

Greenhouse Gas Emissions Data for 1990 – 2003 submitted to the
United Nations Framework Convention on Climate Change

KEY GHG DATA

GHG

UNFCCC

Commemorating

JOKE WALLER-HUNTER
1946 - 2005

Executive Secretary

United Nations Framework Convention on Climate Change

She was our leader, she was our inspiration.

KEY GHG DATA

Greenhouse Gas (GHG) Emissions Data for 1990 – 2003
submitted to the UNFCCC

[United Nations Framework Convention on Climate Change \(UNFCCC\)](#)

The Climate Change Convention has been in force since 1994 – for more than 10 years. Much has been done by Parties to the Convention to contribute, in accordance with their “*common but differentiated responsibilities and their specific national and regional development priorities*”,¹ to the achievement of the ultimate objective of the Convention – “*stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system*”.² The entry into force of the Kyoto Protocol on 16 February 2005 created an additional positive momentum in these efforts.

Since 1994, Parties have communicated to the Conference of the Parties (COP) various elements of the information required under Article 12 of the Convention. Among these elements, data on national greenhouse gas (GHG) emissions occupy a prominent place. Calculating national emissions in a robust, credible and transparent manner has been and is a considerable challenge. Meeting this challenge is by no means easy – it requires a solid scientific basis, profound expertise in many interrelated subjects, and a considerable organizational effort by every Party. The tremendous amount of data on national GHG emission accumulated under the Convention demonstrates that Parties meet the challenge successfully.

This publication gives an overview of the most representative GHG data provided by Parties to the Convention since 1994. We do not intend to show here all available data – detailed, up-to-date GHG information can be retrieved from the online GHG database on our web site. But we do want this publication to open to the reader the wealth of useful information that Parties have provided under the Convention, to reflect adequately the tremendous efforts by Parties in preparing and submitting GHG data, and to become a key reference for national GHG data.

We hope that everyone who looks for authoritative, transparent and easy-to-read information on national GHG emissions will find this book useful.

¹
Article 4.1 of the United Nations Framework Convention on Climate Change (UNFCCC).

²
Article 2 of the United Nations Framework Convention on Climate Change (UNFCCC).

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I. INTRODUCTION

1. Submission of information on national greenhouse gas (GHG) emissions is an important commitment under the United Nations Framework Convention on Climate Change (UNFCCC) and, for Parties to the Kyoto Protocol, under that Protocol. To facilitate the robustness, credibility and transparency of GHG data, reporting guidelines, based on scientific guidance from the Intergovernmental Panel on Climate Change (IPCC), have been adopted by the Parties to the UNFCCC. Following the adopted guidelines, Parties regularly submit their GHG data to the UNFCCC secretariat, which processes the data and makes them publicly available.
2. Consistent with the principle of “*common but differentiated responsibilities*” (Article 4.1 of the UNFCCC), the guidelines and the amount of required GHG data are different for the two major country groups under the Convention: Parties included in Annex I to the Convention (Annex I Parties) and Parties not included in Annex I to the Convention (non-Annex I Parties).³ Annex I Parties report GHG data in their national GHG inventories that they submit annually; non-Annex I Parties report GHG data in their national communications submitted in accordance with the timeframe decided by the Conference of the Parties (COP). Upon their receipt at the UNFCCC secretariat, GHG data from Annex I Parties undergo various checks and consistency controls and are also subject to individual technical reviews implemented by international teams of experts. GHG data for Annex I and non-Annex I Parties are presented here separately.
3. This publication covers the following GHGs: carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF₆). Data on HFCs, PFCs and SF₆ (taken together) are presented for Annex I Parties only. GHG totals are presented in “CO₂ equivalent” – calculated as the sum of CO₂, CH₄, N₂O, HFCs, PFCs and SF₆ weighed with the corresponding values of the global warming potential (GWP);⁴ data for individual gases and sectoral GHG emissions are also presented in CO₂ equivalent. For Annex I Parties, sectoral data are presented for energy (including transport); energy (excluding transport); transport; industrial processes; solvent and

other product use; agriculture; land use, land-use change and forestry (LULUCF); waste; and “other”. For non-Annex I Parties, sectoral data are presented for energy; industrial processes; agriculture; land-use change and forestry (LUCF); and waste.

4. For most Annex I Parties, data are available for all years from 1990 to 2003. For most non-Annex I Parties, data are available for one or two years, usually either 1990 or 1994, although some communications contain GHG data for several years. Data availability and the data sources used are described at the beginning of CHAPTERS II (for Annex I data) and III (for non-Annex I data).
5. CHAPTER IV contains technical notes relating to tables and figures. Some tables and figures contain additional notes, essential for full and accurate understanding of the data presented. For brevity, data tables and figures contain acronyms and abbreviations; a full list of these can be found in CHAPTER V.
6. This publication does not cover all data available at the UNFCCC secretariat. More GHG data can be found in UNFCCC documents such as *FCCC/SBI/2005/17* (2005) and on the UNFCCC web site

<http://ghg.unfccc.int/index.html>

where typical graphs and key data in a spreadsheet format can be also found. Readers interested in detailed GHG data are encouraged to consult the online GHG database supported by the UNFCCC secretariat at

<http://ghg.unfccc.int/default.htm>;

this database contains data for Annex I and non-Annex I Parties and provides an interface by which a user can query the database.

³ Annex I and non-Annex I Parties are listed in CHAPTER VI.

⁴ The GWPs used are 1 for CO₂, 21 for CH₄, 310 for N₂O, and specific values for individual HFCs, PFCs and SF₆.

II. GHG DATA FOR ANNEX I PARTIES

A. DESCRIPTIVE SUMMARY

7. The data on GHG emissions from Annex I Parties are presented as follows:

- Section II.B “Data sources”
- Section II.C “Data for GHG total”
- Section II.D “Data by gas”
- Section II.E “Data by sector”
- Section II.F “Data by country”
- Section II.G “GHG projections”.

8. This descriptive summary provides an overview of the information presented in these sections.

A. 1. DATA SOURCES

9. The sources of GHG data from Annex I Parties are listed in TABLE II-1. Most of the data come from the 2005 submissions of GHG inventories due by 15 April 2005 (including the resubmissions with revised data received by 30 May). For those Parties that have not reported their inventories in 2005, and for those that reported incomplete data series in 2005, data from earlier inventory submissions and national communications were used.

10. The UNFCCC guidelines require that Annex I Parties provide their GHG data for all years from 1990 to the last but one year (up to 2003 in 2005). TABLE II-1 shows that the majority of Annex I Parties have complete data series from 1990 to 2003.

A. 2. DATA FOR GHG TOTAL

11. From 1990 to 2003, GHG emissions (without considering emissions/removals from the LULUCF sector) from Annex I Parties taken together decreased by 5.9 per cent, from 18.4 billion tonnes CO₂ equivalent in 1990 to 17.3 billion tonnes CO₂ equivalent in 2003 (see FIGURES II-1, II-2). For GHG emissions (with LULUCF⁵) the corresponding change is a decrease by 6.5 per cent, from 16.8 billion tonnes CO₂ equivalent in 1990 to 15.7 billion tonnes CO₂ equivalent in 2003 (FIGURES II-3, II-4).

12. For Annex I Parties with economies in transition (EIT Parties⁶), GHG emissions (without LULUCF) decreased from 5.7 billion tonnes CO₂ equivalent in 1990 to 3.4 billion tonnes CO₂ equivalent in 2003 – a decrease by 39.6 per cent (45.2 per cent for GHG emissions with LULUCF). For the non-EIT Annex I Parties, GHG emissions (without LULUCF) increased from 12.7 billion tonnes CO₂ equivalent in 1990 to 13.9 billion tonnes CO₂ equivalent in 2003 – an increase by 9.2 per cent (12.4 per cent for GHG emissions with LULUCF).

13. By country, changes in GHG emissions (without LULUCF) from 1990 to 2003 vary greatly: from a decrease of 66.2 per cent (Lithuania) to an increase by 41.7 per cent (Spain), see FIGURE II-5. For GHG emissions (with LULUCF), the maximum decrease is 77.5 per cent (Lithuania) and the maximum increase is 57.5 per cent (Canada).

14. The share of EIT Parties in the total GHG emissions (without LULUCF) from Annex I Parties changed from 30.9 per cent in 1990 to 19.9 per cent in 2003 (TABLE II-2); for GHG emissions (with LULUCF) the corresponding change was from 32.8 to 19.2 per cent (TABLE II-3). Changes in the shares of individual Parties can be found in TABLES II-2, II-3.

15. TABLE II-4 shows the 1990–2003 changes in GHG emissions for those Annex I Parties that are Parties to the Kyoto Protocol, along with the emission reduction targets of these Parties under the Kyoto Protocol.⁷ As the assigned amounts of GHG emissions under the Kyoto Protocol have not been established yet, TABLE II-4 is illustrative and should not be used to determine the exact difference between the current emissions of a Party and its Kyoto Protocol target.

5

In 2005, some Annex I Parties reported GHG emissions/removals for the LULUCF sector whereas others reported GHG emissions/removals for the LUCF sector. This resulted in an inconsistency in GHG emissions including LULUCF, see also notes in CHAPTER IV.

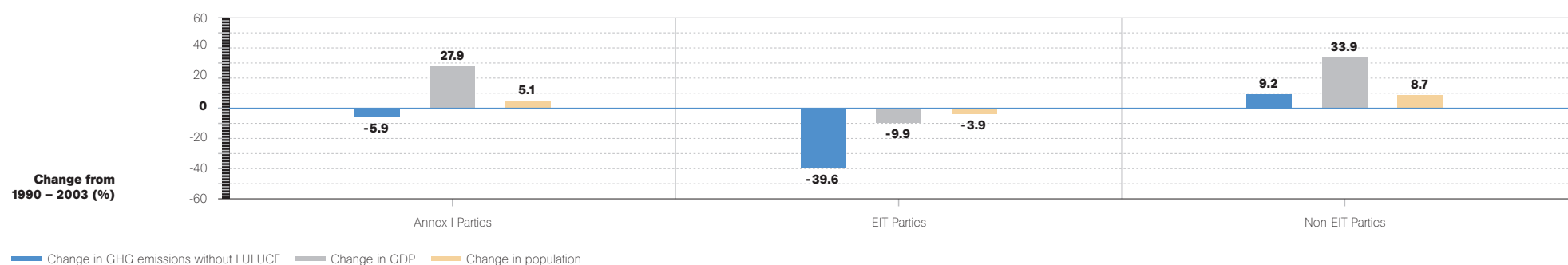
6

The EIT Parties are listed in CHAPTER VI where a full list of Annex I Parties can be also found.

7

The reduction targets relate to the 2008–2012 period (the first commitment period under the Kyoto Protocol).

Summary figure 1. Changes in GHG emissions, population and GDP for Annex I Parties, 1990 – 2003



Summary table 1. Selected illustrative macroeconomic and GHG data for Annex I Parties taken together, 1990 – 2003

Party	1990	2002	2003	Change 1990 – 2003 (%)	Growth rate 1990 – 2003 (%/year)	Change 2002 – 2003 (%)
Population (millions)	1,118.4	1,172.5	1,175.4	5.1	0.4	0.3
GDP (billions \$)	21,868	27,213	27,964	27.9	1.9	2.8
GDP per capita (thousands \$)	19.6	23.2	23.8	21.7	1.5	2.5
CO ₂ emissions without LULUCF (Tg)	14,721	14,099	14,289	-2.9	-0.2	1.3
CO ₂ /capita (Mg)	13.2	12.0	12.2	-7.6	-0.6	1.1
CO ₂ /GDP (kg per \$)	0.67	0.52	0.51	-24.1	-2.1	-1.4
GHG emissions without LULUCF (Tg CO ₂ eq)	18,372	17,094	17,288	-5.9	-0.5	-1.1
GHG/capita (Mg CO ₂ eq)	16.4	14.6	14.7	-10.5	-0.8	0.9
GHG/GDP (kg CO ₂ eq per \$)	0.84	0.63	0.62	-26.4	-2.3	-1.6

Note: Population and GDP data are from the World Bank; emissions data are data submitted by Parties to the UNFCCC. GDP data are in international dollars (\$) of 2000; the purchasing power parities (PPP) approach is used.

Summary table 2. Selected illustrative macroeconomic and GHG data for EIT Parties taken together, 1990 – 2003

Party	1990	2002	2003	Change 1990 – 2003 (%)	Growth rate 1990 – 2003 (%/year)	Change 2002 – 2003 (%)
Population (millions)	321.1	310.0	308.7	-3.9	-0.3	-0.4
GDP (billions \$)	2,998	2,530	2,702	-9.9	-0.8	6.8
GDP per capita (thousands \$)	9.3	8.2	8.8	-6.2	-0.5	7.2
CO ₂ emissions without LULUCF (Tg)	4,405	2,613	2,656	-39.7	-3.8	1.6
CO ₂ /capita (Mg)	13.7	8.4	8.6	-37.3	-3.5	2.0
CO ₂ /GDP (kg per \$)	1.47	1.03	0.98	-33.1	-3.0	-4.8
GHG emissions without LULUCF (Tg CO ₂ eq)	5,681	3,374	3,433	-39.6	-3.8	1.8
GHG/capita (Mg CO ₂ eq)	17.7	10.9	11.1	-37.1	-3.5	2.2
GHG/GDP (kg CO ₂ eq per \$)	1.89	1.33	1.27	-32.9	-3.0	-4.7

Note: Population and GDP data are from the World Bank; emissions data are data submitted by Parties to the UNFCCC. GDP data are in international dollars (\$) of 2000; the purchasing power parities (PPP) approach is used.

II. GHG DATA FOR ANNEX I PARTIES A. Descriptive summary

Summary table 3. Selected illustrative macroeconomic and GHG data for non-EIT Parties taken together, 1990 – 2003

	1990	2002	2003	Change 1990-2003 (%)	Growth rate 1990-2003 (%/year)	Change 2002-2003 (%)
Population (millions)	7973	8625	8667	8.7	0.6	0.5
GDP (billions \$)	18,870	24,682	25,262	33.9	2.3	2.3
GDP per capita (thousands \$)	23.7	28.6	29.1	23.2	1.6	1.9
CO ₂ emissions without LULUCF (Tg)	10,316	11,486	11,633	12.8	0.9	1.3
CO ₂ /capita (Mg)	12.9	13.3	13.4	3.7	0.3	0.8
CO ₂ /GDP (kg per \$)	0.55	0.47	0.46	-15.8	-1.3	-1.0
GHG emissions without LULUCF (Tg CO ₂ eq)	12,691	13,720	13,855	9.2	0.7	1.0
GHG/capita (Mg CO ₂ eq)	15.9	15.9	16.0	0.4	0.0	0.5
GHG/GDP (kg CO ₂ eq per \$)	0.67	0.56	0.55	-18.5	-1.6	-1.3

Note: Population and GDP data are from the World Bank; emissions data are data submitted by Parties to the UNFCCC. GDP data are in international dollars (\$) of 2000; the purchasing power parities (PPP) approach is used.

16. SUMMARY FIGURE 1 and SUMMARY TABLES 1 – 3 (see the previous page) show a number of illustrative data items for Annex I Parties, including some typical indicators such as GHG/GDP and GHG/capita. Detailed data on GHG emissions from individual Annex I Parties can be found in TABLES II-5 to II-8.

A. 3. DATA BY GAS

17. Carbon dioxide (CO₂) is the main GHG, accounting for 82.7 per cent of total GHG emissions (without LULUCF) from Annex I Parties in 2003 (80.1 per cent in 1990), see FIGURES II-6, II-9. The corresponding shares of the other GHGs in 2003 are: 10.0 per cent for CH₄ (12.3 per cent in 1990), 5.6 per cent for N₂O (6.5 per cent in 1990) and 1.7 per cent for the sum of HFCs, PFCs and SF₆ (1.1 per cent in 1990).

18. The shares of individual GHGs in the GHG total for EIT and non-EIT Parties are shown in FIGURES II-7, II-8 and II-10, II-11. Detailed data on emissions of CO₂, CH₄, N₂O, HFCs, PFCs and SF₆ from individual Annex I Parties can be found in TABLES II-9 to II-22.

A. 4. DATA BY SECTOR

19. The energy sector is responsible for the largest share of GHG emissions from Annex I Parties – 84.4 per cent in 2003 – among the five sectors used in the CRF format (energy, industrial processes, solvent and other product use, agriculture, waste), see FIGURE II-12. Because of insufficient data for some Parties, contributions of sub-sectors within energy (such as transport) to GHG total were not estimated.⁸

20. FIGURES II-15, II-18 show changes in sectoral GHG emissions from Annex I Parties. For the period from 1990 to 2003, the largest increase is observed for transport (20.7 per cent); the largest decreases are for agriculture (15.7 per cent) and waste (15.3 per cent).

21. The shares of individual sectors in the GHG total for EIT and non-EIT Parties, and corresponding changes in sectoral emissions, are shown in FIGURES II-13, II-14, II-16, II-17, II-19, II-20. Detailed data on sectoral emissions from Annex I Parties can be found in TABLES II-23 to II-40. TABLE II-41 and FIGURE II-21 show the 1990–2003 changes in CO₂ emissions from international bunker fuels.

A. 5. DATA BY COUNTRY

22. FIGURES II-22 to II-61 illustrate GHG profile and changes in GHG emissions for individual Annex I Parties. For each Annex I Party, the following are presented: changes in GHG emissions (with and without LULUCF) from 1990 to 2003, changes in CO₂ and non-CO₂ emissions from 1990 to 2003, a sectoral profile of GHG emissions in 2003, and changes in sectoral GHG emissions from 1990 to 2003.

⁸

According to the common reporting format (CRF), the energy sector is composed of two parts: a) fuel combustion and b) fugitive emissions. The fuel combustion part includes the following components (or sub-sectors): energy industries, manufacturing industries and construction, transport, other sectors, and other.

23. These figures are illustrative and they are not intended to present comprehensively all facets of the behaviour of GHG emissions in a country. More detailed data tables elsewhere in this document and the online GHG database

<http://ghg.unfccc.int/default.htm>

should be consulted to obtain full information on national GHG emissions.

A. 6.

GHG PROJECTIONS

24. TABLE II-42 describes the availability of information on GHG projections from Annex I Parties. Most of the information comes from the latest national communications of Annex I Parties but in some cases the projections were revised by Parties during or after the in-depth reviews (IDRs) of their national communications. For a few Annex I Parties, GHG projections are not available; the eventual addition of these Parties may change the estimates given here.

25. TABLE II-43 and FIGURE II-62 present the “with measures” projections for Annex I Parties taken together, and separately for EIT Parties and non-EIT Parties. After being relatively stable in the 1990s, GHG emissions are expected to increase under the “with measures” scenario up to 10.6 per cent above the 1990 level by 2010. The emissions are projected to increase both in EIT and in non-EIT Parties. By 2010, total GHG emissions from EIT Parties are projected to be 18.3 per cent below the 1990 level and total GHG emissions from non-EIT Parties are projected to be 19.5 per cent above the 1990 level.

26. TABLE II-44 and FIGURE II-63 provide similar information for the scenario “with additional measures” for those Parties which prepared that scenario. The use of additional policies and measures for GHG mitigation would lead to lower emission levels than those in the “with measures” scenario. The effect of additional measures is most visible for non-EIT Parties, for some of which such measures are projected to result in sizable emission reductions compared to the “with measures” scenario.

27. TABLE II-42 shows that GHG projections from many Annex I countries were prepared several years ago. Therefore, the information on GHG projections in this section is not fully up to date. New information on GHG projections from the upcoming fourth national communications of Annex I Parties, expected by 1 January 2006, is likely to result in a considerable revision of the projections data presented here.

Party	Data source(s)	Data availability by year
Australia	GHG inventory submission of 2005	1990 – 2003
Austria	GHG inventory submission of 2005	1990 – 2003
Belarus	GHG inventory submission of 2005	1990 – 2003
Belgium	GHG inventory submission of 2005	1990 – 2003
Bulgaria	GHG inventory submission of 2005	1988 (base year), 1990 – 2003
Canada	GHG inventory submission of 2005	1990 – 2003
Croatia	GHG inventory submission of 2005	1990 – 2003
Czech Republic	GHG inventory submission of 2005; some data from 2000 – 2004 submissions	1990, 1992, 1994 – 2003
Denmark	GHG inventory submission of 2005	1990 – 2003
Estonia	GHG inventory submission of 2005; some data from 2001 – 2004 submissions	1990 – 2003
European Community	GHG inventory submission of 2005	1990 – 2003
Finland	GHG inventory submission of 2005	1990 – 2003
France	GHG inventory submission of 2005	1990 – 2003
Germany	GHG inventory submission of 2005	1990 – 2003
Greece	GHG inventory submission of 2005	1990 – 2003
Hungary	GHG inventory submission of 2005	1985 – 1987 (base year), 1990 – 2003
Iceland	GHG inventory submission of 2005	1990 – 2003
Ireland	GHG inventory submission of 2005	1990 – 2003
Italy	GHG inventory submission of 2005	1990 – 2003
Japan	GHG inventory submission of 2005	1990 – 2003
Latvia	GHG inventory submission of 2005	1990 – 2003
Liechtenstein	GHG inventory submission of 2005	1990, 2003
Lithuania	GHG inventory submission of 2005; some data from 2004 submission	1990, 1998, 2001 – 2003
Luxembourg	GHG inventory submission of 2005; some data from 2001, 2003, 2004 submissions and from the NC1 (1996)	1990, 1994, 1995, 1998 – 2003
Monaco	GHG inventory submission of 2005; some data from 2002 – 2004 submissions	1990 – 2003
Netherlands	GHG inventory submission of 2005	1990 – 2003
New Zealand	GHG inventory submission of 2005	1990 – 2003
Norway	GHG inventory submission of 2005	1990 – 2003
Poland	GHG inventory submission of 2004; some data from 2002 – 2003 submissions	1988 (base year), 1990 – 2002
Portugal	GHG inventory submission of 2005	1990 – 2003
Romania	GHG inventory submission of 2005	1989 (base year), 1990 – 2003
Russian Federation	NC3 (2002), in-depth review of the NC3 (2004)	1990 – 1999
Slovakia	GHG inventory submission of 2005; some data from 2000 – 2004 submissions	1990 – 2003
Slovenia	GHG inventory submission of 2005	1986 (base year), 1990 – 2003
Spain	GHG inventory submission of 2005	1990 – 2003
Sweden	GHG inventory submission of 2005	1990 – 2003
Switzerland	GHG inventory submission of 2005	1990 – 2003
Ukraine	GHG inventory submission of 2005	1990 – 2003
United Kingdom of Great Britain and Northern Ireland	GHG inventory submission of 2005	1990 – 2003
United States of America	GHG inventory submission of 2005	1990 – 2003

Note: Data availability CO₂, CH₄, N₂O is meant in this table; data availability for HFCs, PFCs and SF₆ varies considerably from Party to Party.

II. GHG DATA FOR ANNEX I PARTIES

Figure II-1. GHG emissions (without LULUCF) from Annex I, EIT and non-EIT Parties, 1990 – 2003

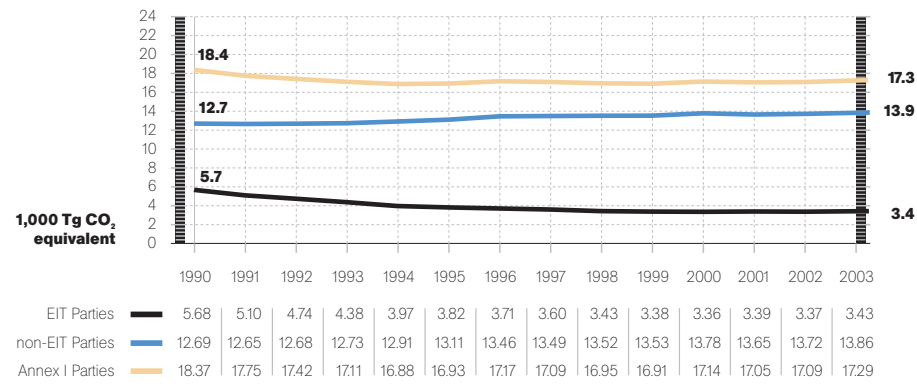


Figure II-2. Changes in GHG emissions (without LULUCF) from Annex I, EIT and non-EIT Parties, 1990 – 2003

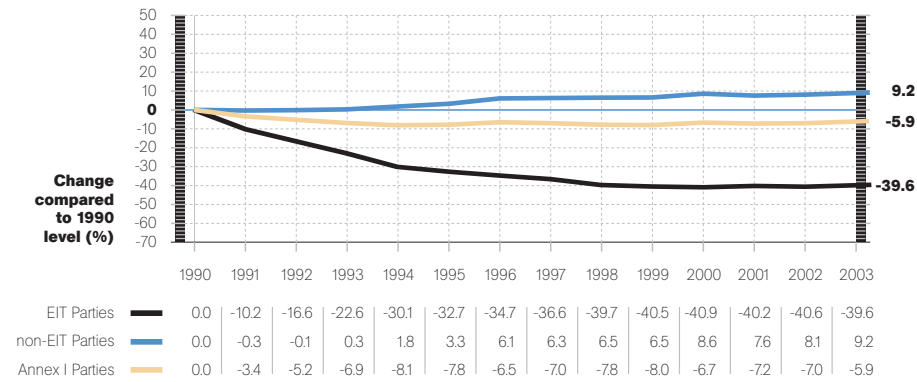


Figure II-3. GHG emissions (with LULUCF) from Annex I, EIT and non-EIT Parties, 1990 – 2003

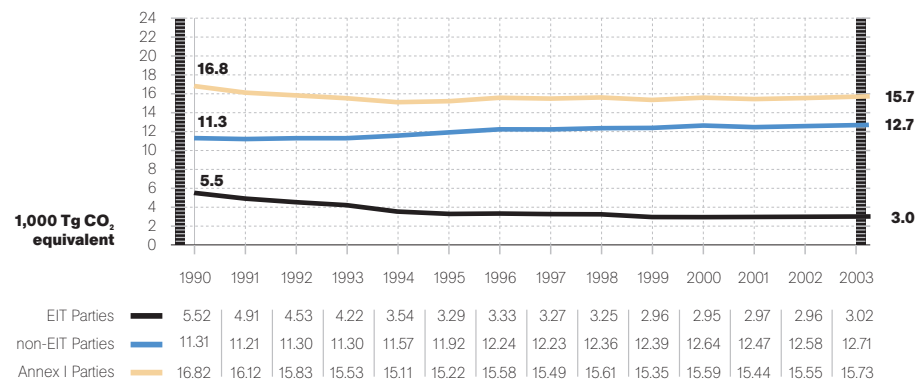
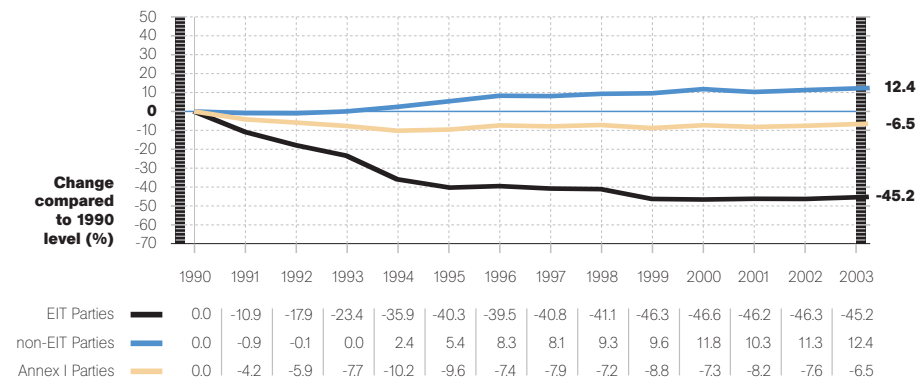


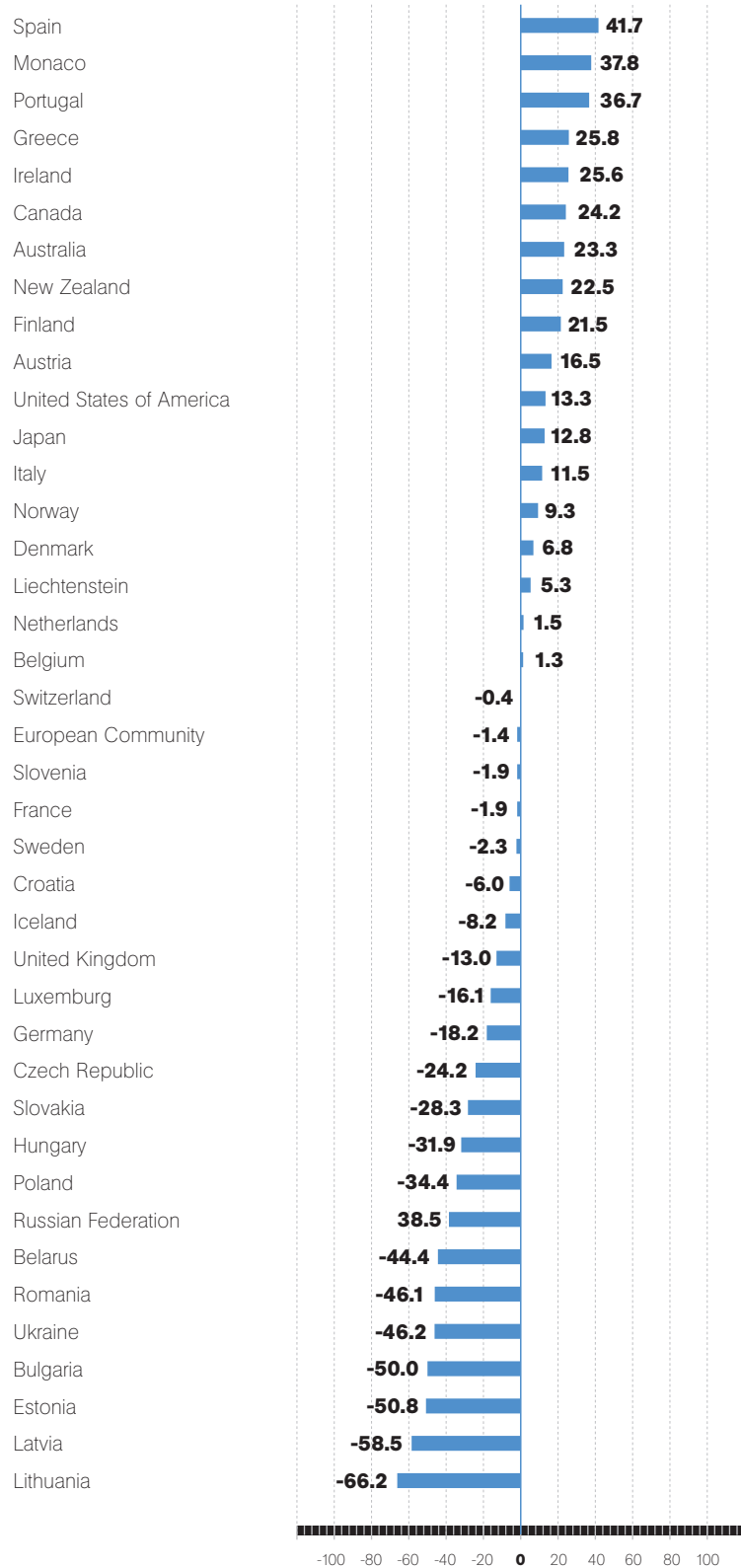
Figure II-4. Changes in GHG emissions (with LULUCF) from Annex I, EIT and non-EIT Parties, 1990 – 2003



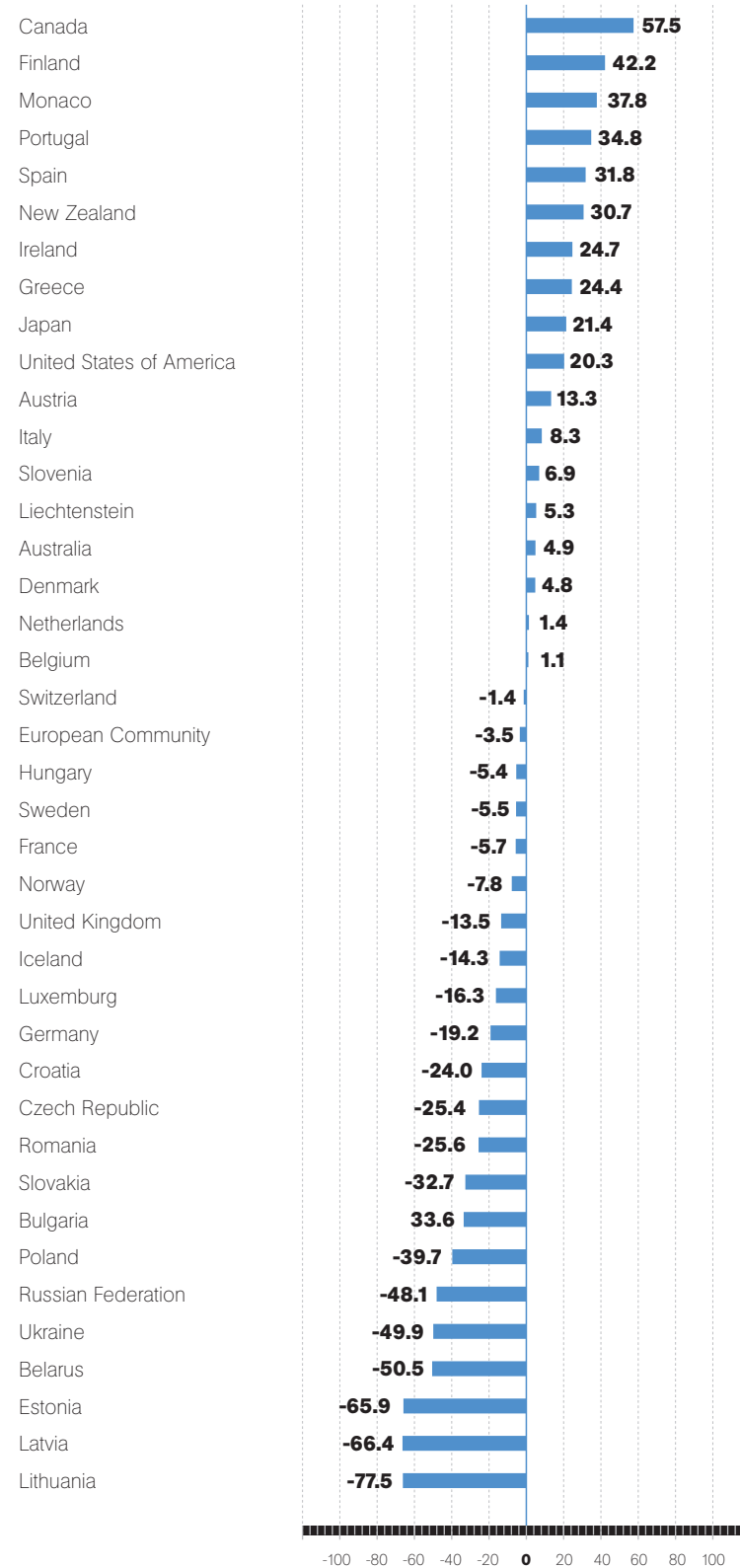
II. GHG DATA FOR ANNEX I PARTIES

Figure II-5. Changes in GHG emissions from Annex I Parties, 1990 – 2003

Changes in GHG emissions without LULUCF (%)



Changes in GHG emissions with LULUCF (%)



Note: base year data are used here instead of 1990 data (as per COP decisions 9/CP.2 and 11/CP.4) for Bulgaria (1988), Hungary (average of 1985 – 1987), Poland (1988), Romania (1989) and Slovenia (1986).

II. GHG DATA FOR ANNEX I PARTIES C. Data for GHG total

Table II-2.

Shares of individual Parties in GHG emissions (without LULUCF) from Annex I Parties, 1990 and 2003

Party	Total GHG emissions without LULUCF (Tg CO ₂ equivalent)		Share in GHG total for all Annex I Parties (%)	
	1990	2003	1990	2003
Australia	417.89	515.23	2.27	2.98
Austria	78.57	91.57	0.43	0.53
Belarus	129.21	71.90	0.70	0.42
Belgium	145.66	147.55	0.79	0.85
Bulgaria	138.38	69.17	0.75	0.40
Canada	595.86	740.21	3.24	4.28
Croatia	31.77	29.87	0.17	0.17
Czech Republic	191.96	145.43	1.04	0.84
Denmark	70.70	75.48	0.38	0.44
Estonia	43.49	21.39	0.24	0.12
Finland	70.42	85.56	0.38	0.49
France	567.98	557.17	3.09	3.22
Germany	1,243.69	1,017.51	6.77	5.89
Greece	109.42	137.64	0.60	0.80
Hungary	122.22	83.22	0.67	0.48
Iceland	3.28	3.01	0.02	0.02
Ireland	53.80	67.55	0.29	0.39
Italy	511.21	569.76	2.78	3.30
Japan	1,187.25	1,339.13	6.46	7.75
Latvia	25.35	10.53	0.14	0.06
Liechtenstein	0.250	0.264	0.001	0.002
Lithuania	50.93	17.20	0.28	0.10
Luxembourg	13.44	11.28	0.07	0.07
Monaco	0.096	0.133	0.001	0.001
Netherlands	211.70	214.82	1.15	1.24
New Zealand	61.52	75.34	0.33	0.44
Norway	50.13	54.78	0.27	0.32
Poland	564.41	370.24	3.07	2.14
Portugal	59.37	81.16	0.32	0.47
Romania	265.12	142.90	1.44	0.83
Russian Federation	3,046.56	1,872.78	16.58	10.83
Slovakia	72.09	51.71	0.39	0.30
Slovenia	20.19	19.80	0.11	0.11
Spain	283.86	402.29	1.55	2.33
Sweden	72.21	70.55	0.39	0.41
Switzerland	52.45	52.24	0.29	0.30
Ukraine	978.90	527.06	5.33	3.05
United Kingdom of Great Britain and Northern Ireland	747.98	651.09	4.07	3.77
United States of America	6,082.51	6,893.81	33.11	39.88
European Community	4,237.98	4,179.61	23.07	24.18
EIT total	5,680.57	3,433.19	30.9	19.9
Non-EIT total	12,691.24	13,855.12	69.1	80.1
Annex I total	18,371.82	17,288.31	100.0	100.0

Note 1: base year data are used here instead of 1990 data (as per COP decisions 9/CP.2 and 11/CP.4) for Bulgaria (1988), Hungary (average of 1985 – 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Note 2: for those Parties that had not provided 2003 data by the time when this publication was prepared, the 2003 emissions were estimated through extrapolation from the latest available year.

Note 3: as established under the UNFCCC, the European Community is assumed to include the following 15 Member States: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, the United Kingdom of Great Britain and Northern Ireland.

II. GHG DATA FOR ANNEX I PARTIES C. Data for GHG total

Table II-3.

Shares of individual Parties in GHG emissions (with LULUCF) from Annex I Parties, 1990 and 2003

Party	Total GHG emissions with LULUCF (Tg CO ₂ equivalent)		Share in GHG total for all Annex I Parties (%)	
	1990	2003	1990	2003
Australia	524.54	550.08	3.12	3.50
Austria	69.56	78.79	0.41	0.50
Belarus	112.50	55.64	0.67	0.35
Belgium	142.56	144.19	0.85	0.92
Bulgaria	93.51	62.11	0.56	0.39
Canada	442.03	696.26	2.63	4.43
Croatia	19.08	14.49	0.11	0.09
Czech Republic	189.89	141.64	1.13	0.90
Denmark	70.86	74.28	0.42	0.47
Estonia	37.17	12.67	0.22	0.08
Finland	47.67	67.78	0.28	0.43
France	534.84	504.60	3.18	3.21
Germany	1,214.75	981.82	7.22	6.24
Greece	106.22	132.11	0.63	0.84
Hungary	83.78	79.28	0.50	0.50
Iceland	3.27	2.80	0.02	0.02
Ireland	53.39	66.57	0.32	0.42
Italy	450.49	487.93	2.68	3.10
Japan	1,103.40	1,339.13	6.56	8.51
Latvia	6.96	2.34	0.04	0.01
Liechtenstein	0.250	0.264	0.001	0.002
Lithuania	45.45	10.21	0.27	0.06
Luxembourg	13.15	11.00	0.08	0.07
Monaco	0.096	0.133	0.001	0.001
Netherlands	214.60	217.58	1.28	1.38
New Zealand	40.15	52.48	0.24	0.33
Norway	36.71	33.84	0.22	0.22
Poland	529.67	319.54	3.15	2.03
Portugal	65.43	88.23	0.39	0.56
Romania	169.32	126.02	1.01	0.80
Russian Federation	3,204.95	1,664.26	19.05	10.58
Slovakia	69.70	46.89	0.41	0.30
Slovenia	13.33	14.24	0.08	0.09
Spain	274.82	362.17	1.63	2.30
Sweden	51.92	49.06	0.31	0.31
Switzerland	51.17	50.47	0.30	0.32
Ukraine	939.96	471.31	5.59	3.00
United Kingdom of Great Britain and Northern Ireland	750.64	649.57	4.46	4.13
United States of America	5,046.06	6,072.18	29.99	38.59
European Community	4,014.58	3,872.96	23.86	24.62
EIT total	5,515.28	3,020.66	32.8	19.2
Non-EIT total	11,308.58	12,713.30	67.2	80.8
Annex I total	16,823.86	15,733.96	100.0	100.0

Note 1: base year data are used here instead of 1990 data (as per COP decisions 9/CP.2 and 11/CP.4) for Bulgaria (1988), Hungary (average of 1985-1987), Poland (1988), Romania (1989) and Slovenia (1986).

Note 2: for those Parties that had not provided 2003 data by the time when this publication was prepared, the 2003 emissions were estimated through extrapolation from the latest available year.

Note 3: as established under the UNFCCC, the European Community is assumed to include the following 15 Member States: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, the United Kingdom of Great Britain and Northern Ireland.

II. GHG DATA FOR ANNEX I PARTIES C. Data for GHG total

Table II-4.

Changes in GHG emissions from 1990 to 2003 for Annex I Parties to the Kyoto Protocol

Party	Total GHG emissions without LULUCF (Tg CO ₂ equivalent)			National emission reduction targets under the Kyoto Protocol ^{a,b} (%)
	1990	2003	Change 1990-2003 (%)	
Austria	78.57	91.57	16.5	-8 (-13)
Belgium	145.66	147.55	1.3	-8 (-7.5)
Bulgaria	138.38	69.17	-50.0	-8
Canada	595.86	740.21	24.2	-6
Czech Republic	191.96	145.43	-24.2	-8
Denmark	70.70	75.48	6.8	-8 (-21)
Estonia	43.49	21.39	-50.8	-8
European Community	4,237.98	4,179.61	-1.4	-8
Finland	70.42	85.56	21.5	-8 (0)
France	567.98	557.17	-1.9	-8 (0)
Germany	1,243.69	1,017.51	-18.2	-8 (-21)
Greece	109.42	137.64	25.8	-8 (+25)
Hungary	122.22	83.22	-31.9	-6
Iceland	3.28	3.01	-8.2	+10
Ireland	53.80	67.55	25.6	-8 (+13)
Italy	511.21	569.76	11.5	-8 (-6.5)
Japan	1,187.25	1,339.13	12.8	-6
Latvia	25.35	10.53	-58.5	-8
Liechtenstein	0.25	0.26	5.3	-8
Lithuania	50.93	17.20	-66.2	-8
Luxembourg	13.44	11.28	-16.1	-8 (-28)
Netherlands	211.70	214.82	1.5	-8 (-6)
New Zealand	61.52	75.34	22.5	0
Norway	50.13	54.78	9.3	+1
Poland	564.41	370.24	-34.4	-6
Portugal	59.37	81.16	36.7	-8 (+27)
Romania	265.12	142.90	-46.1	-8
Russian Federation	3,046.56	1,872.78	-38.5	0
Slovakia	72.09	51.71	-28.3	-8
Slovenia	20.19	19.80	-1.9	-8
Spain	283.86	402.29	41.7	-8 (+15)
Sweden	72.21	70.55	-2.3	-8 (+4)
Switzerland	52.45	52.24	-0.4	-8
Ukraine	978.90	527.06	-46.2	0
United Kingdom of Great Britain and Northern Ireland	747.98	651.09	-13.0	-8 (-12.5)

^a The national reduction targets as per the "burden-sharing" agreement of the European Community are shown in parentheses.

^b The national reduction targets relate to the first commitment period under the Kyoto Protocol, which is from 2008 to 2012.

Note 1: the table includes only those Annex I Parties that were Parties to the Kyoto Protocol at the time this publication was prepared.

Note 2: base year data are used here instead of 1990 data (as per COP decisions 9/CP.2 and 11/CP.4) for Bulgaria (1988), Hungary (average of 1985 – 1987), Poland (1988), Romania (1989) and Slovenia (1986).

II. GHG DATA FOR ANNEX I PARTIES C. Data for GHG total

Table II-5.

GHG emissions (without LULUCF) from Annex I Parties, 1990 – 2003**Total GHG emissions without LULUCF (Tg CO₂ equivalent)**

Party	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Australia	417.89	419.81	422.49	424.79	428.96	440.07	448.71	459.10	480.19	490.53	500.97	509.20	510.39	515.23
Austria	78.57	82.65	76.06	76.18	77.05	80.16	83.24	83.05	82.51	80.40	81.08	84.87	86.43	91.57
Belarus	129.21	124.26	118.92	100.91	83.69	76.78	76.79	77.98	75.78	72.69	68.15	75.68	69.88	71.90
Belgium	145.66	148.59	143.91	145.56	150.82	152.30	156.54	148.06	152.68	146.32	147.69	146.57	145.35	147.55
Bulgaria	138.38	96.93	87.29	87.32	83.93	87.27	84.42	80.71	71.31	65.83	65.70	66.44	63.54	69.17
Canada	595.86	588.62	605.68	608.22	629.53	646.35	663.39	675.28	682.21	695.65	720.17	711.99	718.93	740.21
Croatia	31.77	24.81	22.84	22.95	22.03	22.53	23.19	24.74	25.00	25.99	25.92	26.45	27.73	29.87
Czech Republic	191.96	–	163.38	–	151.87	152.97	154.54	158.21	148.03	139.84	146.74	146.72	141.52	145.43
Denmark	70.70	81.33	75.08	76.75	80.79	77.81	91.22	81.45	77.29	74.18	69.72	71.18	70.42	75.48
Estonia	43.49	40.58	29.93	23.49	24.48	22.29	23.34	23.51	21.41	19.58	19.67	19.44	19.52	21.39
European Community	4,237.98	4,246.11	4,158.58	4,086.92	4,087.58	4,128.93	4,210.79	4,149.78	4,160.38	4,090.59	4,099.85	4,146.48	4,126.32	4,179.61
Finland	70.42	69.43	66.80	67.88	74.32	71.56	76.89	76.00	72.91	72.48	70.20	75.81	77.23	85.56
France	567.98	592.62	584.61	558.51	554.80	562.89	577.67	571.63	584.23	565.60	560.40	563.73	553.45	557.17
Germany	1,243.69	1,191.04	1,141.74	1,126.05	1,108.04	1,102.76	1,121.46	1,083.68	1,057.39	1,021.01	1,016.64	1,027.83	1,015.35	1,017.51
Greece	109.42	109.02	109.94	110.44	113.36	114.49	117.90	122.85	128.10	127.42	132.32	133.58	133.55	137.64
Hungary	122.22	95.36	85.21	84.97	84.92	83.53	85.92	84.00	84.07	83.74	81.02	83.77	80.78	83.22
Iceland	3.28	3.12	3.03	3.07	3.03	3.08	3.17	3.33	3.31	3.50	3.27	3.11	3.09	3.01
Ireland	53.80	54.85	55.69	55.39	57.13	58.18	59.86	62.65	64.77	66.89	68.97	70.74	69.38	67.55
Italy	511.21	512.73	509.36	504.51	496.31	527.56	519.21	525.26	535.13	543.70	551.34	556.10	554.94	569.76
Japan	1,187.25	1,195.72	1,213.30	1,202.77	1,262.71	1,326.80	1,351.83	1,357.53	1,306.59	1,328.40	1,336.20	1,301.36	1,329.99	1,339.13
Latvia	25.35	23.56	18.54	15.67	14.81	12.33	12.50	12.02	11.36	10.46	9.94	10.73	10.62	10.53
Liechtenstein	0.25	–	–	–	–	–	–	–	–	–	–	–	–	0.26
Lithuania	50.93	–	–	–	–	–	–	–	21.82	–	–	20.34	19.55	17.20
Luxembourg	13.44	–	–	–	12.66	10.21	–	–	8.29	5.98	9.52	6.03	10.81	11.28
Monaco	0.10	0.11	0.12	0.12	0.12	0.12	0.13	0.13	0.12	0.13	0.13	0.14	0.13	0.13
Netherlands	211.70	216.20	215.42	220.70	220.63	224.03	232.71	225.05	226.54	214.76	213.98	215.50	213.46	214.82
New Zealand	61.52	62.03	63.55	63.45	63.76	64.27	65.66	67.87	66.73	68.53	69.69	72.62	73.23	75.34
Norway	50.13	48.26	46.00	48.04	49.98	49.62	52.78	52.92	53.34	54.34	53.76	55.31	53.52	54.78
Poland	564.41	437.45	439.11	429.62	438.97	417.35	437.38	427.24	403.51	401.58	386.74	382.15	370.24	–
Portugal	59.37	61.19	65.24	63.81	65.43	69.61	67.10	70.44	75.35	82.77	80.15	81.25	85.71	81.16
Romania	265.12	181.73	174.63	173.50	167.72	174.74	179.33	161.12	142.25	125.67	127.42	130.96	135.94	142.90
Russian Federation	3,046.56	2,810.53	2,607.37	2,388.72	2,152.52	2,061.74	1,951.81	1,910.79	1,869.17	1,872.78	–	–	–	–
Slovakia	72.09	63.44	58.56	54.55	51.67	53.35	53.96	54.01	52.38	51.16	48.61	51.28	50.90	51.71
Slovenia	20.19	17.35	17.44	17.72	17.69	18.60	19.29	19.72	19.46	18.83	18.98	19.90	20.05	19.80
Spain	283.86	290.11	298.74	287.11	302.77	314.68	306.54	327.54	337.29	365.19	380.48	379.31	398.59	402.29
Sweden	72.21	72.49	72.19	72.00	74.68	73.42	77.15	72.74	73.25	69.93	67.28	68.28	69.48	70.55
Switzerland	52.45	54.10	53.88	51.15	50.17	50.93	51.50	50.68	51.96	52.09	51.26	52.09	51.19	52.24
Ukraine	978.90	957.36	868.63	781.46	637.95	605.50	577.18	542.93	480.23	468.66	467.49	488.30	490.57	527.06
United Kingdom of Great Britain and Northern Ireland	747.98	752.28	728.87	709.51	699.72	690.59	713.92	691.21	685.90	652.43	651.53	663.45	643.69	651.09
United States of America	6,082.51	6,032.70	6,115.71	6,244.83	6,336.81	6,401.26	6,614.85	6,671.10	6,713.26	6,745.60	6,946.84	6,800.74	6,851.64	6,893.81

Note: base year data are used here instead of 1990 data (as per COP decisions 9/CP.2 and 11/CP.4) for Bulgaria (1988), Hungary (average of 1985 – 1987), Poland (1988), Romania (1989) and Slovenia (1986).

II. GHG DATA FOR ANNEX I PARTIES C. Data for GHG total

Table II-6.

Changes in GHG emissions (without LULUCF) from Annex I Parties, 1990 – 2003

Change compared to the 1990 level (%)

Party	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Australia	0.5	1.1	1.7	2.6	5.3	7.4	9.9	14.9	17.4	19.9	21.8	22.1	23.3
Austria	5.2	-3.2	-3.0	-1.9	2.0	5.9	5.7	5.0	2.3	3.2	8.0	10.0	16.5
Belarus	-3.8	-8.0	-21.9	-35.2	-40.6	-40.6	-39.6	-41.3	-43.7	-47.3	-41.4	-45.9	-44.4
Belgium	2.0	-1.2	-0.1	3.5	4.6	7.5	1.6	4.8	0.5	1.4	0.6	-0.2	1.3
Bulgaria	-30.0	-36.9	-36.9	-39.3	-36.9	-39.0	-41.7	-48.5	-52.4	-52.5	-52.0	-54.1	-50.0
Canada	-1.2	1.6	2.1	5.7	8.5	11.3	13.3	14.5	16.7	20.9	19.5	20.7	24.2
Croatia	-21.9	-28.1	-27.8	-30.7	-29.1	-27.0	-22.1	-21.3	-18.2	-18.4	-16.7	-12.7	-6.0
Czech Republic	-	-14.9	-	-20.9	-20.3	-19.5	-17.6	-22.9	-27.2	-23.6	-23.6	-26.3	-24.2
Denmark	15.0	6.2	8.6	14.3	10.1	29.0	15.2	9.3	4.9	-1.4	0.7	-0.4	6.8
Estonia	-6.7	-31.2	-46.0	-43.7	-48.8	-46.3	-45.9	-50.8	-55.0	-54.8	-55.3	-55.1	-50.8
European Community	0.2	-1.9	-3.6	-3.5	-2.6	-0.6	-2.1	-1.8	-3.5	-3.3	-2.2	-2.6	-1.4
Finland	-1.4	-5.1	-3.6	5.5	1.6	9.2	7.9	3.5	2.9	-0.3	7.7	9.7	21.5
France	4.3	2.9	-1.7	-2.3	-0.9	1.7	0.6	2.9	-0.4	-1.3	-0.7	-2.6	-1.9
Germany	-4.2	-8.2	-9.5	-10.9	-11.3	-9.8	-12.9	-15.0	-17.9	-18.3	-17.4	-18.4	-18.2
Greece	-0.4	0.5	0.9	3.6	4.6	7.8	12.3	17.1	16.5	20.9	22.1	22.1	25.8
Hungary	-22.0	-30.3	-30.5	-30.5	-31.7	-29.7	-31.3	-31.2	-31.5	-33.7	-31.5	-33.9	-31.9
Iceland	-4.8	-7.4	-6.2	-7.6	-6.0	-3.4	1.7	1.1	6.8	-0.2	-5.1	-5.5	-8.2
Ireland	2.0	3.5	3.0	6.2	8.2	11.3	16.5	20.4	24.3	28.2	31.5	29.0	25.6
Italy	0.3	-0.4	-1.3	-2.9	3.2	1.6	2.7	4.7	6.4	7.8	8.8	8.6	11.5
Japan	0.7	2.2	1.3	6.4	11.8	13.9	14.3	10.1	11.9	12.5	9.6	12.0	12.8
Latvia	-7.1	-26.9	-38.2	-41.6	-51.3	-50.7	-52.6	-55.2	-58.7	-60.8	-57.7	-58.1	-58.5
Liechtenstein	-	-	-	-	-	-	-	-	-	-	-	-	5.3
Lithuania	-	-	-	-	-	-	-	-57.2	-	-	-60.1	-61.6	-66.2
Luxembourg	-	-	-	-5.7	-24.0	-	-	-38.3	-55.5	-29.1	-55.1	-19.5	-16.1
Monaco	16.9	23.8	25.3	27.6	24.1	30.1	30.0	25.1	33.3	35.0	40.5	36.2	37.8
Netherlands	2.1	1.8	4.3	4.2	5.8	9.9	6.3	7.0	1.4	1.1	1.8	0.8	1.5
New Zealand	0.8	3.3	3.1	3.6	4.5	6.7	10.3	8.5	11.4	13.3	18.0	19.0	22.5
Norway	-3.7	-8.2	-4.2	-0.3	-1.0	5.3	5.6	6.4	8.4	7.2	10.3	6.7	9.3
Poland	-22.5	-22.2	-23.9	-22.2	-26.1	-22.5	-24.3	-28.5	-28.8	-31.5	-32.3	-34.4	-
Portugal	3.1	9.9	7.5	10.2	17.2	13.0	18.6	26.9	39.4	35.0	36.8	44.4	36.7
Romania	-31.5	-34.1	-34.6	-36.7	-34.1	-32.4	-39.2	-46.3	-52.6	-51.9	-50.6	-48.7	-46.1
Russian Federation	-7.7	-14.4	-21.6	-29.3	-32.3	-35.9	-37.3	-38.6	-38.5	-	-	-	-
Slovakia	-12.0	-18.8	-24.3	-28.3	-26.0	-25.1	-25.1	-27.3	-29.0	-32.6	-28.9	-29.4	-28.3
Slovenia	-14.1	-13.6	-12.2	-12.3	-7.9	-4.4	-2.3	-3.6	-6.7	-6.0	-1.4	-0.7	-1.9
Spain	2.2	5.2	1.1	6.7	10.9	8.0	15.4	18.8	28.7	34.0	33.6	40.4	41.7
Sweden	0.4	0.0	-0.3	3.4	1.7	6.8	0.7	1.4	-3.2	-6.8	-5.4	-3.8	-2.3
Switzerland	3.1	2.7	-2.5	-4.3	-2.9	-1.8	-3.4	-0.9	-0.7	-2.3	-0.7	-2.4	-0.4
Ukraine	-2.2	-11.3	-20.2	-34.8	-38.1	-41.0	-44.5	-50.9	-52.1	-52.2	-50.1	-49.9	-46.2
United Kingdom of Great Britain and Northern Ireland	0.6	-2.6	-5.1	-6.5	-7.7	-4.6	-7.6	-8.3	-12.8	-12.9	-11.3	-13.9	-13.0
United States of America	-0.8	0.5	2.7	4.2	5.2	8.8	9.7	10.4	10.9	14.2	11.8	12.6	13.3

II. GHG DATA FOR ANNEX I PARTIES C. Data for GHG total

Table II-7.

GHG emissions (with LULUCF) from Annex I Parties, 1990 – 2003**Total GHG emissions with LULUCF (Tg CO₂ equivalent)**

Party	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Australia	524.54	501.21	486.15	475.46	479.77	487.78	492.57	498.49	532.21	534.04	546.54	549.67	555.52	550.08
Austria	69.56	70.87	67.63	67.42	69.41	73.11	78.05	71.36	69.81	67.77	67.44	71.53	75.12	78.79
Belarus ^a	112.50	110.19	103.74	84.49	66.45	59.05	59.08	60.14	57.74	53.89	49.66	59.28	58.90	55.64
Belgium	142.56	145.78	140.78	142.50	147.74	149.39	153.57	145.06	149.80	143.50	144.56	142.16	141.37	144.19
Bulgaria ^a	93.51	89.29	79.88	79.84	76.63	79.74	77.91	73.84	64.45	58.63	56.72	56.97	55.22	62.11
Canada	442.03	455.54	466.18	498.08	519.53	653.93	574.37	573.06	622.59	627.96	635.36	622.62	686.42	696.26
Croatia ^a	19.08	12.12	10.15	10.26	9.34	9.84	10.50	10.30	10.56	11.55	11.48	12.01	12.36	14.49
Czech Republic ^a	189.89	–	156.87	–	147.23	148.76	150.10	153.61	144.32	136.49	142.78	142.41	137.08	141.64
Denmark	70.86	81.21	74.83	76.28	80.46	77.57	90.80	81.00	76.47	73.31	71.50	70.03	68.94	74.28
Estonia ^a	37.17	33.42	22.12	13.79	16.88	14.50	13.74	14.41	12.89	11.47	11.30	10.02	10.96	12.67
European Community ^a	4,014.58	3,975.71	3,896.80	3,825.01	3,822.84	3,867.56	3,932.46	3,871.62	3,884.28	3,796.94	3,816.77	3,839.21	3,797.54	3,872.96
Finland	47.67	32.42	35.16	39.44	57.07	55.16	54.12	63.33	64.02	63.35	60.59	61.15	61.76	67.78
France ^a	534.84	564.61	551.26	518.66	514.47	526.34	537.67	527.85	541.11	520.12	520.79	515.78	498.92	504.60
Germany	1,214.75	1,161.39	1,111.55	1,095.24	1,076.61	1,071.09	1,089.36	1,051.20	1,024.66	987.83	982.21	992.63	980.13	981.82
Greece	106.22	105.45	106.95	106.63	109.88	110.12	113.93	118.94	124.65	122.99	129.37	128.29	128.10	132.11
Hungary ^a	83.78	93.86	82.94	81.67	79.52	78.24	81.21	79.06	79.11	78.99	76.67	79.26	78.44	79.28
Iceland ^a	3.27	3.10	3.00	3.03	2.97	3.01	3.08	3.23	3.20	3.36	3.12	2.94	2.90	2.80
Ireland ^a	53.39	54.38	55.32	54.94	56.69	57.75	59.47	62.20	64.14	66.51	68.37	70.00	68.41	66.57
Italy	450.49	429.61	430.29	439.90	414.82	441.79	429.69	444.88	454.42	454.50	469.64	470.66	459.19	487.93
Japan ^a	1,103.40	1,111.95	1,127.82	1,112.78	1,169.26	1,230.19	–	–	–	–	–	–	–	–
Latvia ^a	6.96	6.15	0.54	-1.24	0.43	-2.18	-2.23	0.38	1.26	1.30	1.41	1.14	2.20	2.34
Liechtenstein ^a	0.25	–	–	–	–	–	–	–	–	–	–	–	–	0.26
Lithuania	45.45	–	–	–	–	–	–	–	14.26	–	–	13.01	12.83	10.21
Luxembourg ^a	13.15	–	–	–	12.38	9.93	–	–	8.02	5.71	9.25	5.76	10.54	11.00
Monaco	0.10	0.11	0.12	0.12	0.12	0.12	0.13	0.13	0.12	0.13	0.13	0.14	0.13	0.13
Netherlands	214.60	219.00	218.10	223.32	223.26	226.68	235.38	227.89	229.28	217.49	216.79	218.28	216.22	217.58
New Zealand	40.15	41.93	45.89	48.22	49.61	49.63	50.74	51.42	47.43	47.42	46.87	49.43	49.90	52.48
Norway	36.71	35.00	32.45	34.71	36.06	36.23	38.96	31.69	32.41	33.42	32.95	34.48	32.61	33.84
Poland ^a	529.67	394.69	398.29	389.44	397.02	374.47	394.77	386.72	373.70	358.12	343.65	328.51	319.54	–
Portugal	65.43	66.28	68.52	66.72	67.34	71.02	67.27	70.40	74.60	82.52	79.32	80.65	84.50	88.23
Romania	169.32	163.62	155.77	153.73	147.46	155.16	160.60	142.09	121.51	105.91	108.59	111.14	118.48	126.02
Russian Federation ^a	3,204.95	2,795.99	2,600.70	2,427.58	1,915.93	1,728.05	1,786.07	1,782.44	1,887.07	1,664.26	–	–	–	–
Slovakia	69.70	59.95	54.42	50.28	48.37	50.67	51.55	52.62	50.46	49.54	46.22	46.07	45.68	46.89
Slovenia ^a	13.33	12.60	12.36	12.54	12.36	12.92	13.73	14.16	13.90	13.27	13.42	14.34	14.49	14.24
Spain ^a	274.82	279.05	285.22	271.61	287.25	297.89	287.28	305.29	312.78	337.83	349.33	345.32	362.19	362.17
Sweden ^a	51.92	43.17	48.83	42.67	48.38	52.13	54.88	45.46	48.92	42.62	39.98	43.47	42.94	49.06
Switzerland ^a	51.17	52.76	52.45	48.76	47.78	48.58	48.99	48.01	49.36	49.83	51.41	52.54	51.49	50.47
Ukraine ^a	939.96	925.92	814.12	734.36	588.99	556.57	515.58	477.49	416.60	405.39	406.00	428.62	433.27	471.31
United Kingdom of Great Britain and Northern Ireland	750.64	754.88	730.96	710.42	700.42	691.39	714.55	691.44	685.54	651.91	650.76	662.49	642.22	649.57
United States of America	5,046.06	4,987.13	5,147.92	5,215.11	5,402.83	5,502.34	5,708.54	5,747.51	5,838.75	5,926.13	6,130.77	5,980.06	6,031.57	6,072.18

^a For this Party, data for emissions/removals from the LUCF sector are used here instead of the data for the LULUCF sector; LULUCF data were not available at the time of the preparation of this document. Note: base year data are used here instead of 1990 data (as per COP decisions 9/CP.2 and 11/CP.4) for Bulgaria (1988), Hungary (average of 1985 – 1987), Poland (1988), Romania (1989) and Slovenia (1986).

II. GHG DATA FOR ANNEX I PARTIES C. Data for GHG total

Table II-8.

