties, CH₄ IEFs from mature non-dairy cattle are included in this table.

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 4.5

Manure management - CH₄ (2006)

IPCC default EF ^c	Key category	Share of national total (%)	Methods and EF used ^a		Cattle		Sheep	Swine
			Methods	EF	Dairy cattle ^b	Non-dairy cattle ^b		
					6 to 81	1 to 38		
Australia		0.4	CS, M, T2	CS, D	8.94	0.04	0.00	23.16
Austria	L, T	1.0	T1, T2	CS, D	20.36	7.40	0.19	5.99
Belarus		0.9	T1	D	6.00	4.00	0.19	4.00
Belgium	L	1.4			22.68	10.30	0.58	8.60
Bulgaria	T	0.7	T1, T2	CS, D	18.30	12.21	0.28	9.95
Canada		0.5	T1, T2	CS, D	29.60	3.03	0.30	5.04
Croatia		0.5	T1	D	6.00	4.00	0.10	4.00
Czech Republic	T	0.3	T1	D	14.00	6.00	0.19	3.00
Denmark	L, T	1.4	T2	CS	18.61	1.72	0.32	2.66
Estonia		0.4	T1	CS, D			0.19	2.28
European Community	L	1.1	CR, CS, D, T1, T2	CS, D, OTH	20.27	9.92	0.19	8.87
Finland		0.4	T2	CS	13.67	1E	0.19	3.57
France	L	2.5	CR, T1	CS, D	18.43	19.74	0.28	20.93
Germany		0.5	D, T1, T2	CS, D	18.92	7.99	0.19	3.01
Greece		0.4	T1	D	19.00	13.00	0.28	7.00
Hungary	L	0.5	D	CS, D	6.00	4.00	0.19	3.00
Iceland		0.5			14.00	6.00	0.19	3.00
Ireland	L, T	3.2	T1, T2	CS, D	20.66	11.09	0.15	12.59
Italy	L	0.5	T1, T2	CS, D	13.84	7.03	0.22	7.30
Japan		0.2	CS, T1	CS, D	63.24	1.63	0.28	1.40
Latvia		0.7	T1	D	6.00	4.00	0.19	4.00
Liechtenstein		0.6	T2	D	24.24	8.05	0.36	3.08
Lithuania	L	0.8	T1, T2	CS, D	5.32	2.00	0.19	4.51
Luxembourg		0.8	T1, T2	CS, D, OTH	48.83	10.29	0.19	19.52
Monaco		-	NA	NA	NO	NO	NO	NO
Netherlands	L, T	1.2	T2	CS	38.34	3.45	0.18	3.89
New Zealand	L	1.0	T1, T2	CS, D	3.40	0.71	0.11	20.00
Norway	L	0.6	T2	CR, CS	14.41	11.91	0.75	1.99
Poland	L, T	0.9	T1, T2	CS, D	9.36	5.97	0.16	6.54
Portugal	L, T	1.4	T2	CS	4.82	1.60	0.31	21.37
Romania	L	1.3	T1	D	19.00	13.00	0.16	7.00
Russian Federation		0.1	CS, T1, T2	CS, D	4.70	2.72	0.19	3.94
Slovakia		0.3	T1, T2	D	4.00	3.80	0.19	4.00
Slovenia	L, T	2.2	T1, T2	CS, D	47.00	20.92	0.19	15.27
Spain	L	2.2	CS, T1, T2	CS, D	15.15	1.18	0.23	15.71
Sweden	L, T	0.7	T1, T2	CS, D	18.65	6.26	0.19	3.42
Switzerland	L, T	0.9	T2	CS, D	24.01	8.05	0.35	3.08
Turkey								
Ukraine	T	0.2	T1, T2	CS, D, OTH	3.11	1.02	0.19	2.94
United Kingdom		0.4	T1, T2	CS, D	25.24	4.30	0.12	3.00
United States	L, T	0.6	M, T1, T2	CS, D, M	64.86	1.33	0.60	12.81

^a Information on methods and emission factors in this table is a reported by Parties in table Summary 3 of the CRF. It may not reflect the actual method or type of emission factor used for the various livestock types within the category 4.B Manure management - CH₄.

^b Information on implied emission factors reported by Estonia, Liechtenstein, Luxembourg, Netherlands, Norway and Switzerland refers to mature dairy cattle and mature non-dairy respectively, as these Parties are using Option B to report livestock types within the category 4.B manure management.

^c Source of default emission factors: IPCC Guidelines, volume 3, tables 4-5 and 4-6 (pages 4.12–4.13). Default emission factors are provided according to climate regions (cool, temperate, warm), as shown below.

Default IPCC emission factors according to climate regions:

	Dairy cattle			Non-dairy cattle			Swine		
	cool	temperate	warm	cool	temperate	warm	cool	temperate	warm
North America	36	54	76	1	2	3	10	14	18
Western Europe	14	44	81	6	20	38	3	10	19
Eastern Europe	6	19	33	4	13	23	4	7	11
Oceania	31	32	33	5	6	7	20	20	20
Asia	7	16	27	1	1	2	1	4	7
	Sheep								
	cool	temperate	warm						
Developed countries	0.19	0.28	0.37						

Table 4.6**Manure management - N₂O (2006)**

	Key category	Share of national total	Methods and EF used ^a		Animal waste management systems (AWMS)				N excretion rates				
					Anaerobic lagoons	Liquid systems	Solid storage and dry lot	Other	Dairy cattle	Non-dairy cattle	Sheep	Swine	Poultry
		(%)	Methods	EF	N ₂ O IEF (kg N ₂ O-N/kg N)				(kg N / head / year)				
IPCC default EF					0.001 ^b	0.001 ^b	0.02 ^b	0.005 ^c	60 to 100 ^d	40 to 70 ^d	16 to 20 ^d	12 to 20 ^d	0.6 ^d
Australia	T	0.3	CS, M, T1, T2	D	0.001	0.001	0.020	0.018	121.141	39.886	7.264	12.146	0.683
Austria	L, T	1.0	T1	CS	NO	0.001	0.020	0.005	95.630	45.963	13.100	14.283	0.550
Belarus		0.0	T1	D	NO	0.001	0.020	NO	70.000	50.000	16.000	20.000	0.600
Belgium	L	0.6			NO	0.001	0.019	0.005	113.049	60.144	7.432	11.695	0.487
Bulgaria		0.5	D	D	0.001	0.001	0.020	0.005	70.000	50.000	16.000	20.000	0.600
Canada	L	0.7	T1	D	NE	0.001	0.020	0.005	105.868	52.230	4.100	11.133	0.421
Croatia	L, T	0.8	T1	D	0.001	0.001	0.020	0.005	70.000	50.000	16.000	20.000	0.600
Czech Republic		0.2	T1	D	NO	0.001	0.020	0.005	100.000	70.000	20.000	20.000	1.000
Denmark	L, T	0.7	CS	D	NO	0.001	0.020	NO	133.528	38.630	16.950	8.552	0.622
Estonia	T	0.2	T1	D	NO	0.001	0.020	0.014			20.000	12.788	0.600
European Community	L	0.5	CR, CS, D, T1, T2	CS, D	0.001	0.001	0.020	0.011	107.374	49.387	7.723	11.274	0.575
Finland	L, T	0.6	D	D	NO	0.001	0.020	NE	119.125	46.714	9.102	18.563	0.777
France	L	1.1	CR, T1	CS, D	NA	0.001	0.020	NA	100.000	57.374	18.341	16.424	0.600
Germany		0.3	CS, T1	D	NO	0.001	0.015	NO	117.626	42.919	7.500	14.400	0.590
Greece		0.2	D	D	NA	0.001	0.020	0.005	70.000	50.000	12.000	16.000	0.600
Hungary	L, T	1.4	CS, D	CS, D	NO	0.001	0.020	0.005	100.000	70.000	20.000	20.000	0.600
Iceland		0.7			NO	0.020	0.001	NO	60.000	33.600	5.760	13.300	0.420
Ireland		0.6	T1	D	NO	0.001	0.020	NO	85.000	65.000	5.948	8.563	0.333
Italy	L	0.6	T2	CS, D	NO	0.001	0.020	0.020	116.000	48.683	16.200	11.723	0.544
Japan		0.4	CS, D	CS, D	NO	0.001	0.020	0.016	80.227	47.007	12.000	15.572	0.907
Latvia	L, T	1.4	T1, T2	CS, D	NA	0.001	0.020	0.005	71.000	50.000	6.000	10.000	0.600
Liechtenstein		0.6	CS	D	NO	0.001	0.019	NO	114.092	80.000	6.000	11.062	0.709
Lithuania	L, T	1.4	T1	D	NA	0.001	0.020	0.002	70.000	50.000	16.000	20.000	0.600
Luxembourg		0.2	T1	D	NO	0.001	0.020	0.001	102.000	68.000	17.000	11.529	0.600
Monaco		-	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO
Netherlands	L	0.4	T2	D	NO	0.001	0.020	NO	NA	NA	NA	NA	NA
New Zealand		0.1	T1	D	0.001	NO	0.020	0.005	116.591	95.312	15.120	16.000	0.600
Norway		0.2			NA	0.001	0.018	NA	82.000	35.000	10.360	6.408	0.218
Poland	L	1.5	T2	CS, D	NO	0.001	0.020	NA	70.000	50.000	16.000	20.000	0.600
Portugal	L, T	0.7	D	D	0.001	0.001	0.020	NO	87.600	47.835	8.027	7.939	0.749
Romania	L	1.1	T1	D	0.001	0.001	0.020	0.004	70.000	50.000	16.000	20.000	0.600
Russian Federation	L, T	0.9	T1	CS, D	NO	0.001	0.020	NO	91.984	55.930	16.000	22.977	0.797
Slovakia	L, T	0.8	T2	D	NO	0.001	0.020	NO	100.000	60.000	16.000	20.250	1.133
Slovenia	L, T	0.8	D	CS, D	0.001	0.001	0.020	0.003	110.693	42.619	20.000	11.763	0.600
Spain	L, T	0.7	CS, D	D	NO	0.001	0.020	NO	67.479	52.269	5.076	9.412	0.679
Sweden	L, T	0.8	T2	CS	NO	1.000	19.229	20.000	125.325	185.000	13.000	46.800	1.210
Switzerland	L	0.8	CS	D	NO	0.001	0.020	NO	106.590	IE	6.137	10.469	0.499
Turkey													
Ukraine		0.7	T2	D	0.001	0.001	0.020	0.005	73.580	40.150	16.000	12.642	0.281
United Kingdom		0.2	T1	D	NO	0.001	0.020	0.005	111.970	49.784	5.508	11.395	0.616
United States		0.2	M, T1, T2	D	NA	0.011	0.019	0.004	83.807	44.850	10.524	8.362	0.442

Note: Estonia, Liechtenstein, Luxembourg, Netherlands, Norway and Switzerland are using Option B to report livestock types and emissions within the category 4.B Manure management.

^a Information on methods and emission factors in this table is reported by Parties in table Summary 3 of the CRF. It may not reflect the actual method or type of emission factor used for all subcategories within the category N₂O from 4.B Manure management.

^b Source of default emission factors: IPCC good practice guidance, tables 4.12 (page 4.43).

^c Source of default emission factors: IPCC Guidelines, volume 3, table 4-22 (pages 4.104).

^d Source of default N excretion rates: IPCC Guidelines, volume 3, table 4-20 (pages 4.99). Default values are provided by regions as shown below.

Default IPCC N excretion rates:

	North America	Western Europe	Eastern Europe	Oceania	Asia
Dairy cattle	100		70	80	60
Non-dairy cattle	70		50	60	40
Sheep	16	20	16	20	12
Swine	20			16	
Poultry	0.6				

Table 4.7a**CH₄ emissions from manure management - trend information**

CH ₄ emissions (Gg)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	73	94	0.1	1.0	4.3	4.2	2.7	1.6	2.9	1.4	-0.9	-2.0	-0.2	-1.1	28.4
Austria	50	42	-1.4	-1.9	-0.1	1.0	-5.2	-2.7	0.5	-3.2	0.2	-3.1	0.3	-0.6	-17.5
Belarus	57	36	-5.3	-3.8	-1.0	-1.2	-5.4	-2.8	-2.7	-2.0	-1.9	1.7	2.2	0.9	-37.0
Belgium	104	92	-2.4	-0.1	0.1	0.6	0.4	-3.6	-2.3	-2.4	-3.9	-1.9	-1.2	-1.1	-11.5
Bulgaria	73	23	-12.1	-8.5	-11.6	6.1	2.2	-10.6	-28.7	16.2	8.7	-1.3	-5.4	1.5	-68.2
Canada	125	155	-0.1	1.1	0.3	1.8	0.4	2.8	3.6	3.0	-0.1	1.1	1.0	-1.3	24.3
Croatia	11	8	-1.1	-1.4	-1.9	-1.3	10.6	-7.1	0.6	1.6	4.7	8.2	-13.0	1.9	-30.1
Czech Republic	48	23	-4.0	0.5	-3.0	-4.9	-0.8	-5.5	-0.6	-4.0	-3.0	-4.7	-3.8	-1.3	-51.4
Denmark	36	50	5.2	1.6	1.5	4.2	-1.4	3.8	3.8	1.6	0.7	2.6	-1.3	1.7	38.8
Estonia	9	3	-12.0	-20.2	1.1	1.3	-26.6	0.8	6.3	-3.2	27.1	0.4	-0.2	-1.4	-61.3
European Community	2,087	2,145	-1.9	0.1	0.7	1.0	-0.2	0.2	0.7	-1.0	-1.1	0.1	-0.3	1.7	2.8
Finland	11	13	-4.3	1.0	5.4	-1.1	-1.3	1.4	-2.9	5.3	2.5	-0.1	2.0	1.7	22.5
France	658	659	-0.9	0.8	-0.4	0.3	0.1	1.1	1.1	-0.6	-1.4	0.1	0.1	-0.1	0.1
Germany	280	236	-11.6	0.7	-1.5	0.8	0.4	-1.9	1.2	-2.7	-3.6	-2.6	0.5	0	-15.8
Greece	24	23	-1.5	-0.1	0.2	0.5	0.6	0.6	-1.0	-0.3	0.3	-0.1	-1.0	1.4	-1.7
Hungary	42	19	-12.6	3.5	-5.5	4.8	1.1	-4.7	-3.1	2.6	0.0	-10.0	-7.0	-2.6	-55.1
Iceland	1	1	-0.8	0.7	0.2	1.3	-1.9	-2.5	-0.3	-4.1	-2.4	-1.9	2.5	3.9	-9.4
Ireland	111	106	0.9	3.5	2.4	1.4	-3.7	-5.0	0.0	0.0	-1.6	-0.7	-0.3	-0.8	-4.1
Italy	165	144	0.0	0.3	-0.4	1.1	1.0	-2.1	2.0	-2.4	-0.4	-2.8	-0.3	-3.9	-12.5
Japan	149	118	-0.1	-1.5	-1.7	-2.1	-2.1	-1.5	-0.8	-0.7	-1.1	-1.5	-1.5	-1.1	-20.8
Latvia	13	4	-6.3	-10.4	-6.2	-6.3	-8.7	-2.7	7.1	3.0	-2.5	-1.5	0.6	-1.3	-70.6
Liechtenstein	0	0	0.2	0.3	-2.3	-0.6	-1.1	-5.1	8.1	-1.7	0.0	-4.9	4.3	4.1	-9.2
Lithuania	20	9	-8.1	-6.5	2.6	-4.9	-13.5	-8.9	11.1	4.1	2.2	0.5	2.7	1.7	-54.5
Luxembourg	4	5	8.5	0.5	2.6	3.4	9.5	-4.2	-1.8	-2.5	-2.9	-2.5	3.7	-1.7	22.1
Monaco	NA, NO	NA, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	141	117	0.3	-1.5	-0.3	-7.3	-1.8	-1.7	-2.3	-3.2	-4.2	1.8	-0.2	0.0	-17.1
New Zealand	28	35	1.1	1.7	1.8	-0.9	-0.4	4.4	1.6	1.0	4.1	1.3	-1.2	1.2	28.4
Norway	14	15	2.7	1.8	0.2	1.3	-0.8	-0.9	-2.5	-2.0	1.1	0.7	1.4	-2.7	2.8
Poland	163	178	9.1	-6.3	-0.1	4.1	2.9	-6.5	-0.6	14.2	-2.7	-7.4	4.8	4.4	9.3
Portugal	56	56	4.2	-3.6	-0.5	0.1	0.6	0.0	0.3	0.0	-1.3	0.2	0.2	0.8	-0.6
Romania	203	100	-5.5	1.4	0.6	-9.5	-10.7	-10.0	-4.0	6.6	1.1	8.7	2.0	2.4	-50.8
Russian Federation	353	145	-2.6	-10.3	-10.2	-7.6	-7.5	-0.4	-0.7	-0.3	0.9	-4.7	-9.6	-2.7	-58.9
Slovakia	18	7	-7.0	-4.9	-8.2	-11.7	-3.3	-3.5	1.2	1.1	-4.9	-15.3	-2.3	-2.2	-57.3
Slovenia	24	22	-7.8	-5.0	1.4	3.9	-9.0	10.4	-1.6	6.8	-5.0	-6.8	1.2	2.6	-11.4
Spain	297	464	-0.4	-1.4	5.9	6.0	0.6	6.0	1.5	0.1	1.7	2.9	-0.8	10.1	56.3
Sweden	17	22	-2.2	1.3	-2.4	-1.1	-0.6	-4.1	12.3	-0.6	3.9	0.2	4.9	-1.9	32.7
Switzerland	27	24	-0.5	-0.7	-1.0	0.9	-3.4	0.0	1.3	-0.6	-1.8	-0.8	1.3	0.2	-10.0
Turkey															
Ukraine	844	44	-14.8	-42.7	-53.8	-36.7	2.4	-22.4	5.9	8.8	-17.9	-7.6	-7.2	9.3	-94.8
United Kingdom	139	121	-1.3	0.6	-0.3	0.1	-1.5	-3.7	-3.7	-1.0	-0.5	-0.4	-2.5	1.1	-13.2
United States	1,474	1,972	4.4	-4.0	5.0	9.2	-1.1	1.2	3.7	2.6	-1.3	-1.6	4.2	-0.8	33.8

Note: Estonia, Liechtenstein, Luxembourg, Netherlands, Norway and Switzerland are using Option B to report livestock types and emissions within the category 4.B Manure management.

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 4.7b**N₂O emissions from manure management - trend information**

N ₂ O emissions (Gg)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	1.7	5.1	10.8	0.3	11.2	8.5	14.2	5.9	0.3	-0.1	1.3	7.0	7.8	2.7	202.6
Austria	3.2	2.8	-1.2	-1.8	-1.2	-0.2	-1.3	-1.3	-0.9	-2.1	-0.8	-0.4	-1.1	-0.2	-13.0
Belarus	0.0	0.0	-5.1	-3.8	-1.1	-1.8	-6.3	-2.4	-3.1	-2.2	-2.1	1.2	1.5	6.4	-36.9
Belgium	3.1	2.7	-0.3	-0.2	-0.3	-0.7	0.5	-2.3	-1.1	-3.7	-6.8	1.8	-1.9	-2.2	-13.1
Bulgaria	3.4	1.2	-10.6	-6.9	-8.5	7.0	3.3	-8.0	-25.3	14.9	7.1	-1.1	-5.4	-0.9	-65.3
Canada	11.1	15.4	1.6	1.4	1.0	2.0	1.3	3.4	3.3	1.0	0.5	2.2	1.6	-2.0	38.5
Croatia	1.2	0.8	-5.0	-5.9	-1.9	-2.0	2.0	-3.1	1.0	-2.0	4.3	3.9	-2.3	1.5	-38.8
Czech Republic	2.2	1.1	-3.7	0.8	-2.5	-4.2	-0.5	-5.5	-0.8	-4.0	-2.8	-5.0	-3.9	-1.2	-49.0
Denmark	2.2	1.7	-0.4	0.0	-0.4	1.3	-2.9	-4.9	0.2	-2.7	-4.5	1.3	-1.7	-7.0	-24.2
Estonia	1.1	0.1	-9.3	-13.4	-0.1	-0.1	-20.9	-0.6	3.9	-4.6	-60.2	3.2	-2.7	-3.3	-86.6
European Community	81.4	72.5	-2.4	0.6	0.3	0.5	-0.1	-1.9	0.6	-2.0	-1.6	-0.3	-0.6	-1.1	-10.9
Finland	2.1	1.7	-8.2	1.9	3.9	-2.1	-3.9	-1.3	-4.4	-0.9	-1.6	-2.2	0.5	0.4	-22.9
France	22.2	19.5	-1.7	0.2	-1.0	-0.6	-0.8	0.6	0.7	-1.8	-2.6	-2.5	-0.9	-0.6	-12.2
Germany	13.2	9.8	-11.4	0.7	-1.2	-0.4	1.8	-1.6	1.8	-2.8	6.9	-1.0	-0.7	0	-25.8
Greece	1.0	0.9	-2.8	-0.2	0.0	0.7	1.2	1.2	-0.7	-0.9	-1.1	-0.4	9.0	-5.3	-3.7
Hungary	7.8	3.5	-8.4	-1.2	-1.9	1.3	-0.9	0.7	-3.1	-1.1	0.7	-4.7	-3.5	-3.5	-54.7
Iceland	0.1	0.1	-4.0	3.3	1.0	0.3	-1.8	-6.5	-0.5	-2.8	-2.2	-0.5	1.0	2.5	-19.8
Ireland	1.3	1.3	3.1	1.2	2.1	2.9	1.1	-5.2	-3.5	-2.5	-0.8	-0.6	-0.1	-0.3	0.4
Italy	12.6	11.7	-0.2	1.1	0.9	2.1	1.5	-3.3	3.6	-3.8	-0.8	-2.5	0.1	-2.8	-7.7
Japan	17.9	15.3	-0.8	-1.3	-1.1	-1.0	-1.1	-0.9	-0.8	-0.6	-0.6	-0.6	-0.1	0.3	-14.6
Latvia	1.8	0.5	-4.0	-4.8	-6.3	-8.1	-11.2	-2.4	5.8	1.5	-3.1	-3.0	1.8	-1.0	-71.4
Liechtenstein	0.0	0.0	-0.1	1.8	-0.4	0.6	-1.2	-5.2	5.3	-1.7	2.2	2.5	2.4	5.2	5.0
Lithuania	2.8	1.1	-5.8	-2.6	-2.3	-8.3	-5.4	-15.2	3.1	3.8	3.8	-1.7	1.7	3.9	-61.9
Luxembourg	0.1	0.1	-14.1	1.3	-3.9	-5.3	-15.8	-2.4	-0.1	-4.8	1.6	-0.5	-2.8	-4.9	-48.7
Monaco	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	2.6	2.7	6.0	-1.7	-1.2	7.3	2.3	-5.4	-2.3	0.5	-18.2	10.6	6.6	-1.6	4.9
New Zealand	0.1	0.2	0.5	0.4	4.2	3.6	0.9	5.6	4.0	3.8	3.5	3.1	-0.6	3.0	70.9
Norway	0.4	0.4	6.5	0.7	-2.9	-0.2	-0.2	2.0	-0.6	-2.7	-10.9	-2.3	0.8	-2.9	-10.4
Poland	30.1	19.7	-3.2	-5.5	1.8	0.4	-5.0	-6.5	-1.5	-1.2	-3.8	-6.0	3.0	4.0	-34.7
Portugal	1.9	1.9	1.3	0.7	0.3	2.1	1.2	1.0	-2.0	-2.2	-3.7	-0.6	0.0	0.1	2.6
Romania	10.2	5.7	-1.8	1.1	-0.3	-8.6	-9.1	-6.6	-2.9	5.0	1.0	6.2	2.5	1.7	-44.0
Russian Federation	154.9	60.4	-2.7	-12.3	-10.7	-9.4	-10.3	-0.7	1.5	0.8	-1.1	-3.1	-5.3	-2.2	-61.0
Slovakia	3.5	1.3	-9.3	-7.5	-8.4	-11.7	-4.7	-2.2	-3.1	-1.2	-3.0	-6.7	-3.5	-2.9	-62.1
Slovenia	0.9	0.5	-5.4	-2.6	-1.1	-2.2	-1.3	-0.9	-1.3	2.8	-6.8	-6.0	0.5	-0.4	-39.3
Spain	8.0	9.7	1.4	2.5	4.3	0.7	-0.3	-1.7	3.8	0.4	-0.8	4.8	-1.2	-0.9	21.7
Sweden	2.4	1.6	-2.8	-0.2	2.3	0.1	-6.7	-2.1	-6.1	-0.1	-5.3	1.2	-5.6	-0.5	-31.3
Switzerland	1.4	1.3	-0.3	0.8	-2.1	-0.8	-2.1	0.2	-2.1	0.3	-0.7	-0.2	1.3	0.2	-10.0
Turkey															
Ukraine	24.4	9.9	-2.7	-10.3	-12.4	-3.2	-6.4	-13.1	5.6	0.2	-12.7	-9.2	0.2	-0.1	-59.4
United Kingdom	5.5	4.5	-0.5	0.5	0.2	0.5	-1.4	-6.0	-4.6	-3.2	-1.3	-0.2	-3.1	1.3	-18.6
United States	38.9	46.1	4.6	-2.0	3.3	1.8	0.6	3.5	2.1	-0.5	-2.6	1.4	1.1	2.5	18.5

Note: Estonia, Liechtenstein, Luxembourg, Netherlands, Norway and Switzerland are using Option B to report livestock types and emissions within the category 4.B Manure management.

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 4.8

Agricultural soils - N₂O (2006)

IPCC default EF	Methods and EF used ^d		Key category	Share of national total	Direct soil emissions					Pasture, range and paddock manure			Key category	Share of national total	N ₂ O IEF	Indirect soil emissions			
					Synthetic fertilizers		Animal manure	N-fixing crops	Crop residue	Cultivation of histosols	Key category	Share of national total				N ₂ O IEF	Atmospheric deposition		Nitrogen leaching and run-off
	Activity data	N ₂ O IEF			Activity data	N ₂ O IEF											Activity data	N ₂ O IEF	
	Methods						EF	Use of synthetic fertilizers	(kg N ₂ O-N / kg N)	(kg N ₂ O-N / kg N)									(kg N ₂ O-N / ha)
			(%)	(kg N / year)	0.0125 (0.0025-0.0225) ^b		0.0125 ^b		8, 16 (2-15) ^c				0.02 (0.005-0.03) ^d		(%)	(kg N / year)	(kg N ₂ O-N / kg N)	(kg N / year)	(kg N ₂ O-N / kg N)
Australia	CS, T1	CS, D	L, T	0.9	832,515,585	0.0065	0.0100	0.0125	0.0125	8.00	L, T	0.8	0.004	L, T	1.2	753,270,393	0.010	443,288,428	0.012
Austria	T1	D	L, T	1.8	98,127,047	0.0125	0.0125	0.0125	0.0125	NO		0.2	0.020	L, T	1.2	36,026,136	0.010	75,243,626	0.025
Belarus	T1a, T1b	D	L, T	6.8	479,300,000	0.0125	0.0125	0.0125	0.0125	5.00		0.0	0.020	L	2.5	47,996,759	0.010	143,887,828	0.025
Belgium			L	1.6	150,635,727	0.0125	0.0125	0.0125	0.0125	8.00		0.6	0.020	L	0.7	46,763,196	0.010	57,507,793	0.025
Bulgaria	D	D	L, T	1.5	137,489,400	0.0100	0.0100	0.0003	0.0001	8.00	L, T	0.7	0.020	L, T	1.1	39,293,049	0.010	51,514,329	0.025
Canada	CS, T1, T2	CS, D	L, T	2.1	1,539,945,000	0.0094	0.0111	NO	0.0096	8.00	T	0.5	0.020	L	1.5	575,000,441	0.010	654,039,029	0.025
Croatia	T1	D	L	4.1	100,774,239	0.0125	0.0125	0.0125	0.0125	5.00	L	0.7	0.020	L, T	2.6	26,313,118	0.010	56,265,383	0.025
Czech Republic	T1	D	L, T	1.7	193,617,900	0.0125	0.0125	0.0125	0.0125	NO	T	0.2	0.020	L, T	1.2	59,245,020	0.010	121,137,180	0.025
Denmark	CS	CS, D	L, T	4.0	187,292,570	0.0125	0.0125	0.0125	0.0125	2.87		0.4	0.020	L, T	3.1	71,555,608	0.010	153,493,027	0.025
Estonia	T1	D	L	2.3	22,610,000	0.0112	0.0125	0.0125	0.0125	8.00		0.2	0.020	L, T	1.0	6,447,661	0.010	13,079,079	0.025
European Community	CR, CS, D, T1, T1a, T1b, T2, T3	CR, CS, D	L, T	2.4	8,135,005,076	0.0121	0.0129	0.0125	0.0120	7.47	L	0.6	0.019	L, T	1.6	2,505,588,057	0.010	5,370,804,238	0.021
Finland	D	CS, D	L, T	3.1	147,272,034	0.0125	0.0125	0.0125	0.0125	7.85		0.2	0.020	L, T	0.7	38,740,839	0.010	33,635,649	0.025
France	CR, T1	CS, D	L, T	4.0	1,985,470,200	0.0125	0.0125	0.0125	0.0125	NO	L, T	1.3	0.020	L, T	3.2	583,989,366	0.010	1,214,358,010	0.025
Germany	CR, D, T1, T2	CR, D	L, T	2.4	1,778,438,000	0.0119	0.0127	0.0125	0.0100	8.02		0.1	0.020	L	1.2	494,539,300	0.010	306,000,000	0.067
Greece	D, T1a, T1b	D	L, T	1.3	208,870,000	0.0125	0.0125	0.0125	0.0125	8.00	L, T	2.5	0.020	L, T	2.1	102,922,264	0.010	190,083,395	0.025
Hungary	D	D	L, T	4.1	252,000,000	0.0125	0.0125	0.0125	0.0125	NO		0.2	0.020	L, T	2.6	67,149,380	0.010	142,724,070	0.025
Iceland			L, T	2.1	10,313,595	0.0125	0.0125	NO	0.0125	NE	L	1.0	20.000	L, T	2.2	3,121,692	0.010	6,401,470	0.025
Ireland	T1a, T1b	CS, D	L, T	3.7	336,525,481	0.0125	0.0125	0.0125	0.0125	NO	L, T	4.0	0.020	L, T	1.8	88,310,118	0.010	70,550,185	0.025
Italy	D	CS, D	L, T	1.6	712,691,428	0.0125	0.0125	0.0125	0.0125	8.00		0.3	0.021	L, T	1.3	321,191,370	0.010	484,729,174	0.025
Japan	CS, T1b	CS, D		0.3	471,190,000	0.0066	0.0063	IE	0.0125	8.00		-	IE		0.2	263,013,292	0.010	281,588,229	0.012
Latvia	T1, T1a	CS, D	L, T	6.7	38,430,000	0.0125	0.0125	0.0125	0.0125	8.00	L, T	0.9	0.020	L, T	2.7	10,371,760	0.010	21,962,640	0.025
Liechtenstein	CS, T1b	D	L, T	2.1	162,331	0.0125	0.0125	0.0125	0.0125	8.00		0.2	0.020		0.9	176,803	0.010	133,622	0.025
Lithuania	T1, T1a	D	L, T	6.2	115,000,000	0.0112	0.0100	0.0125	0.0125	8.00		0.7	0.020	L	3.7	27,613,368	0.010	58,670,052	0.025
Luxembourg	T1, T1a, T1b	D	L	1.2	12630600	0.0125	0.0125	0.0125	0.0125	NO		0.4	0.020	L	0.9	3,915,273	0.010	7,978,010	0.025
Monaco	NA	NA		-	NO	NO	NO	NO	NO	NO		-	NO		-	NO	NO	NO	NO
Netherlands	T1, T1b, T2, T3	CS, D	L, T	2.3	276,884,730	0.0102	0.0200	0.0100	0.0100	4.71	T	0.3	0.017	L, T	1.5	96,900,000	0.010	219,530,000	0.025
New Zealand	D, T1a	CS, D	L, T	2.2	296,730,000	0.0100	0.0100	0.0100	0.0100	8.00	L, T	9.8	0.010	L	4.3	355,452,956	0.010	1,942,114,781	0.002
Norway	T1a	CS, D	L, T	2.5	103,089,413	0.0125	0.0125	0.0125	0.0125	8.00		0.4	0.020	L	0.8	15,585,768	0.010	26,985,377	0.025
Poland	CS, T1, T1a	CS, D	L	2.6	896,400,000	0.0089	0.0100	0.0100	0.0100	8.00	T	0.1	0.020	L	1.1	107,152,860	0.010	310,129,290	0.025
Portugal	T1a	D	L, T	1.5	120,224,456	0.0125	0.0125	0.0125	0.0125	NO	L	0.9	0.020	L, T	1.5	42,852,711	0.010	85,007,525	0.025
Romania	T1	D	L, T	3.5	226,800,000	0.0125	0.0125	0.0125	0.0125	NE		1.0	0.020	L, T	2.2	130,927,327	0.010	234,190,991	0.025
Russian Federation	CS, T1, T1a, T1b	CS, D	L, T	2.3	823,194,000	0.0142	0.0125	IE	0.0125	8.00		0.2	0.020	T	0.7	590,063,369	0.010	1,022,294,053	0.025
Slovakia	T2	CS, D	L, T	2.5	70,813,008	0.0125	0.0125	0.0125	0.0125	NO		0.2	0.020	L, T	0.8	22,453,050	0.010	21,224,813	0.025
Slovenia	D, T1, T1a, T1b	CS, D	L, T	1.9	27,343,800	0.0125	0.0125	0.0125	0.0125	8.00		0.3	0.020	L	1.5	10,909,451	0.010	20,921,477	0.025
Spain	CS, T1a, T1b	D	L, T	2.3	940,953,000	0.0117	0.0102	0.0125	0.0125	NO		0.4	0.010	L, T	1.8	217,246,585	0.010	1,862,259,809	0.007
Sweden	CS, T1, T1a, T1b, T2	CS, D	L	4.4	160,300,000	0.0079	0.0250	0.0125	0.0125	8.00	L, T	0.5	0.016	L, T	1.4	36,093,000	0.010	61,190,000	0.025
Switzerland	CS, T1b	D	L, T	2.3	48,316,000	0.0125	0.0125	0.0125	0.0125	8.00		0.3	0.020	L, T	1.3	48,273,714	0.010	36,759,583	0.025
Turkey																			
Ukraine	CS, T1, T1a, T1b, T2	D	L	2.2	420,138,000	0.0125	0.0125	0.0125	0.0125	8.00		0.5	0.020	L, T	0.9	101,105,801	0.010	277,882,840	0.025
United Kingdom	T1, T1a, T2	CS, D	L	1.7	1,018,689,802	0.0125	0.0125	0.0125	0.0125	8.00	L	0.7	0.020	L	1.3	324,542,291	0.010	549,238,035	0.025
United States	CS, D, M, T1, T3	CS, D, M	L, T	1.3	10,241,368,480	0.0112	0.0107	IE	0.0084	8.92		0.3	0.010	L, T	0.7	3,291,752,502	0.010	9,327,678,746	0.008

^a Information on methods and emission factors is included in this table as reported by Parties in table Summary 3 of the CRF. It may therefore not reflect the actual method or type of emission factor used for all subcategories within the category 4.D Agricultural soils - N₂O.

^b Source of default emission factors: IPCC good practice guidance, table 4-17, page 4.60 (see also IPCC Guidelines, volume 3; table 4-18, page 4.89). IEFs for N-fixing crops and crop residues are shown in the unit kg N₂O-N/kg N. The unit of the IPCC default emission factor is also kg N₂O-N/kg N.

^c For cultivation of histosols the two default values refer to temperate and tropical, respectively. It should be noted that default emission factors for histosols have been updated from 5 to 8 and from 10 to 16 for temperate and tropical, respectively (table 4.17, page 4.60 of IPCC good practice guidance). The values in parenthesis indicate the range as presented in the IPCC Guidelines, volume 3; table 4-18, page 4.89.

^d Source of default emission factor: IPCC Guidelines, volume 3, table 4-22, page 4.104 (Pasture range and paddock). See also IPCC good practice guidance, table 4.12, page 4.43.

^e Source of default emission factor: IPCC Guidelines, volume 3, table 4-23, page 4.105 (default emission factors for indirect emissions). See also IPCC good practice guidance, table 4.18, page 4.73.

Table 4.9**N₂O emissions from agricultural soils - trend information**

N ₂ O emissions (Gg)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	44	49	0.7	2.1	4.0	2.2	4.4	4.9	3.0	-2.9	-2.2	0.0	-1.1	-5.3	12.7
Austria	11	9	7.9	-10.5	1.5	0.7	-2.0	-4.3	0.0	-0.3	-4.8	-3.6	0.4	1.8	-12.4
Belarus	30	24	-3.3	19.0	11.5	1.9	-6.8	3.7	-9.8	-5.1	11.8	8.0	11.7	14.4	-20.1
Belgium	15	13	-1.5	-1.8	0.1	0.6	0.5	-4.4	-1.6	-1.5	-4.6	-0.4	-1.5	-0.6	-14.4
Bulgaria	25	8	-28.1	-2.6	1.7	-13.8	13.1	-3.7	-8.6	1.9	-5.5	10.7	-5.2	-3.6	-69.3
Canada	82	96	-2.9	4.4	-0.5	1.5	2.0	0.0	-5.4	-3.5	8.2	2.7	-2.0	0.6	16.5
Croatia	8	7	0.0	1.0	14.7	-11.6	7.6	1.3	8.6	-2.7	-4.5	6.2	1.4	-3.0	-11.5
Czech Republic	29	14	-15.8	-7.1	1.3	-3.6	-0.8	-1.0	3.9	-2.7	-10.0	8.9	-5.1	-0.9	-49.7
Denmark	27	18	-1.8	-4.7	-1.2	-0.6	-6.1	-3.6	-2.4	-3.7	-3.3	1.7	-0.2	-4.7	-34.8
Estonia	5	2	-5.0	-10.2	7.2	6.4	-18.4	11.7	-9.1	-8.7	13.6	1.2	-3.6	3.3	-59.2
European Community	730	623	-2.6	1.4	0.7	-0.1	-0.3	-0.4	-3.9	-1.1	-1.3	-0.2	-2.2	-1.4	-14.6
Finland	14	10	-7.0	-3.3	-2.0	-2.5	-2.4	1.4	-1.7	-1.3	-1.5	-2.6	-0.5	-0.8	-25.4
France	181	153	-3.7	1.4	2.9	-0.1	-1.3	0.9	-4.8	0.9	-4.3	1.0	-1.1	-3.0	-15.4
Germany	143	122	-8.2	0.0	-0.8	1.0	2.9	1.8	-2.4	-2.6	-0.5	0.9	-0.9	0	-14.6
Greece	31	25	-1.7	3.1	-3.3	-1.7	0.1	-0.3	-2.5	-0.8	-0.8	-0.8	-2.1	-0.9	-18.9
Hungary	35	18	-27.5	4.0	-1.1	9.0	2.9	-5.3	6.1	2.8	-4.2	6.0	-8.3	1.0	-49.4
Iceland	1	1	-2.5	5.0	-2.0	0.4	3.6	-1.7	-1.2	-7.0	-5.2	-3.0	-0.1	13.5	-7.4
Ireland	23	21	0.0	0.3	-2.3	6.7	0.0	-5.9	-4.9	-1.3	2.8	-2.5	-1.7	-2.4	-4.9
Italy	63	58	3.1	-1.7	5.2	-3.4	1.0	-1.4	-1.9	-1.1	-0.9	0.7	-3.2	-0.8	-8.0
Japan	28	23	-1.9	-2.8	-1.7	-1.1	-0.5	-0.5	-0.7	-0.2	-0.4	-0.5	-0.9	-0.3	-16.9
Latvia	10	4	-8.0	4.1	2.1	-3.9	-8.3	1.8	11.1	-1.1	6.7	-1.8	10.1	2.8	-60.8
Liechtenstein	0.03	0.03	0.8	-2.5	-0.2	-2.4	-0.4	-2.2	2.6	-0.9	0.7	0.4	1.0	2.3	-5.7
Lithuania	16	8	-10.5	19.1	0.9	-2.3	0.2	-2.8	3.0	6.5	3.7	0.0	-10.0	7.7	-51.1
Luxembourg	1	1	1.5	1.7	0.4	-0.4	-1.1	1.5	-8.8	0.3	-11.4	16.2	-9.7	0.1	-12.5
Monaco	NA, NO	NA, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	35	28	2.1	-1.6	-1.0	-2.7	-3.9	-8.2	-4.2	-5.9	-1.9	-1.0	-1.0	-0.6	-20.7
New Zealand	32	41	0.3	1.0	1.6	-1.0	2.0	4.1	3.2	2.3	2.5	0.5	1.0	-0.5	26.8
Norway	7	6	0.3	0.9	0.3	0.0	-2.7	0.7	-3.6	-0.9	1.7	0.3	0.3	-2.5	-4.8
Poland	72	49	-22.4	-1.7	2.0	-0.3	-2.9	-2.4	0.8	-3.5	-2.6	1.8	0.5	6.5	-31.8
Portugal	11	10	0.4	6.8	-0.6	-3.3	0.4	6.1	-4.0	1.0	-15.2	5.3	-7.6	9.8	-5.9
Romania	70	34	-22.3	-5.7	1.7	-9.0	-5.6	-11.1	9.0	-2.4	2.3	10.3	-0.3	-4.1	-51.5
Russian Federation	506	230	-6.3	-6.1	-3.7	-12.2	-4.7	4.8	0.1	0.3	-3.7	-1.2	-2.5	-0.7	-54.6
Slovakia	12	5	-19.7	-0.7	1.2	-7.5	-8.8	3.0	1.7	3.2	-3.7	-2.9	-0.1	-1.6	-53.6
Slovenia	3	2	-7.0	-1.8	3.6	2.5	0.0	2.2	-1.0	2.2	-3.2	-5.7	-0.1	1.8	-4.0
Spain	62	63	-1.4	17.0	-5.1	6.9	3.2	5.0	-5.7	-4.9	9.1	-5.2	-9.0	2.8	1.7
Sweden	17	15	-2.8	-0.3	1.2	-1.4	-4.6	-0.1	0.8	-0.9	-1.5	0.0	-0.9	-0.8	-9.9
Switzerland	8	7	0.0	1.6	-4.4	-0.5	-0.6	0.2	-0.9	-0.2	-2.9	0.1	-0.2	-0.6	-14.2
Turkey															
Ukraine	131	51	-8.0	-20.0	-2.5	-6.3	-9.4	-11.0	12.5	-1.4	-13.5	11.5	-0.6	5.9	-60.9
United Kingdom	98	77	-0.5	0.5	3.3	-3.2	-2.2	-3.8	-6.1	2.2	-2.4	-0.4	-1.4	-5.0	-21.2
United States	869	855	3.3	14.0	-9.8	3.4	-11.1	4.7	5.7	-5.4	-5.6	-0.2	7.4	-0.1	-1.6

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 4.10**Agricultural soils: parameters (fractions) used to estimate N₂O emissions in the agricultural soils category (2006)**

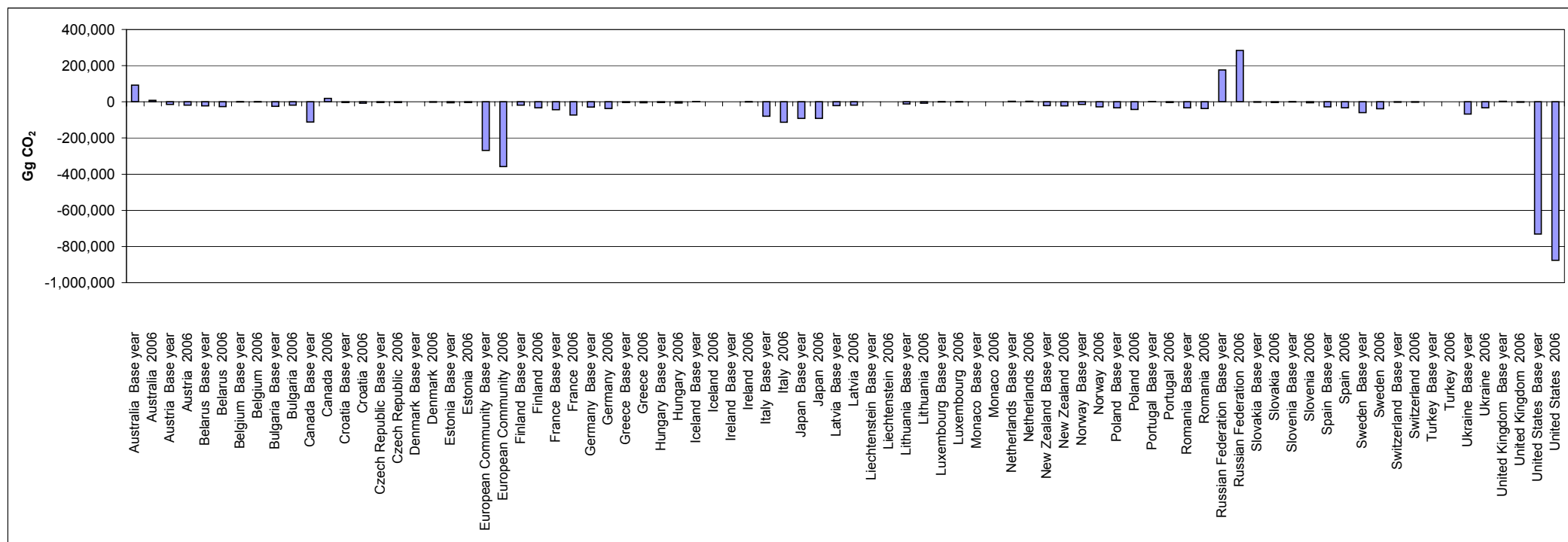
	Frac _{BURN}	Frac _{FUEL}	Frac _{GRAZ}	Frac _{NCRBF}	Frac _{NCRO}	Frac _R	Frac _{GASF}	Frac _{GASM}	Frac _{LEACH}
	(kg N / kg crop-N)	(kg N / kg N excreted)		(kg N / kg of dry biomass)	(kg N / kg of dry biomass)	(kg N / kg crop-N)	(NH ₃ -N + NO _x -N / kg of synth. fert. N applied)	(NH ₃ -N + NO _x -N / kg N excreted)	(kg N / kg of fertilizer or manure N)
IPCC default EF	0.1 ^a	no default ^b	no default ^b	0.03 ^a	0.015 ^a	0.45 ^a	0.1 ^a	0.2 ^a	0.3 (0.1-0.8) ^a
Australia	NA	NO	NA	NA	NA	NA	0.10	0.21	0.30
Austria	0.00	0	0.14	0.03	0.009	0.34	0.03	0.21	0.30
Belarus	0.01	NO	0.02	0.03	0.020	0.45	0.10	0.20	0.30
Belgium	0	0	0.22	0.03	0.015	0.45	0.04	0.20	0.07
Bulgaria	0.10	0	0.46	0.03	0.020	0.45	0.10	0.20	0.20
Canada	0	0	0.36	0.01	0.006	0.46	0.10	0.30	0.18
Croatia	0.10	0	0.24	0.03	0.015	0.45	0.10	0.20	0.30
Czech Republic	NO	NO	0	0	0	0	0	0	0
Denmark	NO	NO	0.12	NE	NE	0.23	0.02	0.20	0.33
Estonia	0.10	0	0.20	0.03	0.020	0.45	0.10	0.20	0.30
European Community	NA	NA	0.36	0.03	0.012	0.43	0.06	0.24	0.26
Finland	NA	NA	0.20	0.04	0.010	0.45	0.01	0.33	0.15
France	NA	NO	0.42	0.03	NA	NA	0.10	0.20	0.30
Germany	NO	NO	0.11	NE	NE	NE	0.04	0.30	0.30
Greece	0.10	0	0.89	0.01	0.005	0.55	0.10	0.20	0.30
Hungary	0	0	0	0	0	0	0	0	0
Iceland	NO	NO	0.45	NO	0.008	0.36	0.10	0.20	0.25
Ireland	NO	NO	0.66	NO	NO	NO	0.02	0.19	0.10
Italy	0.10	0	0.19	0.03	0.015	0.45	0.09	0.29	0.30
Japan	0.10	NA	NA	NA	NA	NA	0.10	0.20	0.30
Latvia	NO	NO	0.35	0.02	0.030	0.45	0.10	0.20	0.30
Liechtenstein	NE	NE	NE	NE	NE	NE	NE	NE	NE
Lithuania	0.55	NO	0.22	0.01	0.004	0.45	0.10	0.20	0.30
Luxembourg	NO	NO	0.44	0.03	0.015	0.45	0.1	0.2	0.3
Monaco	NO	NO	NO	NO	NO	NO	NO	NO	NO
Netherlands	NO	NO	NE	NE	NE	NE	NE	NE	NE
New Zealand	0.30	0	1E	0.03	0.02	0.45	0.10	0.20	0.07
Norway	0.08	NO	0.28	0.01	0.011	0.66	0.01	0.20	0.18
Poland	0	NO	0.05	NE	0.010	NE	0.10	0.20	0.30
Portugal	0.05	NO	0.46	0.02	0.013	0.72	0.06	0.21	0.32
Romania	0.10	0	0.34	0.03	0.015	0.50	0.10	0.20	0.30
Russian Federation	NO	NO	0.19	NE	NE	NE	0.10	0.20	0.30
Slovakia	NO	NO	0.13	0.08	0.145	NE	0.10	0.24	0.14
Slovenia	NO	NO	0.14	0.02	0.008	0.46	0.10	0.20	0.30
Spain	0.17	NO	0.37	0.02	0.006	NA	0.06	0.34	0.30
Sweden	0	0	0.32	0.02	0	0.20	0.01	0.32	0.23
Switzerland	NO	NO	0.12	0.03	0.009	0.65	0.07	0.33	0.20
Turkey									
Ukraine	NO	NO	NE	0.01	0.010	NE	0.10	0.32	0.30
United Kingdom	0	0	0.52	0.03	0.015	0.45	0.10	0.20	0.30
United States	NA	NA	NA	NA	NA	NA	NA	NA	NA

Abbreviations of fractions:

Frac _{FUEL}	Fraction of livestock N excretion in excrements burned for fuel	Frac _{BURN}	Fraction of crop residue burned
Frac _{GRAZ}	Fraction of livestock N excreted and deposited onto soil during grazing	Frac _{GASF}	Fraction of synthetic fertilizer N applied to soils that volatilises as NH ₃ and NO _x
Frac _{NCRBF}	Fraction of N in N-fixing crop	Frac _{GASM}	Fraction of livestock N excretion that volatilises as NH ₃ and NO _x
Frac _{NCRO}	Fraction of N in non-N-fixing crop	Frac _{LEACH}	Fraction of N input to soils that is lost through leaching and run-off
Frac _R	Fraction of total above-ground crop biomass that is removed from the field as a crop product		

^a Source of IPCC default fractions: IPCC Guidelines, volume 3, tables 4.19 and 4.24 (pages 4.94 and 4.106). (See also IPCC good practice guidance, table 4.19, page 4.74).^b Countries are recommended to obtain country-specific data.

Figure 5.1
Net CO₂ emissions/removals from the LULUCF sector^a



Note: The presentations of national totals without emissions and removals from the LULUCF sector exclude emissions and removals associated with carbon stock changes and other emission sources covered in the LULUCF sector.

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 5.1**Net CO₂ emissions/removals from LULUCF - trend information**

CO ₂ emissions/removals (Gg)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	92,456	8,120	-25.3	-16.2	-15.6	43.4	-21.5	26.1	-13.5	10.9	-88.6	193.1	148.3	-60.1	-91.2
Austria	-14,593	-18,422	40.5	-28.7	70.6	-8.5	22.4	-22.7	14.9	-18.0	7.9	0.9	-2.0	0.2	26.2
Belarus	-22,035	-26,011	9.6	-0.7	-5.7	3.1	4.4	1.4	-0.2	-5.2	-6.4	-1.7	5.1	4.3	18.0
Belgium	-1,431	-1,061	-16.7	-9.3	12.0	-8.8	-4.8	26.7	80.5	-16.5	-26.5	-31.7	-68.5	186.6	-25.9
Bulgaria	-25,488	-18,223	10.5	-33.6	37.4	-6.5	8.2	1.3	24.2	-9.2	-30.3	47.5	-17.6	-0.8	-28.5
Canada	-111,668	19,218	-19.0	-152.8	55.5	-178.3	-129.3	301.9	-6.7	-134.2	-112.9	-683.6	-172.3	-211.7	-117.2
Croatia	-4,185	-7,490	107.9	3.7	-13.6	-16.6	19.2	-35.2	55.5	-0.1	-23.5	25.9	-2.2	-3.1	79.0
Czech Republic	-4,053	-3,509	131.8	6.1	-12.1	0.2	0.0	4.4	3.8	-2.3	-21.5	2.4	7.5	-46.3	-13.4
Denmark	552	-1,802	-406.0	-27.1	-3.1	65.7	-37.0	-232.4	-147.2	157.2	15.7	-64.0	-23.2	184.6	-426.6
Estonia	-5,379	-3,482	-4.9	2.9	-44.5	-12.1	-189.1	10.9	-96.4	580.8	-429.1	154.7	3.2	-21.3	-35.3
European Community	-268,035	-357,568	22.6	19.2	-9.8	-2.5	-1.9	5.2	1.9	7.2	6.6	-4.8	-11.3	24.0	33.4
Finland	-18,487	-33,481	74.4	52.4	-21.8	-13.9	11.8	1.6	17.1	5.8	1.9	4.3	16.7	6.3	81.1
France	-43,673	-72,326	-13.2	9.6	3.0	1.3	2.7	-7.9	9.0	8.9	5.1	1.1	-0.8	6.4	65.6
Germany	-28,616	-36,821	3.0	1.4	1.3	0.8	1.4	3.8	2.3	0.6	1.5	1.1	0.7	0.9	28.7
Greece	-3,269	-5,217	10.6	-9.3	-0.9	-9.2	23.4	-29.0	69.0	2.5	1.3	-2.1	-3.5	-0.5	59.6
Hungary	-4,135	-5,939	1.4	-41.7	-3.2	23.4	-54.8	-154.4	-235.7	92.3	36.4	-14.4	37.1	-18.5	43.6
Iceland	1,150	792	-0.9	-1.6	-2.0	-2.5	-2.9	-2.5	-1.9	-2.2	-2.7	-4.0	-3.5	-3.5	-31.1
Ireland	172	-524	95.2	34.9	-17.6	-125.7	45.9	-213.3	-103.0	2,778.4	187.0	-26.0	91.3	15.1	-405.0
Italy	-79,289	-112,361	28.1	2.7	-6.8	-3.2	7.9	-6.2	12.0	3.9	11.8	-10.9	0.8	-1.0	41.7
Japan	-92,046	-91,544	-1.2	-0.1	-0.1	-0.5	-0.1	0.1	-0.2	11.0	0.0	-0.3	-6.2	-4.6	-0.5
Latvia	-20,708	-17,852	2.8	6.9	-11.9	-6.9	-5.3	-3.5	5.5	-5.5	-2.9	7.3	-1.6	23.2	-13.8
Liechtenstein	-8	-7	0.4	0.4	-42.0	-0.2	-0.2	-0.2	-0.2	-0.2	32.3	0.3	0.3	0.3	-21.3
Lithuania	-11,069	-8,045	-2.1	6.3	5.5	4.5	0.4	-6.2	-2.5	-6.3	5.0	3.5	5.2	-14.7	-27.3
Luxembourg	-295	-295	0	0	0	0	0	0	0	0	0	0	0	0	0
Monaco	0	0	1.4	0.3	0.3	0	0.5	0.0	0.2	0.3	-1.2	-0.8	0.5	-0.5	9.6
Netherlands	2,667	2,574	-3.4	1.1	7.3	-3.7	0.1	3.6	-1.1	-0.3	-0.4	-0.8	-0.7	-0.3	-3.5
New Zealand	-20,555	-22,814	-9.0	4.6	6.4	11.0	-0.6	2.1	0.6	2.9	-0.2	17.4	-2.2	-3.9	11.0
Norway	-13,705	-27,850	-5.7	-4.9	2.5	-0.8	28.4	43.8	11.0	19.1	2.5	-2.0	10.9	-19.2	103.2
Poland	-32,935	-42,882	24.7	6.1	6.4	-0.3	3.3	-0.6	-1.2	22.4	3.5	9.8	3.5	13.7	30.2
Portugal	1,366	-4,263	-83.9	33.7	3.7	11.4	-8.8	8.1	-6.0	7.6	-193.7	-167.1	-16.9	31.6	-412.1
Romania	-32,641	-37,497	4.1	-2.5	1.0	5.5	-3.2	-3.1	2.6	-6.3	-1.0	-2.0	4.8	0.0	14.9
Russian Federation	176,004	284,731	-89.4	-4.7	-65.6	-263.8	-324.1	-282.3	-19.4	-170.8	96.5	-43.1	-171.8	80.8	61.8
Slovakia	-2,407	-3,051	45.7	-10.2	-42.1	38.4	-15.7	46.9	117.4	0.3	-7.8	-12.0	-79.4	247.7	26.8
Slovenia	-1,589	-4,733	23.2	-2.2	-9.8	9.8	6.9	1.9	1.9	4.2	-3.2	6.1	-3.8	-12.8	197.8
Spain	-27,119	-33,564	0.0	3.2	2.8	2.8	1.7	2.3	1.5	0.7	0.7	0.5	0.5	0.7	23.8
Sweden	-58,953	-38,143	34.2	263.8	-57.7	-14.7	-114.5	-1,164.3	-82.0	226.5	79.2	-43.0	-227.5	-269.3	-35.3
Switzerland	-2,594	-2,237	-114.8	-23.7	13.2	-49.4	242.8	-114.7	-240.7	6.1	-219.3	-191.8	-36.9	160.3	-13.8
Turkey															
Ukraine	-66,952	-32,636	9.2	1.0	-20.2	7.8	12.9	-13.9	-16.6	-5.7	22.2	-27.0	-17.6	10.8	-51.3
United Kingdom	2,899	-1,995	-3.0	-21.9	-36.4	-102.4	1,969.2	47.2	31.7	98.1	1.7	66.0	7.9	-2.9	-168.8
United States	-730,593	-875,653	4.1	-0.7	3.5	-4.2	-5.0	-7.3	11.5	10.2	4.2	1.6	0.5	0.6	19.9

Note: The presentations of national totals without emissions and removals from the LULUCF sector exclude emissions and removals associated with carbon stock changes and other emission sources covered in the LULUCF sector.

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 5.2a

Methods and emission factors used (2006)

	Forest Land						Cropland						Grassland					
	CO ₂		CH ₄		N ₂ O		CO ₂		CH ₄		N ₂ O		CO ₂		CH ₄		N ₂ O	
	Method ^a	EF ^a	Method ^a	EF ^a	Method ^a	EF ^a	Method ^a	EF ^a	Method ^a	EF ^a	Method ^a	EF ^a	Method ^a	EF ^a	Method ^a	EF ^a	Method ^a	EF ^a
Australia	CS, T1, T2, T3	CS, M	CS	CS	CS	CS		M	CS	CS	CS, T2	CS		T3	M	CS	CS	CS
Austria	T1, T3	CS	T1	CS, D	T1	CS, D			NA	NA	T1	CS, D	T1, T3	CS, D	NA	NA	NA	NA
Belarus	T1	CS, D	T1	D	T1	D			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Belgium			NA	NA	NA	NA			NA	NA	NA	NA			NA	NA	NA	NA
Bulgaria			NA	NA	NA	NA			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Canada	CS, T3	CS	CS, T2	CS	CS, T2	CS	CS, T3	CS	T2	CS	T2	CS	NA	NA	NA	NA	NA	NA
Croatia	T1	D	T1	D	T1	D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Czech Republic	CS, T1, T2	CS, D	CS, T1	CS, D	CS, T1	CS, D	CS, T1, T2	CS, D	NA	NA	T1, T2	CS, D	CS, T1, T2	CS, D	NA	NA	NA	NA
Denmark			NA	NA	CS	CS	CS, T1	CS, D	NA	NA	NA	NA	CS	CS	NA	NA	NA	NA
Estonia	T1	CS, D	T1	D	T1	D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
European Community	CS, D, T1, T2, T3	CS, D	CS, D, T1, T2	CS, D	CR, CS, D, T1, T2	CS, D	CS, D, T1, T2, T3	CS, D	CS, T2	CS	CR, CS, D, T2	CS, D	CS, D, T1, T2, T3	CS, D	CS, D, T1, T2	CS, D	CR, D, T1, T2	CS, D
Finland	T2, T3	CS, D	T2	D	D, T1, T2	CS, D	D	D	NA	NA	NA	NA			NA	NA	NA	NA
France	CR, CS, T2	CS	CS, T2	CS	CR, T2	CS	CR, CS, T2	CS	CS, T2	CS	CR, T2	CS	CR, CS, T2	CS	CS, T2	CS	CR, T2	CS
Germany			NA	NA	NA	NA	CS, D, T2	CS, D	NA	NA	NA	NA			NA	NA	NA	NA
Greece	CS, D, T1, T2	CS, D	T1	D	T1	D	T1, T2	CS, D	NA	NA	NA	NA	NA	NA	T1	D	T1	D
Hungary			T1	CS, D	T1	CS, D	T1	D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iceland			NA	NA	T1	D	CS, T1	CS, D	NA	NA	NA	NA	CS, T1	CS, D	T1	D	T1	D
Ireland	D, T1, T3	CS, D	D, T1	D	D, T1	D	T1	D	NA	NA	NA	D, T1	D	T1	D	NA	NA	NA
Italy	T1, T2	CS, D	T1	D	T1	D			NA	NA	T1	D	NA	NA	NA	NA	NA	NA
Japan	T1, T2, T3	CS, D	T1	D	T1	D	T2	CS, D	T1	D	T1	D	T2	CS, D	T1	D	T1	D
Latvia	T2	CS	T2	CS	T2	CS	D, T1, T2	CS, D	NA	NA	NA	NA	T1, T2	CS, D	T1	D	T1	D
Liechtenstein	T2	CS	NA	NA	NA	NA			NA	NA	NA	NA	T2	CS	NA	NA	NA	NA
Lithuania	T1	CS, D	T1	D	T1	D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Luxembourg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Monaco	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Netherlands	CS, T2	CS	NA	NA	NA	NA			NA	NA	NA	NA			NA	NA	NA	NA
New Zealand	T2	CS	T1	D	T1	D			NA	NA	T1	D			T1	D	T1	D
Norway	T3	CS	T1	D	T1	D	T1, T2	CS, D	NA	NA	T1	D			NA	NA	NA	NA
Poland			D, T1	CS, D	D, T1	CS, D	D, T1	CS, D	NA	NA	NA	NA			D, T1	D	D, T1	CS, D
Portugal	CS, T2	CS, D	D	D	D	D	T2	CS, D	NA	NA	D	D	T2	CS, D	NA	NA	NA	NA
Romania	T1, T2	CS, D	T1	D	T1	D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Russian Federation	T2	CS	T1, T2	CS, D	T1, T2	CS, D	CS, T1	CS, D	NA	NA	NA	NA	CS, T1	CS, D	NA	NA	NA	NA
Slovakia	CS, T2	CS, PS	T2	PS	T2	PS	T1	D	NA	NA	NA	NA	CS	CS	NA	NA	NA	NA
Slovenia	D, T2	CS, D	NA	NA			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Spain			CS	D	CS	D	NA	NA	NA	NA	NA	NA			NA	NA	NA	NA
Sweden	T1, T3	CS	T1	CS	T1	CS, D	T1, T3	CS	NA	NA	CS	CS	T1, T3	CS, D	T1	D	T1	D
Switzerland			T1	CS	T1	D	T2	CS	NA	NA	T1	D	T2	CS	NA	NA	NA	NA
Turkey																		
Ukraine	T1, T2	CS, D	T1	D	T1	D	T1	D	NA	NA	NA	NA	T1	D	NA	NA	NA	NA
United Kingdom	CS, D, T3	CS	D	CS	D, T1, T2	CR, CS	CS, T3	CS	NA	NA	NA	NA	CS, D, T3	CS	D	CS	D	CS
United States	T3	CS	T2	D	D, T2	D	CS, T2	CS	NA	NA	NA	NA	T3	CS	NA	NA	NA	NA

^a Information on methods and emission factors in this table is presented as reported by Parties in table Summary 3 of the CRF. It may not reflect the actual method used or type of emission factor for all subcategories within each category.

Table 5.2b

Methods and emission factors used (2006)

	Wetlands						Settlements						Other Land					
	CO ₂		CH ₄		N ₂ O		CO ₂		CH ₄		N ₂ O		CO ₂		CH ₄		N ₂ O	
	Method ^a	EF ^a	Method ^a	EF ^a	Method ^a	EF ^a	Method ^a	EF ^a	Method ^a	EF ^a	Method ^a	EF ^a	Method ^a	EF ^a	Method ^a	EF ^a	Method ^a	EF ^a
Australia	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Austria	T1, T3	CS	NA	NA	NA	NA	T1, T3	CS	NA	NA	NA	NA	T1, T3	CS	NA	NA	NA	NA
Belarus	T2	CS	NA	NA			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Belgium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bulgaria			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Canada	CS, T2, T3	CS	NA	NA	NA	NA	CS, T3	CS	CS, T2	CS	CS, T2	CS	NA	NA	NA	NA	NA	NA
Croatia	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Czech Republic	T1	CS, D	NA	NA	NA	NA	T1	CS, D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Denmark	CS	D	D	CS	CS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estonia	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
European Community	CS, D, T1, T2, T3	CS, D	CS, D, T2	CS, D	CR, CS, D, T1, T2	CS, D	CS, D, T1, T2, T3	CS, D	CS, D, T2	CS	CR, D, T2	CS	CS, D, T1, T2, T3	CS, D	CS, T2	CS	CR, T2	CS
Finland	D	CS	D	CS	D	CS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
France	CR, CS, T2	CS	CS, T2	CS	CR, T2	CS	CR, CS, T2	CS	CS, T2	CS	CR, T2	CS	CR, CS, T2	CS	CS, T2	CS	CR, T2	CS
Germany	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Greece	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hungary	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iceland			RA, T1, T2	CS, D	T1	D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ireland	T1	CS, D	NA	NA	D, T1	D	T1, T2	CS, D	NA	NA	NA	NA	T1	D	NA	NA	NA	NA
Italy	NA	NA	NA	NA	NA	NA	T1	D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Japan	T2	CS, D	T1	D	T1	D	T2	CS, D	T1	D	T1	D	T2	CS, D	T1	D	T1	D
Latvia	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Liechtenstein	T2	CS	NA	NA	NA	NA	T2	CS	NA	NA	NA	NA	T2	CS	NA	NA	NA	NA
Lithuania	T1	D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Luxembourg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Monaco	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Netherlands	NA	NA	NA	NA	NA	NA	CS	CS	NA	NA	NA	NA	CS	CS	NA	NA	NA	NA
New Zealand			NA	NA	NA	NA			NA	NA	NA	NA	T1	D	NA	NA	NA	NA
Norway	T1	CS	NA	NA	T1	D			NA	NA	NA	NA			NA	NA	NA	NA
Poland			D, T1	CS, D	D, T1	CS, D			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Portugal	D, T2	CS, D	NA	NA	NA	NA	D, T2	CS, D	NA	NA	NA	NA	D, T2	CS, D	NA	NA	NA	NA
Romania	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Russian Federation	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Slovakia	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	T2	CS	NA	NA	NA	NA
Slovenia	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Spain	NA	NA					NA	NA					NA	NA				
Sweden			NA	NA	NA	NA	T3	CS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Switzerland	T2	CS	NA	NA	NA	NA	T2	CS	NA	NA	NA	NA	T2	CS	NA	NA	NA	NA
Turkey																		
Ukraine	T1	D	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
United Kingdom	NA	NA	NA	NA	NA	NA	CS, D, T3	CS	D	CS	D	CS	NA	NA	NA	NA	NA	NA
United States	NA	NA	NA	NA	NA	NA			NA	NA	D	D	NA	NA	NA	NA	NA	NA

^a Information on methods and emission factors in this table is presented as reported by Parties in table Summary 3 of the CRF. It may not reflect the actual method used or type of emission factor for all subcategories within each category.

Table 5.3a**Forest land remaining forest land - AD, IEFs, carbon stock changes in pools and net CO₂ emissions/removals (2006)^a**

	Activity data		IEF (Mg C/ha)					
	Total area (kha)	Area of organic soil (kha)	CSC ^b in living biomass/area			Net CSC ^b in DOM ^c /area	Net CSC ^b in soils/area	
			Increase	Decrease	Net Change		Mineral soils	Organic soils
Australia	15,702.90	NA, NO	1.00	-0.39	0.61	-0.14	NA, NO	NA, NO
Austria	3,389.45	NA	3.12	-1.80	1.32	0.05	NO	NO
Belarus	7,833.10	NE	1.40	-0.46	0.95	NE	NE	NE
Belgium	620.98		3.54	-2.37	1.18		0.04	
Bulgaria	4,076.46	NE	0.94	-0.47	0.47	NE	NE	NE
Canada	229,820.83	IE	3.49	-3.70	-0.21	0.28	0.03	IE
Croatia	1,889.64	NE	2.36	-1.26	1.10	NE	NE	NE
Czech Republic	2,555.02	18.67	3.00	-2.55	0.45			
Denmark	440.80	17.63	3.76	-2.17	1.59	NE	NE	NE
Estonia	2,251.90	771.62	1.65	-0.84	0.81	NE	NE	-1.09
European Community	115,924.62	10,579.25	1.44	-0.63	0.81	-0.02	0.09	-0.20
Finland	22,145.69	6,040.94	1.56	-1.05	0.52	0.03	0.06	-0.33
France	14,376.43		2.89	-1.32	1.57	-0.31	0.01	
Germany	10,406.76	NE	1.94	NA	1.94	NE	NE	NE
Greece	6,513.07		0.27	-0.10	0.17	-0.01		
Hungary	1,759.65	NE	0.69	IE	0.69	NE	NE	NE
Iceland	30.58	0.73	0.22	NE	0.22	NE	NE	-0.16
Ireland	257.66	NE	0.90	IE	0.90	0.01	NE	NE
Italy	11,143.82	NO	2.49	-1.41	1.08	0.20	0.68	NO
Japan	24,515.70	IE	0.89	IE, NA	0.89	0.00	0.02	IE
Latvia	2,753.30	NE	2.40	-0.79	1.61	0.01	NE	NE
Liechtenstein	6.13	IE	3.10	-2.27	0.83	0.00	0.01	IE
Lithuania	1,805.81	NE	2.16	-0.97	1.20	NE	NE	NE
Luxembourg	NE	NE	NE	NE	NE	NE	NE	NE
Monaco	NO	NO	NO	NO	NO	NO	NO	NO
Netherlands	439.15	IE	2.59	-1.37	1.21	0.21	NE	NE
New Zealand	1,834.84	IE, NE	5.61	-2.42	3.19	0.65	IE, NE	IE, NE
Norway	9,337.80	245.29	0.65	IE	0.65	0.04	0.09	-0.16
Poland	8,617.72	229.28	2.68	-1.43	1.25	NO	0.37	NO
Portugal	3,338.60	NO	2.06	-1.62	0.45	0.00	0.00	NO
Romania	6,740.76	NE	2.37	-0.86	1.52	NE	NE	NE
Russian Federation	619,349.20	NE	0.10	-0.07	0.03	NE	NE	NE
Slovakia	1,880.00	4.89	2.23	-1.86	0.37	NE	NE	NE
Slovenia	1,173.85	NE	2.45	-1.35	1.10	NE	NE	NE
Spain	13,522.73	NO	0.55	IE	0.55	NE	NE	NO
Sweden	27,861.34	4,520.68	0.32	NA	0.32	-0.03	0.04	-0.02
Switzerland	1,254.00	NO	3.04	-2.32	0.71	NO	NO	NO
Turkey								
Ukraine	9,061.62	NE	1.97	-0.56	1.41	NE	NE	NE
United Kingdom	822.00	IE	NO	NO	NO	NO	NO	NO
United States	256,358.16	NA	0.52	IE	0.52	0.12	NE	NA

^a Changes introduced by the LULUCF tables included in decision 14/CP.11 have been incorporated in this S&A report, part I. The main changes introduced include splitting of soils into mineral and organic components, and the inclusion of a 'Net CO₂' column.

^b CSC = carbon stock change.

^c DOM = dead organic matter.