Changes in GHG emissions (with LULUCF) from Annex I Parties, 1990 – 2003

Change compared to the 1990 level (%)

Party	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Australia	-4.4	-7.3	-9.4	-8.5	-7.0	-6.1	-5.0	1.5	1.8	4.2	4.8	5.9	4.9
Austria	1.9	-2.8	-3.1	-0.2	5.1	12.2	2.6	0.4	-2.6	-3.1	2.8	8.0	13.3
Belarus ^a	-2.1	-7.8	-24.9	-40.9	-47.5	-47.5	-46.5	-48.7	-52.1	-55.9	-47.3	-47.6	-50.5
Belgium	2.3	-1.2	0.0	3.6	4.8	7.7	1.8	5.1	0.7	1.4	-0.3	-0.8	1.1
Bulgaria ^a	-4.5	-14.6	-14.6	-18.1	-14.7	-16.7	-21.0	-31.1	-37.3	-39.3	-39.1	-40.9	-33.6
Canada	3.1	5.5	12.7	17.5	47.9	29.9	29.6	40.8	42.1	43.7	40.9	55.3	57.5
Croatia ^a	-36.5	-46.8	-46.2	-51.0	-48.4	-45.0	-46.0	-44.7	-39.5	-39.8	-37.0	-35.2	-24.0
Czech Republic ^a	-	-17.4	-	-22.5	-21.7	-21.0	-19.1	-24.0	-28.1	-24.8	-25.0	-27.8	-25.4
Denmark	14.6	5.6	7.7	13.5	9.5	28.1	14.3	7.9	3.5	0.9	-1.2	-2.7	4.8
Estonia ^a	-10.1	-40.5	-62.9	-54.6	-61.0	-63.0	-61.2	-65.3	-69.1	-69.6	-73.1	-70.5	-65.9
European Community ^a	-1.0	-2.9	-4.7	-4.8	-3.7	-2.0	-3.6	-3.2	-5.4	-4.9	-4.4	-5.4	-3.5
Finland	-32.0	-26.2	-17.3	19.7	15.7	13.5	32.9	34.3	32.9	27.1	28.3	29.6	42.2
France ^a	5.6	3.1	-3.0	-3.8	-1.6	0.5	-1.3	1.2	-2.8	-2.6	-3.6	-6.7	-5.7
Germany	-4.4	-8.5	-9.8	-11.4	-11.8	-10.3	-13.5	-15.6	-18.7	-19.1	-18.3	-19.3	-19.2
Greece	-0.7	0.7	0.4	3.4	3.7	7.3	12.0	17.3	15.8	21.8	20.8	20.6	24.4
Hungary ^a	12.0	-1.0	-2.5	-5.1	-6.6	-3.1	-5.6	-5.6	-5.7	-8.5	-5.4	-6.4	-5.4
Iceland ^a	-5.2	-8.2	-7.4	-9.2	-7.9	-5.6	-1.1	-2.1	2.9	-4.7	-10.1	-11.2	-14.3
Ireland ^a	1.9	3.6	2.9	6.2	8.2	11.4	16.5	20.1	24.6	28.1	31.1	28.1	24.7
Italy	-4.6	-4.5	-2.3	-7.9	-1.9	-4.6	-1.2	0.9	0.9	4.3	4.5	1.9	8.3
Japan ^a	0.8	2.2	0.8	6.0	11.5	-	-	-	-	-	-	-	-
Latvia ^a	-11.6	-92.3	-117.9	-93.8	-131.3	-132.0	-94.5	-81.9	-81.3	-79.7	-83.6	-68.5	-66.4
Liechtenstein ^a	-	-	-	-	-	-	-	-	-	-	-	-	5.3
Lithuania	-	-	-	-	-	-	-	-68.6	-	-	-71.4	-71.8	-77.5
Luxembourg ^a	-	-	-	-5.9	-24.5	-	-	-39.0	-56.6	-29.7	-56.2	-19.9	-16.3
Monaco	16.9	23.8	25.3	27.6	24.1	30.1	30.0	25.1	33.3	35.0	40.5	36.2	37.8
Netherlands	2.0	1.6	4.1	4.0	5.6	9.7	6.2	6.8	1.3	1.0	1.7	0.8	1.4
New Zealand	4.4	14.3	20.1	23.5	23.6	26.4	28.0	18.1	18.1	16.7	23.1	24.3	30.7
Norway	-4.7	-11.6	-5.5	-1.8	-1.3	6.2	-13.7	-11.7	-9.0	-10.2	-6.1	-11.1	-7.8
Poland ^a	-25.5	-24.8	-26.5	-25.0	-29.3	-25.5	-27.0	-29.4	-32.4	-35.1	-38.0	-39.7	-
Portugal	1.3	4.7	2.0	2.9	8.5	2.8	7.6	14.0	26.1	21.2	23.3	29.1	34.8
Romania	-3.4	-8.0	-9.2	-12.9	-8.4	-5.2	-16.1	-28.2	-37.4	-35.9	-34.4	-30.0	-25.6
Russian Federation ^a	-12.8	-18.9	-24.3	-40.2	-46.1	-44.3	-44.4	-41.1	-48.1	-	-	-	-
Slovakia	-14.0	-21.9	-27.9	-30.6	-27.3	-26.0	-24.5	-27.6	-28.9	-33.7	-33.9	-34.5	-32.7
Slovenia ^a	-5.5	-7.3	-5.9	-7.3	-3.0	3.0	6.3	4.3	-0.4	0.7	7.6	8.7	6.9
Spain ^a	1.5	3.8	-1.2	4.5	8.4	4.5	11.1	13.8	22.9	27.1	25.7	31.8	31.8
Sweden ^a	-16.9	-5.9	-17.8	-6.8	0.4	5.7	-12.4	-5.8	-17.9	-23.0	-16.3	-17.3	-5.5
Switzerland ^a	3.1	2.5	-4.7	-6.6	-5.1	-4.3	-6.2	-3.5	-2.6	0.5	2.7	0.6	-1.4
Ukraine ^a	-1.5	-13.4	-21.9	-37.3	-40.8	-45.1	-49.2	-55.7	-56.9	-56.8	-54.4	-53.9	-49.9
United Kingdom of Great Britain and Northern Ireland	0.6	-2.6	-5.4	-6.7	-7.9	-4.8	-7.9	-8.7	-13.2	-13.3	-11.7	-14.4	-13.5
United States of America	-1.2	2.0	3.4	7.1	9.0	13.1	13.9	15.7	17.4	21.5	18.5	19.5	20.3

^a For this Party, data for emissions/removals from the LUCF sector are used here instead of the data for the LULUCF sector; LULUCF data were not available at the time of the preparation of this document.

II. GHG DATA FOR ANNEX I PARTIES C. Data for GHG total

Figure II-6. Profile of GHG emissions by gas for Annex I Parties taken together, 1990 and 2003

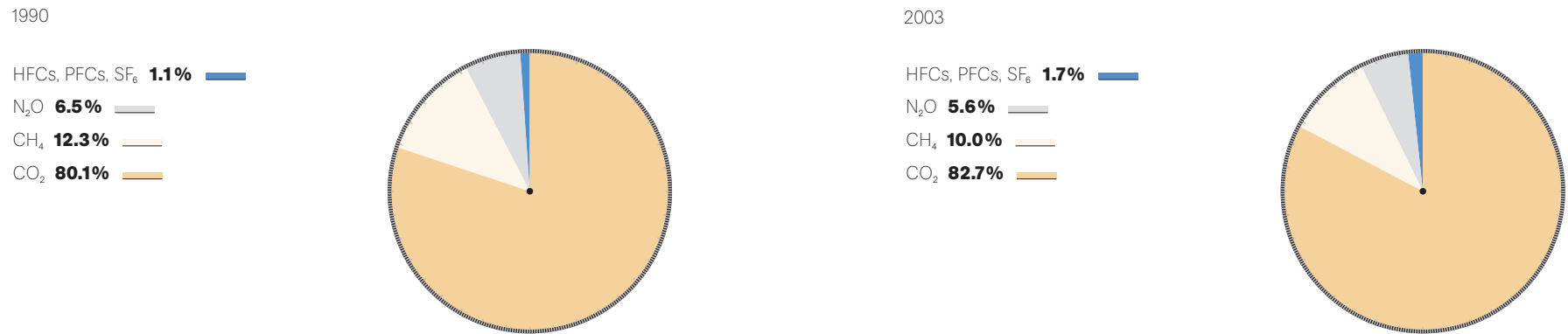


Figure II-7. Profile of GHG emissions by gas for EIT Parties taken together, 1990 and 2003

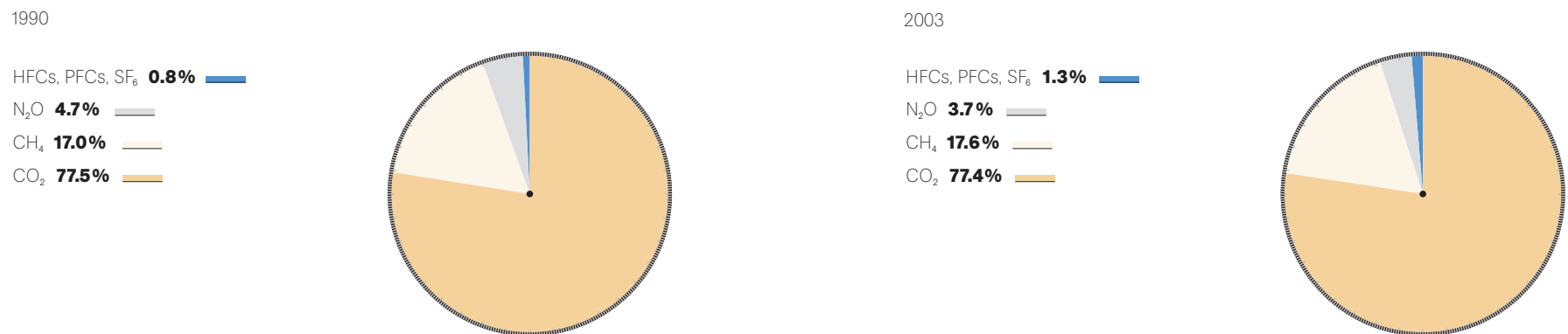


Figure II-8. Profile of GHG emissions by gas for non-EIT Parties taken together, 1990 and 2003

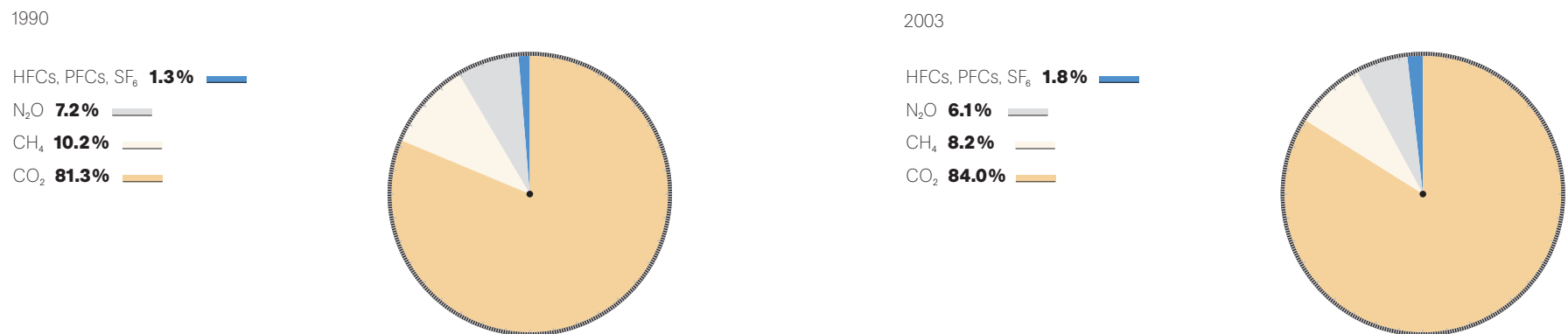
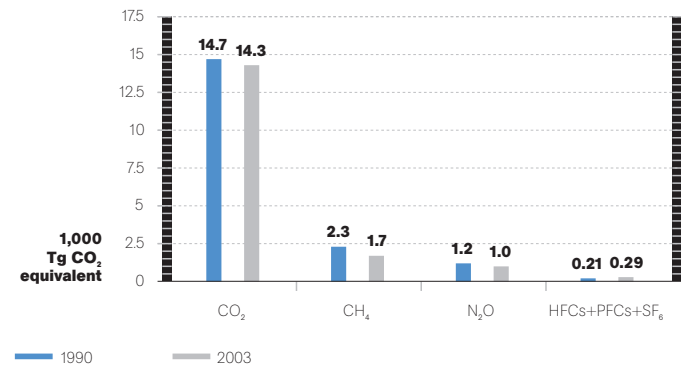


Figure II-9. GHG emissions by gas for Annex I Parties taken together, 1990 and 2003

Emissions in 1,000 Tg CO₂ equivalent



Change in emissions from 1990 to 2003 (%)

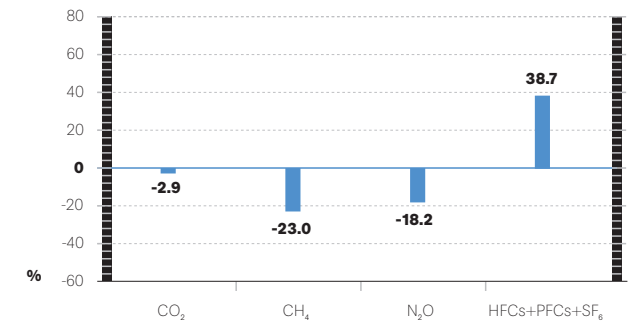
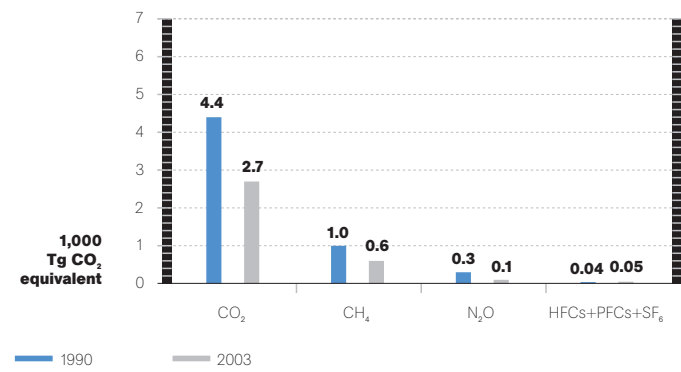


Figure II-10. GHG emissions by gas for EIT Parties taken together, 1990 and 2003

Emissions in 1,000 Tg CO₂ equivalent



Change in emissions from 1990 to 2003 (%)

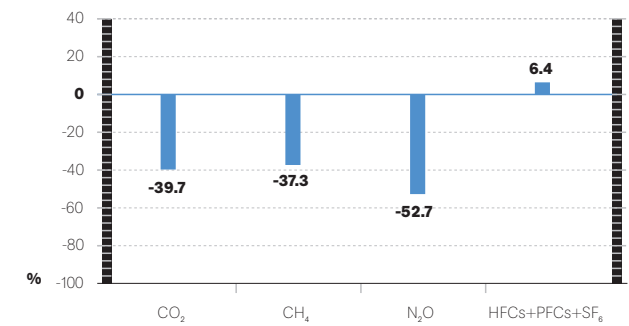
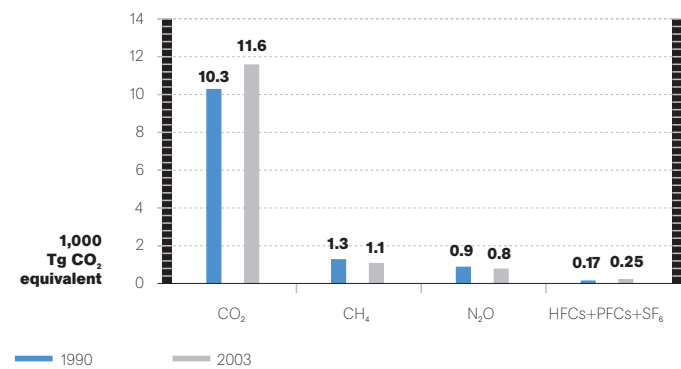


Figure II-11. GHG emissions by gas for non-EIT Parties taken together, 1990 and 2003

Emissions in 1,000 Tg CO₂ equivalent



Change in emissions from 1990 to 2003 (%)

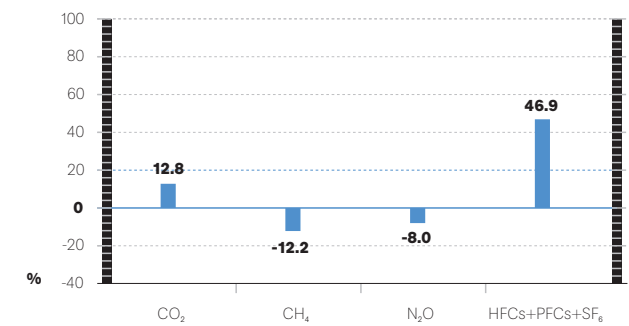


Table II-9.

CO₂ emissions (without LULUCF) from Annex I Parties, 1990 – 2003**Emissions (Tg CO₂ equivalent)**

Party	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Australia	280.89	282.40	285.22	289.68	295.56	305.61	315.79	322.49	339.72	348.95	354.37	360.63	363.81	371.70
Austria	61.26	64.75	59.35	59.90	60.20	63.12	66.56	66.53	66.22	64.61	65.45	69.28	70.99	76.21
Belarus	102.26	101.48	98.03	81.38	66.78	61.45	60.89	61.45	58.74	56.59	52.02	52.10	51.69	52.59
Belgium	119.01	122.06	120.31	119.11	122.52	123.62	127.71	122.17	127.38	121.99	123.82	123.36	122.98	126.20
Bulgaria	98.57	67.96	61.11	63.62	61.28	64.73	63.16	61.58	54.30	50.53	49.90	51.47	48.76	53.32
Canada	459.78	451.45	465.53	465.16	479.55	492.43	505.47	517.07	527.82	542.72	565.68	558.97	567.79	586.07
Croatia	23.04	16.72	15.76	16.40	15.67	16.25	16.97	18.06	18.95	19.68	19.38	19.77	20.91	23.00
Czech Republic	163.99	–	139.79	–	130.63	131.40	132.78	137.36	128.27	121.09	127.90	128.00	123.05	127.12
Denmark	54.22	64.85	59.00	60.60	64.70	61.67	75.18	65.66	61.58	58.75	54.43	56.02	55.66	60.75
Estonia	38.11	35.91	26.14	20.55	21.38	19.31	20.26	20.22	18.32	16.77	16.85	17.10	17.31	19.11
European Community	3,334.94	3,359.11	3,284.58	3,231.52	3,230.13	3,267.23	3,343.26	3,287.86	3,330.53	3,304.38	3,328.30	3,394.29	3,387.88	3,447.35
Finland	56.30	55.77	53.79	54.70	61.09	58.07	63.41	62.28	59.51	59.24	57.61	63.19	64.95	73.19
France	396.93	421.49	413.69	393.48	389.01	395.33	408.72	403.05	422.34	411.21	405.05	410.76	403.15	408.16
Germany	1,015.03	976.94	929.45	920.05	905.63	902.21	924.91	893.53	885.20	857.42	860.09	873.86	863.88	865.37
Greece	84.02	83.74	84.68	85.29	87.20	87.34	89.55	94.29	98.86	98.24	104.11	106.33	106.16	109.98
Hungary	84.78	68.44	61.97	62.73	61.60	60.87	62.22	60.48	60.14	60.02	57.80	59.36	57.70	60.46
Iceland	2.08	2.00	2.13	2.24	2.20	2.22	2.31	2.41	2.29	2.46	2.31	2.19	2.24	2.18
Ireland	31.80	32.53	33.11	32.68	34.11	34.76	35.95	38.31	40.25	42.13	44.16	46.46	45.81	44.45
Italy	430.64	430.50	429.47	424.41	417.25	446.66	438.86	443.12	452.98	460.27	467.55	472.01	471.40	487.28
Japan	1,122.28	1,131.37	1,148.91	1,138.72	1,198.16	1,213.08	1,234.76	1,242.03	1,195.18	1,228.37	1,238.96	1,213.61	1,247.76	1,259.43
Latvia	18.65	17.17	13.30	11.89	11.45	8.96	9.16	8.74	8.13	7.41	6.85	7.41	7.34	7.43
Liechtenstein	0.23	–	–	–	–	–	–	–	–	–	–	–	–	0.24
Lithuania	38.92	–	–	–	–	–	–	–	15.66	–	–	13.33	12.70	12.29
Luxembourg	12.75	–	–	–	12.00	9.55	–	–	7.70	5.43	8.92	5.48	10.22	10.69
Monaco	0.09	0.11	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.13	0.13	0.13	0.13
Netherlands	158.00	162.92	161.10	165.54	165.55	169.66	177.32	170.18	172.16	166.93	168.87	174.35	173.93	176.86
New Zealand	25.31	25.83	27.69	27.11	27.21	27.16	28.18	30.43	29.06	30.50	31.01	32.98	33.01	34.70
Norway	34.41	33.54	33.76	35.41	37.27	37.23	40.39	40.57	40.77	41.63	41.14	42.66	41.24	43.22
Poland	476.63	366.96	371.59	363.13	371.59	348.17	372.53	361.63	337.45	329.70	314.81	317.84	308.28	–
Portugal	43.61	45.42	49.52	48.12	49.26	53.18	50.28	53.45	58.05	64.77	63.61	64.69	68.84	64.29
Romania	184.25	131.13	130.24	130.24	126.59	132.66	138.48	123.75	108.41	91.69	94.37	98.51	105.40	111.39
Russian Federation	2,362.00	2,180.00	2,010.00	1,840.00	1,660.00	1,589.00	1,495.00	1,529.00	1,505.00	1,509.00	–	–	–	–
Slovakia	59.45	52.11	48.40	45.42	42.44	43.84	44.39	44.66	43.65	42.63	40.15	42.60	42.25	43.05
Slovenia	16.00	13.59	13.52	14.00	13.94	14.79	15.60	16.05	15.80	15.16	15.24	16.22	16.29	16.10
Spain	228.40	235.11	243.20	233.38	244.85	255.45	242.72	262.55	270.83	295.90	308.25	310.46	331.08	331.76
Sweden	56.28	56.72	56.47	56.10	58.69	57.59	61.17	56.78	57.46	54.71	52.43	53.45	54.83	56.00
Switzerland	44.37	46.02	45.94	43.37	42.64	43.37	43.92	43.15	44.44	44.56	43.66	44.46	43.65	44.72
Ukraine	738.11	727.08	640.97	555.66	428.04	408.35	379.67	350.30	300.54	295.80	293.88	293.16	292.77	313.14
United Kingdom of Great Britain and Northern Ireland	588.77	595.45	580.06	566.40	559.11	550.32	572.22	548.44	551.18	540.99	545.30	562.27	545.29	557.46
United States of America	5,009.55	4,969.26	5,062.01	5,177.35	5,268.05	5,319.38	5,500.17	5,579.98	5,607.16	5,677.97	5,858.20	5,744.78	5,796.76	5,841.50

Note: base year data are used here instead of 1990 data (as per COP decisions 9/CP.2 and 11/CP.4) for Bulgaria (1988), Hungary (average of 1985 – 1987), Poland (1988), Romania (1989) and Slovenia (1986).

II. GHG DATA FOR ANNEX I PARTIES **D. Data by gas**

Table II-10.

Changes in CO₂ emissions (without LULUCF) from Annex I Parties, 1990 – 2003

Change compared to the 1990 level (%)

Party	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Australia	0.5	1.5	3.1	5.2	8.8	12.4	14.8	20.9	24.2	26.2	28.4	29.5	32.3
Austria	5.7	-3.1	-2.2	-1.7	3.0	8.7	8.6	8.1	5.5	6.8	13.1	15.9	24.4
Belarus	-0.8	-4.1	-20.4	-34.7	-39.9	-40.5	-39.9	-42.6	-44.7	-49.1	-49.0	-49.4	-48.6
Belgium	2.6	1.1	0.1	2.9	3.9	7.3	2.7	7.0	2.5	4.0	3.7	3.3	6.0
Bulgaria	-31.1	-38.0	-35.5	-37.8	-34.3	-35.9	-37.5	-44.9	-48.7	-49.4	-47.8	-50.5	-45.9
Canada	-1.8	1.3	1.2	4.3	7.1	9.9	12.5	14.8	18.0	23.0	21.6	23.5	27.5
Croatia	-27.4	-31.6	-28.8	-32.0	-29.4	-26.3	-21.6	-17.7	-14.6	-15.9	-14.2	-9.2	-0.2
Czech Republic	-	-14.8	-	-20.3	-19.9	-19.0	-16.2	-21.8	-26.2	-22.0	-21.9	-25.0	-22.5
Denmark	19.6	8.8	11.8	19.3	13.7	38.7	21.1	13.6	8.4	0.4	3.3	2.6	12.1
Estonia	-5.8	-31.4	-46.1	-43.9	-49.3	-46.8	-46.9	-51.9	-56.0	-55.8	-55.1	-54.6	-49.9
European Community	0.7	-1.5	-3.1	-3.1	-2.0	0.2	-1.4	-0.1	-0.9	-0.2	1.8	1.6	3.4
Finland	-0.9	-4.4	-2.8	8.5	3.1	12.6	10.6	5.7	5.2	2.3	12.3	15.4	30.0
France	6.2	4.2	-0.9	-2.0	-0.4	3.0	1.5	6.4	3.6	2.0	3.5	1.6	2.8
Germany	-3.8	-8.4	-9.4	-10.8	-11.1	-8.9	-12.0	-12.8	-15.5	-15.3	-13.9	-14.9	-14.7
Greece	-0.3	0.8	1.5	3.8	4.0	6.6	12.2	17.7	16.9	23.9	26.6	26.4	30.9
Hungary	-19.3	-26.9	-26.0	-27.3	-28.2	-26.6	-28.7	-29.1	-29.2	-31.8	-30.0	-31.9	-28.7
Iceland	-3.8	2.3	7.3	5.6	6.3	10.7	15.7	10.0	18.0	10.8	5.0	7.5	4.4
Ireland	2.3	4.1	2.8	7.3	9.3	13.1	20.5	26.6	32.5	38.9	46.1	44.1	39.8
Italy	0.0	-0.3	-1.4	-3.1	3.7	1.9	2.9	5.2	6.9	8.6	9.6	9.5	13.2
Japan	0.8	2.4	1.5	6.8	8.1	10.0	10.7	6.5	9.5	10.4	8.1	11.2	12.2
Latvia	-7.9	-28.7	-36.2	-38.6	-52.0	-50.9	-53.1	-56.4	-60.3	-63.3	-60.3	-60.7	-60.2
Liechtenstein	-	-	-	-	-	-	-	-	-	-	-	-	5.5
Lithuania	-	-	-	-	-	-	-	-59.8	-	-	-65.8	-67.4	-68.4
Luxembourg	-	-	-	-5.9	-25.1	-	-	-39.6	-57.4	-30.0	-57.0	-19.9	-16.1
Monaco	16.9	23.7	24.9	27.1	23.4	29.2	28.9	23.9	32.1	33.8	39.2	34.9	36.8
Netherlands	3.1	2.0	4.8	4.8	7.4	12.2	7.7	9.0	5.7	6.9	10.4	10.1	11.9
New Zealand	2.0	9.4	7.1	7.5	7.3	11.3	20.2	14.8	20.5	22.5	30.3	30.4	37.1
Norway	-2.5	-1.9	2.9	8.3	8.2	17.4	17.9	18.5	21.0	19.6	24.0	19.8	25.6
Poland	-23.0	-22.0	-23.8	-22.0	-27.0	-21.8	-24.1	-29.2	-30.8	-33.9	-33.3	-35.3	-
Portugal	4.1	13.5	10.3	12.9	21.9	15.3	22.6	33.1	48.5	45.9	48.3	57.9	47.4
Romania	-28.8	-29.3	-29.3	-31.3	-28.0	-24.8	-32.8	-41.2	-50.2	-48.8	-46.5	-42.8	-39.5
Russian Federation	-7.7	-14.9	-22.1	-29.7	-32.7	-36.7	-35.3	-36.3	-36.1	-	-	-	-
Slovakia	-12.3	-18.6	-23.6	-28.6	-26.2	-25.3	-24.9	-26.6	-28.3	-32.5	-28.3	-28.9	-27.6
Slovenia	-15.0	-15.5	-12.5	-12.8	-7.6	-2.5	0.4	-1.2	-5.3	-4.7	1.4	1.9	0.7
Spain	2.9	6.5	2.2	7.2	11.8	6.3	15.0	18.6	29.5	35.0	35.9	45.0	45.3
Sweden	0.8	0.3	-0.3	4.3	2.3	8.7	0.9	2.1	-2.8	-6.8	-5.0	-2.6	-0.5
Switzerland	3.7	3.5	-2.3	-3.9	-2.3	-1.0	-2.8	0.1	0.4	-1.6	0.2	-1.6	0.8
Ukraine	-1.5	-13.2	-24.7	-42.0	-44.7	-48.6	-52.5	-59.3	-59.9	-60.2	-60.3	-60.3	-57.6
United Kingdom of Great Britain and Northern Ireland	1.1	-1.5	-3.8	-5.0	-6.5	-2.8	-6.8	-6.4	-8.1	-7.4	-4.5	-7.4	-5.3
United States of America	-0.8	1.0	3.3	5.2	6.2	9.8	11.4	11.9	13.3	16.9	14.7	15.7	16.6

II. GHG DATA FOR ANNEX I PARTIES D. Data by gas

Table II-11.

CO₂ emissions (with LULUCF) from Annex I Parties, 1990 – 2003**Emissions (Tg CO₂ equivalent)**

Party	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Australia	382.03	358.70	344.46	336.26	342.33	349.59	355.99	358.15	387.99	388.82	396.44	397.55	404.44	402.28
Austria	52.25	52.98	50.91	51.14	52.56	56.07	61.37	54.84	53.51	51.98	51.81	55.93	59.68	63.44
Belarus ^a	85.04	86.92	82.38	64.50	49.10	43.30	42.73	43.14	40.22	37.29	33.04	35.22	40.24	35.86
Belgium	115.91	119.25	117.18	116.05	119.43	120.70	124.74	119.17	124.50	119.16	120.68	118.94	119.00	122.84
Bulgaria ^a	93.44	60.32	53.69	56.14	53.98	57.21	56.64	54.70	47.44	43.33	40.93	42.01	40.44	46.27
Canada	304.39	315.69	325.26	352.38	368.14	493.38	414.42	413.70	464.29	473.35	480.51	468.73	531.16	540.20
Croatia ^a	10.35	4.03	3.08	3.71	2.99	3.56	4.28	3.61	4.51	5.23	4.94	5.32	5.54	7.63
Czech Republic ^a	161.86	–	133.25	–	125.95	127.15	128.29	132.72	124.51	117.69	123.89	123.63	118.56	123.28
Denmark	54.38	64.74	58.75	60.13	64.37	61.44	74.75	65.22	60.76	57.88	56.22	54.87	54.18	59.55
Estonia ^a	31.79	28.75	18.33	10.86	13.77	11.53	10.66	11.12	9.80	8.66	8.48	7.69	8.75	10.39
European Community ^a	3,111.22	3,088.28	3,022.81	2,969.65	2,963.82	3,003.69	3,063.24	3,008.31	3,052.90	3,009.65	3,043.75	3,085.99	3,058.04	3,138.32
Finland	33.50	18.74	22.12	26.25	43.82	41.65	40.63	49.59	50.61	50.09	47.98	48.52	49.45	55.38
France ^a	364.26	393.95	380.80	354.09	347.36	357.24	367.29	358.15	378.29	364.96	364.73	362.20	348.05	355.08
Germany	986.09	947.29	899.26	889.24	874.20	870.54	892.81	861.05	852.47	824.24	825.67	838.67	828.66	829.68
Greece	80.77	80.14	81.61	81.41	83.64	82.94	85.56	90.33	95.27	93.80	100.97	101.01	100.70	104.44
Hungary ^a	83.43	66.90	59.68	59.41	56.18	55.55	57.48	55.51	55.15	55.24	53.43	54.82	55.34	56.50
Iceland ^a	2.08	1.99	2.10	2.19	2.14	2.15	2.23	2.31	2.18	2.32	2.15	2.02	2.05	1.97
Ireland ^a	31.39	32.06	32.74	32.22	33.68	34.33	35.57	37.86	39.63	41.76	43.56	45.72	44.83	43.47
Italy	369.75	347.34	350.34	359.65	335.70	360.86	349.33	362.66	372.20	371.04	385.75	386.50	375.62	405.38
Japan ^a	1,038.37	1,047.50	1,063.34	1,048.64	1,104.62	1,116.38	–	–	–	–	–	–	–	–
Latvia ^a	0.20	-0.31	-4.76	-5.11	-3.03	-5.67	-5.69	-3.05	-2.14	-1.94	-1.79	-2.18	-1.09	-0.76
Liechtenstein ^a	0.23	–	–	–	–	–	–	–	–	–	–	–	–	0.24
Lithuania	33.44	–	–	–	–	–	–	–	8.11	–	–	5.99	5.98	5.30
Luxembourg ^a	12.46	–	–	–	11.70	9.25	–	–	7.40	5.14	8.63	5.19	9.92	10.40
Monaco	0.09	0.11	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.13	0.13	0.13	0.13
Netherlands	160.89	165.72	163.77	168.16	168.17	172.32	179.99	173.03	174.90	169.66	171.68	177.13	176.69	179.62
New Zealand	3.94	5.73	10.03	11.87	13.05	12.51	13.25	13.98	9.75	9.39	8.18	9.79	9.68	11.83
Norway	20.95	20.23	20.17	22.05	23.33	23.82	26.55	19.30	19.83	20.69	20.31	21.82	20.32	22.25
Poland ^a	441.88	324.20	330.78	322.95	329.64	305.29	329.91	321.11	307.63	286.23	271.72	264.20	257.58	–
Portugal	49.18	49.74	52.56	50.89	51.09	54.05	50.26	53.34	56.95	64.33	62.36	63.81	67.24	69.62
Romania	168.53	113.02	111.38	110.47	106.32	113.08	119.74	104.72	87.67	71.93	75.52	78.69	87.93	94.51
Russian Federation ^a	2,516.95	2,163.99	2,001.70	1,875.58	1,421.93	1,254.05	1,321.07	1,397.44	1,502.07	1,297.26	–	–	–	–
Slovakia	57.04	48.61	44.25	41.14	39.12	41.15	41.97	43.26	41.71	40.99	37.74	37.38	37.01	38.22
Slovenia ^a	13.04	8.84	8.43	8.83	8.61	9.11	10.04	10.49	10.24	9.59	9.68	10.66	10.73	10.54
Spain ^a	219.37	224.05	229.68	217.88	229.33	238.66	223.45	240.31	246.32	268.54	277.10	276.47	294.69	291.64
Sweden ^a	35.99	27.39	33.11	26.77	32.39	36.29	38.90	29.50	33.13	27.41	25.12	28.64	28.29	34.50
Switzerland ^a	43.10	44.68	44.52	40.98	40.24	41.01	41.41	40.48	41.84	42.30	43.81	44.91	43.95	42.96
Ukraine ^a	699.18	695.64	586.45	508.55	379.04	359.41	318.05	284.85	236.90	232.52	232.38	233.46	235.47	257.38
United Kingdom of Great Britain and Northern Ireland	591.42	598.04	582.13	567.30	559.80	551.11	572.84	548.66	550.79	540.44	544.52	561.28	543.81	555.93
United States of America	3,967.50	3,918.00	4,088.45	4,141.64	4,327.83	4,414.35	4,587.50	4,649.97	4,726.16	4,851.86	5,035.79	4,917.90	4,970.27	5,013.46

^a For this Party, data for emissions/removals from the LUCF sector are used here instead of the data for the LULUCF sector; LULUCF data were not available at the time of the preparation of this document. Note: base year data are used here instead of 1990 data (as per COP decisions 9/CP.2 and 11/CP.4) for Bulgaria (1988), Hungary (average of 1985 – 1987), Poland (1988), Romania (1989) and Slovenia (1986).

II. GHG DATA FOR ANNEX I PARTIES **D. Data by gas**

Table II-12.

Changes in CO₂ emissions (with LULUCF) from Annex I Parties, 1990 – 2003

Change compared to the 1990 level (%)

Party	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Australia	-6.1	-9.8	-12.0	-10.4	-8.5	-6.8	-6.2	1.6	1.8	3.8	4.1	5.9	5.3
Austria	1.4	-2.6	-2.1	0.6	7.3	17.5	5.0	2.4	-0.5	-0.8	7.1	14.2	21.4
Belarus ^a	2.2	-3.1	-24.2	-42.3	-49.1	-49.8	-49.3	-52.7	-56.1	-61.1	-58.6	-52.7	-57.8
Belgium	2.9	1.1	0.1	3.0	4.1	7.6	2.8	7.4	2.8	4.1	2.6	2.7	6.0
Bulgaria ^a	-35.4	-42.5	-39.9	-42.2	-38.8	-39.4	-41.5	-49.2	-53.6	-56.2	-55.0	-56.7	-50.5
Canada	3.7	6.9	15.8	20.9	62.1	36.2	35.9	52.5	55.5	57.9	54.0	74.5	77.5
Croatia ^a	-61.0	-70.3	-64.1	-71.1	-65.6	-58.6	-65.1	-56.4	-49.4	-52.3	-48.5	-46.5	-26.3
Czech Republic ^a	-	-17.7	-	-22.2	-21.4	-20.7	-18.0	-23.1	-27.3	-23.5	-23.6	-26.8	-23.8
Denmark	19.0	8.0	10.6	18.4	13.0	37.5	19.9	11.7	6.4	3.4	0.9	-0.4	9.5
Estonia ^a	-9.5	-42.4	-65.8	-56.7	-63.7	-66.5	-65.0	-69.2	-72.7	-73.3	-75.8	-72.5	-67.3
European Community ^a	-0.7	-2.8	-4.6	-4.7	-3.5	-1.5	-3.3	-1.9	-3.3	-2.2	-0.8	-1.7	0.9
Finland	-44.1	-34.0	-21.7	30.8	24.3	21.3	48.0	51.1	49.5	43.2	44.8	47.6	65.3
France ^a	8.2	4.5	-2.8	-4.6	-1.9	0.8	-1.7	3.9	0.2	0.1	-0.6	-4.4	-2.5
Germany	-3.9	-8.8	-9.8	-11.3	-11.7	-9.5	-12.7	-13.6	-16.4	-16.3	-15.0	-16.0	-15.9
Greece	-0.8	1.0	0.8	3.6	2.7	5.9	11.8	17.9	16.1	25.0	25.1	24.7	29.3
Hungary ^a	-19.8	-28.5	-28.8	-32.7	-33.4	-31.1	-33.5	-33.9	-33.8	-36.0	-34.3	-33.7	-32.3
Iceland ^a	-4.4	1.2	5.5	3.1	3.4	7.2	11.4	4.9	11.9	3.7	-2.9	-1.3	-5.2
Ireland ^a	2.1	4.3	2.7	7.3	9.4	13.3	20.6	26.2	33.0	38.8	45.7	42.8	38.5
Italy	-6.1	-5.3	-2.7	-9.2	-2.4	-5.5	-1.9	0.7	0.3	4.3	4.5	1.6	9.6
Japan ^a	0.9	2.4	1.0	6.4	7.5	-	-	-	-	-	-	-	-
Latvia ^a	-253.7	-2,469.6	-2,641.2	-1,608.9	-2,920.6	-2,929.7	-1,618.8	-1,167.2	-1,064.0	-988.6	-1,185.7	-641.6	-477.9
Liechtenstein ^a	-	-	-	-	-	-	-	-	-	-	-	-	5.5
Lithuania	-	-	-	-	-	-	-	-75.8	-	-	-82.1	-82.1	-84.2
Luxembourg ^a	-	-	-	-6.0	-25.7	-	-	-40.6	-58.8	-30.7	-58.4	-20.3	-16.5
Monaco	16.9	23.7	24.9	27.1	23.4	29.2	28.9	23.9	32.1	33.8	39.2	34.9	36.8
Netherlands	3.0	1.8	4.5	4.5	7.1	11.9	7.5	8.7	5.5	6.7	10.1	9.8	11.6
New Zealand	45.2	154.2	201.0	230.7	217.1	236.0	254.3	147.3	138.1	107.5	148.3	145.4	200.0
Norway	-3.5	-3.8	5.2	11.3	13.7	26.7	-7.9	-5.4	-1.3	-3.1	4.1	-3.0	6.2
Poland ^a	-26.6	-25.1	-26.9	-25.4	-30.9	-25.3	-27.3	-30.4	-35.2	-38.5	-40.2	-41.7	-
Portugal	1.1	6.9	3.5	3.9	9.9	2.2	8.5	15.8	30.8	26.8	29.7	36.7	41.6
Romania	-32.9	-33.9	-34.5	-36.9	-32.9	-29.0	-37.9	-48.0	-57.3	-55.2	-53.3	-47.8	-43.9
Russian Federation ^a	-14.0	-20.5	-25.5	-43.5	-50.2	-47.5	-44.5	-40.3	-48.5	-	-	-	-
Slovakia	-14.8	-22.4	-27.9	-31.4	-27.9	-26.4	-24.2	-26.9	-28.1	-33.8	-34.5	-35.1	-33.0
Slovenia ^a	-32.2	-35.4	-32.3	-34.0	-30.2	-23.0	-19.6	-21.5	-26.5	-25.8	-18.3	-17.7	-19.2
Spain ^a	2.1	4.7	-0.7	4.5	8.8	1.9	9.5	12.3	22.4	26.3	26.0	34.3	32.9
Sweden ^a	-23.9	-8.0	-25.6	-10.0	0.9	8.1	-18.0	-7.9	-23.8	-30.2	-20.4	-21.4	-4.1
Switzerland ^a	3.7	3.3	-4.9	-6.6	-4.8	-3.9	-6.1	-2.9	-1.9	1.6	4.2	2.0	-0.3
Ukraine ^a	-0.5	-16.1	-27.3	-45.8	-48.6	-54.5	-59.3	-66.1	-66.7	-66.8	-66.6	-66.3	-63.2
United Kingdom of Great Britain and Northern Ireland	1.1	-1.6	-4.1	-5.3	-6.8	-3.1	-7.2	-6.9	-8.6	-7.9	-5.1	-8.1	-6.0
United States of America	-1.2	3.0	4.4	9.1	11.3	15.6	17.2	19.1	22.3	26.9	24.0	25.3	26.4

^a For this Party, data for emissions/removals from the LUCF sector are used here instead of the data for the LULUCF sector; LULUCF data were not available at the time of the preparation of this document.

II. GHG DATA FOR ANNEX I PARTIES D. Data by gas

Table II-13.

CH₄ emissions (without LULUCF) from Annex I Parties, 1990 – 2003**Emissions (Tg CO₂ equivalent)**

Party	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Australia	110.31	110.24	110.04	108.00	107.33	108.59	107.42	109.26	110.84	110.18	112.87	113.02	110.18	106.94
Austria	9.80	9.76	9.46	9.43	9.26	9.14	8.96	8.68	8.56	8.37	8.15	8.02	7.86	7.81
Belarus	16.16	13.05	12.49	11.82	11.13	10.44	10.22	10.19	10.24	10.07	9.77	12.37	12.31	12.60
Belgium	10.79	10.80	10.76	10.61	10.73	10.78	10.59	10.53	10.40	10.08	9.80	9.23	8.79	8.49
Bulgaria	24.92	18.78	17.46	15.71	14.59	14.24	13.17	11.30	10.45	8.90	9.04	8.32	8.48	9.37
Canada	73.30	75.28	78.63	80.64	83.83	86.75	89.38	90.32	90.28	90.67	91.95	93.67	93.66	94.05
Croatia	3.81	3.55	3.42	3.29	3.10	3.11	3.15	3.25	3.12	3.20	3.23	3.38	3.45	3.61
Czech Republic	16.71	–	14.36	–	12.97	12.82	12.55	12.04	11.37	10.64	10.66	10.43	10.32	10.15
Denmark	5.70	5.80	5.84	6.01	6.03	6.13	6.24	6.12	6.06	5.97	5.96	6.05	5.97	5.89
Estonia	4.36	3.66	2.97	2.41	2.63	2.56	2.69	2.87	2.66	2.45	2.40	1.97	1.90	1.97
European Community	441.27	431.65	425.94	419.25	408.92	405.81	400.29	390.42	381.72	371.31	359.36	349.72	340.93	331.53
Finland	6.42	6.39	6.38	6.41	6.35	6.21	6.14	6.04	5.84	5.70	5.48	5.37	5.16	4.96
France	68.63	69.16	68.83	69.16	68.94	69.41	69.03	65.77	65.71	64.50	64.26	63.13	61.49	60.11
Germany	132.10	121.09	117.42	112.82	108.68	104.91	100.51	97.18	91.86	88.44	82.91	79.31	76.48	75.22
Greece	10.01	10.00	10.13	10.22	10.45	10.57	10.76	10.83	11.11	10.39	10.35	10.05	10.12	10.17
Hungary	13.28	11.40	10.76	10.04	9.88	10.03	10.14	10.05	10.36	10.00	10.08	10.33	9.74	9.50
Iceland	0.41	0.41	0.42	0.42	0.44	0.47	0.48	0.48	0.49	0.49	0.49	0.49	0.47	0.47
Ireland	11.98	12.26	12.43	12.53	12.60	12.69	12.87	13.06	13.08	12.98	12.95	12.77	12.80	12.75
Italy	38.18	38.93	37.76	37.88	37.98	38.27	38.19	38.40	38.24	38.42	37.96	37.09	35.82	34.57
Japan	24.77	24.65	24.49	24.43	24.01	23.37	22.92	22.09	21.55	21.12	20.72	20.17	19.51	19.29
Latvia	3.65	3.49	3.06	2.27	2.10	2.28	2.23	2.18	2.17	2.10	2.09	2.19	2.17	1.90
Liechtenstein	0.01	–	–	–	–	–	–	–	–	–	–	–	–	0.02
Lithuania	7.94	–	–	–	–	–	–	–	3.73	–	–	3.17	3.56	3.60
Luxembourg	0.50	–	–	–	0.46	0.46	–	–	0.48	0.48	0.48	0.47	0.47	0.47
Monaco	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Netherlands	25.63	25.89	25.43	24.96	24.25	23.83	23.23	22.09	21.28	20.22	19.52	19.01	18.22	17.46
New Zealand	25.28	25.11	24.68	24.98	25.20	25.49	25.58	25.56	25.65	25.88	26.16	26.52	26.56	26.64
Norway	5.16	5.19	5.26	5.30	5.38	5.39	5.42	5.48	5.32	5.23	5.32	5.29	5.12	5.06
Poland	65.94	54.36	51.95	51.06	51.81	51.60	47.30	47.85	49.04	47.25	45.85	38.82	37.79	–
Portugal	9.74	9.88	9.98	10.07	10.33	10.43	10.67	10.90	11.21	11.60	10.44	10.23	10.47	10.48
Romania	50.89	38.83	33.45	31.36	30.34	30.60	30.99	27.54	25.55	24.45	24.39	23.56	23.00	23.78
Russian Federation	546.87	507.65	480.52	443.03	409.64	391.87	380.56	299.10	290.09	287.09	–	–	–	–
Slovakia	6.33	5.89	5.52	5.10	5.04	5.18	5.24	4.95	4.67	4.61	4.54	4.53	4.66	4.55
Slovenia	2.25	2.07	2.15	2.05	2.04	2.03	1.97	1.98	1.99	2.00	2.04	1.97	2.01	1.97
Spain	27.85	27.99	28.83	29.08	30.04	30.57	32.05	32.92	34.07	34.41	35.42	36.30	36.71	37.06
Sweden	6.51	6.49	6.60	6.66	6.59	6.50	6.46	6.39	6.24	6.04	5.82	5.80	5.63	5.51
Switzerland	4.45	4.44	4.30	4.24	4.04	4.05	3.97	3.91	3.85	3.84	3.74	3.76	3.68	3.67
Ukraine	200.99	192.30	190.63	181.14	176.79	167.46	167.43	164.86	155.63	150.67	153.27	175.14	177.57	196.30
United Kingdom of Great Britain and Northern Ireland	77.46	76.72	75.63	72.97	66.28	65.94	64.11	61.03	57.60	53.72	49.89	46.94	44.96	40.57
United States of America	605.34	607.04	608.14	598.68	604.12	601.31	589.83	579.49	569.10	557.28	554.17	546.81	542.48	544.95

Note: base year data are used here instead of 1990 data (as per COP decisions 9/CP.2 and 11/CP.4) for Bulgaria (1988), Hungary (average of 1985 – 1987), Poland (1988), Romania (1989) and Slovenia (1986).

II. GHG DATA FOR ANNEX I PARTIES **D. Data by gas**

Table II-14.

Changes in CH₄ emissions (without LULUCF) from Annex I Parties, 1990 – 2003

Change compared to the 1990 level (%)

Party	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Australia	-0.1	-0.2	-2.1	-2.7	-1.6	-2.6	-1.0	0.5	-0.1	2.3	2.5	-0.1	-3.1
Austria	-0.4	-3.4	-3.8	-5.5	-6.7	-8.6	-11.4	-12.7	-14.6	-16.9	-18.1	-19.8	-20.3
Belarus	-19.3	-22.8	-26.9	-31.2	-35.4	-36.8	-36.9	-36.6	-37.7	-39.6	-23.5	-23.8	-22.1
Belgium	0.1	-0.3	-1.7	-0.5	-0.1	-1.9	-2.4	-3.6	-6.6	-9.2	-14.4	-18.5	-21.3
Bulgaria	-24.7	-30.0	-37.0	-41.5	-42.9	-47.2	-54.7	-58.1	-64.3	-63.7	-66.6	-66.0	-62.4
Canada	2.7	7.3	10.0	14.4	18.4	21.9	23.2	23.2	23.7	25.4	27.8	27.8	28.3
Croatia	-6.8	-10.3	-13.6	-18.7	-18.4	-17.3	-14.7	-18.1	-16.0	-15.1	-11.2	-9.4	-5.2
Czech Republic	-	-14.0	-	-22.4	-23.3	-24.9	-28.0	-31.9	-36.3	-36.2	-37.6	-38.3	-39.2
Denmark	1.8	2.4	5.4	5.7	7.5	9.5	7.3	6.3	4.7	4.6	6.1	4.8	3.4
Estonia	-15.9	-31.8	-44.8	-39.7	-41.3	-38.2	-34.3	-38.9	-43.8	-44.9	-54.8	-56.5	-54.9
European Community	-2.2	-3.5	-5.0	-7.3	-8.0	-9.3	-11.5	-13.5	-15.9	-18.6	-20.7	-22.7	-24.9
Finland	-0.4	-0.6	-0.2	-1.0	-3.2	-4.3	-5.8	-9.0	-11.2	-14.7	-16.3	-19.6	-22.7
France	0.8	0.3	0.8	0.4	1.1	0.6	-4.2	-4.2	-6.0	-6.4	-8.0	-10.4	-12.4
Germany	-8.3	-11.1	-14.6	-17.7	-20.6	-23.9	-26.4	-30.5	-33.0	-37.2	-40.0	-42.1	-43.1
Greece	-0.1	1.2	2.1	4.4	5.5	7.5	8.2	11.0	3.8	3.4	0.4	1.1	1.6
Hungary	-14.2	-19.0	-24.4	-25.6	-24.5	-23.6	-24.3	-22.0	-24.7	-24.1	-22.2	-26.7	-28.5
Iceland	0.5	1.0	2.8	6.6	12.8	15.8	16.8	18.1	19.7	18.0	18.5	14.5	14.2
Ireland	2.4	3.8	4.6	5.2	6.0	7.5	9.0	9.2	8.4	8.2	6.6	6.8	6.5
Italy	2.0	-1.1	-0.8	-0.5	0.2	0.0	0.6	0.2	0.6	-0.6	-2.8	-6.2	-9.4
Japan	-0.5	-1.1	-1.4	-3.1	-5.6	-7.5	-10.8	-13.0	-14.7	-16.3	-18.5	-21.2	-22.1
Latvia	-4.3	-16.0	-37.9	-42.4	-37.5	-38.7	-40.2	-40.5	-42.5	-42.8	-40.1	-40.6	-47.8
Liechtenstein	-	-	-	-	-	-	-	-	-	-	-	-	1.8
Lithuania	-	-	-	-	-	-	-	-53.0	-	-	-60.0	-55.2	-54.6
Luxembourg	-	-	-	-8.3	-7.4	-	-	-4.0	-3.8	-4.7	-5.7	-6.2	-6.1
Monaco	17.4	28.4	31.4	35.8	31.0	34.7	40.1	31.8	34.3	35.4	38.9	30.3	20.8
Netherlands	1.0	-0.8	-2.6	-5.4	-7.0	-9.4	-13.8	-17.0	-21.1	-23.8	-25.8	-28.9	-31.9
New Zealand	-0.7	-2.4	-1.2	-0.3	0.8	1.2	1.1	1.5	2.4	3.5	4.9	5.1	5.4
Norway	0.7	1.9	2.8	4.3	4.5	5.1	6.2	3.1	1.3	3.1	2.6	-0.8	-2.0
Poland	-17.6	-21.2	-22.6	-21.4	-21.8	-28.3	-27.4	-25.6	-28.3	-30.5	-41.1	-42.7	-
Portugal	1.4	2.4	3.3	6.0	7.0	9.5	11.9	15.0	19.0	7.2	5.0	7.5	7.5
Romania	-23.7	-34.3	-38.4	-40.4	-39.9	-39.1	-45.9	-49.8	-52.0	-52.1	-53.7	-54.8	-53.3
Russian Federation	-7.2	-12.1	-19.0	-25.1	-28.3	-30.4	-45.3	-47.0	-47.5	-	-	-	-
Slovakia	-6.9	-12.8	-19.4	-20.4	-18.1	-17.2	-21.8	-26.2	-27.1	-28.2	-28.4	-26.3	-28.0
Slovenia	-7.7	-4.5	-8.8	-9.2	-9.7	-12.5	-12.0	-11.3	-10.9	-9.2	-12.4	-10.5	-12.2
Spain	0.5	3.5	4.4	7.9	9.8	15.1	18.2	22.4	23.6	27.2	30.3	31.8	33.1
Sweden	-0.3	1.3	2.3	1.2	-0.1	-0.7	-1.8	-4.2	-7.3	-10.6	-10.9	-13.5	-15.3
Switzerland	-0.3	-3.3	-4.6	-9.2	-9.1	-10.7	-12.2	-13.6	-13.8	-15.9	-15.5	-17.2	-17.6
Ukraine	-4.3	-5.2	-9.9	-12.0	-16.7	-16.7	-18.0	-22.6	-25.0	-23.7	-12.9	-11.7	-2.3
United Kingdom of Great Britain and Northern Ireland	-1.0	-2.4	-5.8	-14.4	-14.9	-17.2	-21.2	-25.6	-30.7	-35.6	-39.4	-42.0	-47.6
United States of America	0.3	0.5	-1.1	-0.2	-0.7	-2.6	-4.3	-6.0	-7.9	-8.5	-9.7	-10.4	-10.0

II. GHG DATA FOR ANNEX I PARTIES D. Data by gas

Table II-15.

CH₄ emissions (with LULUCF) from Annex I Parties, 1990 – 2003**Emissions (Tg CO₂ equivalent)**

Party	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Australia	114.63	114.25	113.51	111.20	110.51	111.52	110.30	112.18	113.78	113.05	115.63	115.82	113.72	110.29
Austria	9.80	9.76	9.46	9.43	9.26	9.14	8.96	8.68	8.56	8.37	8.15	8.02	7.86	7.81
Belarus ^a	16.67	13.53	12.95	12.27	11.56	10.87	10.66	10.65	10.71	10.55	10.25	12.84	12.78	13.06
Belgium	10.79	10.80	10.76	10.61	10.73	10.78	10.59	10.53	10.40	10.08	9.80	9.23	8.79	8.49
Bulgaria ^a	24.92	18.78	17.46	15.71	14.59	14.24	13.17	11.30	10.45	8.90	9.04	8.32	8.48	9.37
Canada	74.13	76.64	79.06	81.97	84.59	89.92	90.40	90.89	92.11	91.50	92.16	94.10	95.58	94.95
Croatia ^a	3.81	3.55	3.42	3.29	3.10	3.11	3.15	3.25	3.12	3.20	3.23	3.38	3.45	3.61
Czech Republic ^a	16.76	–	14.39	–	13.01	12.86	12.59	12.09	11.42	10.69	10.71	10.49	10.37	10.21
Denmark	5.70	5.80	5.84	6.01	6.03	6.13	6.24	6.12	6.06	5.97	5.96	6.05	5.97	5.89
Estonia ^a	4.36	3.67	2.98	2.41	2.63	2.56	2.69	2.87	2.66	2.45	2.40	1.97	1.90	1.97
European Community ^a	441.45	431.94	425.84	419.13	410.45	407.90	401.94	391.73	383.17	372.32	360.71	350.66	341.90	333.69
Finland	6.43	6.40	6.39	6.41	6.36	6.22	6.15	6.05	5.84	5.70	5.48	5.38	5.17	4.97
France ^a	68.14	68.67	68.34	68.68	70.24	70.92	70.44	66.87	66.61	65.25	64.95	63.72	62.03	60.59
Germany	132.10	121.09	117.42	112.82	108.68	104.91	100.51	97.18	91.86	88.44	82.91	79.31	76.48	75.22
Greece	10.06	10.02	10.21	10.28	10.52	10.60	10.78	10.87	11.24	10.40	10.52	10.07	10.13	10.17
Hungary ^a	13.29	11.42	10.78	10.06	9.90	10.05	10.17	10.07	10.39	10.02	10.10	10.36	9.77	9.52
Iceland ^a	0.41	0.41	0.42	0.42	0.44	0.47	0.48	0.48	0.49	0.49	0.49	0.49	0.47	0.47
Ireland ^a	11.98	12.26	12.43	12.53	12.60	12.69	12.87	13.06	13.08	12.98	12.95	12.77	12.80	12.75
Italy	38.32	38.97	37.82	38.03	38.04	38.29	38.21	38.47	38.33	38.47	38.05	37.15	35.85	34.64
Japan ^a	24.82	24.73	24.57	24.52	24.09	23.46	–	–	–	–	–	–	–	–
Latvia ^a	3.70	3.56	3.13	2.34	2.19	2.39	2.34	2.32	2.33	2.26	2.19	2.19	2.17	1.90
Liechtenstein ^a	0.01	–	–	–	–	–	–	–	–	–	–	–	–	0.02
Lithuania	7.94	–	–	–	–	–	–	–	3.73	–	–	3.17	3.56	3.60
Luxembourg ^a	0.50	–	–	–	0.46	0.46	–	–	0.48	0.48	0.48	0.47	0.47	0.47
Monaco	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Netherlands	25.63	25.89	25.43	24.96	24.25	23.83	23.23	22.09	21.28	20.22	19.52	19.01	18.22	17.46
New Zealand	25.28	25.12	24.69	24.99	25.20	25.50	25.58	25.56	25.66	25.88	26.17	26.52	26.57	26.64
Norway	5.18	5.22	5.29	5.31	5.39	5.39	5.43	5.49	5.33	5.23	5.32	5.29	5.12	5.07
Poland ^a	65.95	54.36	51.96	51.07	51.81	51.60	47.30	47.85	49.04	47.25	45.85	38.82	37.79	–
Portugal	10.18	10.57	10.20	10.20	10.40	10.91	10.84	10.96	11.53	11.77	10.82	10.49	10.83	12.06
Romania	50.89	38.83	33.46	31.36	30.34	30.60	30.99	27.54	25.55	24.45	24.39	23.56	23.01	23.78
Russian Federation ^a	550.00	509.00	482.00	446.00	411.00	393.00	388.00	302.00	309.00	290.00	–	–	–	–
Slovakia	6.34	5.90	5.53	5.11	5.05	5.19	5.25	4.96	4.68	4.62	4.56	4.55	4.68	4.57
Slovenia ^a	2.25	2.07	2.15	2.05	2.04	2.03	1.97	1.98	1.99	2.00	2.04	1.97	2.01	1.97
Spain ^a	27.85	27.99	28.83	29.08	30.04	30.57	32.05	32.92	34.07	34.41	35.42	36.30	36.71	37.06
Sweden ^a	6.51	6.49	6.60	6.66	6.59	6.50	6.46	6.39	6.24	6.04	5.82	5.80	5.63	5.51
Switzerland ^a	4.45	4.44	4.30	4.24	4.04	4.05	3.97	3.91	3.85	3.84	3.74	3.76	3.68	3.67
Ukraine ^a	200.99	192.30	190.64	181.15	176.82	167.47	167.45	164.86	155.64	150.68	153.27	175.16	177.58	196.30
United Kingdom of Great Britain and Northern Ireland	77.48	76.74	75.64	72.99	66.29	65.96	64.12	61.04	57.62	53.75	49.91	46.96	44.98	40.58
United States of America	605.34	607.04	608.14	598.68	604.12	601.31	589.83	579.49	569.10	557.28	554.17	546.81	542.48	544.95

^a For this Party, data for emissions/removals from the LUCF sector are used here instead of the data for the LULUCF sector; LULUCF data were not available at the time of the preparation of this document. Note: base year data are used here instead of 1990 data (as per COP decisions 9/CP.2 and 11/CP.4) for Bulgaria (1988), Hungary (average of 1985 – 1987), Poland (1988), Romania (1989) and Slovenia (1986).

II. GHG DATA FOR ANNEX I PARTIES **D. Data by gas**

Table II-16.

Changes in CH₄ emissions (with LULUCF) from Annex I Parties, 1990 – 2003

Change compared to the 1990 level (%)

Party	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Australia	-0.3	-1.0	-3.0	-3.6	-2.7	-3.8	-2.1	-0.7	-1.4	0.9	1.0	-0.8	-3.8
Austria	-0.4	-3.4	-3.8	-5.5	-6.7	-8.6	-11.4	-12.7	-14.6	-16.9	-18.1	-19.8	-20.3
Belarus ^a	-18.8	-22.3	-26.4	-30.6	-34.8	-36.0	-36.1	-35.7	-36.7	-38.5	-22.9	-23.3	-21.6
Belgium	0.1	-0.3	-1.7	-0.5	-0.1	-1.9	-2.4	-3.6	-6.6	-9.2	-14.4	-18.5	-21.3
Bulgaria ^a	-24.7	-30.0	-37.0	-41.5	-42.9	-47.2	-54.7	-58.1	-64.3	-63.7	-66.6	-66.0	-62.4
Canada	3.4	6.6	10.6	14.1	21.3	21.9	22.6	24.3	23.4	24.3	26.9	28.9	28.1
Croatia ^a	-6.8	-10.3	-13.6	-18.7	-18.4	-17.3	-14.7	-18.1	-16.0	-15.1	-11.2	-9.4	-5.2
Czech Republic ^a	–	-14.2	–	-22.4	-23.3	-24.9	-27.9	-31.9	-36.2	-36.1	-37.5	-38.1	-39.1
Denmark	1.8	2.4	5.4	5.7	7.5	9.5	7.3	6.3	4.7	4.6	6.1	4.8	3.4
Estonia ^a	-15.9	-31.8	-44.8	-39.7	-41.3	-38.2	-34.3	-39.0	-43.8	-44.9	-54.9	-56.5	-54.9
European Community ^a	-2.2	-3.5	-5.1	-7.0	-7.6	-9.0	-11.3	-13.2	-15.7	-18.3	-20.6	-22.6	-24.4
Finland	-0.5	-0.6	-0.4	-1.1	-3.4	-4.4	-5.9	-9.2	-11.3	-14.8	-16.3	-19.6	-22.8
France ^a	0.8	0.3	0.8	3.1	4.1	3.4	-1.9	-2.2	-4.2	-4.7	-6.5	-9.0	-11.1
Germany	-8.3	-11.1	-14.6	-17.7	-20.6	-23.9	-26.4	-30.5	-33.0	-37.2	-40.0	-42.1	-43.1
Greece	-0.4	1.5	2.2	4.5	5.4	7.2	8.1	11.7	3.4	4.6	0.1	0.7	1.1
Hungary ^a	-14.0	-18.9	-24.3	-25.5	-24.4	-23.5	-24.2	-21.8	-24.6	-24.0	-22.1	-26.5	-28.3
Iceland ^a	0.5	1.0	2.8	6.6	12.8	15.8	16.8	18.1	19.7	18.0	18.5	14.5	14.2
Ireland ^a	2.4	3.8	4.6	5.2	6.0	7.5	9.0	9.2	8.4	8.2	6.6	6.8	6.5
Italy	1.7	-1.3	-0.8	-0.7	-0.1	-0.3	0.4	0.0	0.4	-0.7	-3.1	-6.4	-9.6
Japan ^a	-0.4	-1.0	-1.2	-2.9	-5.5	–	–	–	–	–	–	–	–
Latvia ^a	-3.9	-15.6	-36.8	-40.9	-35.6	-36.9	-37.4	-37.2	-38.9	-40.9	-41.0	-41.6	-48.6
Liechtenstein ^a	–	–	–	–	–	–	–	–	–	–	–	–	1.8
Lithuania	–	–	–	–	–	–	–	-53.0	–	–	-60.0	-55.2	-54.6
Luxembourg ^a	–	–	–	-8.3	-7.4	–	–	-4.0	-3.8	-4.7	-5.7	-6.2	-6.1
Monaco	17.4	28.4	31.4	35.8	31.0	34.7	40.1	31.8	34.3	35.4	38.9	30.3	20.8
Netherlands	1.0	-0.8	-2.6	-5.4	-7.0	-9.4	-13.8	-17.0	-21.1	-23.8	-25.8	-28.9	-31.9
New Zealand	-0.7	-2.4	-1.2	-0.3	0.8	1.2	1.1	1.5	2.4	3.5	4.9	5.1	5.4
Norway	0.9	2.1	2.5	4.0	4.2	4.9	6.1	2.9	1.0	2.8	2.3	-1.0	-2.0
Poland ^a	-17.6	-21.2	-22.6	-21.4	-21.8	-28.3	-27.5	-25.6	-28.4	-30.5	-41.1	-42.7	–
Portugal	3.8	0.1	0.1	2.2	7.2	6.4	7.6	13.2	15.6	6.3	3.0	6.3	18.4
Romania	-23.7	-34.3	-38.4	-40.4	-39.9	-39.1	-45.9	-49.8	-52.0	-52.1	-53.7	-54.8	-53.3
Russian Federation ^a	-7.5	-12.4	-18.9	-25.3	-28.5	-29.5	-45.1	-43.8	-47.3	–	–	–	–
Slovakia	-7.0	-12.9	-19.4	-20.4	-18.2	-17.2	-21.8	-26.2	-27.1	-28.2	-28.3	-26.3	-28.0
Slovenia ^a	-7.7	-4.5	-8.8	-9.2	-9.7	-12.5	-12.0	-11.3	-10.9	-9.2	-12.4	-10.5	-12.2
Spain ^a	0.5	3.5	4.4	7.9	9.8	15.1	18.2	22.4	23.6	27.2	30.3	31.8	33.1
Sweden ^a	-0.3	1.3	2.3	1.2	-0.1	-0.7	-1.8	-4.2	-7.3	-10.6	-10.9	-13.5	-15.3
Switzerland ^a	-0.3	-3.3	-4.6	-9.2	-9.1	-10.7	-12.2	-13.6	-13.8	-15.9	-15.5	-17.2	-17.6
Ukraine ^a	-4.3	-5.1	-9.9	-12.0	-16.7	-16.7	-18.0	-22.6	-25.0	-23.7	-12.9	-11.6	-2.3
United Kingdom of Great Britain and Northern Ireland	-1.0	-2.4	-5.8	-14.4	-14.9	-17.2	-21.2	-25.6	-30.6	-35.6	-39.4	-42.0	-47.6
United States of America	0.3	0.5	-1.1	-0.2	-0.7	-2.6	-4.3	-6.0	-7.9	-8.5	-9.7	-10.4	-10.0

^a For this Party, data for emissions/removals from the LUCF sector are used here instead of the data for the LULUCF sector; LULUCF data were not available at the time of the preparation of this document.

II. GHG DATA FOR ANNEX I PARTIES D. Data by gas

Table II-17.

N₂O emissions (without LULUCF) from Annex I Parties, 1990 – 2003**Emissions (Tg CO₂ equivalent)**

Party	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Australia	21.11	21.57	21.72	22.31	22.87	23.12	23.22	24.75	26.09	27.69	29.38	30.21	30.61	30.28
Austria	5.71	6.06	5.71	5.56	6.03	6.14	5.79	5.89	5.97	5.81	5.76	5.73	5.64	5.54
Belarus	10.78	9.73	8.40	7.72	5.78	4.88	5.69	6.34	6.80	6.03	6.36	11.21	5.87	6.71
Belgium	12.19	12.22	9.01	12.15	13.17	13.11	13.52	13.10	13.29	13.10	12.85	12.73	12.22	11.25
Bulgaria	14.81	10.18	8.70	7.97	8.01	8.25	8.06	7.79	6.49	6.35	6.72	6.63	6.27	6.46
Canada	51.59	50.29	51.44	52.31	56.62	57.50	59.92	58.64	54.18	51.86	51.31	48.77	47.73	50.18
Croatia	3.98	3.89	3.66	3.25	3.25	3.16	3.00	3.34	2.91	3.10	3.28	3.25	3.32	3.23
Czech Republic	11.26	–	9.23	–	8.27	8.75	9.21	8.81	8.39	8.11	8.17	8.29	8.15	8.16
Denmark	10.74	10.61	10.15	9.95	9.80	9.68	9.40	9.27	9.17	8.87	8.64	8.41	8.07	8.09
Estonia	1.02	1.00	0.82	0.53	0.47	0.41	0.39	0.42	0.43	0.36	0.41	0.36	0.31	0.31
European Community	408.34	403.04	395.99	382.91	390.85	391.60	398.20	398.68	375.87	352.30	351.63	344.28	336.19	335.43
Finland	7.61	7.19	6.59	6.74	6.84	7.18	7.19	7.43	7.26	7.14	6.54	6.51	6.59	6.71
France	93.13	92.75	93.71	88.95	90.98	92.48	92.87	94.90	87.70	80.41	80.83	78.47	75.74	74.59
Germany	86.39	82.76	84.17	80.83	81.12	80.89	82.19	78.97	65.83	62.02	62.20	62.48	61.77	63.69
Greece	14.19	13.92	13.97	13.14	13.41	13.13	13.61	13.37	13.26	13.22	13.44	13.24	13.17	13.28
Hungary	23.82	15.24	12.29	12.00	13.21	12.39	13.33	13.20	13.20	13.06	12.58	13.50	12.62	12.43
Iceland	0.36	0.35	0.33	0.34	0.34	0.34	0.36	0.36	0.35	0.37	0.35	0.34	0.31	0.30
Ireland	10.02	10.06	10.15	10.19	10.42	10.55	10.77	10.94	11.18	11.36	11.31	10.92	10.25	9.74
Italy	39.91	41.16	40.61	40.86	39.83	41.03	40.78	42.00	41.85	42.89	42.99	42.99	43.00	42.35
Japan	40.20	39.71	39.90	39.62	40.54	40.62	41.52	41.89	40.58	35.10	37.46	34.64	34.68	34.62
Latvia	3.05	2.90	2.17	1.51	1.26	1.09	1.11	1.10	1.05	0.95	0.99	1.12	1.10	1.18
Liechtenstein	0.01	–	–	–	–	–	–	–	–	–	–	–	–	0.01
Lithuania	4.08	–	–	–	–	–	–	–	2.42	–	–	3.84	3.29	1.31
Luxembourg	0.19	–	–	–	0.21	0.20	–	–	0.07	0.07	0.07	0.08	0.08	0.07
Monaco	0.002	0.002	0.002	0.002	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
Netherlands	21.31	21.71	22.40	23.13	22.28	22.42	22.19	21.96	21.69	20.95	19.89	18.88	17.97	17.32
New Zealand	10.40	10.42	10.52	10.81	11.13	11.37	11.49	11.58	11.66	11.88	12.28	12.79	13.17	13.50
Norway	5.06	4.92	4.26	4.60	4.72	4.80	4.89	4.82	5.10	5.30	5.22	5.21	5.42	5.33
Poland	21.84	16.13	15.56	15.43	15.57	16.73	16.72	16.74	15.98	23.28	23.89	23.95	22.63	–
Portugal	6.02	5.90	5.74	5.62	5.84	6.00	6.15	6.08	6.08	6.39	6.07	6.29	6.34	6.32
Romania	29.20	11.31	10.61	11.58	10.45	11.09	9.47	9.38	7.80	9.06	8.17	8.39	7.01	7.16
Russian Federation	97.68	82.88	76.85	65.69	47.88	42.88	40.24	42.69	33.08	34.69	–	–	–	–
Slovakia	6.04	5.17	4.40	3.87	4.05	4.18	4.24	4.28	3.98	3.83	3.82	4.04	3.86	3.93
Slovenia	1.66	1.37	1.53	1.41	1.42	1.44	1.43	1.44	1.46	1.51	1.53	1.52	1.54	1.50
Spain	24.25	23.92	23.08	21.48	23.52	23.07	25.67	24.98	25.66	26.81	28.01	26.80	26.38	27.94
Sweden	8.87	8.74	8.67	8.76	8.88	8.69	8.88	8.81	8.83	8.38	8.25	8.21	8.16	8.21
Switzerland	3.34	3.37	3.37	3.34	3.31	3.25	3.30	3.20	3.19	3.17	3.19	3.16	3.15	3.08
Ukraine	39.79	37.97	37.02	44.66	33.12	29.69	30.08	27.77	24.07	22.19	20.35	20.00	20.22	17.63
United Kingdom of Great Britain and Northern Ireland	67.89	65.96	59.12	55.44	58.60	57.09	59.06	60.83	58.10	44.97	44.86	42.62	41.04	40.42
United States of America	376.39	373.50	360.81	379.86	375.00	385.08	409.86	389.90	401.26	375.52	395.59	379.65	374.12	370.34

Note: base year data are used here instead of 1990 data (as per COP decisions 9/CP.2 and 11/CP.4) for Bulgaria (1988), Hungary (average of 1985 – 1987), Poland (1988), Romania (1989) and Slovenia (1986).

II. GHG DATA FOR ANNEX I PARTIES **D. Data by gas**

Table II-18.

Changes in N₂O emissions (without LULUCF) from Annex I Parties, 1990 – 2003

Change compared to the 1990 level (%)

Party	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Australia	2.2	2.9	5.7	8.3	9.5	10.0	17.2	23.6	31.2	39.2	43.1	45.0	43.5
Austria	6.1	-0.1	-2.6	5.7	7.5	1.5	3.1	4.6	1.7	0.8	0.3	-1.3	-3.0
Belarus	-9.7	-22.1	-28.5	-46.4	-54.7	-47.3	-41.2	-36.9	-44.1	-41.0	3.9	-45.6	-37.8
Belgium	0.2	-26.1	-0.3	8.0	7.6	10.9	7.5	9.0	7.4	5.4	4.4	0.2	-7.7
Bulgaria	-31.3	-41.2	-46.2	-45.9	-44.3	-45.6	-47.4	-56.2	-57.1	-54.6	-55.2	-57.6	-56.4
Canada	-2.5	-0.3	1.4	9.8	11.5	16.2	13.7	5.0	0.5	-0.5	-5.5	-7.5	-2.7
Croatia	-2.3	-8.2	-18.3	-18.3	-20.6	-24.7	-16.0	-27.0	-22.1	-17.5	-18.3	-16.8	-18.9
Czech Republic	-	-18.1	-	-26.5	-22.3	-18.2	-21.8	-25.5	-28.0	-27.4	-26.4	-27.6	-27.6
Denmark	-1.2	-5.5	-7.3	-8.7	-9.8	-12.4	-13.7	-14.5	-17.4	-19.5	-21.7	-24.9	-24.6
Estonia	-2.1	-20.2	-48.5	-53.8	-59.9	-62.2	-58.7	-58.0	-64.9	-59.5	-64.5	-69.3	-69.4
European Community	-1.3	-3.0	-6.2	-4.3	-4.1	-2.5	-2.4	-7.9	-13.7	-13.9	-15.7	-17.7	-17.9
Finland	-5.5	-13.4	-11.4	-10.1	-5.6	-5.6	-2.4	-4.6	-6.1	-14.0	-14.5	-13.4	-11.9
France	-0.4	0.6	-4.5	-2.3	-0.7	-0.3	1.9	-5.8	-13.7	-13.2	-15.7	-18.7	-19.9
Germany	-4.2	-2.6	-6.4	-6.1	-6.4	-4.9	-8.6	-23.8	-28.2	-28.0	-27.7	-28.5	-26.3
Greece	-1.9	-1.6	-7.4	-5.5	-7.5	-4.1	-5.8	-6.6	-6.8	-5.3	-6.7	-7.2	-6.4
Hungary	-36.0	-48.4	-49.6	-44.5	-48.0	-44.0	-44.6	-44.6	-45.2	-47.2	-43.3	-47.0	-47.8
Iceland	-2.8	-8.7	-6.5	-5.2	-5.9	-1.1	-1.4	-1.8	3.6	-3.3	-5.1	-14.4	-16.2
Ireland	0.3	1.3	1.6	3.9	5.3	7.5	9.2	11.5	13.4	12.8	8.9	2.3	-2.8
Italy	3.1	1.7	2.4	-0.2	2.8	2.2	5.2	4.9	7.5	7.7	7.7	7.7	6.1
Japan	-1.2	-0.8	-1.5	0.8	1.0	3.3	4.2	0.9	-12.7	-6.8	-13.8	-13.7	-13.9
Latvia	-5.0	-28.9	-50.4	-58.7	-64.2	-63.7	-64.0	-65.4	-68.9	-67.6	-63.2	-63.8	-61.3
Liechtenstein	-	-	-	-	-	-	-	-	-	-	-	-	5.5
Lithuania	-	-	-	-	-	-	-	-40.5	-	-	-5.7	-19.2	-67.8
Luxembourg	-	-	-	11.4	10.2	-	-	-64.4	-63.1	-60.7	-59.3	-59.4	-63.1
Monaco	18.9	25.9	42.2	56.5	63.4	77.3	90.7	92.1	101.6	107.2	115.0	110.9	103.9
Netherlands	1.9	5.1	8.5	4.5	5.2	4.1	3.0	1.8	-1.7	-6.7	-11.4	-15.7	-18.7
New Zealand	0.3	1.2	4.0	7.1	9.4	10.5	11.4	12.1	14.3	18.1	23.0	26.7	29.8
Norway	-2.9	-16.0	-9.1	-6.7	-5.2	-3.5	-4.8	0.8	4.6	3.1	2.9	7.0	5.2
Poland	-26.2	-28.7	-29.4	-28.7	-23.4	-23.5	-23.3	-26.8	6.6	9.4	9.6	3.6	-
Portugal	-2.0	-4.6	-6.6	-3.0	-0.3	2.1	1.1	1.0	6.1	0.8	4.5	5.3	4.9
Romania	-61.3	-63.7	-60.3	-64.2	-62.0	-67.6	-67.9	-73.3	-69.0	-72.0	-71.3	-76.0	-75.5
Russian Federation	-15.2	-21.3	-32.8	-51.0	-56.1	-58.8	-56.3	-66.1	-64.5	-	-	-	-
Slovakia	-14.5	-27.2	-36.0	-33.0	-30.9	-29.8	-29.1	-34.1	-36.6	-36.9	-33.2	-36.2	-35.0
Slovenia	-17.3	-7.9	-15.3	-14.4	-13.1	-13.7	-13.1	-12.0	-8.8	-7.7	-8.2	-7.0	-9.4
Spain	-1.3	-4.8	-11.4	-3.0	-4.9	5.8	3.0	5.8	10.6	15.5	10.5	8.8	15.2
Sweden	-1.5	-2.3	-1.2	0.1	-2.1	0.0	-0.7	-0.4	-5.6	-6.9	-7.5	-8.0	-7.5
Switzerland	0.8	0.8	-0.2	-0.9	-2.9	-1.3	-4.3	-4.5	-5.1	-4.7	-5.6	-5.9	-7.9
Ukraine	-4.6	-7.0	12.2	-16.8	-25.4	-24.4	-30.2	-39.5	-44.2	-48.9	-49.8	-49.2	-55.7
United Kingdom of Great Britain and Northern Ireland	-2.9	-12.9	-18.3	-13.7	-15.9	-13.0	-10.4	-14.4	-33.8	-33.9	-37.2	-39.5	-40.5
United States of America	-0.8	-4.1	0.9	-0.4	2.3	8.9	3.6	6.6	-0.2	5.1	0.9	-0.6	-1.6

II. GHG DATA FOR ANNEX I PARTIES D. Data by gas

Table II-19. N₂O emissions (with LULUCF) from Annex I Parties, 1990 – 2003
Emissions (Tg CO₂ equivalent)

Party	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Australia	22.29	22.67	22.67	23.19	23.74	23.92	24.00	25.55	26.90	28.48	30.14	30.97	31.57	31.20
Austria	5.71	6.06	5.71	5.56	6.03	6.14	5.79	5.89	5.97	5.81	5.76	5.73	5.64	5.54
Belarus ^a	10.80	9.74	8.41	7.72	5.78	4.89	5.69	6.35	6.81	6.04	6.37	11.22	5.88	6.72
Belgium	12.19	12.22	9.01	12.15	13.17	13.11	13.52	13.10	13.29	13.10	12.85	12.73	12.22	11.25
Bulgaria ^a	14.81	10.18	8.70	7.97	8.01	8.25	8.06	7.79	6.49	6.35	6.72	6.63	6.27	6.46
Canada	52.31	51.62	51.78	53.61	57.26	60.97	60.94	59.22	56.26	52.73	51.47	49.20	49.94	51.19
Croatia ^a	3.98	3.89	3.66	3.25	3.25	3.16	3.00	3.34	2.91	3.10	3.28	3.25	3.32	3.23
Czech Republic ^a	11.27	–	9.23	–	8.27	8.75	9.21	8.81	8.39	8.11	8.18	8.29	8.15	8.16
Denmark	10.74	10.61	10.15	9.95	9.80	9.68	9.40	9.27	9.17	8.87	8.64	8.41	8.07	8.09
Estonia ^a	1.02	1.00	0.82	0.53	0.47	0.41	0.39	0.42	0.43	0.36	0.41	0.36	0.31	0.31
European Community ^a	408.47	403.18	396.08	382.98	390.90	391.68	398.25	398.75	375.96	352.36	351.75	344.37	336.29	335.65
Finland	7.64	7.21	6.60	6.75	6.85	7.19	7.20	7.44	7.27	7.16	6.56	6.52	6.60	6.72
France ^a	93.15	92.76	93.72	88.97	91.00	92.50	92.88	94.92	87.72	80.43	80.85	78.49	75.76	74.61
Germany	86.39	82.76	84.17	80.83	81.12	80.89	82.19	78.97	65.83	62.02	62.20	62.48	61.77	63.69
Greece	14.20	13.92	13.97	13.14	13.42	13.13	13.61	13.37	13.27	13.22	13.45	13.24	13.17	13.28
Hungary ^a	23.82	15.24	12.29	12.00	13.21	12.40	13.33	13.20	13.20	13.07	12.58	13.50	12.62	12.43
Iceland ^a	0.36	0.35	0.33	0.34	0.34	0.34	0.36	0.36	0.35	0.37	0.35	0.34	0.31	0.30
Ireland ^a	10.02	10.06	10.15	10.19	10.42	10.55	10.77	10.94	11.18	11.36	11.31	10.92	10.25	9.74
Italy	39.92	41.16	40.61	40.87	39.83	41.03	40.77	42.01	41.84	42.88	42.99	43.00	43.01	42.35
Japan ^a	40.21	39.72	39.91	39.63	40.55	40.63	–	–	–	–	–	–	–	–
Latvia ^a	3.06	2.90	2.17	1.52	1.27	1.10	1.12	1.11	1.07	0.97	1.00	1.12	1.10	1.18
Liechtenstein ^a	0.01	–	–	–	–	–	–	–	–	–	–	–	–	0.01
Lithuania	4.08	–	–	–	–	–	–	–	2.42	–	–	3.84	3.29	1.31
Luxembourg ^a	0.20	–	–	–	0.22	0.21	–	–	0.09	0.09	0.09	0.10	0.10	0.09
Monaco	0.002	0.002	0.002	0.002	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
Netherlands	21.31	21.71	22.40	23.13	22.28	22.42	22.19	21.96	21.69	20.95	19.89	18.88	17.97	17.32
New Zealand	10.40	10.42	10.52	10.81	11.13	11.37	11.49	11.58	11.66	11.88	12.28	12.79	13.17	13.50
Norway	5.08	4.94	4.27	4.62	4.74	4.81	4.90	4.84	5.12	5.31	5.24	5.22	5.43	5.34
Poland ^a	21.84	16.13	15.56	15.43	15.57	16.73	16.72	16.74	15.98	23.28	23.89	23.95	22.63	–
Portugal	6.06	5.97	5.77	5.63	5.85	6.05	6.16	6.09	6.11	6.40	6.11	6.31	6.37	6.48
Romania	29.20	11.31	10.61	11.58	10.45	11.09	9.47	9.38	7.80	9.06	8.17	8.39	7.01	7.16
Russian Federation ^a	98.00	83.00	77.00	66.00	48.00	43.00	41.00	43.00	35.00	35.00	–	–	–	–
Slovakia	6.05	5.17	4.40	3.87	4.05	4.18	4.24	4.29	3.99	3.83	3.82	4.04	3.86	3.93
Slovenia ^a	1.66	1.37	1.53	1.41	1.42	1.44	1.43	1.44	1.46	1.51	1.53	1.52	1.54	1.50
Spain ^a	24.25	23.92	23.08	21.48	23.52	23.07	25.67	24.98	25.66	26.81	28.01	26.80	26.38	27.94
Sweden ^a	8.87	8.74	8.67	8.76	8.88	8.69	8.88	8.81	8.83	8.38	8.25	8.21	8.16	8.21
Switzerland ^a	3.34	3.37	3.37	3.34	3.31	3.25	3.30	3.20	3.19	3.17	3.19	3.16	3.15	3.08
Ukraine ^a	39.80	37.97	37.03	44.66	33.13	29.69	30.08	27.77	24.07	22.19	20.35	20.00	20.22	17.63
United Kingdom of Great Britain and Northern Ireland	67.89	65.96	59.12	55.44	58.60	57.09	59.06	60.83	58.10	44.97	44.86	42.63	41.05	40.42
United States of America	381.99	379.19	366.58	385.84	381.25	391.18	416.21	396.32	407.75	382.15	401.92	385.84	380.53	376.75

^a For this Party, data for emissions/removals from the LUCF sector are used here instead of the data for the LULUCF sector; LULUCF data were not available at the time of the preparation of this document. Note: base year data are used here instead of 1990 data (as per COP decisions 9/CP.2 and 11/CP.4) for Bulgaria (1988), Hungary (average of 1985 – 1987), Poland (1988), Romania (1989) and Slovenia (1986).

II. GHG DATA FOR ANNEX I PARTIES D. Data by gas

Table II-20.

Changes in N₂O emissions (with LULUCF) from Annex I Parties, 1990 – 2003

Change compared to the 1990 level (%)

Party	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Australia	1.7	1.7	4.0	6.5	7.3	7.7	14.6	20.7	27.7	35.2	38.9	41.6	40.0
Austria	6.1	-0.1	-2.6	5.7	7.5	1.5	3.1	4.6	1.7	0.8	0.3	-1.3	-3.0
Belarus ^a	-9.8	-22.1	-28.5	-46.4	-54.7	-47.3	-41.2	-36.9	-44.0	-41.0	3.9	-45.5	-37.8
Belgium	0.2	-26.1	-0.3	8.0	7.6	10.9	7.5	9.0	7.4	5.4	4.4	0.2	-7.7
Bulgaria ^a	-31.3	-41.2	-46.2	-45.9	-44.3	-45.6	-47.4	-56.2	-57.1	-54.6	-55.2	-57.6	-56.4
Canada	-1.3	-1.0	2.5	9.5	16.5	16.5	13.2	7.6	0.8	-1.6	-5.9	-4.5	-2.2
Croatia ^a	-2.3	-8.2	-18.3	-18.3	-20.6	-24.7	-16.0	-27.0	-22.1	-17.5	-18.3	-16.8	-18.9
Czech Republic ^a	-	-18.1	-	-26.5	-22.3	-18.2	-21.8	-25.5	-28.0	-27.4	-26.4	-27.6	-27.6
Denmark	-1.2	-5.5	-7.3	-8.7	-9.8	-12.4	-13.7	-14.5	-17.4	-19.5	-21.7	-24.9	-24.6
Estonia ^a	-2.1	-20.2	-48.5	-53.8	-59.9	-62.2	-58.7	-58.0	-64.9	-59.5	-64.5	-69.3	-69.4
European Community ^a	-1.3	-3.0	-6.2	-4.3	-4.1	-2.5	-2.4	-8.0	-13.7	-13.9	-15.7	-17.7	-17.8
Finland	-5.6	-13.5	-11.7	-10.3	-5.9	-5.8	-2.6	-4.9	-6.3	-14.2	-14.6	-13.6	-12.0
France ^a	-0.4	0.6	-4.5	-2.3	-0.7	-0.3	1.9	-5.8	-13.7	-13.2	-15.7	-18.7	-19.9
Germany	-4.2	-2.6	-6.4	-6.1	-6.4	-4.9	-8.6	-23.8	-28.2	-28.0	-27.7	-28.5	-26.3
Greece	-1.9	-1.6	-7.4	-5.5	-7.5	-4.1	-5.8	-6.5	-6.8	-5.2	-6.7	-7.2	-6.5
Hungary ^a	-36.0	-48.4	-49.6	-44.5	-47.9	-44.0	-44.6	-44.6	-45.1	-47.2	-43.3	-47.0	-47.8
Iceland ^a	-2.8	-8.7	-6.5	-5.2	-5.9	-1.1	-1.4	-1.8	3.6	-3.3	-5.1	-14.4	-16.2
Ireland ^a	0.3	1.3	1.6	3.9	5.3	7.5	9.2	11.5	13.4	12.8	8.9	2.3	-2.8
Italy	3.1	1.7	2.4	-0.2	2.8	2.1	5.2	4.8	7.4	7.7	7.7	7.7	6.1
Japan ^a	-1.2	-0.7	-1.4	0.8	1.1	-	-	-	-	-	-	-	-
Latvia ^a	-5.0	-28.8	-50.2	-58.5	-63.9	-63.5	-63.6	-65.0	-68.4	-67.3	-63.3	-63.9	-61.4
Liechtenstein ^a	-	-	-	-	-	-	-	-	-	-	-	-	5.5
Lithuania	-	-	-	-	-	-	-	-40.5	-	-	-5.7	-19.2	-67.8
Luxembourg ^a	-	-	-	10.8	9.7	-	-	-55.2	-54.0	-51.7	-50.4	-50.5	-54.0
Monaco	18.9	25.9	42.2	56.5	63.4	77.3	90.7	92.1	101.6	107.2	115.0	110.9	103.9
Netherlands	1.9	5.1	8.5	4.5	5.2	4.1	3.0	1.8	-1.7	-6.7	-11.4	-15.7	-18.7
New Zealand	0.3	1.2	4.0	7.1	9.4	10.5	11.4	12.1	14.3	18.1	23.0	26.7	29.8
Norway	-2.8	-15.9	-9.1	-6.8	-5.2	-3.5	-4.8	0.7	4.6	3.1	2.8	6.9	5.1
Poland ^a	-26.2	-28.7	-29.4	-28.7	-23.4	-23.5	-23.3	-26.8	6.6	9.4	9.6	3.6	-
Portugal	-1.6	-4.9	-7.1	-3.6	-0.2	1.6	0.4	0.8	5.6	0.7	4.1	5.1	6.8
Romania	-61.3	-63.7	-60.3	-64.2	-62.0	-67.6	-67.9	-73.3	-69.0	-72.0	-71.3	-76.0	-75.5
Russian Federation ^a	-15.3	-21.4	-32.7	-51.0	-56.1	-58.2	-56.1	-64.3	-64.3	-	-	-	-
Slovakia	-14.4	-27.2	-36.0	-33.0	-30.8	-29.8	-29.1	-34.1	-36.6	-36.8	-33.2	-36.1	-35.0
Slovenia ^a	-17.3	-7.9	-15.3	-14.4	-13.1	-13.7	-13.1	-12.0	-8.8	-7.7	-8.2	-7.0	-9.4
Spain ^a	-1.3	-4.8	-11.4	-3.0	-4.9	5.8	3.0	5.8	10.6	15.5	10.5	8.8	15.2
Sweden ^a	-1.5	-2.3	-1.2	0.1	-2.1	0.0	-0.7	-0.4	-5.6	-6.9	-7.5	-8.0	-7.5
Switzerland ^a	0.8	0.8	-0.2	-0.9	-2.9	-1.3	-4.3	-4.5	-5.1	-4.7	-5.6	-5.9	-7.9
Ukraine ^a	-4.6	-7.0	12.2	-16.8	-25.4	-24.4	-30.2	-39.5	-44.2	-48.9	-49.7	-49.2	-55.7
United Kingdom of Great Britain and Northern Ireland	-2.9	-12.9	-18.3	-13.7	-15.9	-13.0	-10.4	-14.4	-33.8	-33.9	-37.2	-39.5	-40.5
United States of America	-0.7	-4.0	1.0	-0.2	2.4	9.0	3.8	6.7	0.0	5.2	1.0	-0.4	-1.4

^a For this Party, data for emissions/removals from the LUCF sector are used here instead of the data for the LULUCF sector; LULUCF data were not available at the time of the preparation of this document.

II. GHG DATA FOR ANNEX I PARTIES D. Data by gas

Table II-21.

Sum of HFC, PFC and SF₆ emissions from Annex I Parties, 1990 – 2003Emissions (Tg CO₂ equivalent)

Party	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Australia	5.59	5.59	5.51	4.80	3.19	2.75	2.28	2.60	3.54	3.69	4.34	5.33	5.79	6.30
Austria	1.80	2.08	1.55	1.29	1.55	1.76	1.92	1.95	1.77	1.62	1.72	1.84	1.95	2.00
Belarus	–	–	–	–	–	–	–	–	–	–	–	–	–	0.0004
Belgium	3.67	3.51	3.83	3.69	4.40	4.80	4.72	2.26	1.61	1.16	1.23	1.25	1.35	1.61
Bulgaria	0.08	0.02	0.03	0.02	0.05	0.05	0.05	0.04	0.07	0.05	0.04	0.02	0.02	0.02
Canada	11.20	11.60	10.09	10.11	9.53	9.66	8.61	9.26	9.93	10.39	11.23	10.59	9.75	9.92
Croatia	0.94	0.65	–	–	–	0.01	0.06	0.09	0.02	0.01	0.02	0.05	0.05	0.03
Czech Republic	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Denmark	0.04	0.06	0.09	0.20	0.26	0.33	0.39	0.40	0.48	0.58	0.68	0.70	0.72	0.75
Estonia	–	–	–	–	–	–	–	–	–	–	–	–	–	–
European Community	53.44	52.31	52.08	53.25	57.68	64.29	69.03	72.82	72.25	62.60	60.56	58.19	61.31	65.29
Finland	0.09	0.07	0.04	0.03	0.04	0.10	0.15	0.24	0.30	0.40	0.58	0.73	0.53	0.71
France	9.29	9.23	8.39	6.91	5.87	5.67	7.05	7.91	8.48	9.48	10.26	11.36	13.08	14.32
Germany	10.17	10.25	10.69	12.36	12.61	14.75	13.85	14.01	14.50	13.13	11.44	12.18	13.23	13.23
Greece	1.19	1.36	1.16	1.79	2.30	3.45	3.99	4.36	4.87	5.57	4.42	3.96	4.10	4.22
Hungary	0.35	0.29	0.18	0.20	0.23	0.24	0.23	0.27	0.37	0.66	0.56	0.59	0.72	0.83
Iceland	0.42	0.35	0.16	0.07	0.04	0.06	0.03	0.08	0.18	0.17	0.13	0.09	0.07	0.06
Ireland	–	–	–	–	–	0.18	0.26	0.34	0.26	0.41	0.55	0.59	0.53	0.61
Italy	2.49	2.13	1.52	1.36	1.25	1.61	1.38	1.74	2.06	2.11	2.84	4.01	4.71	5.55
Japan	–	–	–	–	–	49.72	52.63	51.52	49.29	43.81	39.05	32.94	28.03	25.80
Latvia	–	–	–	–	–	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.02	0.02
Liechtenstein	–	–	–	–	–	–	–	–	–	–	–	–	–	0.0001
Lithuania	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Luxembourg	–	–	–	–	–	–	–	–	0.05	–	0.05	0.00	0.05	0.05
Monaco	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Netherlands	6.76	5.68	6.50	7.07	8.56	8.12	9.98	10.82	11.41	6.65	5.70	3.27	3.34	3.18
New Zealand	0.53	0.66	0.65	0.54	0.22	0.25	0.42	0.30	0.35	0.26	0.24	0.33	0.48	0.50
Norway	5.50	4.61	2.72	2.73	2.61	2.21	2.08	2.06	2.14	2.19	2.08	2.14	1.74	1.18
Poland	–	–	–	–	–	0.85	0.84	1.02	1.04	1.35	2.18	1.54	1.54	–
Portugal	–	–	–	–	–	0.00	0.01	0.01	0.01	0.02	0.03	0.04	0.06	0.07
Romania	0.78	0.46	0.33	0.32	0.34	0.40	0.40	0.45	0.49	0.48	0.50	0.51	0.53	0.57
Russian Federation	40.00	40.00	40.00	40.00	35.00	38.00	36.00	40.00	41.00	42.00	–	–	–	–
Slovakia	0.27	0.27	0.25	0.16	0.14	0.15	0.09	0.11	0.08	0.09	0.10	0.11	0.13	0.17
Slovenia	0.28	0.31	0.25	0.26	0.29	0.34	0.29	0.25	0.20	0.16	0.17	0.18	0.21	0.22
Spain	3.35	3.08	3.63	3.17	4.37	5.58	6.11	7.08	6.73	8.07	8.81	5.75	4.41	5.53
Sweden	0.55	0.55	0.46	0.48	0.52	0.65	0.64	0.76	0.72	0.80	0.78	0.82	0.87	0.84
Switzerland	0.28	0.27	0.26	0.19	0.18	0.27	0.30	0.42	0.49	0.52	0.67	0.72	0.71	0.76
Ukraine	–	–	–	–	–	–	–	–	–	–	–	–	–	–
United Kingdom of Great Britain and Northern Ireland	13.85	14.15	14.07	14.70	15.73	17.24	18.53	20.91	19.02	12.75	11.47	11.62	12.40	12.64
United States of America	91.22	82.89	84.75	88.94	89.64	95.50	115.00	121.73	135.73	134.83	138.88	129.50	138.28	137.02

Note: base year data are used here instead of 1990 data (as per COP decisions 9/CP.2 and 11/CP.4) for Bulgaria (1988), Hungary (average of 1985 – 1987), Poland (1988), Romania (1989) and Slovenia (1986).

II. GHG DATA FOR ANNEX I PARTIES D. Data by gas

Table II-22.

Changes in the sum of HFC, PFC and SF₆ emissions from Annex I Parties, 1990 – 2003

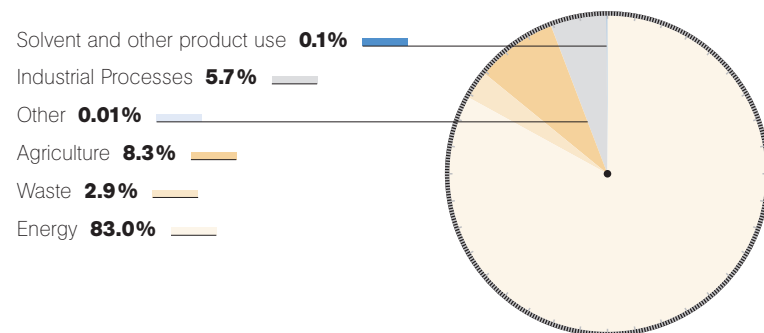
Change compared to the 1990 level (%)

Party	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Australia	0.1	-1.4	-14.1	-42.9	-50.7	-59.2	-53.4	-36.5	-33.9	-22.3	-4.5	3.7	12.8
Austria	15.2	-14.1	-28.3	-14.0	-2.1	6.7	8.1	-2.0	-10.3	-4.2	2.2	8.1	11.3
Belarus	-	-	-	-	-	-	-	-	-	-	-	-	-
Belgium	-4.4	4.3	0.5	20.0	30.6	28.7	-38.4	-56.2	-68.4	-66.5	-65.9	-63.2	-56.3
Bulgaria	-71.8	-63.0	-74.8	-39.3	-32.3	-37.5	-48.4	-5.7	-39.9	-53.2	-75.4	-68.3	-69.3
Canada	3.5	-9.9	-9.7	-14.9	-13.7	-23.1	-17.4	-11.3	-7.2	0.2	-5.5	-12.9	-11.4
Croatia	-30.9	-	-	-	-99.2	-93.6	-90.3	-98.1	-99.0	-97.5	-94.8	-94.7	-97.2
Czech Republic	-	-	-	-	-	-	-	-	-	-	-	-	-
Denmark	42.8	108.3	338.9	477.3	632.4	781.7	802.0	979.2	1206.6	1433.7	1474.4	1517.9	1578.6
Estonia	-	-	-	-	-	-	-	-	-	-	-	-	-
European Community	-2.1	-2.5	-0.4	7.9	20.3	29.2	36.3	35.2	17.1	13.3	8.9	14.7	22.2
Finland	-28.6	-61.0	-64.2	-56.0	3.7	58.4	158.2	216.1	321.9	509.3	674.8	459.0	650.1
France	-0.6	-9.6	-25.6	-36.7	-38.9	-24.1	-14.8	-8.7	2.1	10.5	22.4	40.8	54.2
Germany	0.8	5.1	21.5	24.0	45.0	36.1	37.7	42.5	29.1	12.4	19.7	30.0	30.0
Greece	14.4	-2.7	50.1	93.1	189.4	234.4	265.5	308.6	366.8	270.7	232.4	243.5	253.6
Hungary	-18.0	-47.4	-43.5	-34.8	-31.7	-34.2	-21.4	4.5	89.8	59.4	68.0	104.7	137.4
Iceland	-17.0	-63.0	-82.2	-89.4	-86.0	-94.0	-80.4	-57.1	-58.7	-69.7	-78.2	-82.7	-85.8
Ireland	-	-	-	-	-	-	-	-	-	-	-	-	-
Italy	-14.3	-39.2	-45.6	-49.7	-35.4	-44.8	-30.3	-17.5	-15.1	14.2	60.8	89.1	122.9
Japan	-	-	-	-	-	-	-	-	-	-	-	-	-
Latvia	-	-	-	-	-	-	-	-	-	-	-	-	-
Liechtenstein	-	-	-	-	-	-	-	-	-	-	-	-	-
Lithuania	-	-	-	-	-	-	-	-	-	-	-	-	-
Luxembourg	-	-	-	-	-	-	-	-	-	-	-	-	-
Monaco	-	-	-	-	-	-	-	-	-	-	-	-	-
Netherlands	-16.0	-4.0	4.6	26.6	20.0	47.5	59.9	68.6	-1.7	-15.8	-51.7	-50.6	-53.0
New Zealand	25.8	23.7	3.1	-57.6	-53.3	-20.6	-44.0	-32.8	-50.3	-53.7	-38.4	-8.4	-5.1
Norway	-16.2	-50.4	-50.4	-52.6	-59.9	-62.2	-62.6	-61.1	-60.2	-62.2	-61.1	-68.4	-78.6
Poland	-	-	-	-	-	-	-	-	-	-	-	-	-
Portugal	-	-	-	-	-	-	-	-	-	-	-	-	-
Romania	-41.4	-58.2	-59.5	-56.5	-49.6	-49.3	-42.2	-37.6	-39.1	-35.7	-35.1	-32.9	-27.3
Russian Federation	0.0	0.0	0.0	-12.5	-5.0	-10.0	0.0	2.5	5.0	-	-	-	-
Slovakia	-1.6	-8.2	-42.6	-46.8	-45.3	-66.6	-57.9	-70.7	-65.9	-62.0	-60.2	-52.3	-37.5
Slovenia	9.3	-11.7	-8.9	1.9	20.5	2.8	-10.7	-27.9	-43.3	-39.6	-35.7	-27.1	-21.2
Spain	-8.2	8.2	-5.5	30.2	66.5	82.1	111.2	100.8	140.6	162.6	71.5	31.6	64.8
Sweden	-0.1	-17.1	-12.6	-4.9	17.9	16.7	37.1	30.6	45.5	41.9	49.5	57.1	51.6
Switzerland	-4.7	-7.1	-31.1	-36.5	-3.5	7.8	51.8	73.8	87.1	140.8	158.1	153.0	174.0
Ukraine	-	-	-	-	-	-	-	-	-	-	-	-	-
United Kingdom of Great Britain and Northern Ireland	2.1	1.6	6.2	13.5	24.5	33.8	50.9	37.3	-8.0	-17.2	-16.1	-10.5	-8.8
United States of America	-9.1	-7.1	-2.5	-1.7	4.7	26.1	33.4	48.8	47.8	52.2	42.0	51.6	50.2

II. GHG DATA FOR ANNEX I PARTIES D. Data by gas

Figure II-12. Sectoral profile of GHG emissions (without LULUCF) from Annex I Parties taken together, 1990 and 2003

Sectoral shares in GHG total, 1990



Sectoral shares in GHG total, 2003

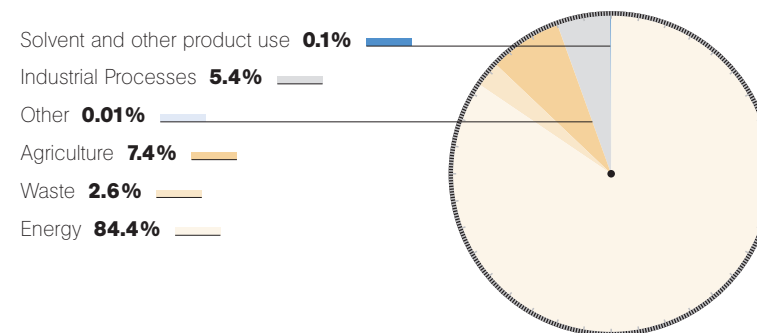
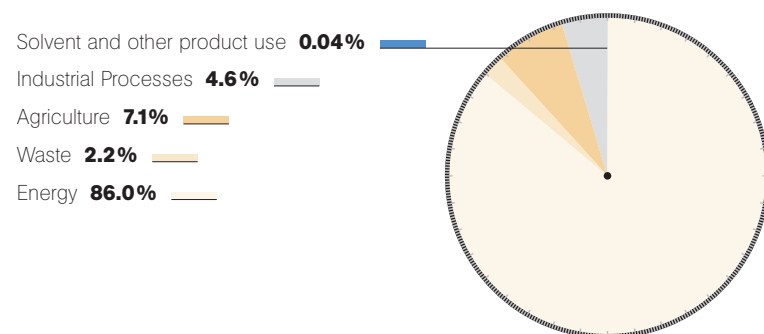


Figure II-13. Sectoral profile of GHG emissions (without LULUCF) from EIT Parties taken together, 1990 and 2003

Sectoral shares in GHG total, 1990



Sectoral shares in GHG total, 2003

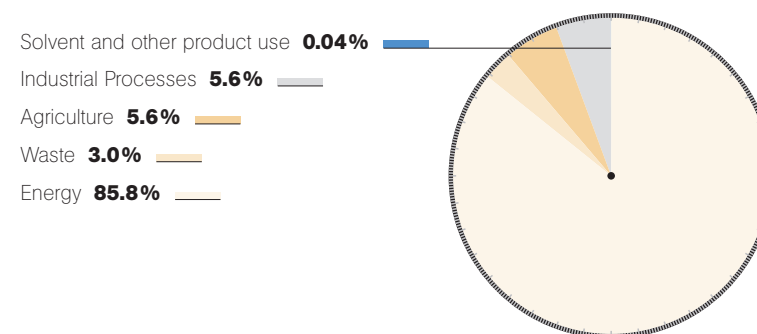
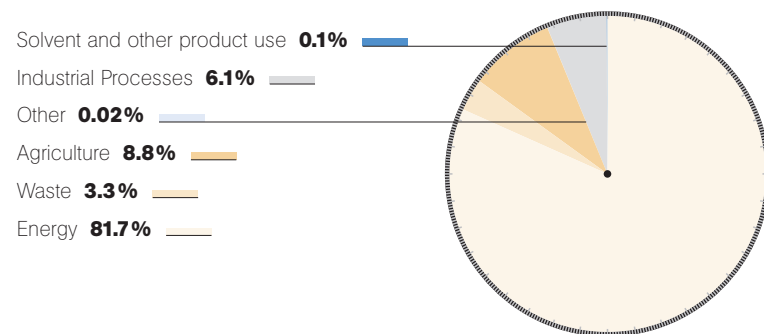


Figure II-14. Sectoral profile of GHG emissions (without LULUCF) from non-EIT Parties taken together, 1990 and 2003

Sectoral shares in GHG total, 1990



Sectoral shares in GHG total, 2003

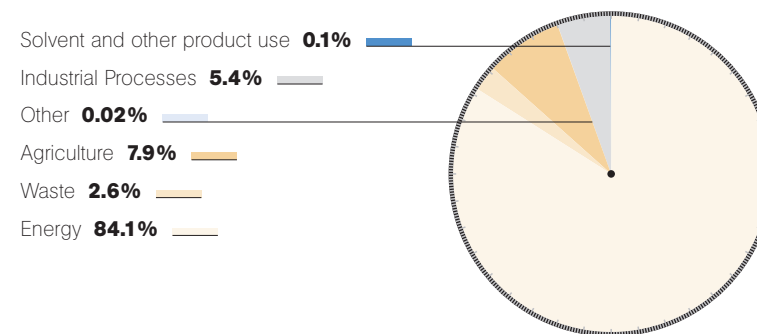
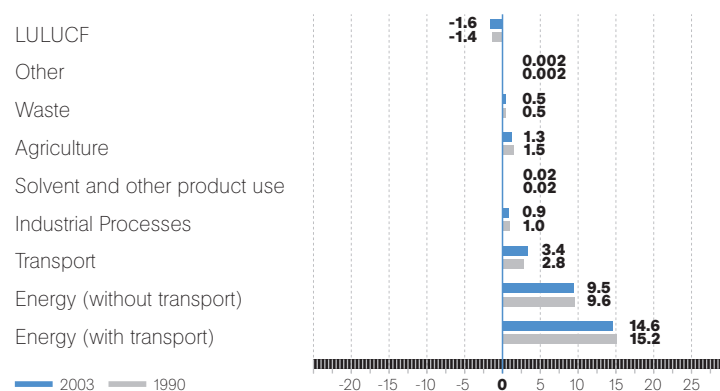


Figure II-15. Sectoral GHG emissions from Annex I Parties taken together, 1990 and 2003

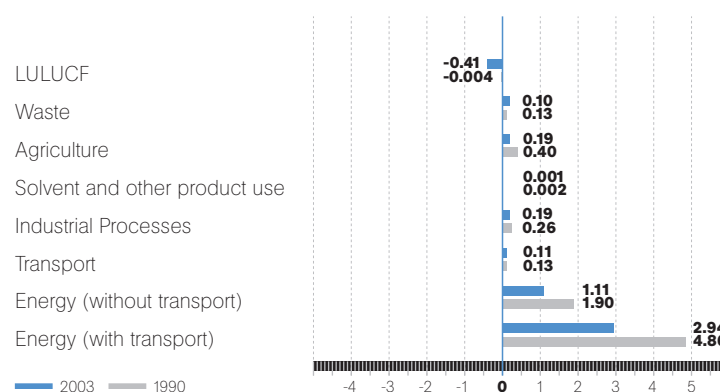
GHG totals by sector (1,000 Tg CO₂ equivalent)



Note: For "transport" and "Energy (without transport)" Belarus and Russian Federation are not included because of the lack of data.

Figure II-16. Sectoral GHG emissions from EIT Parties taken together, 1990 and 2003

GHG totals by sector (1,000 Tg CO₂ equivalent)



Note: For "transport" and "Energy (without transport)" Belarus and Russian Federation are not included because of the lack of data.

Figure II-17. Sectoral GHG emissions from non-EIT Parties taken together, 1990 and 2003

GHG totals by sector (1,000 Tg CO₂ equivalent)

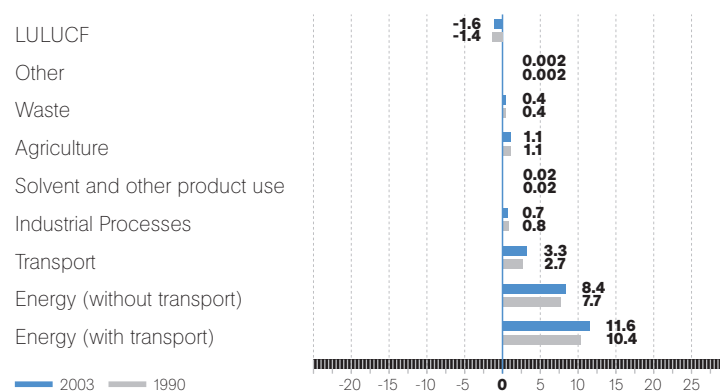
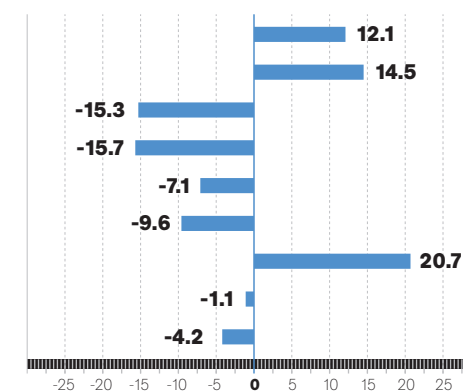


Figure II-18. Changes in sectoral GHG emissions from Annex I Parties taken together, 1990 – 2003 (%)

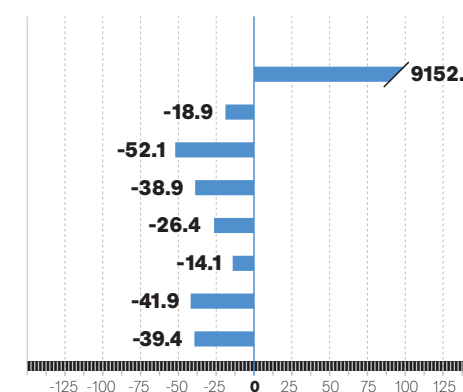
LULUCF
Other
Waste
Agriculture
Solvent and other product use
Industrial Processes
Transport
Energy (without transport)
Energy (with transport)



Note: For "transport" and "Energy (without transport)" Belarus and Russian Federation are not included because of the lack of data.

Figure II-19. Changes in sectoral GHG emissions from EIT Parties taken together, 1990 – 2003 (%)

LULUCF
Waste
Agriculture
Solvent and other product use
Industrial Processes
Transport
Energy (without transport)
Energy (with transport)



Note: For "transport" and "Energy (without transport)" Belarus and Russian Federation are not included because of the lack of data.

Figure II-20. Changes in sectoral GHG emissions from non-EIT Parties taken together, 1990 – 2003 (%)

LULUCF
Other
Waste
Agriculture
Solvent and other product use
Industrial Processes
Transport
Energy (without transport)
Energy (with transport)

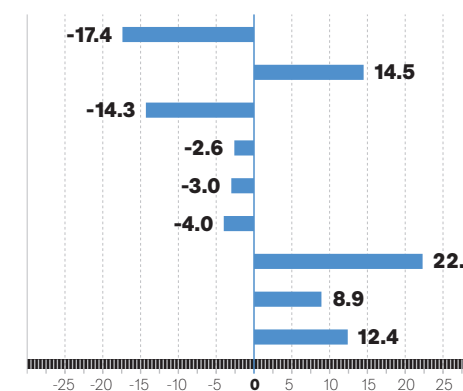


Table II-23.

GHG emissions from Annex I Parties – the energy sector (with transport), 1990 – 2003

Total emissions (Tg CO₂ equivalent)

Party	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Australia	286.07	287.93	294.00	296.88	301.91	313.28	322.96	330.74	349.15	356.31	363.56	368.01	370.07	374.28
Austria	54.95	58.77	53.93	54.57	54.54	57.20	61.02	60.28	60.29	58.87	59.01	62.93	64.03	69.33
Belarus	103.32	99.70	96.30	79.80	65.70	60.55	59.90	60.20	57.30	55.19	50.74	53.87	53.28	54.07
Belgium	113.13	117.16	115.59	114.63	116.80	116.89	121.66	115.87	121.00	115.70	116.99	117.13	116.21	119.51
Bulgaria	98.28	68.53	62.31	64.77	61.61	64.58	63.07	61.67	55.41	50.90	50.13	51.94	49.24	53.47
Canada	468.86	460.66	477.78	477.81	493.93	508.35	522.49	533.61	542.59	557.66	581.91	575.96	583.26	600.16
Croatia	22.49	16.52	15.48	16.55	15.52	16.39	17.11	18.08	18.91	19.29	18.84	19.27	20.54	22.64
Czech Republic	171.02	–	145.15	–	135.78	136.69	137.91	142.43	132.67	125.27	132.47	130.27	125.30	123.40
Denmark	52.39	63.06	57.13	59.54	63.31	60.42	74.00	64.27	60.15	57.35	52.80	54.46	54.12	59.32
Estonia	38.83	36.61	26.73	20.96	21.87	19.89	20.95	20.87	18.72	17.15	17.31	17.59	17.73	19.65
European Community	3,310.47	3,343.61	3,272.94	3,220.59	3,202.60	3,235.29	3,315.63	3,252.94	3,292.16	3,264.02	3,280.24	3,347.34	3,339.46	3,393.32
Finland	55.70	55.50	53.62	54.74	61.03	58.22	63.67	62.94	60.05	59.63	57.31	63.08	64.89	73.04
France	385.36	413.10	406.89	387.67	381.46	387.57	401.99	395.50	414.90	404.59	398.38	404.17	396.10	401.69
Germany	1,036.62	998.56	949.64	937.69	918.92	913.92	936.13	902.83	892.63	863.52	863.65	876.78	866.64	866.53
Greece	81.70	81.52	82.66	82.91	84.93	84.63	87.04	91.62	96.60	95.71	101.61	103.87	103.85	107.72
Hungary	86.31	71.40	65.02	65.64	64.14	63.53	64.98	63.22	62.75	62.70	59.99	61.80	60.35	63.24
Iceland	1.70	1.66	1.78	1.84	1.81	1.82	1.91	1.97	1.93	1.97	1.87	1.84	1.92	1.86
Ireland	31.03	31.78	32.36	32.01	33.24	33.97	35.26	37.47	39.52	41.54	43.12	45.35	44.44	43.66
Italy	418.96	419.07	417.40	414.93	408.19	436.00	430.32	434.27	444.32	451.53	457.83	461.68	461.52	476.89
Japan	1,058.26	1,065.38	1,081.42	1,072.17	1,128.04	1,142.42	1,163.85	1,171.36	1,129.06	1,163.23	1,172.10	1,149.87	1,186.25	1,198.85
Latvia	18.76	17.33	13.61	12.31	11.70	9.35	9.54	9.06	8.43	7.65	7.12	7.68	7.56	7.61
Liechtenstein	0.23	–	–	–	–	–	–	–	–	–	–	–	–	0.24
Lithuania	37.67	–	–	–	–	–	–	–	14.88	–	–	12.63	11.65	12.04
Luxembourg	12.21	–	–	–	11.62	9.21	–	–	7.17	4.86	8.36	4.98	9.56	10.09
Monaco	0.10	0.11	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.13	0.13	0.13	0.13	0.13
Netherlands	152.90	158.04	156.77	161.50	160.77	164.65	172.58	164.50	166.95	161.53	163.64	169.80	169.44	172.45
New Zealand	23.59	23.87	25.63	24.90	25.13	25.07	26.12	28.51	27.05	28.38	28.91	30.83	30.86	32.32
Norway	29.28	28.86	29.22	30.40	32.09	32.01	35.09	35.20	35.02	36.18	35.56	37.61	37.09	39.17
Poland	492.47	379.65	380.03	375.53	384.14	360.75	386.80	373.99	347.62	338.77	321.91	327.22	318.49	–
Portugal	40.40	42.19	46.52	45.11	45.62	48.90	46.31	48.82	53.07	60.51	59.00	59.80	63.68	59.27
Romania	181.14	135.54	131.04	131.60	126.58	130.98	138.10	120.58	105.98	92.15	94.57	99.02	104.50	110.60
Russian Federation	2,722.29	2,504.15	2,319.14	2,121.75	1,922.74	1,847.49	1,753.10	1,694.92	1,666.98	1,669.98	–	–	–	–
Slovakia	57.68	51.14	47.35	44.47	41.46	42.76	43.36	43.57	41.89	40.77	38.70	41.10	40.65	41.53
Slovenia	15.66	13.27	13.30	13.89	13.68	14.55	15.37	15.83	15.58	14.91	14.98	15.91	16.03	15.79
Spain	212.60	220.05	230.00	220.60	230.22	240.96	228.61	247.69	254.62	278.65	290.47	292.44	312.52	312.79
Sweden	53.75	54.32	54.27	53.90	56.33	55.15	59.00	54.67	55.36	52.79	50.27	51.13	52.69	53.64
Switzerland	40.97	43.07	43.18	40.89	40.02	40.92	41.68	41.09	42.29	42.37	41.24	42.05	41.25	42.37
Ukraine	812.17	802.84	717.22	637.17	515.61	493.48	470.04	438.47	378.20	371.06	370.05	390.51	395.01	429.10
United Kingdom of Great Britain and Northern Ireland	610.37	619.56	604.71	589.74	575.62	567.67	588.35	564.11	565.53	554.23	557.80	576.05	559.70	567.33
United States of America	5,141.73	5,114.03	5,207.23	5,319.27	5,406.42	5,455.28	5,640.75	5,712.78	5,737.74	5,802.63	5,985.34	5,877.34	5,920.72	5,963.35

Note: base year data are used here instead of 1990 data (as per COP decisions 9/CP.2 and 11/CP.4) for Bulgaria (1988), Hungary (average of 1985 – 1987), Poland (1988), Romania (1989) and Slovenia (1986).

II. GHG DATA FOR ANNEX I PARTIES E. Data by sector

Table II-24.

Changes in GHG emissions from Annex I Parties – the energy sector (with transport), 1990 – 2003

Change compared to the 1990 level (%)

Party	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Australia	0.7	2.8	3.8	5.5	9.5	12.9	15.6	22.1	24.6	27.1	28.6	29.4	30.8
Austria	7.0	-1.8	-0.7	-0.7	4.1	11.1	9.7	9.7	7.1	7.4	14.5	16.5	26.2
Belarus	-3.5	-6.8	-22.8	-36.4	-41.4	-42.0	-41.7	-44.5	-46.6	-50.9	-47.9	-48.4	-47.7
Belgium	3.6	2.2	1.3	3.2	3.3	7.5	2.4	7.0	2.3	3.4	3.5	2.7	5.6
Bulgaria	-30.3	-36.6	-34.1	-37.3	-34.3	-35.8	-37.2	-43.6	-48.2	-49.0	-47.1	-49.9	-45.6
Canada	-1.7	1.9	1.9	5.3	8.4	11.4	13.8	15.7	18.9	24.1	22.8	24.4	28.0
Croatia	-26.6	-31.2	-26.4	-31.0	-27.1	-23.9	-19.6	-15.9	-14.2	-16.2	-14.3	-8.7	0.7
Czech Republic	-	-15.1	-	-20.6	-20.1	-19.4	-16.7	-22.4	-26.7	-22.5	-23.8	-26.7	-27.8
Denmark	20.4	9.0	13.7	20.8	15.3	41.2	22.7	14.8	9.5	0.8	3.9	3.3	13.2
Estonia	-5.7	-31.1	-46.0	-43.7	-48.8	-46.1	-46.2	-51.8	-55.8	-55.4	-54.7	-54.3	-49.4
European Community	1.0	-1.1	-2.7	-3.3	-2.3	0.2	-1.7	-0.6	-1.4	-0.9	1.1	0.9	2.5
Finland	-0.4	-3.7	-1.7	9.6	4.5	14.3	13.0	7.8	7.0	2.9	13.2	16.5	31.1
France	7.2	5.6	0.6	-1.0	0.6	4.3	2.6	7.7	5.0	3.4	4.9	2.8	4.2
Germany	-3.7	-8.4	-9.5	-11.4	-11.8	-9.7	-12.9	-13.9	-16.7	-16.7	-15.4	-16.4	-16.4
Greece	-0.2	1.2	1.5	4.0	3.6	6.5	12.1	18.2	17.1	24.4	27.1	27.1	31.8
Hungary	-17.3	-24.7	-23.9	-25.7	-26.4	-24.7	-26.8	-27.3	-27.4	-30.5	-28.4	-30.1	-26.7
Iceland	-2.7	4.6	8.2	6.1	6.7	12.2	15.5	13.3	15.7	9.9	8.3	12.5	9.2
Ireland	2.4	4.3	3.2	7.1	9.5	13.6	20.8	27.4	33.9	39.0	46.2	43.2	40.7
Italy	0.0	-0.4	-1.0	-2.6	4.1	2.7	3.7	6.1	7.8	9.3	10.2	10.2	13.8
Japan	0.7	2.2	1.3	6.6	8.0	10.0	10.7	6.7	9.9	10.8	8.7	12.1	13.3
Latvia	-7.6	-27.4	-34.4	-37.6	-50.2	-49.2	-51.7	-55.1	-59.2	-62.0	-59.1	-59.7	-59.4
Liechtenstein	-	-	-	-	-	-	-	-	-	-	-	-	5.8
Lithuania	-	-	-	-	-	-	-	-60.5	-	-	-66.5	-69.1	-68.0
Luxembourg	-	-	-	-4.9	-24.6	-	-	-41.3	-60.2	-31.6	-59.2	-21.7	-17.4
Monaco	16.8	23.7	25.1	27.4	23.9	29.9	29.8	24.9	33.1	34.8	40.3	36.0	37.6
Netherlands	3.4	2.5	5.6	5.1	7.7	12.9	7.6	9.2	5.6	7.0	11.1	10.8	12.8
New Zealand	1.2	8.6	5.5	6.5	6.3	10.7	20.8	14.6	20.3	22.5	30.7	30.8	37.0
Norway	-1.5	-0.2	3.8	9.6	9.3	19.8	20.2	19.6	23.5	21.4	28.4	26.7	33.8
Poland	-22.9	-22.8	-23.7	-22.0	-26.7	-21.5	-24.1	-29.4	-31.2	-34.6	-33.6	-35.3	-
Portugal	4.4	15.1	11.7	12.9	21.0	14.6	20.8	31.4	49.8	46.0	48.0	57.6	46.7
Romania	-25.2	-27.7	-27.3	-30.1	-27.7	-23.8	-33.4	-41.5	-49.1	-47.8	-45.3	-42.3	-38.9
Russian Federation	-8.0	-14.8	-22.1	-29.4	-32.1	-35.6	-37.7	-38.8	-38.7	-	-	-	-
Slovakia	-11.3	-17.9	-22.9	-28.1	-25.9	-24.8	-24.5	-27.4	-29.3	-32.9	-28.7	-29.5	-28.0
Slovenia	-15.3	-15.1	-11.3	-12.6	-7.1	-1.8	1.1	-0.5	-4.8	-4.3	1.6	2.4	0.8
Spain	3.5	8.2	3.8	8.3	13.3	7.5	16.5	19.8	31.1	36.6	37.6	47.0	47.1
Sweden	1.1	1.0	0.3	4.8	2.6	9.8	1.7	3.0	-1.8	-6.5	-4.9	-2.0	-0.2
Switzerland	5.1	5.4	-0.2	-2.3	-0.1	1.7	0.3	3.2	3.4	0.7	2.6	0.7	3.4
Ukraine	-1.1	-11.7	-21.5	-36.5	-39.2	-42.1	-46.0	-53.4	-54.3	-54.4	-51.9	-51.4	-47.2
United Kingdom of Great Britain and Northern Ireland	1.5	-0.9	-3.4	-5.7	-7.0	-3.6	-7.6	-7.3	-9.2	-8.6	-5.6	-8.3	-7.1
United States of America	-0.5	1.3	3.5	5.1	6.1	9.7	11.1	11.6	12.9	16.4	14.3	15.2	16.0

II. GHG DATA FOR ANNEX I PARTIES E. Data by sector

Table II-25.

GHG emissions from Annex I Parties – the energy sector (without transport), 1990 – 2003

Total emissions (Tg CO₂ equivalent)

Party	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Australia	224.16	226.35	231.06	232.48	235.68	244.19	251.36	257.59	275.66	281.65	286.54	290.96	291.00	294.51
Austria	42.31	44.47	39.66	40.10	40.09	42.38	44.63	44.98	42.76	41.96	40.98	43.74	42.75	46.34
Belarus	–	–	–	–	–	–	–	–	–	–	–	48.37	46.71	47.21
Belgium	92.95	96.31	93.23	92.10	94.67	94.64	98.96	92.88	97.29	91.56	92.37	91.87	90.61	93.30
Bulgaria	84.30	61.93	55.79	57.23	54.98	57.65	56.69	56.29	48.86	44.62	44.19	45.87	42.86	46.30
Canada	319.99	316.45	329.55	325.68	334.10	344.31	354.77	359.60	365.10	375.76	398.68	394.80	400.08	412.36
Croatia	18.42	13.58	12.67	13.56	12.36	13.00	13.37	13.97	14.64	14.77	14.31	14.56	15.50	17.17
Czech Republic	163.60	–	137.55	–	127.98	126.90	127.39	130.34	121.41	112.73	120.81	117.62	112.23	109.30
Denmark	41.74	51.92	45.83	48.03	51.31	48.24	61.59	51.70	47.53	44.65	40.23	41.85	41.33	46.04
Estonia	36.12	33.51	25.23	19.24	20.34	18.78	19.90	19.65	17.36	15.94	16.27	15.66	15.55	17.49
European Community	2,605.79	2,623.12	2,525.83	2,465.16	2,443.03	2,464.97	2,527.47	2,455.10	2,469.12	2,420.73	2,434.95	2,491.76	2,473.33	2,521.01
Finland	43.11	43.20	41.35	42.90	48.81	46.18	51.66	50.36	47.26	46.57	44.35	49.97	51.52	59.39
France	263.83	288.92	277.98	258.65	251.03	254.94	267.63	258.77	275.76	262.14	256.32	258.59	249.50	255.44
Germany	869.84	827.70	772.60	755.41	740.27	731.30	753.32	719.52	706.15	671.55	675.86	693.44	685.51	691.85
Greece	66.06	65.09	66.11	65.82	67.75	67.32	69.23	73.18	76.49	75.40	81.81	83.31	83.01	85.87
Hungary	78.34	64.06	57.92	58.54	57.14	56.40	57.88	55.63	54.10	53.64	51.00	52.42	50.51	53.07
Iceland	1.10	1.04	1.15	1.21	1.17	1.20	1.31	1.34	1.30	1.31	1.21	1.17	1.24	1.16
Ireland	25.88	26.38	26.54	26.16	27.15	27.39	27.86	29.41	30.31	31.28	32.49	33.82	32.76	31.81
Italy	314.61	312.16	306.05	301.76	295.04	320.86	313.81	315.90	321.83	327.54	333.34	334.84	332.30	346.49
Japan	842.38	837.87	845.80	834.23	881.00	885.69	898.92	902.95	864.26	894.56	907.31	882.65	924.05	938.97
Latvia	16.22	15.55	11.96	10.25	9.91	7.44	7.45	6.97	6.38	5.64	4.93	5.03	4.91	4.92
Liechtenstein	0.14	–	–	–	–	–	–	–	–	–	–	–	–	0.15
Lithuania	31.79	–	–	–	–	–	–	–	10.86	–	–	9.07	7.98	8.41
Luxembourg	9.57	–	–	–	7.90	5.75	–	–	3.13	3.47	3.32	3.41	4.07	4.00
Monaco	0.06	0.07	0.07	0.07	0.08	0.07	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
Netherlands	126.46	131.30	128.72	132.81	131.58	134.90	142.08	133.60	135.30	128.93	130.70	136.36	135.30	137.75
New Zealand	14.74	15.01	16.38	15.22	14.75	13.98	14.95	17.03	15.38	16.48	16.42	17.97	17.43	18.33
Norway	17.95	17.60	17.73	18.26	20.08	19.55	21.94	21.75	21.17	21.66	21.88	23.53	23.17	24.61
Poland	463.68	351.29	348.94	347.32	354.04	334.88	358.06	346.72	318.82	306.66	293.01	296.38	288.23	–
Portugal	30.06	31.23	34.69	32.82	32.76	35.40	32.13	33.92	36.42	42.91	39.62	40.16	43.57	39.10
Romania	173.83	127.91	121.63	123.30	117.74	122.88	126.69	109.03	95.13	83.58	85.23	88.15	92.53	98.57
Russian Federation	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Slovakia	52.51	46.78	43.33	40.50	37.20	38.22	38.74	38.76	36.73	35.74	34.20	35.99	34.82	36.16
Slovenia	13.65	10.71	10.66	10.85	10.32	10.84	11.06	11.45	11.78	11.28	11.19	11.97	12.06	11.68
Spain	155.07	160.20	166.32	157.60	164.25	173.95	156.90	175.22	175.16	194.41	203.51	201.21	219.10	214.69
Sweden	34.80	35.66	34.70	35.17	36.98	35.65	39.69	35.13	35.51	32.58	30.21	30.90	32.05	32.73
Switzerland	26.59	28.17	27.96	26.74	25.67	26.89	27.59	26.40	27.38	26.85	25.43	26.54	25.85	26.78
Ukraine	770.98	793.68	684.36	608.93	489.71	467.38	444.05	397.51	367.58	366.50	357.22	378.70	381.86	415.42
United Kingdom of Great Britain and Northern Ireland	491.19	500.95	484.60	468.12	453.44	446.16	461.87	436.26	438.20	425.77	429.84	448.30	429.90	436.09
United States of America	3,647.34	3,643.11	3,702.32	3,782.40	3,825.88	3,846.79	3,989.19	4,051.37	4,046.23	4,054.78	4,192.31	4,106.91	4,121.27	4,152.77

Note: base year data are used here instead of 1990 data (as per COP decisions 9/CP.2 and 11/CP.4) for Bulgaria (1988), Hungary (average of 1985 – 1987), Poland (1988), Romania (1989) and Slovenia (1986).