Table 5.3b**Forest land remaining forest land - AD, IEFs, carbon stock changes in pools and net CO₂ emissions/removals (2006)^a**

	Emissions/Removals (Gg C)						Net CO ₂ (Gg)
	CSC ^b in living biomass			Net CSC ^b in DOM ^c	Net CSC ^b in soils		
	Gains	Losses	Net Change		Mineral soils	Organic soils	
Australia	15,634.94	-6,121.33	9,513.60	-2,210.12	NA, NO	NA, NO	-26,779.43
Austria	10,571.60	-6,110.30	4,461.30	163.95	NO	NO	-16,959.25
Belarus	10,983.60	-3,566.75	7,416.85	NE	NE	NE	-27,195.13
Belgium	2,200.81	-1,470.41	730.40		26.95		-2,776.94
Bulgaria	3,812.45	-1,904.44	1,908.01	NE	NE	NE	-6,996.04
Canada	801,674.34	-850,623.96	-48,949.62	64,060.93	7,091.39	IE	-81,409.91
Croatia	4,454.46	-2,384.59	2,069.88	NE	NE	NE	-7,589.56
Czech Republic	7,673.40	-6,521.77	1,151.63				-4,222.64
Denmark	1,659.00	-957.00	702.00	NE	NE	NE	-2,574.00
Estonia	3,708.49	-1,887.89	1,820.60	NE	NE	-841.07	-3,591.63
European Community	166,750.41	-73,082.09	93,668.32	-2,391.30	9,766.81	-2,078.56	-362,872.66
Finland	34,647.05	-23,198.68	11,448.37	694.24	987.03	-1,980.82	-40,879.01
France	41,554.73	-18,967.84	22,586.89	-4,523.74	174.40		-66,871.00
Germany	20,199.14	NA	20,199.14	NE	NE	NE	-74,063.51
Greece	1,780.87	-641.90	1,138.97	-64.51			-3,939.69
Hungary	1,217.73	IE	1,217.73	NE	NE	NE	-4,465.00
Iceland	6.70	NE	6.70	NE	NE	-0.12	-24.14
Ireland	230.71	IE	230.71	3.72	NE	NE	-859.57
Italy	27,803.39	-15,736.07	12,067.32	2,184.85	7,545.75	NO	-79,925.72
Japan	21,872.13	IE, NA	21,872.13	32.29	434.56	IE	-81,909.59
Latvia	6,614.50	-2,170.01	4,444.49	25.00	NE	NE	-16,388.12
Liechtenstein	19.02	-13.90	5.11	0.02	0.06	IE	-19.02
Lithuania	3,904.98	-1,743.86	2,161.12	NE	NE	-85.06	-7,612.25
Luxembourg	NE	NE	NE	NE	NE	NE	NE
Monaco	NO	NO	NO	NO	NO	NO	NO
Netherlands	1,136.60	-603.80	532.80	91.50	NE	NE	-2,289.10
New Zealand	10,299.32	-4,439.16	5,860.16	1,192.47	IE, NE	IE, NE	-25,859.65
Norway	6,041.34	IE	6,041.34	364.03	808.33	-39.25	-26,306.32
Poland	23,062.05	-12,292.82	10,769.23	NO	3,094.94	NO	-50,835.30
Portugal	6,893.19	-5,396.09	1,497.10	-2.14	1.25	NO	-5,486.07
Romania	15,996.43	-5,763.52	10,232.91	NE	NE	NE	-37,520.68
Russian Federation	61,230.03	-42,935.47	18,294.56	NE	NE	NE	-67,080.05
Slovakia	4,201.40	-3,498.47	702.93	NE	NE	NE	-2,577.41
Slovenia	2,873.36	-1,582.52	1,290.84	NE	NE	NE	-4,733.09
Spain	7,394.66	IE	7,394.66	NE	NE	NO	-27,113.76
Sweden	9,006.14	NA	9,006.14	-939.17	1,031.44	-97.74	-33,002.47
Switzerland	3,810.12	-2,913.55	896.57	NO	NO	NO	-3,287.42
Turkey							
Ukraine	17,865.81	-5,105.94	12,759.87	NE	NE	NE	-46,786.19
United Kingdom	NO	NO	NO	NO	NO	NO	NO
United States	132,936.67	IE	132,936.67	30,841.83	NE	9,422.47	-635,070.22

^a Changes introduced by the LULUCF tables included in decision 14/CP.11 have been incorporated in this S&A report, part I. The main changes introduced include splitting of soils into mineral and organic components, and the inclusion of a 'Net CO₂' column.

^b CSC = carbon stock change.

^c DOM = dead organic matter.

Table 5.4

Net CO₂ emissions/removals from forest land remaining forest land - trend information

CO ₂ emissions/removals ^b (Gg)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	-33,202	-26,779	0.8	4.8	1.9	-1.3	-12.3	-9.8	-2.3	13.0	-4.6	-8.4	4.2	10.1	-19.3
Austria	-11,511	-16,959	51.3	-32.5	95.2	-9.5	26.6	-24.6	17.3	-19.4	10.3	0.0	0.0	0.0	47.3
Belarus	-25,132	-27,195	7.0	-0.7	-5.0	2.4	3.0	1.0	0.0	-4.7	-5.9	-1.5	5.5	3.4	8.2
Belgium	-3,205	-2,777	-8.9	1.7	0.7	-3.8	-1.9	10.8	39.4	-9.6	-15.2	-16.1	-27.8	32.6	-13.4
Bulgaria	-5,133	-6,996	24.0	-13.4	5.4	-0.2	4.9	24.7	5.5	-12.1	-15.2	12.9	-12.2	0	36.3
Canada	-173,225	-81,410	-1.9	-4.9	0.3	-5.2	-9.8	3.0	12.2	-6.1	6.0	-10.2	-24.5	-10.6	-53.0
Croatia	-4,931	-7,590	91.6	7.7	-10.0	-7.2	-1.2	-2.6	10.8	-3.8	-7.7	0.9	-2.1	-2.7	53.9
Czech Republic	-5,800	-4,223	72.0	5.2	-9.7	3.5	-1.9	1.4	4.3	-2.1	-18.0	1.6	6.0	-40.6	-27.2
Denmark	-2,831	-2,574	6.2	2.3	2.8	4.7	-0.4	-81.8	483.3	7.5	-8.1	-2.9	-49.7	53.9	-9.1
Estonia	-5,431	-3,592	-5.8	2.9	-44.1	-12.2	-187.2	10.4	-96.9	598.9	-480.2	154.3	2.9	-18.9	-33.9
European Community	-306,905	-362,873	18.2	18.0	-10.1	-3.0	-2.3	4.7	0.9	6.5	-0.5	1.4	-10.9	19.1	18.2
Finland	-23,079	-40,879	62.8	38.9	-21.9	-9.9	10.7	5.9	18.0	1.9	0.2	4.0	15.7	6.2	77.1
France	-51,116	-66,871	-17.8	6.9	1.2	-0.5	1.5	-9.0	7.3	7.9	4.5	-1.6	-1.6	6.2	30.8
Germany	-74,064	-74,064	0	0	0	0	0	0	0	0	0	0	0	0	0
Greece	-2,043	-3,940	14.8	-2.2	-6.3	-16.7	26.4	-47.6	138.8	5.7	1.6	-2.9	5.1	-1.9	92.9
Hungary	-3,393	-4,465	11.8	-58.3	1.4	55.2	-61.6	-39.3	151.8	-14.2	81.9	-14.9	31.1	-16.1	31.6
Iceland	-15	-24	4.1	3.5	3.2	3.3	2.3	2.8	2.1	2.3	2.9	3.8	3.4	3.1	64.7
Ireland	-1,079	-860	7.8	-11.5	-31.7	108.8	8.6	-83.9	-34.9	441.5	302.9	-40.0	8.4	2.2	-20.3
Italy	-45,994	-79,926	46.6	3.9	-10.2	-3.3	11.8	-8.5	12.9	8.6	-12.4	11.0	1.2	1.4	73.8
Japan	-75,127	-81,910	0.3	0.3	0.3	0.2	0.2	0.3	0.3	11.8	0.1	0.1	-5.6	-4.5	9.0
Latvia	-18,736	-16,388	3.3	8.3	-11.6	-5.5	-4.8	-3.0	4.1	-6.3	-1.0	5.7	-2.4	26.5	-12.5
Liechtenstein	-19	-19	0.1	0.1	5.2	-0.1	-0.1	-0.1	-0.1	-0.1	-3.2	0.0	0.0	0.0	2.1
Lithuania	-9,306	-7,612	-2.0	8.4	6.9	5.0	0.5	-7.2	-3.0	-7.4	5.0	3.3	4.5	-1.2	-18.2
Luxembourg	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Monaco	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	-2,505	-2,289	1.6	-1.1	-7.7	3.5	-1.4	-3.9	0	0	0	0	0	0	-8.6
New Zealand	-21,398	-25,860	-8.0	5.3	6.5	10.6	0.3	2.7	1.3	2.8	-0.2	15.4	-2.1	-3.4	20.9
Norway	-15,210	-26,306	-5.5	-4.6	2.3	-1.0	8.2	42.5	13.4	22.2	5.3	-5.9	13.8	-22.0	73.0
Poland	-42,705	-50,835	16.6	2.1	5.8	-0.4	0.9	0.6	-1.8	16.1	2.1	6.1	3.0	10.5	19.0
Portugal	-211	-5,486	671.9	16.0	0.6	15.5	-10.0	11.4	-7.4	8.7	-133.6	-304.6	-1.6	6.9	2,494.3
Romania	-32,644	-37,521	4.1	-2.5	1.0	5.5	-3.1	-2.9	2.5	-6.1	-1.2	-2.0	4.8	0.1	14.9
Russian Federation	-143,304	-67,080	0	0	0	-87.7	776.1	-126.2	-121.1	2292.3	33.2	-19.5	-67.6	-60.9	-53.2
Slovakia	-4,614	-2,577	21.0	-9.3	-30.4	14.4	-9.6	52.0	27.6	1.6	-8.1	-33.7	-94.7	1,279.1	-44.1
Slovenia	-1,589	-4,733	23.2	-2.2	-9.8	9.8	6.9	1.9	1.9	4.2	-3.2	6.1	-3.8	-12.8	197.8
Spain	-27,114	-27,114	0.0	0.0	0.0	0.0	2.8	0.0	0.0	0.0	0.6	0.7	0.0	0.5	0.0
Sweden	-62,153	-33,002	34.4	230.5	-53.0	-16.7	-98.6	10,075.9	-71.4	124.1	63.9	-28.8	-163.9	-309.7	-46.9
Switzerland	-3,687	-3,287	-78.7	-18.1	9.1	-36.7	145.1	-95.9	704.9	4.3	-115.6	-773.7	-20.6	70.0	-10.8
Turkey															
Ukraine	-54,097	-46,786	4.4	-4.2	0.6	4.3	0.8	-2.3	-1.0	-2.4	-2.6	-2.9	0.4	-0.9	-13.5
United Kingdom	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
United States	-489,090	-635,070	7.6	0.2	3.5	-5.2	-8.3	-10.2	21.1	13.1	6.2	0.0	0.0	0.0	29.8

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

^b Only net CO₂ emissions from carbon stock change are included in this table.

Table 5.5**Area of forest land remaining forest land - trend information**

Area (kha)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	111,944.59	15,702.90	0.0	-0.1	-0.1	-0.1	0.1	0.1	-0.7	-0.7	-0.8	-0.8	-1.0	-85.4	-86.0
Austria	3,170.67	3,389.45	0.4	0.9	0.9	0.8	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	6.9
Belarus	7,028.00	7,833.10	0.5	0.4	1.0	1.0	-0.3	1.6	1.6	0.4	0.5	0.7	-0.1	0.5	11.5
Belgium	641.11	620.98	-0.3	-0.3	-0.3	-0.3	-0.3	-0.1	-0.5	0	0	0	0	0	-3.1
Bulgaria	3,259.00	4,076.46	0.1	-0.1	-0.1	16.3	-13.6	0.8	2.0	0.7	1.7	14.5	0.3	0	25.1
Canada	230,462.51	229,820.83	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.3
Croatia	1,825.34	1,889.64	0	-4.2	0	0	0	0	0	0	0	0	0	8.1	3.5
Czech Republic	2,530.18	2,555.02	0.0	0.1	0.0	0.0	0.2	0.1	0.2	-0.1	0.0	0.0	0.0	0.1	1.0
Denmark	411.39	440.80	0	0	0	0	0	7.1	0	0	0	0	0	0	7.1
Estonia	2,163.00	2,251.90	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	-1.4	4.1
European Community	112,267.37	115,924.62	-0.1	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.4	-0.1	-0.1	3.3
Finland	21,761.89	22,145.69	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.1	0.0	-0.4	-0.4	-0.4	1.8
France	14,052.21	14,376.43	-2.1	0.2	0.0	0.2	-0.1	0.2	0.2	0.3	0.3	0.3	0.5	0.2	2.3
Germany	10,478.60	10,406.76	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	-0.8	0.0	-0.7
Greece	6,513.07	6,513.07	0	0	0	0	0	0	0	0	0	0	0	0	0
Hungary	1,515.12	1,759.65	0.7	0.5	0.7	0.8	0.9	-0.5	1.6	0.3	1.4	1.8	1.1	0.8	16.1
Iceland	28.39	30.58	0.5	0.5	0.4	0.5	0.3	0.4	0.3	0.4	0.5	0.6	0.6	0.6	7.7
Ireland	194.73	257.66	-2.8	-0.3	5.6	5.9	4.1	1.0	3.5	4.8	7.3	2.5	2.3	4.1	32.3
Italy	9,262.89	11,143.82	1.3	1.2	1.2	1.2	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	20.3
Japan	23,583.42	24,515.70	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.3	0.3	4.0
Latvia	2,535.70	2,753.30	0.5	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	-0.2	-0.2	-0.2	8.6
Liechtenstein	6.04	6.13	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	1.6
Lithuania	1,612.21	1,805.81	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	12.0
Luxembourg	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Monaco	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	432.40	439.15	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1.6
New Zealand	1,186.67	1,834.84	1.5	5.6	4.5	3.6	2.6	2.2	1.9	1.6	1.3	1.1	-1.1	-0.7	54.6
Norway	8,803.58	9,337.80	0.0	-0.1	-0.1	-0.1	-0.1	1.1	1.2	1.0	1.2	0.8	0.5	0.7	6.1
Poland	8,864.00	8,617.72	0.4	0.3	0.1	0.3	0.1	0.9	0.1	0.1	0.3	0.3	0.1	0.1	-2.8
Portugal	3,214.59	3,338.60	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	-1.2	0.2	1.4	3.9
Romania	6,542.00	6,740.76	1.9	0.0	0.1	-0.2	0.0	-3.2	0.0	2.9	0.2	1.3	-0.1	0.0	3.0
Russian Federation	609,460.58	619,349.20	0.3	-0.1	-0.1	-0.1	0.3	0.2	0	0.1	0.3	0.4	0.2	-0.2	1.6
Slovakia	1,921.71	1,880.00	0.3	0.0	-0.2	0.0	0.1	0.3	0.0	0.1	0.0	-2.4	-0.1	0	-2.2
Slovenia	1,053.45	1,173.85	0.9	0.1	1.0	0.1	0.4	1.7	0.8	0.6	0.7	0.5	0.5	0.4	11.4
Spain	13,522.73	13,522.73	0	0.6	0.7	0.6	0.6	0.4	0.4	0.3	0.2	0.2	0.1	0.1	4.8
Sweden	27,789.07	27,861.34	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	1.1	-0.4	-0.7	0.3
Switzerland	1,224.99	1,254.00	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	2.4
Turkey															
Ukraine	9,514.45	9,061.62	0.2	0.1	0.4	0.3	0.5	0.0	0.3	0.3	0.1	0.1	-0.2	0.3	-4.8
United Kingdom	822.00	822.00	0	0	0	0	0	0	0	0	0	0	0	0	0
United States	245,798.52	256,358.16	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	4.3

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 5.6a**Land converted to forest land - AD, IEFs, carbon stock changes in pools and net CO₂ emissions/removals (2006)^a**

	Activity data		IEF (Mg C/ha)					
	Total area (kha)	Area of organic soil ^b (kha)	CSC ^b in living biomass/area			Net CSC ^b in DOM ^c /area	Net CSC ^b in soils/area	
			Increase	Decrease	Net Change		Mineral soils	Organic soils
Australia	1,206.68	NO	4.64	IE, NO	4.64	0.51	NO	NO
Austria	230.44	NO	1.18	0.00	1.17	NO	2.11	NO
Belarus	249.20	NE, NO	IE, NE, NO	IE, NE, NO	IE, NE, NO	NE, NO	NE, NO	NE, NO
Belgium		NE					NE	NE
Bulgaria	NE	NE	NE	NE	NE	NE	NE	NE
Canada	174.39	NE, NO	2.02	-0.69	1.33	0.29	0.06	NE, NO
Croatia	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO
Czech Republic	37.94	NA, NO	2.49	NA	2.49		0.16	NA, NO
Denmark	34.80	NO	1.39	-0.10	1.29	NE, NO	0.15	NE, NO
Estonia	NE	NE	NE	NE	NE	NE	NE	NE
European Community	5,362.24	276.35	3.36	-1.68	1.67	0.23	1.10	0.37
Finland	IE	IE	IE	IE	IE	IE	IE	IE
France	2,007.80		1.71	NO	1.71	0.43	0.29	
Germany	392.18	NE	3.47	NA	3.47	NE	NE	NE
Greece	47.15		2.85	NE, NO	2.85	NE, NO		
Hungary	46.16	NO	1.16	IE, NO	1.16	NE, NO	IE, NO	NO
Iceland	25.33	3.29	1.20	NE, NO	1.20	NE, NO	NE, NO	-0.16
Ireland	296.33	10.84	0.51	NO	0.51	0.01	-0.27	-3.95
Italy	117.56	NO	2.52	-1.43	1.09	0.20	33.41	NO
Japan	470.71	IE	0.89	IE, NE	0.89	-0.04	0.01	IE
Latvia	175.70	IE, NE	2.40	IE, NE, NO	2.40	NE	IE, NE	IE, NE
Liechtenstein	0.02	IE, NO	1.70	NO	1.70	NO	NO	NO
Lithuania	224.19	NA, NE	0.68	NA	0.68	NA, NE	NE	NE
Luxembourg	NE	NE	NE	NE	NE	NE	NE	NE
Monaco	NO	NO	NO	NO	NO	NO	NO	NO
Netherlands	39.65	IE, NE	1.51	NE	1.51	NE	IE	IE
New Zealand	5.00	NA, NE	IE, NA, NE	-32.06	-32.06	IE, NA	-84.00	NA, NE
Norway	97.32	NE	11.20	NE	11.20	IE, NE	IE, NE	NE, NO
Poland	372.90	9.10	0.53	NE, NO	0.53	NE, NO	2.02	NE, NO
Portugal	137.17	NO	1.84	-0.94	0.90	-0.07	0.31	NO
Romania	13.94	NE	NA, NE	NA, NE	NA, NE	NA, NE	NE	NE
Russian Federation	IE, NE	NE	IE, NE	IE, NE	IE, NE	NE	IE, NE	IE, NE
Slovakia	52.00	IE, NO	IE	IE	IE	2.72	IE, NO	IE, NO
Slovenia	IE, NO	IE, NE, NO	IE, NO	IE, NO	IE, NO	NE, NO	IE, NE, NO	IE, NE, NO
Spain	668.20	NO	2.60	IE, NO	2.60	NE, NO	NE, NO	NO
Sweden	364.73	NA	1.72	-1.33	0.39	NA	NA	NA
Switzerland	47.02	NO	1.51	-1.14	0.37	NO	NO	NO
Turkey								
Ukraine	704.79	NE, NO	1.63	NA, NO	1.63	0.43	0.44	NE, NO
United Kingdom	1,672.35	265.50	6.77	-4.93	1.84	0.20	0.43	0.54
United States	NA	NA	NE	NE	NE	NE	NE	NE

^a Changes introduced by the LULUCF tables included in decision 14/CP.11 have been incorporated in this S&A report, part I. The main changes introduced include splitting of soils into mineral and organic components, and the inclusion of a 'Net CO₂' column.

^b CSC = carbon stock change.

^c DOM = dead organic matter.

Table 5.6b**Land converted to forest land - AD, IEFs, carbon stock changes in pools and net CO₂ emissions/removals (2006)^a**

	Emissions/Removals (Gg C)						Net CO ₂ (Gg)
	CSC ^b in living biomass			Net CSC ^b in DOM ^c	Net CSC ^b in soils		
	Gains	Losses	Net Change		Mineral soils	Organic soils	
Australia	5,600.23	IE, NO	5,600.23	615.92	NO	NO	-22,792.53
Austria	270.99	-0.88	270.12	NO	485.33	NO	-2,769.98
Belarus	IE, NE, NO	IE, NE, NO	IE, NE, NO	NE, NO	NE, NO	NE, NO	IE, NE, NO
Belgium					NE		NE
Bulgaria	NE	NE	NE	NE	NE	NE	NE
Canada	351.75	-120.09	231.65	50.63	10.04	NE, NO	-1,071.84
Croatia	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NO,NE
Czech Republic	94.57	NA	94.57		5.95	NA, NO	-368.55
Denmark	48.33	-3.42	44.91	NE, NO	5.18	NE, NO	-183.66
Estonia	NE	NE	NE	NE	NE	NE	NE
European Community	18,007.24	-9,025.97	8,981.27	1,208.19	5,572.91	101.55	-58,167.69
Finland	IE	IE	IE	IE	IE	IE	IE
France	3,429.09	NO	3,429.09	864.44	581.37		-17,874.64
Germany	1,359.88	NA	1,359.88	NE	NE	NE	-4,986.23
Greece	134.27	NE, NO	134.27	NE, NO			-492.33
Hungary	53.46	IE, NO	53.46	NE, NO	IE, NO	NO	-196.00
Iceland	30.40	NE, NO	30.40	NE, NO	NE, NO	-0.53	-109.53
Ireland	150.64	NO	150.64	3.07	-78.48	-42.87	-118.63
Italy	296.40	-167.76	128.64	23.29	3,927.53		-14,958.04
Japan	419.72	IE, NE	419.72	-19.09	2.75	IE	-1,479.04
Latvia	422.10	IE, NE, NO	422.10	NE	IE, NE	IE, NE	-1,547.70
Liechtenstein	0.03	NO	0.03	NO	NO	NO	-0.10
Lithuania	153.51	NA	153.51	NA, NE	NE	NE	-562.89
Luxembourg	NE	NE	NE	NE	NE	NE	NE
Monaco	NO	NO	NO	NO	NO	NO	NO
Netherlands	60.05	NE	60.05	NE	IE	IE	-220.18
New Zealand	IE, NA, NE	-160.30	-160.30	IE, NA	-419.99	NA, NE	2,127.72
Norway	1,089.92	NE	1,089.92	IE, NE	IE, NE	NE, NO	-3,996.37
Poland	199.16	NE, NO	199.16	NE, NO	736.52	NE, NO	-3,430.81
Portugal	252.12	-129.01	123.11	-8.95	43.12	NO	-576.72
Romania	NA, NE	NA, NE	NA, NE	NA, NE	NE	NE	NE,NA
Russian Federation	IE, NE	IE, NE	IE, NE	NE	IE, NE	IE, NE	IE, NE
Slovakia	IE	IE	IE	141.66	IE, NO	IE, NO	-519.42
Slovenia	IE, NO	IE, NO	IE, NO	NE, NO	IE, NE, NO	IE, NE, NO	NE,NO,IE
Spain	1,734.51	IE, NO	1,734.51	NE, NO	NE, NO	NO	-6,359.86
Sweden	627.79	-486.74	141.05	NA	NA	NA	-517.19
Switzerland	71.01	-53.53	17.48	NO	NO	NO	-64.11
Turkey							
Ukraine	1,145.81	NA, NO	1,145.81	305.58	312.25	NE, NO	-6,466.69
United Kingdom	11,315.69	-8,238.17	3,077.52	326.34	608.85	144.42	-15,242.81
United States	NE	NE	NE	NE	NE	NE	NE

^a Changes introduced by the LULUCF tables included in decision 14/CP.11 have been incorporated in this S&A report, part I. The main changes introduced include splitting of soils into mineral and organic components, and the inclusion of a 'Net CO₂' column.

^b CSC = carbon stock change.

^c DOM = dead organic matter.

Table 5.7

Net CO₂ emissions/removals from land converted to forest land - trend information

CO ₂ emissions/removals ^b (Gg)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	-2,046	-22,793	92.0	10.3	9.8	12.6	4.2	12.9	14.3	14.3	8.4	2.4	5.5	-0.7	1,014.2
Austria	-4,643	-2,770	3.0	-7.1	-7.7	-8.3	-3.7	-3.8	-4.0	-4.1	-4.3	-1.2	-1.2	-1.1	-40.3
Belarus	IE, NE, NO	IE, NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Belgium	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Bulgaria	-5	NE	-68.4	*	*	*	*	*	*	*	*	*	*	*	*
Canada	-1,234	-1,072	0.7	0.0	-0.2	-2.0	-0.9	-0.9	-1.1	-1.7	-1.6	-1.9	-2.2	-2.6	-13.1
Croatia	NO,NE	NO,NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Czech Republic	-368	-369	2.3	0.7	-1.5	3.3	-9.6	0.9	-3.9	13.6	0.8	3.7	2.4	2.0	0.2
Denmark	NE, NO,NA	-184	*	45.9	38.9	36.5	26.0	32.8	22.6	18.1	20.5	13.9	13.0	16.5	*
Estonia	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
European Community	-39,994	-58,168	1.3	-2.8	2.9	4.4	5.5	0.0	3.7	1.9	1.6	-1.3	0.6	3.8	45.4
Finland	IE	IE	*	*	*	*	*	*	*	*	*	*	*	*	*
France	-10,305	-17,875	5.8	5.3	5.2	4.2	3.3	2.9	2.1	2.0	1.4	0.9	0.7	0.6	73.5
Germany	-336	-4,986	33.4	21.1	17.4	14.8	12.9	11.4	10.3	9.3	8.5	7.8	5.5	6.9	1,384.3
Greece	NE, NO	-492	*	53.6	69.8	12.3	24.4	11.7	57.4	6.4	6.6	5.9	5.8	3.4	*
Hungary	142	-196	104.8	962.5	-29.0	-107.7	257.1	-607.0	-28.4	50.4	-95.8	-1,130.4	-299.6	-58.6	-238.4
Iceland	-18	-110	28.4	10.2	8.6	8.9	10.4	7.8	7.6	8.5	7.1	7.4	7.6	6.8	500.8
Ireland	659	-119	27.9	-19.1	-116.6	-310.6	-80.1	-2,462.0	68.9	-31.4	-141.1	-80.2	-123.5	1,439.5	-118.0
Italy	-13,445	-14,958	2.1	0.9	0.0	0.3	1.0	0.1	1.0	1.1	-0.1	1.0	0.7	0.7	11.3
Japan	-5,632	-1,479	-4.1	-6.2	-6.8	-6.6	-6.9	-8.0	-8.4	-2.3	-3.0	-4.5	-32.5	-16.4	-73.7
Latvia	-2,136	-1,548	-0.9	-3.7	-7.6	-14.5	-7.7	-7.3	-3.7	4.9	-17.0	17.6	7.7	-1.2	-27.6
Liechtenstein	0	0	-3.0	2.9	-30.5	33.3	-10.0	5.6	57.9	-13.3	40.9	0	0.4	0	-2.0
Lithuania	-1,936	-563	-3.1	-3.7	-2.6	0.6	0.6	-0.3	-0.8	0.9	3.4	4.0	7.4	-68.4	-70.9
Luxembourg	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Monaco	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	-13	-220	100.0	16.7	14.3	12.5	11.1	10.0	9.1	8.3	7.7	7.1	6.7	6.2	1,600.1
New Zealand	141	2,128	83.4	21.0	9.5	8.3	9.8	8.6	7.4	4.2	2.7	1.4	-0.1	1.6	1,406.1
Norway	-1,047	-3,996	0.0	0	0	0	312.9	8.5	-16.1	2.1	-30.5	36.5	-13.9	21.8	281.9
Poland	NO,NE	-3,431	-6.7	1.2	4.9	-2.5	7.8	-17.7	7.8	4.6	1.3	3.1	6.7	6.2	*
Portugal	-577	-577	0	0	0	0	0	0	0	0	0	0	0	0	0
Romania	NE,NA	NE,NA	*	*	*	*	*	*	*	*	*	*	*	*	*
Russian Federation	IE, NE	IE, NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Slovakia	NE, NO,IE	-519	*	*	*	*	*	*	*	*	*	*	10.8	1.0	*
Slovenia	NE, NO,IE	NE, NO,IE	*	*	*	*	*	*	*	*	*	*	*	*	*
Spain	NO,IE,NE	-6,360	*	80.2	41.2	29.9	14.2	17.0	9.5	3.9	4.2	2.9	2.5	3.7	*
Sweden	867	-517	108.0	248.6	-17.4	-60.4	-191.8	-164.5	-92.0	-97.7	-30,663.1	-594.5	-20.5	-137.6	-159.7
Switzerland	-82	-64	-98.9	-28.0	25.2	-36.9	112.4	-86.1	271.1	-29.0	-93.2	1,179.1	-5.0	28.3	-21.5
Turkey															
Ukraine	-1,397	-6,467	-10.1	-0.8	-0.6	9.3	-3.4	-2.7	-0.5	0.6	0.8	0.6	-12.8	-13.3	363.0
United Kingdom	-12,203	-15,243	4.2	-1.6	-1.5	-0.8	0.7	2.2	3.9	4.9	4.0	4.2	-3.5	-3.1	24.9
United States	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

^b Only net CO₂ emissions from carbon stock change are included in this table.

Table 5.8

Area of land converted to forest land - trend information

Area (kha)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	85.27	1,206.68	101.1	11.4	10.2	11.8	10.9	12.9	11.4	10.3	9.4	7.5	5.0	4.2	1,315.2
Austria	386.59	230.44	2.9	-7.1	-7.7	-8.3	-3.7	-3.8	-4.0	-4.1	-4.3	-1.2	-1.2	-1.2	-40.4
Belarus	50.60	249.20	10.3	30.0	23.1	18.7	15.8	1.1	0	0	0	0	0	46.1	392.5
Belgium			*	*	*	*	*	*	*	*	*	*	*	*	*
Bulgaria	2.46	NE	-43.1	*	*	*	*	*	*	*	*	*	*	*	*
Canada	219.52	174.39	-0.1	-1.6	-1.2	-1.4	-1.7	-1.5	-1.8	-2.1	-1.9	-0.9	-0.8	-5.9	-20.6
Croatia	NE, NO	NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Czech Republic	52.60	37.94	-1.3	-2.6	-3.7	-3.2	-10.1	-2.1	-5.4	12.8	2.2	3.4	1.9	1.8	-27.9
Denmark	0.73	34.80	137.0	19.4	26.9	13.1	36.5	16.7	11.0	10.9	10.7	4.9	12.2	12.4	4,667.1
Estonia	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
European Community	4,526.90	5,362.24	0.6	1.7	1.0	1.1	1.1	1.3	0.6	0.8	0.7	-0.2	-0.9	0.5	18.5
Finland	IE	IE	*	*	*	*	*	*	*	*	*	*	*	*	*
France	1,718.79	2,007.80	1.8	2.5	2.6	1.6	0.7	0.3	-0.2	-0.2	-0.6	-1.0	-1.1	-1.1	16.8
Germany	24.28	392.18	33.4	21.8	17.9	15.2	13.2	11.6	10.4	9.5	8.6	7.9	5.5	7.1	1,515.3
Greece	NE, NO	47.15	*	53.6	69.8	12.3	24.4	11.7	57.4	6.4	6.6	5.9	5.8	3.4	*
Hungary	32.66	46.16	-1.4	20.4	12.0	-0.6	1.7	1.7	15.9	16.2	4.8	-0.2	1.0	3.9	41.3
Iceland	4.22	25.33	28.2	10.2	8.6	8.8	10.4	7.8	7.6	8.6	7.1	7.4	7.6	6.8	500.2
Ireland	175.43	296.33	5.2	5.6	1.3	2.0	2.0	3.8	3.5	3.2	1.1	1.2	3.1	2.4	68.9
Italy	117.56	117.56	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Japan	1,366.84	470.71	-4.4	-6.1	-6.8	-6.5	-6.8	-7.9	-8.3	-10.2	-3.0	-4.4	-4.1	-12.5	-65.6
Latvia	228.65	175.70	-0.5	-3.3	-7.6	-14.9	-7.5	-5.8	-3.2	6.0	-17.2	18.4	6.6	-1.3	-23.2
Liechtenstein	0.02	0.02	0	6.7	-42.9	0	12.5	-11.1	25.0	10.0	70.8	-21.4	0	0	-2.4
Lithuania	242.00	224.19	-3.1	-3.7	-2.6	0.6	0.6	0.6	-0.8	0.4	2.4	4.0	6.9	1.8	-7.4
Luxembourg	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Monaco	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	2.95	39.65	77.9	15.9	13.7	12.1	10.8	9.7	8.9	8.1	7.5	7.0	6.5	6.1	1,246.3
New Zealand	15.80	5.00	-2.5	13.1	-23.8	-19.6	-21.9	-16.0	-10.4	-26.6	-10.0	-46.7	-43.4	-16.7	-68.4
Norway	14.24	97.32	0	0	0	0	742.4	9.2	-22.4	26.7	-33.4	-3.3	9.1	7.6	583.5
Poland	NE, NO	372.90	-6.7	0.8	4.5	-3.0	7.2	-18.0	7.4	3.4	0.3	1.8	5.6	5.0	*
Portugal	137.17	137.17	0	0	0	0	0	0	0	0	0	0	0	0	0
Romania	16.20	13.94	-98.7	953.3	-86.7	-90.5	60,250.0	-99.2	19,460.0	-91.7	519.1	-68.2	-87.9	260.5	-13.9
Russian Federation	IE, NE	IE, NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Slovakia	IE, NO	52.00	*	*	*	*	*	*	*	*	*	*	6.0	0.7	*
Slovenia	IE, NO	IE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Spain	NO	668.20	*	70.8	38.2	26.0	13.4	13.5	7.1	3.9	4.0	3.5	3.3	3.4	*
Sweden	547.78	364.73	-10.1	-3.2	-5.2	0.4	5.6	1.0	0.1	4.6	2.5	-6.8	-16.2	0.7	-33.4
Switzerland	56.81	47.02	-0.1	-1.5	-1.5	-1.5	-1.6	-1.6	-1.6	-1.6	-1.7	-1.7	-1.7	2.6	-17.2
Turkey															
Ukraine	577.30	704.79	-3.0	-3.3	-5.0	3.8	-11.8	-4.9	-0.5	0.6	0.8	0.6	-12.5	-13.3	22.1
United Kingdom	1,415.63	1,672.35	1.4	1.1	1.1	1.1	1.1	1.1	1.1	0.9	0.8	0.7	0.7	0.5	18.1
United States	NA	NA	*	*	*	*	*	*	*	*	*	*	*	*	*

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 5.9a**Cropland remaining cropland - AD, IEFs, carbon stock changes in pools and net CO₂ emissions/removals (2006)^a**

	Activity data		IEF (Mg C/ha)					
	Total area (kha)	Area of organic soil (kha)	CSC ^b in living biomass/area			Net CSC ^b in DOM ^c /area	Net CSC ^b in soils/area	
			Increase	Decrease	Net Change		Mineral soils	Organic soils
Australia	21,688.82	NO	NE	NE	NE	NE	NO	NO
Austria	941.78	NO	IE	-0.09	-0.09	NO	0.07	NO
Belarus	5,539.40	NE	NE	NE	NE	NE	NE	NE
Belgium	857.97						-0.18	
Bulgaria	3,707.87	NE	1.04	-0.17	0.87	NE	NE	NE
Canada	50,143.32	16.15	0.00	0.00	0.00	-0.01	0.06	-5.00
Croatia	NE	NE	NE	NE	NE	NE	NE	NE
Czech Republic	3,229.57	NO	0.00		0.00		0.00	NO
Denmark	2,531.84	64.64	0.01	0.00	0.01	NA	0.03	-4.45
Estonia	NE	NE	NE	NE	NE	NE	NE	NE
European Community	79,072.72	737.44	0.11	-0.03	0.08	0.00	-0.06	-3.80
Finland	1,995.00	264.00	NE	NE	NE	NA	0.29	-5
France	15,809.04		0.15	-0.15		NO		
Germany	12,548.27	NE	0.00	0.00	0.00	NE	-0.44	NE
Greece	3,780.30		0.07	-0.01	0.06	NO	0.02	
Hungary	4,802.70	NO	0.09	-0.01	0.07	NE	0.00	NO
Iceland	129.00	NE	NA	NA	NA	NA	NE	IE
Ireland	293.48	NO	NO	NO	NO	NO	0.07	NO
Italy	9,725.85	9.00	0.56	NO	0.56	NA		-10.00
Japan	3,960.63	IE	NA	NA	NA	NE	NA	IE
Latvia	1,807.43	IE	0.03	NE	0.03	NE	NE	IE
Liechtenstein	1.88	IE	NO	NO	NO	NO	-0.64	IE
Lithuania	2,987.60	NE	NE	NE	NE	NA	NE	NE
Luxembourg	NE	NE	NE	NE	NE	NE	NE	NE
Monaco	NO	NO	NO	NO	NO	NO	NO	NO
Netherlands	952.81	IE	NE	NE	NE	NE	NE	NE
New Zealand	421.03	NE	0.44	NE	0.44	NE	NE	NE
Norway	1,002.32	NE, NO	0.00	IE, NE, NO	0.00		0.04	NE, NO
Poland	12,182.85	558.15	0.00	NO	0.00	NA	-0.14	-1.00
Portugal	129.14	NO	1.04	-0.66	0.38	-0.01	-0.03	NO
Romania	9,856.30	NE	NE	NE	NE	NE	NE	NE
Russian Federation	91,881.83	1,378.22	0.02	-0.02	0.00	NE	-1.06	-1.00
Slovakia	1,409.70	4.89	NE	NE	NE	NE	NE	NE
Slovenia	NE	NE	NE	NE	NE	NE	NE	NE
Spain	20,474.70	NO	NE	NE	NE	NE	NE	NO
Sweden	3,060.81	249.80	0.14	NA	0.14	0.00	-0.02	-3.00
Switzerland	443.92	15.83	NO	NO	NO	NO	NO	-9.52
Turkey								
Ukraine	23,256.45	60.03	0.07	-0.01	0.06	NE	-0.26	-10.00
United Kingdom	5,971.74	150.00	0.03	NA, NO	0.03		NO	-2.09
United States	153,010.00	720.00	NE	NE	NE	NE	0.12	-10.48

^a Changes introduced by the LULUCF tables included in decision 14/CP.11 have been incorporated in this S&A report, part I. The main changes introduced include splitting of soils into mineral and organic components, and the inclusion of a 'Net CO₂' column.

^b CSC = carbon stock change.

^c DOM = dead organic matter.