II. GHG DATA FOR ANNEX I PARTIES E. Data by sector

Table II-26.

Changes in GHG emissions from Annex I Parties – the energy sector (without transport), 1990 – 2003

Change compared to the 1990 level (%)

Party	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Australia	1.0	3.1	3.7	5.1	8.9	12.1	14.9	23.0	25.6	27.8	29.8	29.8	31.4
Austria	5.1	-6.3	-5.2	-5.2	0.2	5.5	6.3	1.1	-0.8	-3.2	3.4	1.0	9.5
Belarus	-	-	-	-	-	-	-	-	-	-	-	-	-
Belgium	3.6	0.3	-0.9	1.8	1.8	6.5	-0.1	4.7	-1.5	-0.6	-1.2	-2.5	0.4
Bulgaria	-26.5	-33.8	-32.1	-34.8	-31.6	-32.8	-33.2	-42.0	-47.1	-47.6	-45.6	-49.2	-45.1
Canada	-1.1	3.0	1.8	4.4	7.6	10.9	12.4	14.1	17.4	24.6	23.4	25.0	28.9
Croatia	-26.3	-31.2	-26.4	-32.9	-29.4	-27.4	-24.1	-20.5	-19.8	-22.3	-20.9	-15.9	-6.8
Czech Republic	-	-15.9	-	-21.8	-22.4	-22.1	-20.3	-25.8	-31.1	-26.2	-28.1	-31.4	-33.2
Denmark	24.4	9.8	15.1	22.9	15.6	47.5	23.9	13.9	7.0	-3.6	0.3	-1.0	10.3
Estonia	-7.2	-30.2	-46.7	-43.7	-48.0	-44.9	-45.6	-51.9	-55.9	-55.0	-56.7	-57.0	-51.6
European Community	0.7	-3.1	-5.4	-6.2	-5.4	-3.0	-5.8	-5.2	-7.1	-6.6	-4.4	-5.1	-3.3
Finland	0.2	-4.1	-0.5	13.2	7.1	19.8	16.8	9.6	8.0	2.9	15.9	19.5	37.8
France	9.5	5.4	-2.0	-4.9	-3.4	1.4	-1.9	4.5	-0.6	-2.8	-2.0	-5.4	-3.2
Germany	-4.8	-11.2	-13.2	-14.9	-15.9	-13.4	-17.3	-18.8	-22.8	-22.3	-20.3	-21.2	-20.5
Greece	-1.5	0.1	-0.4	2.6	1.9	4.8	10.8	15.8	14.1	23.8	26.1	25.7	30.0
Hungary	-18.2	-26.1	-25.3	-27.1	-28.0	-26.1	-29.0	-30.9	-31.5	-34.9	-33.1	-35.5	-32.3
Iceland	-5.3	5.1	10.7	7.2	9.9	19.3	22.7	19.0	19.9	10.7	7.2	13.4	6.2
Ireland	1.9	2.5	1.1	4.9	5.8	7.7	13.6	17.1	20.8	25.5	30.7	26.6	22.9
Italy	-0.8	-2.7	-4.1	-6.2	2.0	-0.3	0.4	2.3	4.1	6.0	6.4	5.6	10.1
Japan	-0.5	0.4	-1.0	4.6	5.1	6.7	7.2	2.6	6.2	7.7	4.8	9.7	11.5
Latvia	-4.1	-26.3	-36.8	-38.9	-54.1	-54.1	-57.0	-60.7	-65.2	-69.6	-69.0	-69.7	-69.6
Liechtenstein	-	-	-	-	-	-	-	-	-	-	-	-	6.5
Lithuania	-	-	-	-	-	-	-	-65.8	-	-	-71.5	-74.9	-73.5
Luxembourg	-	-	-	-17.5	-40.0	-	-	-67.3	-63.7	-65.3	-64.3	-57.4	-58.2
Monaco	17.2	19.7	27.8	29.0	25.7	36.1	36.3	31.0	39.9	40.7	42.6	39.6	39.3
Netherlands	3.8	1.8	5.0	4.0	6.7	12.4	5.6	7.0	2.0	3.4	7.8	7.0	8.9
New Zealand	1.8	11.1	3.3	0.1	-5.2	1.4	15.6	4.4	11.8	11.4	21.9	18.3	24.4
Norway	-2.0	-1.2	1.7	11.9	8.9	22.2	21.2	17.9	20.6	21.9	31.1	29.1	37.1
Poland	-24.2	-24.7	-25.1	-23.6	-27.8	-22.8	-25.2	-31.2	-33.9	-36.8	-36.1	-37.8	-
Portugal	3.9	15.4	9.2	9.0	17.8	6.9	12.8	21.2	42.7	31.8	33.6	44.9	30.1
Romania	-26.4	-30.0	-29.1	-32.3	-29.3	-27.1	-37.3	-45.3	-51.9	-51.0	-49.3	-46.8	-43.3
Russian Federation	-	-	-	-	-	-	-	-	-	-	-	-	-
Slovakia	-10.9	-17.5	-22.9	-29.2	-27.2	-26.2	-26.2	-30.0	-31.9	-34.9	-31.5	-33.7	-31.1
Slovenia	-21.6	-21.9	-20.5	-24.4	-20.6	-19.0	-16.1	-13.7	-17.4	-18.0	-12.3	-11.6	-14.4
Spain	3.3	7.3	1.6	5.9	12.2	1.2	13.0	13.0	25.4	31.2	29.8	41.3	38.4
Sweden	2.5	-0.3	1.0	6.3	2.4	14.0	1.0	2.0	-6.4	-13.2	-11.2	-7.9	-6.0
Switzerland	6.0	5.2	0.6	-3.4	1.1	3.8	-0.7	3.0	1.0	-4.3	-0.2	-2.8	0.7
Ukraine	2.9	-11.2	-21.0	-36.5	-39.4	-42.4	-48.4	-52.3	-52.5	-53.7	-50.9	-50.5	-46.1
United Kingdom of Great Britain and Northern Ireland	2.0	-1.3	-4.7	-7.7	-9.2	-6.0	-11.2	-10.8	-13.3	-12.5	-8.7	-12.5	-11.2
United States of America	-0.1	1.5	3.7	4.9	5.5	9.4	11.1	10.9	11.2	14.9	12.6	13.0	13.9

II. GHG DATA FOR ANNEX I PARTIES E. Data by sector

Table II-27.

GHG emissions from Annex I Parties – transport, 1990 – 2003**Total emissions (Tg CO₂ equivalent)**

Party	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Australia	61.91	61.58	62.94	64.40	66.23	69.09	71.60	73.15	73.49	74.66	77.02	77.05	79.07	79.77
Austria	12.64	14.29	14.27	14.47	14.45	14.83	16.39	15.30	17.52	16.91	18.04	19.18	21.28	23.00
Belarus	–	–	–	–	–	–	–	–	–	–	–	5.51	6.57	6.86
Belgium	20.18	20.85	22.36	22.53	22.13	22.25	22.70	22.99	23.71	24.14	24.61	25.26	25.60	26.21
Bulgaria	13.98	6.60	6.52	7.54	6.63	6.93	6.38	5.38	6.54	6.28	5.94	6.07	6.38	7.17
Canada	148.87	144.22	148.23	152.12	159.83	164.04	167.72	174.01	177.50	181.90	183.23	181.17	183.17	187.80
Croatia	4.07	2.94	2.81	2.99	3.17	3.39	3.74	4.11	4.27	4.52	4.53	4.71	5.04	5.47
Czech Republic	742	–	760	–	780	9.79	10.52	12.08	11.25	12.55	11.67	12.65	13.07	14.10
Denmark	10.64	11.15	11.30	11.52	12.00	12.17	12.40	12.57	12.61	12.70	12.57	12.61	12.79	13.28
Estonia	2.71	3.09	1.51	1.72	1.53	1.11	1.05	1.22	1.36	1.21	1.04	1.93	2.19	2.16
European Community	704.68	720.49	747.11	755.43	759.57	770.31	788.16	797.85	823.03	843.29	845.29	855.59	866.13	872.31
Finland	12.59	12.30	12.26	11.84	12.22	12.04	12.01	12.58	12.79	13.05	12.96	13.11	13.37	13.66
France	121.54	124.18	128.91	129.02	130.43	132.63	134.36	136.72	139.15	142.46	142.05	145.58	146.60	146.25
Germany	166.77	170.86	177.04	182.27	178.65	182.62	182.81	183.31	186.48	191.97	187.79	183.33	181.13	174.69
Greece	15.64	16.43	16.55	17.09	17.19	17.32	17.81	18.43	20.11	20.31	19.80	20.55	20.84	21.86
Hungary	7.98	7.34	7.11	7.10	7.00	7.13	7.10	7.59	8.66	9.06	9.00	9.38	9.84	10.17
Iceland	0.61	0.62	0.63	0.63	0.63	0.62	0.61	0.62	0.63	0.66	0.66	0.67	0.67	0.70
Ireland	5.14	5.40	5.83	5.85	6.09	6.58	7.39	8.06	9.22	10.26	10.64	11.53	11.68	11.85
Italy	104.36	106.91	111.35	113.17	113.15	115.15	116.51	118.38	122.49	123.99	124.49	126.84	129.22	130.40
Japan	215.88	227.52	235.62	237.95	247.04	256.73	264.93	268.40	264.80	268.67	264.78	267.22	262.20	259.89
Latvia	2.54	1.78	1.66	2.05	1.79	1.91	2.09	2.09	2.05	2.01	2.19	2.65	2.65	2.68
Liechtenstein	0.09	–	–	–	–	–	–	–	–	–	–	–	–	0.10
Lithuania	5.88	–	–	–	–	–	–	–	4.02	–	–	3.56	3.67	3.63
Luxembourg	2.64	–	–	–	3.72	3.46	–	–	4.04	1.39	5.04	1.57	5.49	6.08
Monaco	0.04	0.04	0.05	0.05	0.05	0.05	0.05	0.04	0.04	0.05	0.05	0.05	0.05	0.05
Netherlands	26.44	26.74	28.05	28.69	29.19	29.74	30.51	30.90	31.64	32.60	32.93	33.44	34.14	34.70
New Zealand	8.86	8.87	9.26	9.68	10.38	11.09	11.17	11.48	11.66	11.90	12.49	12.86	13.43	13.99
Norway	11.33	11.26	11.49	12.14	12.01	12.45	13.15	13.45	13.85	14.52	13.68	14.08	13.92	14.56
Poland	28.79	28.36	31.09	28.22	30.10	25.87	28.74	27.27	28.80	32.11	28.90	30.85	30.26	–
Portugal	10.34	10.96	11.83	12.29	12.85	13.50	14.18	14.90	16.65	17.60	19.37	19.64	20.12	20.17
Romania	7.31	7.64	9.40	8.30	8.83	8.10	11.41	11.56	10.85	8.56	9.34	10.86	11.97	12.03
Russian Federation	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Slovakia	5.17	4.36	4.02	3.97	4.27	4.54	4.62	4.81	5.16	5.02	4.51	5.11	5.83	5.37
Slovenia	2.01	2.56	2.63	3.04	3.36	3.71	4.31	4.38	3.80	3.64	3.79	3.94	3.96	4.11
Spain	57.53	59.84	63.69	63.00	65.97	67.01	71.71	72.47	79.45	84.24	86.97	91.23	93.42	98.10
Sweden	18.94	18.66	19.57	18.74	19.35	19.50	19.31	19.54	19.85	20.21	20.06	20.23	20.65	20.91
Switzerland	14.38	14.90	15.21	14.15	14.35	14.04	14.09	14.69	14.91	15.52	15.81	15.51	15.41	15.59
Ukraine	41.19	9.16	32.86	28.24	25.89	26.11	25.99	40.95	10.62	4.56	12.82	11.81	13.15	13.67
United Kingdom of Great Britain and Northern Ireland	119.17	118.62	120.11	121.62	122.18	121.51	126.48	127.85	127.33	128.45	127.96	127.75	129.81	131.24
United States of America	1,494.39	1,470.93	1,504.91	1,536.86	1,580.54	1,608.49	1,651.56	1,661.41	1,691.50	1,747.85	1,793.03	1,770.44	1,799.45	1,810.59

Note: base year data are used here instead of 1990 data (as per COP decisions 9/CP.2 and 11/CP.4) for Bulgaria (1988), Hungary (average of 1985 – 1987), Poland (1988), Romania (1989) and Slovenia (1986).

II. GHG DATA FOR ANNEX I PARTIES **E. Data by sector**

Table II-28.

Changes in GHG emissions from Annex I Parties – transport, 1990 – 2003

Change compared to the 1990 level (%)

Party	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Australia	-0.5	1.7	4.0	7.0	11.6	15.7	18.2	18.7	20.6	24.4	24.5	27.7	28.8
Austria	13.1	12.9	14.5	14.3	17.3	29.7	21.1	38.7	33.8	42.7	51.8	68.4	82.0
Belarus	-	-	-	-	-	-	-	-	-	-	-	-	-
Belgium	3.3	10.8	11.6	9.7	10.3	12.5	13.9	17.5	19.6	22.0	25.2	26.8	29.9
Bulgaria	-52.8	-53.4	-46.1	-52.6	-50.4	-54.3	-61.5	-53.2	-55.1	-57.5	-56.6	-54.4	-48.7
Canada	-3.1	-0.4	2.2	7.4	10.2	12.7	16.9	19.2	22.2	23.1	21.7	23.0	26.2
Croatia	-27.8	-31.0	-26.7	-22.1	-16.7	-8.0	0.9	4.9	11.0	11.3	15.7	23.8	34.4
Czech Republic	-	2.5	-	5.1	31.9	41.8	62.9	51.7	69.1	57.2	70.5	76.2	90.0
Denmark	4.7	6.2	8.2	12.8	14.3	16.5	18.1	18.5	19.3	18.1	18.4	20.2	24.7
Estonia	14.3	-44.4	-36.4	-43.5	-59.0	-61.1	-55.0	-49.8	-55.3	-61.7	-28.6	-19.2	-20.2
European Community	2.2	6.0	7.2	7.8	9.3	11.8	13.2	16.8	19.7	20.0	21.4	22.9	23.8
Finland	-2.3	-2.6	-6.0	-3.0	-4.4	-4.6	-0.1	1.6	3.7	2.9	4.1	6.2	8.4
France	2.2	6.1	6.2	7.3	9.1	10.6	12.5	14.5	17.2	16.9	19.8	20.6	20.3
Germany	2.4	6.2	9.3	7.1	9.5	9.6	9.9	11.8	15.1	12.6	9.9	8.6	4.7
Greece	5.0	5.8	9.2	9.8	10.7	13.8	17.8	28.5	29.8	26.6	31.4	33.2	39.7
Hungary	-8.0	-10.9	-11.0	-12.2	-10.6	-11.0	-4.9	8.5	13.5	12.7	17.5	23.4	27.5
Iceland	1.9	3.6	3.7	4.1	1.1	-0.5	2.5	3.0	8.0	8.4	10.2	10.8	14.8
Ireland	4.9	13.3	13.7	18.4	28.0	43.7	56.8	79.2	99.4	106.9	124.2	127.0	130.4
Italy	2.4	6.7	8.4	8.4	10.3	11.6	13.4	17.4	18.8	19.3	21.5	23.8	25.0
Japan	5.4	9.1	10.2	14.4	18.9	22.7	24.3	22.7	24.5	22.7	23.8	21.5	20.4
Latvia	-29.9	-34.7	-19.1	-29.6	-24.8	-17.9	-17.7	-19.2	-20.7	-13.7	4.3	4.3	5.7
Liechtenstein	-	-	-	-	-	-	-	-	-	-	-	-	4.7
Lithuania	-	-	-	-	-	-	-	-31.6	-	-	-39.5	-37.6	-38.3
Luxembourg	-	-	-	40.7	31.0	-	-	52.8	-47.4	90.6	-40.7	107.6	130.2
Monaco	16.1	29.9	20.8	24.9	21.1	20.2	19.6	15.3	22.7	25.7	36.8	30.5	34.9
Netherlands	1.1	6.1	8.5	10.4	12.5	15.4	16.9	19.7	23.3	24.6	26.5	29.1	31.3
New Zealand	0.1	4.5	9.3	17.2	25.3	26.1	29.6	31.7	34.4	41.0	45.2	51.7	57.9
Norway	-0.7	1.4	7.1	5.9	9.9	16.1	18.7	22.3	28.1	20.7	24.2	22.8	28.5
Poland	-1.5	8.0	-2.0	4.5	-10.2	-0.2	-5.3	0.0	11.5	0.4	7.1	5.1	-
Portugal	6.0	14.4	18.9	24.3	30.6	37.1	44.1	61.0	70.2	87.4	90.0	94.6	95.0
Romania	4.4	28.6	13.5	20.8	10.8	56.1	58.1	48.3	17.1	27.7	48.6	63.7	64.5
Russian Federation	-	-	-	-	-	-	-	-	-	-	-	-	-
Slovakia	-15.6	-22.1	-23.2	-17.5	-12.2	-10.7	-7.0	-0.2	-2.8	-12.8	-1.2	12.7	3.9
Slovenia	27.5	31.2	51.5	67.6	84.9	114.8	118.2	89.1	81.1	88.8	96.2	97.5	104.6
Spain	4.0	10.7	9.5	14.7	16.5	24.6	26.0	38.1	46.4	51.2	58.6	62.4	70.5
Sweden	-1.5	3.3	-1.1	2.1	2.9	1.9	3.1	4.8	6.7	5.9	6.8	9.0	10.4
Switzerland	3.6	5.8	-1.6	-0.2	-2.4	-2.0	2.1	3.7	7.9	9.9	7.8	7.1	8.4
Ukraine	-77.8	-20.2	-31.4	-37.1	-36.6	-36.9	-0.6	-74.2	-88.9	-68.9	-71.3	-68.1	-66.8
United Kingdom of Great Britain and Northern Ireland	-0.5	0.8	2.1	2.5	2.0	6.1	7.3	6.8	7.8	7.4	7.2	8.9	10.1
United States of America	-1.6	0.7	2.8	5.8	7.6	10.5	11.2	13.2	17.0	20.0	18.5	20.4	21.2

II. GHG DATA FOR ANNEX I PARTIES E. Data by sector

Table II-29.

GHG emissions from Annex I Parties – industrial processes, 1990 – 2003**Total emissions (Tg CO₂ equivalent)**

Party	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Australia	28.04	27.50	25.50	25.82	26.20	25.94	25.90	26.07	27.74	28.00	28.13	29.73	30.00	32.31
Austria	10.15	10.27	9.12	8.84	9.38	9.88	9.75	10.35	9.90	9.59	10.33	10.23	10.96	11.05
Belarus	2.23	2.13	2.06	1.89	1.38	1.18	1.28	1.56	1.76	1.74	1.62	1.60	1.81	2.04
Belgium	16.09	15.15	12.59	14.77	17.76	19.03	18.88	16.24	15.78	15.00	15.41	14.67	14.90	14.23
Bulgaria	10.42	6.29	5.30	5.14	6.07	7.40	7.28	6.57	4.59	4.62	5.46	5.36	4.86	5.53
Canada	54.39	55.22	53.56	54.36	56.60	57.31	58.38	57.90	55.28	52.69	52.36	50.75	50.97	52.01
Croatia	3.93	2.99	2.65	2.07	2.32	2.02	2.10	2.37	2.00	2.45	2.82	2.79	2.72	2.70
Czech Republic	4.71	–	4.32	–	3.85	3.82	3.61	3.70	3.94	3.44	3.45	5.71	5.45	11.31
Denmark	2.15	2.26	2.29	2.36	2.43	2.60	2.67	2.86	2.90	3.07	3.26	3.19	3.09	3.13
Estonia	0.61	0.61	0.31	0.19	0.21	0.22	0.21	0.23	0.37	0.35	0.35	0.36	0.34	0.28
European Community	313.39	300.95	292.08	283.22	301.60	312.99	314.63	320.38	298.03	265.50	265.54	259.45	257.62	265.03
Finland	3.05	2.66	2.36	2.32	2.46	2.51	2.62	2.74	2.72	2.91	3.15	3.25	3.11	3.45
France	57.11	55.24	53.03	50.57	51.26	52.40	52.63	53.36	47.05	41.43	40.63	41.33	40.71	41.69
Germany	60.16	57.45	61.06	60.53	65.04	66.23	65.21	63.30	50.53	45.08	42.86	43.40	44.22	47.69
Greece	8.67	8.65	8.53	9.31	9.79	11.40	12.01	12.59	12.80	13.64	12.81	12.36	12.40	12.58
Hungary	10.15	4.73	3.27	4.05	5.11	4.47	5.02	4.98	4.74	4.82	5.39	5.55	4.68	4.85
Iceland	0.86	0.76	0.56	0.53	0.50	0.53	0.50	0.61	0.62	0.75	0.64	0.51	0.45	0.43
Ireland	2.97	2.77	2.78	2.69	2.95	3.03	3.08	3.42	3.32	3.45	4.00	4.05	3.84	2.97
Italy	35.61	35.25	34.64	31.59	30.32	33.66	31.04	31.88	32.50	33.31	35.71	37.48	37.66	39.21
Japan	64.76	65.70	66.12	65.02	66.92	116.61	120.20	118.05	109.48	97.77	96.26	84.90	78.06	75.11
Latvia	0.50	0.35	0.16	0.06	0.20	0.17	0.18	0.21	0.21	0.25	0.20	0.22	0.24	0.25
Liechtenstein	–	–	–	–	–	–	–	–	–	–	–	–	–	0.00
Lithuania	2.64	–	–	–	–	–	–	–	2.71	–	–	3.18	2.72	1.59
Luxembourg	0.59	–	–	–	0.45	0.41	–	–	0.68	0.67	0.73	0.63	0.84	0.77
Monaco	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Netherlands	23.61	22.52	22.85	23.72	25.53	24.91	26.47	27.63	27.63	22.61	21.38	17.72	17.40	16.89
New Zealand	3.21	3.49	3.58	3.62	3.21	3.33	3.49	3.27	3.48	3.56	3.51	3.67	3.82	4.01
Norway	13.50	12.05	9.54	10.37	10.61	10.28	10.27	10.29	10.93	10.91	10.91	10.67	9.58	8.73
Poland	20.14	13.52	14.78	13.51	14.07	15.28	14.20	15.77	14.68	14.52	19.05	16.68	14.82	–
Portugal	4.61	4.58	4.34	4.20	5.01	5.75	5.50	6.17	6.40	6.07	5.90	6.40	6.77	6.64
Romania	50.78	20.44	21.28	19.89	19.29	22.36	21.35	19.68	17.20	13.50	15.10	13.45	14.32	15.01
Russian Federation	82.93	80.83	72.75	66.70	55.37	57.31	51.31	74.59	76.17	80.85	–	–	–	–
Slovakia	4.26	3.38	3.37	3.13	3.37	3.55	3.66	3.73	4.37	4.47	3.91	4.11	3.86	4.07
Slovenia	1.31	1.19	1.03	0.91	1.09	1.14	1.10	1.07	1.02	0.99	1.02	1.07	1.08	1.16
Spain	25.43	24.16	22.60	21.27	24.93	27.10	27.23	29.12	29.94	32.48	33.96	31.07	30.39	31.96
Sweden	5.68	5.61	5.34	5.39	5.65	5.80	5.71	5.60	5.68	5.45	5.60	5.77	5.66	5.88
Switzerland	3.23	2.87	2.71	2.38	2.52	2.48	2.32	2.27	2.34	2.38	2.65	2.73	2.66	2.69
Ukraine	65.71	56.44	55.07	42.38	33.11	29.03	27.44	30.82	35.99	38.42	40.45	40.44	40.13	45.45
United Kingdom of Great Britain and Northern Ireland	56.49	52.92	46.87	44.15	48.45	48.36	51.54	54.46	50.19	30.89	29.80	27.86	25.66	26.79
United States of America	299.90	280.01	281.15	283.39	293.15	305.44	321.14	327.05	334.93	329.24	332.06	304.68	315.42	308.59

Note: base year data are used here instead of 1990 data (as per COP decisions 9/CP.2 and 11/CP.4) for Bulgaria (1988), Hungary (average of 1985 – 1987), Poland (1988), Romania (1989) and Slovenia (1986).

II. GHG DATA FOR ANNEX I PARTIES **E. Data by sector**

Table II-30.

Changes in GHG emissions from Annex I Parties – industrial processes, 1990 – 2003

Change compared to the 1990 level (%)

Party	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Australia	-1.9	-9.1	-7.9	-6.6	-7.5	-7.6	-7.0	-1.1	-0.1	0.3	6.0	7.0	15.2
Austria	1.2	-10.2	-12.9	-7.6	-2.7	-3.9	1.9	-2.5	-5.5	1.7	0.8	8.0	8.8
Belarus	-4.2	-7.5	-15.0	-38.2	-47.1	-42.7	-30.0	-20.9	-21.8	-27.1	-28.4	-18.9	-8.3
Belgium	-5.9	-21.8	-8.2	10.4	18.3	17.4	0.9	-1.9	-6.8	-4.2	-8.8	-7.4	-11.5
Bulgaria	-39.6	-49.1	-50.7	-41.8	-29.0	-30.2	-37.0	-55.9	-55.7	-47.6	-48.6	-53.4	-47.0
Canada	1.5	-1.5	-0.1	4.1	5.4	7.3	6.4	1.6	-3.1	-3.7	-6.7	-6.3	-4.4
Croatia	-23.8	-32.5	-47.4	-41.1	-48.6	-46.7	-39.8	-49.1	-37.6	-28.4	-29.2	-30.9	-31.3
Czech Republic	-	-8.3	-	-18.3	-18.9	-23.2	-21.5	-16.3	-26.9	-26.8	21.2	15.8	140.1
Denmark	4.8	6.4	9.5	12.9	20.9	24.0	32.8	34.8	42.5	51.3	48.1	43.6	45.2
Estonia	0.2	-48.9	-68.5	-65.0	-63.9	-66.3	-63.2	-40.1	-43.5	-42.3	-42.1	-44.5	-55.0
European Community	-4.0	-6.8	-9.6	-3.8	-0.1	0.4	2.2	-4.9	-15.3	-15.3	-17.2	-17.8	-15.4
Finland	-12.7	-22.6	-23.8	-19.2	-17.5	-14.0	-9.9	-10.6	-4.4	3.4	6.8	2.1	13.2
France	-3.3	-7.1	-11.4	-10.2	-8.2	-7.8	-6.6	-17.6	-27.4	-28.8	-27.6	-28.7	-27.0
Germany	-4.5	1.5	0.6	8.1	10.1	8.4	5.2	-16.0	-25.1	-28.8	-27.9	-26.5	-20.7
Greece	-0.2	-1.6	7.4	12.9	31.5	38.5	45.2	47.7	57.3	47.7	42.5	43.0	45.1
Hungary	-53.4	-67.8	-60.1	-49.6	-56.0	-50.5	-50.9	-53.3	-52.5	-46.9	-45.3	-53.9	-52.2
Iceland	-12.3	-35.0	-38.5	-41.9	-38.6	-41.8	-29.3	-27.9	-12.4	-25.8	-41.0	-47.2	-49.6
Ireland	-6.7	-6.4	-9.3	-0.4	2.2	3.7	15.2	11.9	16.2	35.0	36.5	29.4	0.2
Italy	-1.0	-2.7	-11.3	-14.9	-5.5	-12.8	-10.5	-8.7	-6.5	0.3	5.2	5.8	10.1
Japan	1.4	2.1	0.4	3.3	80.1	85.6	82.3	69.1	51.0	48.6	31.1	20.5	16.0
Latvia	-30.2	-68.0	-88.3	-60.3	-66.3	-63.8	-59.3	-57.7	-50.4	-60.5	-56.2	-52.8	-50.7
Liechtenstein	-	-	-	-	-	-	-	-	-	-	-	-	-
Lithuania	-	-	-	-	-	-	-	2.6	-	-	20.5	3.1	-39.9
Luxembourg	-	-	-	-23.6	-30.6	-	-	17.1	14.6	24.5	6.9	43.0	32.4
Monaco	-	-	-	-	-	-	-	-	-	-	-	-	-
Netherlands	-4.6	-3.2	0.5	8.1	5.5	12.1	17.0	17.0	-4.2	-9.4	-24.9	-26.3	-28.5
New Zealand	8.6	11.4	12.6	-0.1	3.5	8.5	1.8	8.3	10.9	9.3	14.4	19.1	25.0
Norway	-10.8	-29.3	-23.2	-21.4	-23.9	-23.9	-23.8	-19.0	-19.2	-19.2	-20.9	-29.1	-35.4
Poland	-32.9	-26.6	-32.9	-30.1	-24.1	-29.5	-21.7	-27.1	-27.9	-5.4	-17.2	-26.4	-
Portugal	-0.8	-6.0	-8.9	8.6	24.7	19.2	33.7	38.6	31.5	27.9	38.6	46.8	43.9
Romania	-59.7	-58.1	-60.8	-62.0	-56.0	-58.0	-61.2	-66.1	-73.4	-70.3	-73.5	-71.8	-70.5
Russian Federation	-2.5	-12.3	-19.6	-33.2	-30.9	-38.1	-10.1	-8.1	-2.5	-	-	-	-
Slovakia	-20.8	-21.0	-26.6	-21.0	-16.7	-14.2	-12.6	2.4	4.9	-8.3	-3.7	-9.4	-4.6
Slovenia	-8.8	-20.8	-30.5	-16.4	-12.6	-16.0	-17.9	-22.0	-24.4	-22.1	-18.2	-17.1	-10.9
Spain	-5.0	-11.1	-16.3	-1.9	6.6	7.1	14.5	17.7	27.7	33.6	22.2	19.5	25.7
Sweden	-1.3	-6.0	-5.1	-0.6	2.2	0.5	-1.5	0.0	-4.0	-1.4	1.6	-0.4	3.6
Switzerland	-11.0	-16.1	-26.4	-22.0	-23.3	-28.0	-29.7	-27.5	-26.3	-18.0	-15.4	-17.7	-16.8
Ukraine	-14.1	-16.2	-35.5	-49.6	-55.8	-58.2	-53.1	-45.2	-41.5	-38.4	-38.5	-38.9	-30.8
United Kingdom of Great Britain and Northern Ireland	-6.3	-17.0	-21.9	-14.2	-14.4	-8.8	-3.6	-11.2	-45.3	-47.2	-50.7	-54.6	-52.6
United States of America	-6.6	-6.3	-5.5	-2.2	1.8	7.1	9.1	11.7	9.8	10.7	1.6	5.2	2.9

II. GHG DATA FOR ANNEX I PARTIES E. Data by sector

Table II-31.

GHG emissions from Annex I Parties – solvent and other product use, 1990 – 2003

Total emissions (Tg CO₂ equivalent)

Party	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Austria	0.52	0.47	0.42	0.42	0.40	0.42	0.41	0.42	0.40	0.39	0.41	0.43	0.43	0.43
Belarus	–	–	–	–	–	–	–	–	–	–	–	–	0.00	0.08
Belgium	0.25	0.25	0.25	0.25	0.24	0.24	0.24	0.24	0.24	0.24	0.26	0.26	0.25	0.25
Canada	0.42	0.42	0.43	0.43	0.44	0.44	0.45	0.45	0.45	0.46	0.46	0.47	0.47	0.48
Czech Republic	0.73	–	0.67	–	0.60	0.58	0.66	0.52	0.57	0.55	0.55	0.53	0.52	0.48
Denmark	0.32	0.30	0.29	0.28	0.27	0.24	0.27	0.26	0.20	0.19	0.21	0.13	0.15	0.21
European Community	10.32	10.07	9.88	9.57	9.51	9.56	9.70	9.77	9.90	9.80	9.82	9.45	9.44	9.28
Finland	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.05	0.04	0.04
France	1.93	1.85	1.81	1.70	1.71	1.72	1.70	1.71	1.73	1.65	1.68	1.59	1.54	1.43
Germany	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92
Greece	0.17	0.18	0.17	0.17	0.16	0.15	0.15	0.15	0.15	0.16	0.15	0.15	0.16	0.16
Hungary	0.38	0.23	0.25	0.26	0.22	0.25	0.27	0.27	0.27	0.24	0.24	0.26	0.21	0.27
Iceland	0.006	0.005	0.005	0.005	0.004	0.005	0.005	0.005	0.005	0.005	0.005	0.004	0.004	0.004
Ireland	0.09	0.09	0.09	0.09	0.10	0.10	0.10	0.10	0.11	0.11	0.11	0.11	0.11	0.11
Italy	2.54	2.49	2.41	2.35	2.28	2.25	2.36	2.36	2.45	2.43	2.40	2.28	2.25	2.18
Japan	0.29	0.36	0.41	0.41	0.44	0.44	0.42	0.40	0.38	0.36	0.34	0.34	0.33	0.32
Latvia	0.11	0.09	0.05	0.04	0.06	0.06	0.07	0.09	0.09	0.10	0.09	0.10	0.11	0.11
Luxembourg	0.012	–	–	–	0.012	0.012	–	–	0.009	0.005	0.010	0.010	0.009	0.009
Netherlands	0.54	0.46	0.44	0.42	0.42	0.44	0.39	0.35	0.35	0.35	0.31	0.27	0.25	0.25
New Zealand	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Norway	0.18	0.16	0.16	0.17	0.18	0.17	0.18	0.18	0.18	0.17	0.17	0.17	0.17	0.17
Portugal	0.22	0.23	0.24	0.24	0.25	0.26	0.27	0.28	0.29	0.28	0.29	0.30	0.31	0.32
Romania	0.65	0.45	0.24	0.24	0.23	0.23	0.23	0.22	0.22	0.22	0.22	0.20	0.22	0.28
Slovenia	0.13	0.07	0.06	0.05	0.05	0.05	0.05	0.05	0.05	0.09	0.08	0.07	0.07	0.07
Spain	1.33	1.35	1.35	1.27	1.31	1.36	1.44	1.52	1.64	1.68	1.71	1.64	1.72	1.67
Sweden	0.41	0.40	0.41	0.39	0.37	0.39	0.39	0.37	0.36	0.33	0.31	0.30	0.30	0.31
Switzerland	0.11	0.11	0.11	0.11	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
United States of America	4.30	4.18	3.94	4.48	4.48	4.48	4.48	4.77	4.77	4.77	4.77	4.77	4.77	4.77

Note 1: base year data are used here instead of 1990 data (as per COP decisions 9/CP.2 and 11/CP.4) for Bulgaria (1988), Hungary (average of 1985 – 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Note 2: only the Parties that provided data for the emissions from this sector are included in this table.

Table II-32.

Changes in GHG emissions from Annex I Parties – solvent and other product use, 1990 – 2003

Change compared to the 1990 level (%)

Party	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Austria	-8.9	-18.4	-18.5	-21.6	-18.0	-21.3	-18.0	-21.4	-24.1	-19.7	-17.3	-17.3	-17.3
Belarus	-	-	-	-	-	-	-	-	-	-	-	-	-
Belgium	-1.6	-1.8	-2.5	-4.9	-4.5	-6.1	-6.1	-6.1	-6.1	0.9	0.9	-0.1	-0.1
Canada	1.2	2.4	3.6	4.7	5.8	6.9	8.0	8.9	9.8	10.8	12.0	13.2	14.2
Czech Republic	-	-8.5	-	-18.7	-21.4	-9.8	-28.8	-22.9	-24.9	-25.1	-27.6	-29.0	-34.6
Denmark	-3.9	-7.8	-11.6	-15.5	-23.5	-16.3	-17.2	-38.4	-39.4	-33.0	-59.0	-52.3	-35.1
European Community	-2.4	-4.2	-7.2	-7.9	-7.3	-6.0	-5.3	-4.1	-5.1	-4.9	-8.5	-8.6	-10.1
Finland	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-21.5	-29.5	-35.5
France	-4.3	-6.2	-12.3	-11.8	-11.1	-12.1	-11.4	-10.6	-14.9	-13.3	-17.5	-20.5	-26.1
Germany	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
Greece	3.2	1.2	-0.6	-4.8	-10.0	-11.5	-10.9	-11.3	-6.7	-14.8	-9.3	-8.9	-8.5
Hungary	-40.8	-34.7	-33.4	-42.4	-34.9	-28.7	-30.9	-30.7	-37.9	-38.7	-31.5	-45.8	-28.6
Iceland	-18.9	-20.4	-21.4	-35.4	-21.4	-21.4	-21.4	-17.3	-22.0	-24.5	-32.8	-32.8	-38.0
Ireland	0.7	2.1	3.4	5.3	7.3	9.4	12.2	15.0	16.6	19.2	18.6	19.2	21.0
Italy	-2.3	-5.3	-7.5	-10.4	-11.5	-7.3	-7.1	-3.6	-4.3	-5.6	-10.5	-11.5	-14.3
Japan	24.3	43.9	43.4	52.6	52.4	46.6	40.9	31.3	26.3	18.8	19.7	16.4	11.8
Latvia	-14.8	-49.7	-58.3	-41.4	-39.6	-34.2	-19.0	-15.0	-9.7	-18.8	-4.7	2.5	8.6
Luxembourg	-	-	-	0.0	0.0	-	-	-21.1	-56.7	-20.2	-20.1	-23.2	-23.3
Netherlands	-14.1	-18.2	-21.6	-22.6	-18.7	-28.5	-36.2	-35.2	-35.2	-43.3	-50.4	-54.1	-53.8
New Zealand	3.0	3.7	5.2	6.7	8.2	10.4	11.2	11.9	12.7	13.4	14.2	16.4	16.4
Norway	-10.8	-8.4	-8.2	-1.5	-3.3	1.2	-1.9	-2.2	-3.4	-7.3	-7.3	-7.3	-7.0
Portugal	6.7	10.4	7.2	15.3	16.6	25.0	29.6	31.9	29.6	32.0	38.3	41.8	44.7
Romania	-30.6	-63.2	-63.2	-65.1	-64.5	-65.1	-66.1	-65.6	-65.6	-65.3	-69.0	-65.6	-56.7
Slovenia	-44.4	-52.4	-60.5	-59.4	-62.6	-58.5	-58.3	-60.1	-26.5	-38.2	-43.1	-42.8	-45.0
Spain	1.6	1.4	-4.1	-1.3	2.0	8.5	14.6	23.1	26.1	28.5	23.6	29.2	25.8
Sweden	-2.5	-0.5	-6.0	-9.7	-5.7	-6.1	-9.1	-13.1	-20.2	-24.9	-25.8	-26.3	-25.6
Switzerland	2.0	4.0	6.3	8.4	10.4	10.7	11.2	11.8	12.4	12.7	12.7	14.1	15.3
United States of America	-2.8	-8.3	4.2	4.2	4.2	4.2	10.8	10.8	10.8	10.8	10.8	10.8	10.8

Note: only the Parties that provided data for the emissions from this sector are included in this table.

Table II-33. GHG emissions from Annex I Parties – agriculture, 1990 – 2003
Total emissions (Tg CO₂ equivalent)

Party	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Australia	93.56	93.80	92.29	91.11	90.01	89.61	89.37	91.61	92.83	95.32	98.20	100.11	98.61	97.28
Austria	8.46	8.64	8.19	7.97	8.49	8.56	8.09	8.14	8.15	7.86	7.72	7.75	7.55	7.35
Belarus	21.08	19.84	17.98	16.79	14.32	12.91	13.28	13.70	13.99	12.84	12.83	17.23	11.70	12.31
Belgium	12.78	12.76	12.45	12.82	12.80	12.99	12.70	12.58	12.67	12.61	12.36	12.29	11.91	11.56
Bulgaria	13.63	10.11	8.17	6.80	6.24	5.68	5.38	5.32	5.09	5.40	5.12	4.31	4.64	4.58
Canada	52.12	51.60	52.75	53.97	56.67	58.25	60.01	60.24	60.25	60.83	60.88	60.47	59.34	62.12
Croatia	4.41	4.38	3.80	3.42	3.25	3.12	2.99	3.26	3.00	3.08	3.10	3.20	3.24	3.24
Czech Republic	12.52	–	9.93	–	8.46	8.69	9.19	8.68	7.93	7.84	7.54	7.59	7.43	7.41
Denmark	12.85	12.72	12.43	12.31	12.05	11.85	11.53	11.36	11.37	10.81	10.57	10.47	10.14	9.90
Estonia	2.44	2.33	2.05	1.48	1.36	1.12	0.91	0.92	0.91	0.77	0.81	0.77	0.70	0.73
European Community	461.89	448.98	442.16	432.94	435.96	437.12	439.65	441.82	439.67	436.81	434.99	426.02	419.85	414.43
Finland	6.99	6.57	6.12	6.16	6.12	6.16	6.04	5.99	5.82	5.68	5.70	5.59	5.55	5.47
France	107.73	105.92	105.70	100.80	102.11	102.57	102.37	104.16	103.75	101.50	103.50	101.18	100.34	97.96
Germany	109.07	97.53	94.24	92.06	91.23	92.36	92.35	92.29	91.20	91.87	91.41	90.48	88.21	87.33
Greece	13.51	13.31	13.10	12.50	12.74	12.49	12.78	12.48	12.34	12.36	12.33	12.12	12.06	12.00
Hungary	20.01	14.16	11.60	10.35	10.67	10.44	10.74	10.64	11.07	11.10	10.32	10.76	10.69	10.13
Iceland	0.57	0.56	0.53	0.54	0.54	0.52	0.54	0.54	0.54	0.55	0.53	0.53	0.50	0.49
Ireland	18.36	18.83	19.03	19.13	19.31	19.51	19.79	20.06	20.43	20.50	20.22	19.63	19.17	18.75
Italy	40.62	41.88	41.61	41.93	41.48	41.40	41.19	42.28	41.59	41.87	40.98	40.33	40.18	38.75
Japan	39.00	38.80	38.73	38.59	37.98	37.07	36.18	35.40	34.87	34.39	34.09	33.74	33.41	33.23
Latvia	5.16	4.94	3.86	2.49	2.07	1.85	1.80	1.72	1.61	1.42	1.45	1.59	1.57	1.62
Liechtenstein	0.02	–	–	–	–	–	–	–	–	–	–	–	–	0.02
Lithuania	7.14	–	–	–	–	–	–	–	2.54	–	–	2.97	3.67	2.11
Luxembourg	0.52	–	–	–	0.50	0.50	–	–	0.36	0.36	0.35	0.35	0.34	0.34
Monaco	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Netherlands	21.84	22.23	22.64	22.67	21.98	22.71	22.32	21.95	21.41	20.87	19.78	19.33	18.35	17.84
New Zealand	32.19	32.12	32.14	32.74	33.32	33.77	33.99	34.22	34.34	34.76	35.51	36.35	36.76	37.20
Norway	4.59	4.64	4.56	4.58	4.57	4.64	4.70	4.71	4.74	4.66	4.67	4.54	4.43	4.50
Poland	31.52	26.33	24.54	23.09	22.79	22.67	21.86	22.23	21.90	27.94	26.37	25.84	24.98	–
Portugal	8.92	8.76	8.49	8.39	8.48	8.43	8.54	8.47	8.63	8.51	8.40	8.40	8.33	8.29
Romania	27.20	20.09	16.87	16.48	16.11	15.76	14.37	15.29	13.77	14.63	12.29	13.14	11.87	11.95
Russian Federation	168.26	–	–	–	114.53	111.61	103.15	97.31	81.69	78.12	–	–	–	–
Slovakia	8.06	6.89	5.87	5.13	4.94	5.10	4.89	4.76	4.33	4.10	4.14	4.22	4.14	4.02
Slovenia	2.37	2.06	2.32	2.14	2.14	2.12	2.03	2.00	2.03	2.04	2.09	2.03	2.05	1.97
Spain	37.36	37.17	36.89	35.59	37.54	36.78	40.25	39.61	41.07	42.06	43.73	43.13	42.66	44.37
Sweden	9.58	9.32	9.32	9.58	9.70	9.46	9.46	9.53	9.36	9.01	8.88	8.89	8.79	8.72
Switzerland	6.08	6.09	5.97	5.96	5.80	5.75	5.74	5.59	5.55	5.54	5.50	5.52	5.46	5.37
Ukraine	78.79	75.28	73.25	79.13	66.53	60.12	57.55	51.69	44.23	40.89	37.32	34.94	34.83	29.82
United Kingdom of Great Britain and Northern Ireland	53.36	52.89	51.26	50.59	51.50	51.41	51.78	52.45	51.58	50.99	49.12	46.12	46.44	45.85
United States of America	426.48	422.58	410.26	424.15	420.52	429.55	447.74	432.77	449.83	425.86	444.09	437.46	432.41	433.29

Note: base year data are used here instead of 1990 data (as per COP decisions 9/CP.2 and 11/CP.4) for Bulgaria (1988), Hungary (average of 1985 – 1987), Poland (1988), Romania (1989) and Slovenia (1986).

II. GHG DATA FOR ANNEX I PARTIES E. Data by sector

Table II-34.

Changes in GHG emissions from Annex I Parties – agriculture, 1990 – 2003

Change compared to the 1990 level (%)

Party	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Australia	0.3	-1.4	-2.6	-3.8	-4.2	-4.5	-2.1	-0.8	1.9	5.0	7.0	5.4	4.0
Austria	2.2	-3.2	-5.7	0.4	1.2	-4.3	-3.7	-3.7	-7.0	-8.7	-8.3	-10.7	-13.1
Belarus	-5.9	-14.7	-20.3	-32.1	-38.8	-37.0	-35.0	-33.6	-39.1	-39.1	-18.2	-44.5	-41.6
Belgium	-0.1	-2.5	0.3	0.1	1.7	-0.6	-1.6	-0.9	-1.3	-3.3	-3.8	-6.8	-9.6
Bulgaria	-25.9	-40.1	-50.1	-54.3	-58.3	-60.5	-61.0	-62.7	-60.4	-62.4	-68.4	-66.0	-66.4
Canada	-1.0	1.2	3.5	8.7	11.8	15.1	15.6	15.6	16.7	16.8	16.0	13.8	19.2
Croatia	-0.6	-13.8	-22.5	-26.4	-29.2	-32.2	-26.0	-31.9	-30.1	-29.8	-27.6	-26.7	-26.6
Czech Republic	-	-20.7	-	-32.4	-30.6	-26.6	-30.7	-36.6	-37.4	-39.8	-39.4	-40.7	-40.8
Denmark	-1.0	-3.2	-4.2	-6.2	-7.8	-10.3	-11.6	-11.5	-15.9	-17.8	-18.5	-21.1	-22.9
Estonia	-4.6	-16.0	-39.3	-44.4	-54.2	-62.8	-62.3	-62.7	-68.3	-66.9	-68.5	-71.2	-70.0
European Community	-2.8	-4.3	-6.3	-5.6	-5.4	-4.8	-4.3	-4.8	-5.4	-5.8	-7.8	-9.1	-10.3
Finland	-6.0	-12.5	-11.8	-12.5	-11.8	-13.6	-14.3	-16.8	-18.7	-18.5	-20.0	-20.6	-21.8
France	-1.7	-1.9	-6.4	-5.2	-4.8	-5.0	-3.3	-3.7	-5.8	-3.9	-6.1	-6.9	-9.1
Germany	-10.6	-13.6	-15.6	-16.4	-15.3	-15.3	-15.4	-16.4	-15.8	-16.2	-17.0	-19.1	-19.9
Greece	-1.5	-3.1	-7.5	-5.7	-7.6	-5.5	-7.6	-8.7	-8.5	-8.8	-10.3	-10.7	-11.2
Hungary	-29.2	-42.0	-48.3	-46.7	-47.8	-46.3	-46.8	-44.7	-44.5	-48.4	-46.2	-46.6	-49.4
Iceland	-2.2	-6.6	-6.1	-4.9	-8.4	-6.2	-6.2	-5.1	-4.1	-7.4	-8.0	-12.0	-14.3
Ireland	2.5	3.6	4.2	5.2	6.2	7.8	9.3	11.3	11.6	10.1	6.9	4.4	2.1
Italy	3.1	2.4	3.2	2.1	1.9	1.4	4.1	2.4	3.1	0.9	-0.7	-1.1	-4.6
Japan	-0.5	-0.7	-1.0	-2.6	-4.9	-7.2	-9.2	-10.6	-11.8	-12.6	-13.5	-14.3	-14.8
Latvia	-4.2	-25.3	-51.7	-59.9	-64.1	-65.2	-66.6	-68.7	-72.5	-71.9	-69.2	-69.5	-68.6
Liechtenstein	-	-	-	-	-	-	-	-	-	-	-	-	-0.3
Lithuania	-	-	-	-	-	-	-	-64.4	-	-	-58.4	-48.6	-70.4
Luxembourg	-	-	-	-2.5	-2.9	-	-	-31.4	-31.4	-32.4	-32.3	-34.6	-34.6
Monaco	-	-	-	-	-	-	-	-	-	-	-	-	-
Netherlands	1.8	3.7	3.8	0.6	4.0	2.2	0.5	-2.0	-4.4	-9.4	-11.5	-16.0	-18.3
New Zealand	-0.2	-0.2	1.7	3.5	4.9	5.6	6.3	6.7	8.0	10.3	12.9	14.2	15.6
Norway	1.0	-0.8	-0.2	-0.6	1.1	2.4	2.6	3.2	1.5	1.7	-1.2	-3.6	-2.2
Poland	-16.5	-22.1	-26.8	-27.7	-28.1	-30.7	-29.5	-30.5	-11.3	-16.3	-18.0	-20.7	-
Portugal	-1.9	-4.8	-5.9	-5.0	-5.5	-4.3	-5.0	-3.3	-4.6	-5.8	-5.9	-6.6	-7.0
Romania	-26.1	-38.0	-39.4	-40.8	-42.0	-47.2	-43.8	-49.4	-46.2	-54.8	-51.7	-56.3	-56.1
Russian Federation	-	-	-	-31.9	-33.7	-38.7	-42.2	-51.5	-53.6	-	-	-	-
Slovakia	-14.5	-27.2	-36.3	-38.8	-36.7	-39.3	-41.0	-46.3	-49.1	-48.7	-47.7	-48.7	-50.2
Slovenia	-12.8	-2.0	-9.8	-9.8	-10.3	-14.1	-15.3	-14.2	-13.9	-11.6	-14.3	-13.4	-16.9
Spain	-0.5	-1.3	-4.7	0.5	-1.6	7.7	6.0	9.9	12.6	17.0	15.4	14.2	18.8
Sweden	-2.7	-2.7	0.0	1.3	-1.2	-1.3	-0.6	-2.3	-6.0	-7.4	-7.2	-8.3	-8.9
Switzerland	0.1	-1.8	-2.1	-4.6	-5.4	-5.6	-8.2	-8.8	-9.0	-9.6	-9.2	-10.2	-11.7
Ukraine	-4.5	-7.0	0.4	-15.6	-23.7	-27.0	-34.4	-43.9	-48.1	-52.6	-55.6	-55.8	-62.2
United Kingdom of Great Britain and Northern Ireland	-0.9	-3.9	-5.2	-3.5	-3.7	-3.0	-1.7	-3.3	-4.5	-8.0	-13.6	-13.0	-14.1
United States of America	-0.9	-3.8	-0.5	-1.4	0.7	5.0	1.5	5.5	-0.1	4.1	2.6	1.4	1.6

II. GHG DATA FOR ANNEX I PARTIES E. Data by sector

Table II-35.

GHG emissions from Annex I Parties – LULUCF, 1990 – 2003**Total emissions (Tg CO₂ equivalent)**

Party	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Australia	106.64	81.40	63.66	50.67	50.81	47.72	43.86	39.38	52.02	43.52	45.57	40.48	45.13	34.85
Austria	-9.01	-11.77	-8.43	-8.76	-7.64	-7.05	-5.19	-11.69	-12.71	-12.64	-13.65	-13.34	-11.31	-12.77
Belarus ^a	-16.71	-14.07	-15.18	-16.42	-17.24	-17.72	-17.71	-17.85	-18.04	-18.81	-18.49	-16.40	-10.98	-16.26
Belgium	-3.10	-2.82	-3.13	-3.06	-3.09	-2.92	-2.97	-2.99	-2.88	-2.82	-3.14	-4.41	-3.98	-3.36
Bulgaria ^a	-5.13	-7.64	-7.41	-7.48	-7.30	-7.52	-6.52	-6.87	-6.86	-7.20	-8.98	-9.47	-8.32	-7.06
Canada	-153.83	-133.08	-139.50	-110.14	-110.01	7.58	-89.02	-102.22	-59.61	-67.68	-84.80	-89.37	-32.51	-43.96
Croatia ^a	-12.69	-12.69	-12.69	-12.69	-12.69	-12.69	-12.69	-14.44	-14.44	-14.44	-14.44	-14.44	-15.37	-15.37
Czech Republic ^a	-2.07	-	-6.51	-	-4.64	-4.22	-4.44	-4.59	-3.71	-3.35	-3.97	-4.31	-4.44	-3.79
Denmark	0.16	-0.11	-0.25	-0.47	-0.33	-0.23	-0.42	-0.44	-0.82	-0.87	1.78	-1.16	-1.48	-1.20
Estonia ^a	-6.32	-7.16	-7.81	-9.69	-7.60	-7.78	-9.61	-9.11	-8.52	-8.11	-8.37	-9.42	-8.56	-8.72
European Community ^a	-223.40	-270.41	-261.78	-261.91	-264.73	-261.37	-278.33	-278.17	-276.11	-293.65	-283.08	-307.26	-328.79	-306.66
Finland	-22.75	-37.00	-31.64	-28.44	-17.25	-16.40	-22.77	-12.67	-8.90	-9.13	-9.62	-14.65	-15.47	-17.78
France ^a	-33.14	-28.01	-33.35	-39.85	-40.33	-36.55	-40.00	-43.79	-43.12	-45.49	-39.61	-47.95	-54.53	-52.57
Germany	-28.94	-29.65	-30.19	-30.81	-31.42	-31.67	-32.09	-32.48	-32.73	-33.18	-34.42	-35.20	-35.22	-35.69
Greece	-3.19	-3.57	-2.99	-3.81	-3.48	-4.37	-3.97	-3.91	-3.45	-4.43	-2.96	-5.30	-5.46	-5.53
Hungary ^a	-1.34	-1.51	-2.26	-3.30	-5.39	-5.30	-4.71	-4.94	-4.96	-4.75	-4.35	-4.51	-2.34	-3.94
Iceland ^a	-0.01	-0.02	-0.03	-0.05	-0.06	-0.07	-0.08	-0.10	-0.11	-0.14	-0.16	-0.17	-0.19	-0.21
Ireland ^a	-0.41	-0.47	-0.37	-0.46	-0.44	-0.43	-0.39	-0.45	-0.62	-0.38	-0.59	-0.74	-0.98	-0.98
Italy	-60.73	-83.11	-79.07	-64.60	-81.49	-85.78	-89.51	-80.38	-80.71	-89.20	-81.71	-85.44	-95.75	-81.83
Japan ^a	-83.84	-83.77	-85.48	-89.99	-93.45	-96.61	-	-	-	-	-	-	-	-
Latvia ^a	-18.39	-17.40	-18.00	-16.92	-14.38	-14.51	-14.72	-11.64	-10.10	-9.17	-8.53	-9.59	-8.42	-8.19
Liechtenstein ^a	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lithuania	-5.48	-	-	-	-	-	-	-	-7.56	-	-	-7.34	-6.72	-6.99
Luxembourg ^a	-0.28	-	-	-	-0.28	-0.28	-	-	-0.27	-0.27	-0.27	-0.27	-0.27	-0.27
Monaco	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Netherlands	2.89	2.80	2.67	2.62	2.62	2.65	2.67	2.84	2.74	2.73	2.81	2.78	2.76	2.76
New Zealand	-21.37	-20.10	-17.66	-15.24	-14.15	-14.65	-14.92	-16.45	-19.30	-21.11	-22.82	-23.19	-23.33	-22.86
Norway	-13.43	-13.27	-13.55	-13.34	-13.92	-13.39	-13.81	-21.23	-20.92	-20.92	-20.82	-20.83	-20.90	-20.94
Poland ^a	-34.74	-42.75	-40.81	-40.17	-41.95	-42.88	-42.61	-40.52	-29.82	-43.46	-43.09	-53.64	-50.70	-
Portugal	6.06	5.09	3.29	2.91	1.92	1.41	0.17	-0.04	-0.76	-0.24	-0.83	-0.60	-1.21	7.08
Romania	-15.71	-18.11	-18.85	-19.77	-20.26	-19.58	-18.74	-19.03	-20.73	-19.76	-18.84	-19.82	-17.46	-16.88
Russian Federation ^a	158.39	-14.54	-6.67	38.86	-236.59	-333.69	-165.73	-128.35	17.90	-208.52	-	-	-	-
Slovakia	-2.39	-3.49	-4.14	-4.27	-3.30	-2.68	-2.41	-1.39	-1.93	-1.62	-2.39	-5.21	-5.23	-4.81
Slovenia ^a	-2.95	-4.75	-5.09	-5.17	-5.33	-5.68	-5.56	-5.56	-5.56	-5.56	-5.56	-5.56	-5.56	-5.56
Spain ^a	-9.03	-11.06	-13.52	-15.50	-15.52	-16.79	-19.27	-22.24	-24.51	-27.36	-31.15	-33.99	-36.40	-40.12
Sweden ^a	-20.29	-29.33	-23.35	-29.33	-26.31	-21.29	-22.27	-27.29	-24.33	-27.31	-27.31	-24.81	-26.54	-21.50
Switzerland ^a	-1.27	-1.34	-1.42	-2.39	-2.39	-2.35	-2.51	-2.67	-2.60	-2.26	0.15	0.45	0.31	-1.77
Ukraine ^a	-38.93	-31.44	-54.51	-47.09	-48.96	-48.93	-61.60	-65.44	-63.63	-63.27	-61.49	-59.68	-57.30	-55.76
United Kingdom of Great Britain and Northern Ireland	2.66	2.60	2.09	0.91	0.70	0.80	0.63	0.23	-0.37	-0.52	-0.76	-0.96	-1.47	-1.52
United States of America	-1,036.45	-1,045.57	-967.79	-1,029.72	-933.97	-898.92	-906.31	-923.59	-874.51	-819.48	-816.07	-820.68	-820.07	-821.63

^a For this Party, data for emissions/removals from the LUCF sector are used here instead of the data for the LULUCF sector; LULUCF data were not available at the time of the preparation of this document. Note: base year data are used here instead of 1990 data (as per COP decisions 9/CP.2 and 11/CP.4) for Bulgaria (1988), Hungary (average of 1985 – 1987), Poland (1988), Romania (1989) and Slovenia (1986).

II. GHG DATA FOR ANNEX I PARTIES **E. Data by sector**

Table II-36.

Changes in GHG emissions from Annex I Parties – LULUCF, 1990 – 2003

Change compared to the 1990 level (%)

Party	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Australia	-23.7	-40.3	-52.5	-52.4	-55.3	-58.9	-63.1	-51.2	-59.2	-57.3	-62.0	-57.7	-67.3
Austria	30.6	-6.4	-2.8	-15.2	-21.8	-42.4	29.7	41.0	40.2	51.4	48.1	25.5	41.7
Belarus ^a	-15.8	-9.2	-1.7	3.2	6.1	6.0	6.8	8.0	12.6	10.7	-1.8	-34.3	-2.7
Belgium	-9.2	0.9	-1.4	-0.5	-6.0	-4.3	-3.5	-7.3	-9.1	1.1	42.1	28.3	8.2
Bulgaria ^a	48.8	44.4	45.7	42.3	46.6	27.0	33.9	33.7	40.3	74.9	84.5	62.1	37.5
Canada	-13.5	-9.3	-28.4	-28.5	-104.9	-42.1	-33.5	-61.2	-56.0	-44.9	-41.9	-78.9	-71.4
Croatia ^a	0.0	0.0	0.0	0.0	0.0	0.0	13.8	13.8	13.8	13.8	13.8	21.2	21.2
Czech Republic ^a	-	214.1	-	123.8	103.4	114.0	121.5	78.9	61.4	91.3	107.8	113.9	82.8
Denmark	-171.2	-259.4	-394.5	-308.6	-248.1	-366.9	-379.8	-617.4	-649.7	1,025.5	-831.5	-1,032.3	-860.8
Estonia ^a	13.4	23.7	53.5	20.4	23.2	52.1	44.2	34.9	28.3	32.4	49.1	35.6	38.0
European Community ^a	21.0	17.2	17.2	18.5	17.0	24.6	24.5	23.6	31.4	26.7	37.5	47.2	37.3
Finland	62.7	39.1	25.0	-24.2	-27.9	0.1	-44.3	-60.9	-59.9	-57.7	-35.6	-32.0	-21.8
France ^a	-15.5	0.7	20.3	21.7	10.3	20.7	32.1	30.1	37.3	19.5	44.7	64.6	58.7
Germany	2.4	4.3	6.4	8.6	9.4	10.9	12.2	13.1	14.6	18.9	21.6	21.7	23.3
Greece	11.7	-6.3	19.2	9.1	36.8	24.3	22.3	8.1	38.6	-7.3	65.9	70.9	73.1
Hungary ^a	12.6	69.0	146.1	302.6	295.3	251.4	269.0	270.4	254.2	224.4	236.9	74.5	193.8
Iceland ^a	139.7	298.6	488.4	641.2	784.7	930.3	1,142.2	1,335.2	1,598.4	1,864.2	2,069.6	2,323.2	2,508.5
Ireland ^a	15.8	-8.5	12.3	7.8	5.9	-5.1	11.1	52.6	-7.7	46.1	81.6	140.2	141.1
Italy	36.9	30.2	6.4	34.2	41.3	47.4	32.4	32.9	46.9	34.6	40.7	57.7	34.7
Japan ^a	-0.1	1.9	7.3	11.5	15.2	-	-	-	-	-	-	-	-
Latvia ^a	-5.4	-2.1	-8.0	-21.8	-21.1	-19.9	-36.7	-45.1	-50.2	-53.6	-47.8	-54.2	-55.5
Liechtenstein ^a	-	-	-	-	-	-	-	-	-	-	-	-	-
Lithuania	-	-	-	-	-	-	-	37.9	-	-	33.8	22.6	27.5
Luxembourg ^a	-	-	-	0.0	0.0	-	-	-3.9	-3.9	-3.9	-3.9	-3.9	-3.9
Monaco	-	-	-	-	-	-	-	-	-	-	-	-	-
Netherlands	-3.4	-7.6	-9.5	-9.4	-8.4	-7.7	-1.7	-5.5	-5.7	-2.8	-4.1	-4.7	-4.6
New Zealand	-5.9	-17.3	-28.7	-33.8	-31.5	-30.2	-23.0	-9.7	-1.2	6.8	8.5	9.2	7.0
Norway	-1.2	0.9	-0.7	3.7	-0.3	2.9	58.1	55.8	55.8	55.0	55.2	55.7	56.0
Poland ^a	23.1	17.5	15.7	20.8	23.4	22.7	16.6	-14.2	25.1	24.1	54.4	45.9	-
Portugal	-16.0	-45.7	-51.9	-68.4	-76.7	-97.2	-100.6	-112.5	-104.0	-113.7	-110.0	-119.9	16.8
Romania	15.2	20.0	25.8	29.0	24.6	19.2	21.1	31.9	25.7	19.9	26.1	11.1	7.4
Russian Federation ^a	-109.2	-104.2	-75.5	-249.4	-310.7	-204.6	-181.0	-88.7	-231.6	-	-	-	-
Slovakia	46.1	73.2	78.8	38.3	12.3	0.8	-41.9	-19.4	-32.2	-0.1	118.0	118.8	101.6
Slovenia ^a	61.0	72.5	75.4	80.7	92.4	88.5	88.5	88.5	88.5	88.5	88.5	88.5	88.5
Spain ^a	22.4	49.7	71.6	71.8	85.9	113.3	146.3	171.4	202.8	244.8	276.3	302.9	344.1
Sweden ^a	44.5	15.1	44.6	29.6	4.9	9.7	34.5	19.9	34.6	34.6	22.3	30.8	5.9
Switzerland ^a	5.2	11.8	87.5	87.8	85.0	96.9	110.0	104.4	77.2	-111.7	-135.3	-124.0	38.7
Ukraine ^a	-19.2	40.0	21.0	25.8	25.7	58.2	68.1	63.4	62.5	57.9	53.3	47.2	43.2
United Kingdom of Great Britain and Northern Ireland	-2.2	-21.6	-65.8	-73.8	-69.8	-76.2	-91.5	-113.9	-119.5	-128.7	-136.2	-155.2	-157.2
United States of America	0.9	-6.6	-0.6	-9.9	-13.3	-12.6	-10.9	-15.6	-20.9	-21.3	-20.8	-20.9	-20.7

^a For this Party, data for emissions/removals from the LUCF sector are used here instead of the data for the LULUCF sector; LULUCF data were not available at the time of the preparation of this document.

II. GHG DATA FOR ANNEX I PARTIES E. Data by sector

Table II-37.