Table 5.9b**Cropland remaining cropland - AD, IEFs, carbon stock changes in pools and net CO₂ emissions/removals (2006)^a**

	Emissions/Removals (Gg C)						Net CO ₂ (Gg)
	CSC ^b in living biomass			Net CSC ^b in DOM ^c	Net CSC ^b in soils		
	Gains	Losses	Net Change		Mineral soils	Organic soils	
Australia	NE	NE	NE	NE	NO	NO	NE, NO
Austria	IE	-85.23	-85.23	NO	65.92	NO	70.79
Belarus	NE	NE	NE	NE	NE	NE	NE
Belgium					-156.92		575.36
Bulgaria	3,849.02	-622.84	3,226.18	NE	NE	NE	-11,829.33
Canada	43.20	-48.90	-5.70	-454.76	3,228.05	-80.76	-9,851.67
Croatia	NE	NE	NE	NE	NE	NE	NE
Czech Republic	0.41		0.41		4.19	NO	-16.85
Denmark	28.84	-6.25	22.59	NA	71.79	-287.73	708.95
Estonia	NE	NE	NE	NE	NE	NE	NE
European Community	8,872.26	-2,664.98	6,207.28	-1.41	-5,028.70	-2,801.70	5,956.61
Finland	NE	NE	NE	NA	494.95	-1,292.91	2,925.84
France	2,404.63	-2,404.63		NO			NO
Germany	1.08	-40.95	-39.87	NE	-5,526.27	NE	20,409.20
Greece	262.56	-42.81	219.75	NO	61.01	-66.65	-785.10
Hungary	413.91	-56.70	357.21	NE	-0.01	NO	-1,309.75
Iceland	NA	NA	NA	NA	NE	IE	NE,IE,NA
Ireland	NO	NO	NO	NO	21.58	NO	-79.12
Italy	5,439.26	NO	5,439.26	NA		-90.00	-19,613.97
Japan	NA	NA	NA	NE	NA	IE	NA,IE,NE
Latvia	61.30	NE	61.30	NE	NE	-78.61	63.47
Liechtenstein	NO	NO	NO	NO	-1.21	IE	4.45
Lithuania	NE	NE	NE	NA	NE	NE	NA,NE
Luxembourg	NE	NE	NE	NE	NE	NE	NE
Monaco	NO	NO	NO	NO	NO	NO	NO
Netherlands	NE	NE	NE	NE	NE	NE	NE
New Zealand	185.44	NE	185.44	NE	NE	NE	-679.95
Norway	4.68	IE, NE, NO	4.68		36.71	-56.73	56.25
Poland	54.40	NO	54.40	NA	-1,589.84	-558.15	7,676.52
Portugal	134.42	-85.11	49.31	-0.77	-3.89	NO	-163.70
Romania	NE	NE	NE	NE	NE	NE	NE
Russian Federation	1,932.21	-2,123.10	-190.89	NE	-96,333.55	-1,378.25	358,976.54
Slovakia	NE	NE	NE	NE	NE	NE	NE
Slovenia	NE	NE	NE	NE	NE	NE	NE
Spain	NE	NE	NE	NE	NE	NO	NO,NE
Sweden	426.83	NA	426.83	-0.64	-56.88	-750.42	1,397.42
Switzerland	NO	NO	NO	NO	NO	-150.71	552.60
Turkey							
Ukraine	1,524.81	-144.90	1,379.91	NE	-6,001.88	-600.29	19,148.26
United Kingdom	174.65	NA, NO	174.65		NO	-314.00	510.94
United States	NE	NE	NE	NE	18,953.61	-7,545.77	-41,828.77

^a Changes introduced by the LULUCF tables included in decision 14/CP.11 have been incorporated in this S&A report, part I. The main changes introduced include splitting of soils into mineral and organic components, and the inclusion of a 'Net CO₂' column.

^b CSC = carbon stock change.

^c DOM = dead organic matter.

Table 5.10**Net CO₂ emissions/removals from cropland remaining cropland - trend information**

CO ₂ emissions/removals ^b (Gg)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	NE, NO	NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Austria	-74	71	6.2	-153.8	76.0	34.3	45.0	8.8	27.5	-14.5	23.4	-27.8	2.7	-20.9	-195.6
Belarus	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Belgium	471	575	-0.6	2.0	2.2	1.6	-0.3	2.0	-0.1	-1.0	0.3	0.2	4.8	-0.1	22.2
Bulgaria	-20,994	-11,829	5.9	-43.2	61.4	-9.7	9.7	-12.4	38.3	-7.0	-38.0	72.5	-19.7	-1.2	-43.7
Canada	-1,625	-9,852	1.1	13.1	13.1	13.3	11.4	10.0	8.9	8.1	7.3	6.6	6.2	5.7	506.3
Croatia	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Czech Republic	-19	-17	-19.4	14.9	0.1	18.6	-24.1	1.6	-16.9	0.7	17.0	60.1	-35.6	-6.3	-9.6
Denmark	2,722	709	-71.9	86.6	4.7	-27.4	67.5	12.3	27.7	-38.5	-37.6	151.1	-62.5	-21.9	-74.0
Estonia	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
European Community	12,191	5,957	-30.2	25.6	-11.4	-4.8	2.4	-7.7	11.1	-11.7	-17.6	21.4	-24.2	-22.8	-51.1
Finland	6,798	2,926	-23.8	2.5	-6.5	-8.6	-5.8	-7.7	-5.3	-10.5	-7.3	-7.3	-8.9	-11.0	-57.0
France	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Germany	21,137	20,409	0.0	0.0	0.0	0.0	0.0	-2.6	-0.2	0.1	-0.1	-0.1	0	0	-3.4
Greece	-1,226	-785	3.7	-28.4	9.3	7.5	17.1	5.5	-6.0	-7.5	-1.3	-2.4	-35.5	4.5	-36.0
Hungary	-1,025	-1,310	-22.1	-2.3	-4.3	-7.5	-31.6	-363.3	-70.4	-239.6	2.8	4.3	0.2	-13.9	27.8
Iceland	NE,IE,NA	NE,IE,NA	*	*	*	*	*	*	*	*	*	*	*	*	*
Ireland	-17	-79	-32.1	-33.3	-14.6	9.5	45.2	-41.9	15.5	-6.2	21.9	-32.8	-48.8	193.2	375.0
Italy	-22,162	-19,614	-1.1	-4.5	3.5	-0.3	1.5	-4.1	0.0	0.0	-1.1	-0.2	0.2	-0.3	-11.5
Japan	NA,IE,NE	NA,IE,NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Latvia	148	63	-1.0	*	83.9	-19.4	-49.4	-63.8	-117.8	-251.9	-402.4	-382.3	268.9	91.5	-57.1
Liechtenstein	4	4	-0.1	-0.1	0.5	0.5	0.5	0.5	0.5	0.5	0.1	0.1	0.1	0.1	2.8
Lithuania	NA,NE	NA,NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Luxembourg	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Monaco	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
New Zealand	-539	-680	1.6	1.5	1.5	1.5	1.4	1.4	1.4	1.4	1.4	1.4	1.3	1.3	26.2
Norway	188	56	-8.2	-3.4	-3.8	-5.1	-5.7	-61.2	-26.2	150.6	-18.0	-11.0	22.7	-9.7	-70.1
Poland	8,165	7,677	-0.5	-1.6	-1.1	-0.6	-0.4	-1.1	-1.9	0.1	-2.7	-0.3	-2.0	0.9	-6.0
Portugal	-164	-164	0	0	0	0	0	0	0	0	0	0	0	0	0
Romania	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Russian Federation	319,156	358,977	-48.8	5.6	44.9	-52.6	38.8	26.2	19.1	0.1	-7.7	13.9	1.1	8.1	12.5
Slovakia	3,286	NE	-2.3	0	56.4	-44.3	-4.8	156.9	-77.2	17.1	20.7	*	*	*	*
Slovenia	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Spain	NO,NE	NO,NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Sweden	3,695	1,397	-6.9	15.1	-9.4	13.0	12.1	-22.5	26.1	1.2	-27.1	20.7	-29.1	-44.9	-62.2
Switzerland	565	553	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-2.2
Turkey															
Ukraine	-16,973	19,148	17.1	53.7	-243.6	-10.5	-89.0	938.7	90.6	12.1	-58.5	161.3	30.9	-19.3	-212.8
United Kingdom	1,010	511	-3.6	-4.4	-4.6	-4.9	-5.1	-5.4	-3.4	-3.5	-3.7	-3.8	-4.0	-4.1	-49.4
United States	-30,062	-41,829	0	0	0	-4.8	-0.6	3.2	4.2	0.7	0.3	1.0	0.4	2.0	39.1

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

^b Only net CO₂ emissions from carbon stock change are included in this table.

Table 5.11**Area of cropland remaining cropland - trend information**

Area (kha)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	21,688.82	21,688.82	0	0	0	0	0	0	0	0	0	0	0	0	0
Austria	1,021.37	941.78	1.7	-0.1	0.7	0.7	-3.9	-1.0	-1.0	-0.1	0.2	-1.2	-0.1	0.0	-7.8
Belarus	5,023.70	5,539.40	-0.2	0.1	-0.9	0.4	0.0	-0.9	-6.6	-2.3	-0.2	0.3	0.0	19.2	10.3
Belgium	767.28	857.97	1.8	-1.2	1.1	0.6	-0.4	1.1	-2.2	-1.4	0.4	0.4	1.8	-0.2	11.8
Bulgaria	4,311.21	3,707.87	1.1	-7.7	1.0	22.9	0.6	-2.3	-1.9	-3.9	14.9	-25.5	-18.1	1.4	-14.0
Canada	48,211.56	50,143.32	-0.3	0.1	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.4	4.0
Croatia	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Czech Republic	3,336.00	3,229.57	-0.9	-1.0	0.1	0.0	0.0	-0.4	-0.1	-0.1	-0.1	-0.1	-0.2	-0.2	-3.2
Denmark	2,575.44	2,531.84	-0.5	0.2	0.1	-0.3	-1.2	-0.1	0.9	-0.5	-0.3	-0.3	1.7	0.3	-1.7
Estonia	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
European Community	80,953.07	79,072.72	-0.4	-0.1	0.0	0.2	0.0	-0.1	-0.3	0.0	-1.3	-0.1	-0.2	0.5	-2.3
Finland	1,905.00	1,995.00	1.9	-0.7	0.6	2.6	0.9	0.9	0.3	1.2	0.8	0.7	1.1	1.6	4.7
France	15,105.42	15,809.04	-1.9	1.0	0.9	1.2	0.3	0.3	0.1	0.7	0.3	0.4	0.5	0.9	4.7
Germany	12,773.02	12,548.27	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	0	0	-1.8
Greece	3,930.00	3,780.30	0.4	-0.2	-0.4	-0.4	-0.3	-0.2	-0.2	-0.2	-0.6	-0.1	-1.3	0.6	-3.8
Hungary	5,088.77	4,802.70	-0.6	-0.3	-0.2	-0.4	-0.5	-1.0	0.0	0.5	0.0	0.0	0.1	-0.1	-5.6
Iceland	148.00	129.00	0	0	0	0	-12.8	0	0	0	0	0	0	0	-12.8
Ireland	404.56	293.48	-0.7	-0.1	-0.6	-1.5	-1.8	-10.3	-0.2	-0.2	-0.1	-0.7	-11.4	-1.7	-27.5
Italy	11,027.75	9,725.85	-0.4	-0.7	0.1	0.6	0.9	-0.2	-1.3	-0.5	-9.1	-1.3	-1.2	0.5	-11.8
Japan	4,120.47	3,960.63	-0.1	-0.3	-0.3	-0.3	-0.5	-0.3	-0.4	-0.4	-0.3	-0.2	-0.2	-0.2	-3.9
Latvia	1,723.00	1,807.43	0	0.2	-0.1	5.0	2.2	0.5	-0.3	1.4	-2.0	-0.6	-1.5	-0.8	4.9
Liechtenstein	1.95	1.88	-0.3	-0.3	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-3.6
Lithuania	2,314.00	2,987.60	30.6	0.0	0.4	0.4	-0.3	-0.2	-0.1	0.0	-0.1	0.0	0.0	2.5	29.1
Luxembourg	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Monaco	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	957.11	952.81	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.4
New Zealand	406.65	421.03	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	3.5
Norway	1,078.31	1,002.32	0.0	-0.3	-0.3	-0.3	-1.0	-0.7	-0.3	-0.2	-1.0	-0.5	-0.6	-0.5	-7.0
Poland	14,231.34	12,182.85	-0.1	-1.6	-1.0	-0.4	-0.7	-1.3	-0.9	0.0	-2.9	0.0	-3.1	1.9	-14.4
Portugal	129.14	129.14	0	0	0	0	0	0	0	0	0	0	0	0	0
Romania	10,054.60	9,856.30	-0.2	-0.1	0.0	0.0	-0.1	0.1	0.1	-0.1	-0.3	-0.1	0.1	-0.1	-2.0
Russian Federation	132,532.50	91,881.83	-1.0	-2.1	-2.6	-3.6	-3.9	-2.3	-1.2	-1.3	-4.9	-1.2	-2.5	-1.5	-30.7
Slovakia	1,509.00	1,409.70	0	-0.5	0.5	-0.2	-1.3	-0.7	-0.1	-0.6	-0.7	-0.9	0.4	-0.9	-6.6
Slovenia	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Spain	21,359.01	20,474.70	-0.1	-0.5	-0.5	-0.5	-0.3	-0.4	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-4.1
Sweden	3,026.23	3,060.81	-0.4	-0.5	-0.2	-0.5	-0.4	-0.4	-0.6	-0.5	-0.4	2.6	-1.8	6.1	1.1
Switzerland	463.27	443.92	-0.2	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.5	-4.2
Turkey															
Ukraine	25,457.70	23,256.45	-1.4	-7.5	4.6	-7.0	1.4	-3.5	7.1	-2.4	-10.2	15.8	0.0	2.9	-8.6
United Kingdom	5,971.74	5,971.74	0	0	0	0	0	0	0	0	0	0	0	0	0
United States	157,509.00	153,010.00	0	0	0	0	0	0	0	0	0	0	0	0	-2.9

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 5.12a**Land converted to cropland - AD, IEFs, carbon stock changes in pools and net CO₂ emissions/removals (2006)^a**

	Activity data		IEF (Mg C/ha)					
	Total area (kha)	Area of organic soil (kha)	CSC ^b in living biomass/area			Net CSC ^b in DOM ^c /area	Net CSC ^b in soils/area	
			Increase	Decrease	Net Change		Mineral soils	Organic soils
Australia	NE, NO	NO	IE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NO
Austria	533.66	NO	0.14	-0.01	0.13	NO	-1.01	NO
Belarus	870.40	NE	NE, NO	NE, NO	NE, NO	NE, NO	NE	NE
Belgium		NE					NE	NE
Bulgaria	NE	NE	NE	NE	NE	NE	NE	NE
Canada	850.28	IE, NE, NO	NE, NO	-1.55	-1.55	-0.14	-0.20	IE, NE, NO
Croatia	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO
Czech Republic	48.61	NO	0.00	-0.10	-0.10		-0.36	NA, NO
Denmark	NO	NO	NA	NA	NA	NA	NA	NA
Estonia	NE	NE	NE	NE	NE	NE	NE	NE
European Community	8,352.72	IE, NA, NE, NO	0.05	-0.08	-0.04	-0.01	-0.99	IE, NA, NE, NO
Finland	NE	NA, NE	NE	NE	NE	IE, NE	NE	NE
France	2,033.84		NO	-0.26	-0.26	-0.03	-1.29	
Germany	28.57	NE	2.76	-1.03	1.74	NE, NO	-30.78	NE
Greece	NO		NO	NO	NO	NO	NO	
Hungary	IE, NO	NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NE, NO	NO
Iceland	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO
Ireland	51.02	NO	NO	NO	NO	NO	-0.68	NO
Italy	52.05	NO	1.30	NO	1.30	NO	-5.79	NO
Japan	82.97	IE, NE	0.11	-0.64	-0.53	-0.38	-0.10	IE, NE
Latvia	NE	NE	NE	NE	NE	NE	NE	NE
Liechtenstein	0.00	IE, NO	5.66	-7.37	-1.71	NO	-7.48	IE, NO
Lithuania	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NE	NE
Luxembourg	NE	NE	NE	NE	NE	NE	NE	NE
Monaco	NO	NO	NO	NO	NO	NO	NO	NO
Netherlands	19.40	IE, NE	NE	NE	NE	NE	0.50	IE, NE
New Zealand	0.91	NA, NE	2.18	-11.79	-9.61	NA, NE	-27.45	NA, NE
Norway	6.58	0.90	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	IE, NE, NO
Poland	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO
Portugal	51.59	NO	0.77	-1.38	-0.61	-0.12	-1.14	NO
Romania	15.40	NE	NA	NA	NA	NA	NE	NE
Russian Federation	NO	NO	NO	NO	NO	NO	NO	NO
Slovakia	IE, NE, NO	NE	NE	NE	NE	NE	NE	NE
Slovenia	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO
Spain	NO	NO	NO	NO	NO	NO	NO	NO
Sweden	132.86	NA, NO	1.02	NA, NO	1.02	NA, NO	NA, NO	NA, NO
Switzerland	19.01	0.15	0.04	-0.07	-0.03	0.00	-0.22	-9.52
Turkey								
Ukraine	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO
United Kingdom	5,449.72	IE, NO	IE, NO	-0.01	-0.01		-0.70	IE, NO
United States	11,960.00	30.00	NE	NE	NE	NE	-0.15	-24.00

^a Changes introduced by the LULUCF tables included in decision 14/CP.11 have been incorporated in this S&A report, part I. The main changes introduced include splitting of soils into mineral and organic components, and the inclusion of a 'Net CO₂' column.

^b CSC = carbon stock change.

^c DOM = dead organic matter.

Table 5.12b**Land converted to cropland - AD, IEFs, carbon stock changes in pools and net CO₂ emissions/removals (2006)^a**

	Emissions/Removals (Gg C)						Net CO ₂ (Gg)
	CSC ^b in living biomass			Net CSC ^b in DOM ^c	Net CSC ^b in soils		
	Gains	Losses	Net Change		Mineral soils	Organic soils	
Australia	IE, NO	-1,479.58	-1,479.58	-217.51	836.87	NO	3,154.13
Austria	75.32	-4.81	70.51	NO	-538.48	NO	1,715.88
Belarus	NE, NO	NE, NO	NE, NO	NE, NO	NE	NE	NE, NO
Belgium					NE		NE
Bulgaria	NE	NE	NE	NE	NE	NE	NE
Canada	NE, NO	-1,320.60	-1,320.60	-122.16	-167.81	IE, NE, NO	5,905.40
Croatia	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NO, NE
Czech Republic	0.22	-5.04	-4.82		-17.31	NA, NO	81.17
Denmark	NA	NA	NA	NA	NA	NA	NA
Estonia	NE	NE	NE	NE	NE	NE	NE
European Community	397.49	-709.88	-312.40	-64.09	-8,269.51		31,702.01
Finland	NE	NE	NE	IE, NE	NE	NE	NE, IE
France	NO	-538.13	-538.13	-57.79	-2,629.83		11,827.77
Germany	78.97	-29.33	49.64	NE, NO	-879.50	NE	3,042.79
Greece	NO	NO	NO	NO			NO
Hungary	IE, NO	IE, NO	IE, NO	IE, NO	IE, NE, NO	NO	NE, NO, IE
Iceland	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NO, NE
Ireland	NO	NO	NO	NO	-34.52	NO	126.58
Italy	67.66	NO	67.66	NO	-301.11	NO	855.96
Japan	9.38	-53.14	-43.76	-31.89	-8.14	IE, NE	307.27
Latvia	NE	NE	NE	NE	NE	NE	NE
Liechtenstein	0.02	-0.02	-0.01	NO	-0.02	IE, NO	0.11
Lithuania	NA, NE	NA, NE	NA, NE	NA, NE	NE	NE	NE, NA
Luxembourg	NE	NE	NE	NE	NE	NE	NE
Monaco	NO	NO	NO	NO	NO	NO	NO
Netherlands	NE	NE	NE	NE	9.70	IE, NE	-35.57
New Zealand	1.98	-10.70	-8.72	NA, NE	-24.91	NA, NE	123.31
Norway	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	IE, NE, NO	NE, NO, IE
Poland	NE, NO	NE, NO	NE, NO				NE, NO
Portugal	39.93	-71.19	-31.26	-6.30	-59.00	NO	354.08
Romania	NA	NA	NA	NA	NE	NE	NA, NE
Russian Federation	NO	NO	NO	NO	NO	NO	NO
Slovakia	NE	NE	NE	NE	NE	NE	NE
Slovenia	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NO, NE
Spain	NO	NO	NO	NO	NO	NO	NO
Sweden	135.60	NA, NO	135.60	NA, NO	NA, NO	NA, NO	-497.20
Switzerland	0.84	-1.32	-0.48	-0.05	-4.21	-1.43	22.63
Turkey							
Ukraine	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NO, NE
United Kingdom	IE, NO	-66.43	-66.43		-3,836.77	IE, NO	14,311.73
United States	NE	NE	NE	NE	-1,830.00	-720.00	9,350.00

^a Changes introduced by the LULUCF tables included in decision 14/CP.11 have been incorporated in this S&A report, part I. The main changes introduced include splitting of soils into mineral and organic components, and the inclusion of a 'Net CO₂' column.

^b CSC = carbon stock change.

^c DOM = dead organic matter.

Table 5.13**Net CO₂ emissions/removals from land converted to cropland - trend information**

CO ₂ emissions/removals ^b (Gg)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	23,890	3,154	-20.1	2.0	-16.5	44.0	-30.2	-25.2	4.2	137.5	-68.7	-30.0	-42.4	73.8	-86.8
Austria	1,548	1,716	0.2	0.2	0.2	0.2	0.4	0.5	-3.4	6.4	2.9	-4.2	3.7	2.7	10.9
Belarus	NE, NO	NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Belgium	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Bulgaria	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Canada	10,900	5,905	-6.8	-3.9	-1.6	-6.5	-4.0	-1.4	-4.0	0.9	-3.4	0.7	-5.3	-0.9	-45.8
Croatia	NO, NE	NO, NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Czech Republic	220	81	18.8	-5.4	-2.6	54.2	-49.4	-5.4	-16.4	-15.8	16.1	-1.5	-0.6	-17.4	-63.1
Denmark	NA	NA	*	*	*	*	*	*	*	*	*	*	*	*	*
Estonia	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
European Community	40,652	31,702	-4.6	-2.0	-1.0	2.0	-0.1	-5.5	-1.3	-1.5	-1.2	-2.5	-1.4	-0.9	-22.0
Finland	NE, IE	NE, IE	*	*	*	*	*	*	*	*	*	*	*	*	*
France	21,631	11,828	-9.0	-2.5	-2.6	-2.1	-2.1	-2.3	-4.4	-4.6	-3.4	-5.9	-4.4	-4.6	-45.3
Germany	3,145	3,043	0	0	0	0	0	-3.3	0	0	0	0	0	0	-3.3
Greece	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Hungary	NE, NO, IE	NE, NO, IE	*	*	*	*	*	*	*	*	*	*	*	*	*
Iceland	NO, NE	NO, NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Ireland	NO	127	*	163.9	-38.8	0	0	0	194.8	-2.6	35.3	-27.8	0	0	*
Italy	NO	856	*	*	*	691.7	41.9	*	*	*	*	*	*	*	*
Japan	1,946	307	-20.9	-17.8	-17.6	-4.1	4.1	-18.1	-20.5	-11.7	-5.3	-10.3	-17.0	16.6	-84.2
Latvia	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Liechtenstein	0.11	0.11	-31.5	52.5	115.9	31.6	-38.1	24.7	-6.3	23.8	-53.7	-12.0	0.4	0	47.2
Lithuania	NE, NA	NE, NA	*	*	*	*	*	*	*	*	*	*	*	*	*
Luxembourg	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Monaco	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	-36	-36	0	0	0	0	0	0	0	0	0	0	0	0	0
New Zealand	37	123	14.4	8.4	7.7	7.2	6.7	6.3	5.9	5.6	5.3	5.0	4.8	4.6	230.1
Norway	NE, NO, IE	NE, NO, IE	*	*	*	*	*	*	*	*	*	*	*	*	*
Poland	NE, NO	NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Portugal	354	354	0	0	0	0	0	0	0	0	0	0	0	0	0
Romania	NA, NE	NA, NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Russian Federation	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Slovakia	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Slovenia	NO, NE	NO, NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Spain	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Sweden	-25	-497	-270.0	-100.0	663,087,125.0	-71.5	939.2	-12.7	-100.0	-411,013,666.7	-95.7	5,005.5	44.5	-448.9	1,872.6
Switzerland	44	23	-3.6	-3.0	-3.1	-3.2	-3.3	-3.5	-3.6	-3.7	-3.9	-4.0	-4.2	-1.3	-48.9
Turkey															
Ukraine	NO, NE	NO, NE	*	*	*	*	*	*	*	*	*	*	*	*	*
United Kingdom	14,034	14,312	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	2.0
United States	14,723	9,350	0	0	0	0	0	0	0	0	0	0	0	0	-36.5

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

^b Only net CO₂ emissions from carbon stock change are included in this table.

Table 5.14

Area of land converted to cropland - trend information

Area (kha)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	3,155.11	NE, NO	2.8	1.9	1.8	1.7	1.7	1.7	1.7	1.6	1.6	1.9	1.4	*	*
Austria	506.93	533.66	0.3	0.2	0.2	0.2	0.4	0.3	1.5	0.1	-0.2	1.1	0.3	-0.4	5.3
Belarus	1,081.20	870.40	-0.1	-0.6	-0.6	-0.6	-0.6	0	-3.5	-3.7	-3.8	-3.9	3.5	-6.6	-19.5
Belgium			*	*	*	*	*	*	*	*	*	*	*	*	*
Bulgaria	112.50	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Canada	1,679.74	850.28	-4.4	-4.8	-4.0	-4.2	-4.4	-4.6	-4.8	-4.0	-4.2	-4.0	-3.8	-3.5	-49.4
Croatia	NE, NO	NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Czech Republic	118.99	48.61	-2.5	-15.2	-14.6	15.6	-7.9	-2.8	-7.8	-6.1	-4.5	-4.1	-2.4	-2.2	-59.1
Denmark	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Estonia	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
European Community	8,237.75	8,352.72	0.3	-0.3	0.2	0.7	0.3	-1.1	0.2	0.1	-0.1	-0.2	-0.2	0.7	1.4
Finland	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
France	3,694.77	2,033.84	-2.0	-3.0	-3.1	-3.2	-3.5	-3.5	-3.9	-4.2	-4.7	-5.1	-5.5	-5.8	-45.0
Germany	31.46	28.57	0	0	0	0	0	-9.2	0	0	0	0	0	0	-9.2
Greece	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Hungary	IE, NO	IE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Iceland	NE, NO	NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Ireland	NO	51.02	*	61.4	0	0	0	0	45.2	42.9	19.7	0	0	0	*
Italy	NO	52.05	*	*	*	691.7	41.9	*	*	*	*	*	*	*	*
Japan	475.93	82.97	-8.1	-11.2	-11.2	-11.9	-9.4	-11.3	-10.7	-9.1	-9.8	-8.8	-11.4	-10.0	-82.6
Latvia	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Liechtenstein	0.00	0.00	-33.3	-25.0	115.0	-12.5	0	0	0	0	-53.5	-33.3	0	0	33.3
Lithuania	NA, NE	NA, NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Luxembourg	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Monaco	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	19.40	19.40	0	0	0	0	0	0	0	0	0	0	0	0	0
New Zealand	0.91	0.91	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
Norway	1.46	6.58	0	0	0	0	4.6	-70.6	39.7	329.0	-66.7	250.1	77.1	17.7	349.3
Poland	NE, NO	NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Portugal	51.59	51.59	0	0	0	0	0	0	0	0	0	0	0	0	0
Romania	NA	15.40	-76.9	550.0	3.8	251.9	-16.8	200.0	-10.5	-88.2	656.0	-43.9	*	*	*
Russian Federation	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Slovakia	NE	IE, NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Slovenia	NE, NO	NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Spain	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Sweden	34.13	132.86	9.7	0.8	10.0	2.5	0.7	7.5	8.4	10.5	8.1	9.4	8.9	34.5	289.2
Switzerland	25.31	19.01	-0.6	-2.1	-2.1	-2.2	-2.2	-2.3	-2.3	-2.4	-2.4	-2.5	-2.6	1.4	-24.9
Turkey															
Ukraine	NE, NO	NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
United Kingdom	3,899.47	5,449.72	2.5	2.2	2.2	2.1	2.1	2.0	2.0	2.0	1.9	1.9	1.8	1.8	39.8
United States	9,970.00	11,960.00	0	0	0	0	0	0	0	0	0	0	0	0	20.0

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 5.15a**Forest land converted to cropland - AD, IEFs, carbon stock changes in pools and net CO₂ emissions/removals (2006)^a**

	Activity data		IEF (Mg C/ha)					
	Total area (kha)	Area of organic soil (kha)	CSC ^b in living biomass/area			Net CSC ^b in DOM ^c /area	Net CSC ^b in soils/area	
			Increase	Decrease	Net Change		Mineral soils	Organic soils
Australia	NE	NO	IE	NE	NE	NE	NE, NO	NO
Austria	5.67	NO	IE	-0.85	-0.85	NO	-1.96	NO
Belarus	16.40	NE	NO	NO	NO	NO	NE	NE
Belgium		NE					NE	NE
Bulgaria	NE	NE	NE	NE	NE	NE	NE	NE
Canada	657.93	IE, NO	NO	-2.01	-2.01	-0.19	-0.08	IE, NO
Croatia	NE	NE	NE	NE	NE	NE	NE	NE
Czech Republic	2.64	NO		-1.75	-1.75		-0.42	NO
Denmark	NO	NO	NA	NA	NA	NA	NA	NA
Estonia	NE	NE	NE	NE	NE	NE	NE	NE
European Community	284.36	IE, NA, NE, NO	0.14	-2.21	-2.07	-0.22	-1.28	IE, NA, NE, NO
Finland	NE	NA, NE	NE	NE	NE	IE	NE	NE
France	183.85		NO	-2.93	-2.93	-0.31	-1.73	
Germany	0.49	NE	0.09	-59.91	-59.83	NE	-27.26	NE
Greece	NO		NO	NO	NO	NO	NO	
Hungary	IE	NO	IE	IE	IE	IE	NE	NO
Iceland	NE	NE	NE	NE	NE	NE	NE	NE
Ireland	NO	NO	NO	NO	NO	NO	NO	NO
Italy	NO	NO	NO	NO	NO	NO	NO	NO
Japan	28.47	IE, NE	0.02	-0.76	-0.75	-1.12	-0.47	IE, NE
Latvia	NE	NE	NE	NE	NE	NE	NE	NE
Liechtenstein	NO	NO	NO	NO	NO	NO	NO	NO
Lithuania	NA	NA	NA	NA	NA	NA	NE	NE
Luxembourg	NE	NE	NE	NE	NE	NE	NE	NE
Monaco	NO	NO	NO	NO	NO	NO	NO	NO
Netherlands	IE	IE	NE	NE	NE	NE	NE	NE
New Zealand	0.04	NA, NE	2.14	-221.19	-219.05	NA, NE	-9.56	NA, NE
Norway	2.07	NE	NO	NO	NO	NO	NE	NE
Poland	NO	NO	NO	NO	NO	NO	NO	NO
Portugal	21.24	NO	1.04	-2.59	-1.55	-0.25	-0.98	NO
Romania	NA	NE	NA	NA	NA	NA	NE	NE
Russian Federation	NO	NO	NO	NO	NO	NO	NO	NO
Slovakia	NE	NE	NE	NE	NE	NE	NE	NE
Slovenia	NE	NE	NE	NE	NE	NE	NE	NE
Spain	NO	NO	NO	NO	NO	NO	NO	NO
Sweden	1.40	NA	12.56	NA	12.56	NA	NA	NA
Switzerland	0.08	0.01	NO	-3.71	-3.71	-0.67	-0.66	-9.52
Turkey								
Ukraine	NO	NO	NO	NO	NO	NO	NO	NO
United Kingdom	71.71	IE	IE, NO	IE, NO	IE, NO		-0.02	IE
United States	IE	IE	NE	NE	NE	NE	IE	IE

^a Changes introduced by the new LULUCF tables included in decision 14/CP.11 have been used for the first time in this S&A report, part I. The main changes introduced include splitting of soils into mineral and organic components, and the inclusion of a 'Net CO₂' column.

^b CSC = carbon stock change.

^c DOM = dead organic matter.

Table 5.15b**Forest land converted to cropland - AD, IEFs, carbon stock changes in pools and net CO₂ emissions/removals (2006)^a**

	Emissions/Removals (Gg C)						Net CO ₂ (Gg)
	CSC ^b in living biomass			Net CSC ^b in DOM ^c	Net CSC ^b in soils		
	Gains	Losses	Net Change		Mineral soils	Organic soils	
Australia	IE	-1,479.58	-1,479.58	-217.51	836.87	NO	3,154.13
Austria	IE	-4.81	-4.81	NO	-11.12	NO	58.40
Belarus	NO	NO	NO	NO	NE	NE	NE, NO
Belgium					NE		NE
Bulgaria	NE	NE	NE	NE	NE	NE	NE
Canada	NO	-1,320.60	-1,320.60	-122.16	-50.16	IE, NO	5,474.03
Croatia	NE	NE	NE	NE	NE	NE	NE
Czech Republic		-4.60	-4.60		-1.11	NO	20.97
Denmark	NA	NA	NA	NA	NA	NA	NA
Estonia	NE	NE	NE	NE	NE	NE	NE
European Community	39.72	-627.23	-587.51	-63.19	-364.10		3,720.93
Finland	NE	NE	NE	IE	NE	NE	IE,NE
France	NO	-538.13	-538.13	-57.79	-317.34		3,348.61
Germany	0.04	-29.33	-29.28	NE	-13.34	NE	156.29
Greece	NO	NO	NO	NO			NO
Hungary	IE	IE	IE	IE	NE	NO	NO,IE,NE
Iceland	NE	NE	NE	NE	NE	NE	NE
Ireland	NO	NO	NO	NO	NO	NO	NO
Italy	NO	NO	NO	NO	NO	NO	NO
Japan	0.43	-21.69	-21.26	-31.89	-13.50	IE, NE	244.41
Latvia	NE	NE	NE	NE	NE	NE	NE
Liechtenstein	NO	NO	NO	NO	NO	NO	NO
Lithuania	NA	NA	NA	NA	NE	NE	NA,NE
Luxembourg	NE	NE	NE	NE	NE	NE	NE
Monaco	NO	NO	NO	NO	NO	NO	NO
Netherlands	NE	NE	NE	NE	NE	NE	NE
New Zealand	0.09	-9.54	-9.45	NA, NE	-0.41	NA, NE	36.14
Norway	NO	NO	NO	NO	NE	NE	NE,NO
Poland	NO	NO	NO	NO	NO	NO	NO
Portugal	22.05	-54.96	-32.92	-5.40	-20.91	NO	217.16
Romania	NA	NA	NA	NA	NE	NE	NA,NE
Russian Federation	NO	NO	NO	NO	NO	NO	NO
Slovakia	NE	NE	NE	NE	NE	NE	NE
Slovenia	NE	NE	NE	NE	NE	NE	NE
Spain	NO	NO	NO	NO	NO	NO	NO
Sweden	17.64	NA	17.64	NA	NA	NA	-64.66
Switzerland	NO	-0.28	-0.28	-0.05	-0.04	-0.09	1.73
Turkey							
Ukraine	NO	NO	NO	NO	NO	NO	NO
United Kingdom	IE, NO	IE, NO	IE, NO		-1.40	IE	5.13
United States	NE	NE	NE	NE	IE	IE	IE,NE

^a Changes introduced by the LULUCF tables included in decision 14/CP.11 have been incorporated in this S&A report, part I. The main changes introduced include splitting of soils into mineral and organic components, and the inclusion of a 'Net CO₂' column.

^b CSC = carbon stock change.

^c DOM = dead organic matter.

Table 5.16Net CO₂ emissions/removals from forest land converted to cropland - trend information

CO ₂ emissions/removals ^b (Gg)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	23,890	3,154	-20.1	2.0	-16.5	44.0	-30.2	-25.2	4.2	137.5	-68.7	-30.0	-42.4	73.8	-86.8
Austria	97	58	2.0	-5.2	-5.5	-5.8	-2.5	-2.6	-2.7	-2.7	-2.8	-2.2	-2.3	-2.3	-39.5
Belarus	NE,NO	NE,NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Belgium	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Bulgaria	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Canada	10,163	5,474	-7.0	-3.9	-1.4	-6.7	-4.0	-1.2	-4.0	1.1	-3.5	0.9	-5.5	-0.8	-46.1
Croatia	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Czech Republic	36	21	129.4	15.6	22.6	68.0	-65.4	-12.7	-29.3	-33.8	73.0	17.8	6.7	-41.8	-42.5
Denmark	NA	NA	*	*	*	*	*	*	*	*	*	*	*	*	*
Estonia	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
European Community	6,491	3,721	-24.3	0.7	0.5	-0.2	2.9	1.1	-5.1	-3.8	-0.2	-7.2	-0.9	-2.3	-42.7
Finland	IE,NE	IE,NE	*	*	*	*	*	*	*	*	*	*	*	*	*
France	6,011	3,349	-27.0	-0.6	-0.7	1.9	2.8	1.3	-5.6	-5.4	1.1	-7.6	-1.0	-1.0	-44.3
Germany	156	156	0	0	0	0	0	0	0	0	0	0	0	0	0
Greece	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Hungary	IE,NE,NO	IE,NE,NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Iceland	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Ireland	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Italy	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Japan	1,878	244	-22.0	-11.0	-14.1	-3.7	-6.7	-18.8	-13.3	-13.0	-6.6	-17.5	-15.3	-0.8	-87.0
Latvia	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Liechtenstein	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Lithuania	NA	NA,NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Luxembourg	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Monaco	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
New Zealand	35	36	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	4.1
Norway	NE,NO	NE,NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Poland	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Portugal	217	217	0	0	0	0	0	0	0	0	0	0	0	0	0
Romania	NA,NE	NA,NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Russian Federation	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Slovakia	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Slovenia	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Spain	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Sweden	-2	-65	-2,318.0	-100.0	-1,563,755,475.0	-136.3	-100.0	0	0	-1,233,041,000.0	-95.7	-776.8	-5.4	423.0	3,247.1
Switzerland	5	2	-4.5	0.2	0.2	-0.1	0.7	-0.5	-0.1	0.0	-0.4	-0.1	-0.1	1.5	-63.9
Turkey															
Ukraine	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
United Kingdom	12	5	-5.4	-5.2	-5.2	-5.2	-5.1	-5.1	-5.1	-5.1	-5.0	-5.0	-5.0	-5.0	-57.1
United States	IE,NE	IE,NE	*	*	*	*	*	*	*	*	*	*	*	*	*

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

^b Only net CO₂ emissions from carbon stock change are included in this table.