GHG emissions from Annex I Parties – waste, 1990 – 2003**Total emissions (Tg CO₂ equivalent)**

Party	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Australia	10.23	10.57	10.71	10.98	10.84	11.24	10.48	10.67	10.46	10.90	11.08	11.35	11.71	11.36
Austria	4.50	4.50	4.40	4.37	4.24	4.10	3.97	3.85	3.78	3.70	3.60	3.53	3.47	3.41
Belarus	2.59	2.59	2.58	2.43	2.29	2.14	2.33	2.53	2.73	2.92	2.96	2.98	3.09	3.40
Belgium	3.41	3.28	3.04	3.10	3.23	3.16	3.06	3.13	3.00	2.76	2.68	2.21	2.07	2.00
Bulgaria	16.04	12.00	11.51	10.61	10.01	9.61	8.69	7.15	6.22	4.91	4.98	4.83	4.79	5.59
Canada	20.07	20.71	21.16	21.65	21.89	21.99	22.07	23.08	23.63	24.01	24.56	24.34	24.89	25.45
Croatia	0.93	0.92	0.90	0.91	0.94	0.99	0.98	1.03	1.08	1.16	1.16	1.20	1.24	1.29
Czech Republic	2.98	–	3.31	–	3.19	3.21	3.16	2.88	2.92	2.73	2.73	2.62	2.81	2.84
Denmark	1.62	1.65	1.65	1.68	1.64	1.59	1.57	1.52	1.46	1.49	1.48	1.47	1.49	1.46
Estonia	1.61	1.03	0.83	0.86	1.03	1.06	1.28	1.49	1.42	1.30	1.20	0.72	0.75	0.73
European Community	141.28	141.89	140.91	140.04	137.22	133.27	130.47	124.30	119.91	113.72	108.52	103.53	99.23	96.73
Finland	3.97	4.01	4.04	4.03	3.96	3.90	3.80	3.70	3.53	3.45	3.25	3.14	2.92	2.73
France	15.84	16.51	17.19	17.78	18.27	18.64	18.98	16.91	16.80	16.42	16.22	15.46	14.77	14.41
Germany	35.92	35.57	34.88	33.85	30.93	28.33	25.84	23.34	21.10	18.62	16.79	15.26	14.35	14.04
Greece	5.36	5.36	5.48	5.55	5.74	5.81	5.93	6.01	6.20	5.55	5.43	5.09	5.08	5.18
Hungary	5.37	4.85	5.06	4.67	4.77	4.83	4.90	4.90	5.23	4.87	5.08	5.40	4.85	4.72
Iceland	0.13	0.14	0.15	0.16	0.17	0.20	0.21	0.21	0.21	0.22	0.23	0.23	0.22	0.22
Ireland	1.35	1.38	1.43	1.47	1.52	1.57	1.63	1.60	1.39	1.30	1.51	1.61	1.83	2.06
Italy	13.47	14.04	13.30	13.70	14.04	14.25	14.30	14.47	14.27	14.55	14.43	14.33	13.33	12.73
Japan	24.94	25.48	26.62	26.57	29.33	30.27	31.18	32.31	32.80	32.66	33.41	32.50	31.95	31.62
Latvia	0.82	0.84	0.85	0.77	0.78	0.90	0.91	0.94	1.01	1.05	1.09	1.14	1.14	0.94
Liechtenstein	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Lithuania	3.48	–	–	–	–	–	–	–	1.68	–	–	1.56	1.51	1.46
Luxembourg	0.11	–	–	–	0.08	0.08	–	–	0.07	0.09	0.07	0.06	0.06	0.07
Monaco	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Netherlands	12.82	12.95	12.72	12.38	11.94	11.32	10.96	10.62	10.21	9.39	8.87	8.38	8.02	7.38
New Zealand	2.48	2.51	2.16	2.15	2.06	2.06	2.01	1.82	1.81	1.78	1.72	1.72	1.73	1.75
Norway	2.57	2.56	2.52	2.53	2.54	2.52	2.53	2.54	2.46	2.42	2.46	2.32	2.25	2.22
Poland	20.28	17.94	19.76	17.49	17.96	17.80	13.69	14.22	18.28	19.01	19.41	12.41	11.95	–
Portugal	5.22	5.43	5.64	5.87	6.07	6.27	6.48	6.69	6.97	7.40	6.55	6.35	6.61	6.63
Romania	5.36	5.20	5.20	5.29	5.52	5.41	5.29	5.34	5.08	5.17	5.23	5.15	5.01	5.07
Russian Federation	40.74	40.95	40.95	40.95	40.95	37.17	37.17	37.93	37.82	37.80	–	–	–	–
Slovakia	2.09	2.03	1.99	1.91	1.92	1.93	2.11	1.93	1.80	1.82	1.86	1.86	2.13	2.22
Slovenia	0.73	0.75	0.73	0.73	0.73	0.73	0.73	0.76	0.78	0.80	0.81	0.81	0.82	0.81
Spain	7.14	7.38	7.90	8.37	8.77	8.49	9.01	9.59	10.03	10.32	10.61	11.03	11.30	11.50
Sweden	2.79	2.85	2.85	2.74	2.63	2.63	2.60	2.57	2.49	2.35	2.23	2.18	2.05	2.00
Switzerland	2.06	1.95	1.91	1.81	1.71	1.66	1.63	1.62	1.67	1.68	1.75	1.68	1.69	1.69
Ukraine	22.23	22.80	23.09	22.78	22.70	22.87	22.15	21.96	21.82	18.29	19.68	22.41	20.60	22.70
United Kingdom of Great Britain and Northern Ireland	27.76	26.89	26.03	25.04	24.15	23.14	22.24	20.19	18.60	16.32	14.80	13.42	11.90	11.13
United States of America	210.11	211.90	213.13	213.54	212.24	206.50	200.73	193.73	186.00	183.11	180.59	176.50	178.31	183.82

Note: base year data are used here instead of 1990 data (as per COP decisions 9/CP.2 and 11/CP.4) for Bulgaria (1988), Hungary (average of 1985 – 1987), Poland (1988), Romania (1989) and Slovenia (1986).

II. GHG DATA FOR ANNEX I PARTIES E. Data by sector

Table II-38.

Changes in GHG emissions from Annex I Parties – waste, 1990 – 2003

Change compared to the 1990 level (%)

Party	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Australia	3.3	4.7	7.3	5.9	9.8	2.5	4.3	2.3	6.5	8.3	10.9	14.5	11.1
Austria	-0.2	-2.2	-2.9	-5.9	-8.9	-11.8	-14.5	-16.1	-17.9	-20.0	-21.6	-23.1	-24.2
Belarus	0.0	-0.4	-6.1	-11.5	-17.3	-9.9	-2.4	5.5	13.0	14.3	15.2	19.5	31.4
Belgium	-3.9	-10.9	-9.1	-5.1	-7.4	-10.3	-8.1	-12.1	-19.0	-21.4	-35.1	-39.2	-41.4
Bulgaria	-25.2	-28.2	-33.9	-37.6	-40.1	-45.8	-55.4	-61.2	-69.4	-69.0	-69.9	-70.1	-65.1
Canada	3.2	5.4	7.9	9.1	9.6	10.0	15.0	17.7	19.6	22.4	21.3	24.0	26.8
Croatia	-1.7	-3.4	-2.2	0.5	6.6	5.5	10.9	16.0	24.4	24.5	28.7	32.8	38.2
Czech Republic	-	10.9	-	6.8	7.4	6.0	-3.5	-2.0	-8.5	-8.4	-12.1	-5.9	-4.8
Denmark	1.5	1.6	3.8	1.4	-1.8	-3.2	-6.0	-9.8	-8.3	-9.0	-9.1	-8.0	-10.1
Estonia	-35.7	-48.1	-46.8	-35.7	-34.3	-20.3	-7.1	-11.9	-18.9	-25.6	-55.1	-53.5	-54.4
European Community	0.4	-0.3	-0.9	-2.9	-5.7	-7.7	-12.0	-15.1	-19.5	-23.2	-26.7	-29.8	-31.5
Finland	1.0	1.6	1.5	-0.3	-1.9	-4.4	-6.8	-11.0	-13.3	-18.2	-21.0	-26.6	-31.3
France	4.2	8.5	12.3	15.3	17.7	19.8	6.8	6.1	3.7	2.4	-2.4	-6.8	-9.0
Germany	-1.0	-2.9	-5.7	-13.9	-21.1	-28.0	-35.0	-41.3	-48.2	-53.2	-57.5	-60.0	-60.9
Greece	0.0	2.3	3.6	7.1	8.5	10.7	12.2	15.8	3.6	1.3	-5.0	-5.1	-3.3
Hungary	-9.6	-5.8	-13.0	-11.1	-9.9	-8.7	-8.7	-2.5	-9.2	-5.3	0.5	-9.6	-12.1
Iceland	5.8	13.2	18.1	27.5	52.1	58.2	58.8	59.2	65.1	68.2	69.9	61.8	63.4
Ireland	2.6	6.0	9.3	12.8	16.6	21.1	18.3	2.8	-3.5	12.3	19.3	35.5	52.7
Italy	4.2	-1.3	1.7	4.2	5.8	6.1	7.4	5.9	8.0	7.1	6.3	-1.1	-5.5
Japan	2.1	6.7	6.5	17.6	21.4	25.0	29.5	31.5	30.9	33.9	30.3	28.1	26.7
Latvia	2.5	3.6	-6.5	-4.7	9.4	11.2	14.7	22.9	27.1	32.0	38.8	38.6	13.9
Liechtenstein	-	-	-	-	-	-	-	-	-	-	-	-	-
Lithuania	-	-	-	-	-	-	-	-51.7	-	-	-55.1	-56.5	-57.9
Luxembourg	-	-	-	-23.2	-23.0	-	-	-31.5	-16.6	-32.9	-40.3	-39.6	-38.0
Monaco	40.1	40.7	57.1	56.5	56.5	58.8	63.7	64.4	60.3	64.8	62.8	61.0	67.5
Netherlands	1.1	-0.8	-3.4	-6.8	-11.7	-14.5	-17.1	-20.3	-26.7	-30.8	-34.6	-37.5	-42.4
New Zealand	1.0	-13.1	-13.2	-17.1	-17.0	-18.8	-26.6	-26.9	-28.0	-30.8	-30.7	-30.3	-29.3
Norway	-0.6	-2.3	-1.8	-1.5	-2.2	-1.7	-1.3	-4.4	-6.0	-4.5	-10.0	-12.5	-14.0
Poland	-11.5	-2.6	-13.7	-11.4	-12.2	-32.5	-29.9	-9.9	-6.3	-4.3	-38.8	-41.1	-
Portugal	4.0	8.1	12.4	16.3	20.1	24.1	28.1	33.5	41.7	25.6	21.7	26.6	27.1
Romania	-3.0	-3.0	-1.2	3.0	1.0	-1.2	-0.4	-5.2	-3.6	-2.3	-3.9	-6.4	-5.4
Russian Federation	0.5	0.5	0.5	0.5	-8.8	-8.8	-6.9	-7.2	-7.2	-	-	-	-
Slovakia	-2.7	-4.7	-8.6	-8.2	-7.6	0.9	-7.6	-14.0	-12.8	-11.0	-11.1	1.9	6.5
Slovenia	3.7	0.6	0.6	1.0	0.9	1.2	5.1	7.1	9.9	11.9	12.2	12.7	12.2
Spain	3.3	10.5	17.2	22.8	18.8	26.1	34.3	40.4	44.5	48.5	54.4	58.2	61.0
Sweden	1.9	1.9	-1.7	-5.7	-5.9	-6.8	-7.9	-10.8	-15.7	-20.1	-21.9	-26.8	-28.4
Switzerland	-5.4	-7.4	-12.3	-17.1	-19.3	-20.7	-21.3	-19.2	-18.4	-15.2	-18.6	-18.0	-18.2
Ukraine	2.6	3.9	2.5	2.1	2.9	-0.3	-1.2	-1.9	-17.7	-11.5	0.8	-7.3	2.1
United Kingdom of Great Britain and Northern Ireland	-3.1	-6.2	-9.8	-13.0	-16.6	-19.9	-27.3	-33.0	-41.2	-46.7	-51.6	-57.1	-59.9
United States of America	0.9	1.4	1.6	1.0	-1.7	-4.5	-7.8	-11.5	-12.8	-14.0	-16.0	-15.1	-12.5

II. GHG DATA FOR ANNEX I PARTIES E. Data by sector

Table II-39. GHG emissions from Annex I Parties – other, 1990 – 2003
Total emissions (Tg CO₂ equivalent)

Party	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Denmark ^a	1.37	1.33	1.29	0.58	1.08	1.11	1.19	1.18	1.21	1.28	1.41	1.46	1.42	1.48
European Community ^a	0.64	0.61	0.61	0.56	0.69	0.71	0.71	0.56	0.72	0.75	0.73	0.69	0.72	0.83
Finland	0.64	0.61	0.61	0.56	0.69	0.70	0.70	0.56	0.72	0.75	0.73	0.69	0.72	0.83

Note: only the Parties that provided data for the emissions from this sector are included in this table.

^a Not all emissions from the "Other" sector of Denmark are included in the corresponding sum for the European Community.

Table II-40. Changes in GHG emissions from Annex I Parties – other, 1990 – 2003
Change compared to the 1990 level (%)

Party	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Denmark	-2.9	-6.3	-58.0	-21.3	-19.3	-13.6	-14.1	-11.8	-7.1	2.5	6.3	3.4	7.5
European Community	-4.0	-5.1	-13.2	8.0	10.9	10.7	-12.9	12.5	17.1	14.0	7.8	12.4	29.6
Finland	-4.0	-5.1	-13.2	8.0	9.2	9.1	-12.9	12.5	17.1	14.0	7.8	12.4	29.6

Note: only the Parties that provided data for the emissions from this sector are included in this table.

Figure II-21. Trends in CO₂ emissions from international bunker fuels in Annex I Parties, 1990 – 2003
Change compared to 1990 level (%)

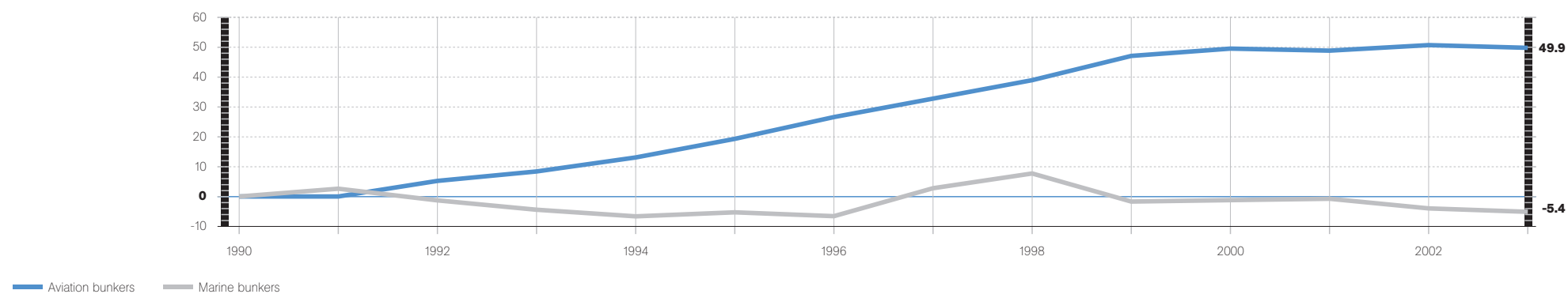


Table II-41.

CO₂ emissions from international bunker fuels in Annex I Parties, 1990 – 2003

Party	Marine bunkers			Aviation bunkers		
	CO ₂ emissions (Tg CO ₂)		Change from 1990	CO ₂ emissions (Tg CO ₂)		Change from 1990
	1990	2003	to 2003 (%)	1990	2003	to 2003 (%)
Australia	2.056	2.222	8.1	4.345	6.615	52.2
Austria	–	–	–	0.886	1.452	63.9
Belarus	–	0.0003	–	–	0.268	–
Belgium	13.303	22.754	71.0	3.096	3.504	13.2
Bulgaria	0.969	0.436	-55.0	0.749	0.485	-35.3
Canada	2.995	1.608	-46.3	6.868	8.389	22.2
Croatia	0.109	0.069	-36.7	0.202	0.075	-63.1
Czech Republic	–	–	–	0.617	0.597	-3.2
Denmark	3.087	3.130	1.4	1.736	2.188	26.0
Estonia	–	0.355	–	–	–	–
European Community	102.635	138.875	35.3	61.536	105.683	71.7
Finland	1.798	2.031	13.0	0.974	1.077	10.5
France	8.137	8.613	5.9	8.618	14.700	70.6
Germany	7.980	8.375	5.0	11.589	17.151	48.0
Greece	8.028	10.129	26.2	2.448	2.397	-2.1
Hungary	–	–	–	0.431	0.592	37.1
Iceland	0.099	0.180	81.4	0.220	0.330	50.2
Ireland	0.056	0.525	833.9	1.059	2.249	112.4
Italy	4.404	5.642	28.1	4.116	8.054	95.7
Japan	17.518	17.082	-2.5	13.183	20.389	54.7
Latvia	1.652	0.593	-64.1	0.217	0.107	-50.7
Lithuania	–	0.351	–	–	0.100	–
Luxembourg	–	–	–	–	1.186	–
Netherlands	34.235	43.445	26.9	4.540	9.817	116.2
New Zealand	1.033	0.793	-23.2	1.341	2.230	66.3
Norway	1.478	1.781	20.5	0.619	0.747	20.7
Portugal	1.175	1.358	15.6	1.643	2.188	33.2
Slovakia	–	–	–	–	0.048	–
Slovenia	–	–	–	0.097	0.079	-18.9
Spain	11.528	22.218	92.7	3.432	8.492	147.5
Sweden	2.228	5.521	147.8	1.335	1.567	17.3
Switzerland	–	–	–	3.226	3.672	13.8
United Kingdom of Great Britain and Northern Ireland	6.677	5.134	-23.1	15.665	29.662	89.4
United States of America	67.272	24.635	-63.4	46.230	59.558	28.8

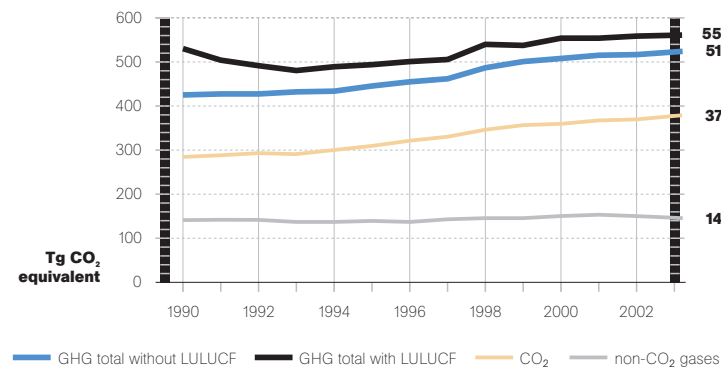
Note 1: only the Parties that provided data for these emissions are included in this table.

Note 2: base year data are used here instead of 1990 data (as per COP decisions 9/CP.2 and 11/CP.4) for Bulgaria (1988), Hungary (average of 1985 – 1987), Romania (1989) and Slovenia (1986).

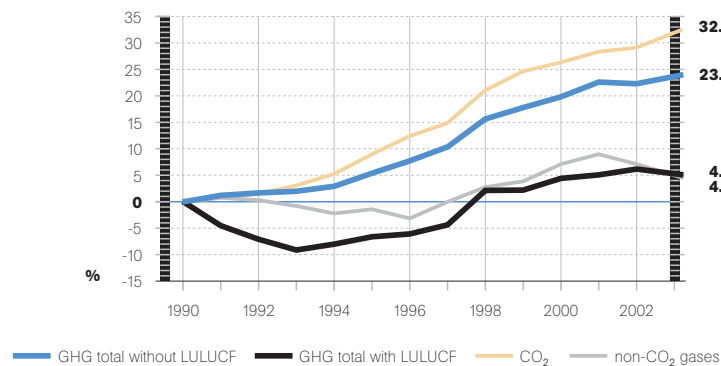
II. GHG DATA FOR ANNEX I PARTIES E. Data by sector

Figure II-22.

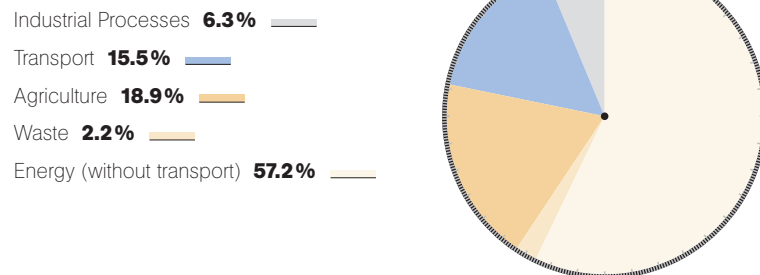
GHG emissions



Changes relative to 1990 level



Sectoral shares in GHG total, 2003



Changes in GHGs by sector (%), 1990 – 2003

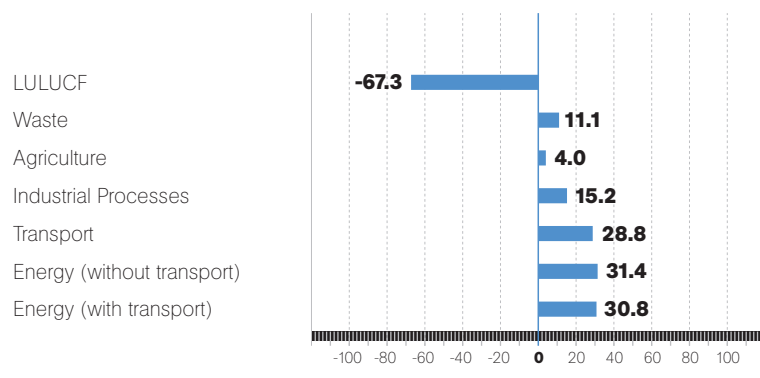
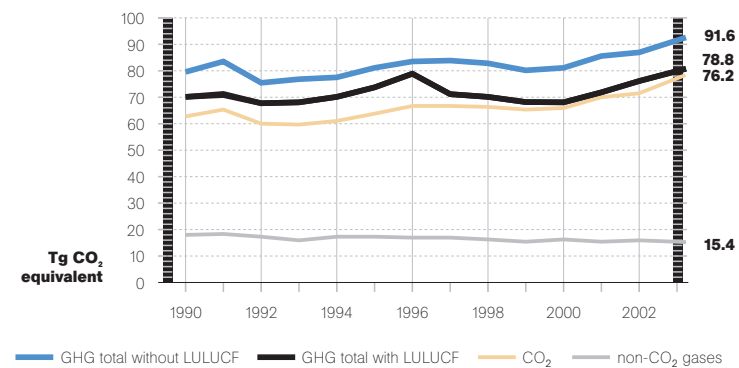
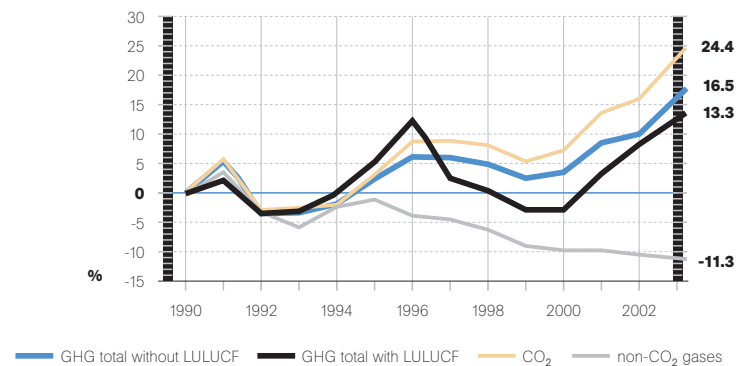


Figure II-23.

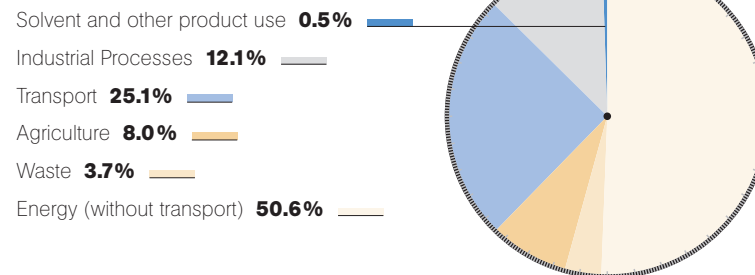
GHG emissions



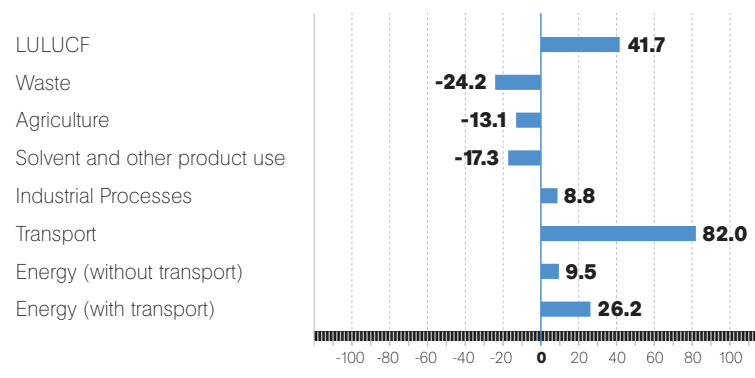
Changes relative to 1990 level



Sectoral shares in GHG total, 2003



Changes in GHGs by sector (%), 1990 – 2003



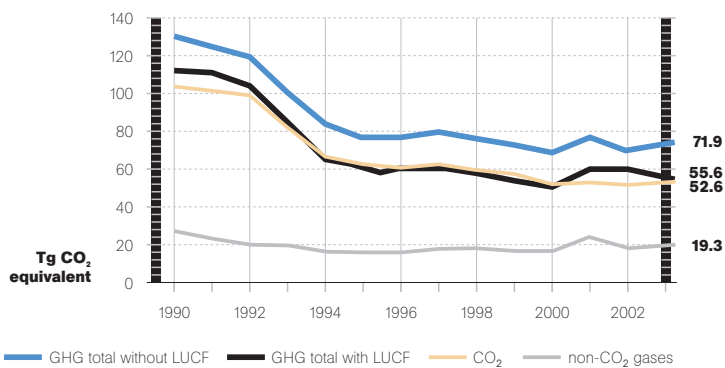
Austria

1990 – 2003

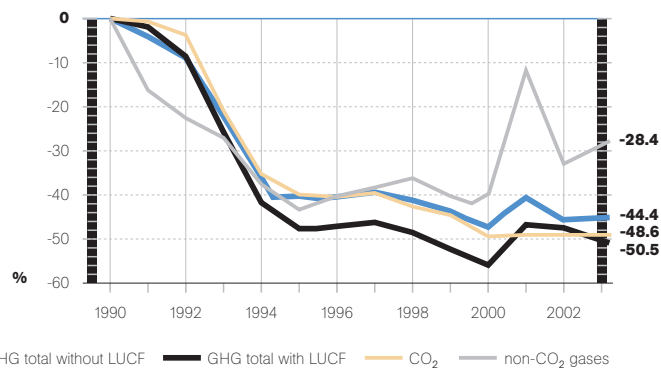
Australia

1990 – 2003

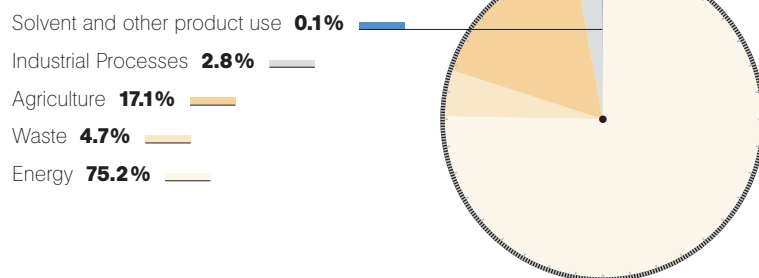
Figure II-24. GHG emissions



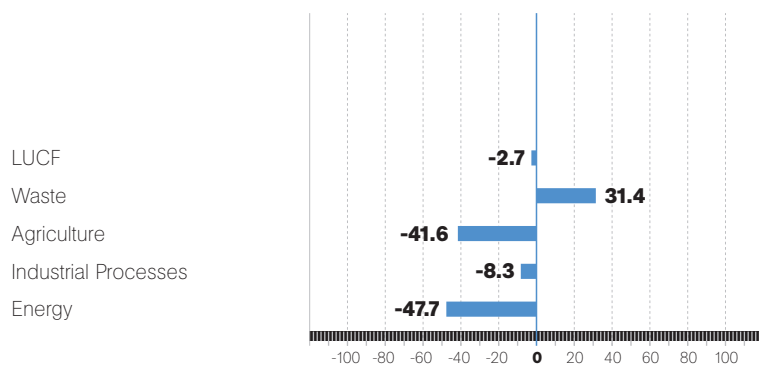
Changes relative to 1990 level



Sectoral shares in GHG total, 2003

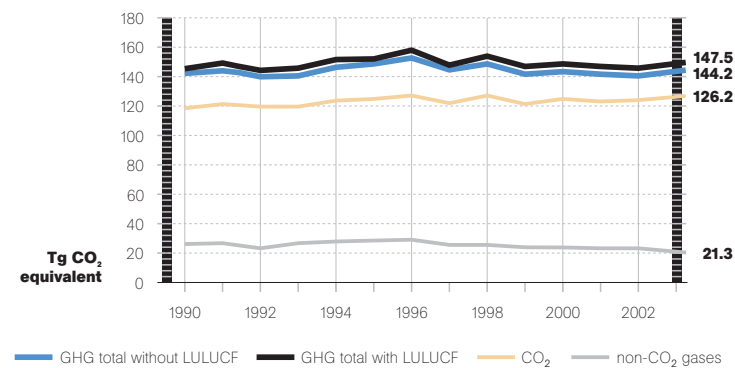


Changes in GHGs by sector (%), 1990 – 2003

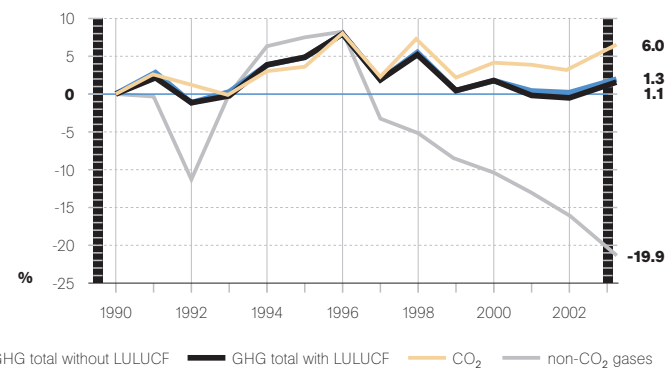


Note: at the time of the preparation of this document, the data series for the transport sector were incomplete. Therefore, the change from 1990 to 2003 for GHG emissions from transport and from the energy sector without transport are not shown.

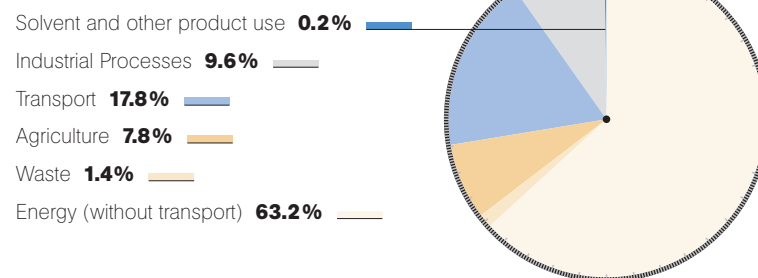
Figure II-25. GHG emissions



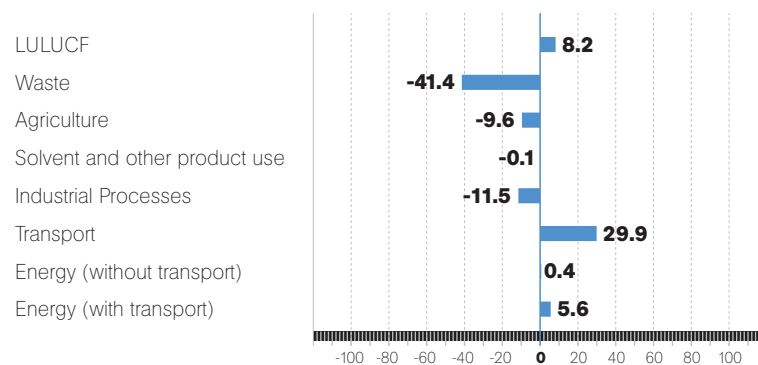
Changes relative to 1990 level



Sectoral shares in GHG total, 2003



Changes in GHGs by sector (%), 1990 – 2003



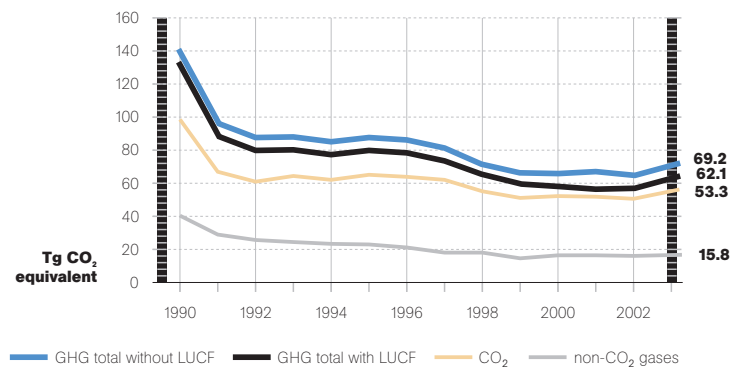
Belarus

1990 – 2003

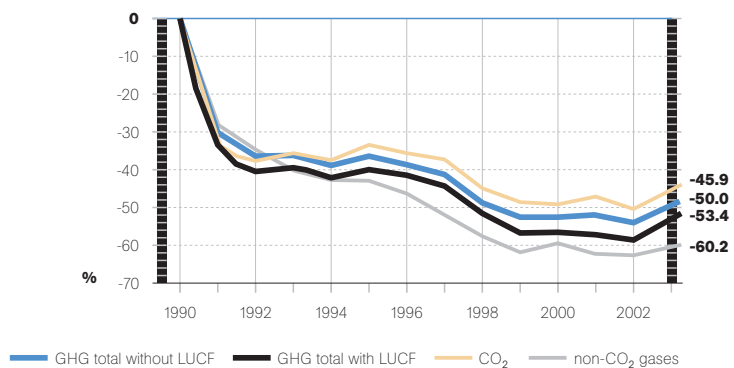
Belgium

1990 – 2003

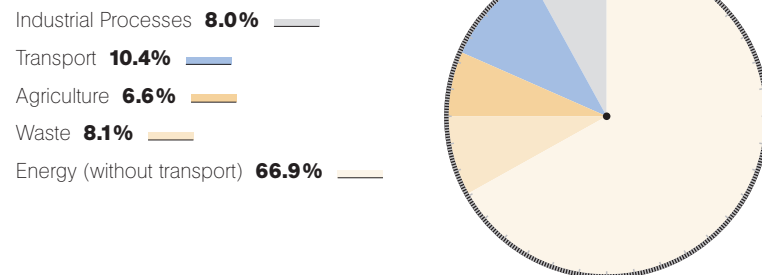
Figure II-26. GHG emissions



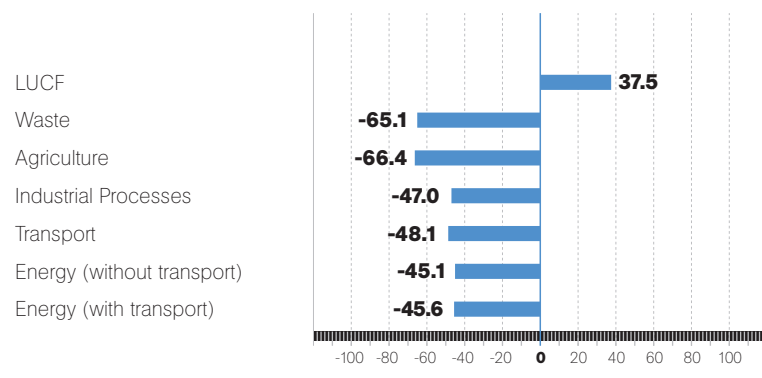
Changes relative to 1990 level



Sectoral shares in GHG total, 2003

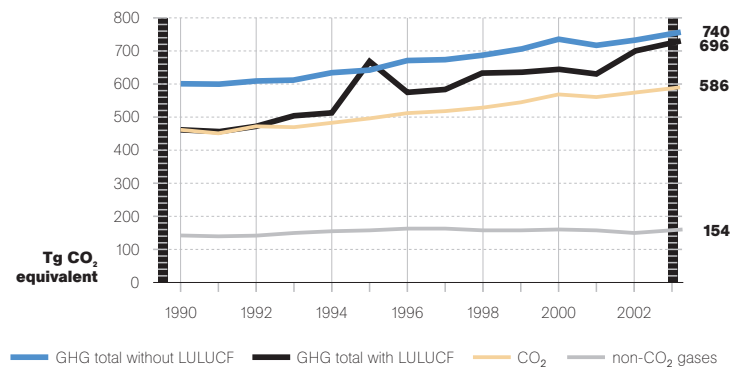


Changes in GHGs by sector (%), 1990 – 2003

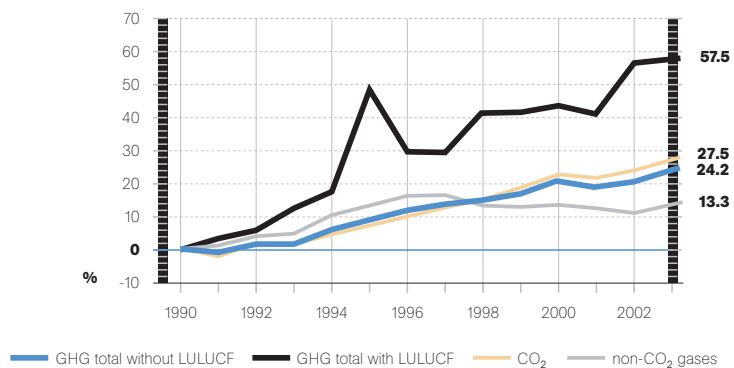


Note: data for the base year (1988) are used in this graph instead of 1990 data.

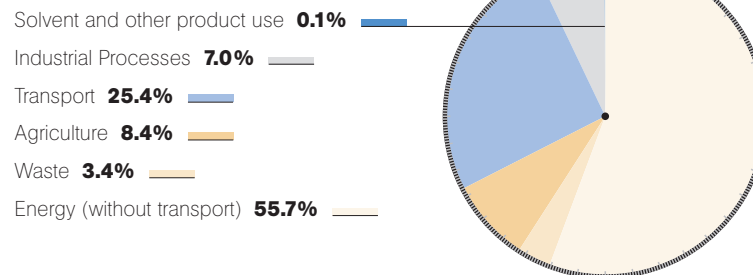
Figure II-27. GHG emissions



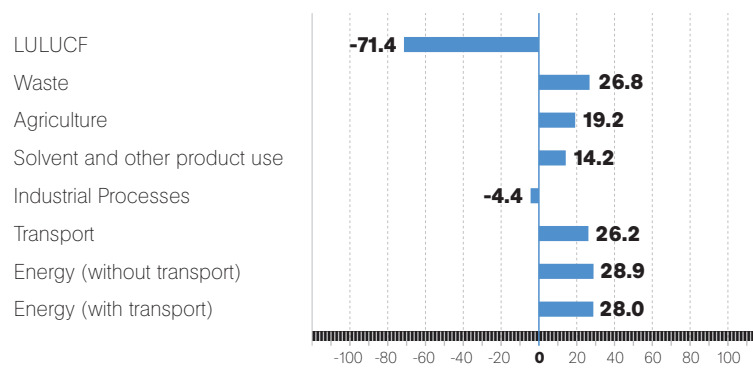
Changes relative to 1990 level



Sectoral shares in GHG total, 2003



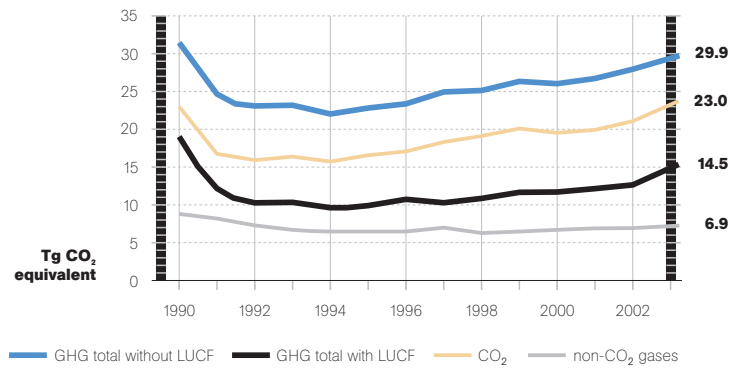
Changes in GHGs by sector (%), 1990 – 2003



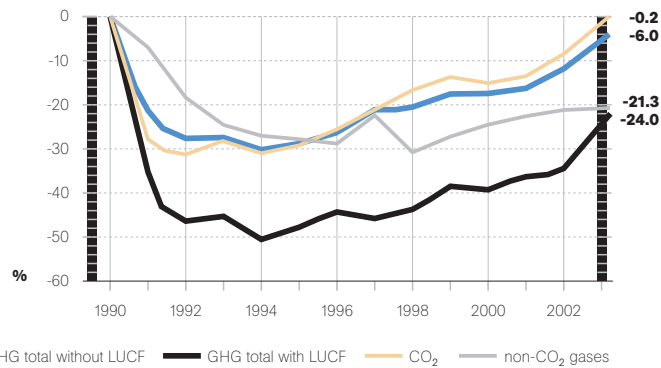
Canada
1990 – 2003

Bulgaria
1990 – 2003

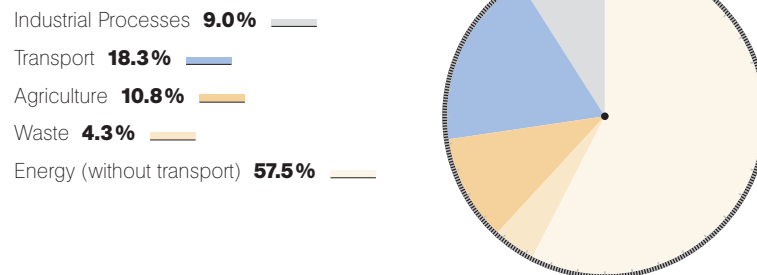
Figure II-28. GHG emissions



Changes relative to 1990 level



Sectoral shares in GHG total, 2003



Changes in GHGs by sector (%), 1990 – 2003

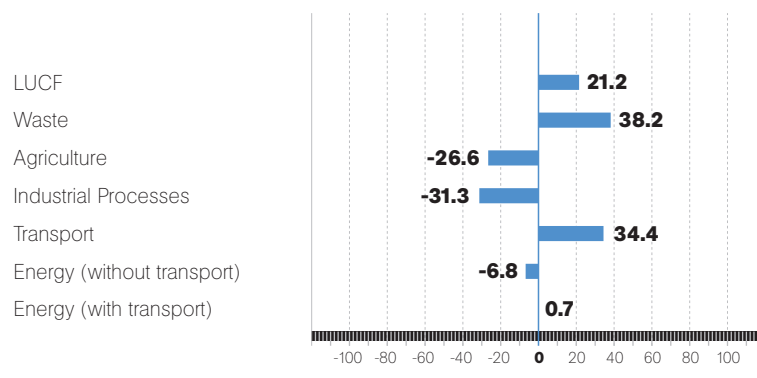
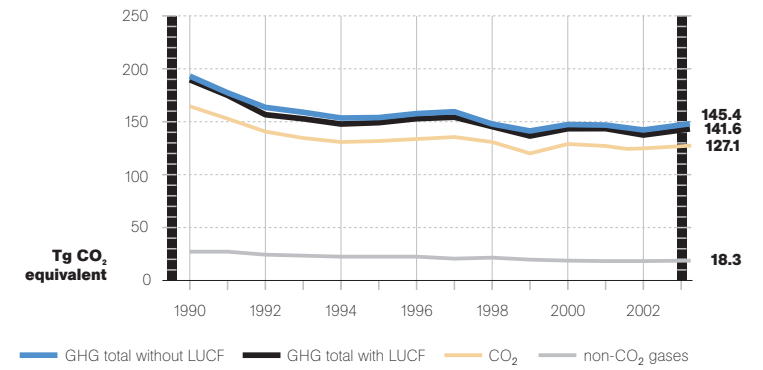
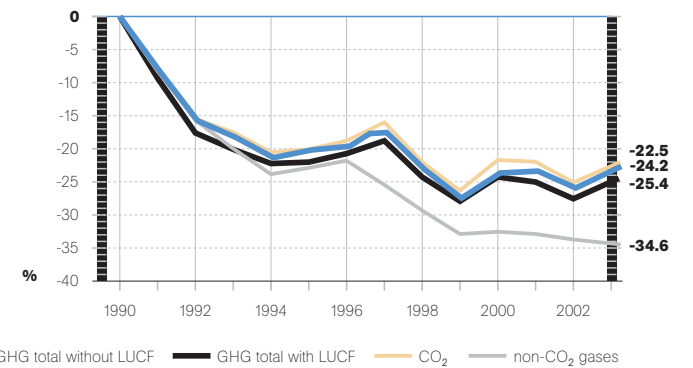


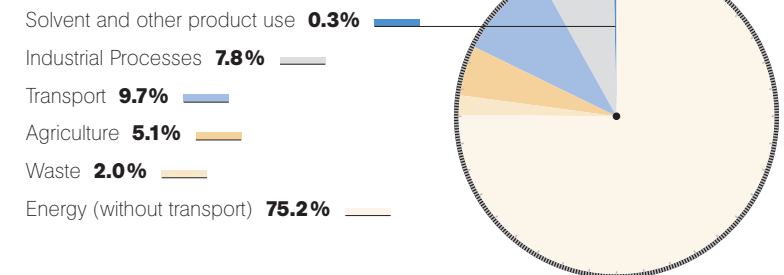
Figure II-29. GHG emissions



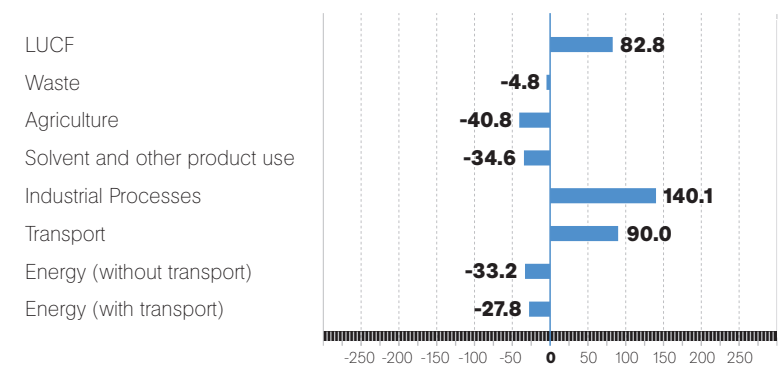
Changes relative to 1990 level



Sectoral shares in GHG total, 2003



Changes in GHGs by sector (%), 1990 – 2003



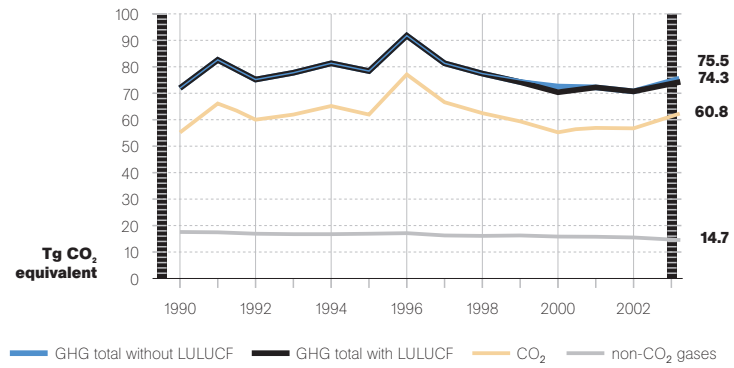
Note: for 1991 and 1993, interpolated values are used because of the unavailability of latest GHG data for these years.

Croatia
1990 – 2003

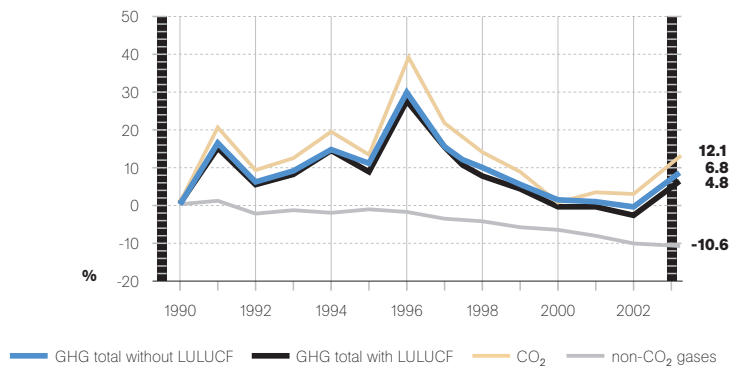
Czech Republic
1990 – 2003

Figure II-30

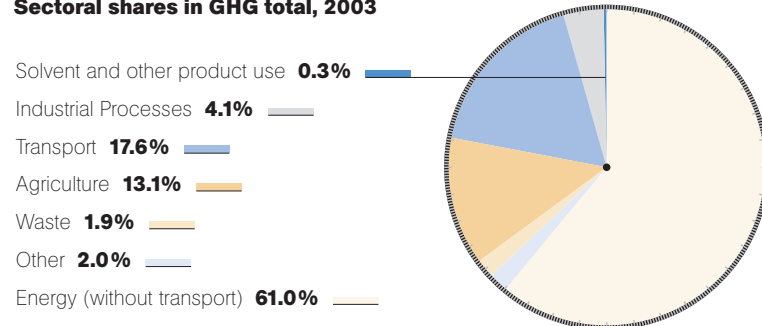
GHG emissions



Changes relative to 1990 level



Sectoral shares in GHG total, 2003



Changes in GHGs by sector (%), 1990 – 2003

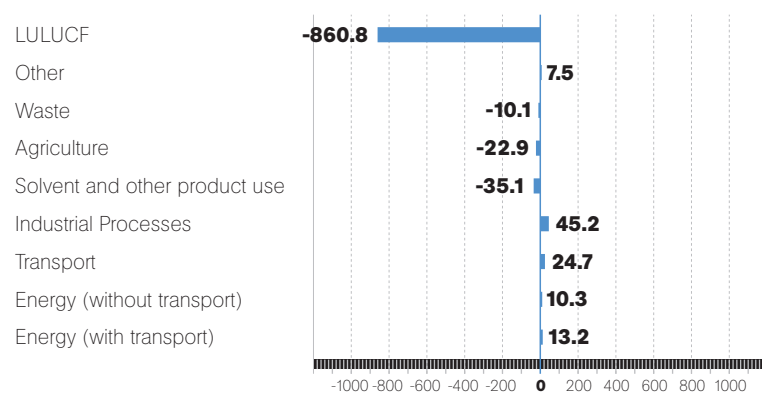
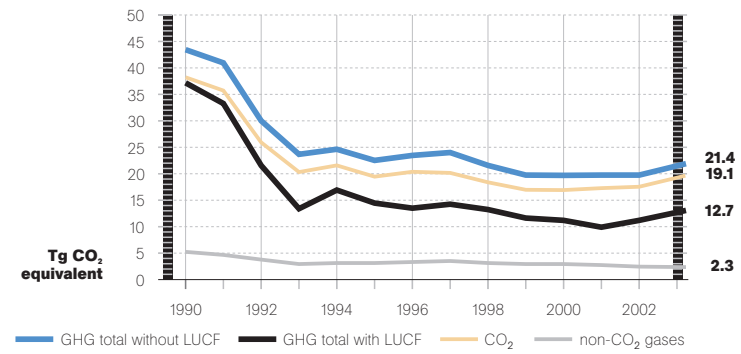
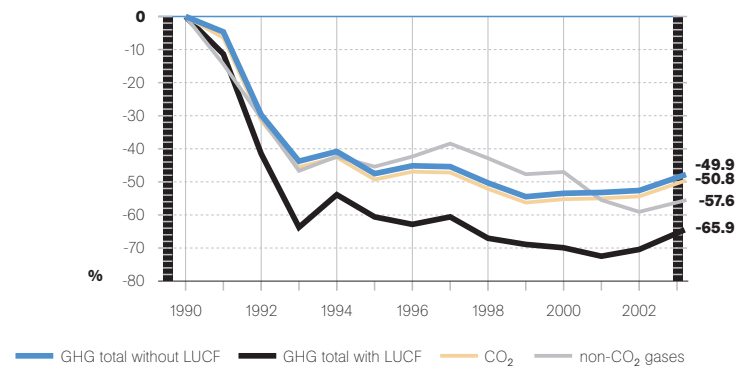


Figure II-31

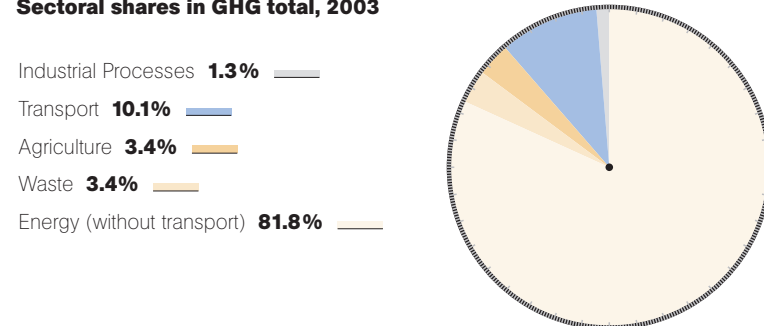
GHG emissions



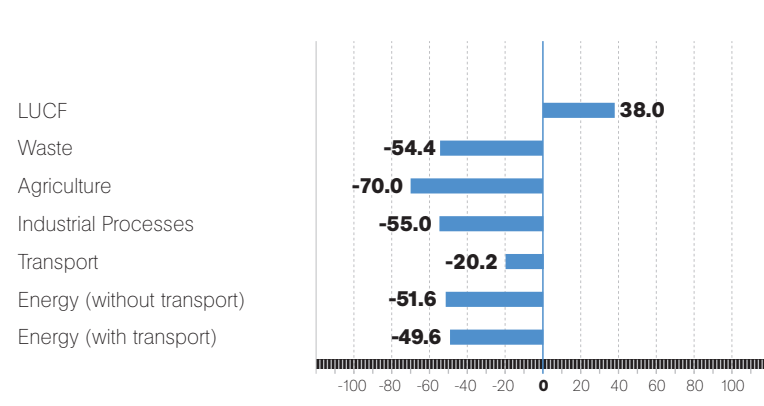
Changes relative to 1990 level



Sectoral shares in GHG total, 2003



Changes in GHGs by sector (%), 1990 – 2003



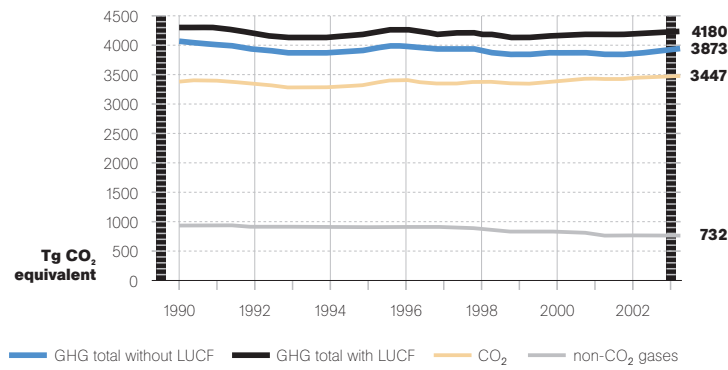
Denmark

1990 – 2003

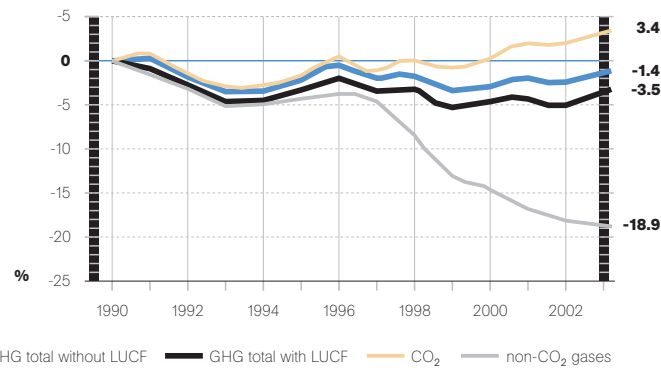
Estonia

1990 – 2003

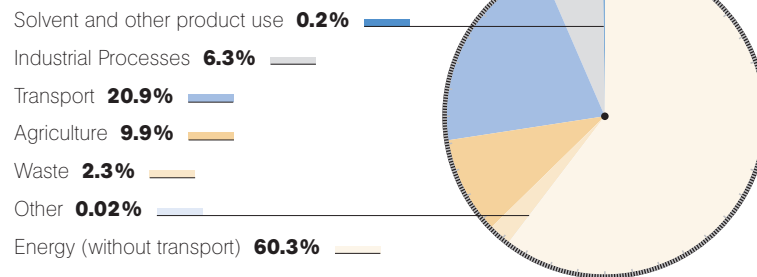
Figure II-32. GHG emissions



Changes relative to 1990 level



Sectoral shares in GHG total, 2003



Changes in GHGs by sector (%), 1990 – 2003

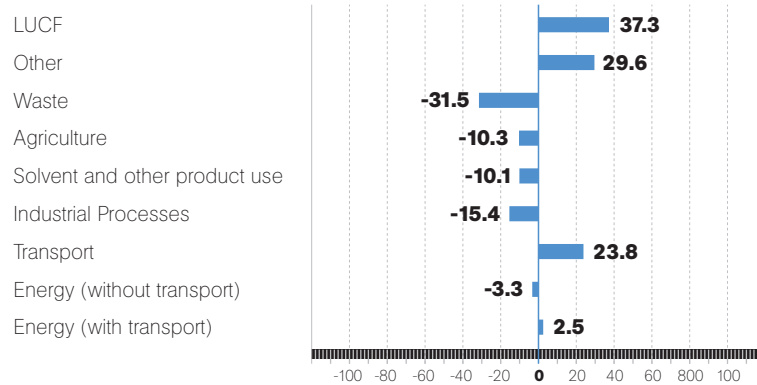
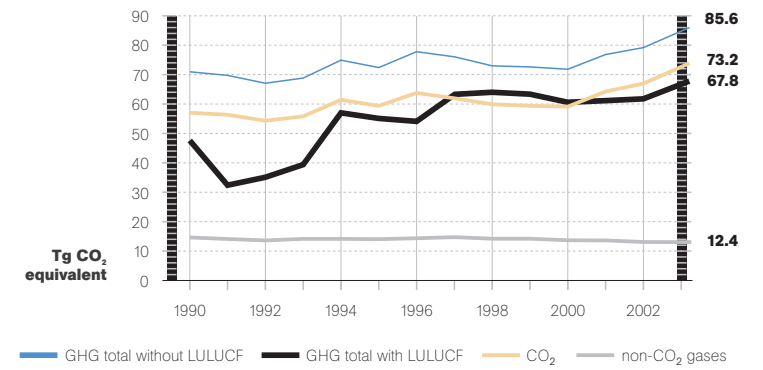
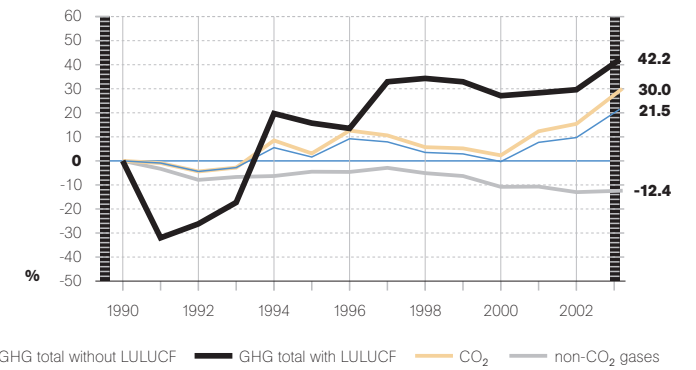


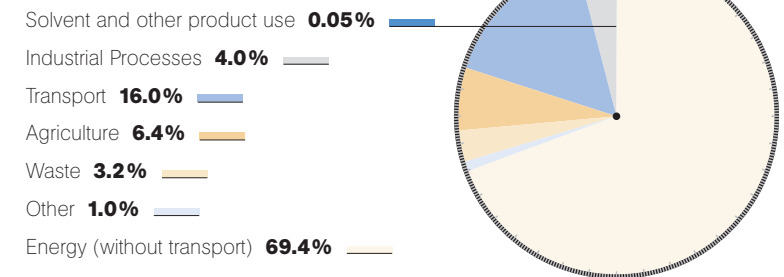
Figure II-33. GHG emissions



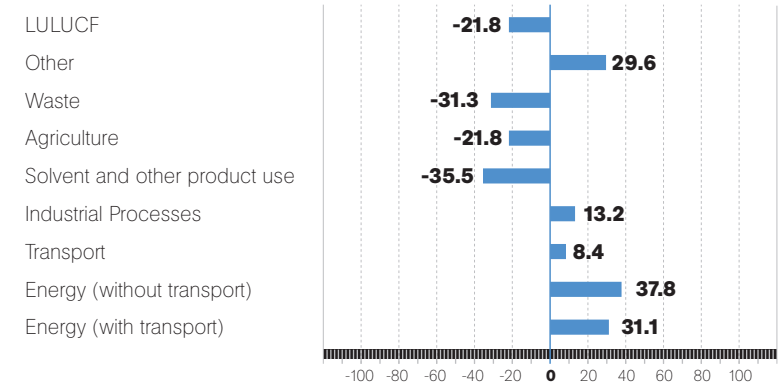
Changes relative to 1990 level



Sectoral shares in GHG total, 2003



Changes in GHGs by sector (%), 1990 – 2003



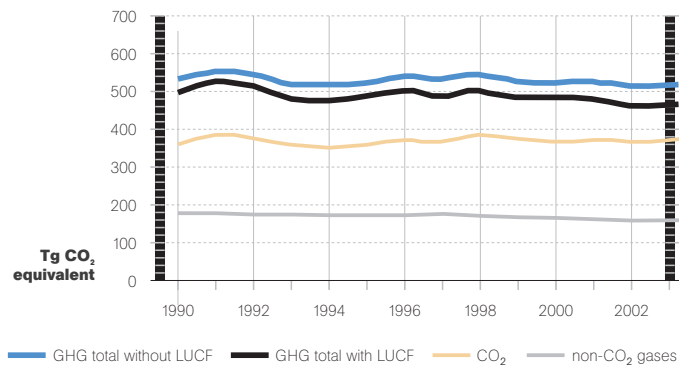
European Community

1990 – 2003

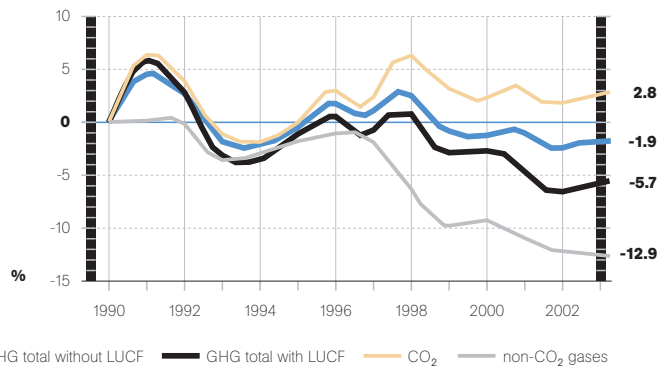
Finland

1990 – 2003

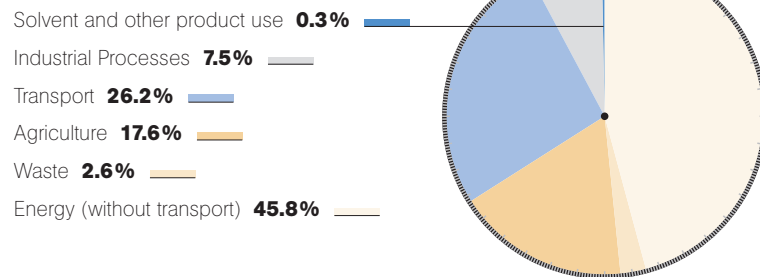
Figure II-34. GHG emissions



Changes relative to 1990 level



Sectoral shares in GHG total, 2003



Changes in GHGs by sector (%), 1990 – 2003

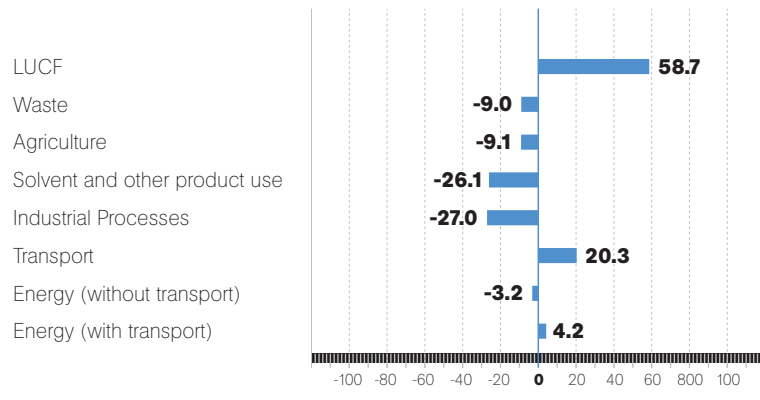
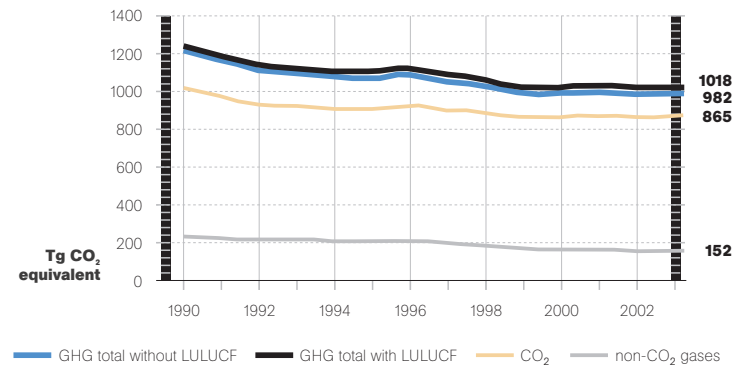
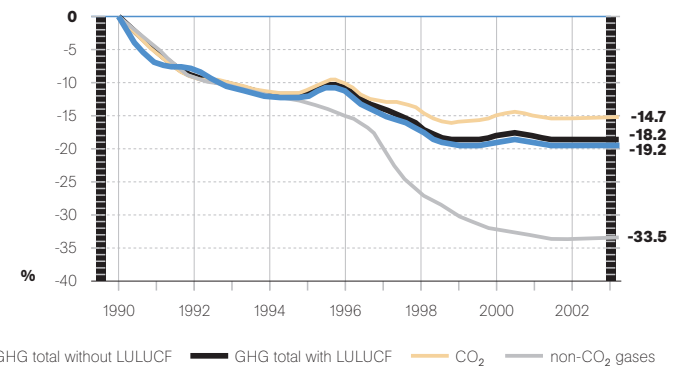