Table 5.17**Area of forest land converted to cropland - trend information**

Area (kha)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	3,155.11	NE	2.8	1.9	1.8	1.7	1.7	1.7	1.7	1.6	1.6	1.9	1.4	*	*
Austria	9.65	5.67	2.8	-6.6	-7.1	-7.6	-3.3	-3.5	-3.6	-3.7	-3.9	-3.1	-3.2	-3.3	-41.2
Belarus	NO	16.40	*	*	*	*	*	*	*	*	*	*	*	*	*
Belgium			*	*	*	*	*	*	*	*	*	*	*	*	*
Bulgaria	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Canada	1,309.25	657.93	-2.3	-3.9	-4.1	-4.3	-4.5	-4.7	-4.9	-5.2	-5.5	-5.3	-5.1	-4.8	-49.7
Croatia	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Czech Republic	6.13	2.64	-2.4	-9.2	-14.0	8.3	-1.4	-0.9	-11.5	-6.0	-4.5	-6.1	-4.0	-2.0	-57.0
Denmark	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Estonia	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
European Community	393.09	284.36	-1.2	-2.0	-2.0	-1.6	-1.7	-1.6	-1.9	-2.6	-2.2	-2.2	-3.6	-2.7	-27.7
Finland	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
France	286.75	183.85	-1.7	-2.5	-2.6	-2.5	-2.3	-2.3	-2.7	-3.1	-3.1	-3.7	-3.9	-4.1	-35.9
Germany	0.49	0.49	0	0	0	0	0	0	0	0	0	0	0	0	0
Greece	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Hungary	IE	IE	*	*	*	*	*	*	*	*	*	*	*	*	*
Iceland	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Ireland	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Italy	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Japan	174.21	28.47	-3.9	-8.5	-11.2	-9.7	-7.2	-10.3	-10.8	-13.8	-10.9	-19.6	-17.7	-13.3	-83.7
Latvia	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Liechtenstein	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Lithuania	NA	NA	*	*	*	*	*	*	*	*	*	*	*	*	*
Luxembourg	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Monaco	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	IE	IE	*	*	*	*	*	*	*	*	*	*	*	*	*
New Zealand	0.04	0.04	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
Norway	1.08	2.07	0	0	0	0	0	-58.3	*	*	*	*	-80.0	1,051.7	91.8
Poland	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Portugal	21.24	21.24	0	0	0	0	0	0	0	0	0	0	0	0	0
Romania	NA	NA	*	*	*	*	*	*	*	*	*	*	*	*	*
Russian Federation	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Slovakia	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Slovenia	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Spain	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Sweden	3.25	1.40	14.2	-11.8	5.0	32.9	9.9	0.5	-5.6	-29.1	-1.6	32.4	-67.1	1.2	-56.8
Switzerland	0.17	0.08	-0.2	-3.6	-3.7	-3.8	-4.0	-4.2	-4.4	-4.6	-4.8	-5.0	-5.3	-2.6	-54.2
Turkey															
Ukraine	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
United Kingdom	71.71	71.71	0	0	0	0	0	0	0	0	0	0	0	0	0
United States	IE	IE	*	*	*	*	*	*	*	*	*	*	*	*	*

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 5.18a**Grassland remaining grassland - AD, IEFs, carbon stock changes in pools and net CO₂ emissions/removals (2006)^a**

	Activity data		IEF (Mg C/ha)					
	Total area (kha)	Area of organic soil (kha)	CSC ^b in living biomass/area			Net CSC ^b in DOM ^c /area	Net CSC ^b in soils/area	
			Increase	Decrease	Net Change		Mineral soils	Organic soils
Australia	432,519.40	NO	NE	NE	NE	NE	NO	NO
Austria	1,232.11	IE	NO	NO	NO	NO	-0.01	IE
Belarus	3,297.60	NE	NE	NE	NE	NE	NE	NE
Belgium	517.15						-0.60	
Bulgaria	2,165.60	NE	NO	NO	NO	NE	NE	NE
Canada	NE	NE	NE	NE	NE	NE	NE	NE
Croatia	NE	NE	NE	NE	NE	NE	NE	NE
Czech Republic	856.36	NO				NA	NE	NO
Denmark	189.38	17.67	NA	NA	NA	NA	IE	-1.25
Estonia	NE	NE	NE	NE	NE	NE	NE	NE
European Community	36,409.61	396.31	0.13	-0.09	0.04	0.00	-0.20	-0.56
Finland	382.00	50	NE	NE	NE	NA	-3.11	0
France	9,065.64		0.35	-0.35		NO		
Germany	6,223.41	NE	NE	NE	NE	NE	-0.73	NE
Greece	1,636.17		NO	NO	NO	NO		
Hungary	1,014.50	NO	NE	NE	NE	NE	IE	NO
Iceland	3,452.06	IE	NE	NE	NE	NA	NE	NO
Ireland	3,842.52	289.03	NO	NO	NO	NO	NO	-0.25
Italy	6,839.17	NO				NO		NO
Japan	519.78	IE	NA	NA	NA	NE	NA	IE
Latvia	636.80	IE	0.17	NO	0.17	NE	NE	IE
Liechtenstein	4.97	IE	0.03	-0.03	0.00	NO	-0.10	IE
Lithuania	480.70	NE	NE	NE	NE	NE	NE	NE
Luxembourg	NE	NE	NE	NE	NE	NE	NE	NE
Monaco	NO	NO	NO	NO	NO	NO	NO	NO
Netherlands	1,295.70	IE	NE	NE	NE	NE	-0.89	IE
New Zealand	14,229.36	NE	NE	NE	NE	NE	NE	NE
Norway	91.92	75.60	NE	NE	NE	NE	NE	-6.75
Poland	3,073.59	142.41	NO	NO	NO	NO	NO	-0.25
Portugal	NO	NO	NO	NO	NO	NO	NO	NO
Romania	4,856.55	NE	NE	NE	NE	NE	NE	NE
Russian Federation	70,053.40	2,101.60	NO	NO	NO	NA	0.04	-0.25
Slovakia	793.00	NE	NE	NE	NE	NE	NE	NE
Slovenia	NE	NE	NE	NE	NE	NE	NE	NE
Spain	4662.954	NO	NE	NE	NE	NE	NE	NO
Sweden	416.35	30.72	3.48	NA	3.48	-0.01	0.03	NA
Switzerland	1,296.26	2.17	0.01	0.00	0.00	NO	0.01	-6.79
Turkey								
Ukraine	8,557.30	77.01	NE	NE	NE	NE	-0.02	-2.50
United Kingdom	8.88	8.88	NE, NO	NE, NO	NE, NO		NO	-12.95
United States	201,667.70	477.70	NE	NE	NE	NE	-0.02	-2.11

^a Changes introduced by the LULUCF tables included in decision 14/CP.11 have been incorporated in this S&A report, part I. The main changes introduced include splitting of soils into mineral and organic components, and the inclusion of a 'Net CO₂' column.

^b CSC = carbon stock change.

^c DOM = dead organic matter.

Table 5.18b**Grassland remaining grassland - AD, IEFs, carbon stock changes in pools and net CO₂ emissions/removals (2006)^a**

	Emissions/Removals (Gg C)						Net CO ₂ (Gg)
	CSC ^b in living biomass			Net CSC ^b in DOM ^c	Net CSC ^b in soils		
	Gains	Losses	Net Change		Mineral soils	Organic soils	
Australia	NE	NE	NE	NE	NO	NO	NE, NO
Austria	NO	NO	NO	NO	-13.18	IE	48.34
Belarus	NE	NE	NE	NE	NE	NE	NE
Belgium					-311.10		1,140.69
Bulgaria	NO	NO	NO	NE	NE	NE	NE,NO
Canada	NE	NE	NE	NE	NE	NE	NE
Croatia	NE	NE	NE	NE	NE	NE	NE
Czech Republic				NA	NE	NO	NA, NE, NO
Denmark	NA	NA	NA	NA	IE	-22.09	80.99
Estonia	NE	NE	NE	NE	NE	NE	NE
European Community	4,653.66	-3,206.17	1,447.49	-5.53	-7,047.98	-221.98	21,369.30
Finland	NE	NE	NE	NA	-1,031.50	-12.60	3,828.36
France	3,206.17	-3,206.17		NO			NO
Germany	NE	NE	NE	NE	-4,546.45	NE	16,670.32
Greece	NO	NO	NO	NO			NO
Hungary	NE	NE	NE	NE	IE	NO	NO,IE,NE
Iceland	NE	NE	NE	NA	NE	NO	NO,NA,NE
Ireland	NO	NO	NO	NO	NO	-72.26	264.95
Italy				NO		NO	NO
Japan	NA	NA	NA	NE	NA	IE	NA,IE,NE
Latvia	107.60	NO	107.60	NE	NE	-2.15	-386.66
Liechtenstein	0.17	-0.15	0.02	NO	-0.51	IE	1.81
Lithuania	NE	NE	NE	NE	NE	NE	NE
Luxembourg	NE	NE	NE	NE	NE	NE	NE
Monaco	NO	NO	NO	NO	NO	NO	NO
Netherlands	NE	NE	NE	NE	-1,158.00	IE	4,246.00
New Zealand	NE	NE	NE	NE	NE	NE	NE
Norway	NE	NE	NE	NE	NE	-510.00	1,870.00
Poland	NO	NO	NO	NO	NO	-35.60	130.54
Portugal	NO	NO	NO	NO	NO	NO	NO
Romania	NE	NE	NE	NE	NE	NE	NE
Russian Federation	NO	NO	NO	NA	2,676.19	-525.40	-7,886.23
Slovakia	NE	NE	NE	NE	NE	NE	NE
Slovenia	NE	NE	NE	NE	NE	NE	NE
Spain	NE	NE	NE	NE	NE	NO	NO,NE
Sweden	1,447.49	NA	1,447.49	-5.53	12.26	NA	-5,332.14
Switzerland	8.42	-5.11	3.31	NO	6.85	-14.69	16.64
Turkey							
Ukraine	NE	NE	NE	NE	-140.32	-192.53	1,220.46
United Kingdom	NE, NO	NE, NO	NE, NO		NO	-115.03	421.79
United States	NE	NE	NE	NE	-3,422.41	-1,006.68	16,240.00

^a Changes introduced by the LULUCF tables included in decision 14/CP.11 have been incorporated in this S&A report, part I. The main changes introduced include splitting of soils into mineral and organic components, and the inclusion of a 'Net CO₂' column.

^b CSC = carbon stock change.

^c DOM = dead organic matter.

Table 5.19**Net CO₂ emissions/removals from grassland remaining grassland - trend information**

CO ₂ emissions/removals ^b (Gg)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	NE, NO	NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Austria	39	48	1.0	-1.2	-1.2	0.2	0.8	0.8	4.2	3.1	3.5	2.5	3.9	2.9	23.6
Belarus	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Belgium	1,303	1,141	-3.4	15.3	-10.9	-0.1	0.5	-1.9	2.4	3.0	-0.2	-1.3	-2.5	-0.7	-12.5
Bulgaria	NE, NO	NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Canada	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Croatia	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Czech Republic	NA, NE, NO	NA, NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Denmark	93	81	-2.4	-6.9	-13.1	-6.8	2.1	4.2	4.5	2.2	0.1	-2.9	11.8	-1.9	-12.8
Estonia	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
European Community	21,017	21,369	7.8	-0.3	-1.8	0.7	6.7	2.4	2.6	-3.3	7.9	1.2	4.3	-22.0	1.7
Finland	-2,468	3,828	-52.2	22.7	-20.2	-61.6	-223.2	188.3	39.1	-13.1	30.4	16.3	18.6	25.7	-255.1
France	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Germany	18,282	16,670	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.1	-0.1	-0.1	0	0	-8.8
Greece	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Hungary	NO, IE, NE	NO, IE, NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Iceland	NE, IE, NA	NO, NA, NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Ireland	304	265	-1.0	-0.1	-1.7	0	0	0	0	-0.2	-0.2	-0.8	-0.8	-0.4	-12.7
Italy	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Japan	NA, IE, NE	NA, IE, NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Latvia	-195	-387	0.0	9.3	4.1	7.2	7.6	4.1	10.5	6.9	0.2	-0.4	-0.4	-1.7	98.8
Liechtenstein	2	2	-0.5	-0.6	3.4	-1.4	-1.4	-1.4	-1.4	-1.5	-5.9	-0.9	-0.9	-1.0	-14.8
Lithuania	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Luxembourg	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Monaco	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	4,246	4,246	0	0	0	0	0	0	0	0	0	0	0	0	0
New Zealand	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Norway	1,870	1,870	0	0	0	0	0	0	0	0	0	0	0	0	0
Poland	4,531	131	-0.7	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-97.1
Portugal	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Romania	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Russian Federation	-9,519	-7,886	7.0	20.7	-3.2	14.1	3.4	-30.8	-10.2	8.0	6.9	12.2	-80.0	100.7	-17.1
Slovakia	536	NE	-26.1	-63.6	-153.3	-240.7	-281.0	530.5	10.4	-0.8	56.0	*	*	*	*
Slovenia	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Spain	NO, NE	NO, NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Sweden	-1,171	-5,332	-45.5	-69.1	319.1	55.5	-93.5	431.8	-70.5	601.6	-257.9	18.1	70.0	-459.6	355.2
Switzerland	2	17	-86.0	-1.2	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3	-1.4	-1.4	-1.4	-4.9	943.3
Turkey															
Ukraine	2,251	1,220	20.7	4.1	9.4	-7.6	-29.2	-19.2	74.2	-29.5	-24.6	83.2	-18.5	-5.1	-45.8
United Kingdom	390	422	1.7	-14.8	-11.6	-25.1	37.2	-1.0	9.1	-36.0	68.8	-29.5	14.0	4.3	8.3
United States	-1,872	16,240	2.1	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.3	-0.2	-967.6

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

^b Only net CO₂ emissions from carbon stock change are included in this table.

Table 5.20

Area of grassland remaining grassland - trend information

Area (kha)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	433,640.81	432,519.40	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.3
Austria	1,391.96	1,232.11	-0.5	0.6	0.6	-0.1	-0.4	-0.4	-2.1	-1.6	-1.9	-1.4	-2.4	-1.9	-11.5
Belarus	3,156.80	3,297.60	-0.3	-0.1	1.0	0.3	-0.7	0.7	8.3	1.3	0.3	-0.2	0.3	-0.1	4.5
Belgium	578.44	517.15	-3.8	3.7	-0.5	0.1	0.7	-1.6	2.8	2.9	-0.1	-1.1	-2.1	-0.3	-10.6
Bulgaria	1,798.90	2,165.60	0.1	0.0	-3.1	-3.7	0.1	3.2	8.7	8.4	1.7	0.8	4.7	-2.1	20.4
Canada	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Croatia	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Czech Republic	834.96	856.36	-0.1	-0.2	0.3	-0.4	0.5	0.4	-0.2	0.3	-0.1	0.1	0.6	0.6	2.6
Denmark	217.24	189.38	-2.4	-6.9	-13.1	-6.8	2.1	4.2	4.5	2.2	0.1	-2.9	11.8	-1.9	-12.8
Estonia	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
European Community	38,076.56	36,409.61	-0.4	-0.4	-0.6	-1.0	-0.6	-0.3	0.2	-0.3	2.5	-0.1	0.2	-0.4	-4.4
Finland	588.00	382.00	-6.3	0.5	-2.5	-7.5	-4.9	-5.0	-3.1	-6.0	-4.1	-3.3	-5.3	-7.3	-35.0
France	8,779.25	9,065.64	0.4	-0.9	0.1	-1.0	0.9	0.8	1.5	0.9	1.3	1.3	1.1	1.1	3.3
Germany	6,616.39	6,223.41	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.5	-0.5	-0.5	-0.5	0	0	-5.9
Greece	1,636.17	1,636.17	0	0	0	0	0	0	0	0	0	0	0	0	0
Hungary	1,234.13	1,014.50	-1.1	0.0	0.0	0.0	-0.1	-8.4	1.0	0.2	-0.1	-0.2	-0.3	-4.0	-17.8
Iceland	3,478.65	3,452.06	-0.2	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.8
Ireland	4,122.87	3,842.52	-0.4	0.0	-0.7	0	0	0	0	-0.3	-0.3	-1.0	-1.0	-0.5	-6.8
Italy	7,550.34	6,839.17	-1.0	-0.8	-2.0	-2.9	-3.4	-1.7	0.2	-1.2	14.2	0.0	-0.1	-2.5	-9.4
Japan	232.10	519.78	24.4	4.5	4.9	4.6	2.2	2.1	1.4	0.9	1.3	1.6	1.0	1.1	124.0
Latvia	844.20	636.80	-0.1	-0.3	-15.1	0	-8.9	-1.9	0.9	-0.2	0.5	1.3	1.3	1.3	-24.6
Liechtenstein	5.31	4.97	-0.5	-0.5	-0.3	-0.3	-0.3	-0.3	-0.3	-0.4	-0.4	-0.4	-0.4	-0.4	-6.3
Lithuania	1,111.00	480.70	-63.9	1.3	-1.4	1.1	1.4	0.8	0.6	-0.1	0.2	-0.3	0.4	6.1	-56.7
Luxembourg	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Monaco	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	1,460.21	1,295.70	-0.7	-0.7	-0.7	-0.7	-0.7	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-11.3
New Zealand	14,663.19	14,229.36	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-3.0
Norway	72.91	91.92	0	0.4	0.4	0.4	-0.8	9.9	12.3	-3.6	-0.8	7.1	-5.1	2.8	26.1
Poland	3,910.66	3,073.59	-0.2	0.0	1.4	-2.6	-1.6	0.0	-0.6	-6.1	-8.5	0.0	3.1	-4.6	-21.4
Portugal	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Romania	4,401.10	4,856.55	0.5	0.4	0.0	0.1	-1.2	-0.1	2.0	0.1	-1.8	-0.2	0.2	0.2	10.3
Russian Federation	80,100.00	70,053.40	-0.5	0	-1.4	-10.2	4.2	0	-0.6	-0.8	-0.1	-0.8	-0.6	-0.6	-12.5
Slovakia	813.00	793.00	-0.6	0.8	-0.9	0.0	2.6	1.0	-0.1	-0.1	2.3	-10.3	0.0	0	-2.5
Slovenia	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Spain	4,662.95	4,662.95	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	2.0
Sweden	458.85	416.35	-0.6	-1.4	-1.6	-0.4	-1.7	-0.8	-1.8	-2.3	-2.2	-3.4	8.6	4.7	-9.3
Switzerland	1,331.99	1,296.26	-0.3	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.4	-2.7
Turkey															
Ukraine	9,183.20	8,557.30	4.5	2.7	-0.8	-0.8	-1.0	0.3	-3.2	0.3	-0.1	-2.2	-3.1	0.6	-6.8
United Kingdom	8.11	8.88	2.0	-16.3	-13.0	-28.4	44.1	-1.2	10.3	-40.2	82.5	-32.7	16.2	4.9	9.5
United States	206,212.62	201,667.70	0	0	0	0	0	0	0	0	0	0	0	0	-2.2

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 5.21a**Land converted to grassland - AD, IEFs, carbon stock changes in pools and net CO₂ emissions/removals (2006)^a**

	Activity data		IEF (Mg C/ha)					
	Total area (kha)	Area of organic soil (kha)	CSC ^b in living biomass/area			Net CSC ^b in DOM ^c /area	Net CSC ^b in soils/area	
			Increase	Decrease	Net Change		Mineral soils	Organic soils
Australia	IE, NE, NO	NO	IE, NO	IE, NE, NO	IE, NE, NO	IE, NE, NO	IE, NE, NO	IE, NO
Austria	557.30	NO	IE, NO	-0.21	-0.21	NO	0.80	NO
Belarus	8.70	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO
Belgium		NE					NE	NE
Bulgaria	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO
Canada	NO	NO	NE, NO	NE, NO	NE, NO	NE, NO	NO	NO
Croatia	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO
Czech Republic	221.74	NO	0.03	-0.02	0.01		0.48	NA, NO
Denmark	NO	NO	NO	NO	NO	NO	NA	NA
Estonia	NE	NE	NE	NE	NE	NE	NE	NE
European Community	5,785.17	7.83	0.05	-0.15	-0.10	-0.01	0.91	-0.25
Finland	NE	NE	NE	NE	NE	NE	NE	NE
France	168.46		NO	-2.04	-2.04	-0.34	12.08	
Germany	24.55	NE	0.00	-10.29	-10.29	NE	11.09	NE
Greece	99.74		NO	NO	NO	NO		
Hungary	IE, NO	NO	IE, NA, NO	IE, NA, NO	IE, NA, NO	IE, NA, NE, NO	IE, NO	NO
Iceland	390.04	363.62	NA, NE, NO	NA, NE, NO	NA, NE, NO	0.00	0.00	-1.10
Ireland	161.61	7.83	0.03	NO	0.03	NE, NO	0.32	-0.25
Italy	NO	NO	NO	NO	NO	NO	NO	NO
Japan	114.96	IE	0.05	-0.10	-0.05	-0.10	2.85	IE
Latvia	NE	NE	NE	NE	NE	NE	NE	NE
Liechtenstein	0.01	IE	7.49	-27.66	-20.17	-0.59	0.86	IE
Lithuania	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE
Luxembourg	NE	NE	NE	NE	NE	NE	NE	NE
Monaco	NO	NO	NO	NO	NO	NO	NO	NO
Netherlands	19.81	IE, NE	NE	-7.32	-7.32	NE	4.65	IE, NE
New Zealand	1.08	NA, NE	3.97	-183.03	-179.06	NA, NE	11.62	NA, NE
Norway	14.04	NE, NO	NE, NO	-0.35	-0.35	NE, NO	NE, NO	NE, NO
Poland	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO
Portugal	8.02	NO	0.22	-0.51	-0.29	-0.02	1.15	NO
Romania	2.75	NE	NA, NE	NA, NE	NA, NE	NA, NE	NE	NE
Russian Federation	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NA, NO	NE, NO	NE, NO
Slovakia	100.20	NO	NE	NE	NE	1.20	NO	NO
Slovenia	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO
Spain	98.175	NO	NE, NO	NE, NO	NE, NO	NO	0.252	NO
Sweden	96.45	NA	2.46	NA	2.46	NA	NA	NA
Switzerland	65.52	0.36	0.11	-0.76	-0.65	-0.33	0.73	-7.80
Turkey								
Ukraine	NE, NO	NA, NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO
United Kingdom	4,643.46	IE, NO	0.01	0.00	0.01		0.51	IE, NO
United States	11,615.60	66.00	NE	NE	NE	NE	0.41	-3.66

^a Changes introduced by the LULUCF tables included in decision 14/CP.11 have been incorporated in this S&A report, part I. The main changes introduced include splitting of soils into mineral and organic components, and the inclusion of a 'Net CO₂' column.

^b CSC = carbon stock change.

^c DOM = dead organic matter.

Table 5.21b**Land converted to grassland - AD, IEFs, carbon stock changes in pools and net CO₂ emissions/removals (2006)^a**

	Emissions/Removals (Gg C)						Net CO ₂ (Gg)
	CSC ^b in living biomass			Net CSC ^b in DOM ^c	Net CSC ^b in soils		
	Gains	Losses	Net Change		Mineral soils	Organic soils	
Australia	IE, NO	-9,925.12	-9,925.12	-2,473.81	-3,189.42	IE, NO	57,157.28
Austria	IE, NO	-118.49	-118.49	NO	444.95	NO	-1,197.03
Belarus	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO
Belgium					NE		NE
Bulgaria	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NO,NE
Canada	NE, NO	NE, NO	NE, NO	NE, NO	NO	NO	NO,NE
Croatia	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NO,NE
Czech Republic	7.49	-5.25	2.24		106.61	NA, NO	-399.11
Denmark	NO	NO	NO	NO	NA	NA	NA,NO
Estonia	NE	NE	NE	NE	NE	NE	NE
European Community	301.23	-867.37	-566.14	-57.13	5,258.59	-1.96	-16,988.97
Finland	NE	NE	NE	NE	NE	NE	NE
France	NO	-343.51	-343.51	-56.95	2,034.62		-5,991.92
Germany	0.01	-252.60	-252.60	NE	272.29	NE	-72.20
Greece	NO	NO	NO	NO			NO
Hungary	IE, NA, NO	IE, NA, NO	IE, NA, NO	IE, NA, NE, NO	IE, NO	NO	NA,NE,NO,IE
Iceland	NA, NE, NO	NA, NE, NO	NA, NE, NO	0.00	0.00	-399.98	1,466.59
Ireland	4.55	NO	4.55	NE, NO	49.29	-1.96	-190.24
Italy	NO	NO	NO	NO	NO	NO	NO
Japan	5.98	-11.66	-5.68	-11.40	327.65	IE	-1,138.75
Latvia	NE	NE	NE	NE	NE	NE	NE
Liechtenstein	0.09	-0.33	-0.24	-0.01	0.01	IE	0.87
Lithuania	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NE,NA
Luxembourg	NE	NE	NE	NE	NE	NE	NE
Monaco	NO	NO	NO	NO	NO	NO	NO
Netherlands	NE	-144.96	-144.96	NE	92.05	IE, NE	193.99
New Zealand	4.27	-197.07	-192.79	NA, NE	12.51	NA, NE	661.04
Norway	NE, NO	-4.88	-4.88	NE, NO	NE, NO	NE, NO	17.88
Poland	NE, NO	NE, NO	NE, NO				NE, NO
Portugal	1.79	-4.12	-2.33	-0.18	9.26	NO	-24.74
Romania	NA, NE	NA, NE	NA, NE	NA, NE	NE	NE	NE,NA
Russian Federation	NE, NO	NE, NO	NE, NO	NA, NO	NE, NO	NE, NO	NA, NE, NO
Slovakia	NE	NE	NE	119.85	NO	NO	-439.45
Slovenia	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NO,NE
Spain	NE, NO	NE, NO	NE, NO	NO	24.74	NO	-90.71
Sweden	237.07	NA	237.07	NA	NA	NA	-869.26
Switzerland	6.99	-49.67	-42.68	-21.62	47.58	-2.81	71.59
Turkey							
Ukraine	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NO,NE
United Kingdom	57.82	-3.70	54.11		2,356.14	IE, NO	-8,837.57
United States	NE	NE	NE	NE	4,693.00	-241.30	-16,322.90

^a Changes introduced by the LULUCF tables included in decision 14/CP.11 have been incorporated in this S&A report, part I. The main changes introduced include splitting of soils into mineral and organic components, and the inclusion of a 'Net CO₂' column.

^b CSC = carbon stock change.

^c DOM = dead organic matter.

Table 5.22

Net CO₂ emissions/removals from land converted to grassland - trend information

CO ₂ emissions/removals ^b (Gg)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	108,063	57,157	-16.0	-4.3	-0.6	10.0	-9.2	11.9	-3.6	-0.4	-19.0	11.0	28.3	-17.3	-47.1
Austria	-881	-1,197	-1.3	2.2	2.1	2.1	1.0	1.1	-3.4	10.1	-1.6	7.4	-7.5	6.1	35.9
Belarus	NE, NO	NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Belgium	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Bulgaria	NO, NE	NO, NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Canada	NO, NE	NO, NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Croatia	NO, NE	NO, NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Czech Republic	-189	-399	70.5	63.7	-30.1	-23.1	22.6	15.7	-4.9	-1.5	-3.2	2.7	-1.2	1.1	110.9
Denmark	NA, NO	NA, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Estonia	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
European Community	-17,955	-16,989	5.4	7.8	-10.4	0.8	-0.7	0.1	17.3	-13.2	133.3	-51.5	-5.2	-9.3	-5.4
Finland	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
France	-9,755	-5,992	4.6	-2.3	-3.8	-3.8	-4.3	-3.7	-4.2	-3.9	-3.4	0.6	-4.6	-4.8	-38.6
Germany	273	-72	0	0	0	0	0	-126.4	0	0	0	0	0	0	-126.4
Greece	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Hungary	NE, NO, IE	NA, NE, NO, IE	*	*	*	*	*	*	*	*	*	*	*	*	*
Iceland	1,478	1,467	0.0	0.0	0.0	0.0	0.0	-0.1	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.8
Ireland	-128	-190	-79.6	-13.7	-48.3	53.9	-7.9	-39.9	24.6	-66.2	6.2	149.6	113.4	-38.0	48.1
Italy	-214	NO	372.8	*	*	*	*	*	1,428.1	-67.5	2,202.1	-88.2	-7.2	*	*
Japan	-3,956	-1,139	-12.0	-7.5	-9.6	-11.1	-6.6	-6.6	-5.7	-3.1	-5.9	-6.6	-6.4	-7.2	-71.2
Latvia	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Liechtenstein	0	1	50.0	-93.3	-2,829.8	-41.1	37.2	-6.7	40.5	-42.1	-59.3	0.5	2.8	0	-1,210.6
Lithuania	NE, NA	NE, NA	*	*	*	*	*	*	*	*	*	*	*	*	*
Luxembourg	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Monaco	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	194	194	0	0	0	0	0	0	0	0	0	0	0	0	0
New Zealand	704	661	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-6.1
Norway	14	18	0	0	0	*	*	22.7	46.8	-83.2	1,053.9	-87.0	100.7	43.4	30.1
Poland	NO, NE	NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Portugal	-25	-25	0	0	0	0	0	0	0	0	0	0	0	0	0
Romania	NE, NA	NE, NA	*	*	*	*	*	*	*	*	*	*	*	*	*
Russian Federation	NA, NE, NO	NA, NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Slovakia	NE, NO	-439	*	*	*	*	*	*	*	*	*	*	18.3	-0.5	*
Slovenia	NO, NE	NO, NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Spain	-5,336.1	-90,713.7	100.0	16.7	14.3	12.5	11.1	10.0	9.1	8.3	7.7	7.1	6.7	6.3	1,600.0
Sweden	-158	-869	-175.2	-62.7	-94.1	7,584.8	60.1	-64.7	85.6	-94.0	9.7	1,765.6	-202.8	-356.8	451.6
Switzerland	31	72	-2.6	-4.1	1.4	0.7	2.0	0.0	1.0	0.7	-0.3	0.6	0.5	-9.4	130.8
Turkey															
Ukraine	NO, NE	NO, NE	*	*	*	*	*	*	*	*	*	*	*	*	*
United Kingdom	-7,261	-8,838	1.7	1.4	1.4	1.3	0.9	1.0	1.0	1.1	1.1	1.1	1.0	0.9	21.7
United States	-14,260	-16,323	0	0	0	0	0	0	0	0	0	0	0	0	14.5

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

^b Only net CO₂ emissions from carbon stock change are included in this table.

Table 5.23

Area of land converted to grassland - trend information

Area (kha)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	7,562.29	IE, NE, NO	4.5	2.8	2.6	2.8	2.8	2.9	2.8	2.2	2.0	2.6	2.4	*	*
Austria	600.80	557.30	0.5	-1.0	-1.0	-1.1	-0.4	-0.4	0.2	-0.9	-0.3	-1.5	0.2	-1.0	-7.2
Belarus	IE, NE, NO	8.70	*	*	*	*	*	*	*	*	*	*	*	*	*
Belgium			*	*	*	*	*	*	*	*	*	*	*	*	*
Bulgaria	NE, NO	NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Canada	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Croatia	NE, NO	NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Czech Republic	89.92	221.74	35.5	30.2	4.4	0.5	-0.7	4.6	2.5	1.2	1.3	-0.1	-0.6	-1.3	146.6
Denmark	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Estonia	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
European Community	4,216.29	5,785.17	3.5	2.4	0.4	1.8	2.3	3.2	3.2	-0.7	19.4	-12.4	2.4	-0.5	37.2
Finland	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
France	224.43	168.46	-1.7	-1.7	-1.6	-1.6	-1.4	-1.5	-1.5	-1.6	-1.9	-2.8	-2.8	-2.8	-24.9
Germany	33.56	24.55	0	0	0	0	0	-26.8	0	0	0	0	0	0	-26.8
Greece	21.30	99.74	-66.7	11.1	20.9	29.1	10.9	5.4	-4.8	5.2	23.8	0.1	0	0	368.2
Hungary	IE, NO	IE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Iceland	373.95	390.04	0.0	0.0	0.0	0.0	5.1	-0.1	0.0	0.0	-0.1	-0.1	-0.1	-0.1	4.3
Ireland	26.30	161.61	146.4	-19.9	-7.2	-6.8	14.4	53.6	-23.6	-23.0	-3.0	-11.0	55.4	2.7	514.5
Italy	8.63	NO	372.8	*	*	*	*	*	1,428.1	-67.5	2,202.1	-88.2	-7.2	*	*
Japan	428.23	114.96	-12.7	-7.9	-10.2	-11.0	-6.7	-7.2	-6.2	-3.8	-6.4	-7.7	-7.0	-7.4	-73.2
Latvia	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Liechtenstein	0.01	0.01	40.0	16.7	113.4	0	-12.5	-14.3	41.7	-23.5	-26.1	0	0	0	57.6
Lithuania	NA, NE	NA, NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Luxembourg	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Monaco	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	19.81	19.81	0	0	0	0	0	0	0	0	0	0	0	0	0
New Zealand	1.08	1.08	0	0	0	0	0	0	0	0	0	0	0	0	0
Norway	0.38	14.04	0	0	0	-15.8	2,257.4	29.2	-70.8	-28.8	302.1	-51.5	95.4	84.2	3,640.2
Poland	NE, NO	NE, NO	*	*	*	*	*	*	*	*	*	*	-76.6	*	*
Portugal	8.02	8.02	0	0	0	0	0	0	0	0	0	0	0	0	0
Romania	312.20	2.75	138.6	-94.2	1,554.5	-30.2	-30.7	1,254.5	-97.3	112.5	-82.4	666.7	263.0	-91.8	-99.1
Russian Federation	NE, NO	NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Slovakia	NO	100.20	*	*	*	*	*	*	*	*	*	*	9.1	-0.4	*
Slovenia	NE, NO	NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Spain	5.775	98.175	100.0	16.7	14.3	12.5	11.1	10.0	9.1	8.3	7.7	7.1	6.7	6.2	1,600.0
Sweden	34.48	96.45	10.8	0.4	12.0	7.2	11.7	9.9	10.4	2.8	7.3	5.7	5.1	0.5	179.7
Switzerland	50.16	65.52	-0.1	2.0	1.9	1.9	1.9	1.8	1.8	1.8	1.7	1.7	1.7	7.3	30.6
Turkey															
Ukraine	NE, NO	NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
United Kingdom	3,233.17	4,643.46	2.7	2.4	2.3	2.3	2.2	2.2	2.1	2.1	2.1	2.0	2.0	1.9	43.6
United States	10,190.00	11,615.60	0	0	0	0	0	0	0	0	0	0	0	0	14.0

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 5.24a**Forest land converted to grassland - AD, IEFs, carbon stock changes in pools and net CO₂ emissions/removals (2006)^a**

	Activity data		IEF (Mg C/ha)					
	Total area (kha)	Area of organic soil (kha)	CSC ^b in living biomass/area			Net CSC ^b in DOM ^c /area	Net CSC ^b in soils/area	
			Increase	Decrease	Net Change		Mineral soils	Organic soils
Australia	NE	NO	IE	NE	NE	NE	NE, NO	NO
Austria	60.13	NO	IE	-0.85	-0.85	NO	-0.85	NO
Belarus	0.20	NE	NO	NO	NO	NO	NE	NE
Belgium		NE					NE	NE
Bulgaria	NE	NE	NE	NE	NE	NE	NE	NE
Canada	NO	NO	NO	NO	NO	NO	NO	NO
Croatia	NE	NE	NE	NE	NE	NE	NE	NE
Czech Republic	2.88	NO		-1.82	-1.82		0.05	NO
Denmark	NO	NO	NO	NO	NO	NO	NA	NA
Estonia	NE	NE	NE	NE	NE	NE	NE	NE
European Community	597.55	IE, NA, NE, NO	0.14	-1.06	-0.93	-0.10	-0.24	IE, NA, NE, NO
Finland	NE	NE	NE	NE	NE	NE	NE	NE
France	168.46		NO	-2.04	-2.04	-0.34	-0.27	
Germany	1.58	NE	0.00	-59.91	-59.91	NE	NE	NE
Greece	NO		NO	NO	NO	NO	NO	
Hungary	IE	NO	IE	IE	IE	IE	IE	NO
Iceland	NE	NE	NE	NE	NE	NE	NE	NE
Ireland	NO	NO	NO	NO	NO	NO	NO	NO
Italy	NO	NO	NO	NO	NO	NO	NO	NO
Japan	10.21	IE	0.02	-0.33	-0.31	-1.12	2.44	IE
Latvia	NE	NE	NE	NE	NE	NE	NE	NE
Liechtenstein	0.00	IE	7.67	-71.66	-63.99	-1.66	-35.14	IE
Lithuania	NA	NA	NA	NA	NA	NA	NA	NA
Luxembourg	NE	NE	NE	NE	NE	NE	NE	NE
Monaco	NO	NO	NO	NO	NO	NO	NO	NO
Netherlands	2.04	NE	NE	-70.99	-70.99	NE	IE	IE
New Zealand	1.02	NE	3.82	-192.82	-189.01	NE	11.71	NE
Norway	2.70	NE	NO	NO	NO	NO	NE	NE
Poland	NE	NE	NE	NE	NE	NE	NE	NE
Portugal	0.18	NO	0.22	-2.86	-2.64	-0.28	0.75	NO
Romania	2.00	NE	NE	NE	NE	NE	NE	NE
Russian Federation	NO	NO	NO	NO	NO	NO	NO	NO
Slovakia	NO	NO	NE	NE	NE	NE	NO	NO
Slovenia	NE	NE	NE	NE	NE	NE	NE	NE
Spain	NO	NO	NO	NO	NO	NO	NO	NO
Sweden	23.11	NA	3.50	NA	3.50	NA	NA	NA
Switzerland	15.28	0.02	0.00	-3.21	-3.21	-1.41	-0.16	-0.74
Turkey								
Ukraine	NO	NO	NO	NO	NO	NO	NO	NO
United Kingdom	342.05	IE	IE, NO	IE, NO	IE, NO		-0.13	IE
United States	IE	IE	NE	NE	NE	NE	IE	IE

^a Changes introduced by the LULUCF tables included in decision 14/CP.11 have been incorporated in this S&A report, part I. The main changes introduced include splitting of soils into mineral and organic components, and the inclusion of a 'Net CO₂' column.

^b CSC = carbon stock change.

^c DOM = dead organic matter.

Table 5.24b**Forest land converted to grassland - AD, IEFs, carbon stock changes in pools and net CO₂ emissions/removals (2006)^a**

	Emissions/Removals (Gg C)						Net CO ₂ (Gg)
	CSC ^b in living biomass			Net CSC ^b in DOM ^c	Net CSC ^b in soils		
	Gains	Losses	Net Change		Mineral soils	Organic soils	
Australia	IE	-9,925.12	-9,925.12	-2,473.81	-3,189.42	NO	57,157.28
Austria	IE	-51.02	-51.02	NO	-51.29	NO	375.13
Belarus	NO	NO	NO	NO	NE	NE	NE, NO
Belgium					NE		NE
Bulgaria	NE	NE	NE	NE	NE	NE	NE
Canada	NO	NO	NO	NO	NO	NO	NO
Croatia	NE	NE	NE	NE	NE	NE	NE
Czech Republic		-5.25	-5.25		0.16	NO	18.67
Denmark	NO	NO	NO	NO	NA	NA	NA,NO
Estonia	NE	NE	NE	NE	NE	NE	NE
European Community	80.82	-634.92	-554.10	-57.00	-140.57		2,756.12
Finland	NE	NE	NE	NE	NE	NE	NE
France	NO	-343.51	-343.51	-56.95	-45.09		1,633.65
Germany	0.01	-94.91	-94.91	NE	NE	NE	348.00
Greece	NO	NO	NO	NO			NO
Hungary	IE	IE	IE	IE	IE	NO	NO,IE
Iceland	NE	NE	NE	NE	NE	NE	NE
Ireland	NO	NO	NO	NO	NO	NO	NO
Italy	NO	NO	NO	NO	NO	NO	NO
Japan	0.16	-3.37	-3.21	-11.40	24.93	IE	-37.85
Latvia	NE	NE	NE	NE	NE	NE	NE
Liechtenstein	0.03	-0.31	-0.27	-0.01	-0.15	IE	1.58
Lithuania	NA	NA	NA	NA	NA	NA	NA
Luxembourg	NE	NE	NE	NE	NE	NE	NE
Monaco	NO	NO	NO	NO	NO	NO	NO
Netherlands	NE	-144.96	-144.96	NE	IE	IE	531.51
New Zealand	3.90	-197.07	-193.16	NE	11.97	NE	664.38
Norway	NO	NO	NO	NO	NE	NE	NE,NO
Poland	NE	NE	NE	NE	NE	NE	NE
Portugal	0.04	-0.52	-0.48	-0.05	0.14	NO	1.46
Romania	NE	NE	NE	NE	NE	NE	NE
Russian Federation	NO	NO	NO	NO	NO	NO	NO
Slovakia	NE	NE	NE	NE	NO	NO	NE,NO
Slovenia	NE	NE	NE	NE	NE	NE	NE
Spain	NO	NO	NO	NO	NO	NO	NO
Sweden	80.77	NA	80.77	NA	NA	NA	-296.16
Switzerland	0.01	-49.02	-49.01	-21.62	-2.52	-0.02	268.26
Turkey							
Ukraine	NO	NO	NO	NO	NO	NO	NO
United Kingdom	IE, NO	IE, NO	IE, NO		-44.33	IE	162.55
United States	NE	NE	NE	NE	IE	IE	IE,NE

^a Changes introduced by the LULUCF tables included in decision 14/CP.11 have been incorporated in this S&A report, part I. The main changes introduced include splitting of soils into mineral and organic components, and the inclusion of a 'Net CO₂' column.

^b CSC = carbon stock change.

^c DOM = dead organic matter.

Table 5.25

Net CO₂ emissions/removals from forest land converted to grassland - trend information

CO ₂ emissions/removals ^b (Gg)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	108,063	57,157	-16.0	-4.3	-0.6	10.0	-9.2	11.9	-3.6	-0.4	-19.0	11.0	28.3	-17.3	-47.1
Austria	608	375	1.5	-4.1	-4.3	-4.5	-1.9	-1.9	-2.0	-2.0	-2.1	-1.6	-1.7	-1.7	-38.3
Belarus	NE,NO	NE,NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Belgium	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Bulgaria	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Canada	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Croatia	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Czech Republic	23	19	287.5	352.9	-51.5	138.4	-80.7	87.0	-45.3	-25.2	148.8	-50.9	41.1	-31.8	-18.2
Denmark	NA,NO	NA,NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Estonia	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
European Community	4,178	2,756	-16.7	1.2	0.2	-7.1	8.7	-3.2	-4.1	5.8	-2.9	-13.8	27.4	-26.3	-34.0
Finland	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
France	2,747	1,634	-28.2	-4.1	1.7	1.1	2.9	-2.1	-0.4	-2.5	-4.0	-17.8	-0.2	-0.2	-40.5
Germany	348	348	0	0	0	0	0	0	0	0	0	0	0	0	0
Greece	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Hungary	IE,NO	IE,NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Iceland	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Ireland	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Italy	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Japan	-160	-38	14.0	-6.9	-12.0	-15.1	-5.8	1.0	-5.8	-10.3	-13.1	-22.5	-17.9	-22.2	-76.4
Latvia	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Liechtenstein	1	2	0	0	433.2	0	0	0	0	0	-44.0	0	0	0	198.6
Lithuania	NA	NA	*	*	*	*	*	*	*	*	*	*	*	*	*
Luxembourg	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Monaco	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	532	532	0	0	0	0	0	0	0	0	0	0	0	0	0
New Zealand	706	664	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-5.9
Norway	NE,NO	NE,NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Poland	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Portugal	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Romania	NA,NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Russian Federation	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Slovakia	NE,NO	NE,NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Slovenia	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Spain	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Sweden	-155	-296	-45.2	-100.0	0	6,957,247,750.0	-80.2	144.5	107.9	-97.6	191.7	616.2	-639.8	-143.4	91.5
Switzerland	215	268	-0.4	-1.1	0.5	0.3	0.7	0.1	0.4	0.4	0.1	0.3	0.3	0.5	24.9
Turkey															
Ukraine	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
United Kingdom	97	163	0.1	1.0	-7.6	1.3	30.3	12.2	7.4	2.4	-0.7	0.1	3.3	2.9	67.5
United States	IE,NE	IE,NE	*	*	*	*	*	*	*	*	*	*	*	*	*

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

^b Only net CO₂ emissions from carbon stock change are included in this table.

Table 5.26

Area of forest land converted to grassland - trend information

Area (kha)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	7,562.29	NE	4.5	2.8	2.6	2.8	2.8	2.9	2.8	2.2	2.0	2.6	2.4	*	*
Austria	102.29	60.13	2.8	-6.6	-7.1	-7.6	-3.3	-3.5	-3.6	-3.7	-3.9	-3.1	-3.2	-3.3	-41.2
Belarus	NO	0.20	*	*	*	*	*	*	*	*	*	*	*	*	*
Belgium			*	*	*	*	*	*	*	*	*	*	*	*	*
Bulgaria	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Canada	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Croatia	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Czech Republic	1.90	2.88	15.7	13.7	5.9	11.5	-3.2	-1.8	-2.1	-3.0	0.9	-2.5	1.6	-5.9	51.2
Denmark	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Estonia	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
European Community	676.25	597.55	0.1	-1.5	-1.5	-1.1	-0.4	-0.4	-0.2	-0.9	-0.7	-1.1	-1.8	-0.7	-11.6
Finland	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
France	224.43	168.46	-1.7	-1.7	-1.6	-1.6	-1.4	-1.5	-1.5	-1.6	-1.9	-2.8	-2.8	-2.8	-24.9
Germany	1.58	1.58	0	0	0	0	0	0	0	0	0	0	0	0	0
Greece	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Hungary	IE	IE	*	*	*	*	*	*	*	*	*	*	*	*	*
Iceland	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Ireland	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Italy	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Japan	56.51	10.21	-9.8	-8.8	-13.8	-10.3	-5.6	-7.1	-7.9	-10.1	-10.3	-20.8	-16.3	-12.4	-81.9
Latvia	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Liechtenstein	0.00	0.00	0	0	501.5	-28.6	20.0	-16.7	60.0	-37.5	-43.1	0	0	0	242.2
Lithuania	NA	NA	*	*	*	*	*	*	*	*	*	*	*	*	*
Luxembourg	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Monaco	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	2.04	2.04	0	0	0	0	0	0	0	0	0	0	0	0	0
New Zealand	1.02	1.02	0	0	0	0	0	0	0	0	0	0	0	0	0
Norway	0.20	2.70	0	0	0	0	210.8	257.1	*	*	366.4	-53.6	38.5	66.6	1,231.5
Poland	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Portugal	0.18	0.18	0	0	0	0	0	0	0	0	0	0	0	0	0
Romania	NA	2.00	*	*	*	*	*	*	*	*	*	*	*	-94.0	*
Russian Federation	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Slovakia	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Slovenia	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Spain	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Sweden	4.20	23.11	37.6	12.5	4.2	30.5	18.7	19.4	23.7	2.7	9.4	2.7	-16.2	14.4	449.7
Switzerland	12.51	15.28	-0.2	1.2	1.2	1.2	1.2	1.2	1.1	1.1	1.1	1.1	1.1	6.5	22.2
Turkey															
Ukraine	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
United Kingdom	341.52	342.05	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.2
United States	IE	IE	*	*	*	*	*	*	*	*	*	*	*	*	*

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 5.27**Direct N₂O emissions from N-fertilization - AD, IEFs and N₂O emissions (base year and 2006)**

	Forest Land remaining Forest Land						Land converted to Forest Land					
	Base year ^a			2006			Base year ^a			2006		
	Total amount of fertilizer applied	N ₂ O-N emissions per unit of fertilizer	N ₂ O emissions	Total amount of fertilizer applied	N ₂ O-N emissions per unit of fertilizer	N ₂ O emissions	Total amount of fertilizer applied	N ₂ O-N emissions per unit of fertilizer	N ₂ O emissions	Total amount of fertilizer applied	N ₂ O-N emissions per unit of fertilizer	N ₂ O emissions
	(Gg N/yr)	(kg N ₂ O-N/kg N)	(Gg)	(Gg N/yr)	(kg N ₂ O-N/kg N)	(Gg)	(Gg N/yr)	(kg N ₂ O-N/kg N)	(Gg)	(Gg N/yr)	(kg N ₂ O-N/kg N)	(Gg)
Australia	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
Austria	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Belarus	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Belgium	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Bulgaria	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
Canada	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
Croatia	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Czech Republic	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Denmark	IE	NO	NO	IE	NO	NO	IE	NO	NO	IE	NO	NO
Estonia	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
European Community	14.88	0.01	0.27	9.21	0.01	0.17	1.65	0.01	0.02	0.34	0.01	0.00
Finland	4.40	0.01	0.09	2.99	0.01	0.06	IE	IE	IE	IE	IE	IE
France	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Germany	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Greece	NO	NO	NO	NO	NO	NO	IE	IE	IE	IE	IE	IE
Hungary	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Iceland	IE	IE	IE	0.00	0.01	0.00	IE	IE	IE	0.02	0.01	0.00
Ireland	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
Italy	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Japan	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
Latvia	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Liechtenstein	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Lithuania	NA	NA	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
Luxembourg	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
Monaco	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Netherlands	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
New Zealand	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
Norway	1.12	0.00	0.00	0.20	0.00	0.00	IE	IE	IE	IE	IE	IE
Poland	IE, NE	IE, NE	IE, NE	NO	NO	NO				NO	NO	NO
Portugal	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
Romania	NA	NA	NA	NA	NA	NA	IE	IE	IE	IE	IE	IE
Russian Federation	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
Slovakia	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
Slovenia	NO	NO	NO	NO	NO	NO	IE	IE	IE	IE	IE	IE
Spain												
Sweden	10.48	0.01	0.19	6.22	0.01	0.11	IE	IE	IE	IE	IE	IE
Switzerland	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Turkey												
Ukraine	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
United Kingdom	NO	NO	NO	NO	NO	NO	1.65	0.01	0.02	0.34	0.01	0.00
United States	10.90	0.01	0.17	71.51	0.01	1.12	NE	NE	NE	NE	NE	NE

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 5.28

Direct N₂O emissions from N-fertilization (Gg) - trend information

N ₂ O emissions (Gg)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	IE, NO	IE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Austria	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Belarus	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Belgium	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Bulgaria	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Canada	IE	IE	*	*	*	*	*	*	*	*	*	*	*	*	*
Croatia	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Czech Republic	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Denmark	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Estonia	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
European Community	0.292	0.173	-33.3	-4.5	1.8	3.9	1.1	-0.5	-6.5	-16.0	7.3	13.7	22.8	41.5	-40.9
Finland	0.087	0.059	-24.5	18.4	63.5	6.9	-29.1	1.5	13.3	5.6	-2.6	5.8	-8.0	66.3	-32.0
France	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Germany	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Greece	IE, NO	IE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Hungary	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Iceland	0.007	0.017	20.0	-11.4	32.1	27.7	-9.5	-11.5	7.2	9.1	55.9	12.5	11.8	2.2	154.1
Ireland	IE	IE	*	*	*	*	*	*	*	*	*	*	*	*	*
Italy	NA, NO	NA, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Japan	IE	IE	*	*	*	*	*	*	*	*	*	*	*	*	*
Latvia	NA, NO	NA, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Liechtenstein	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Lithuania	NA	NA, NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Luxembourg	NA, NE	NA, NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Monaco	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	NE, NO	NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
New Zealand	IE	IE	*	*	*	*	*	*	*	*	*	*	*	*	*
Norway	0.004	0.001	52.8	-1.4	11.6	-7.7	0	-35.7	-18.2	36.9	-55.8	1.4	26.6	-54.7	-81.5
Poland	IE, NE	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Portugal	IE, NO	IE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Romania	IE, NA	IE, NA	*	*	*	*	*	*	*	*	*	*	*	*	*
Russian Federation	IE	IE	*	*	*	*	*	*	*	*	*	*	*	*	*
Slovakia	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Slovenia	IE, NO	IE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Spain															
Sweden	0.185	0.110	-41.7	-9.5	-21.2	1.4	30.4	-1.8	-15.4	-31.0	18.6	25.1	48.4	34.4	-40.7
Switzerland	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Turkey															
Ukraine	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
United Kingdom	0.021	0.004	5.6	-15.5	-7.3	3.8	-13.7	2.1	-12.4	-10.5	0.7	-16.5	-14.8	-16.0	-79.3
United States	0.171	1.124	-3.1	28.0	25.0	18.7	31.6	-24.0	10.5	0	0	0	0	0	556.3

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 5.29**N₂O emissions from disturbance associated with land-use conversion to cropland - AD, IEF and N₂O emissions (base year and 2006)**

	Base year ^a			2006		
	Land area converted	N ₂ O-N emissions per area converted	N ₂ O emissions	Land area converted	N ₂ O-N emissions per area converted	N ₂ O emissions
	(kha)	(kg N ₂ O-N/ha)	(Gg)	(kha)	(kg N ₂ O-N/ha)	(Gg)
Australia	3,155.11	0.04	0.18	NE, NO	NE, NO	0.17
Austria	497.28	1.04	0.81	527.99	1.04	0.86
Belarus	1,081.20	IE, NE, NO	IE, NE, NO	302.40	IE, NE, NO	IE, NE, NO
Belgium	NO	NO	NO	NO	NO	NO
Bulgaria	NE	NE	NE	NE	NE	NE
Canada	1,679.74	0.05	0.14	850.26	0.07	0.10
Croatia	NE	NE	NE	NE	NE	NE
Czech Republic	110.79	0.39	0.07	37.15	0.39	0.02
Denmark	NA, NO	NA	NA	NA, NO	NA	NA
Estonia	NE	NE	NE	NE	NE	NE
European Community	4,294.52	1.23	8.33	2,848.62	1.45	6.48
Finland	NE	NE	NE	NE	NE	NE
France	3,695.80	1.06	6.15	2,048.25	1.07	3.44
Germany	31.06	24.77	1.21	35.21	24.58	1.36
Greece	NO	NO	NO	NO	NO	NO
Hungary	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO
Iceland	NE	NE	NE	NE	NE	NE
Ireland	NO	NA, NO	NA, NO	57.62	0.50	0.05
Italy	NO	NO	NO	52.05	4.82	0.39
Japan	475.93	0.40	0.30	82.97	0.35	0.05
Latvia	IE, NE	NE	NE	IE, NE	NE	NE
Liechtenstein	0.00	NO	NO	0.00	NO	NO
Lithuania	NE	NE	NE	NE	NE	NE
Luxembourg	NE	NE	NE	NE	NE	NE
Monaco	NO	NO	NO	NO	NO	NO
Netherlands	NE	NE	NE	NE	NE	NE
New Zealand	0.91	1.34	0.00	0.91	22.87	0.03
Norway	NO	NO	0.00	NO	NO	0.00
Poland	NE	NE	NE	NE	NE	NE
Portugal	51.58	0.96	0.08	51.58	0.96	0.08
Romania	NE	NE	NE	NE	NE	NE
Russian Federation	NO	NO	NO	NO	NO	NO
Slovakia	NE	NE	NE	NE	NE	NE
Slovenia	NE	NE	NE	NE	NE	NE
Spain						
Sweden	18.81	2.50	0.07	75.92	2.51	0.30
Switzerland	22.97	0.69	0.03	16.98	0.64	0.02
Turkey						
Ukraine	NO	NA, NE, NO	NA, NE, NO	NO	NA, NE, NO	NA, NE, NO
United Kingdom	NE	NE	NE	NE	NE	NE
United States	IE	IE	IE	IE	IE	IE

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 5.30**N₂O emissions from disturbance associated with land-use conversion to cropland - trend information**

N ₂ O emissions (Gg)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	0.18	0.17	-57.6	-22.1	-59.3	293.1	2.7	-39.2	-36.7	133.2	48.4	-99.2	6751.5	-1.9	-2.6
Austria	0.81	0.86	0.3	0.4	0.4	0.3	0.4	0.4	1.6	0.1	-0.1	1.2	0.4	-0.3	6.2
Belarus	IE, NE, NO	IE, NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Belgium	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Bulgaria	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Canada	0.14	0.10	-4.0	-2.9	-3.6	-3.3	-2.9	-2.8	-2.6	-1.1	-0.7	-0.8	-1.0	-0.7	-33.7
Croatia	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Czech Republic	0.07	0.02	-2.6	-16.2	-17.3	9.3	-10.3	-4.3	-9.0	-6.6	-5.3	-5.7	-4.0	-2.4	-66.9
Denmark	NA	NA	*	*	*	*	*	*	*	*	*	*	*	*	*
Estonia	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
European Community	8.33	6.48	-1.3	-5.1	-1.0	4.0	0.6	-9.4	-2.0	-2.3	-2.4	-2.5	-3.0	3.9	-22.1
Finland	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
France	6.15	3.44	-2.0	-2.9	-3.0	-3.2	-3.4	-3.4	-3.8	-4.1	-4.6	-5.0	-5.3	-5.6	-44.0
Germany	1.21	1.36	0	0	0	0	0	12.5	0	0	0	0	0	0	12.5
Greece	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Hungary	NE, NO	NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Iceland	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Ireland	NA, NO	0.05	*	61.4	0	0	0	0	73.0	24.7	30.0	0	0	0	*
Italy	NO	0.39	*	*	*	691.7	41.9	*	*	*	*	*	*	*	*
Japan	0.30	0.05	-7.3	-13.8	-14.7	-11.3	-8.8	-11.4	-10.7	-10.3	-9.3	-11.8	-13.8	-11.8	-84.6
Latvia	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Liechtenstein	NO	NO	*	-63.6	21.7	0.8	-14.1	-42.0	*	*	-40.0	71.6	-2.2	*	*
Lithuania	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Luxembourg	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Monaco	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
New Zealand	0.00	0.03	100.4	16.7	14.3	12.5	11.1	10.0	9.1	8.3	7.7	7.1	6.7	6.3	1,605.7
Norway	0.00	0.00	-9.7	-5.0	-5.5	-6.5	-7.5	-7.7	-21.9	-12.3	3.7	1.7	-8.8	-12.2	-76.4
Poland	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Portugal	0.08	0.08	0	0	0	0	0	0	0	0	0	0	0	0	0
Romania	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Russian Federation	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Slovakia	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Slovenia	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Spain			*	*	*	*	*	*	*	*	*	*	*	*	*
Sweden	0.07	0.30	12.2	1.5	11.7	3.3	-0.6	7.0	6.0	7.9	10.9	11.7	2.5	22.5	304.1
Switzerland	0.03	0.02	-0.9	-2.5	-2.6	-2.7	-2.7	-2.8	-2.9	-3.0	-3.1	-3.2	-3.3	0.3	-31.8
Turkey															
Ukraine	NA, NE, NO	NA, NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
United Kingdom	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
United States	IE	IE	*	*	*	*	*	*	*	*	*	*	*	*	*

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 5.31

CO₂ emissions from agricultural lime application in cropland and grassland (base year and 2006)

	Cropland						Grassland					
	Base year ^a			2006			Base year ^a			2006		
	Total amount of lime applied	CO ₂ emissions per unit of lime	CO ₂ emissions	Total amount of lime applied	CO ₂ emissions per unit of lime	CO ₂ emissions	Total amount of lime applied	CO ₂ emissions per unit of lime	CO ₂ emissions	Total amount of lime applied	CO ₂ emissions per unit of lime	CO ₂ emissions
	(Mg/yr)	(MgCO ₂ -C/Mg)	(Gg)	(Mg/yr)	(MgCO ₂ -C/Mg)	(Gg)	(Mg/yr)	(MgCO ₂ -C/Mg)	(Gg)	(Mg/yr)	(MgCO ₂ -C/Mg)	(Gg)
Australia	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
Austria	205,230	0.12	90.30	204,750	0.12	90.09	IE	IE	IE	IE	IE	IE
Belarus	5,221,200	0.12	2,297.33	2,266,500	0.12	997.26	NO	NO	NO	NO	NO	NO
Belgium	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
Bulgaria	112,286	0.12	49.41	NE, NO	NE, NO	NE, NO	NO	NO	NO	NO	NO	NO
Canada	442,755	0.13	203.62	626,114	0.13	287.76	IE	IE	IE	IE	IE	IE
Croatia	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
Czech Republic	2,517,500	0.12	1,107.70	151,853	0.12	66.82	118,280	0.12	52.04	6,178	0.12	2.72
Denmark	1,285,300	0.12	565.53	407,300	0.12	179.21	IE	IE	IE	IE	IE	IE
Estonia	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
European Community	12,475,295	0.12	5,543.82	8,316,145	0.12	3,679.40	2,152,812	0.12	968.70	1,212,114	0.12	542.15
Finland	1,344,769	0.13	617.87	661,904	0.12	298.26	IE	IE	IE	IE	IE	IE
France	2,339,926	0.12	1,031.55	2,232,663	0.12	983.37	NO	NO	NO	NO	NO	NO
Germany	5,118,222	0.12	2,252.02	3,536,908	0.12	1,555.15	IE	IE	IE	IE	IE	IE
Greece	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Hungary	320,135	0.12	141.44	72,953	0.12	32.19	NO	NO	NO	NO	NO	NO
Iceland	NE	NE	NE	8,516	0.11	3.54	NO	NO	NO	NO	NO	NO
Ireland	86,998	0.12	38.28	58,634	0.12	25.80	719,902	0.12	316.76	520,585	0.12	229.06
Italy	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Japan	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
Latvia	10,500	0.12	4.62	1,286	0.12	0.57	NE	NE	NE	NE	NE	NE
Liechtenstein	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Lithuania	200,000	0.13	93.43	NA	NA	NA	NA	NA	NA	NA	NA	NA
Luxembourg	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
Monaco	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Netherlands	NA	NA	NA	NA	NA	NA	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE	NA, NE
New Zealand	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
Norway	492,407	0.12	216.66	192,030	0.12	84.49	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO	IE, NO
Poland	NE	NE	NE	1,260,550	0.12	560.57	IE	IE	IE	IE	IE	IE
Portugal	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
Romania	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
Russian Federation	21,980,000	0.12	9,671.20	1,638,700	0.12	721.03	IE	IE	IE	IE	IE	IE
Slovakia	1,000	0.12	0.44	2,440	0.12	1.08	NE	NE	NE	NE	NE	NE
Slovenia	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
Spain												
Sweden	383,760	0.12	169.77	205,515	0.12	90.93	NO	NO	NO	NO	NO	NO
Switzerland	45,000	0.12	19.80	45,000	0.12	19.80	NO	NO	NO	NO	NO	NO
Turkey												
Ukraine	6,930,700	0.12	3,049.51	283,400	0.12	124.70	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO	NE, NO
United Kingdom	1,711,090	0.12	778.51	1,008,471	0.12	456.60	1,432,910	0.12	651.94	691,529	0.12	313.10
United States	24,666,866	0.08	7,083.85	25,025,219	0.09	8,011.81	IE	IE	IE	IE	IE	IE

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 5.32

CO₂ emissions from agricultural lime application (all land-use categories) - trend information

CO ₂ emissions (Gg)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	169.87	1,497.74	39.3	-12.2	26.0	20.6	23.0	2.4	3.3	34.2	10.1	9.8	10.1	10.1	781.7
Austria	90.30	90.09	0.8	0.0	0.1	-0.5	0.0	-1.4	-0.1	0.0	0.0	-0.1	0.1	-0.2	-0.2
Belarus	2,297.33	997.26	-11.5	2.3	20.3	-10.6	-29.2	-10.3	10.2	16.2	10.8	7.1	12.9	-9.3	-56.6
Belgium	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Bulgaria	49.41	NE, NO	-81.5	*	*	*	*	*	*	*	*	*	*	*	*
Canada	203.62	287.76	25.4	10.5	-8.6	11.9	-1.7	-11.3	7.6	9.2	-7.9	0	0	0	41.3
Croatia	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Czech Republic	1,159.74	69.53	-73.6	2.6	-17.8	-3.1	-3.6	6.2	0.6	-6.8	-12.1	-8.3	-9.4	11.9	-94.0
Denmark	565.53	179.21	-18.2	-20.8	19.5	-46.3	5.1	-1.7	-23.0	16.2	-3.0	-30.3	39.4	-18.4	-68.3
Estonia	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
European Community	6,859.24	4,395.81	-9.9	-0.7	1.9	-10.2	-1.3	-2.8	-7.9	4.2	-1.6	-7.1	-1.3	-0.8	-35.9
Finland	617.87	298.26	-30.2	17.5	3.1	-8.5	0.3	-24.0	21.2	6.9	-34.2	-9.3	5.2	12.7	-51.7
France	1,031.55	983.37	-2.3	-5.2	17.8	-8.4	-0.7	-11.1	-6.0	12.8	-6.1	2.8	-4.8	-4.6	-4.7
Germany	2,415.59	1,648.28	-24.6	2.9	4.9	13.8	0.7	10.6	-13.3	6.5	-8.4	-0.9	0	0	-31.8
Greece	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Hungary	141.44	32.19	-57.6	33.4	-14.2	-89.8	-98.3	56,869.4	11.9	-14.9	30.0	-40.0	14.2	4.1	-77.2
Iceland	NA, NE, NO	3.54	*	*	*	*	*	*	*	*	*	*	6.6	37.2	2.4
Ireland	355.04	254.86	-11.2	-2.1	-12.5	-27.8	25.4	-4.4	5.2	-28.9	41.2	-37.7	10.8	-4.5	-28.2
Italy	NA, NO	NA, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Japan	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Latvia	4.62	0.57	0	-25.5	-61.5	56.2	4.3	108.2	-93.1	4,589.9	63.5	-95.9	50.0	-61.0	-87.8
Liechtenstein	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Lithuania	93.43	NA	-14.3	-50.0	*	*	*	*	*	*	*	*	*	*	*
Luxembourg	NA, NE	NA, NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Monaco	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	183.15	81.12	-19.9	12.6	-0.5	-5.5	-18.9	15.7	-18.0	5.8	2.1	-8.6	-5.4	8.5	-55.7
New Zealand	373.83	676.11	7.6	-0.6	9.7	8.8	8.1	7.5	7.0	-2.8	-7.6	3.6	-3.8	0	80.9
Norway	226.78	103.09	-13.0	-7.2	0.2	-11.0	-1.0	-13.4	1.9	-2.0	-8.5	-11.1	-1.0	-4.8	-54.5
Poland	IE, NE	560.57	-24.1	-6.1	11.4	-5.5	-19.8	-8.7	-1.0	-4.9	-3.8	-0.1	-4.7	-38.8	*
Portugal	NE, NO	NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Romania	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Russian Federation	9,671.20	721.03	-7.6	-29.0	-25.0	-30.3	8.7	12.0	-3.6	-8.0	3.7	-8.4	-4.1	3.6	-92.5
Slovakia	0.44	1.08	0	0	0	0	0	143.8	0	0	0	0	0	0	143.8
Slovenia	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Spain			*	*	*	*	*	*	*	*	*	*	*	*	*
Sweden	169.77	90.93	-21.0	14.1	-9.7	-24.8	19.3	0	-12.2	-4.5	-2.2	-4.3	-4.8	-22.0	-46.4
Switzerland	19.80	19.80	0	0	0	0	0	0	0	0	0	0	0	0	0
Turkey															
Ukraine	3,049.51	124.70	-47.9	-77.9	-76.3	9.5	*	*	12.6	-24.8	-8.2	68.8	9.1	16.6	-95.9
United Kingdom	1,430.45	769.69	23.9	-0.9	-11.1	-21.4	-16.2	-10.5	-8.8	2.0	24.2	-11.2	-11.7	7.0	-46.2
United States	7,083.85	8,011.81	3.4	-1.3	0.2	10.0	-2.5	0.9	3.8	9.3	-3.4	-8.5	4.0	2.0	13.1

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 5.33**Biomass burning - CO₂ emissions from forest land (base year and 2006)**

	Base year ^a					2006				
	Activity Data			CO ₂ IEF	CO ₂ Emission	Activity Data			CO ₂ IEF	CO ₂ Emission
	Description	Unit	Value	(Mg/activity data unit)	(Gg)	Description	Unit	Value	(Mg/activity data unit)	(Gg)
Australia	Area burned	Not specified	NA	IE, NA, NE	IE, NA, NE	Area burned	Not specified	NA	IE, NA, NE	IE, NA, NE
Austria	Area burned	ha	200	IE, NO	IE, NO	Area burned	ha	67	IE, NO	IE, NO
Belarus	Biomass burned	kg dm	27	1,349.01	36.61	Biomass burned	kg dm	29	1,005.25	29.63
Belgium			NE	NO	NO			NE	NO	NO
Bulgaria	Biomass burned	kg dm	NE	NE	NE	Biomass burned	kg dm	NE	NE	NE
Canada	Area burned	ha	268,155	135.31	36,284.13	Area burned	ha	647,500	144.42	93,511.56
Croatia			NA	NA	746.37			NA	NA	99.26
Czech Republic			NA	NA	843.47			NA	NA	1,225.17
Denmark			NO	NO	NO			NO	NO	NO
Estonia	Area burned	ha	1,010	51.48	52.00	Area burned	ha	2	71,858.29	109.20
European Community	Biomass burned	kg dm	IE, NA, NE, NO	IE, NA, NE, NO	824.02	Biomass burned	kg dm	IE, NA, NE, NO	IE, NA, NE, NO	640.60
Finland	Area burned	ha	4,188	0.79	3.32	Area burned	ha	2,627	5.30	13.93
France			14,069	NO	NO			14,328	NO	NO
Germany			NE	IE, NO	IE, NO			482	IE, NO	IE, NO
Greece	Area burned	ha	33,734	IE, NO	IE, NO	Area burned	ha	12,183	IE, NO	IE, NO
Hungary			NA	IE, NE, NO	IE, NE, NO			NA	IE, NE, NO	IE, NE, NO
Iceland			NE, NO	NE, NO	NE, NO			NE, NO	NE, NO	NE, NO
Ireland	Area burned	ha	431	45.66	19.68	Area burned	ha	451	45.66	20.58
Italy	Area burned	ha	96,157	IE, NO	IE, NO	Area burned	ha	15,029	IE, NO	IE, NO
Japan	Biomass burned	kg dm	49,465,963	IE	IE	Biomass burned	kg dm	14,775,038	IE	IE
Latvia	Biomass burned	kg dm	112,110	1.83	205.54	Biomass burned	kg dm	178,346	1.83	326.97
Liechtenstein	Biomass burned	kg dm	NO	NO	NO	Biomass burned	kg dm	NO	NO	NO
Lithuania	Area burned	ha	134	51.97	6.96	Area burned	ha	1,199	60.73	72.82
Luxembourg	Biomass burned	kg dm	NE	NE	NE	Biomass burned	kg dm	NE	NE	NE
Monaco			NO	NO	NO			NO	NO	NO
Netherlands		Not specified	NA	NE, NO	NE, NO		Not specified	NA	NE, NO	NE, NO
New Zealand	Biomass burned	kg dm	183,604,756	IE, NO	IE, NO	Biomass burned	kg dm	232,391,175	IE, NO	IE, NO
Norway	Area burned	ha	936	IE, NO	IE, NO	Area burned	ha	3,883	IE, NO	IE, NO
Poland				NE	NE				NE, NO	NE, NO
Portugal	Biomass burned	kg dm	915,657,490	0.00	737.75	Biomass burned	kg dm	445,765,187	0.00	383.03
Romania	Area burned	ha	93	24.77	2.30	Area burned	ha	946	24.77	23.43
Russian Federation	Area burned	ha	1,377,364	IE, NO	IE, NO	Area burned	ha	1,273,097	IE, NO	IE, NO
Slovakia	Biomass burned	kg dm	87,388	1.83	160.21	Biomass burned	kg dm	125,390	IE, NO	IE, NO
Slovenia			NE, NO	NE, NO	NE, NO			NE, NO	NE, NO	NE, NO
Spain	Biomass burned	kg dm	1,017,536,000	IE, NE	IE, NE	Biomass burned	kg dm	3,041,970,000	IE, NE	IE, NE
Sweden	Area burned	ha	1,673	9.78	16.36	Area burned	ha	6,904	13.30	91.79
Switzerland	Area burned	ha	1,102	IE, NO	IE, NO	Area burned	ha	101	IE, NO	IE, NO
Turkey										
Ukraine	Biomass burned	kg dm	32,163	2.64	84.96	Biomass burned	kg dm	21,380	4.23	90.51
United Kingdom	Biomass burned	kg dm	25,582,903.94	0.00	46.90	Biomass burned	kg dm	71,601,160	0.00	131.27
United States	Area burned	ha	1,870,305	IE, NE	IE, NE	Area burned	ha	3,995,766	IE, NE	IE, NE

^a In accordance with the UNFCCC reporting guidelines on annual inventories of Annex I Parties the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 5.34