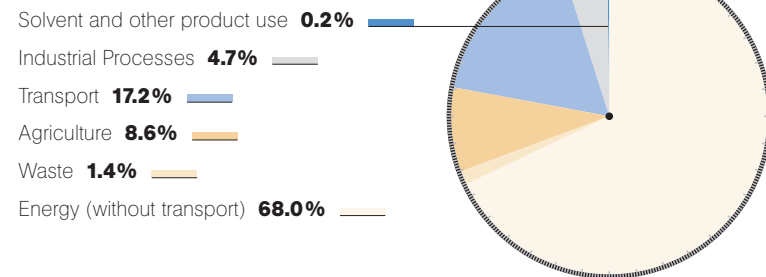
Figure II-35. GHG emissions



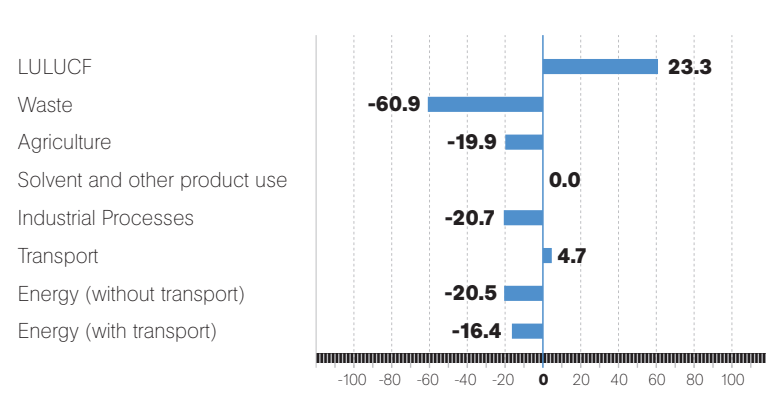
Changes relative to 1990 level



Sectoral shares in GHG total, 2003



Changes in GHGs by sector (%), 1990 – 2003



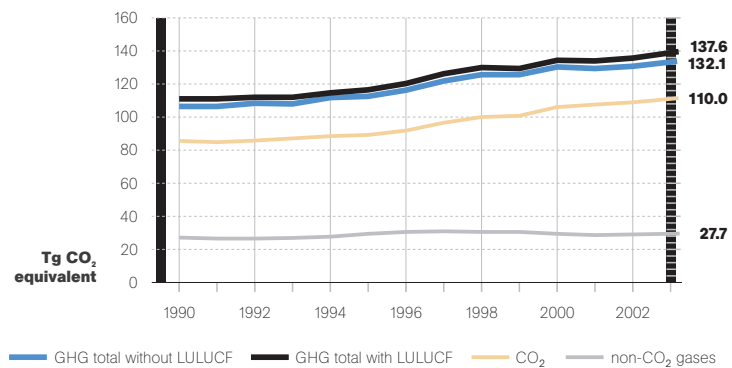
France

1990 – 2003

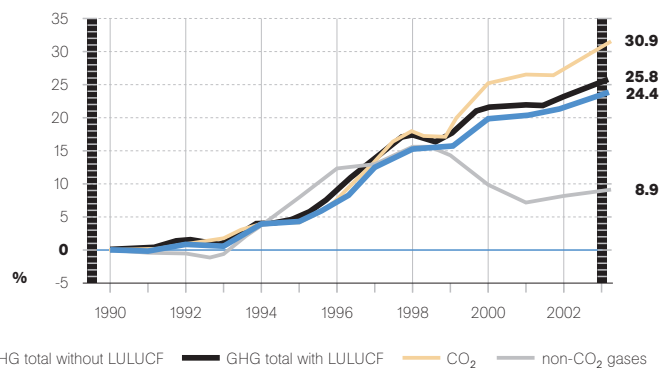
Germany

1990 – 2003

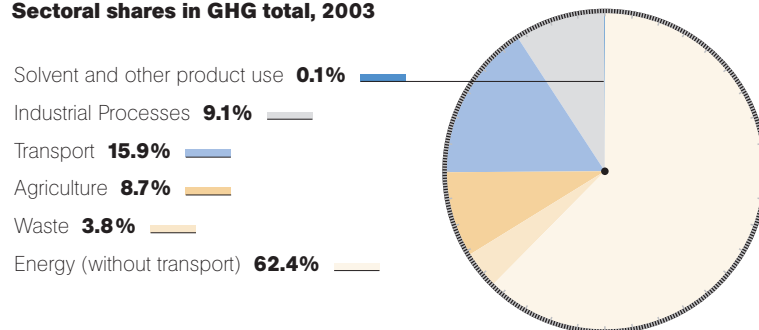
Figure II-36. GHG emissions



Changes relative to 1990 level



Sectoral shares in GHG total, 2003



Changes in GHGs by sector (%), 1990 – 2003

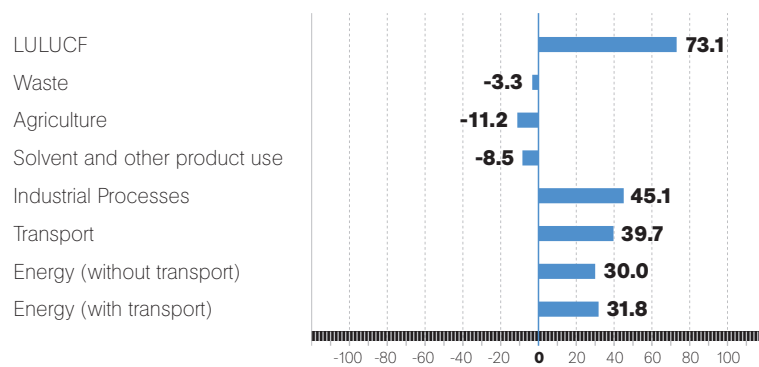
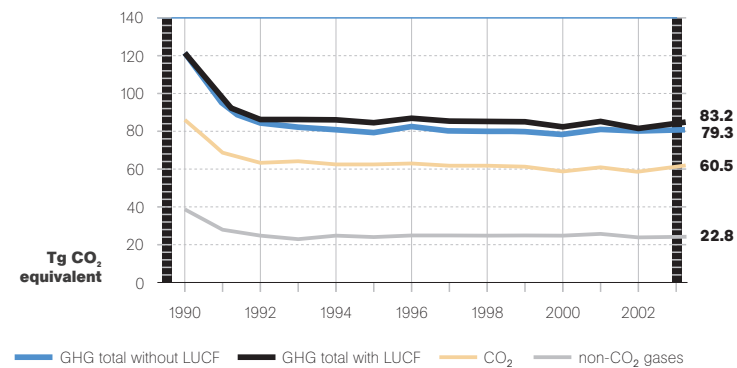
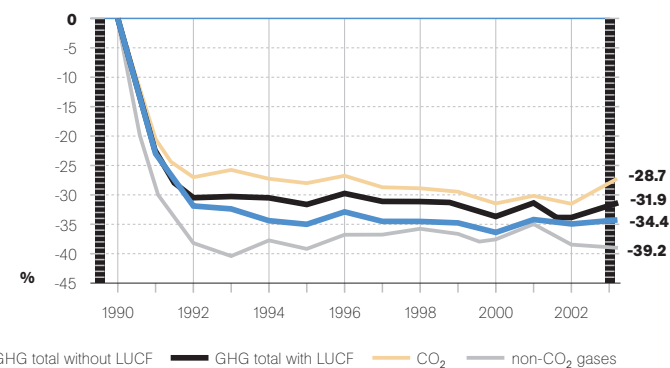


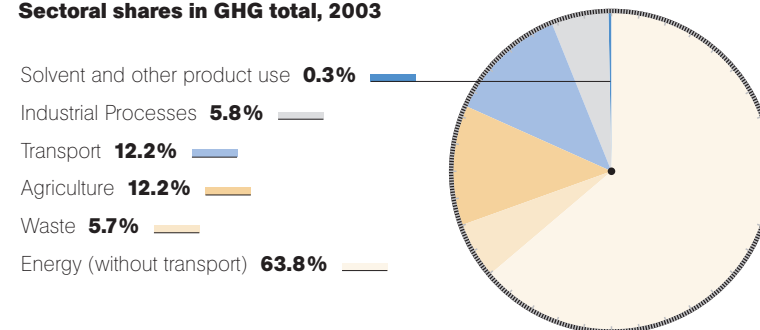
Figure II-37. GHG emissions



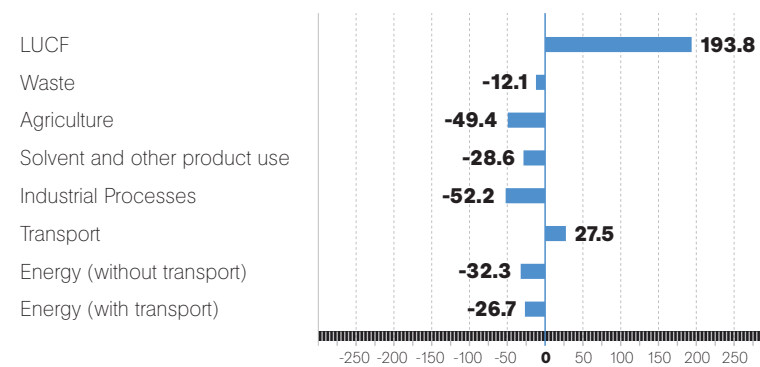
Changes relative to 1990 level



Sectoral shares in GHG total, 2003



Changes in GHGs by sector (%), 1990 – 2003

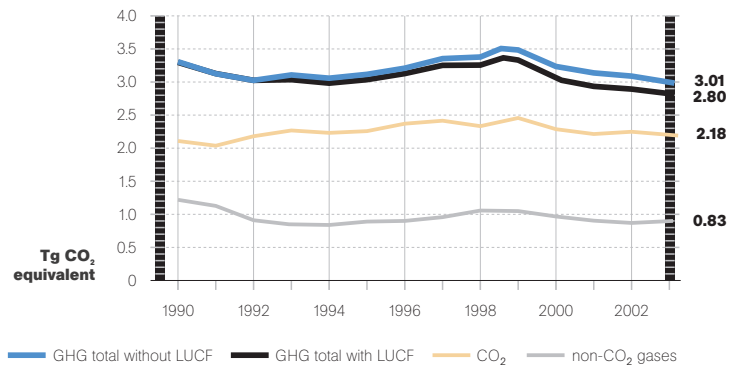


Note: data for the base year (average of 1985 – 1987) are used in this graph instead of 1990 data.

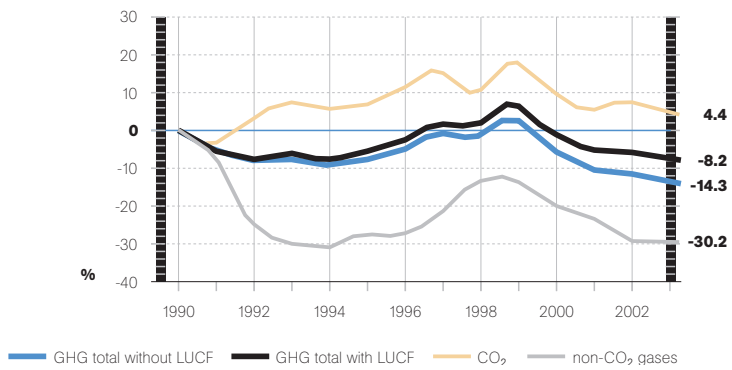
Greece
1990 – 2003

Hungary
1990 – 2003

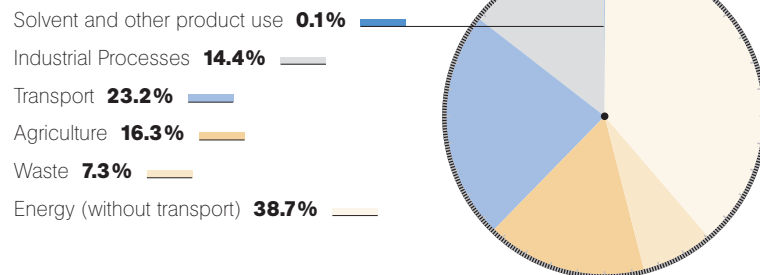
Figure II-38. GHG emissions



Changes relative to 1990 level



Sectoral shares in GHG total, 2003



Changes in GHGs by sector (%), 1990 – 2003

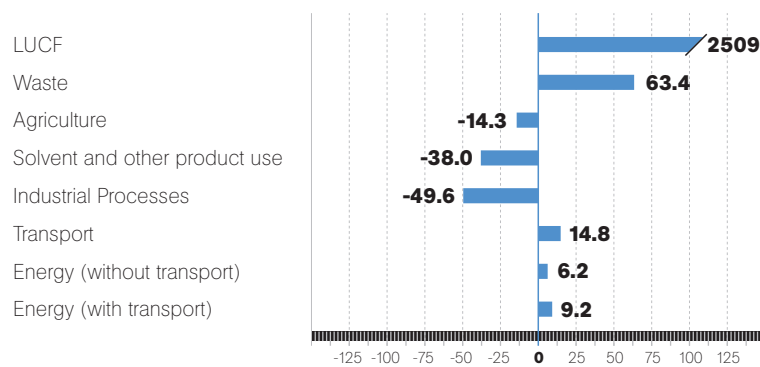
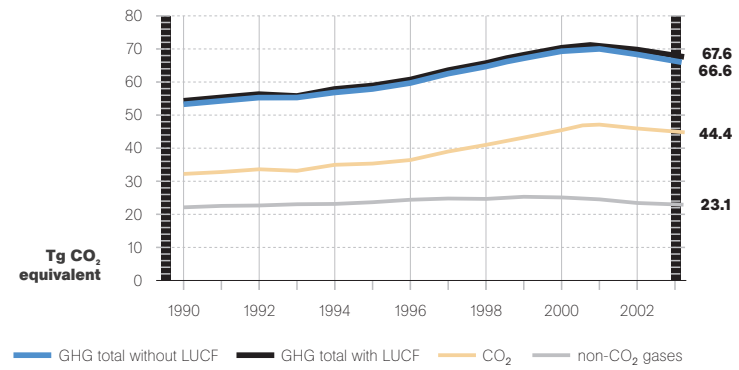
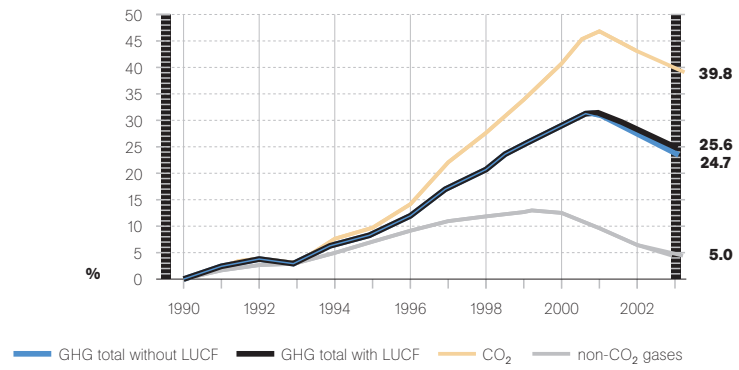


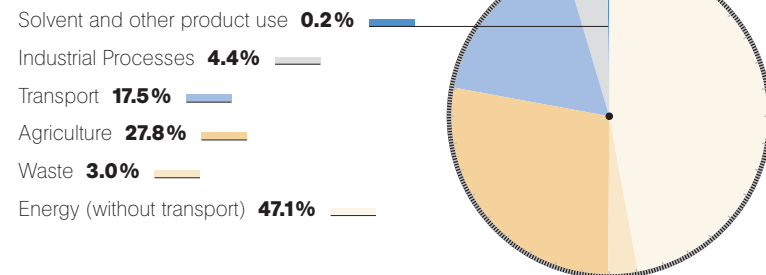
Figure II-39. GHG emissions



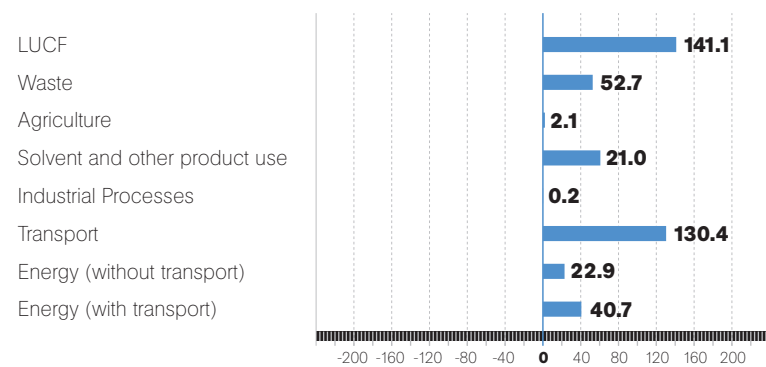
Changes relative to 1990 level



Sectoral shares in GHG total, 2003



Changes in GHGs by sector (%), 1990 – 2003



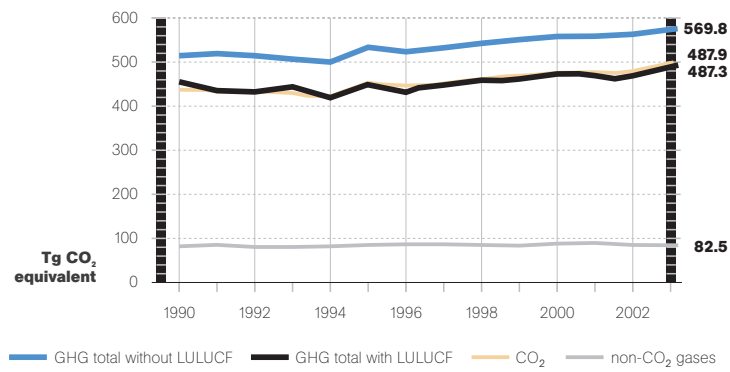
Iceland

1990 – 2003

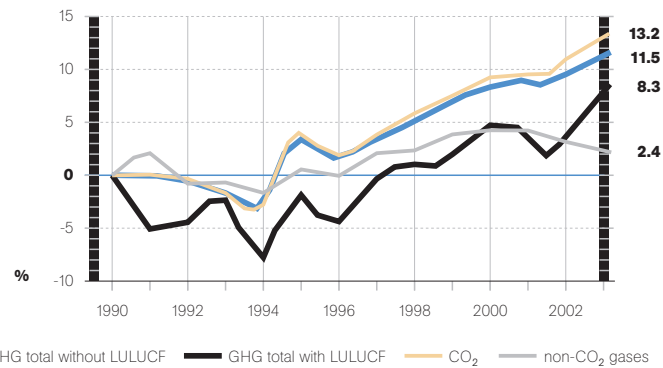
Ireland

1990 – 2003

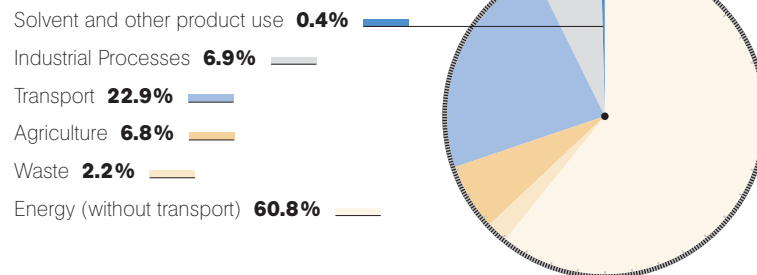
Figure II-40. GHG emissions



Changes relative to 1990 level



Sectoral shares in GHG total, 2003



Changes in GHGs by sector (%), 1990 – 2003

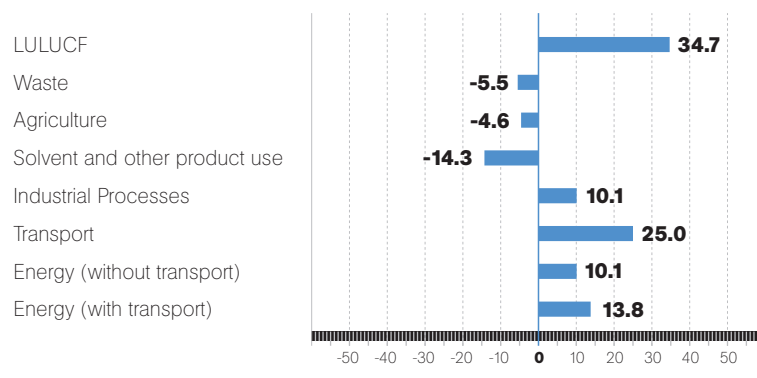
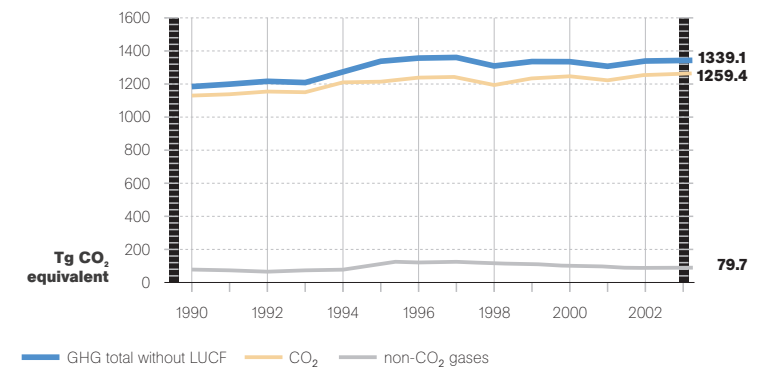
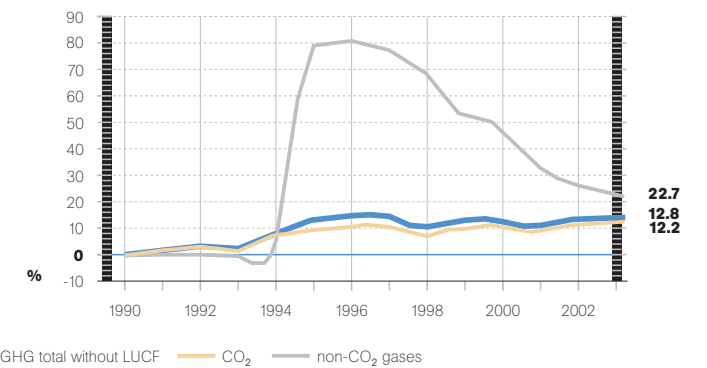


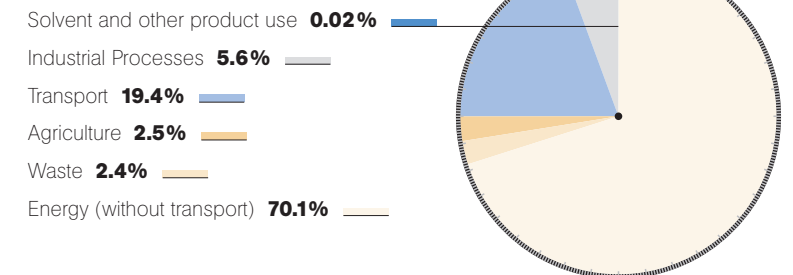
Figure II-41. GHG emissions



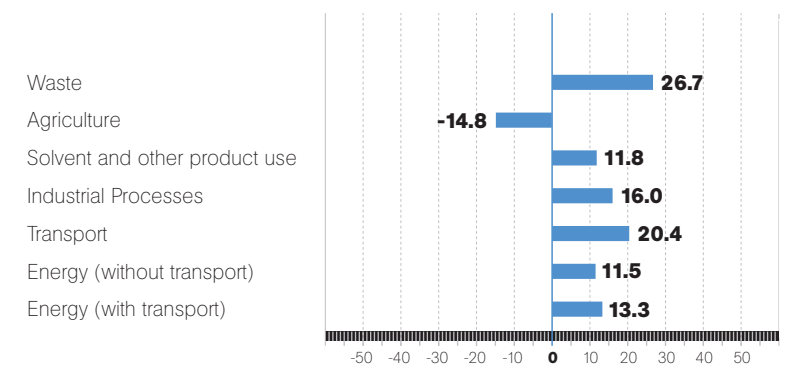
Changes relative to 1990 level



Sectoral shares in GHG total, 2003



Changes in GHGs by sector (%), 1990 – 2003

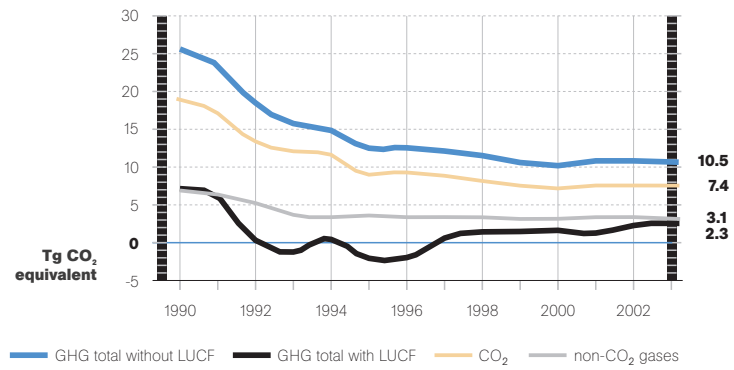


Note: at the time of the preparation of this document, the data series for the LUCF/LULUCF sector were incomplete. Therefore, the change from 1990 to 2003 for GHG emissions from LUCF/LULUCF and for GHG total without LUCF/LULUCF are not shown.

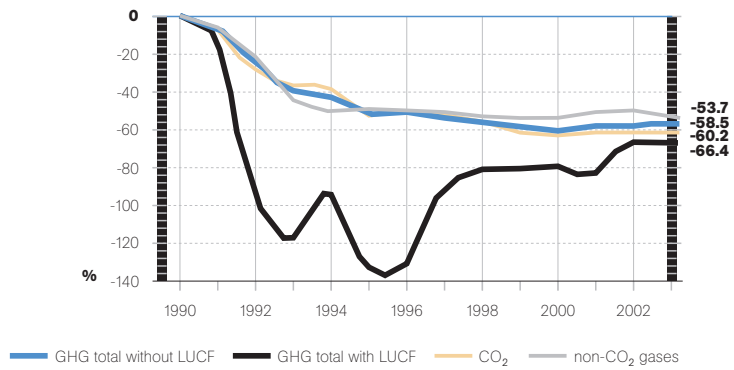
Italy
1990 – 2003

Japan
1990 – 2003

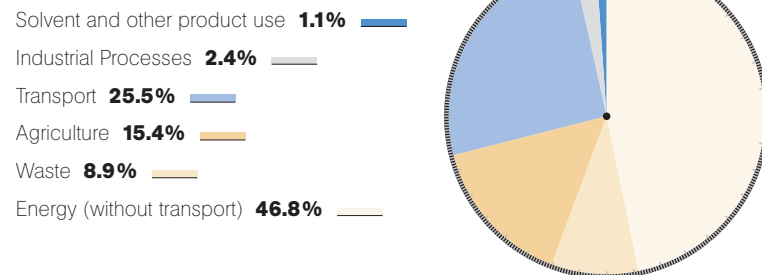
Figure II-42. GHG emissions



Changes relative to 1990 level



Sectoral shares in GHG total, 2003



Changes in GHGs by sector (%), 1990 – 2003

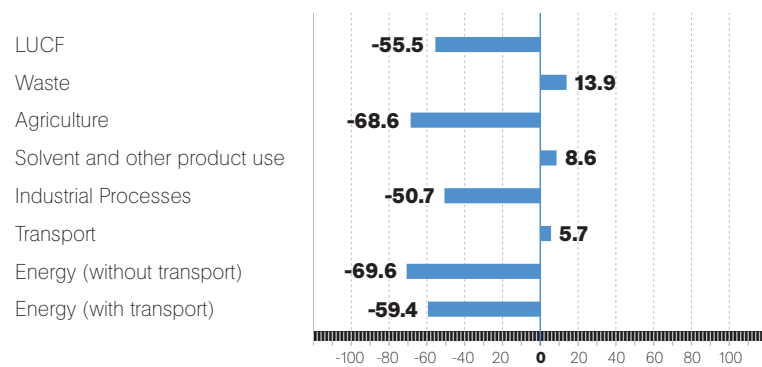
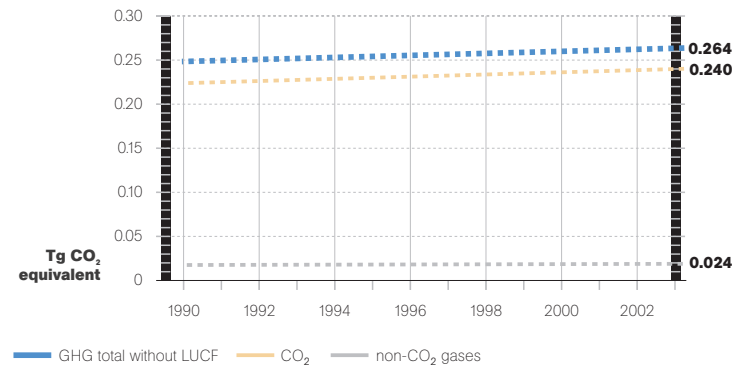
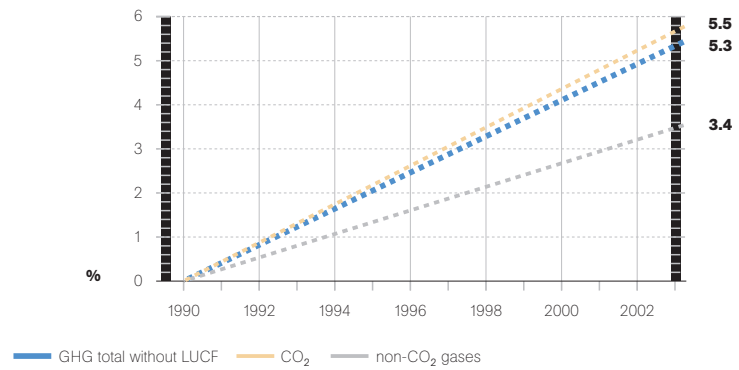


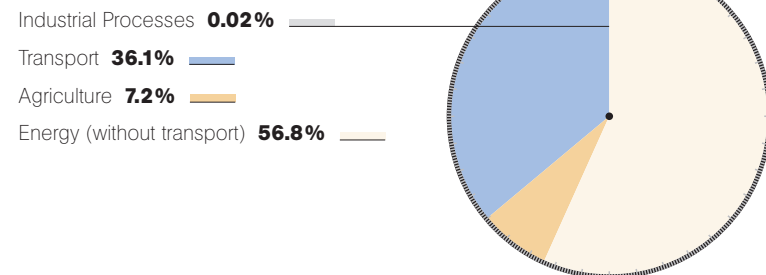
Figure II-43. GHG emissions



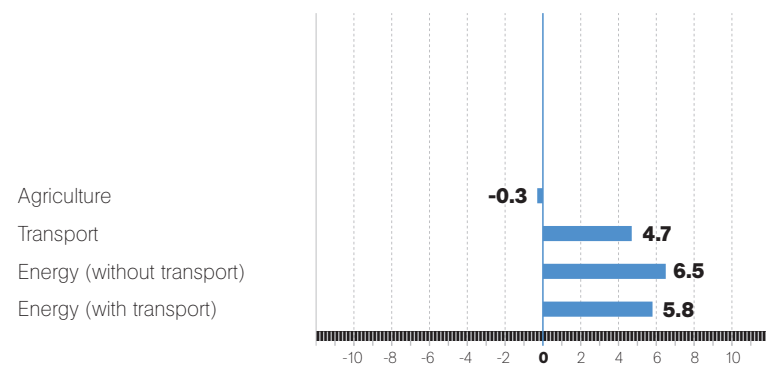
Changes relative to 1990 level



Sectoral shares in GHG total, 2003



Changes in GHGs by sector (%), 1990 – 2003

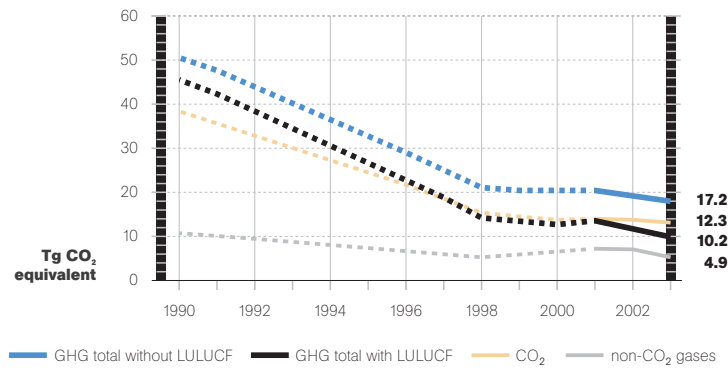


Note 1: the dotted lines are used to indicate that the latest data are available for 1990 and 2003 only.
 Note 2: data are not available for the LUCF and waste sectors.

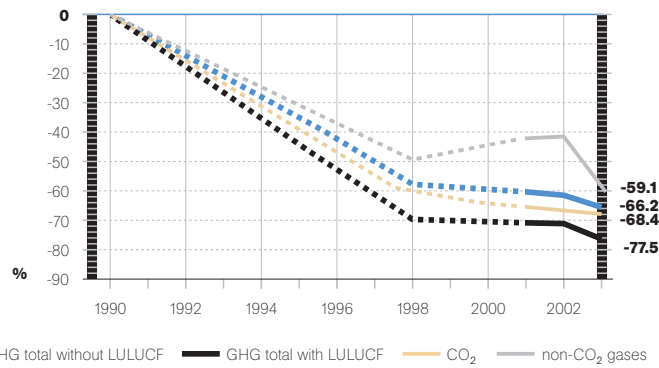
Latvia
1990 – 2003

Liechtenstein
1990 – 2003

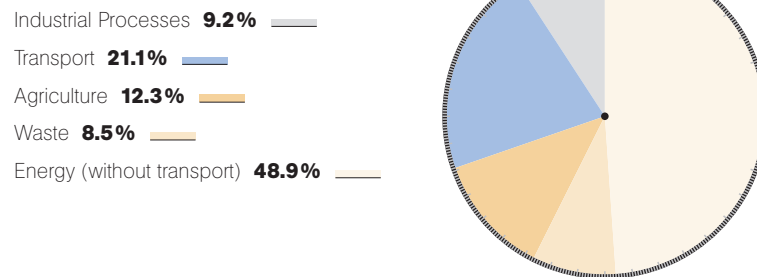
Figure II-44. GHG emissions



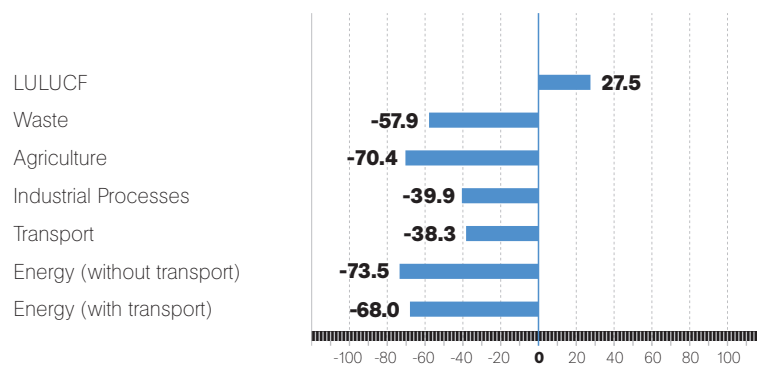
Changes relative to 1990 level



Sectoral shares in GHG total, 2003

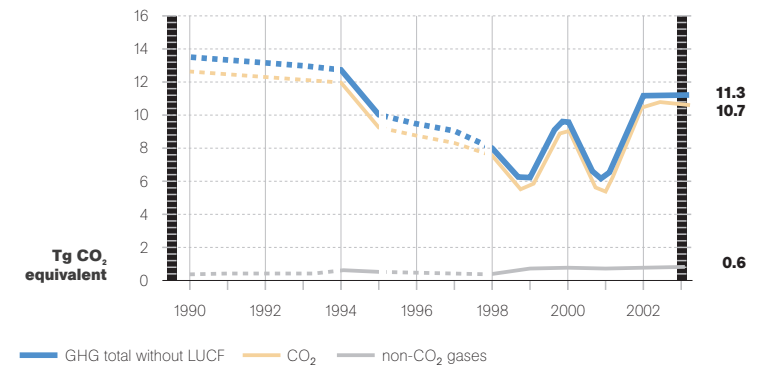


Changes in GHGs by sector (%), 1990 – 2003

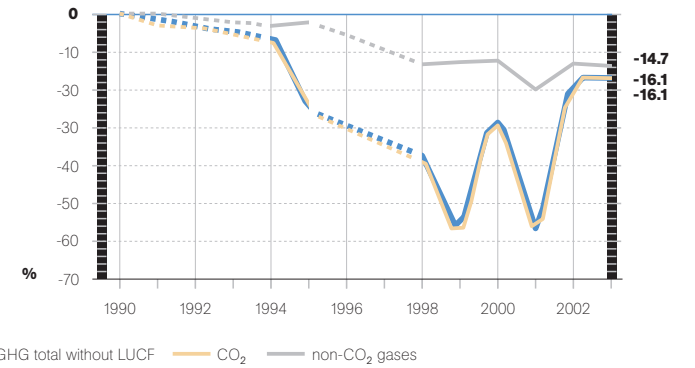


Note: the dotted lines are used to indicate where the latest data are not available.

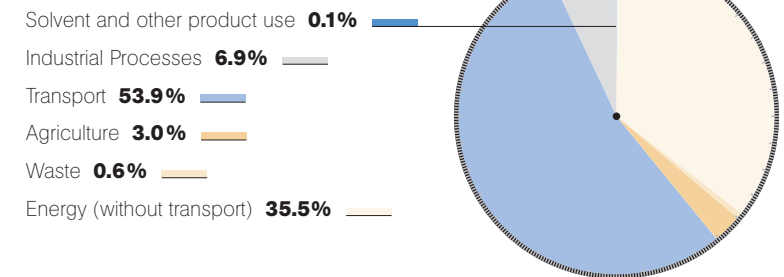
Figure II-45. GHG emissions



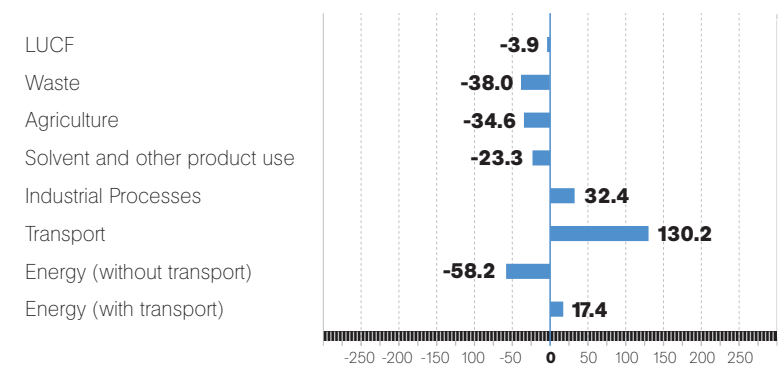
Changes relative to 1990 level



Sectoral shares in GHG total, 2003



Changes in GHGs by sector (%), 1990 – 2003



Note 1: the dotted lines are used to indicate where the latest data are not available.

Note 2: the GHG total with LUCF differs only slightly from the GHG total without LUCF and therefore is not shown on the graph.

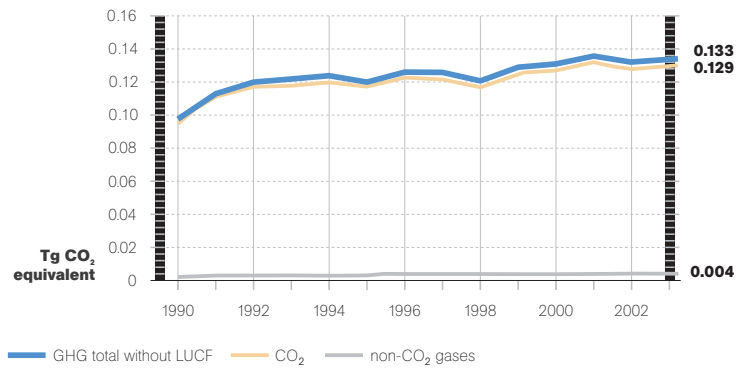
Lithuania

1990 – 2003

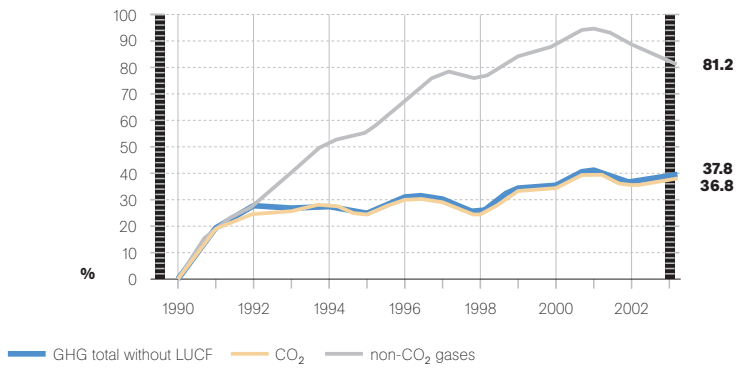
Luxembourg

1990 – 2003

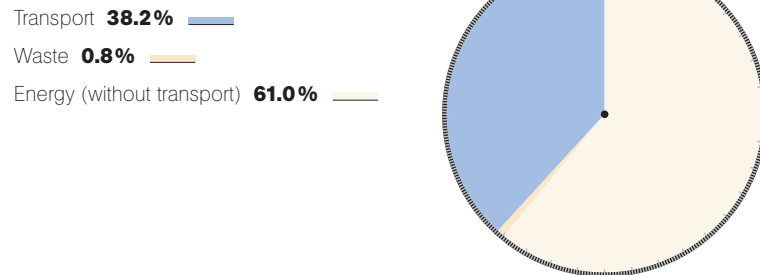
Figure II-46. GHG emissions



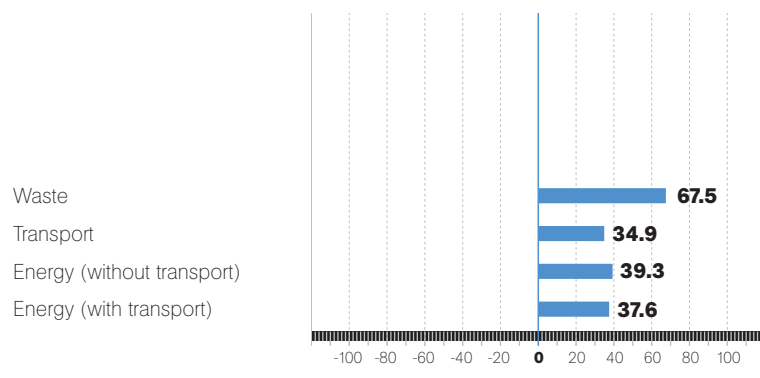
Changes relative to 1990 level



Sectoral shares in GHG total, 2003

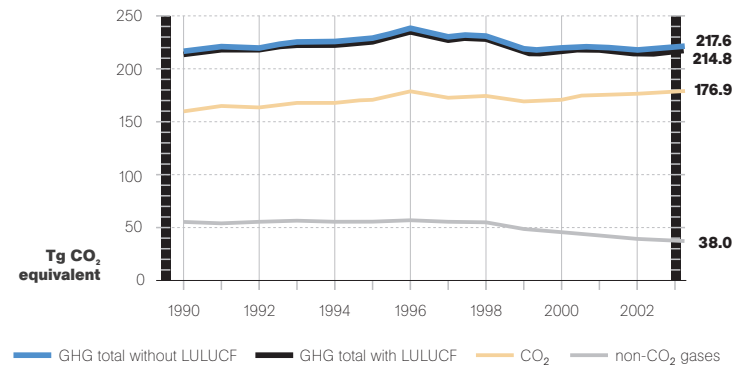


Changes in GHGs by sector (%), 1990 – 2003

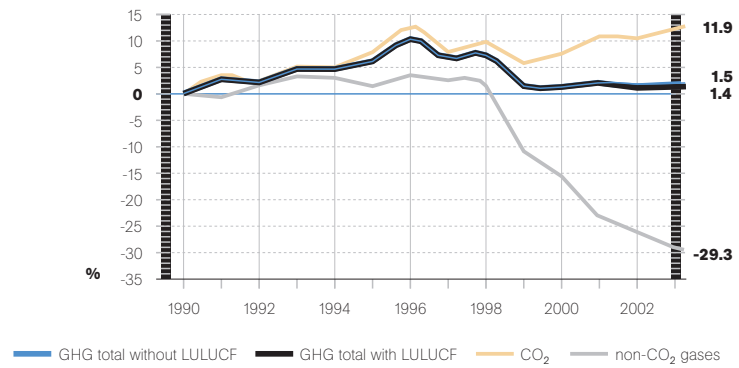


Note: data are not available for the sectors of industrial processes, agriculture and LULUCF.

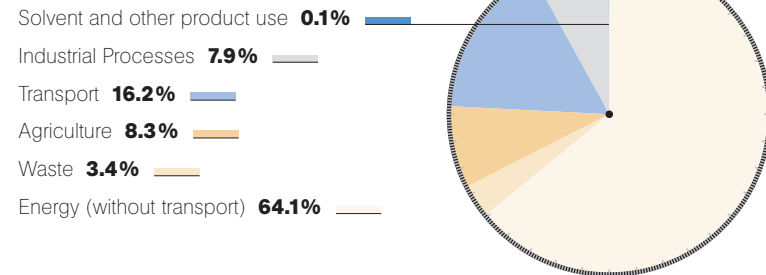
Figure II-47. GHG emissions



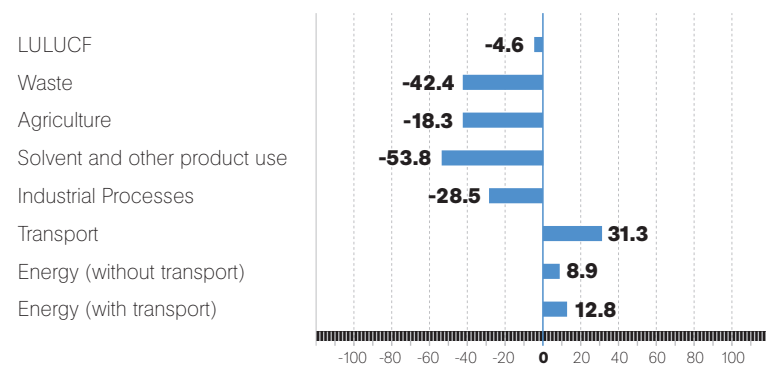
Changes relative to 1990 level



Sectoral shares in GHG total, 2003



Changes in GHGs by sector (%), 1990 – 2003



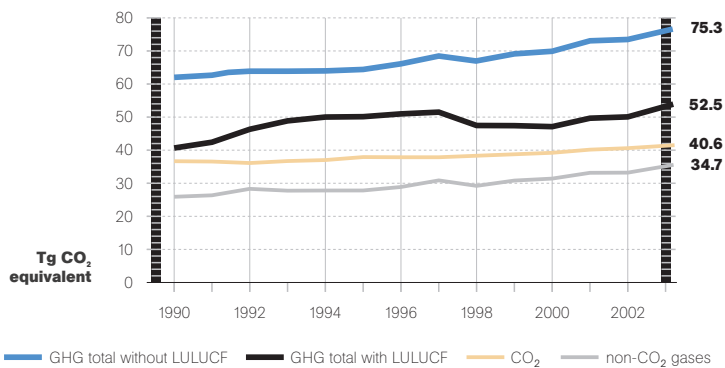
Netherlands

1990 – 2003

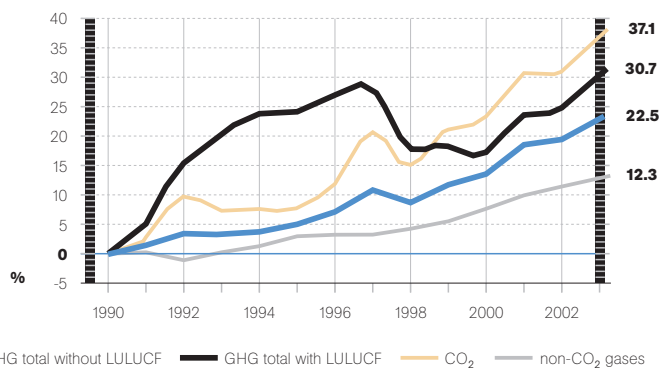
Monaco

1990 – 2003

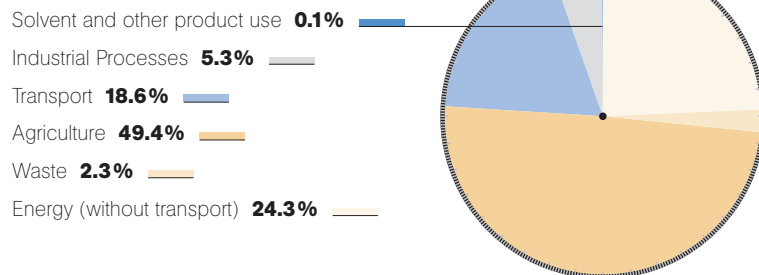
Figure II-48. GHG emissions



Changes relative to 1990 level



Sectoral shares in GHG total, 2003



Changes in GHGs by sector (%), 1990 – 2003

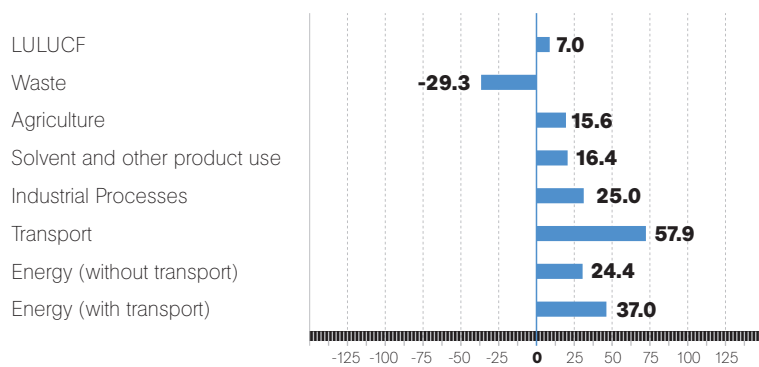
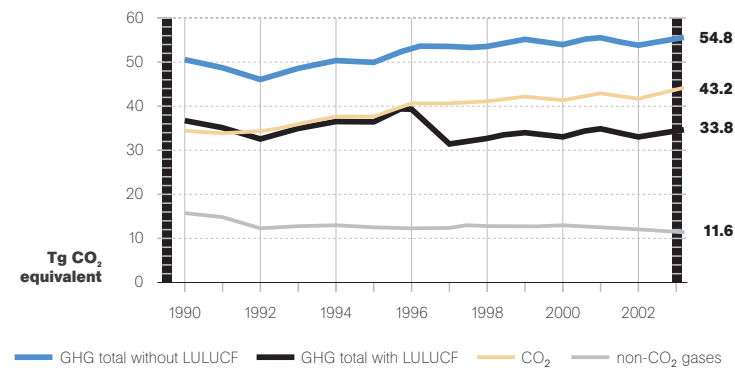
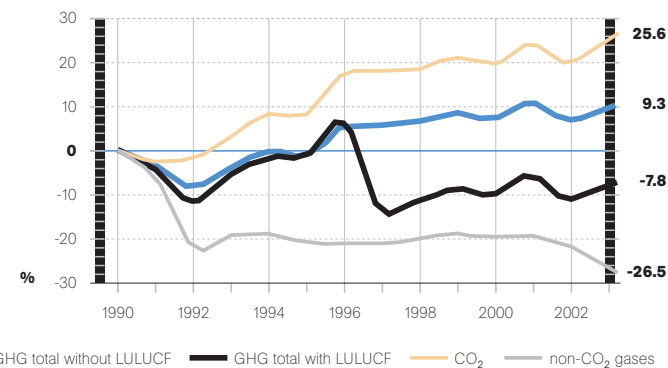


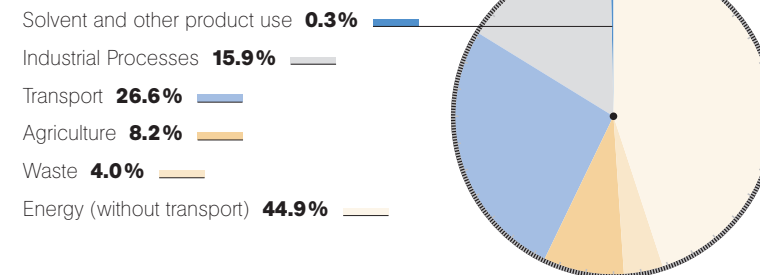
Figure II-49. GHG emissions



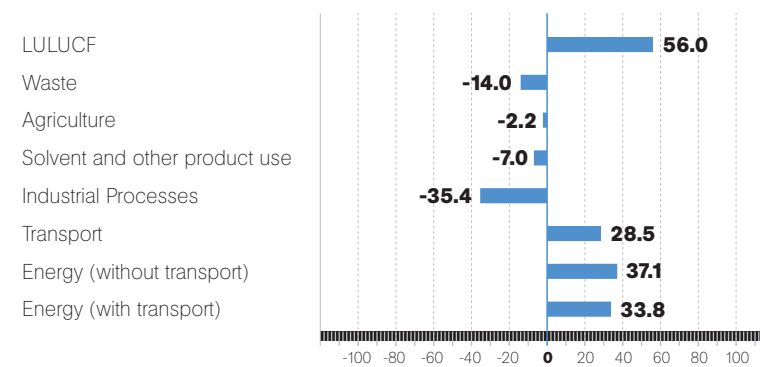
Changes relative to 1990 level



Sectoral shares in GHG total, 2003



Changes in GHGs by sector (%), 1990 – 2003



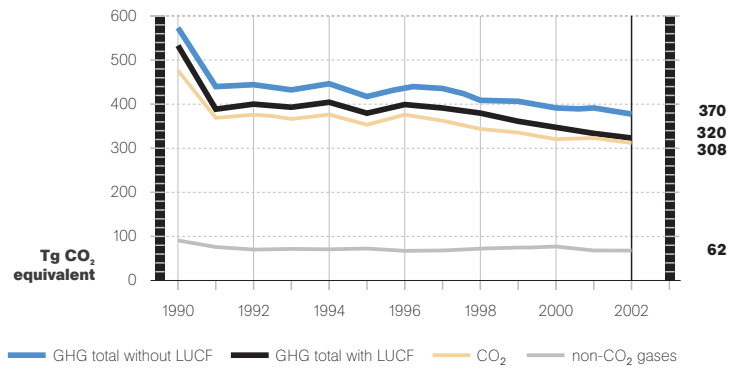
New Zealand

1990 – 2003

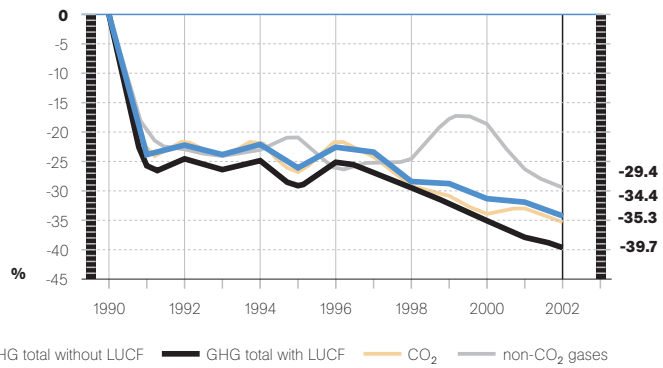
Norway

1990 – 2003

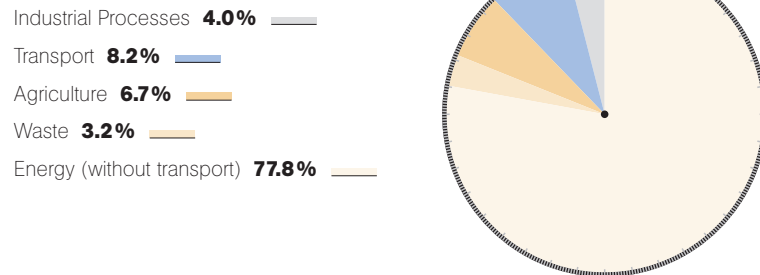
Figure II-50. GHG emissions



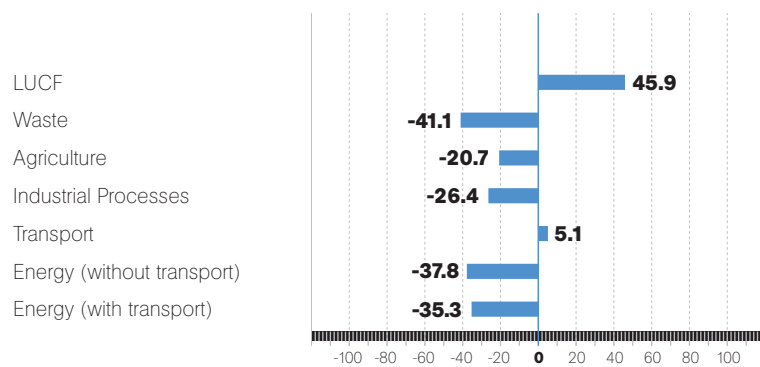
Changes relative to 1990 level



Sectoral shares in GHG total, 2002

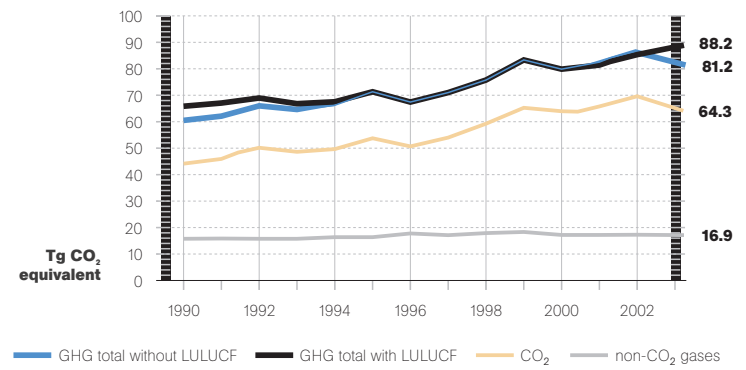


Changes in GHGs by sector (%), 1990 – 2002

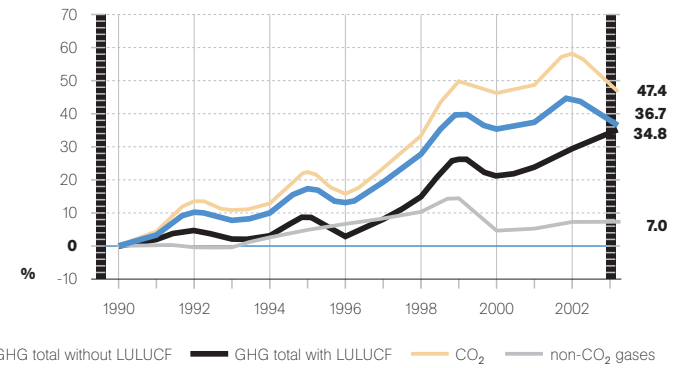


Note 1: data for the base year (1988) are used in this graph instead of 1990 data.
 Note 2: due to the late 2005 inventory submission, data from the 2004 submission covering the 1990 – 2002 period are used here.

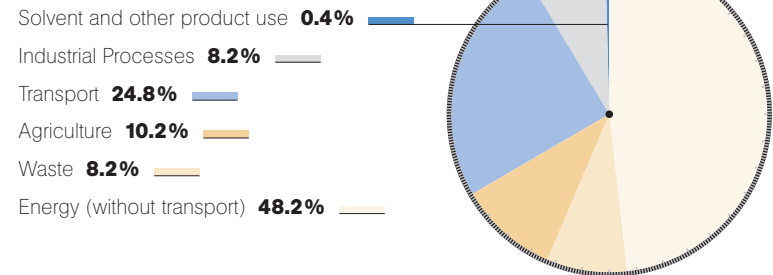
Figure II-51. GHG emissions



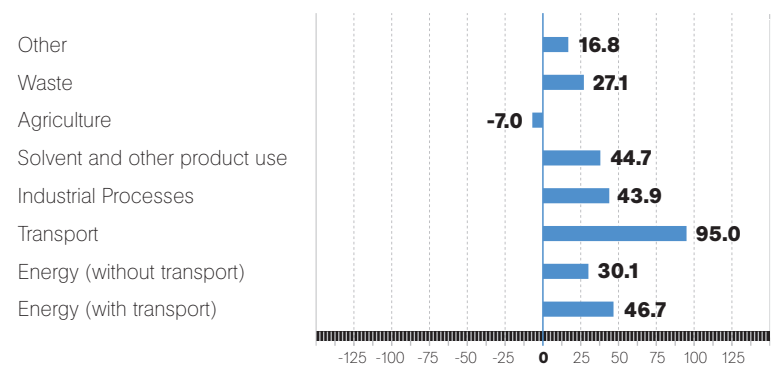
Changes relative to 1990 level



Sectoral shares in GHG total, 2003



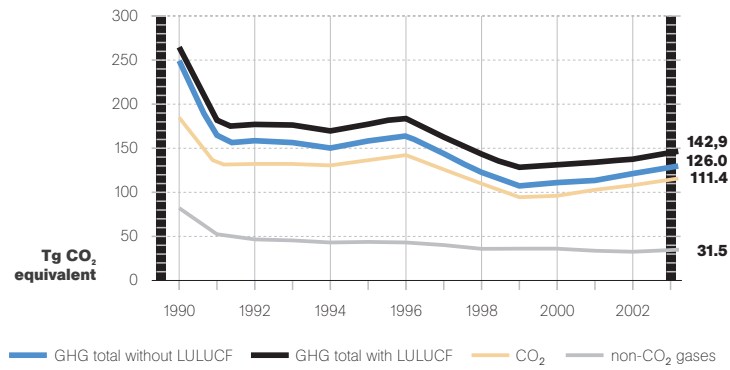
Changes in GHGs by sector (%), 1990 – 2003



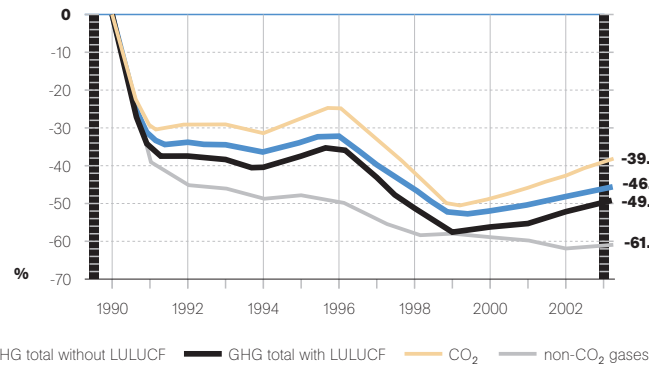
Portugal
1990 – 2003

Poland
1990 – 2002

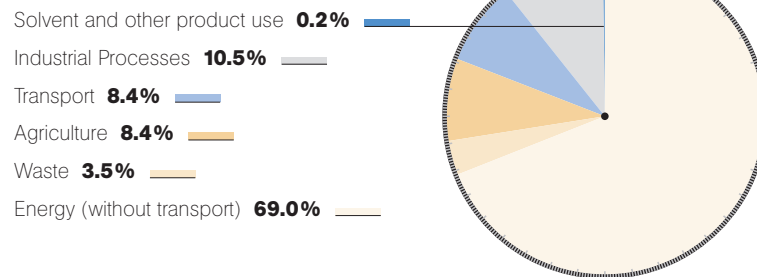
Figure II-52. GHG emissions



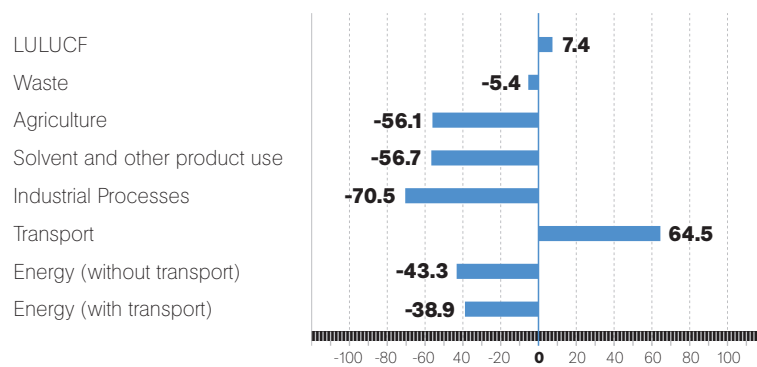
Changes relative to 1990 level



Sectoral shares in GHG total, 2003

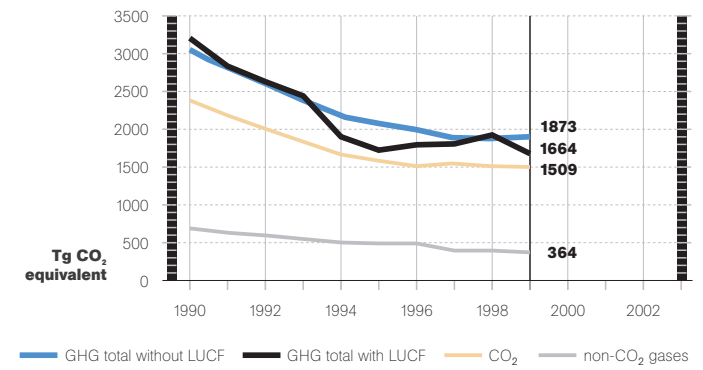


Changes in GHGs by sector (%), 1990 – 2003

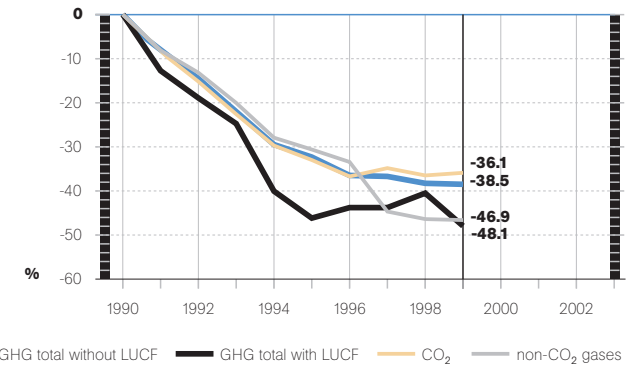


Note: data for the base year (1989) are used in this graph instead of 1990 data.