CH₄ emissions from biomass burning in forest land - trend information

CH ₄ emissions (Gg)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	79.24	99.17	22.6	-2.0	26.9	-21.3	-16.0	-4.6	88.8	191.2	-3.3	-7.0	-72.8	94.8	25.2
Austria	0.01	0.00	-72.5	-9.4	-31.0	365.0	-91.4	425.0	-42.9	700.0	-64.9	0	0	0	-64.9
Belarus	0.20	0.21	-40.6	120.0	-80.0	12.8	-7.0	70.4	-48.7	534.0	-45.6	-60.7	6.1	22.9	8.7
Belgium	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Bulgaria	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Canada	133.28	343.47	52.7	-79.9	-71.2	1,239.2	-60.4	-87.7	229.8	360.7	-18.6	12.2	-51.2	41.3	157.7
Croatia	0.00	0.00	0	302.8	57.8	90.3	-93.7	2,804.8	-75.0	-48.7	360.0	-95.7	5.9	34.6	-86.7
Czech Republic	3.73	5.49	-23.3	36.5	10.1	-12.2	-7.5	-7.7	5.1	5.8	20.6	-4.9	-4.0	19.7	47.1
Denmark	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Estonia	0.23	0.48	-98.8	8.6	58.7	-24.7	6.8	54.0	-66.4	480.2	-85.5	82.7	-74.6	2,341.6	110.0
European Community	60.03	62.19	-4.2	-25.1	21.4	15.4	-23.5	45.9	-28.2	11.8	45.8	-35.8	28.6	8.4	3.6
Finland	0.19	0.11	-57.4	-29.5	45.7	-62.9	151.5	-54.4	195.7	4.6	-27.1	-72.6	179.3	57.7	-42.2
France	35.70	31.40	-10.0	-5.3	5.9	-0.4	-2.1	7.2	-7.3	11.7	-0.2	-9.7	5.5	-6.1	-12.1
Germany	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Greece	2.29	0.79	-51.1	-43.9	104.5	204.8	-92.5	1,705.8	-86.9	-85.8	31.5	165.5	-23.4	108.8	-65.6
Hungary	1.43	1.24	-2.4	8.6	1.8	-2.6	5.3	6.7	-3.9	0	0.8	0.8	3.2	-3.1	-13.3
Iceland	NE, NO	NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Ireland	0.09	0.09	0	-3.8	-36.1	-79.4	-6.0	413.6	152.5	-63.4	265.3	-22.8	-80.2	187.6	4.6
Italy	6.80	1.31	-74.4	-19.0	234.1	16.4	-50.8	104.9	-36.6	-44.0	110.1	-46.7	-1.3	-19.6	-80.8
Japan	0.40	0.12	-25.2	227.7	21.0	-68.9	-51.3	49.0	59.2	66.4	-81.0	211.0	-24.5	-72.9	-70.1
Latvia	0.90	1.43	18.6	-1.8	31.9	12.4	7.2	2.3	-42.7	7.4	3.4	-7.9	5.0	-13.1	59.1
Liechtenstein	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Lithuania	0.03	0.32	-51.7	1.1	0.1	-82.5	542.1	-3.0	-65.7	548.7	-38.8	-41.6	-79.8	2,261.2	945.7
Luxembourg	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Monaco	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	NE, NO	NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
New Zealand	0.74	0.91	-0.8	23.0	-24.6	-16.6	8.3	14.5	-5.4	-29.5	7.5	-18.6	57.7	-4.7	23.5
Norway	0.08	0.34	68.2	352.9	68.8	-68.2	-69.0	101.3	-47.7	144.4	328.3	-87.6	196.2	1,009.1	309.7
Poland	IE, NE	0.14	-64.8	103.1	196.1	-80.9	11.5	-41.5	171.5	-52.3	259.1	-63.3	-15.0	-7.5	*
Portugal	6.53	3.18	58.4	-64.9	-62.5	401.8	-46.3	120.4	-34.0	43.8	341.6	-80.3	120.6	-69.0	-51.3
Romania	0.01	0.10	-37.6	9.1	-70.0	101.5	176.6	851.7	-71.7	252.0	-78.8	-83.7	71.0	346.2	917.2
Russian Federation	172.98	132.15	-50.5	430.1	-57.7	223.5	-66.1	57.1	-42.3	69.7	66.0	-73.8	11.4	76.6	-23.6
Slovakia	0.70	0.90	-37.2	11.1	5.9	-1.3	14.4	9.8	1.5	-2.5	10.1	12.6	30.0	-15.8	28.8
Slovenia	NE, NO	NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Spain	8.14	24.336	43.0	-70.8	199.6	-2.5	-37.1	106.3	-59.1	57.6	37.9	-19.6	107.8	116.3	199.0
Sweden	0.07	0.40	-7.8	7.7	463.1	-95.2	615.7	-2.2	1.3	57.6	24.3	-6.3	-7.6	72.0	461.2
Switzerland	0.39	0.04	-86.6	-46.8	548.4	-83.5	-96.4	296.9	3.1	1,007.6	37.6	-96.4	133.8	115.7	-90.8
Turkey															
Ukraine	0.40	0.43	-41.9	163.9	-93.0	422.0	32.6	-81.3	311.7	-20.9	-49.8	-84.4	498.4	70.2	6.5
United Kingdom	0.20	0.57	68.6	-48.0	31.3	-44.6	-84.2	249.4	38.2	-15.4	-15.6	32.3	-60.5	455.7	179.9
United States	212.95	1,169.15	-23.0	208.5	-80.2	18.7	304.4	37.7	-50.5	74.1	-46.6	-20.8	77.8	99.5	449.0

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 5.35

N₂O emissions from biomass burning in forest land - trend information

N ₂ O emissions (Gg)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	1.46	1.83	22.6	-2.0	26.9	-21.3	-16.0	-4.6	88.8	191.2	-3.3	-7.0	-72.8	94.8	25.2
Austria	0.00	0.00	-73.5	-9.4	-31.0	365.0	-91.4	425.0	-42.9	700.0	-64.9	0	0	0	-66.3
Belarus	0.00	0.00	-38.3	114.3	-80.0	7.8	-1.0	66.7	-46.3	516.3	-47.2	-60.7	9.1	25.0	11.1
Belgium	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Bulgaria	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Canada	5.61	14.45	52.7	-79.9	-71.2	1239.1	-60.4	-87.7	229.8	360.7	-18.6	12.2	-51.2	41.3	157.7
Croatia	0.00	0.00	0	302.8	57.8	90.3	-93.7	2804.8	-75.0	-48.7	360.0	-95.7	5.9	34.6	-86.7
Czech Republic	0.03	0.04	-23.3	36.5	10.1	-12.2	-7.5	-7.7	5.1	5.8	20.6	-4.9	-4.0	19.7	47.1
Denmark	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Estonia	0.00	0.00	-98.8	8.6	58.7	-24.7	6.8	54.0	-66.4	480.2	-85.5	82.7	-74.6	2,341.6	110.0
European Community	0.52	0.44	-21.1	-25.1	24.4	12.7	-23.9	46.5	-27.5	21.2	49.0	-43.7	30.8	2.6	-16.0
Finland	0.00	0.00	-57.5	-29.5	45.7	-62.8	151.4	-54.5	196.4	4.5	-27.1	-72.6	179.7	57.8	-42.2
France	0.35	0.23	-33.2	-7.9	11.3	-2.0	-5.4	11.6	-8.9	23.6	13.5	-30.7	10.4	-13.6	-36.0
Germany	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Greece	0.02	0.01	-51.1	-43.9	104.5	204.8	-92.5	1,705.8	-86.9	-85.8	31.5	165.5	-23.4	108.8	-65.6
Hungary	0.01	0.01	-2.3	8.3	2.6	-2.5	5.1	7.3	-4.5	0	1.2	1.2	2.3	-3.4	-13.9
Iceland	NE, NO	NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Ireland	0.00	0.00	0	-3.8	-36.1	-79.4	-6.0	413.6	152.5	-63.4	265.3	-22.8	-80.2	187.6	4.6
Italy	0.05	0.01	-74.4	-19.0	234.1	16.4	-50.8	104.9	-36.6	-44.0	110.1	-46.7	-1.3	-19.6	-80.8
Japan	0.00	0.00	-25.2	227.7	21.0	-68.9	-51.3	49.0	59.2	66.4	-81.0	211.0	-24.5	-72.9	-70.1
Latvia	0.01	0.01	18.6	-1.8	31.9	12.4	7.2	2.3	-42.7	7.4	3.4	-7.9	5.0	-13.1	59.1
Liechtenstein	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Lithuania	0.00	0.22	-51.7	1.1	0.1	-82.5	542.1	-3.0	-65.7	548.7	-38.8	-41.6	-79.8	238,383.5	105,513.4
Luxembourg	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Monaco	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	NE, NO	NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
New Zealand	0.01	0.01	-0.8	23.0	-24.6	-16.6	8.3	14.5	-5.4	-29.5	7.5	-18.6	57.7	-4.7	23.5
Norway	0.00	0.00	66.7	200.0	66.7	-60.0	-50.0	0	0	0	500.0	-88.0	177.8	1,100.0	300.0
Poland	IE, NE	0.00	-64.8	171.5	-52.3	-37.2	110.1	-15.0	-50.5	53.6	321.8	-82.3	59.9	3.5	*
Portugal	0.04	0.02	58.4	-64.9	-62.5	401.8	-46.3	120.4	-34.0	43.8	341.6	-80.3	120.6	-69.0	-51.3
Romania	0.00	0.00	-37.6	9.1	-70.0	101.5	176.6	851.7	-71.7	252.0	-78.8	-83.7	71.0	346.2	917.2
Russian Federation	1.19	0.91	-50.4	428.6	-57.4	222.2	-66.0	56.5	-42.6	71.0	66.0	-73.9	10.9	78.4	-23.5
Slovakia	0.01	0.01	-32.7	0	0	0	37.0	0	0	0	0	12.0	53.8	-40.6	-7.0
Slovenia	NE, NO	NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Spain	0.056	0.167	42.9	-70.2	192.9	-2.4	-37.5	108.0	-59.6	61.9	35.3	-19.6	108.1	116.9	198.2
Sweden	0.00	0.00	-7.8	7.7	463.1	-95.2	615.7	-2.2	1.3	57.6	24.3	-6.3	-7.6	72.0	461.1
Switzerland	0.01	0.00	-86.8	-46.3	544.8	-83.4	-96.8	300.0	25.0	920.0	37.3	-97.1	200.0	100.0	-91.2
Turkey															
Ukraine	0.01	0.01	-41.9	163.9	-93.0	422.0	32.6	-81.3	311.7	-20.9	-49.8	-84.4	498.4	70.2	6.5
United Kingdom	0.00	0.00	68.6	-48.0	31.3	-44.6	-84.2	249.4	38.2	-15.4	-15.6	32.3	-60.5	455.7	179.9
United States	1.46	8.04	-23.0	208.5	-80.2	18.7	304.4	37.7	-50.5	74.1	-46.6	-20.8	77.8	99.5	449.0

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 5.36**CH₄ emissions from biomass burning in land converted to cropland - trend information**

CH ₄ emissions (Gg)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	45.30	30.50	-12.2	4.6	-1.5	2.2	-6.5	5.6	-3.0	3.0	-6.5	15.8	6.4	-8.3	-32.7
Austria	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Belarus	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Belgium	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Bulgaria	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Canada	13.64	7.46	-7.4	-1.1	2.4	-3.3	-0.7	0.8	-5.9	12.8	-0.9	-2.8	-2.6	1.9	-45.3
Croatia	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Czech Republic	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Denmark	NA	NA	*	*	*	*	*	*	*	*	*	*	*	*	*
Estonia	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
European Community	4.39	3.23	-19.2	0.1	0.0	1.6	2.0	1.1	-3.0	-2.8	1.1	-3.9	0	0	-26.5
Finland	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
France	4.39	3.23	-19.2	0.1	0.0	1.6	2.0	1.1	-3.0	-2.8	1.1	-3.9	0	0	-26.5
Germany	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Greece	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Hungary	NE	NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Iceland	NE, NO	NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Ireland	NE, NO	NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Italy	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Japan	1.03	0.09	-43.4	-19.6	-25.5	23.9	-5.1	-47.0	-27.4	-7.5	21.5	-7.1	-5.1	43.6	-90.9
Latvia	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Liechtenstein	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Lithuania	NA, NE	NA, NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Luxembourg	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Monaco	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
New Zealand	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Norway	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Poland		NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Portugal	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Romania	NA	NA	*	*	*	*	*	*	*	*	*	*	*	*	*
Russian Federation	NA, NO	NA, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Slovakia	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Slovenia	NE, NO	NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Spain			*	*	*	*	*	*	*	*	*	*	*	*	*
Sweden	IE, NE	IE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Switzerland	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Turkey															
Ukraine	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
United Kingdom	NE, NO	NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
United States	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 5.37**N₂O emissions from biomass burning in land converted to cropland - trend information**

N ₂ O emissions (Gg)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	0.84	0.56	-12.2	4.6	-1.5	2.2	-6.5	5.6	-3.0	3.0	-6.5	15.8	6.4	-8.3	-32.7
Austria	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Belarus	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Belgium	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Bulgaria	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Canada	0.57	0.30	-7.7	-0.7	2.2	-3.4	-0.6	0.6	-5.8	13.2	-1.2	-2.4	-3.0	1.9	-46.3
Croatia	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Czech Republic	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Denmark	NA	NA	*	*	*	*	*	*	*	*	*	*	*	*	*
Estonia	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
European Community	0.03	0.02	-19.2	0.1	0.0	1.6	2.0	1.1	-3.0	-2.8	1.1	-3.9	0	0	-26.5
Finland	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
France	0.03	0.02	-19.2	0.1	0.0	1.6	2.0	1.1	-3.0	-2.8	1.1	-3.9	0	0	-26.5
Germany	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Greece	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Hungary	NE	NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Iceland	NE, NO	NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Ireland	NE, NO	NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Italy	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Japan	0.01	0.00	-43.4	-19.6	-25.5	23.9	-5.1	-47.0	-27.4	-7.5	21.5	-7.1	-5.1	43.6	-90.9
Latvia	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Liechtenstein	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Lithuania	NA, NE	NA, NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Luxembourg	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Monaco	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
New Zealand	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Norway	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Poland		NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Portugal	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Romania	NA	NA	*	*	*	*	*	*	*	*	*	*	*	*	*
Russian Federation	NA, NO	NA, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Slovakia	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Slovenia	NE, NO	NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Spain			*	*	*	*	*	*	*	*	*	*	*	*	*
Sweden	IE, NE	IE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Switzerland	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Turkey															
Ukraine	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
United Kingdom	NE, NO	NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
United States	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 5.38

CH₄ emissions from biomass burning in grassland - trend information

CH ₄ emissions (Gg)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	124.44	67.37	-11.7	-5.4	0.2	-1.1	5.5	7.2	3.0	-5.0	-21.6	10.7	40.3	-21.4	-45.9
Austria	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Belarus	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Belgium	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Bulgaria	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Canada	NE, NO	NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Croatia	NE, NO	NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Czech Republic	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Denmark	NA	NA	*	*	*	*	*	*	*	*	*	*	*	*	*
Estonia	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
European Community	12.23	10.70	16.1	6.7	-6.6	3.8	-2.8	0.5	-3.5	-8.6	6.5	-1.2	-0.1	-2.9	-12.5
Finland	NE, NO	NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
France	11.98	10.17	16.2	5.9	-8.5	4.3	-2.3	-3.8	-3.3	-7.7	7.2	-0.6	0.1	-2.5	-15.1
Germany	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Greece	0.09	0.01	9.8	165.8	180.6	-8.5	-87.7	685.6	-71.2	-88.5	144.2	25.8	-49.4	-51.7	-90.1
Hungary	NE, NO	NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Iceland	NE	0.01	*	*	*	*	*	*	*	*	*	*	*	*	*
Ireland	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Italy	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Japan	0.15	0.01	-42.7	-19.1	-25.2	24.4	-4.6	-46.8	-27.2	-7.0	21.6	-7.0	-5.3	43.5	-90.0
Latvia	NE, NO	0.11	*	132.8	-52.9	117.8	114.0	-15.8	112.3	140.6	24.1	-53.1	-68.9	1,135.4	*
Liechtenstein	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Lithuania	NA, NE	NA, NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Luxembourg	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Monaco	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
New Zealand	1.29	1.44	-17.9	-4.0	28.6	-1.5	-6.2	-19.1	-12.0	25.6	35.6	-2.1	-8.8	2.7	11.1
Norway	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Poland	NA, NE	0.12	0	-65.0	37.6	-50.3	106.9	-63.7	16.4	67.8	50.1	-36.5	-4.5	116.5	*
Portugal	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Romania	NA	NA	*	*	*	*	*	*	*	*	*	*	*	*	*
Russian Federation	NA, NE	NA, NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Slovakia	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Slovenia	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Spain			*	*	*	*	*	*	*	*	*	*	*	*	*
Sweden	0.01	0.01	0	0	54.5	-88.2	50.0	66.7	20.0	150.0	26.7	-73.7	0	20.0	-45.5
Switzerland	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Turkey															
Ukraine	NA, NE	NA, NE	*	*	*	*	*	*	*	*	*	*	*	*	*
United Kingdom	0.15	0.51	6.8	17.8	-17.0	4.4	147.5	50.1	31.7	-13.1	-5.8	-10.8	0.7	-10.1	249.7
United States	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

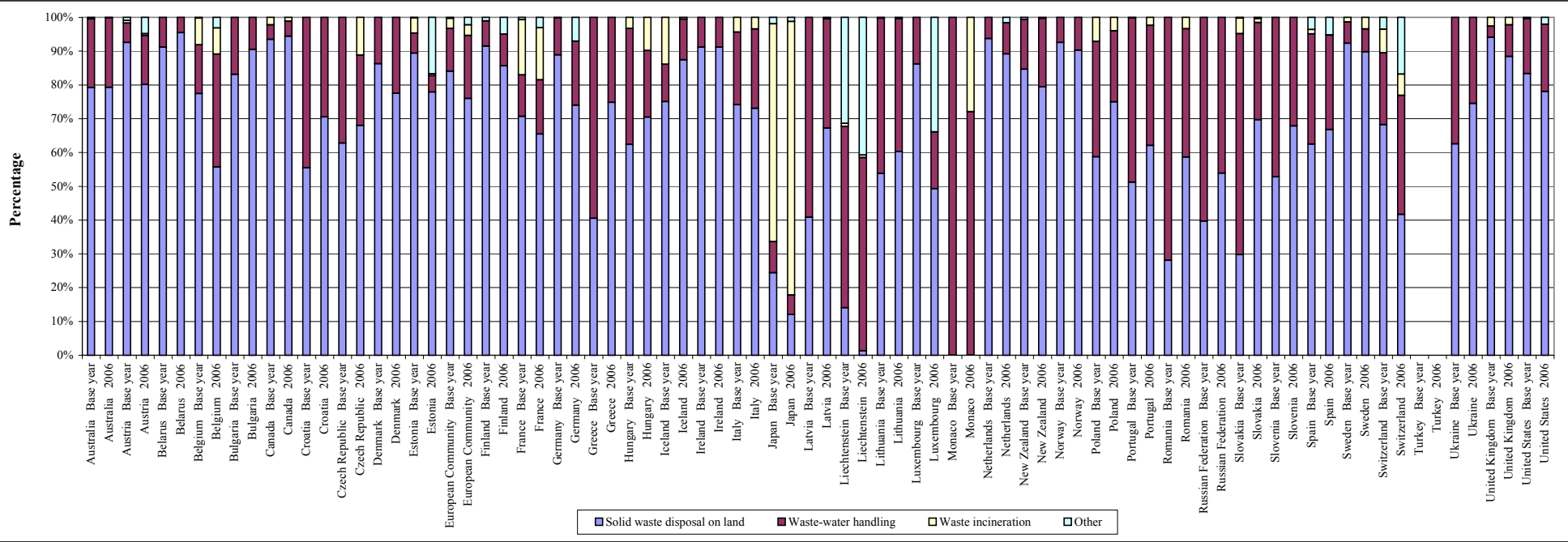
Table 5.39

N₂O emissions from biomass burning in grassland - trend information

N ₂ O emissions (Gg)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	2.30	1.25	-11.7	-5.4	0.2	-1.1	5.5	7.2	3.0	-5.0	-21.6	10.7	40.3	-21.4	-45.9
Austria	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Belarus	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Belgium	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Bulgaria	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Canada	NE, NO	NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Croatia	NE, NO	NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Czech Republic	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Denmark	NA	NA	*	*	*	*	*	*	*	*	*	*	*	*	*
Estonia	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
European Community	0.08	0.07	16.1	6.7	-6.6	3.8	-2.8	0.5	-3.5	-8.6	6.5	-1.2	-0.1	-2.9	-12.5
Finland	NE, NO	NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
France	0.08	0.07	16.2	5.9	-8.5	4.3	-2.3	-3.8	-3.3	-7.7	7.2	-0.6	0.1	-2.5	-15.1
Germany	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Greece	0.00	0.00	9.8	165.8	180.6	-8.5	-87.7	685.6	-71.2	-88.5	144.2	25.8	-49.4	-51.7	-90.1
Hungary	NE, NO	NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Iceland	NE	0.00	*	*	*	*	*	*	*	*	*	*	*	*	*
Ireland	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Italy	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Japan	0.00	0.00	-42.7	-19.1	-25.2	24.4	-4.6	-46.8	-27.2	-7.0	21.6	-7.0	-5.3	43.5	-90.0
Latvia	NE, NO	0.01	*	132.8	-52.9	117.8	114.0	-15.8	112.3	140.6	24.1	-53.1	-68.9	1,135.4	*
Liechtenstein	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Lithuania	NA, NE	NA, NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Luxembourg	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Monaco	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
New Zealand	0.01	0.01	0	0	0	0	0	-19.1	-12.0	25.6	35.6	-2.1	-8.8	2.7	11.1
Norway	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Poland	NA, NE	0	0	-65.0	37.6	-50.3	106.9	-63.7	16.4	67.8	50.1	-36.5	-4.5	116.5	*
Portugal	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Romania	NA	NA	*	*	*	*	*	*	*	*	*	*	*	*	*
Russian Federation	NA, NE	NA, NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Slovakia	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Slovenia	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Spain			*	*	*	*	*	*	*	*	*	*	*	*	*
Sweden	0.00	0.00	0	0	60.7	-85.4	5.1	89.4	26.0	143.9	25.8	-73.7	-3.2	13.5	-48.0
Switzerland	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Turkey															
Ukraine	NA, NE	NA, NE	*	*	*	*	*	*	*	*	*	*	*	*	*
United Kingdom	0.00	0.00	6.8	17.8	-17.0	4.4	147.5	50.1	31.7	-13.1	-5.8	-10.8	0.7	-10.1	249.7
United States	IE	IE	*	*	*	*	*	*	*	*	*	*	*	*	*

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Figure 6.1
Contribution of subsectors to total GHG emissions in the Waste sector^a



^a In accordance with the UNFCCC reporting guidelines on annual inventories of Annex I Parties the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 6.1

Solid waste disposal on land, waste-water handling and waste incineration (2006)

Activity data		Solid waste disposal on land								Waste-water handling										N ₂ O from human sewage		Waste incineration			
		Population (million)		Methods and EF used ^a		Key category	Share of national total	Emissions per capita	CH ₄ IEF		Methods and EF used ^b		Key category	Share of national total	Emissions per capita	CH ₄ IEF				Emissions per capita	N ₂ O IEF	Methods and EF used ^c		Key category	Share of national total
									Managed	Unmanaged						Domestic / commercial		Industrial							
																Waste-water	Sludge	Waste-water	Sludge						
CRF	World Bank ^d	Methods	EF	(%)	(kg)	(t/t)	(t/t)	Methods	EF	(%)	(kg)	(kg / kg DC)				(kg)	(kg N ₂ O -N/kg sewage N)	Methods	EF	(%)					
IPCC default EF ^d																0.01									
Australia	20	21	T2	M	L, T	2.46	30	0.04	NA	T2	CS, D	T	0.53	6.54	0.08	0.19	0.06	0.03	0.09	0.01	T2	CS, D		0.01	
Austria	8	8	T2	CS, D	L, T	1.93	10	0.18	NO	D	CS, D		0.05	0.24	0.01	IE	NA	IE	0.09	0.01	D	CS, D		0.01	
Belarus	10	10	T1	D	L, T	6.03	24	NO	0.06	NA	NA		-	NE	NE	NE	NE	NE	0.08	0.01	NA	NA		-	
Belgium	10	11			T	0.50	3	0.03					0.10	0.60		NE	NE	NE	0.08	0.01				0.06	
Bulgaria	8	8	T2	CS, D	L, T	9.60	42	0.12	NE	D	CS, D	L, T	0.81	3.58	0.06	0.06	0.04	0.04	0.06	0.01	NA	NA		-	
Canada	33	33	CS	CS	L, T	2.74	29	0.06	NE	CS	CS		0.04	0.37	NA	NE	NE	NE	0.07	0.00	CS	CS		0.03	
Croatia	4	4	T2	CS	L, T	1.35	4	0.02	IE	T1	D		0.28	0.93	0.08	NE	NO	NO	0.06	0.01	T1	D		0.00	
Czech Republic	10	10	T2	CS, D	L, T	1.60	11	0.04	NO	CS, T1, T2	CS, D		0.35	2.42	0.09	0.26	0.06	0.06	0.06	0.01	T1	CS, D	T	0.26	
Denmark	5	6	CS, T2	CS	L, T	1.43	9	0.06	NO	CS, D	CS, D		0.35	2.13	0.15	NE	IE	NE	0.02	NE	NA	NA		-	
Estonia	1	1	T1	D	L, T	2.92	20	0.08	NO	NA	NA		-	IE, NA, NO	NO	IE	NO	IE	0.08	0.01	NA	NA		-	
European Community	390	389	CR, CS, D, OTH, T2, T3	CR, CS, D, OTH	L, T	1.96	10	0.06	0.12	CR, CS, D, OTH, T1, T2	CS, D		0.24	1.21	NE	NE	NE	NE	0.08	NE	CR, D, M, T1, T2	CR, CS, D, PS		0.06	
Finland	5	5	T2	CS, D	L, T	2.66	19	0.07	NO	D	CS, D		0.17	1.20	0.13	IE	0.00	IE	0.05	0.00	NA	NA		-	
France	64	61	CR, T2	CS	L, T	1.62	7	0.05	11,043,214,706.12	CR, T2	CS		0.22	0.92	0.11	NE	NO	NE	0.05	NA	CR	CS, PS		0.33	
Germany	82	82	T2	CS, D	L, T	0.96	6	NO	NO	D	CS, D	T	0.01	0.07	0.00	NO	NO	NO	0.09	0.01	NA	NA		-	
Greece	11	11	T2	CS, D	L, T	1.99	11	0.03	0.05	D	D	T	0.39	2.22	0.10	IE	0.25	NE	0.11	0.01	D	D		0.00	
Hungary	10	10	T2	D	L, T	3.69	14	0.04	NA, NO	CS, D	CS, D	L	0.77	2.85	0.11	0.17	0.02	0.06	0.07	0.01	T2	D	T	0.49	
Iceland	0	0	T2	D	L	4.28	29	0.04	IE	CS, T1	D		0.40	2.69	NE	NE	NE	NE	0.09	0.01		T		0.00	
Ireland	4	4	T2	D	L	2.39	19	0.11	0.03	T1	D		0.03	0.27	NO	0.01	NO	0.02	0.10	0.01	NA	NA		-	
Italy	59	59	T2	CS	L, T	2.40	11	0.05	NO	D	D		0.42	1.93	0.60	0.60	0.25	IE	0.11	0.01	D	CS		0.04	
Japan	128	128	CS, D, T1, T3	CS, D	T	0.40	2	0.20	NA	CS, D	CS, D		0.11	0.53	NE	IE	NE	IE	0.00	NE	CS	CS	L, T	2.48	
Latvia	2	2	T2	D	L, T	4.42	11	0.04	NO	D	D	L, T	1.71	4.12	0.24	NE	0.07	NE	0.07	0.01	D	D		0.01	
Liechtenstein	0	0	T2	CS	L, T	0.01	0	NO	NO	CS	CS		0.01	0.04	IE	NE	NO	NO	0.09	0.01	T2	CS		0.00	
Lithuania	3	3	T2	D	L, T	3.96	13	0.05	0.03	T1	D	L, T	2.26	7.38	0.30	IE	0.13	IE	0.07	0.01	T1	D		0.02	
Luxembourg	0	0	T2	D		0.17	2	0.02	NO	T1	D		0.00	0.00	0.00	NE	NE	NE	NA	NA	NA	NA		-	
Monaco	0	0	NA	NA		-	NA, NO	NO	NO	NA	NA		-	NA, NO	NO	NO	NO	NO	0.07	0.01	NA	NA		-	
Netherlands	16	16	T2	CS	L, T	2.72	16	0.17	NO	T2	CS		0.10	0.59	0.06	IE	NE	NE	0.02	NA	NA	NA		-	
New Zealand	4	4	T2	D	L, T	1.89	17	0.00	NE	D, OTH	OTH		0.27	2.39	0.00	IE	NE	IE	0.07	NE	D	D		0.00	
Norway	5	5	T2	CS, D	L, T	2.53	14	0.13	IE	T1	D		0.01	0.07	0.00	IE	IE	IE	0.07	IE	NA	NA		-	
Poland	38	38	OTH	D	L, T	1.57	8	IE	IE	CS, D	CS, D		0.26	1.29	0.03	0.49	0.02	0.06	0.06	0.01	CS	CS		0.08	
Portugal	11	11	D, T2	CS, D, OTH	L	5.10	19	0.04	NO	D	CS, D	L, T	2.22	8.26	0.13	0.20	0.03	IE	0.11	0.01	D	CS, D		0.16	
Russian Federation	22	22	T1	D	L, T	3.76	13	0.05	0.03	D	D	L	1.97	6.82	0.28	NE	0.12	NE	0.11	0.01	D	D	T	0.22	
Slovakia	143	143	T2	CS, D	L, T	1.80	13	0.04	0.02	D	CS, D	L, T	1.36	9.94	0.22	IE	0.06	IE	0.09	0.01	NA	NA		-	
Slovenia	5	5	T1, T2	CS, D	L, T	3.60	16	0.04	NO	D, T1	CS	L	1.41	6.07	0.22	0.37	0.01	0.18	NA	NA	T1a	D		0.05	
Spain	2	2	T2	D	L, T	2.31	11	0.03	NO	T1	D	L, T	0.79	3.87	0.01	0.49	0.00	0.10	0.10	0.01	NA	NA		-	
Sweden	44	44	CS, T2	CR, CS, D	L, T	1.89	9	0.03	0.07	D	CR, CS, D	L	0.51	2.39	0.00	0.10	0.03	0.04	0.09	0.19	CR	CR, CS		0.00	
Switzerland	9	9	T3	CS, D	L, T	2.81	10	0.06	NO	NA	NA		-	IE, NE, NO	NE	NE	IE	IE	0.01	M	PS		0.11		
Switzerland	8	7	CS, D	CS, D	L, T	0.55	2	0.78	NO	D	CS, D		0.06	0.21	0.01	NO	IE	IE	0.09	0.01	CS	CS		0.03	
Turkey		73																							
Ukraine	47	47	T2	CS, D	L, T	1.70	8	0.03	0.03	T2	CS, D		0.34	1.54	0.05	0.30	0.02	0.12	0.07	0.01	NA	NA		-	
United Kingdom	61	61	OTH, T2	CS	L, T	2.97	15	0.06	NA	CS, OTH	CS		0.12	0.64	IE	0.09	NE	NE	0.07	0.01	T1, T2	CS		0.07	
United States	303	299	M	M	L, T	1.79	20	0.04	NE	D	D		0.34	3.79	0.08	NE	0.03	NE	0.09	0.01	NA	NA		-	

^a Information on methods and emission factors in this table is as reported by Parties in table Summary 3 of the CRF. It may not reflect the actual method used or type of emission factor for all subcategories within the category 6.A Solid waste disposal on land.

^b Information on methods and emission factors in this table is as reported by Parties in table Summary 3 of the CRF. It may not reflect the actual method used or type of emission factor for all subcategories within the category 6.B Waste-water handling.

^c Information on methods and emission factors in this table is as reported by Parties in table Summary 3 of the CRF. It may not reflect the actual method used or type of emission factor for all subcategories within the category 6.C Waste incineration.

^d Source of population data: HNPStats - The World Bank Group: World Development Indicators (WDI) database, <http://go.worldbank.org/IW6ZUUHUZ0>. Downloaded 16 April 2008.

^e Source of default emission factors: IPCC Guidelines, volume 3, page 6.28.

Table 6.2**CH₄ emissions from solid waste disposal on land - trend information**

CH ₄ emissions (Gg)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	708	627	1.0	-7.0	0.2	-3.2	2.4	0.2	1.1	1.6	-5.2	-2.0	-0.4	-0.1	-11.4
Austria	161	84	-0.2	-5.4	-4.7	-3.7	-4.2	-4.3	-3.7	-1.7	1.1	-7.1	-7.5	-7.2	-47.9
Belarus	112	233	0.2	22.6	1.0	4.1	7.2	1.3	1.6	3.3	34.5	10.2	3.6	11.3	108.0
Belgium	125	32	-0.7	-10.3	-1.1	-6.4	-8.1	-7.3	-19.0	-15.3	-11.5	-4.6	-14.1	-19.1	-74.1
Bulgaria	504	326	-0.9	-3.0	-3.5	-4.1	-3.8	-3.4	-3.3	-3.1	-2.9	-2.9	-2.6	-3.3	-35.3
Canada	809	941	2.2	-0.4	1.6	1.0	1.1	-0.4	-0.5	1.5	1.5	1.4	1.3	1.4	16.3
Croatia	11	20	5.6	6.0	6.3	6.2	6.6	6.2	6.8	7.2	7.5	7.6	-18.0	-1.8	88.4
Czech Republic	79	113	4.6	1.0	-2.0	2.2	2.8	2.5	2.1	1.4	0.5	2.4	2.2	0.9	42.3
Denmark	64	49	1.8	-0.7	-4.7	-3.4	2.1	0.1	-0.5	-4.5	2.0	-8.0	-3.8	-1.4	-23.0
Estonia	29	26	-2.0	0.0	10.9	7.3	0.4	5.7	-1.0	-5.6	-3.8	-2.0	-7.3	-3.1	-9.2
European Community	6,972	3,872	1.3	-2.6	-5.6	-4.3	-5.3	-4.5	-6.6	-5.6	-6.5	-5.6	-2.9	-4.1	-44.5
Finland	173	102	1.4	-2.6	-2.8	-4.6	-2.5	-6.5	-3.9	-7.8	-6.9	-5.6	-9.1	2.9	-41.2
France	534	422	5.4	2.7	-13.3	0.1	-2.0	-3.3	-4.9	-5.8	-2.9	-2.8	-3.5	-6.5	-20.9
Germany	1,710	458	1.1	-7.9	-9.0	-9.7	-10.0	-10.4	-11.0	-11.1	-12.3	-12.4	-8.5	-7.7	-73.2
Greece	86	126	2.4	3.0	3.1	1.9	-4.9	4.0	4.7	1.3	4.3	0.4	2.6	8.6	47.0
Hungary	91	138	3.0	1.7	1.3	1.4	1.7	1.9	1.7	1.6	0.8	0.9	0.8	0.0	51.3
Iceland	7	9	2.9	1.6	0.4	0.3	1.0	1.5	3.3	-5.5	2.2	-0.6	0.8	11.0	31.3
Ireland	63	79	2.5	-4.0	-13.6	5.8	2.6	6.2	-10.8	12.6	9.5	-0.4	-1.3	3.3	25.3
Italy	633	649	6.4	1.4	1.5	-1.2	0.3	4.8	-1.0	-3.6	-4.1	-5.9	-0.4	-5.5	2.6
Japan	433	257	-0.8	-2.6	-3.0	-3.8	-3.8	-4.4	-4.3	-4.6	-4.1	-4.0	-4.9	-4.9	-40.6
Latvia	13	24	7.2	6.3	5.5	4.5	3.9	4.5	5.1	0.9	-5.8	-2.6	3.1	3.4	84.4
Liechtenstein	0	0	-13.0	-13.0	-13.0	-13.0	-13.0	-13.0	-13.0	-13.0	-13.0	-13.0	-13.0	-13.0	-89.2
Lithuania	51	44	3.1	-1.1	-1.5	-1.3	-0.7	-3.6	-2.9	-2.9	-2.9	-3.3	-2.1	-1.2	-14.6
Luxembourg	2	1	-12.2	4.6	1.5	1.4	0	-0.7	-12.1	-13.8	5.7	1.8	0	-6.3	-47.5
Monaco	NA, NO	NA, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	572	269	0.1	-3.4	-3.2	-4.3	-8.5	-5.8	-6.0	-4.7	-6.5	-4.5	-6.5	-6.8	-53.0
New Zealand	101	70	1.2	0.6	-0.7	-3.0	-6.7	1.5	-2.4	-2.4	-1.0	-3.8	-3.5	-3.0	-30.5
Norway	81	65	0.1	-0.6	-0.9	-5.1	-6.0	4.0	-3.1	-3.8	-0.8	-0.4	-3.5	-1.6	-20.7
Poland	235	300	1.8	0.5	1.0	1.3	1.3	1.4	0.8	-0.4	-0.6	-6.7	-1.4	-3.0	27.8
Portugal	144	201	4.6	4.8	5.0	5.7	5.5	-15.2	3.4	6.1	0.7	0.7	0.8	-4.3	39.2
Romania	112	280	0.4	7.6	3.9	-13.5	27.9	15.3	1.3	13.5	-1.6	-5.0	12.1	7.5	150.7
Russian Federation	1,221	1,874	3.4	2.6	2.4	2.3	2.2	2.4	2.0	2.4	2.7	3.1	3.0	3.3	53.5
Slovakia	22	84	4.8	9.6	30.4	31.5	24.5	-20.4	4.3	56.0	-9.9	8.1	-10.1	2.5	274.8
Slovenia	14	23	1.6	1.3	3.6	3.6	3.5	3.6	3.1	2.6	1.4	2.5	0.8	-2.1	59.4
Spain	200	389	9.1	6.6	6.7	5.6	4.1	4.8	5.1	2.8	0.5	-1.3	2.5	-5.8	94.7
Sweden	137	88	1.5	-0.9	-1.0	-1.6	-4.3	-3.1	-1.8	-6.6	-5.7	-1.0	-7.0	-4.0	-35.8
Switzerland	33	14	-2.4	-3.7	-1.3	-6.8	-4.6	-8.1	-6.8	-5.0	-13.5	4.0	-3.2	-7.1	-58.1
Turkey															
Ukraine	251	359	3.4	0.6	0.8	1.2	1.6	1.5	1.6	2.3	2.2	1.8	6.4	7.6	43.0
United Kingdom	2,372	926	-1.5	-3.4	-7.9	-7.0	-9.1	-6.8	-13.2	-9.1	-12.6	-7.2	-1.6	-0.3	-60.9
United States	7,124	5,985	0.9	-2.3	-5.0	-5.2	-1.7	-3.0	-2.7	2.2	4.6	-2.4	0.9	1.6	-16.0

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 6.3**Solid waste disposal on land: CH₄ emissions per capita - trend information**

CH ₄ emissions per capita (kg/capita)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	41.5	30.8	-0.3	-8.2	-0.9	-4.2	1.3	-1.0	-0.3	0.3	-6.3	-3.2	-1.7	-1.6	-26.9
Austria	20.9	10.1	-1.3	-5.5	-4.8	-3.8	-4.4	-4.4	-4.1	-2.2	0.7	-7.7	-8.1	-7.8	-51.5
Belarus	11.0	21.4	0.1	23.0	1.4	4.6	7.5	1.6	1.9	3.8	35.2	10.8	4.1	11.8	117.8
Belgium	12.6	3.1	-1.0	-10.5	-1.3	-6.6	-8.3	-7.5	-19.2	-15.6	-11.9	-5.0	-14.6	-19.5	-75.5
Bulgaria	56.1	42.4	0.1	-2.5	-3.0	-3.4	-3.2	-1.6	-1.5	-2.6	-2.3	-2.4	-2.0	-2.7	-24.5
Canada	29.1	28.8	0.8	-1.5	0.5	0.1	0.3	-1.3	-1.5	0.6	0.6	0.2	0.3	0.3	-1.0
Croatia	2.2	4.5	11.9	10.3	4.4	7.9	5.4	7.4	8.3	7.1	7.5	7.5	-18.0	-1.7	102.8
Czech Republic	7.6	11.0	5.1	1.1	-1.9	2.3	2.9	2.6	2.6	1.6	0.5	2.4	2.0	0.5	43.6
Denmark	12.2	8.8	1.5	-1.4	-5.1	-3.7	1.8	-0.3	-0.8	-4.8	0.8	-8.2	-4.0	-1.8	-27.8
Estonia	18.4	19.6	-1.5	1.5	12.2	8.3	1.2	6.1	-0.6	-5.2	-3.5	-1.7	-7.1	-2.8	6.1
European Community	19.1	10.0	0.8	-2.8	-5.9	-4.5	-5.6	-5.0	-6.9	-6.0	-7.1	-6.2	-3.4	-4.6	-47.9
Finland	34.8	19.3	0.8	-2.9	-3.0	-4.9	-2.8	-6.7	-4.1	-8.0	-7.1	-5.9	-9.5	2.5	-44.3
France	9.4	6.9	5.0	2.4	-13.6	-0.2	-2.4	-3.8	-5.4	-6.4	-3.8	-3.4	-4.1	-7.1	-26.7
Germany	21.5	5.6	0.4	-8.2	-9.2	-9.7	-10.1	-10.5	-11.1	-11.3	-12.4	-12.4	-8.4	-7.6	-74.2
Greece	8.4	11.3	1.4	2.3	2.4	1.4	-5.3	3.6	4.4	1.0	3.9	0.0	2.2	8.2	34.0
Hungary	8.7	13.7	3.0	1.9	1.5	1.6	2.0	2.1	1.9	1.9	1.1	1.1	1.0	0.2	58.3
Iceland	25.8	28.6	1.6	0.9	-0.3	-0.4	-0.3	0.2	1.9	-6.5	1.6	-1.5	-0.8	9.2	10.9
Ireland	18.1	18.6	1.9	-4.8	-14.5	4.7	1.5	4.8	-12.2	10.7	7.7	-2.2	-3.5	0.7	2.9
Italy	11.2	11.0	6.4	1.3	1.4	-1.2	0.3	4.7	-1.0	-3.9	-4.9	-6.8	-1.1	-5.9	-1.1
Japan	3.5	2.0	-1.1	-2.8	-3.3	-4.0	-4.0	-4.6	-4.5	-4.8	-4.3	-4.1	-4.9	-4.8	-42.6
Latvia	5.0	10.7	7.6	7.3	7.2	6.3	4.8	5.2	5.7	1.8	-5.3	-2.1	3.6	4.0	115.3
Liechtenstein ^b		0.0									*	-13.9	-13.7	-13.4	*
Lithuania	13.9	12.9	2.9	-0.3	-0.8	-0.6	0.0	-2.8	-2.4	-2.5	-2.5	-2.8	-1.5	-0.6	-7.0
Luxembourg	5.3	2.3	-13.4	3.1	0.0	0.2	-1.3	-2.1	-12.4	-14.6	4.1	1.0	-0.7	-7.4	-56.6
Monaco ^b		NA, NO									*	*	*	*	*
Netherlands	38.3	17.7	-0.7	-3.7	-3.8	-4.8	-9.1	-6.6	-6.7	-5.3	-6.9	-4.8	-6.8	-6.9	-57.0
New Zealand	29.3	16.8	-0.2	-1.0	-2.0	-3.9	-7.2	0.9	-3.0	-4.1	-2.9	-5.2	-4.6	-4.2	-42.7
Norway	19.2	13.8	-0.4	-1.1	-1.4	-5.7	-6.6	3.3	-3.6	-4.3	-1.4	-1.0	-4.1	-2.4	-27.8
Poland	6.2	7.9	1.5	0.4	0.9	1.3	1.3	1.9	1.3	-0.4	-0.5	-6.6	-1.4	-2.9	26.9
Portugal	14.6	19.0	4.2	4.5	4.6	5.3	5.0	-15.6	2.8	5.3	0.0	0.1	0.4	-4.7	30.1
Romania	4.8	13.0	0.5	7.9	4.1	-13.3	28.1	15.4	2.7	15.2	-1.3	-4.7	12.4	7.7	168.9
Russian Federation	8.2	12.7	3.2	2.9	2.7	2.6	2.6	2.4	2.3	2.9	3.2	3.6	3.5	3.8	59.8
Slovakia	4.2	15.6	4.8	9.4	30.2	31.4	24.4	-20.4	4.5	56.0	-10.0	8.0	-10.2	2.4	267.4
Slovenia	7.2	11.3	1.4	1.2	3.8	3.8	3.4	3.4	2.9	2.5	1.4	2.4	0.6	-2.4	57.3
Spain	5.1	8.8	8.8	6.3	6.4	5.2	3.6	3.9	3.9	1.4	-1.1	-2.9	0.8	-7.3	71.4
Sweden	16.0	9.7	0.8	-1.0	-1.1	-1.7	-4.3	-3.3	-2.1	-6.9	-6.0	-1.4	-7.3	-4.7	-39.5
Switzerland	4.9	1.8	-3.6	-4.1	-1.5	-7.1	-5.0	-8.7	-7.4	-5.8	-14.1	3.3	-3.9	-7.8	-62.4
Turkey															
Ukraine	4.8	7.7	3.1	1.5	1.7	2.1	2.5	2.6	2.7	3.3	3.0	2.5	7.1	8.4	58.6
United Kingdom	41.2	15.3	-1.8	-3.6	-8.1	-7.2	-9.3	-8.3	-12.8	-8.8	-13.0	-7.6	-2.3	-0.9	-62.9
United States	28.5	20.0	-0.4	-3.5	-6.2	-6.3	-2.8	-4.1	-3.7	1.1	3.6	-3.3	-0.1	0.6	-30.0

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

^b World Bank population data for Liechtenstein and Monaco are not available for years 1990-2002.

Table 6.4

CH₄ recovered from managed solid waste disposal sites - trend information

CH ₄ emissions (Gg)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	2	221	0.0	221.9	7.4	32.7	-6.7	6.5	1.1	-1.8	37.0	12.2	5.1	6.3	9,548.7
Austria	4	22	19.3	19.3	7.8	0.9	4.5	4.0	4.6	0.0	0	0	0	0	442.8
Belarus	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Belgium		26	*	58.9	-7.2	13.8	15.7	8.3	51.6	5.4	-3.9	-17.2	-4.4	-1.9	*
Bulgaria	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Canada	193	314	1.5	8.7	1.2	1.5	1.5	6.7	6.3	-0.1	-0.1	0.2	0.2	0	62.7
Croatia	NO	4	*	*	*	*	*	*	*	*	*	*	*	-15.5	*
Czech Republic	3	19	0	74.8	95.5	10.8	4.7	-2.3	5.3	9.8	3.4	2.6	4.0	13.9	496.9
Denmark	1	12	39.3	9.7	36.5	18.2	-12.9	-3.9	-9.1	11.8	-29.1	38.6	4.7	6.8	2,347.9
Estonia	NO	3	*	29.4	-11.8	-27.8	52.9	-29.0	7.9	36.6	0.9	-25.7	74.4	0	*
European Community	796	4,462	22.3	11.1	18.7	10.7	11.6	7.5	12.2	7.7	7.0	4.9	1.1	0.6	460.6
Finland	NO	32	*	52.0	48.1	61.2	-5.3	70.3	16.2	43.4	18.6	9.5	22.7	-13.5	*
France	46	672	12.6	23.0	99.7	15.2	17.2	17.0	16.3	12.8	7.4	7.1	4.9	1.0	1,354.0
Germany	268	597	14.6	8.6	6.5	5.1	4.4	3.7	2.9	2.9	1.7	2.0	-5.1	-7.7	122.5
Greece	7	54	4.4	6.5	7.7	17.0	58.3	4.8	3.1	15.4	4.2	16.8	16.1	13.9	631.2
Hungary	NO	1	*	*	*	*	*	*	*	*	*	*	*	2,181.7	*
Iceland	NO	1	*	*	*	128.6	45.4	23.2	-5.3	172.2	3.2	22.5	10.7	-41.9	*
Ireland	NO	45	*	*	212.3	-3.9	9.6	2.6	68.3	-1.8	3.4	18.9	11.1	0.9	*
Italy	107	398	4.3	5.1	5.8	19.5	9.2	-2.7	20.6	14.8	10.8	14.0	1.3	11.8	270.4
Japan	1	0	-38.0	6.7	13.1	-5.5	18.3	-29.9	-11.9	-7.1	-20.4	1.1	-89.1	711.7	-47.9
Latvia	NO	5	*	*	*	*	*	*	*	*	251.5	45.2	2.2	3.5	*
Liechtenstein	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Lithuania	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Luxembourg	NO	0.33	*	*	*	0	0	0	199,999,999,900.0	95.0	-15.4	0	0	0	*
Monaco	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	26	59	37.0	-6.3	-14.2	-9.4	23.4	-0.8	1.4	-6.1	-0.2	-21.0	-6.7	27.4	126.3
New Zealand	NO	54	*	3.8	9.9	19.9	30.0	-0.9	10.1	8.9	5.4	11.7	9.3	7.4	*
Norway	1	22	182.5	16.7	14.7	44.0	33.2	-15.1	9.4	7.7	-3.0	-4.8	7.4	0	2,224.2
Poland	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Portugal	NO	30	*	*	*	*	*	*	273.7	13.0	7.4	7.7	5.3	34.1	*
Romania	NA	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Russian Federation	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Slovakia	IE	1	*	*	*	*	*	*	*	*	*	*	1,400.0	75.6	*
Slovenia	NO	6	167.0	24.9	7.3	6.8	6.4	6.0	5.7	6.6	8.1	-0.9	5.0	17.4	*
Spain	3	91	25.8	28.2	7.8	21.8	15.8	17.1	3.9	26.1	45.0	45.3	9.3	6.0	3,028.9
Sweden	12	25	12.5	0	0	0	10.0	3.0	-4.7	10.9	1.4	-17.3	-2.4	-16.5	104.7
Switzerland	9	5	8.8	-0.6	-4.3	-2.6	0	-2.0	-11.6	-16.2	-6.4	-25.5	-19.7	-12.1	-41.1
Turkey															
Ukraine	NO	0	*	*	*	*	*	*	*	*	*	0	*	*	*
United Kingdom	322	2,409	35.7	12.0	18.7	12.1	13.0	8.0	13.0	7.0	8.2	3.9	1.1	0.3	649.1
United States	888	5,958	18.1	15.1	20.4	17.1	8.6	10.0	9.5	3.7	2.2	11.0	5.7	4.4	570.6

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 6.5

Waste generation rate - trend information

Waste generation (kg/person/day)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	2.65	2.77	2.7	0.3	1.8	5.1	-3.6	2.6	-4.1	0.6	1.1	2.6	-2.9	1.4	4.4
Austria	0.95	0.20	-7.8	4.9	-1.5	0.6	3.4	-1.8	-2.2	6.2	14.6	-72.2	-9.6	1.8	-79.2
Belarus	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Belgium			*	*	*	*	*	*	*	*	*	*	*	*	*
Bulgaria	2.36	0.98	6.2	-9.8	-9.4	-11.3	1.0	3.8	-0.5	0.7	0.9	-3.1	5.3	-14.6	-58.4
Canada	1.68	3.01	8.8	3.8	3.7	8.9	-1.6	4.0	1.9	0.7	4.7	1.1	3.8	2.2	79.4
Croatia	0.57	0.93	3.5	8.1	3.0	5.8	2.7	-2.7	6.8	6.4	6.0	1.1	0	4.5	63.2
Czech Republic	1.00	1.06	2.3	2.5	2.5	2.4	-7.6	0.2	2.9	10.4	-1.9	0.0	-4.7	-10.6	6.1
Denmark	5.43	7.80	2.1	11.9	-0.9	-5.2	-0.4	6.2	-2.4	2.3	-4.0	5.6	6.1	8.4	43.8
Estonia	0.93	1.49	0.5	9.7	6.3	-5.1	6.8	1.5	-29.9	8.7	4.8	8.7	2.4	1.1	59.4
European Community	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Finland	1.70	1.34	-7.0	-4.5	-5.9	5.9	2.1	10.8	-8.1	-3.1	0.7	0.4	2.9	4.3	-21.2
France	0.82	0.95	2.5	1.8	-1.2	2.7	0.3	1.4	0.8	0.6	-0.8	-0.8	-0.8	-0.8	16.4
Germany	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Greece	0.82	1.28	0.6	2.9	3.0	3.3	3.2	3.0	2.8	2.7	2.8	2.7	2.6	2.5	56.2
Hungary	1.10	1.28	-3.1	3.0	6.7	2.7	1.8	5.2	1.6	0.8	1.6	-2.4	1.6	1.6	16.4
Iceland	3.72	4.34	0.5	2.0	1.3	0.9	0.7	0.9	1.3	1.0	1.8	1.8	3.5	1.4	16.6
Ireland	1.15	2.15	3.5	2.9	2.1	1.5	10.8	9.3	5.6	-0.7	5.5	1.3	-0.1	8.2	86.7
Italy	1.07	1.51	5.0	0.5	2.3	0.8	5.5	1.8	1.3	1.2	0.2	3.4	1.4	2.1	41.3
Japan	1.12	1.13	-0.2	0.8	-0.2	0.5	-0.6	1.9	-0.7	-1.2	-0.5	-1.8	4.1	0	1.0
Latvia	NA	NA	*	*	*	*	*	*	*	*	*	*	*	*	*
Liechtenstein	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Lithuania	1.47	0.88	1.6	-5.4	0.3	4.9	-28.6	4.6	-3.2	-4.0	-8.7	14.2	0.5	6.1	-40.0
Luxembourg	NE	NE	*	-0.3	-2.4	3.1	3.1	1.6	-0.7	1.1	3.6	10.5	*	*	*
Monaco	NO	0.28	*	2.4	7.0	-0.6	-8.7	6.4	-5.2	-5.0	10.3	5.7	-14.9	-20.1	*
Netherlands	1.52	1.70	0	2.6	4.7	0.5	1.0	2.9	-0.1	1.2	-1.9	2.0	0	-0.3	11.8
New Zealand	2.35	2.08	0	-2.2	-1.8	-1.4	-1.3	-1.3	-1.7	-2.3	1.1	1.5	-1.4	-1.5	-11.7
Norway			*	*	*	*	*	*	*	*	*	*	*	*	*
Poland	0.87	0.68	-4.5	5.7	4.8	0.7	0.4	0.3	-9.1	-5.3	-5.5	-1.6	-4.1	1.4	-22.1
Portugal	0.76	1.07	3.0	3.4	3.3	3.3	3.2	1.9	4.6	1.7	1.8	-1.1	-1.8	-0.6	41.2
Romania	0.57	1.16	-0.2	7.4	3.6	8.7	8.0	2.6	2.8	5.9	5.9	1.6	0.0	0.2	105.6
Russian Federation	0.66	1.10	1.1	1.7	1.8	1.7	2.0	6.2	-1.7	6.7	7.1	7.9	2.7	7.9	66.9
Slovakia	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Slovenia	1.29	1.14	0	0	0	-0.4	0.4	-2.7	-0.1	-2.9	1.6	-4.0	-2.1	-1.4	-11.2
Spain	0.83	1.42	8.3	4.9	10.6	3.3	3.6	-0.3	0.9	0.2	-0.1	4.2	4.5	1.2	72.1
Sweden	1.02	1.35	0	-0.3	12.1	5.0	-1.9	-0.5	3.5	5.9	-0.1	-1.1	4.1	2.8	32.7
Switzerland	1.93	2.27	-3.2	0.7	1.4	3.8	4.0	3.2	-1.2	0.6	-1.2	2.7	4.1	6.5	17.5
Turkey															
Ukraine	0.79	0.97	-12.7	7.0	6.6	7.7	7.1	5.3	11.4	1.1	1.1	1.1	16.5	-8.5	22.8
United Kingdom	NA	NA	*	*	*	*	*	*	*	*	*	*	*	*	*
United States	2.05	2.06	-1.1	-2.0	3.7	0	3.5	-1.3	-2.6	0.9	-0.4	1.8	-1.5	0	0.9

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 6.6a

CH₄ emissions from waste-water handling - trend information

CH ₄ emissions (Gg)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	159	135	-0.2	-4.0	-1.8	-2.6	-0.9	-0.6	3.4	-1.1	-1.6	-0.3	-2.5	1.8	-14.9
Austria	5	2	-0.3	-8.0	-8.8	-9.7	-8.0	-8.7	-9.4	-10.0	-11.3	0.7	0.7	0.6	-59.3
Belarus	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Belgium	10	6	0.5	-1.6	-2.9	-3.3	-13.4	-4.4	-9.8	-4.7	-3.2	-2.9	-1.3	0.7	-39.0
Bulgaria	88	28	-22.3	-5.0	-15.1	-13.7	-12.3	-6.1	-18.9	-5.0	168.4	0.4	-47.0	-11.5	-68.7
Canada	11	12	-8.0	12.6	-7.4	-0.2	20.8	-12.7	0.8	0.3	1.4	1.8	1.9	2.0	14.7
Croatia	5	4	-0.8	-0.7	-0.7	-0.7	-0.7	-0.7	-1.1	-1.1	-1.1	-0.5	-0.7	-0.6	-11.9
Czech Republic	39	25	-3.6	-6.9	3.9	-2.2	-7.0	-6.1	-3.6	7.3	-7.8	-0.6	-0.5	2.2	-36.8
Denmark	6	12	-2.4	14.2	22.8	1.8	-6.2	-8.3	6.6	34.1	-3.2	-8.5	-4.8	-5.1	97.7
Estonia	IE, NA, NO	IE, NA, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
European Community	600	469	-2.4	-2.4	-0.4	-0.7	-2.0	-3.5	-6.6	0.2	-1.1	-2.0	-0.8	-0.4	-21.8
Finland	7	6	-5.8	-2.6	-1.3	-2.5	-2.9	-1.7	-1.3	3.3	-0.9	0.7	-2.7	1.7	-13.7
France	37	56	5.8	4.5	4.4	4.2	4.2	0.7	-9.0	2.1	2.0	1.9	1.9	1.8	54.5
Germany	106	5	-23.3	-25.2	-33.7	-50.8	-9.7	-10.7	-12.0	-5.0	-5.3	-5.5	-5.9	-6.2	-94.8
Greece	110	25	-2.2	-1.8	-4.7	-3.0	-6.4	-19.5	-38.4	-13.7	-16.3	-18.2	0.3	0.0	-77.6
Hungary	40	29	-0.8	-0.1	-1.0	-1.8	0.3	-2.5	-8.8	8.0	-7.5	-2.6	-2.6	-6.9	-28.8
Iceland	1	1	-2.3	5.1	0.1	-7.3	4.5	2.8	-1.4	7.1	7.8	-9.2	-11.3	-0.7	25.1
Ireland	1	1	0.6	0.7	37.5	1.1	6.3	1.7	3.7	1.8	-4.6	5.1	1.6	1.6	64.7
Italy	95	114	4.0	0.9	1.4	0.5	0.2	0.9	1.0	0.4	-0.5	0.4	0.5	2.0	20.2
Japan	101	67	-2.0	-1.9	-2.5	-2.6	-2.8	-2.9	-3.2	-3.1	-2.8	-2.4	-3.4	0.2	-33.5
Latvia	17	9	-1.5	-1.2	-0.5	0.2	-1.5	0.1	9.9	-1.5	0.0	-0.1	-0.4	-6.2	-42.9
Liechtenstein	0	0	4.8	6.7	1.8	8.2	7.7	0.9	-3.8	-4.2	3.6	4.4	-3.8	8.2	44.7
Lithuania	40	25	-7.6	-3.0	20.9	3.1	-34.5	37.5	-13.0	-9.1	31.3	16.2	4.8	-1.3	-37.4
Luxembourg	0	0	-2.5	-3.5	-3.6	-3.7	-3.9	-4.0	-2.9	-3.0	-3.1	-3.2	-2.9	-3.3	-40.0
Monaco	NA, NO	NA, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	14	10	33.4	-1.4	-2.5	-0.5	2.4	-6.5	-0.3	2.3	-6.1	2.5	-5.1	-2.2	-30.6
New Zealand	11	10	0.3	0.3	0.3	-0.9	-0.9	-0.9	-0.9	-0.7	-0.8	-0.9	-1.0	-1.1	-5.8
Norway	1	0	-4.3	-5.8	-6.2	-6.7	-7.2	-7.9	-8.8	-9.7	-14.2	-17.5	2.2	3.3	-66.1
Poland	82	49	13.0	1.5	9.1	7.3	4.6	-57.2	-0.5	1.7	2.5	1.6	1.5	1.5	-40.0
Portugal	116	87	2.5	-5.6	1.8	2.1	-5.2	-3.1	-5.0	-1.9	-1.4	-6.8	-7.1	-7.7	-24.8
Romania	257	147	-22.2	-5.8	-1.8	-6.3	1.3	11.6	4.9	4.2	5.0	2.4	-18.6	0.3	-42.7
Russian Federation	1,596	1,417	-6.3	-6.8	0.4	1.8	7.3	5.4	2.3	2.3	2.7	2.6	3.2	2.4	-11.2
Slovakia	48	33	-5.5	-0.8	0.7	-3.0	1.4	-11.5	0.9	0.2	-9.6	-0.2	2.0	0.1	-32.1
Slovenia	10	8	-7.1	-1.3	13.2	3.2	2.5	2.5	-2.2	1.5	-1.1	5.1	-0.3	-9.7	-21.9
Spain	59	105	3.6	2.7	6.1	4.7	3.7	2.9	3.3	4.4	3.8	2.9	3.2	3.2	78.2
Sweden	IE, NE, NO	IE, NE, NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Switzerland	1	2	1.7	0.9	0.5	0.7	1.0	1.0	1.1	0.8	0.8	0.7	0.6	0.9	16.6
Turkey															
Ukraine	76	72	1.6	-0.2	-1.3	-1.6	-1.4	-1.5	-0.8	-1.0	-0.4	-0.5	0.0	-0.7	-5.5
United Kingdom	34	39	-6.3	2.7	2.6	2.6	-3.0	2.4	0.6	0.6	0.6	0.6	0.6	0.4	14.2
United States	1,096	1,136	1.7	0.2	1.3	-0.1	0.4	-0.6	-1.9	-0.2	-0.7	0.1	-0.9	0.4	3.7

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 6.6b**N₂O emissions from waste-water handling - trend information**

N ₂ O emissions (Gg)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	1.55	1.87	1.4	1.4	1.2	1.0	1.1	1.2	1.2	1.3	1.2	1.3	1.1	1.1	20.8
Austria	0.35	0.90	-0.5	12.9	7.1	8.7	9.2	13.9	13.2	0.3	0.2	7.1	6.6	6.1	156.6
Belarus	0.73	0.75	-2.7	6.5	4.5	4.3	4.2	0	1.3	0	-4.2	1.6	1.4	0.4	3.2
Belgium	0.87	0.88	1.4	-0.2	0.2	1.0	1.5	-7.6	2.7	-0.4	1.7	0.6	0.2	0.5	1.1
Bulgaria	1.00	0.47	-9.8	-4.8	-11.0	11.6	2.9	-5.4	-4.7	1.5	0.4	-0.8	-1.9	-1.5	-53.3
Canada	1.79	2.17	-1.7	-0.6	3.6	1.3	1.2	1.3	3.9	0.5	-0.4	1.9	0.1	-1.8	20.9
Croatia	0.25	0.28	-3.8	-4.6	0.1	-3.2	4.9	-4.5	7.1	5.6	-2.1	-2.1	-2.1	-2.3	10.9
Czech Republic	0.52	0.65	-0.5	-0.2	-0.1	-0.1	-0.1	25.0	-0.8	0.0	0.0	0.1	0.2	0.3	23.8
Denmark	0.28	0.16	-4.7	-18.5	-6.1	1.2	-6.1	5.6	-12.4	1.7	-14.5	6.9	-5.0	-1.1	-43.0
Estonia	0.13	0.11	-0.2	-1.6	-1.3	-0.9	-1.0	-0.5	-0.4	-0.4	-0.4	-0.4	-0.3	-0.2	-14.4
European Community	30.92	32.63	0.1	0.5	1.4	0.3	-0.1	1.0	0.5	0.1	-0.2	0.8	0.1	0.7	5.5
Finland	0.46	0.33	-4.5	-3.0	-1.3	-5.0	-3.9	-0.3	-0.1	-4.6	1.5	-1.5	-3.2	-1.7	-29.3
France	3.82	3.22	0.3	-2.1	-2.8	-4.1	-3.8	2.3	-3.7	-0.5	-0.7	0.2	-1.3	-0.9	-15.8
Germany	7.17	7.55	0.7	0.2	0.1	0.0	0.2	0.1	1.2	0.1	0.0	0.0	-0.1	-0.1	5.3
Greece	1.05	1.20	1.9	-0.3	2.2	0.2	2.4	-0.6	-0.7	0.1	0.3	0.3	0.7	0.5	14.3
Hungary	0.67	0.67	-2.9	-6.5	0	-1.7	3.5	5.1	-3.2	0	10.0	1.5	0.2	0.4	0.6
Iceland	0.02	0.03	1.5	0.7	0.9	1.2	1.4	1.4	1.2	0.7	0.8	1.0	2.1	2.6	20.2
Ireland	0.37	0.44	1.4	1.1	3.0	2.1	2.8	4.2	-0.8	1.3	1.6	1.6	2.1	2.6	20.8
Italy	6.01	6.44	1.2	2.7	-0.2	2.1	2.6	1.0	-1.4	0.1	0.6	0.7	0.7	1.0	7.1
Japan	4.16	3.80	1.7	1.7	0.8	-1.3	-2.9	-1.0	-1.5	-1.1	0.4	0.7	-2.3	0.8	-8.7
Latvia	0.18	0.16	-0.3	-0.6	-0.8	-0.9	-0.8	-2.6	-0.5	-0.7	-0.7	-0.5	-0.6	-1.0	-14.5
Liechtenstein	0.00	0.00	1.2	0.7	0.6	2.2	1.3	1.3	2.0	1.0	1.3	0.9	0.9	0.8	21.1
Lithuania	0.26	0.24	0.1	-0.5	0.3	-0.7	-0.7	-0.4	-0.6	0.9	-0.5	-0.3	-0.9	0.0	-5.6
Luxembourg	0.02	0.02	1.7	-3.8	1.8	1.8	1.8	1.7	2.0	-6.4	1.1	1.2	1.6	2.2	11.3
Monaco	0.00	0.00	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	10.9
Netherlands	1.66	1.23	1.9	-2.0	-1.3	2.4	-4.1	-2.7	1.2	-1.9	-6.3	0.3	-2.2	-2.4	-25.9
New Zealand	0.47	0.54	0	0	0	2.0	0	0	2.0	0	2.2	0.6	-0.2	2.4	13.9
Norway	0.38	0.45	-0.4	5.0	6.2	0.0	0.7	-8.9	1.8	-6.1	5.8	0.4	1.3	4.3	19.4
Poland	3.68	2.34	1.9	1.3	-1.2	1.9	-0.2	-1.1	-1.0	0.8	0.4	-26.9	-5.5	-3.0	-36.4
Portugal	1.42	1.86	2.6	-0.6	2.1	6.1	1.7	0.6	1.6	0.0	1.1	0.6	0.5	0.6	30.6
Romania	1.93	2.32	-0.1	2.7	1.7	0.8	1.7	0.8	1.7	-2.7	-0.3	8.9	-2.7	0.7	19.9
Russian Federation	17.49	12.59	-14.1	-1.5	1.3	-0.6	-2.1	-1.7	2.5	2.8	1.0	0.4	2.4	-0.7	-28.0
Slovakia	0.06	0.13	1.0	10.1	-6.6	4.3	-13.8	-15.0	108.7	77.0	-27.7	7.2	1.9	49.6	105.6
Slovenia	0.19	0.20	-5.8	5.5	-1.9	-1.8	8.5	-2.3	-2.0	1.0	-2.5	9.2	0.2	0.5	7.0
Spain	3.46	3.92	-3.8	0.1	4.5	1.0	0.6	2.6	2.0	3.5	-0.9	3.5	0.2	1.6	13.3
Sweden	0.63	0.45	0	0	-7.4	-7.2	-0.8	-7.8	-0.8	-3.7	0.0	-1.4	0.6	-0.1	-29.1
Switzerland	0.62	0.68	1.2	0.3	0.1	0.3	0.5	0.6	1.1	0.8	0.8	0.7	0.6	0.7	11.2
Turkey															
Ukraine	5.02	3.44	-6.6	-3.8	-2.3	0	-4.4	0.9	1.5	3.6	-2.6	2.1	-0.9	0.3	-31.5
United Kingdom	3.33	4.02	-0.9	3.4	11.1	-1.1	-3.3	3.0	3.1	-0.6	0.4	0.0	0.1	2.6	20.7
United States	20.21	26.15	2.3	2.1	0.2	2.1	3.1	2.1	2.9	-1.8	1.0	1.9	1.9	1.3	29.4

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Table 6.7

CO₂ emissions from waste incineration - trend information

CO ₂ emissions (Gg)			Relative change (%)												
	Base year ^a	2006	1990 to 1991	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	Base year ^a to 2006
Australia	73	28	0.2	-27.0	-51.9	1.2	1.8	-3.9	0.5	0.6	0.6	0.6	0.5	0	-61.2
Austria	27	12	-13.0	2.9	2.9	2.8	2.7	0	0	0	0	0	0	0	-54.4
Belarus	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Belgium	253	78	-51.5	1.1	17.4	-24.9	31.4	11.4	2.4	7.6	31.7	-39.8	-10.3	-31.8	-69.1
Bulgaria	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Canada	267	191	-4.7	-2.8	-3.2	-3.5	-9.2	1.9	0.0	-11.8	1.9	2.0	2.2	1.9	-28.6
Croatia	0	0	-5.5	-3.7	1.7	-1.6	1.2	-3.8	1.3	0.1	0.0	-5.0	2.6	2.5	-7.1
Czech Republic	IE, NE	386	*	0	0	0	0	0	0	0	3.2	-11.3	9.8	7.8	*
Denmark	IE	IE	*	*	*	*	*	*	*	*	*	*	*	*	*
Estonia	NA	NA	*	*	*	*	*	*	*	*	*	*	*	*	*
European Community	4,457	2,624	-3.4	-1.8	-14.4	-5.5	-7.3	-4.1	-0.6	2.1	0.1	-6.4	3.3	-1.2	-41.1
Finland	IE	IE	*	*	*	*	*	*	*	*	*	*	*	*	*
France	2,295	1,782	-0.9	-3.8	-9.1	-7.2	-5.5	3.6	-3.7	1.4	-0.4	-4.3	3.8	2.8	-22.4
Germany	NO	NO	*	*	*	*	*	*	*	*	*	*	*	*	*
Greece	NE	1	*	*	*	*	*	*	*	*	*	*	2.6	0	*
Hungary	98	382	67.1	0.2	2.7	5.0	-1.2	-1.2	1.4	-27.0	-7.0	73.4	83.5	20.8	291.2
Iceland	19	0	-0.8	-10.4	-3.6	-15.3	-18.2	-6.0	-7.3	-7.1	-14.7	-53.0	-98.9	0	-99.9
Ireland	NE	NE	*	*	*	*	*	*	*	*	*	*	*	*	*
Italy	537	234	4.7	-2.3	7.5	-0.7	-22.0	-48.8	10.3	10.2	-11.9	-7.7	22.4	-4.0	-56.4
Japan	21,996	33,279	1.8	5.4	3.7	0.5	1.4	4.1	-0.7	1.2	8.4	-7.2	1.4	0.7	51.3
Latvia	NE, NO	2	*	*	*	*	*	59.9	98.6	-87.2	22.2	20.1	-0.1	244.2	*
Liechtenstein	0	0	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	-2.9	2.8	3.3
Lithuania	4	5	8.4	-66.2	-0.9	5.1	-56.6	195.4	32.1	-8.2	169.0	-48.5	87.1	-5.4	37.1
Luxembourg	IE	IE	*	*	*	*	*	*	*	*	*	*	*	*	*
Monaco	NA	NA	*	*	*	*	*	*	*	*	*	*	*	*	*
Netherlands	IE	IE	*	*	*	*	*	*	*	*	*	*	*	*	*
New Zealand	13	4	0	-3.8	0	-1.0	-0.9	-7.5	-47.6	0	-10.0	-10.5	-0.6	-18.8	-70.6
Norway	0	NA, NO	0	-8.3	5.0	5.5	-16.2	-40.8	0	-41.1	0	0	0	0	*
Poland	579	309	-9.9	1.3	-0.3	6.1	-16.0	26.2	-4.2	3.8	-17.4	-21.0	9.0	-2.8	-46.6
Portugal	10	132	0	11.7	16.4	-24.7	366.2	210.1	-3.4	5.3	1.0	-0.6	-1.8	-7.6	1,209.5
Romania	NA, NE	339	*	19.8	16.5	14.2	12.4	37.2	13.2	4.8	9.7	25.0	66.6	89.5	*
Russian Federation	IE	IE	*	*	*	*	*	*	*	*	*	*	*	*	*
Slovakia	67	23	0	0	-28.0	101.0	-30.6	-0.7	-16.9	-28.7	-16.5	-22.7	-50.8	79.6	-66.3
Slovenia	NO	IE	*	*	*	*	*	*	*	*	*	*	*	*	*
Spain	85	4	-30.3	3.9	-57.8	0.0	8.1	-1.4	-2.0	-1.8	-40.4	-48.2	-5.2	5.3	-95.4
Sweden	44	71	19.0	14.9	3.0	-2.8	-2.0	-7.8	6.8	27.9	26.0	16.2	2.6	-22.7	60.8
Switzerland	53	15	-8.1	-7.3	-7.9	-8.6	-9.4	-10.4	-11.6	-13.1	-0.4	-0.4	0	0	-71.1
Turkey															
Ukraine	IE	IE	*	*	*	*	*	*	*	*	*	*	*	*	*
United Kingdom	1,207	441	-0.5	1.7	-42.7	0.9	-7.8	1.3	5.3	-2.9	-4.2	-1.9	-2.5	-3.3	-63.4
United States	IE	IE	*	*	*	*	*	*	*	*	*	*	*	*	*

^a In accordance with the UNFCCC reporting guidelines on annual GHG inventories of Annex I Parties, the year 1990 should be the base year for the estimation and reporting of inventories. However, in accordance with decisions 9/CP.2 and 11/CP.4, some Parties with economies in transition use base years other than 1990: Bulgaria (1988), Hungary (average of 1985 to 1987), Poland (1988), Romania (1989) and Slovenia (1986).