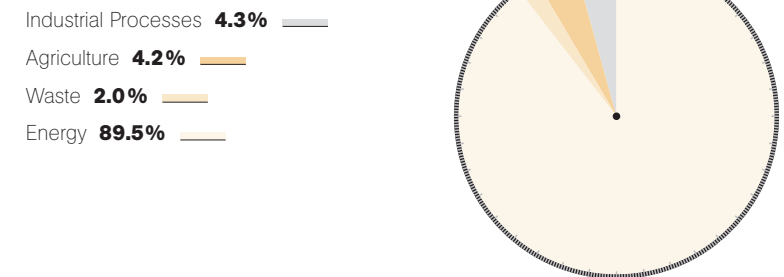
Figure II-53. GHG emissions



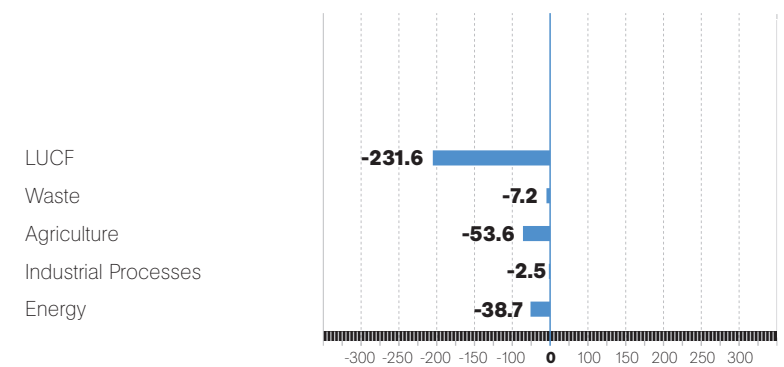
Changes relative to 1990 level



Sectoral shares in GHG total, 1999



Changes in GHGs by sector (%), 1990 – 1999

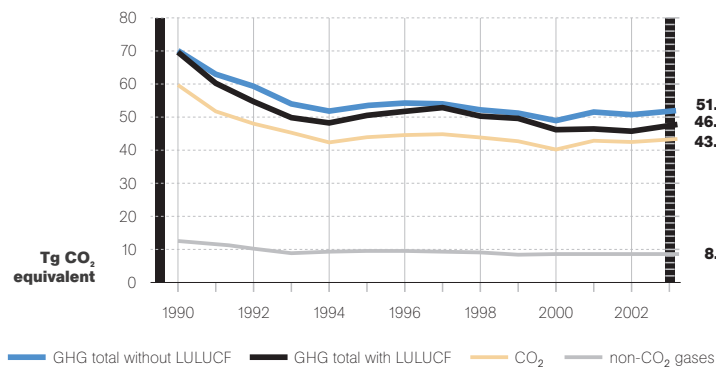


Note 1: data are available only for the 1990 – 1999 period.
 Note 2: data for the transport sector are not available.

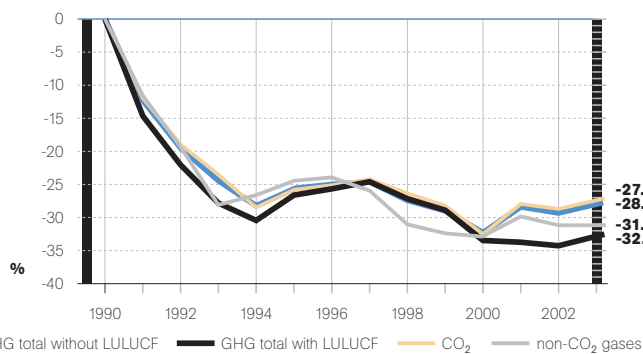
Romania
1990 – 2003

Russian Federation
1990 – 1999

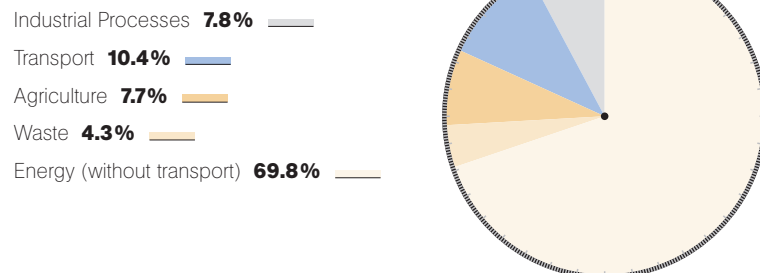
Figure II-54. GHG emissions



Changes relative to 1990 level



Sectoral shares in GHG total, 2003



Changes in GHGs by sector (%), 1990 – 2003

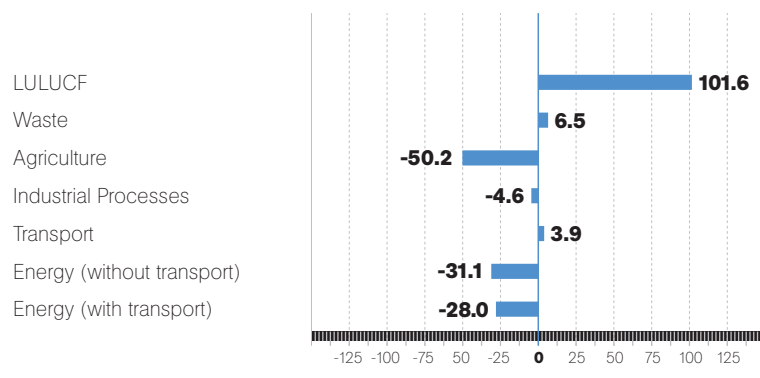
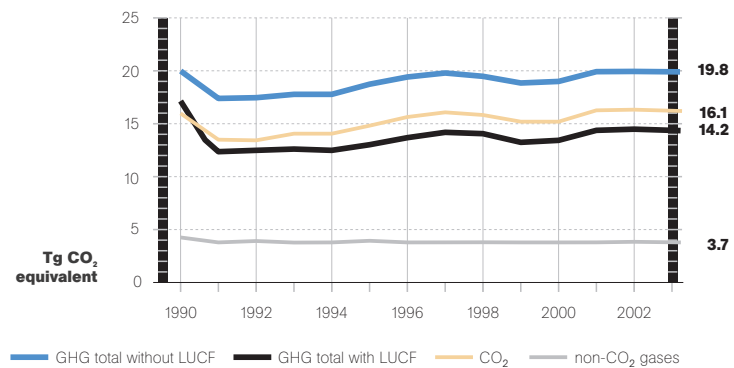
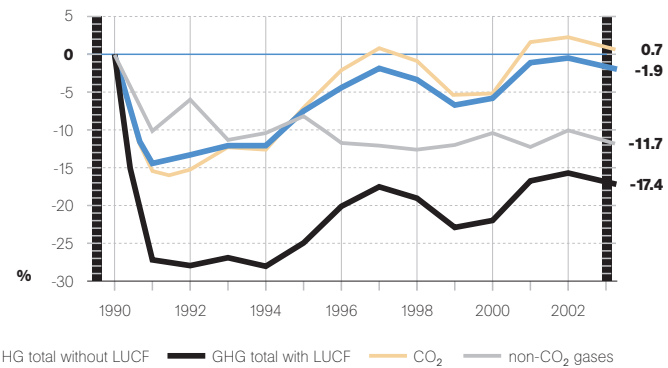


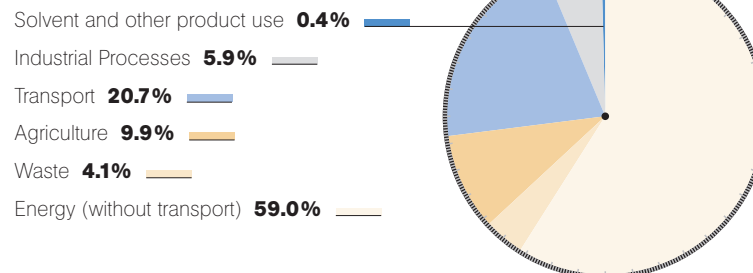
Figure II-55. GHG emissions



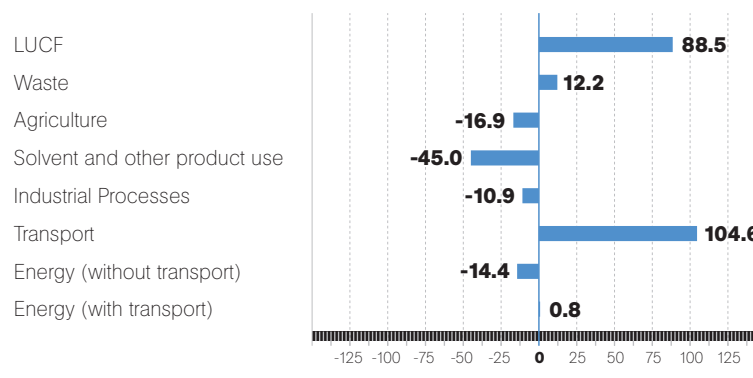
Changes relative to 1990 level



Sectoral shares in GHG total, 2003



Changes in GHGs by sector (%), 1990 – 2003



Note: data for the base year (1986) are used in this graph instead of 1990 data.

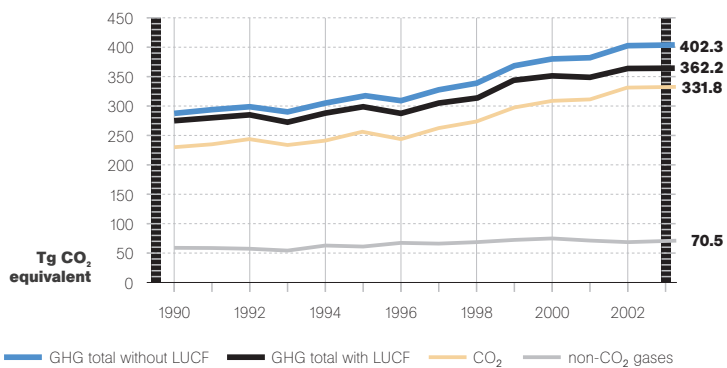
Slovakia

1990 – 2003

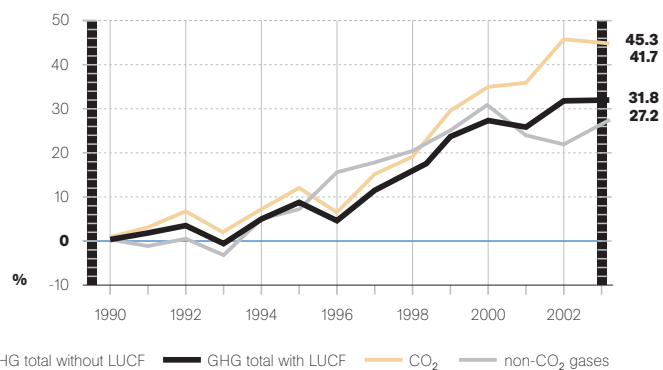
Slovenia

1990 – 2003

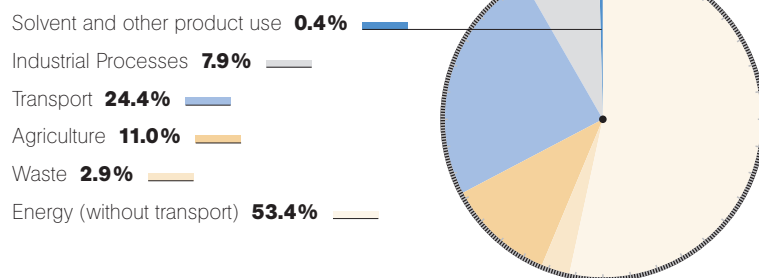
Figure II-56. GHG emissions



Changes relative to 1990 level



Sectoral shares in GHG total, 2003



Changes in GHGs by sector (%), 1990 – 2003

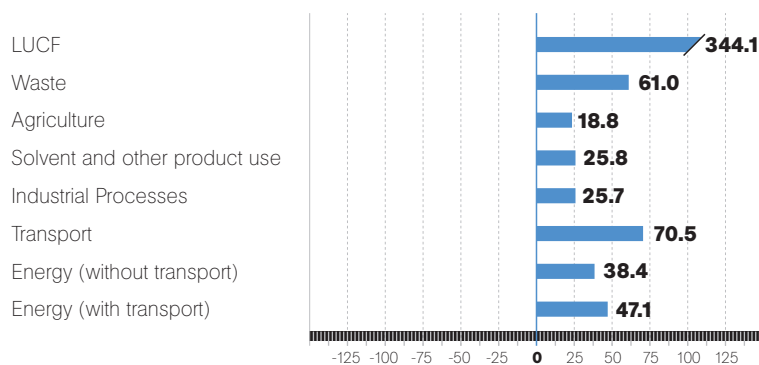
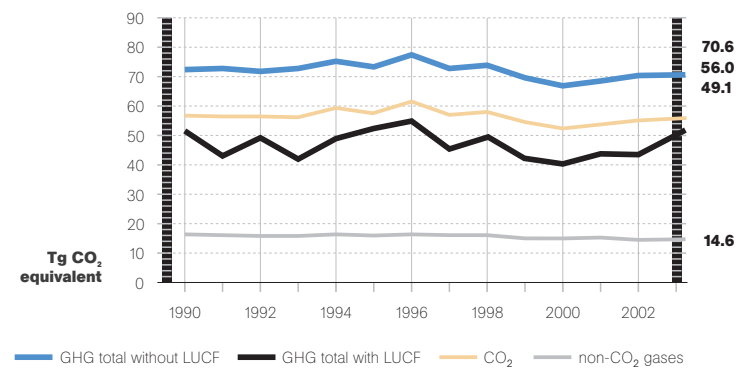
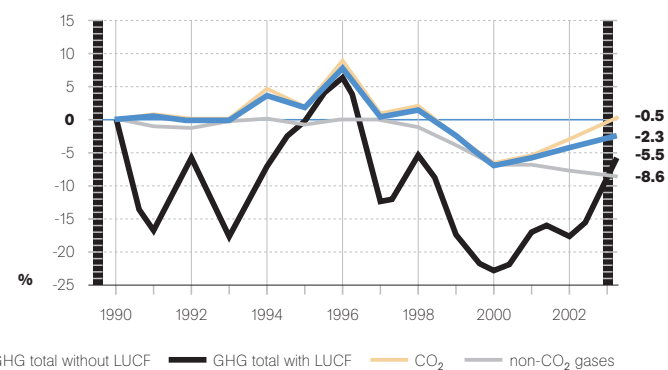


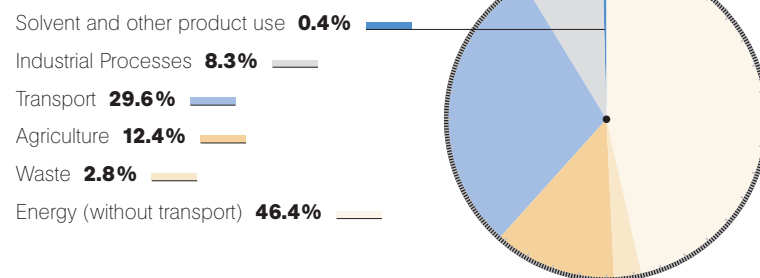
Figure II-57. GHG emissions



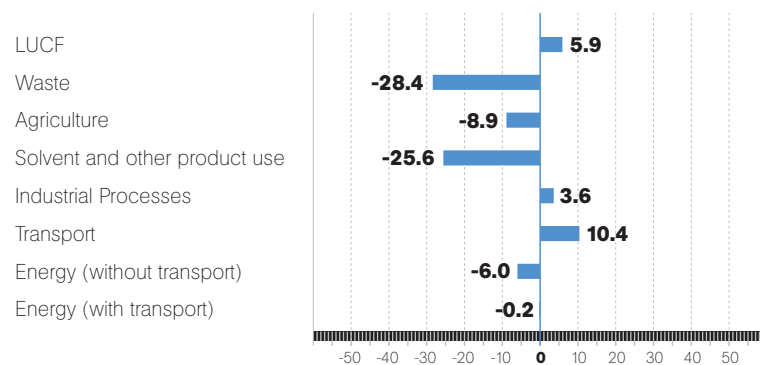
Changes relative to 1990 level



Sectoral shares in GHG total, 2003



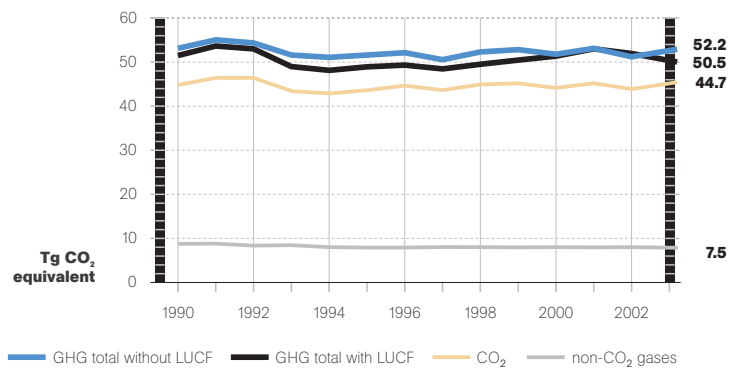
Changes in GHGs by sector (%), 1990 – 2003



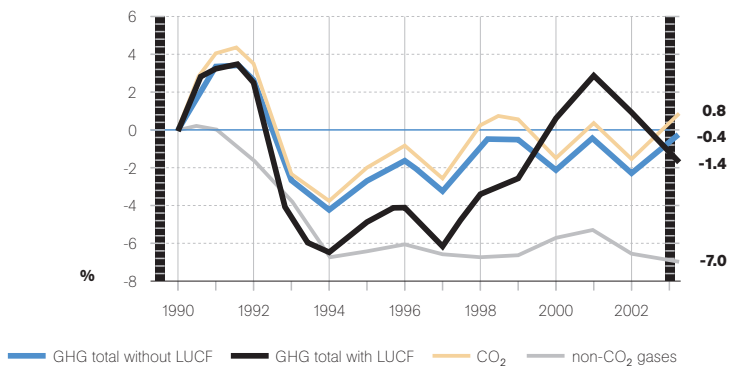
Spain
1990 – 2003

Sweden
1990 – 2003

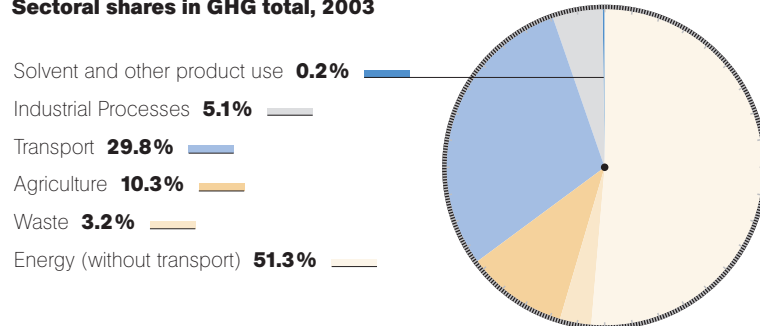
Figure II-58. GHG emissions



Changes relative to 1990 level



Sectoral shares in GHG total, 2003



Changes in GHGs by sector (%), 1990 – 2003

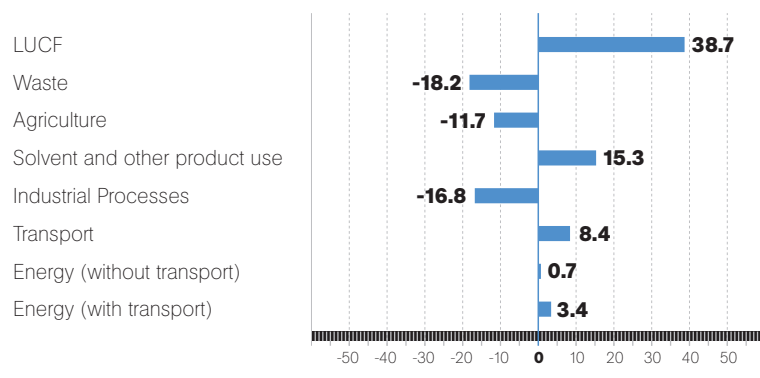
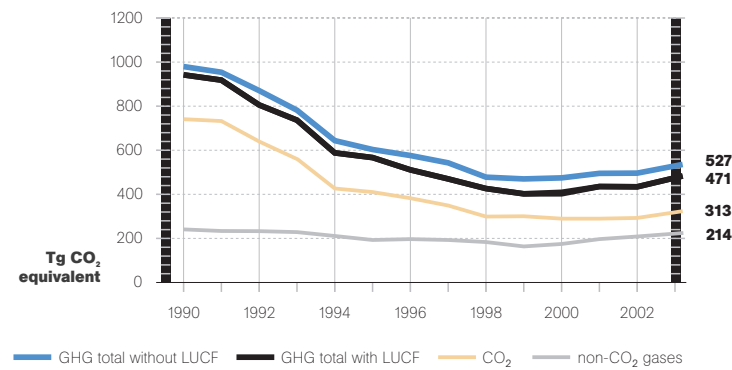
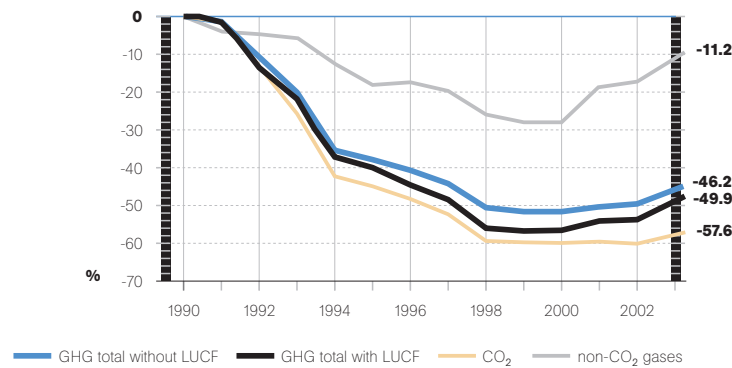


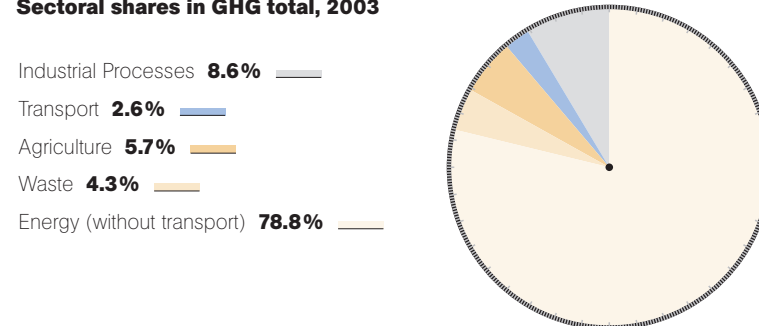
Figure II-59. GHG emissions



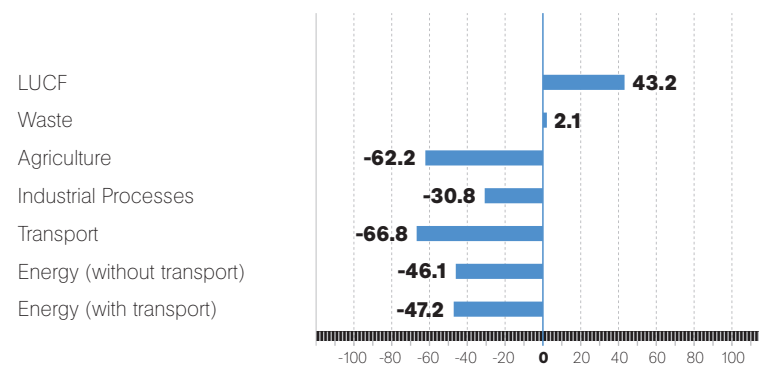
Changes relative to 1990 level



Sectoral shares in GHG total, 2003



Changes in GHGs by sector (%), 1990 – 2003



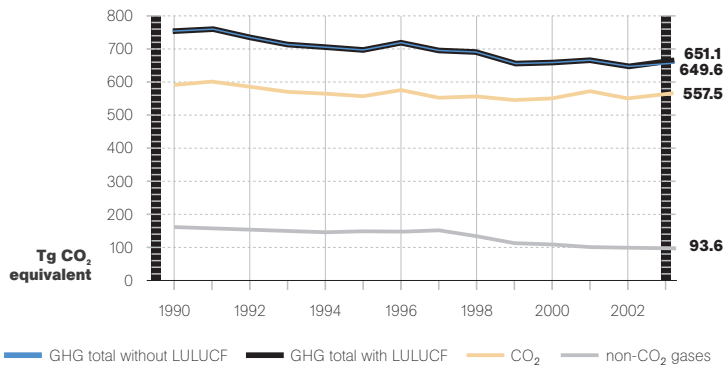
Switzerland

1990 – 2003

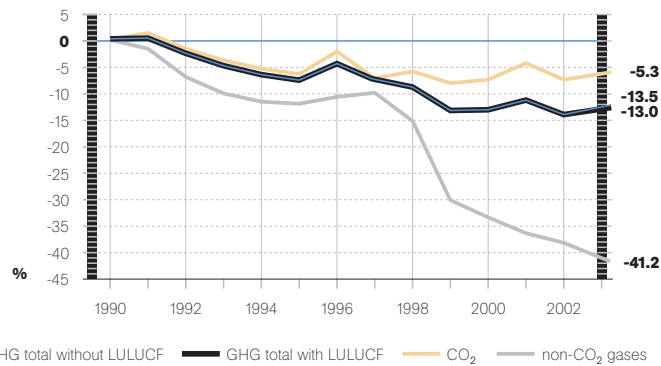
Ukraine

1990 – 2003

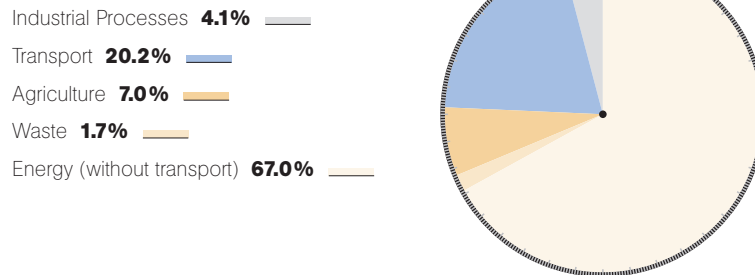
Figure II-60. GHG emissions



Changes relative to 1990 level



Sectoral shares in GHG total, 2003



Changes in GHGs by sector (%), 1990 – 2003

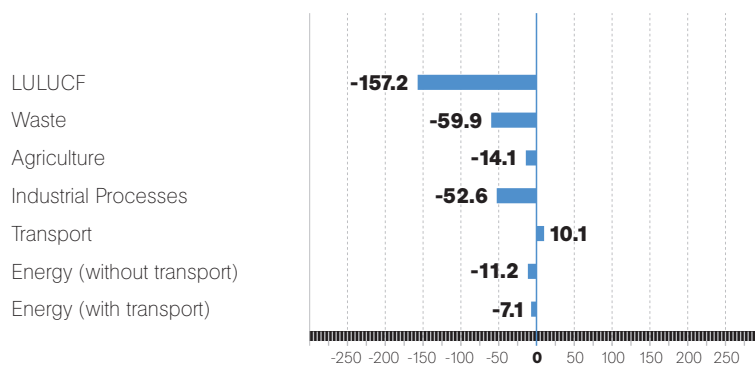
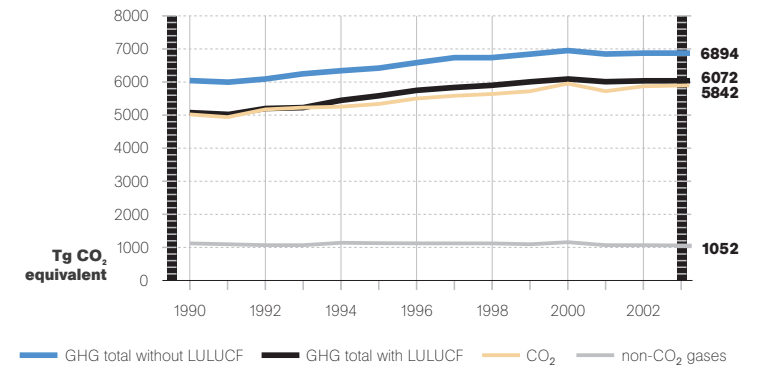
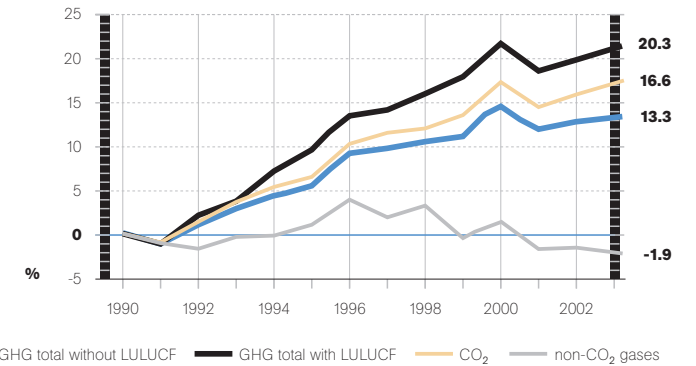


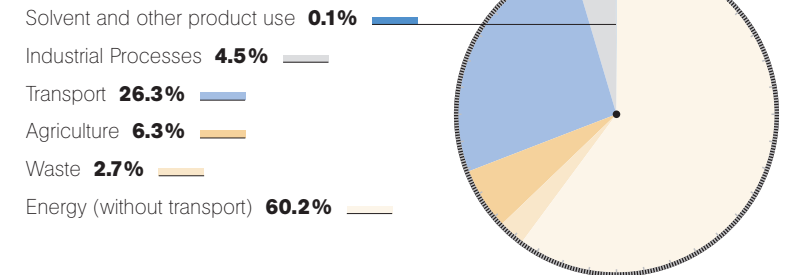
Figure II-61. GHG emissions



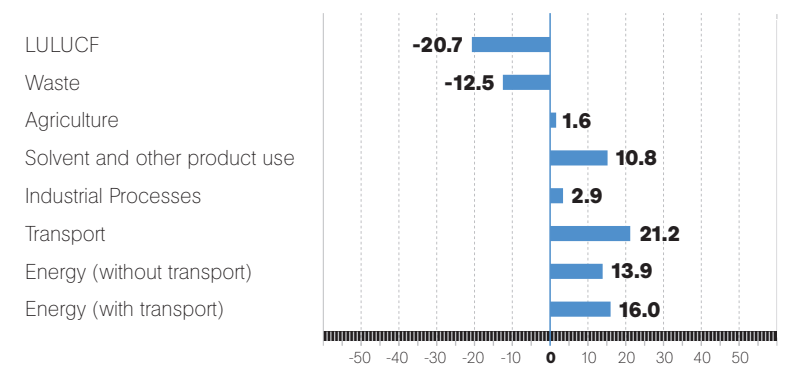
Changes relative to 1990 level



Sectoral shares in GHG total, 2003



Changes in GHGs by sector (%), 1990 – 2003



United Kingdom of Great Britain and Northern Ireland

1990 – 2003

United States of America

1990 – 2003

Party	Data source(s)	Projection scenarios available		
		"with measures"	"with additional measures"	"without measures"
Australia	NC3 (2002)	●	–	●
Austria	NC3 (2001)	●	●	–
Belarus	NC1 (2003)	●	–	●
Belgium	NC3 (2002)	●	●	–
Bulgaria	NC3 (2002), IDR ^a (2003)	●	–	●
Canada	NC3 (2002), Party's revision ^b	●	●	●
Croatia	NC1 (2002), Party's revision ^b	●	●	–
Czech Republic	NC3 (2001)	●	●	–
Denmark	NC3 (2003)	●	–	–
Estonia	NC3 (2001)	●	●	–
European Community	NC3 (2001), Party's revision ^b	●	●	–
Finland	NC3 (2001)	●	●	–
France	NC3 (2001)	●	●	●
Germany	NC3 (2002), IDR ^a (2004)	●	–	–
Greece	NC3 (2003)	●	●	–
Hungary	NC3 (2002), IDR ^a (2004)	●	●	●
Iceland	NC3 (2003)	●	–	–
Ireland	NC3 (2003), IDR ^a (2005)	●	●	–
Italy	NC3 (2003)	●	●	●
Japan	NC3 (2002)	●	●	●
Latvia	NC3 (2001)	●	–	–
Liechtenstein	NC3 (2002)	●	–	–
Lithuania	– ^c	–	–	–
Luxembourg	– ^d	–	–	–
Monaco	– ^e	–	–	–
Netherlands	NC3 (2001), IDR ^a (2003)	●	–	–
New Zealand	NC3 (2001)	●	●	–
Norway	NC3 (2002)	●	●	–
Poland	NC3 (2001), IDR ^a (2003)	●	–	–
Portugal	NC3 (2003), IDR ^a (2005)	●	●	–
Romania	NC3 (2005)	●	●	●
Russian Federation	NC3 (2002)	●	–	–
Slovakia	NC3 (2001)	●	●	●
Slovenia	NC2&3 (2004)	●	●	–
Spain	NC3 (2002)	●	●	–
Sweden	NC3 (2001)	●	–	–
Switzerland	NC3 (2001)	●	●	–
Ukraine	– ^d	–	–	–
United Kingdom of Great Britain and Northern Ireland	NC3 (2001)	●	●	–
United States of America	NC3 (2002)	●	–	–

^a The projections were revised by the Party during the in-depth review of its national communication.^b See notes in chapter IV for the data sources for the projections revised by Parties after the in-depth review of their communications.^c The GHG projections presented in the NC2 (2003) are not compatible with the projections from other Parties.^d The national communication due by COP decision 11/CP.4 has not been submitted.^e The NC3 (2001) does not contain GHG projections.

II. GHG DATA FOR ANNEX I PARTIES

Table II-43.

Summary of the "with measures" GHG projections, 1990 – 2010

Party	Projected GHG emissions without LUCF (Tg CO ₂ equivalent)			Projected changes in GHG emissions without LUCF (%)		
	1990	2000	2010	1990 – 2000	1990 – 2010	2000 – 2010
Australia	418.0	491.6	540.7	176	29.4	10.0
Austria	76.9	80.1	86.1	4.2	11.8	7.4
Belarus	133.2	71.3	77.9	-46.5	-41.5	9.2
Belgium	144.5	157.9	171.2	9.3	18.5	8.4
Bulgaria	144.4	63.6	98.4	-56.0	-31.9	54.7
Canada	607.6	726.3	809.0	19.5	33.1	11.4
Croatia	30.8	26.1	34.9	-15.4	13.0	33.5
Czech Republic	192.0	141.8	128.3	-26.1	-33.2	-9.6
Denmark	69.2	68.2	80.4	-1.5	16.2	18.0
Estonia	43.5	19.7	18.9	-54.6	-56.6	-4.5
European Community	4,231.4	4,090.9	4,085.3	-3.3	-3.5	-0.1
Finland	77.2	77.9	89.9	0.9	16.4	15.4
France	535.0	535.2	577.3	0.0	7.9	7.9
Germany	1,206.6	983.3	979.0	-18.5	-18.9	-0.4
Greece	102.4	129.7	145.2	26.6	41.8	12.0
Hungary	101.6	77.2	98.4	-24.0	-3.2	27.5
Iceland	2.84	2.87	2.80	1.0	-1.5	-2.4
Ireland	53.4	68.3	71.3	27.8	33.4	4.4
Italy	520.6	546.9	540.1	5.1	3.7	-1.2
Japan	1,175.6	1,314.3	1,317.4	11.8	12.1	0.2
Latvia	29.2	10.7	12.8	-63.4	-56.1	20.0
Liechtenstein	0.218	0.217	0.219	-0.5	0.2	0.8
Netherlands	210.0	222.0	225.0	5.7	7.1	1.4
New Zealand	72.5	77.8	88.1	7.4	21.6	13.2
Norway	52.0	56.9	63.2	9.3	21.5	11.2
Poland	476.6	332.7	362.0	-30.2	-24.1	8.8
Portugal	58.4	78.3	86.3	34.2	47.9	10.2
Romania	262.8	131.9	164.6	-49.8	-37.4	24.8
Russian Federation	2,372.3	1,510.0	2,100.4	-36.3	-11.5	39.1
Slovakia	72.2	49.2	53.2	-31.9	-26.3	8.2
Slovenia	20.6	19.2	21.6	-6.6	4.8	12.2
Spain	208.9	285.3	307.4	36.5	47.1	7.8
Sweden	70.4	70.5	70.9	0.1	0.7	0.6
Switzerland	55.2	53.4	52.7	-3.2	-4.5	-1.3
United Kingdom of Great Britain and Northern Ireland	744.1	646.1	630.7	-13.2	-15.2	-2.4
United States of America	6,129.1	7,001.2	8,115.0	14.2	32.4	15.9

II. GHG DATA FOR ANNEX I PARTIES G. GHG projections

Summary of the “with additional measures” projections, 1990 – 2010

Party	Projected GHG emissions without LUCF (Tg CO ₂ equivalent)			Projected changes in GHG emissions without LUCF (%)		
	1990	2000	2010	1990 – 2000	1990 – 2010	2000 – 2010
Austria	76.9	79.1	71.6	2.8	-6.9	-9.5
Belgium	144.5	157.9	153.6	9.3	6.3	-2.7
Canada	607.6	726.3	744.0	19.5	22.5	2.4
Croatia	30.8	26.1	31.4	-15.4	1.7	20.2
Czech Republic	192.0	141.8	121.9	-26.1	-36.5	-14.1
Estonia	43.5	19.7	17.4	-54.6	-59.9	-11.7
European Community	4,231.4	4,090.9	3,807.4	-3.3	-10.0	-6.9
Finland	77.2	77.5	75.8	0.3	-1.9	-2.1
France	535.0	529.9	519.0	-1.0	-3.0	-2.1
Greece	102.4	129.7	132.9	26.6	29.8	2.5
Hungary	101.6	77.2	95.8	-24.0	-5.7	24.1
Ireland	53.4	68.3	65.8	27.8	23.1	-3.6
Italy	520.6	546.9	496.3	5.1	-4.7	-9.3
Japan	1,175.6	1,305.6	1,221.4	11.1	3.9	-6.4
New Zealand	72.5	77.5	84.1	7.0	16.1	8.5
Norway	52.0	56.4	57.9	8.4	11.3	2.7
Portugal	58.4	78.3	80.1	34.2	37.2	2.3
Romania	262.8	131.9	158.7	-49.8	-39.6	20.4
Slovakia	72.2	49.2	48.1	-31.9	-33.3	-2.1
Slovenia	20.6	19.2	20.1	-6.6	-2.6	4.3
Spain	208.9	272.9	265.4	30.6	27.0	-2.7
Switzerland	55.2	53.4	50.1	-3.2	-9.2	-6.2
United Kingdom of Great Britain and Northern Ireland	744.1	646.1	564.9	-13.2	-24.1	-12.6

Figure II-62. The “with measures” projections for Annex I, EIT and non-EIT Parties, 1990 – 2010

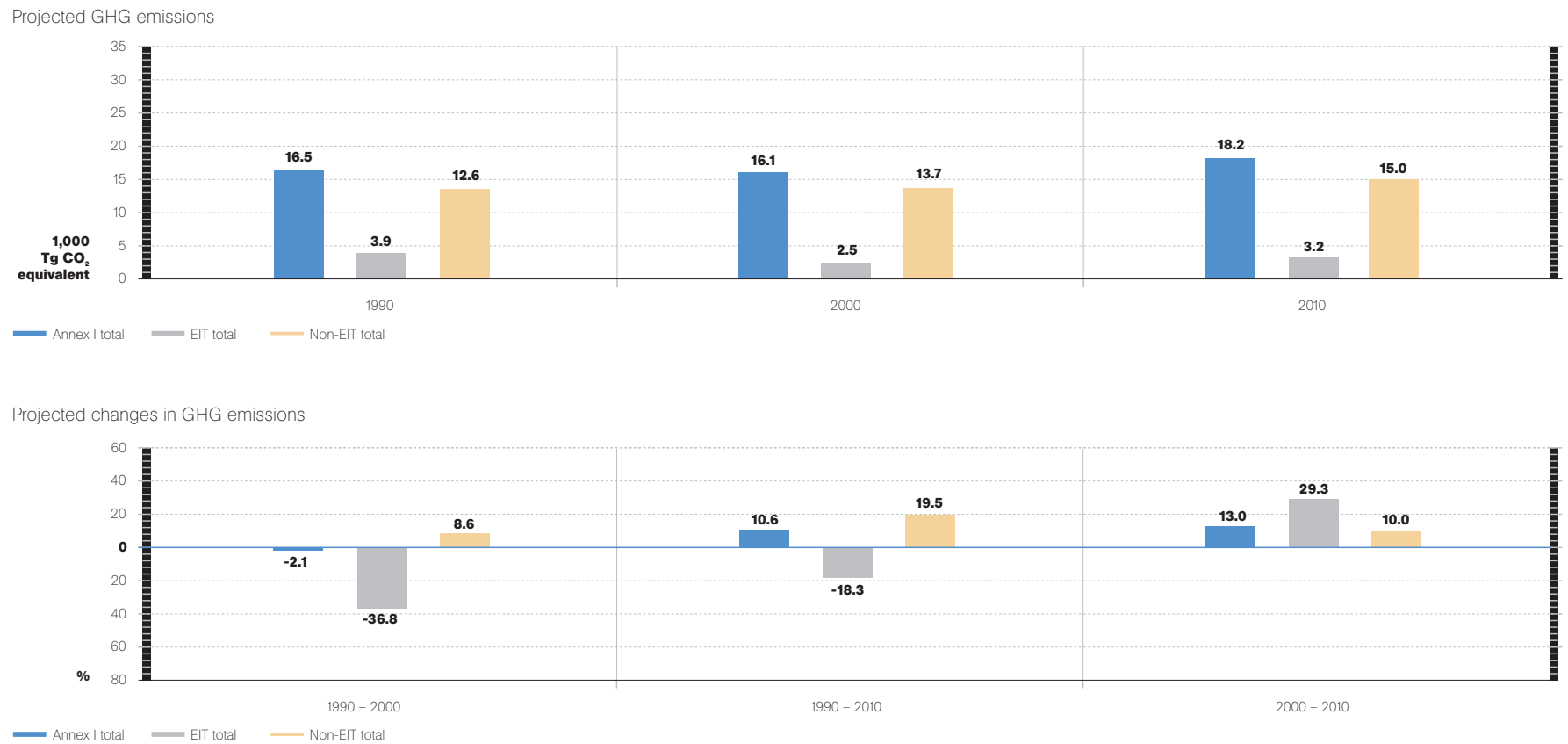
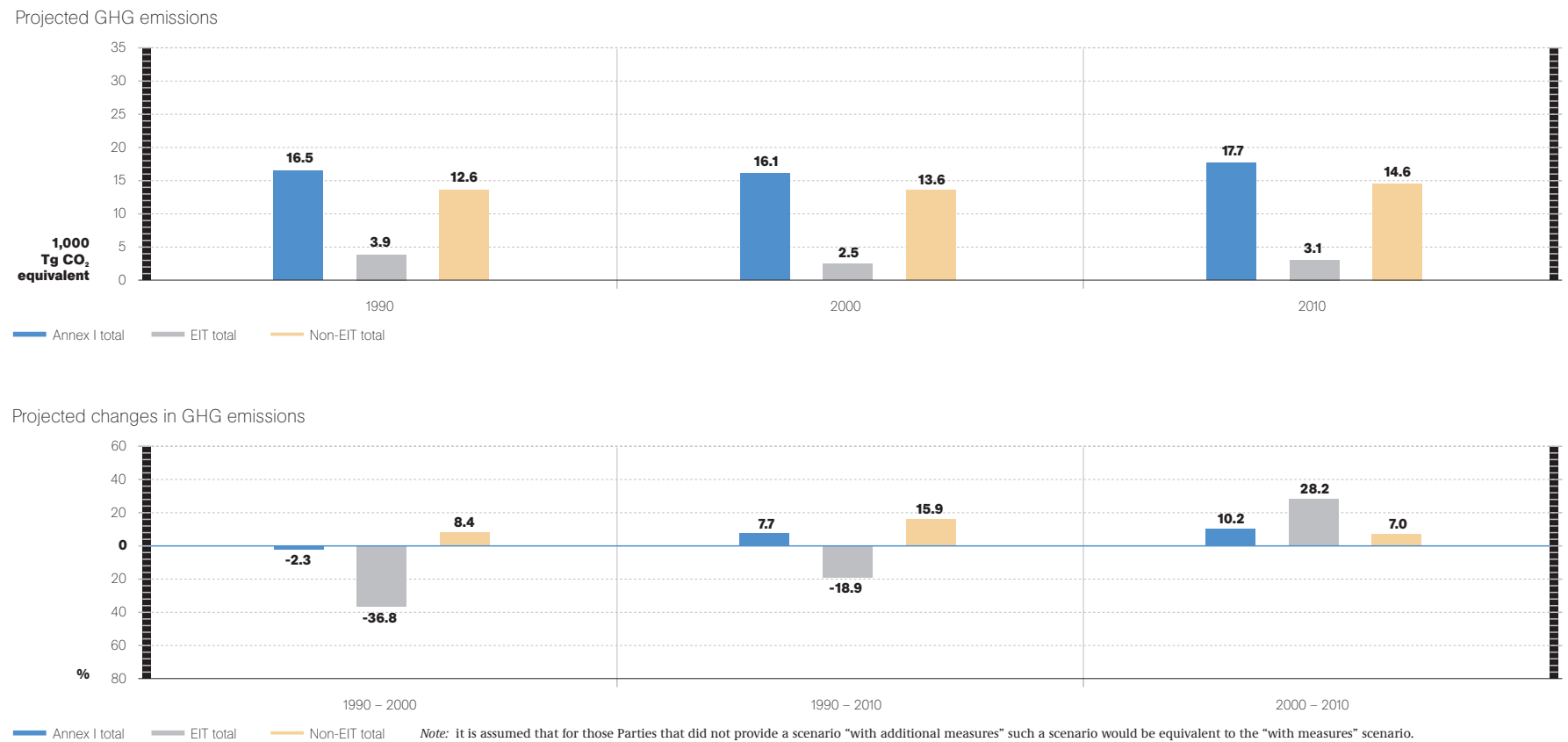


Figure II-63. The “with additional measures” projections for Annex I, EIT and non-EIT Parties, 1990 – 2010



III. GHG DATA FOR NON-ANNEX I PARTIES

A. DESCRIPTIVE SUMMARY

27. The data on GHG emissions from non-Annex I Parties are presented as follows:

- Section III.B “Data sources”
- Section III.C “Data for GHG total”
- Section III.D “Data by gas”
- Section III.E “Data by sector”
- Section III.F “Data by country”.

28. This descriptive summary provides an overview of the information presented in these sections.

A. 1. DATA SOURCES

29. TABLE III-1 shows the sources of GHG data for non-Annex I Parties and the years for which inventory data are available. As of 30 JULY 2005, 125 of the 148 non-Annex I Parties had submitted their initial national communications (NCIs); 124 of the 125 communications contain GHG data,¹ in most cases at least for CO₂, CH₄, N₂O.² Three NCIs³ were submitted after the preparation of this publication had started and therefore the GHG data from these NCIs, although available, are not included here. Thus, this publication contains GHG data for 121 non-Annex I Parties.

30. The UNFCCC reporting guidelines for non-Annex I Parties require that GHG data for either 1990 or 1994 be presented.

Most of non-Annex I Parties presented data for one of these years but, as shown in TABLE III-1, 35 non-Annex I Parties provided data for more than one year. FIGURE III-1 illustrates the availability of GHG data by year.

31. Three non-Annex I Parties have already provided their second national communication (NC2).⁴ However, although the availability of NC2s is noted in TABLE III-1, this publication includes NCI data only.

A. 2. DATA FOR GHG TOTAL

32. TABLE III-2 presents data for total GHG emissions without including GHG emissions/removals by the LUCF sector. Data are presented for 1990 and 1994 (the two years that are most often reported in NCIs) as well as for the latest available year, which may be also 1990 or 1994. Thus, the column for the latest available year shows the latest GHG data available for each non-Annex I Party.

33. TABLE III-2 also shows changes in GHG emissions (without LUCF) for those non-Annex I Parties that reported data for more than one year. For 29 Parties, GHG changes from 1990 to 1994 can be calculated; in 14 of these Parties, GHG emissions decreased from 1990 to 1994 whereas in 15 Parties the emissions increased. For 30 Parties, GHG changes from 1990 to the latest available year (which varies from 1994 to 2000, see TABLE III-2) can be calculated; in 13 of these Parties, GHG emissions decreased between 1990 and the latest available year whereas in 17 Parties emissions increased.

34. TABLE III-3 presents similar information for GHG emissions with LUCF. For many Parties, the inclusion of the LUCF sector has an impact on GHG totals in terms of both absolute numbers and changes in GHG totals from year to year. For 17 non-Annex I Parties GHG emissions (with LUCF) decreased from 1990 to 1994 whereas in 12 Parties emissions increased. For 16 non-Annex I Parties GHG emissions (with LUCF) decreased from 1990 to the latest available year and for 14 Parties the emissions increased.

¹
The NCI of Marshall Islands does not contain GHG data.

²
The NCI of the Maldives did not include N₂O emissions; the NCI of the Solomon Islands included only CO₂ emissions; in some cases, Parties reported the emissions of only one or two of the main GHGs (CO₂, CH₄, N₂O) for some years.

³
The NCIs of Bahrain (submitted on 20 April 2005), São Tomé and Príncipe (19 May 2005) and Tonga (21 July 2005).

⁴
Mexico (NC2 submitted in 2001), Republic of Korea (2003) and Uruguay (2004).

A. 3.

DATA BY GAS

35. FIGURE III-2 shows the breakdown of GHG emissions (without LUCF) from non-Annex I Parties by gas for 1994 and for the latest available year. In total, CO₂ is the main GHG – in 1994, the share of CO₂ in GHG total (without LUCF) was 61.8 per cent, the share of CH₄ was 26.2 per cent and the share of N₂O was 12.0 per cent. The breakdown by gas for the latest available year does not differ much from the breakdown for 1994.

36. Data for CO₂, CH₄ and N₂O emissions from individual non-Annex I Parties are presented in TABLE III-4 for 1990, in TABLE III-5 for 1994 and in TABLE III-6 for the latest available year. The relative importance of different GHGs varies greatly from Party to Party. For most Parties (65 of 121 in the latest available year, or 54 per cent), CO₂ is the dominating GHG but for quite a few Parties (42 of 121, or 35 per cent) CH₄ makes the largest share in the GHG total; for 14 Parties (12 per cent), N₂O is the main GHG. The inclusion of emissions/removals from the LUCF sector has a considerable impact on total CO₂ emissions for some Parties; for 36 Parties (30 per cent) CO₂ removals by LUCF are larger than CO₂ emissions from the other sectors.

A. 4.

DATA BY SECTOR

37. FIGURES III-3 and III-4 show the breakdown of GHG emissions (both with and without LUCF) from non-Annex I Parties by sector for 1994 and for the latest available year. In total, energy is the main sector in terms of GHG emissions (62.6 per cent in 1994) followed by agriculture (26.9 per cent), industrial processes (6.2 per cent) and waste (4.3 per cent).

38. For the non-Annex I Parties with 1994 data taken together, the LUCF sector is a net source of CO₂. If the LUCF sector is included, its share in GHG total amounted to 3.5 per cent in 1994. The breakdown by sector for the latest available year does not differ much from the breakdown for 1994.

39. Data for sectoral GHG emissions from individual non-Annex I Parties are presented in TABLE III-7 for 1990, in TABLE III-8 for 1994 and in TABLE III-9 for the latest available year. The relative importance of different sectors varies greatly from Party to Party: in the majority of non-Annex I Parties (69 of 121 in the latest available year,

or 57 per cent), energy sector is the largest GHG emitting sector but in many Parties (46 of 121, or 38 per cent) the largest emitter is agriculture; for a few Parties (6 of 121, or 5 per cent), the waste sector has the largest GHG emissions.

40. The LUCF sector is a sizeable GHG source or GHG sink in many non-Annex I Parties; GHG emissions/removals from the LUCF sector are often comparable with GHG emissions from other sectors. For some non-Annex I Parties (28 of 121 in the latest available year, or 23 per cent), GHG removals from LUCF fully offset GHG emissions; such Parties are therefore net GHG sinks.

A. 5.

DATA BY COUNTRY

41. FIGURES III-5 to III-125 illustrate the profile of GHG emissions from individual non-Annex I Parties. For each non-Annex I Party, the following is presented for the latest available year: total GHG emissions with and without LUCF, the contribution of individual gases to GHG total and a sectoral profile of GHG emissions.

42. These figures are illustrative and they are not intended to present comprehensively all facets of the behaviour of GHG emissions in a country. More detailed data tables elsewhere in this document and the online GHG database

<http://ghg.unfccc.int/default.htm>

should be consulted to obtain detailed information on national GHG emissions.

Party	Data source	Data availability by year ^a
Afghanistan	NCI not available yet	NCI not available yet
Albania	NCI (2002)	1990 – 1994
Algeria	NCI (2001)	1994
Angola	NCI not available yet	NCI not available yet
Antigua and Barbuda	NCI (2001)	1990
Argentina	NCI (1997)	1990, 1994, 1997
Armenia	NCI (1998)	1990
Azerbaijan	NCI (2000)	1990 – 1994
Bahamas	NCI (2001)	1990, 1994
Bahrain	NCI (2005)	*
Bangladesh	NCI (2002)	1994
Barbados	NCI (2001)	1990, 1994, 1997
Belize	NCI (2002)	1994
Benin	NCI (2002)	1995
Bhutan	NCI (2000)	1994
Bolivia	NCI (2000)	1990, 1994, 1998, 2000
Bosnia and Herzegovina	NCI not available yet	NCI not available yet
Botswana	NCI (2001)	1994
Brazil	NCI (2004)	1990, 1994
Burkina Faso	NCI (2002)	1994
Burundi	NCI (2001)	1998
Cambodia	NCI (2002)	1994
Cameroon	NCI (2005)	1994
Cape Verde	NCI (2000)	1995
Central African Republic	NCI (2003)	1994
Chad	NCI (2001)	1993
Chile	NCI (2000)	1993, 1994
China	NCI (2004)	1994
Colombia	NCI (2001)	1990, 1994
Comoros	NCI (2003)	1994
Congo	NCI (2001)	1994
Cook Islands	NCI (1999)	1994
Costa Rica	NCI (2000)	1990, 1996
Côte d'Ivoire	NCI (2001)	1994
Cuba	NCI (2001)	1990, 1994, 1996
Cyprus	NCI not available yet	NCI not available yet
Democratic People's Republic of Korea	NCI (2004)	1990
Democratic Republic of the Congo	NCI (2000)	1994
Djibouti	NCI (2002)	1994
Dominica	NCI (2001)	1994
Dominican Republic	NCI (2003)	1990, 1994
Ecuador	NCI (2000)	1990

Party	Data source	Data availability by year ^a
Egypt	NCI (1999)	1990
El Salvador	NCI (2000)	1994
Equatorial Guinea	NCI not available yet	NCI not available yet
Eritrea	NCI (2002)	1994 – 2000
Ethiopia	NCI (2001)	1990 – 1995
Fiji	NCI not available yet	NCI not available yet
Gabon	NCI (2004)	1994
Gambia	NCI (2003)	1993
Georgia	NCI (1999)	1990 – 1997
Ghana	NCI (2001)	1990 – 1996
Grenada	NCI (2000)	1994
Guatemala	NCI (2002)	1990
Guinea	NCI (2002)	1994
Guinea-Bissau	NCI not available yet	NCI not available yet
Guyana	NCI (2002)	1990 – 1998
Haiti	NCI (2002)	1994
Honduras	NCI (2000)	1995
India	NCI (2004)	1994
Indonesia	NCI (1999)	1990 – 1994
Iran (Islamic Republic of)	NCI (2003)	1994
Israel	NCI (2000)	1996
Jamaica	NCI (2000)	1994
Jordan	NCI (1997)	1994
Kazakhstan	NCI (1998)	1990, 1994
Kenya	NCI (2002)	1994
Kiribati	NCI (1999)	1994
Kuwait	NCI not available yet	NCI not available yet
Kyrgyzstan	NCI (2003)	1990 – 2000
Lao People's Democratic Republic	NCI (2000)	1990
Lebanon	NCI (1999)	1994
Lesotho	NCI (2000)	1994
Liberia	NCI not available yet	NCI not available yet
Libyan Arab Jamahiriya	NCI not available yet	NCI not available yet
Madagascar	NCI (2004)	1994
Malawi	NCI (2003)	1990, 1994
Malaysia	NCI (2000)	1994
Maldives	NCI (2001)	1994
Mali	NCI (2000)	1995
Malta	NCI (2004)	1990 – 2000
Marshall Islands	NCI (2000)	**
Mauritania	NCI (2002)	1995
Mauritius	NCI (1999)	1995

III. GHG DATA FOR NON-ANNEX I PARTIES

Table III-1.

Summary of data sources and data availability for non-Annex I Parties (continued)

Party	Data source	Data availability by year ^a
Mexico	NCI (1997), NC2 (2001) ^b	1990
Micronesia (Federated States of)	NCI (1997)	1994
Mongolia	NCI (2001)	1990 – 1998
Morocco	NCI (2001)	1994
Mozambique	NCI not available yet	NCI not available yet
Myanmar	NCI not available yet	NCI not available yet
Namibia	NCI (2002)	1994
Nauru	NCI (1999)	1994
Nepal	NCI (2004)	1994
Nicaragua	NCI (2001)	1994
Niger	NCI (2000)	1990
Nigeria	NCI (2003)	1994
Niue	NCI (2001)	1994
Oman	NCI not available yet	NCI not available yet
Pakistan	NCI (2003)	1994
Palau	NCI (2003)	1994
Panama	NCI (2001)	1994
Papua New Guinea	NCI (2002)	1994
Paraguay	NCI (2002)	1990, 1994
Peru	NCI (2001)	1994
Philippines	NCI (2000)	1994
Qatar	NCI not available yet	NCI not available yet
Republic of Korea	NCI (1998), NC2 (2003) ^b	1990
Republic of Moldova	NCI (2000)	1990 – 1998
Rwanda	NCI not available yet	NCI not available yet
Saint Kitts and Nevis	NCI (2001)	1994
Saint Lucia	NCI (2001)	1994
Saint Vincent and the Grenadines	NCI (2000)	1990, 1994, 1997
Samoa	NCI (1999)	1994
San Marino	NCI not available yet	NCI not available yet
São Tomé and Príncipe	NCI (2005)	*
Saudi Arabia	NCI not available yet	NCI not available yet
Senegal	NCI (1997)	1994, 1995
Serbia and Montenegro	NCI not available yet	NCI not available yet
Seychelles	NCI (2000)	1995
Sierra Leone	NCI not available yet	NCI not available yet
Singapore	NCI (2000)	1994
Solomon Islands	NCI (2004)	1994
South Africa	NCI (2003)	1990, 1994
Sri Lanka	NCI (2000)	1993 – 1995
Sudan	NCI (2003)	1995
Suriname	NCI not available yet	NCI not available yet

Party	Data source	Data availability by year ^a
Swaziland	NCI (2002)	1994
Syrian Arab Republic	NCI not available yet	NCI not available yet
Tajikistan	NCI (2002)	1990 – 1998
Thailand	NCI (2000)	1994
The former Yugoslav Republic of Macedonia	NCI (2003)	1990 – 1998
Togo	NCI (2001)	1992 – 1998
Tonga	NCI (2005)	*
Trinidad and Tobago	NCI (2001)	1990
Tunisia	NCI (2001)	1994
Turkmenistan	NCI (2000)	1994
Tuvalu	NCI (1999)	1994
Uganda	NCI (2002)	1994
United Arab Emirates	NCI not available yet	NCI not available yet
United Republic of Tanzania	NCI (2003)	1990, 1994
Uruguay	NCI (1997), NC2 (2004) ^b	1990, 1994, 1998
Uzbekistan	NCI (1999)	1990, 1994
Vanuatu	NCI (1999)	1994
Venezuela	NCI not available yet	NCI not available yet
Viet Nam	NCI (2003)	1994
Yemen	NCI (2001)	1995
Zambia	NCI (2004)	1994
Zimbabwe	NCI (1998)	1994

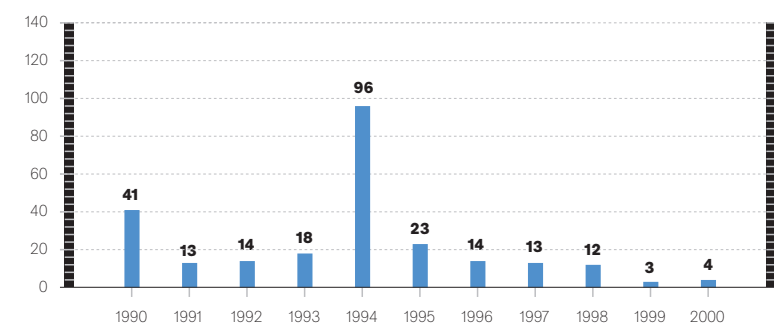
^a Data are considered as available if data on CO₂ emissions are available; the availability of CH₄ and N₂O data may be different.

^b Information on the submission of the NC2 is given here only for reference; data from the NC2 are not used in this document.

* The GHG data from this NCI are not included in this document, because the NCI was submitted after the preparation of this document had started.

** The NCI does not contain GHG data.

Figure III-1. Number of non-Annex I Parties with GHG data available, by year



Note: data are considered as available if data on CO₂ emissions are available; the availability of CH₄ and N₂O data may be different.

III. GHG DATA FOR NON-ANNEX I PARTIES B. Data sources

C. DATA FOR GHG TOTAL

Party	Total GHG emissions without LUCF (Tg CO ₂ equivalent)				Change in GHG emissions (%)		
	1990	1994	Latest available year	Emissions for latest available year	From 1990 to 1994	From 1994 to latest available year	From 1990 to latest available year
Albania	7.134	5.534	1994	5.534	-22.4	-	-22.4
Algeria	-	91.608	1994	91.608	-	-	-
Antigua and Barbuda	0.388	-	1990	0.388	-	-	-
Argentina	231.963	263.879	1997	279.679	13.8	6.0	20.6
Armenia	25.312	-	1990	25.312	-	-	-
Azerbaijan	60.787	42.754	1994	42.754	-29.7	-	-29.7
Bahamas	1.915	2.197	1994	2.197	14.7	-	14.7
Bangladesh	-	45.926	1994	45.926	-	-	-
Barbados	3.254	3.751	1997	4.056	15.2	8.2	24.6
Belize	-	6.335	1994	6.335	-	-	-
Benin	-	-	1995	39.348	-	-	-
Bhutan	-	1.292	1994	1.292	-	-	-
Bolivia	15.315	20.685	2000	21.463	35.1	3.8	40.1
Botswana	-	9.292	1994	9.292	-	-	-
Brazil	593.177	658.976	1994	658.976	11.1	-	11.1
Burkina Faso	-	5.968	1994	5.968	-	-	-
Burundi	-	-	1998	1.995	-	-	-
Cambodia	-	12.762	1994	12.762	-	-	-
Cameroon	-	165.725	1994	165.725	-	-	-
Cape Verde	-	-	1995	0.293	-	-	-
Central African Republic	-	38.344	1994	38.344	-	-	-
Chad	-	-	1993	8.021	-	-	-
Chile	-	54.659	1994	54.659	-	-	-
China	-	4,057.306	1994	4,057.306	-	-	-
Colombia	111.967	137.485	1994	137.485	22.8	-	22.8
Comoros	-	0.519	1994	0.519	-	-	-
Congo	-	1.375	1994	1.375	-	-	-
Cook Islands	-	0.080	1994	0.080	-	-	-
Costa Rica	6.098	-	1996	10.504	-	-	72.3
Côte d'Ivoire	-	24.725	1994	24.725	-	-	-
Cuba	63.556	38.122	1996	40.127	-40.0	5.3	-36.9
Democratic People's Republic of Korea	201.930	-	1990	201.930	-	-	-
Democratic Republic of the Congo	-	44.533	1994	44.533	-	-	-
Djibouti	-	0.511	1994	0.511	-	-	-
Dominica	-	0.152	1994	0.152	-	-	-
Dominican Republic	12.596	20.441	1994	20.441	62.3	-	62.3
Ecuador	30.774	-	1990	30.774	-	-	-
Egypt	117.266	-	1990	117.266	-	-	-
El Salvador	-	11.917	1994	11.917	-	-	-
Eritrea	-	4.135	2000	0.600	-	-85.5	-
Ethiopia	43.018	47.415	1995	47.745	10.2	0.7	11.0
Gabon	-	6.524	1994	6.524	-	-	-

III. GHG DATA FOR NON-ANNEX I PARTIES

Table III-2.

GHG emissions (without LUCF) from non-Annex I Parties, 1990, 1994 and the latest available year (continued)

Party	Total GHG emissions without LUCF (Tg CO ₂ equivalent)				Change in GHG emissions (%)		
	1990	1994	Latest available year	Emissions for latest available year	From 1990 to 1994	From 1994 to latest available year	From 1990 to latest available year
Gambia	-	-	1993	4.242	-	-	-
Georgia	45.342	10.690	1997	12.890	-76.4	20.6	-71.6
Ghana	11.158	12.578	1996	13.401	12.7	6.5	20.1
Grenada	-	1.606	1994	1.606	-	-	-
Guatemala	14.742	-	1990	14.742	-	-	-
Guinea	-	5.058	1994	5.058	-	-	-
Guyana	2.180	2.706	1998	3.067	24.1	13.3	40.7
Haiti	-	5.132	1994	5.132	-	-	-
Honduras	-	-	1995	10.826	-	-	-
India	-	1,214.248	1994	1,214.248	-	-	-
Indonesia	266.819	323.262	1994	323.262	21.2	-	21.2
Iran (Islamic Republic of)	-	385.434	1994	385.434	-	-	-
Israel	-	-	1996	63.075	-	-	-
Jamaica	-	116.225	1994	116.226	-	-	-
Jordan	-	21.943	1994	21.943	-	-	-
Kazakhstan	270.121	219.240	1994	219.240	-18.8	-	-18.8
Kenya	-	21.466	1994	21.466	-	-	-
Kiribati	-	0.028	1994	0.028	-	-	-
Kyrgyzstan	36.122	18.185	2000	15.051	-49.7	-17.2	-58.3
Lao People's Democratic Republic	6.867	-	1990	6.867	-	-	-
Lebanon	-	15.702	1994	15.702	-	-	-
Lesotho	-	1.820	1994	1.820	-	-	-
Madagascar	-	21.934	1994	21.934	-	-	-
Malawi	8.045	7.070	1994	7.070	-12.1	-	-12.1
Malaysia	-	136.363	1994	136.363	-	-	-
Maldives	-	0.483	1994	0.483	-	-	-
Mali	-	-	1995	8.666	-	-	-
Malta	2.215	2.670	2000	2.847	20.5	6.6	28.5
Mauritania	-	-	1995	4.330	-	-	-
Mauritius	-	-	1995	2.059	-	-	-
Mexico	383.077	-	1990	383.077	-	-	-
Micronesia (Federated States of)	-	0.246	1994	0.246	-	-	-
Mongolia	19.286	15.159	1998	15.899	-21.4	4.9	-17.6
Morocco	-	44.373	1994	44.373	-	-	-
Namibia	-	5.602	1994	5.602	-	-	-
Nauru	-	0.036	1994	0.036	-	-	-
Nepal	-	31.189	1994	31.189	-	-	-
Nicaragua	-	7.652	1994	7.652	-	-	-
Niger	4.856	-	1990	4.856	-	-	-
Nigeria	-	242.626	1994	242.626	-	-	-
Niue	-	4.422	1994	4.422	-	-	-
Pakistan	-	160.600	1994	160.600	-	-	-

III. GHG DATA FOR NON-ANNEX I PARTIES C. Data for GHG total

Table III-2.

GHG emissions (without LUCF) from non-Annex I Parties, 1990, 1994 and the latest available year (continued)

Party	Total GHG emissions without LUCF (Tg CO ₂ equivalent)				Change in GHG emissions (%)		
	1990	1994	Latest available year	Emissions for latest available year	From 1990 to 1994	From 1994 to latest available year	From 1990 to latest available year
Palau	–	0.125	1994	0.125	–	–	–
Panama	–	10.692	1994	10.692	–	–	–
Papua New Guinea	–	5.012	1994	5.012	–	–	–
Paraguay	65.438	140.456	1994	140.456	114.6	–	114.6
Peru	–	57.583	1994	57.583	–	–	–
Philippines	–	100.867	1994	100.867	–	–	–
Republic of Korea	289.457	–	1990	289.457	–	–	–
Republic of Moldova	33.266	15.357	1998	10.511	-53.8	-31.6	-68.4
Saint Kitts and Nevis	–	0.164	1994	0.164	–	–	–
Saint Lucia	–	0.886	1994	0.886	–	–	–
Saint Vincent and the Grenadines	0.392	0.380	1997	0.410	-3.3	8.1	4.5
Samoa	–	0.561	1994	0.561	–	–	–
Senegal	–	9.318	1995	9.573	–	2.7	–
Seychelles	–	–	1995	0.256	–	–	–
Singapore	–	26.859	1994	26.859	–	–	–
Solomon Islands	–	0.294	1994	0.294	–	–	–
South Africa	347.346	379.837	1994	379.837	9.4	–	9.4
Sri Lanka	–	29.429	1995	29.128	–	-1.0	–
Sudan	–	–	1995	54.237	–	–	–
Swaziland	–	2.636	1994	2.636	–	–	–
Tajikistan	23.676	8.509	1998	4.286	-64.1	-49.6	-81.9
Thailand	–	223.977	1994	223.977	–	–	–
The former Yugoslav Republic of Macedonia	15.436	13.894	1998	15.070	-10.0	8.5	-2.4
Togo	–	4.660	1998	6.277	–	34.7	–
Trinidad and Tobago	16.392	–	1990	16.392	–	–	–
Tunisia	–	25.141	1994	25.141	–	–	–
Turkmenistan	–	52.310	1994	52.310	–	–	–
Tuvalu	–	0.005	1994	0.005	–	–	–
Uganda	–	42.604	1994	42.604	–	–	–
United Republic of Tanzania	41.426	39.236	1994	39.236	-5.3	–	-5.3
Uruguay	27.654	29.815	1998	33.566	7.8	12.6	21.4
Uzbekistan	163.146	153.888	1994	153.888	-5.7	–	-5.7
Vanuatu	–	0.299	1994	0.299	–	–	–
Viet Nam	–	84.450	1994	84.450	–	–	–
Yemen	–	–	1995	17.869	–	–	–
Zambia	–	32.769	1994	32.769	–	–	–
Zimbabwe	–	27.594	1994	27.594	–	–	–

III. GHG DATA FOR NON-ANNEX I PARTIES C. Data for GHG total

Table III-3.

GHG emissions (with LUCF) from non-Annex I Parties, 1990, 1994 and the latest available year

Party	Total GHG emissions with LUCF (Tg CO ₂ equivalent)				Change in GHG emissions (%)		
	1990	1994	Latest available year	Emissions for latest available year	From 1990 to 1994	From 1994 to latest available year	From 1990 to latest available year
Albania	7134	7059	1994	7059	-1.0	-	-1.0
Algeria	-	100.195	1994	100.195	-	-	-
Antigua and Barbuda	0.291	-	1990	0.291	-	-	-
Argentina	197.624	229.700	1997	232.367	16.2	1.2	17.6
Armenia	24.695	-	1990	24.695	-	-	-
Azerbaijan	57.278	41.679	1994	41.679	-27.2	-	-27.2
Bahamas	-1.664	2.197	1994	2.197	-232.1	-	-232.1
Bangladesh	-	53.764	1994	53.764	-	-	-
Barbados	3.243	3.740	1997	4.045	15.3	8.2	24.7
Belize	-	2.310	1994	2.310	-	-	-
Benin	-	-	1995	-8.176	-	-	-
Bhutan	-	-2.257	1994	-2.257	-	-	-
Bolivia	38.577	47.530	2000	49.941	23.2	5.1	29.5
Botswana	-	-29.442	1994	-29.442	-	-	-
Brazil	1,388.783	1,477.056	1994	1,477.056	6.4	-	6.4
Burkina Faso	-	6.060	1994	6.060	-	-	-
Burundi	-	-	1998	-1.003	-	-	-
Cambodia	-	-5.145	1994	-5.145	-	-	-
Cameroon	-	187.911	1994	187.911	-	-	-
Cape Verde	-	-	1995	0.329	-	-	-
Central African Republic	-	-102.514	1994	-102.514	-	-	-
Chad	-	-	1993	-38.177	-	-	-
Chile	-	27.527	1994	27.527	-	-	-
China	-	3,649.827	1994	3,649.827	-	-	-
Colombia	122.934	152.088	1994	152.088	23.7	-	23.7
Comoros	-	-0.376	1994	-0.376	-	-	-
Congo	-	-68.486	1994	-68.486	-	-	-
Cook Islands	-	-0.074	1994	-0.074	-	-	-
Costa Rica	7.461	-	1996	9.780	-	-	31.1
Côte d'Ivoire	-	4.878	1994	4.878	-	-	-
Cuba	39.593	11.653	1996	18.473	-70.6	58.5	-53.3
Democratic People's Republic of Korea	187.309	-	1990	187.309	-	-	-
Democratic Republic of the Congo	-	-132.308	1994	-132.308	-	-	-
Djibouti	-	-0.088	1994	-0.088	-	-	-
Dominica	-	-0.220	1994	-0.220	-	-	-
Dominican Republic	7.040	13.937	1994	13.937	98.0	-	98.0
Ecuador	45.374	-	1990	45.374	-	-	-
Egypt	107.366	-	1990	107.366	-	-	-
El Salvador	-	15.860	1994	15.860	-	-	-
Eritrea	-	5.812	2000	0.600	-	-89.7	-
Ethiopia	11.728	33.008	1995	37.092	181.4	12.4	216.3
Gabon	-	-494.351	1994	-494.351	-	-	-

III. GHG DATA FOR NON-ANNEX I PARTIES C. Data for GHG total

Table III-3.

GHG emissions (with LUCF) from non-Annex I Parties, 1990, 1994 and the latest available year (continued)

Party	Total GHG emissions with LUCF (Tg CO ₂ equivalent)				Change in GHG emissions (%)		
	1990	1994	Latest available year	Emissions for latest available year	From 1990 to 1994	From 1994 to latest available year	From 1990 to latest available year
Gambia	–	–	1993	-45.741	–	–	–
Georgia	33.969	11.728	1997	14.045	-65.5	19.8	-58.7
Ghana	-15.971	-6.894	1996	0.115	-56.8	-101.7	-100.7
Grenada	–	1.514	1994	1.514	–	–	–
Guatemala	-24.804	–	1990	-24.804	–	–	–
Guinea	–	-12.539	1994	-12.539	–	–	–
Guyana	-21.429	-23.780	1998	-27.799	11.0	16.9	29.7
Haiti	–	6.087	1994	6.087	–	–	–
Honduras	–	–	1995	15.455	–	–	–
India	–	1,228.540	1994	1,228.540	–	–	–
Indonesia	464.553	487.375	1994	487.375	4.9	–	4.9
Iran (Islamic Republic of)	–	417.012	1994	417.012	–	–	–
Israel	–	–	1996	62.701	–	–	–
Jamaica	–	116.058	1994	116.059	–	–	–
Jordan	–	20.034	1994	20.034	–	–	–
Kazakhstan	266.134	212.613	1994	212.613	-20.1	–	-20.1
Kenya	–	-6.534	1994	-6.534	–	–	–
Kiribati	–	0.028	1994	0.028	–	–	–
Kyrgyzstan	35.308	17.307	2000	14.083	-51.0	-18.6	-60.1
Lao People's Democratic Republic	-97.437	–	1990	-97.437	–	–	–
Lebanon	–	15.909	1994	15.909	–	–	–
Lesotho	–	3.081	1994	3.081	–	–	–
Madagascar	–	-217.037	1994	-217.037	–	–	–
Malawi	27.924	24.586	1994	24.586	-12.0	–	-12.0
Malaysia	–	75.285	1994	75.285	–	–	–
Maldives	–	0.483	1994	0.483	–	–	–
Mali	–	–	1995	-1.082	–	–	–
Malta	1.975	2.430	2000	2.607	23.0	7.3	32.0
Mauritania	–	–	1995	3.690	–	–	–
Mauritius	–	–	1995	1.837	–	–	–
Mexico	524.615	–	1990	524.615	–	–	–
Micronesia (Federated States of)	–	0.246	1994	0.246	–	–	–
Mongolia	24.772	15.559	1998	15.566	-37.2	0.0	-37.2
Morocco	–	39.862	1994	39.862	–	–	–
Namibia	–	-0.034	1994	-0.034	–	–	–
Nauru	–	0.027	1994	0.027	–	–	–
Nepal	–	39.306	1994	39.306	–	–	–
Nicaragua	–	-5.405	1994	-5.405	–	–	–
Niger	10.963	–	1990	10.963	–	–	–
Nigeria	–	347.636	1994	347.636	–	–	–
Niue	–	4.507	1994	4.507	–	–	–
Pakistan	–	167.127	1994	167.127	–	–	–

III. GHG DATA FOR NON-ANNEX I PARTIES C. Data for GHG total

Table III-3.

GHG emissions (with LUCF) from non-Annex I Parties, 1990, 1994 and the latest available year (continued)

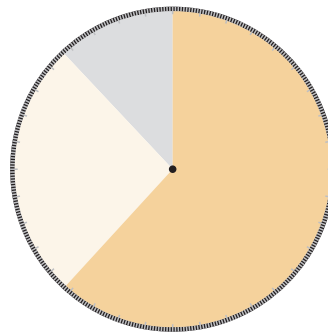
Party	Total GHG emissions with LUCF (Tg CO ₂ equivalent)				Change in GHG emissions (%)		
	1990	1994	Latest available year	Emissions for latest available year	From 1990 to 1994	From 1994 to latest available year	From 1990 to latest available year
Palau	-	-0.292	1994	-0.292	-	-	-
Panama	-	34.403	1994	34.403	-	-	-
Papua New Guinea	-	4.599	1994	4.599	-	-	-
Paraguay	71.858	159.960	1994	159.960	122.6	-	122.6
Peru	-	98.801	1994	98.801	-	-	-
Philippines	-	100.740	1994	100.740	-	-	-
Republic of Korea	263.222	-	1990	263.222	-	-	-
Republic of Moldova	31.416	13.821	1998	9.060	-56.0	-34.5	-71.2
Saint Kitts and Nevis	-	0.075	1994	0.075	-	-	-
Saint Lucia	-	0.541	1994	0.541	-	-	-
Saint Vincent and the Grenadines	0.260	0.247	1997	0.278	-4.9	12.4	6.9
Samoa	-	0.479	1994	0.479	-	-	-
Senegal	-	3.321	1995	3.571	-	7.5	-
Seychelles	-	-	1995	-0.576	-	-	-
Singapore	-	26.859	1994	26.859	-	-	-
Solomon Islands	-	0.294	1994	0.294	-	-	-
South Africa	330.364	361.221	1994	361.221	9.3	-	9.3
Sri Lanka	-	57.313	1995	408.207	-	612.2	-
Sudan	-	-	1995	72.014	-	-	-
Swaziland	-	-0.617	1994	-0.617	-	-	-
Tajikistan	22.148	6.461	1998	2.799	-70.8	-56.7	-87.4
Thailand	-	285.831	1994	285.831	-	-	-
The former Yugoslav Republic of Macedonia	13.973	12.158	1998	12.793	-13.0	5.2	-8.4
Togo	-	23.182	1998	34.407	-	48.4	-
Trinidad and Tobago	14.921	-	1990	14.921	-	-	-
Tunisia	-	23.368	1994	23.368	-	-	-
Turkmenistan	-	52.690	1994	52.690	-	-	-
Tuvalu	-	0.005	1994	0.005	-	-	-
Uganda	-	50.857	1994	50.857	-	-	-
United Republic of Tanzania	954.989	952.799	1994	952.799	-0.2	-	-0.2
Uruguay	29.627	28.950	1998	27.959	-2.3	-3.4	-5.6
Uzbekistan	162.725	153.489	1994	153.489	-5.7	-	-5.7
Vanuatu	-	0.298	1994	0.298	-	-	-
Viet Nam	-	103.835	1994	103.835	-	-	-
Yemen	-	-	1995	8.198	-	-	-
Zambia	-	36.327	1994	36.327	-	-	-
Zimbabwe	-	-34.645	1994	-34.645	-	-	-

III. GHG DATA FOR NON-ANNEX I PARTIES C. Data for GHG total

Figure III-2. Profile by gas of GHG emissions from non-Annex I Parties taken together, 1994 and the latest available year

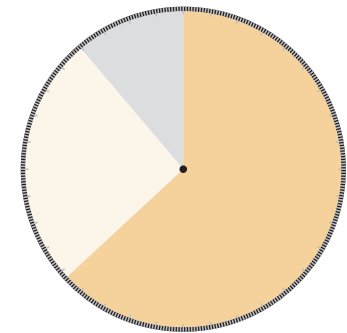
GHG total (without LUCF) by gas, 1994

N₂O 12.0%
 CH₄ 26.2%
 CO₂ 61.8%



GHG total (without LUCF) by gas, latest available year

N₂O 11.2%
 CH₄ 25.7%
 CO₂ 63.1%



Note 1: only the non-Annex I Parties, for which 1994 data are available, are included in the figure for 1994.

Note 2: the figure for the latest available year is illustrative and not fully consistent because the latest available year is not the same for all non-Annex I Parties.

Table III-4.

GHG emissions by gas from non-Annex I Parties, 1990

Emissions (Tg CO₂ equivalent)

Party	CO ₂ (without LUCF)	CO ₂ emissions (+) or removals (-) by LUCF	CO ₂ (with LUCF)	CH ₄ (without LUCF)	N ₂ O (without LUCF)
Albania	7.134	-	7.134	-	-
Antigua and Barbuda	0.288	-0.097	0.191	0.098	0.002
Argentina	101.585	-34.891	66.694	76.010	61.709
Armenia	22.013	-0.617	21.396	3.208	0.091
Azerbaijan	44.702	-3.509	41.193	15.186	0.899
Bahamas	1.894	-3.600	-1.706	0.021	-
Barbados	1.564	-0.011	1.553	1.659	0.047
Bolivia	5.386	22.097	27.483	9.352	0.577
Brazil	220.302	758.281	978.583	224.364	148.490
Colombia	49.707	10.869	60.576	44.560	24.655
Costa Rica	2.749	1.094	3.844	3.157	0.186
Cuba	35.424	-23.998	11.426	10.683	17.453
Democratic People's Republic of Korea	169.445	-14.631	154.814	20.473	12.013
Dominican Republic	8.717	-5.667	3.050	3.040	0.840
Ecuador	20.028	13.196	33.224	10.573	0.174
Egypt	84.459	-9.900	74.559	22.174	10.633
Ethiopia	2.307	-31.290	-28.983	37.590	3.100
Georgia	24.038	-11.720	12.318	7.169	2.416
Ghana	3.124	-27.535	-24.411	7.221	0.812
Guatemala	4.245	-39.659	-35.414	4.088	6.409
Guyana	1.198	-23.777	-22.579	0.672	0.310
Indonesia	142.688	188.139	330.827	106.113	17.980
Kazakhstan	230.389	-4.011	226.378	39.081	0.651
Kyrgyzstan	29.101	-0.825	28.276	5.880	1.240
Lao People's Democratic Republic	0.415	-104.985	-104.570	6.414	0.037
Malawi	0.669	19.879	20.549	7.044	0.335
Malta	1.896	-0.240	1.656	0.303	0.017
Mexico	308.632	135.857	444.489	71.414	3.031
Mongolia	13.650	5.486	19.136	5.636	0.031
Niger	0.598	6.082	6.681	3.436	0.822
Paraguay	10.744	3.530	14.274	17.581	37.110
Republic of Korea	256.514	-26.235	230.279	28.598	4.346
Republic of Moldova	28.323	-1.850	26.473	4.059	0.890
Saint Vincent and the Grenadines	0.082	-0.134	-0.052	0.064	0.249
South Africa	280.932	-16.982	263.949	43.115	23.300
Tajikistan	19.295	-1.528	17.767	3.226	1.178
The former Yugoslav Republic of Macedonia	10.332	-1.464	8.868	3.606	1.498
Trinidad and Tobago	14.987	-1.524	13.463	1.166	0.237
United Republic of Tanzania	2.371	810.454	812.826	36.997	1.137
Uruguay	3.838	1.972	5.810	13.961	9.855
Uzbekistan	114.559	-0.421	114.138	37.758	10.850

III. GHG DATA FOR NON-ANNEX I PARTIES D. Data by gas

Table III-5.

GHG emissions by gas from non-Annex I Parties, 1994

Emissions (Tg CO₂ equivalent)

Party	CO ₂ (without LUCF)	CO ₂ emissions (+) or removals (-) by LUCF	CO ₂ (with LUCF)	CH ₄ (without LUCF)	N ₂ O (without LUCF)
Albania	3.102	1.510	4.611	2.138	0.294
Algeria	63.704	7.836	71.540	18.774	9.130
Argentina	119.603	-34.731	84.872	87.366	56.910
Azerbaijan	32.806	-1.075	31.731	9.282	0.660
Bahamas	1.866	-	1.866	0.021	0.310
Bangladesh	16.460	7.838	24.298	25.008	4.458
Barbados	1.913	-0.011	1.902	1.788	0.050
Belize	0.598	-4.174	-3.576	5.566	0.171
Bhutan	0.228	-3.550	-3.321	0.404	0.660
Bolivia	8.146	24.997	33.143	11.674	0.865
Botswana	3.014	-38.734	-35.720	4.239	2.039
Brazil	253.375	776.331	1,029.706	238.728	166.873
Burkina Faso	0.902	-0.001	0.901	4.700	0.366
Cambodia	1.322	-19.636	-18.314	7.773	3.667
Cameroon	2.770	21.980	24.749	17.709	145.247
Central African Republic	0.212	-140.879	-140.667	11.838	26.294
Chile	37.147	-29.709	7.438	10.122	7.390
China	3,073.469	-407.479	2,665.990	720.027	263.810
Colombia	60.917	14.505	75.422	48.219	28.350
Comoros	0.071	-0.905	-0.835	0.055	0.393
Congo	0.674	-70.120	-69.447	0.583	0.118
Cook Islands	0.033	-0.154	-0.122	0.011	0.037
Côte d'Ivoire	4.346	-22.246	-17.901	18.681	1.699
Cuba	23.508	-26.470	-2.961	9.363	5.251
Democratic Republic of the Congo	1.339	-183.331	-181.992	40.637	2.558
Djibouti	0.274	-0.679	-0.404	0.236	0.001
Dominica	0.077	-0.372	-0.295	0.063	0.012
Dominican Republic	15.003	-6.633	8.370	4.660	0.778
El Salvador	4.714	3.931	8.645	3.108	4.095
Eritrea	0.720	1.676	2.396	1.549	1.866
Ethiopia	2.597	-15.063	-12.466	37.378	7.440
Gabon	4.408	-500.973	-496.565	1.167	0.949
Georgia	6.526	0.817	7.343	3.182	0.983
Ghana	3.330	-19.878	-16.548	8.336	0.911
Grenada	0.135	-0.092	0.043	1.470	0.001
Guinea	1.580	-21.483	-19.902	3.250	0.228
Guyana	1.446	-26.664	-25.219	0.885	0.375
Haiti	0.157	0.954	1.111	2.650	2.325
India	779.348	14.142	793.490	379.596	55.304
Indonesia	178.215	155.624	333.839	126.881	18.166
Iran (Islamic Republic of)	310.645	31.417	342.062	53.144	21.644
Jamaica	8.561	-0.167	8.394	1.222	106.443

III. GHG DATA FOR NON-ANNEX I PARTIES D. Data by gas

Table III-5.

GHG emissions by gas from non-Annex I Parties, 1994 (continued)

Emissions (Tg CO₂ equivalent)

Party	CO ₂ (without LUCF)	CO ₂ emissions (+) or removals (-) by LUCF	CO ₂ (with LUCF)	CH ₄ (without LUCF)	N ₂ O (without LUCF)
Jordan	13.390	-1.912	11.478	8.474	0.079
Kazakhstan	179.265	-6.627	172.638	39.934	0.040
Kenya	5.512	-28.262	-22.750	15.537	0.417
Kiribati	0.019	-	0.019	0.009	0.000
Kyrgyzstan	14.620	-0.887	13.733	3.339	0.226
Lebanon	13.603	0.200	13.803	1.129	0.970
Lesotho	0.636	1.261	1.897	0.970	0.214
Madagascar	1.146	-240.168	-239.022	7.755	13.032
Malawi	0.719	17.512	18.231	3.946	2.409
Malaysia	89.388	-61.081	28.307	46.850	0.125
Maldives	0.129	-	0.129	0.024	0.353
Malta	2.310	-0.240	2.071	0.342	0.017
Micronesia (Federated States of)	0.236	-	0.236	0.007	0.003
Mongolia	9.479	0.400	9.879	5.649	0.031
Morocco	28.364	-4.511	23.853	7.329	8.680
Namibia	1.827	-5.716	-3.889	3.546	0.229
Nauru	0.028	-0.009	0.019	0.007	0.000
Nepal	1.630	8.117	9.747	19.918	9.641
Nicaragua	2.728	-14.784	-12.056	4.130	0.794
Nigeria	114.816	104.582	219.398	124.155	3.655
Niue	4.396	0.085	4.481	0.014	0.012
Pakistan	88.441	6.527	94.969	60.713	11.445
Palau	0.086	-0.417	-0.332	0.032	0.007
Panama	4.315	22.330	26.645	3.584	2.793
Papua New Guinea	1.141	-0.413	0.728	0.090	3.782
Paraguay	3.802	17.812	21.614	63.423	73.231
Peru	30.657	37.197	67.854	13.395	13.532
Philippines	57.932	-2.774	55.158	28.932	14.003
Republic of Moldova	12.081	-1.536	10.546	3.083	0.192
Saint Kitts and Nevis	0.071	-0.090	-0.019	0.059	0.034
Saint Lucia	0.269	-0.352	-0.083	0.596	0.022
Saint Vincent and the Grenadines	0.095	-0.134	-0.039	0.062	0.223
Samoa	0.102	-0.082	0.020	0.069	0.391
Senegal	4.006	-6.576	-2.570	5.288	0.024
Singapore	26.800	-	26.800	-	0.059
Solomon Islands	0.294	-	0.294	-	-
South Africa	315.957	-18.616	297.341	43.206	20.674
Sri Lanka	5.648	27.885	33.532	16.025	7.756
Swaziland	0.874	-3.258	-2.384	1.347	0.415
Tajikistan	5.613	-2.048	3.565	2.337	0.558
Thailand	141.453	60.476	201.929	65.335	17.190
The former Yugoslav Republic of Macedonia	8.905	-1.736	7.170	3.541	1.448

III. GHG DATA FOR NON-ANNEX I PARTIES D. Data by gas

Table III-5. GHG emissions by gas from non-Annex I Parties, 1994 (continued)

Emissions (Tg CO₂ equivalent)

Party	CO ₂ (without LUCF)	CO ₂ emissions (+) or removals (-) by LUCF	CO ₂ (with LUCF)	CH ₄ (without LUCF)	N ₂ O (without LUCF)
Togo	1.034	18.189	19.223	0.872	2.759
Tunisia	17096	-1.773	15.324	3.783	4.261
Turkmenistan	31.859	0.381	32.240	20.346	0.125
Tuvalu	0.005	-	0.005	0.000	0.000
Uganda	0.730	8.123	8.853	26.652	15.221
United Republic of Tanzania	3.225	810.454	813.679	21.635	14.378
Uruguay	4.210	-0.865	3.344	15.477	10.129
Uzbekistan	102.157	-0.399	101.758	41.811	9.920
Vanuatu	0.055	-0.002	0.054	0.235	0.009
Viet Nam	25.383	15.223	40.606	48.894	10.173
Zambia	2.595	-1.289	1.306	10.705	19.469
Zimbabwe	17088	-62.269	-45.181	7.523	2.982

Table III-6.

GHG emissions by gas from non-Annex I Parties, latest available year
Emissions (Tg CO₂ equivalent)

Party	Latest available year	CO ₂ (without LUCF)	CO ₂ emissions (+) or removals (-) by LUCF	CO ₂ (with LUCF)	CH ₄ (without LUCF)	N ₂ O (without LUCF)
Albania	1994	3.102	1.510	4.611	2.138	0.294
Algeria	1994	63.704	7.836	71.540	18.774	9.130
Antigua and Barbuda	1990	0.288	-0.097	0.191	0.098	0.002
Argentina	1997	131.369	-48.617	82.752	87.583	60.729
Armenia	1990	22.013	-0.617	21.396	3.208	0.091
Azerbaijan	1994	32.806	-1.075	31.731	9.282	0.660
Bahamas	1994	1.866	-	1.866	0.021	0.310
Bangladesh	1994	16.460	7.838	24.298	25.008	4.458
Barbados	1997	2.198	-0.011	2.187	1.814	0.047
Belize	1994	0.598	-4.174	-3.576	5.566	0.171
Benin	1995	0.802	-47.865	-47.063	38.015	0.530
Bhutan	1994	0.228	-3.550	-3.321	0.404	0.660
Bolivia	2000	7.783	26.209	33.992	12.765	0.915
Botswana	1994	3.014	-38.734	-35.720	4.239	2.039
Brazil	1994	253.375	776.331	1,029.706	238.728	166.873
Burkina Faso	1994	0.902	-0.001	0.901	4.700	0.366
Burundi	1998	0.143	-3.000	-2.857	0.943	0.909
Cambodia	1994	1.322	-19.636	-18.314	7.773	3.667
Cameroon	1994	2.770	21.980	24.749	17.709	145.247
Cape Verde	1995	0.218	0.027	0.245	0.069	0.006
Central African Republic	1994	0.212	-140.879	-140.667	11.838	26.294
Chad	1993	0.310	-46.441	-46.132	6.938	0.774
Chile	1994	37.147	-29.709	7.438	10.122	7.390
China	1994	3,073.469	-407.479	2,665.990	720.027	263.810
Colombia	1994	60.917	14.505	75.422	48.219	28.350
Comoros	1994	0.071	-0.905	-0.835	0.055	0.393
Congo	1994	0.674	-70.120	-69.447	0.583	0.118
Cook Islands	1994	0.033	-0.154	-0.122	0.011	0.037
Costa Rica	1996	4.555	-0.971	3.583	3.678	2.272
Côte d'Ivoire	1994	4.346	-22.246	-17.901	18.681	1.699
Cuba	1996	26.513	-21.703	4.810	6.584	7.025
Democratic People's Republic of Korea	1990	169.445	-14.631	154.814	20.473	12.013
Democratic Republic of the Congo	1994	1.339	-183.331	-181.992	40.637	2.558
Djibouti	1994	0.274	-0.679	-0.404	0.236	0.001
Dominica	1994	0.077	-0.372	-0.295	0.063	0.012
Dominican Republic	1994	15.003	-6.633	8.370	4.660	0.778
Ecuador	1990	20.028	13.196	33.224	10.573	0.174
Egypt	1990	84.459	-9.900	74.559	22.174	10.633
El Salvador	1994	4.714	3.931	8.645	3.108	4.095
Eritrea	2000	0.600	-	0.600	-	-
Ethiopia	1995	2.862	-10.653	-7.791	37.464	7.440
Gabon	1994	4.408	-500.973	-496.565	1.167	0.949

III. GHG DATA FOR NON-ANNEX I PARTIES **D. Data by gas**

Table III-6.

GHG emissions by gas from non-Annex I Parties, latest available year (continued)

Emissions (Tg CO₂ equivalent)

Party	Latest available year	CO ₂ (without LUCF)	CO ₂ emissions (+) or removals (-) by LUCF	CO ₂ (with LUCF)	CH ₄ (without LUCF)	N ₂ O (without LUCF)
Gambia	1993	0.181	-50.023	-49.842	3.995	0.066
Georgia	1997	8.239	0.937	9.176	3.318	1.333
Ghana	1996	3.801	-13.690	-9.889	8.673	0.924
Grenada	1994	0.135	-0.092	0.043	1.470	0.001
Guatemala	1990	4.245	-39.659	-35.414	4.088	6.409
Guinea	1994	1.580	-21.483	-19.902	3.250	0.228
Guyana	1998	1.749	-31.034	-29.285	1.008	0.310
Haiti	1994	0.157	0.954	1.111	2.650	2.325
Honduras	1995	4.085	1.348	5.433	5.762	0.978
India	1994	779.348	14.142	793.490	379.596	55.304
Indonesia	1994	178.215	155.624	333.839	126.881	18.166
Iran (Islamic Republic of)	1994	310.645	31.417	342.062	53.144	21.644
Israel	1996	52.233	-0.374	51.859	8.945	1.897
Jamaica	1994	8.561	-0.167	8.394	1.222	106.443
Jordan	1994	13.390	-1.912	11.478	8.474	0.079
Kazakhstan	1994	179.265	-6.627	172.638	39.934	0.040
Kenya	1994	5.512	-28.262	-22.750	15.537	0.417
Kiribati	1994	0.019	-	0.019	0.009	0.000
Kyrgyzstan	2000	11.698	-0.979	10.719	3.087	0.276
Lao People's Democratic Republic	1990	0.415	-104.985	-104.570	6.414	0.037
Lebanon	1994	13.603	0.200	13.803	1.129	0.970
Lesotho	1994	0.636	1.261	1.897	0.970	0.214
Madagascar	1994	1.146	-240.168	-239.022	7.755	13.032
Malawi	1994	0.719	17.512	18.231	3.946	2.409
Malaysia	1994	89.388	-61.081	28.307	46.850	0.125
Maldives	1994	0.129	-	0.129	-	0.353
Mali	1995	0.955	-10.829	-9.874	7.157	0.554
Malta	2000	2.444	-0.240	2.204	0.386	0.016
Mauritania	1995	1.047	-0.640	0.407	3.263	0.022
Mauritius	1995	1.738	-0.221	1.517	0.097	0.224
Mexico	1990	308.632	135.857	444.489	71.414	3.031
Micronesia (Federated States of)	1994	0.236	-	0.236	0.007	0.003
Mongolia	1998	9.061	-0.333	8.728	6.840	0.031
Morocco	1994	28.364	-4.511	23.853	7.329	8.680
Namibia	1994	1.827	-5.716	-3.889	3.546	0.229
Nauru	1994	0.028	-0.009	0.019	0.007	0.000
Nepal	1994	1.630	8.117	9.747	19.918	9.641
Nicaragua	1994	2.728	-14.784	-12.056	4.130	0.794
Niger	1990	0.598	6.082	6.681	3.436	0.822
Nigeria	1994	114.816	104.582	219.398	124.155	3.655
Niue	1994	4.396	0.085	4.481	0.014	0.012
Pakistan	1994	88.441	6.527	94.969	60.713	11.445

III. GHG DATA FOR NON-ANNEX I PARTIES D. Data by gas

Table III-6.

GHG emissions by gas from non-Annex I Parties, latest available year (continued)

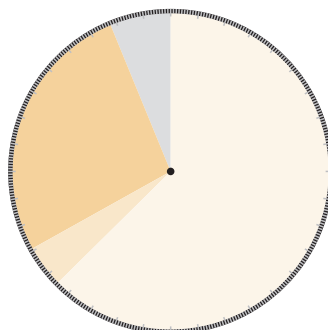
Emissions (Tg CO₂ equivalent)

Party	Latest available year	CO ₂ (without LUCF)	CO ₂ emissions (+) or removals (-) by LUCF	CO ₂ (with LUCF)	CH ₄ (without LUCF)	N ₂ O (without LUCF)
Palau	1994	0.086	-0.417	-0.332	0.032	0.007
Panama	1994	4.315	22.330	26.645	3.584	2.793
Papua New Guinea	1994	1.141	-0.413	0.728	0.090	3.782
Paraguay	1994	3.802	17.812	21.614	63.423	73.231
Peru	1994	30.657	37.197	67.854	13.395	13.532
Philippines	1994	57.932	-2.774	55.158	28.932	14.003
Republic of Korea	1990	256.514	-26.235	230.279	28.598	4.346
Republic of Moldova	1998	8.125	1.451	9.576	2.256	0.130
Saint Kitts and Nevis	1994	0.071	-0.090	-0.019	0.059	0.034
Saint Lucia	1994	0.269	-0.352	-0.083	0.596	0.022
Saint Vincent and the Grenadines	1997	0.107	-0.134	-0.027	0.064	0.239
Samoa	1994	0.102	-0.082	0.020	0.069	0.391
Senegal	1995	4.164	-6.580	-2.416	5.387	0.022
Seychelles	1995	0.179	-0.833	-0.654	0.054	0.025
Singapore	1994	26.800	-	26.800	-	0.059
Solomon Islands	1994	0.294	-	0.294	-	-
South Africa	1994	315.957	-18.616	297.341	43.206	20.674
Sri Lanka	1995	5.644	379.079	384.723	16.023	7.440
Sudan	1995	4.501	15.577	20.078	39.816	9.920
Swaziland	1994	0.874	-3.258	-2.384	1.347	0.415
Tajikistan	1998	1.867	-1.487	0.380	1.892	0.527
Thailand	1994	141.453	60.476	201.929	65.335	17.190
The former Yugoslav Republic of Macedonia	1998	10.184	-2.277	7.907	3.741	1.145
Togo	1998	1.405	27.796	29.201	1.134	3.717
Trinidad and Tobago	1990	14.987	-1.524	13.463	1.166	0.237
Tunisia	1994	17.096	-1.773	15.324	3.783	4.261
Turkmenistan	1994	31.859	0.381	32.240	20.346	0.125
Tuvalu	1994	0.005	-	0.005	0.000	0.000
Uganda	1994	0.730	8.123	8.853	26.652	15.221
United Republic of Tanzania	1994	3.225	810.454	813.679	21.635	14.378
Uruguay	1998	5.902	-5.607	0.295	15.933	11.730
Uzbekistan	1994	102.157	-0.399	101.758	41.811	9.920
Vanuatu	1994	0.055	-0.002	0.054	0.235	0.009
Viet Nam	1994	25.383	15.223	40.606	48.894	10.173
Yemen	1995	10.515	-9.671	0.844	2.695	4.659
Zambia	1994	2.595	-1.289	1.306	10.705	19.469
Zimbabwe	1994	17.088	-62.269	-45.181	7.523	2.982

Figure III-3. Profile by sector of GHG emissions from non-Annex I Parties taken together, 1994

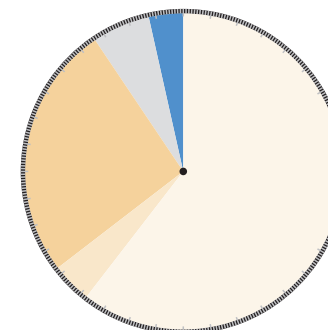
GHG total (without LUCF) by sector, 1994

Industrial Processes **6.2%**
 Agriculture **26.9%**
 Waste **4.3%**
 Energy **62.6%**



GHG total (with LUCF) by sector, 1994

LUCF **3.5%**
 Industrial Processes **5.9%**
 Agriculture **26.0%**
 Waste **4.1%**
 Energy **60.4%**

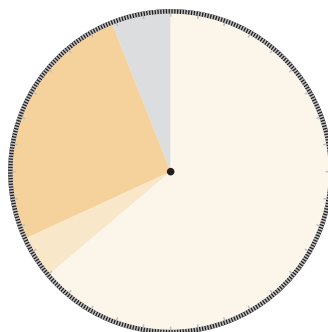


Note: only the non-Annex I Parties, for which 1994 data are available, are included here.

Figure III-4. Profile by sector of GHG emissions from non-Annex I Parties taken together, the latest available year

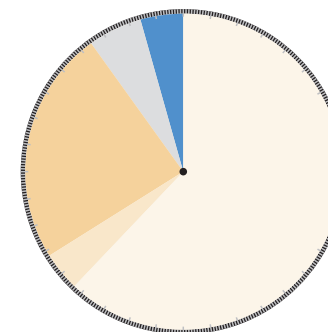
GHG total (without LUCF) by sector, latest available year

Industrial Processes **6.0%**
 Agriculture **25.9%**
 Waste **4.3%**
 Energy **63.9%**



GHG total (with LUCF) by sector, latest available year

LUCF **4.5%**
 Industrial Processes **5.7%**
 Agriculture **24.7%**
 Waste **4.1%**
 Energy **61.0%**



Note: the figure is illustrative and not fully consistent because the latest available year is not the same for all non-Annex I Parties.

Table III-7.

GHG emissions from non-Annex I Parties, by sector, 1990

Emissions in Tg CO₂ equivalent

Party	Energy	Industrial processes	Agriculture	Waste	Emissions (+) or removals (-) by LUCF	GHG total without LUCF	GHG total with LUCF
Albania	7134	-	-	-	-	7134	7134
Antigua and Barbuda	0.288	-	0.022	0.077	-0.097	0.388	0.291
Argentina	106.907	6.311	109.662	9.084	-34.339	231.963	197.624
Armenia	23.108	0.630	1.039	0.536	-0.617	25.312	24.695
Azerbaijan	52.732	1.444	4.689	1.922	-3.509	60.787	57.278
Bahamas	1.894	-	-	0.021	-3.579	1.915	-1.664
Barbados	1.387	0.177	0.067	1.623	-0.011	3.254	3.243
Bolivia	6.064	0.314	8.757	0.180	23.262	15.315	38.577
Brazil	215.052	19.492	339.436	19.197	795.606	593.177	1388.783
Colombia	51.141	4.811	55.427	0.589	10.967	111.967	122.934
Costa Rica	2.530	0.368	2.769	0.431	1.363	6.098	7.461
Cuba	33.706	3.298	23.957	2.595	-23.963	63.556	39.593
Democratic People's Republic of Korea	178.945	9.855	11.648	1.482	-14.621	201.930	187.309
Dominican Republic	8.469	0.541	2.280	1.306	-5.556	12.596	7.040
Ecuador	19.892	1.150	8.388	1.344	14.600	30.774	45.374
Egypt	83.290	10.276	18.012	5.688	-9.900	117.266	107.366
Ethiopia	6.274	0.139	35.371	1.234	-31.290	43.018	11.728
Georgia	36.131	1.546	4.635	3.030	-11.373	45.342	33.969
Ghana	5.147	0.293	5.316	0.403	-27.130	11.158	-15.971
Guatemala	4.584	0.545	8.832	0.782	-39.546	14.742	-24.804
Guyana	1.198	-	0.961	0.021	-23.609	2.180	-21.429
Indonesia	169.617	14.303	75.101	7.798	197.735	266.819	464.553
Kazakhstan	245.927	4.349	17.493	2.352	-3.987	270.121	266.134
Kyrgyzstan	29.096	0.708	4.151	2.166	-0.814	36.122	35.308
Lao People's Democratic Republic	0.930	-	5.697	0.240	-104.304	6.867	-97.437
Malawi	6.643	0.135	1.176	0.091	19.879	8.045	27.924
Malta	1.904	-	0.062	0.249	-0.240	2.215	1.975
Mexico	320.947	11.621	39.463	11.046	141.538	383.077	524.615
Mongolia	13.784	0.301	5.114	0.088	5.486	19.286	24.772
Niger	0.928	0.010	3.890	0.028	6.106	4.856	10.963
Paraguay	11.303	0.334	42.982	10.819	6.419	65.438	71.858
Republic of Korea	248.545	17.617	12.889	10.406	-26.235	289.457	263.222
Republic of Moldova	27.149	2.538	2.811	0.768	-1.850	33.266	31.416
Saint Vincent and the Grenadines	0.082	-	0.274	0.037	-0.132	0.392	0.260
South Africa	260.886	30.792	40.474	15.194	-16.982	347.346	330.364
Tajikistan	18.787	1.565	3.168	0.155	-1.528	23.676	22.148
The former Yugoslav Republic of Macedonia	10.596	1.633	2.025	1.182	-1.464	15.436	13.973
Trinidad and Tobago	9.929	5.117	0.338	1.008	-1.472	16.392	14.921
United Republic of Tanzania	11.566	0.349	28.591	0.919	913.563	41.426	954.989
Uruguay	3.641	0.230	22.627	1.155	1.972	27.654	29.627
Uzbekistan	135.730	6.859	17.428	3.129	-0.421	163.146	162.725

III. GHG DATA FOR NON-ANNEX I PARTIES E. Data by sector

Table III-8.

GHG emissions from non-Annex I Parties, by sector, 1994

Emissions in Tg CO₂ equivalent

Party	Energy	Industrial processes	Agriculture	Waste	Emissions (+) or removals (-) by LUCF	GHG total without LUCF	GHG total with LUCF
Albania	3.105	0.210	1.879	0.340	1.525	5.534	7.059
Algeria	70.082	4.768	12.038	4.720	8.587	91.608	100.195
Argentina	127125	6.530	115.450	14.774	-34.179	263.879	229.700
Azerbaijan	37.312	-	3.683	1.759	-1.075	42.754	41.679
Bahamas	2.176	-	0.021	-	-	2.197	2.197
Bangladesh	15.210	1.281	28.122	1.312	7838	45.926	53.764
Barbados	1.875	0.038	0.067	1.770	-0.011	3.751	3.740
Belize	0.607	0.000	0.270	5.457	-4.025	6.335	2.310
Bhutan	0.096	0.134	1.063	-	-3.550	1.292	-2.257
Bolivia	9.743	0.464	9.941	0.537	26.845	20.685	47.530
Botswana	3.843	0.211	5.067	0.172	-38.734	9.292	-29.442
Brazil	247.716	21.273	369.311	20.676	818.080	658.976	1,477.056
Burkina Faso	0.908	-	4.708	0.352	0.092	5.968	6.060
Cambodia	1.881	0.050	10.559	0.272	-17.908	12.762	-5.145
Cameroon	3.240	58.523	102.232	1.730	22.186	165.725	187.911
Central African Republic	18.928	-	16.851	2.565	-140.858	38.344	-102.514
Chile	37.360	2.162	13.156	1.981	-27.133	54.659	27.527
China	3,007.780	282.630	604.776	162.120	-407.479	4,057.306	3,649.827
Colombia	62.260	5.298	61.444	8.482	14.603	137.485	152.088
Comoros	0.071	-	0.438	0.010	-0.895	0.519	-0.376
Congo	0.846	0.043	0.338	0.147	-69.861	1.375	-68.486
Cook Islands	0.033	-	0.010	0.037	-0.154	0.080	-0.074
Côte d'Ivoire	12.438	0.001	3.449	8.838	-19.847	24.725	4.878
Cuba	22.912	0.979	12.395	1.836	-26.470	38.122	11.653
Democratic Republic of the Congo	3.599	0.022	34.855	6.057	-176.840	44.533	-132.308
Djibouti	0.276	-	0.206	0.030	-0.600	0.511	-0.088
Dominica	0.077	-	0.015	0.060	-0.372	0.152	-0.220
Dominican Republic	14.789	0.644	2.489	2.519	-6.504	20.441	13.937
El Salvador	4.765	0.490	5.785	0.877	3.943	11.917	15.860
Eritrea	2.678	0.032	1.371	0.054	1.676	4.135	5.812
Ethiopia	7.229	0.310	38.447	1.429	-14.407	47.415	33.008
Gabon	6.365	0.065	-	0.095	-500.876	6.524	-494.351
Georgia	6.223	0.275	2.688	1.504	1.038	10.690	11.728
Ghana	6.568	0.282	5.256	0.473	-19.473	12.578	-6.894
Grenada	0.136	-	0.000	1.470	-0.092	1.606	1.514
Guinea	2.043	0.143	2.530	0.341	-17.597	5.058	-12.539
Guyana	1.446	-	1.220	0.041	-26.486	2.706	-23.780
Haiti	0.642	-	4.087	0.402	0.955	5.132	6.087
India	743.820	102.710	344.485	23.233	14.292	1,214.248	1,228.540
Indonesia	222.102	8.213	84.507	8.440	164.113	323.262	487.375
Iran (Islamic Republic of)	321.356	25.475	30.304	8.299	31.578	385.434	417.012
Jamaica	8.231	0.379	107.233	0.382	-0.167	116.225	116.058

III. GHG DATA FOR NON-ANNEX I PARTIES E. Data by sector

Table III-8.

GHG emissions from non-Annex I Parties, by sector, 1994 (continued)

Emissions in Tg CO₂ equivalent

Party	Energy	Industrial processes	Agriculture	Waste	Emissions (+) or removals (-) by LUCF	GHG total without LUCF	GHG total with LUCF
Jordan	11.799	1.701	0.556	7.887	-1.909	21.943	20.034
Kazakhstan	196.027	1.014	17.388	4.811	-6.627	219.240	212.613
Kenya	8.058	0.990	12.100	0.319	-28.000	21.466	-6.534
Kiribati	0.019	-	0.000	0.009	-	0.028	0.028
Kyrgyzstan	14.485	0.228	2.361	1.112	-0.878	18.185	17.307
Lebanon	11.777	1.924	1.102	0.899	0.206	15.702	15.909
Lesotho	0.827	-	0.939	0.055	1.261	1.820	3.081
Madagascar	1.924	0.005	19.795	0.210	-238.971	21.934	-217.037
Malawi	3.718	0.058	3.204	0.090	17.516	7.070	24.586
Malaysia	97.861	4.973	6.932	26.597	-61.078	136.363	75.285
Maldives	0.129	-	-	0.354	-	0.483	0.483
Malta	2.319	-	0.095	0.256	-0.240	2.670	2.430
Micronesia (Federated States of)	0.241	0.000	0.001	0.004	-	0.246	0.246
Mongolia	9.791	0.095	5.185	0.088	0.400	15.159	15.559
Morocco	26.839	3.158	12.092	2.284	-4.511	44.373	39.862
Namibia	1.918	0.005	3.607	0.072	-5.636	5.602	-0.034
Nauru	0.028	-	0.005	0.003	-0.009	0.036	0.027
Nepal	3.266	0.165	27.197	0.561	8.117	31.189	39.306
Nicaragua	2.690	0.355	4.271	0.337	-13.057	7.652	-5.405
Nigeria	146.362	1.762	50.499	44.004	105.010	242.626	347.636
Niue	4.420	-	0.001	0.001	0.085	4.422	4.507
Pakistan	83.267	11.270	61.940	4.123	6.527	160.600	167.127
Palau	0.082	-	0.031	0.012	-0.417	0.125	-0.292
Panama	3.903	0.413	4.726	1.651	23.711	10.692	34.403
Papua New Guinea	0.948	0.193	3.872	-	-0.413	5.012	4.599
Paraguay	3.265	0.734	136.297	0.161	19.504	140.456	159.960
Peru	22.154	9.899	22.809	2.721	41.218	57.583	98.801
Philippines	50.040	10.603	33.129	7.095	-0.126	100.867	100.740
Republic of Moldova	12.202	0.689	1.954	0.511	-1.536	15.357	13.821
Saint Kitts and Nevis	0.074	-	0.042	0.048	-0.090	0.164	0.075
Saint Lucia	0.271	-	0.026	0.589	-0.345	0.886	0.541
Saint Vincent and the Grenadines	0.095	-	0.245	0.039	-0.132	0.380	0.247
Samoa	0.103	-	0.431	0.027	-0.082	0.561	0.479
Senegal	3.789	0.346	2.958	2.226	-5.997	9.318	3.321
Singapore	26.648	-	-	0.211	-	26.859	26.859
Solomon Islands	0.294	-	-	-	-	0.294	0.294
South Africa	297.567	30.386	35.456	16.429	-18.616	379.837	361.221
Sri Lanka	6.749	0.301	11.924	10.455	27.885	29.429	57.313
Swaziland	1.056	-	1.233	0.347	-3.253	2.636	-0.617
Tajikistan	5.435	0.498	2.438	0.139	-2.048	8.509	6.461
Thailand	129.868	15.977	77.393	0.740	61.854	223.977	285.831
The former Yugoslav Republic of Macedonia	9.802	0.991	1.977	1.124	-1.736	13.894	12.158

III. GHG DATA FOR NON-ANNEX I PARTIES E. Data by sector

Table III-8. GHG emissions from non-Annex I Parties, by sector, 1994 (continued)

Emissions in Tg CO₂ equivalent

Party	Energy	Industrial processes	Agriculture	Waste	Emissions (+) or removals (-) by LUCF	GHG total without LUCF	GHG total with LUCF
Togo	0.993	0.420	3.243	0.004	18.522	4.660	23.182
Tunisia	15.251	2.839	6.018	1.032	-1.773	25.141	23.368
Turkmenistan	48.916	0.840	2.334	0.219	0.381	52.310	52.690
Tuvalu	0.005	-	0.000	-	-	0.005	0.005
Uganda	4.962	0.044	37.504	0.095	8.253	42.604	50.857
United Republic of Tanzania	6.888	0.370	29.730	2.247	913.563	39.236	952.799
Uruguay	3.971	0.279	24.277	1.288	-0.865	29.815	28.950
Uzbekistan	127.854	4.942	17.837	3.255	-0.399	153.888	153.489
Vanuatu	0.064	-	0.235	-	-0.002	0.299	0.298
Viet Nam	25.633	3.807	52.445	2.565	19.385	84.450	103.835
Zambia	17.410	0.327	13.618	1.415	3.558	32.769	36.327
Zimbabwe	16.759	4.593	5.715	0.528	-62.239	27.594	-34.645

Table III-9.

GHG emissions from non-Annex I Parties, by sector, latest available year

Emissions in Tg CO₂ equivalent

Party	Latest available year	Energy	Industrial processes	Agriculture	Waste	Emissions (+) or removals (-) by LUCF	GHG total without LUCF	GHG total with LUCF
Albania	1994	3.105	0.210	1.879	0.340	1.525	5.534	7.059
Algeria	1994	70.082	4.768	12.038	4.720	8.587	91.608	100.195
Antigua and Barbuda	1990	0.288	–	0.022	0.077	-0.097	0.388	0.291
Argentina	1997	139.942	8.316	115.159	16.261	-47.312	279.679	232.367
Armenia	1990	23.108	0.630	1.039	0.536	-0.617	25.312	24.695
Azerbaijan	1994	37.312	–	3.683	1.759	-1.075	42.754	41.679
Bahamas	1994	2.176	–	0.021	–	–	2.197	2.197
Bangladesh	1994	15.210	1.281	28.122	1.312	78.38	45.926	53.764
Barbados	1997	2.027	0.171	0.067	1.791	-0.011	4.056	4.045
Belize	1994	0.607	0.000	0.270	5.457	-4.025	6.335	2.310
Benin	1995	0.998	0.096	37.958	0.296	-47.523	39.348	-8.176
Bhutan	1994	0.096	0.134	1.063	–	-3.550	1.292	-2.257
Bolivia	2000	8.069	0.607	11.541	1.244	28.478	21.463	49.941
Botswana	1994	3.843	0.211	5.067	0.172	-38.734	9.292	-29.442
Brazil	1994	247.716	21.273	369.311	20.676	818.080	658.976	1,477.056
Burkina Faso	1994	0.908	–	4.708	0.352	0.092	5.968	6.060
Burundi	1998	0.800	0.000	1.092	0.104	-2.998	1.995	-1.003
Cambodia	1994	1.881	0.050	10.559	0.272	-17.908	12.762	-5.145
Cameroon	1994	3.240	58.523	102.232	1.730	22.186	165.725	187.911
Cape Verde	1995	0.220	–	0.039	0.034	0.037	0.293	0.329
Central African Republic	1994	18.928	–	16.851	2.565	-140.858	38.344	-102.514
Chad	1993	0.310	–	7.299	0.412	-46.198	8.021	-38.177
Chile	1994	37.360	2.162	13.156	1.981	-27.133	54.659	27.527
China	1994	3,007.780	282.630	604.776	162.120	-407.479	4,057.306	3,649.827
Colombia	1994	62.260	5.298	61.444	8.482	14.603	137.485	152.088
Comoros	1994	0.071	–	0.438	0.010	-0.895	0.519	-0.376
Congo	1994	0.846	0.043	0.338	0.147	-69.861	1.375	-68.486
Cook Islands	1994	0.033	–	0.010	0.037	-0.154	0.080	-0.074
Costa Rica	1996	4.179	0.571	4.884	0.870	-0.725	10.504	9.780
Côte d'Ivoire	1994	12.438	0.001	3.449	8.838	-19.847	24.725	4.878
Cuba	1996	26.577	1.217	10.274	2.059	-21.654	40.127	18.473
Democratic People's Republic of Korea	1990	178.945	9.855	11.648	1.482	-14.621	201.930	187.309
Democratic Republic of the Congo	1994	3.599	0.022	34.855	6.057	-176.840	44.533	-132.308
Djibouti	1994	0.276	–	0.206	0.030	-0.600	0.511	-0.088
Dominica	1994	0.077	–	0.015	0.060	-0.372	0.152	-0.220
Dominican Republic	1994	14.789	0.644	2.489	2.519	-6.504	20.441	13.937
Ecuador	1990	19.892	1.150	8.388	1.344	14.600	30.774	45.374
Egypt	1990	83.290	10.276	18.012	5.688	-9.900	117.266	107.366
El Salvador	1994	4.765	0.490	5.785	0.877	3.943	11.917	15.860
Eritrea	2000	0.600	–	–	–	–	0.600	0.600
Ethiopia	1995	7.565	0.343	38.498	1.339	-10.653	47.745	37.092
Gabon	1994	6.365	0.065	–	0.095	-500.876	6.524	-494.351

III. GHG DATA FOR NON-ANNEX I PARTIES E. Data by sector

Table III-9.

GHG emissions from non-Annex I Parties, by sector, latest available year (continued)**Emissions in Tg CO₂ equivalent**

Party	Latest available year	Energy	Industrial processes	Agriculture	Waste	Emissions (+) or removals (-) by LUCF	GHG total without LUCF	GHG total with LUCF
Gambia	1993	0.255	-	0.893	3.095	-49.983	4.242	-45.741
Georgia	1997	7.517	0.495	3.353	1.525	1.155	12.890	14.045
Ghana	1996	7.061	0.268	5.556	0.516	-13.285	13.401	0.115
Grenada	1994	0.136	-	0.000	1.470	-0.092	1.606	1.514
Guatemala	1990	4.584	0.545	8.832	0.782	-39.546	14.742	-24.804
Guinea	1994	2.043	0.143	2.530	0.341	-17.597	5.058	-12.539
Guyana	1998	1.770	-	1.276	0.021	-30.866	3.067	-27.799
Haiti	1994	0.642	-	4.087	0.402	0.955	5.132	6.087
Honduras	1995	3.985	0.515	3.381	2.945	4.629	10.826	15.455
India	1994	743.820	102.710	344.485	23.233	14.292	1,214.248	1,228.540
Indonesia	1994	222.102	8.213	84.507	8.440	164.113	323.262	487.375
Iran (Islamic Republic of)	1994	321.356	25.475	30.304	8.299	31.578	385.434	417.012
Israel	1996	50.598	2.425	2.072	7.980	-0.374	63.075	62.701
Jamaica	1994	8.232	0.379	107.233	0.382	-0.167	116.226	116.059
Jordan	1994	11.799	1.701	0.556	7.887	-1.909	21.943	20.034
Kazakhstan	1994	196.027	1.014	17.388	4.811	-6.627	219.240	212.613
Kenya	1994	8.058	0.990	12.100	0.319	-28.000	21.466	-6.534
Kiribati	1994	0.019	-	0.000	0.009	-	0.028	0.028
Kyrgyzstan	2000	11.333	0.237	2.554	0.928	-0.968	15.051	14.083
Lao People's Democratic Republic	1990	0.930	-	5.697	0.240	-104.304	6.867	-97.437
Lebanon	1994	11.777	1.924	1.102	0.899	0.206	15.702	15.909
Lesotho	1994	0.827	-	0.939	0.055	1.261	1.820	3.081
Madagascar	1994	1.924	0.005	19.795	0.210	-238.971	21.934	-217.037
Malawi	1994	3.718	0.058	3.204	0.090	17.516	7.070	24.586
Malaysia	1994	97.861	4.973	6.932	26.597	-61.078	136.363	75.285
Maldives	1994	0.129	-	-	0.354	-	0.483	0.483
Mali	1995	0.968	0.010	7.573	0.116	-9.748	8.666	-1.082
Malta	2000	2.451	0.001	0.087	0.308	-0.240	2.847	2.607
Mauritania	1995	1.154	0.002	2.944	0.229	-0.640	4.330	3.690
Mauritius	1995	1.760	0.088	0.139	0.072	-0.221	2.059	1.837
Mexico	1990	320.947	11.621	39.463	11.046	141.538	383.077	524.615
Micronesia (Federated States of)	1994	0.241	0.000	0.001	0.004	-	0.246	0.246
Mongolia	1998	9.368	0.098	6.342	0.090	-0.333	15.899	15.566
Morocco	1994	26.839	3.158	12.092	2.284	-4.511	44.373	39.862
Namibia	1994	1.918	0.005	3.607	0.072	-5.636	5.602	-0.034
Nauru	1994	0.028	-	0.005	0.003	-0.009	0.036	0.027
Nepal	1994	3.266	0.165	27.197	0.561	8.117	31.189	39.306
Nicaragua	1994	2.690	0.355	4.271	0.337	-13.057	7.652	-5.405
Niger	1990	0.928	0.010	3.890	0.028	6.106	4.856	10.963
Nigeria	1994	146.362	1.762	50.499	44.004	105.010	242.626	347.636
Niue	1994	4.420	-	0.001	0.001	0.085	4.422	4.507
Pakistan	1994	83.267	11.270	61.940	4.123	6.527	160.600	167.127

III. GHG DATA FOR NON-ANNEX I PARTIES E. Data by sector

Table III-9. GHG emissions from non-Annex I Parties, by sector, latest available year (continued)

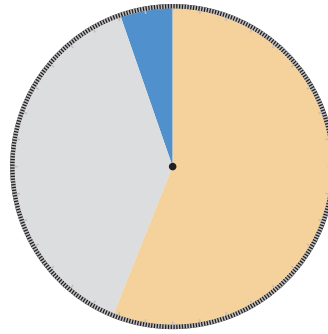
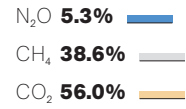
Emissions in Tg CO₂ equivalent

Party	Latest available year	Energy	Industrial processes	Agriculture	Waste	Emissions (+) or removals (-) by LUCF	GHG total without LUCF	GHG total with LUCF
Palau	1994	0.082	–	0.031	0.012	-0.417	0.125	-0.292
Panama	1994	3.903	0.413	4.726	1.651	23.711	10.692	34.403
Papua New Guinea	1994	0.948	0.193	3.872	–	-0.413	5.012	4.599
Paraguay	1994	3.265	0.734	136.297	0.161	19.504	140.456	159.960
Peru	1994	22.154	9.899	22.809	2.721	41.218	57.583	98.801
Philippines	1994	50.040	10.603	33.129	7.095	-0.126	100.867	100.740
Republic of Korea	1990	248.545	17.617	12.889	10.406	-26.235	289.457	263.222
Republic of Moldova	1998	7.545	1.228	1.242	0.496	-1.451	10.511	9.060
Saint Kitts and Nevis	1994	0.074	–	0.042	0.048	-0.090	0.164	0.075
Saint Lucia	1994	0.271	–	0.026	0.589	-0.345	0.886	0.541
Saint Vincent and the Grenadines	1997	0.107	–	0.264	0.039	-0.132	0.410	0.278
Samoa	1994	0.103	–	0.431	0.027	-0.082	0.561	0.479
Senegal	1995	3.916	0.379	2.996	2.282	-6.001	9.573	3.571
Seychelles	1995	0.180	–	0.027	0.049	-0.833	0.256	-0.576
Singapore	1994	26.648	–	–	0.211	–	26.859	26.859
Solomon Islands	1994	0.294	–	–	–	–	0.294	0.294
South Africa	1994	297.567	30.386	35.456	16.429	-18.616	379.837	361.221
Sri Lanka	1995	6.773	0.273	11.461	10.621	379.079	29.128	408.207
Sudan	1995	7.788	0.173	45.273	1.003	17.777	54.237	72.014
Swaziland	1994	1.056	–	1.233	0.347	-3.253	2.636	-0.617
Tajikistan	1998	1.579	0.343	2.226	0.139	-1.487	4.286	2.799
Thailand	1994	129.868	15.977	77.393	0.740	61.854	223.977	285.831
The former Yugoslav Republic of Macedonia	1998	11.204	1.064	1.577	1.226	-2.277	15.070	12.793
Togo	1998	1.446	0.357	4.467	0.008	28.129	6.277	34.407
Trinidad and Tobago	1990	9.929	5.117	0.338	1.008	-1.472	16.392	14.921
Tunisia	1994	15.251	2.839	6.018	1.032	-1.773	25.141	23.368
Turkmenistan	1994	48.916	0.840	2.334	0.219	0.381	52.310	52.690
Tuvalu	1994	0.005	–	0.000	–	–	0.005	0.005
Uganda	1994	4.962	0.044	37.504	0.095	8.253	42.604	50.857
United Republic of Tanzania	1994	6.888	0.370	29.730	2.247	913.563	39.236	952.799
Uruguay	1998	5.436	0.518	26.280	1.332	-5.607	33.566	27.959
Uzbekistan	1994	127.854	4.942	17.837	3.255	-0.399	153.888	153.489
Vanuatu	1994	0.064	–	0.235	–	-0.002	0.299	0.298
Viet Nam	1994	25.633	3.807	52.445	2.565	19.385	84.450	103.835
Yemen	1995	10.132	0.547	6.296	0.894	-9.670	17.869	8.198
Zambia	1994	17.410	0.327	13.618	1.415	3.558	32.769	36.327
Zimbabwe	1994	16.759	4.593	5.715	0.528	-62.239	27.594	-34.645

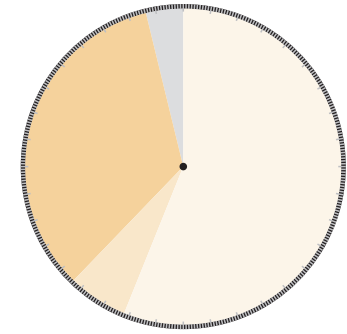
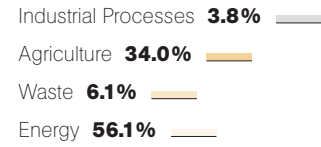
Albania

Figure III-5.

GHG total (without LUCF) by gas



GHG total (without LUCF) by sector



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

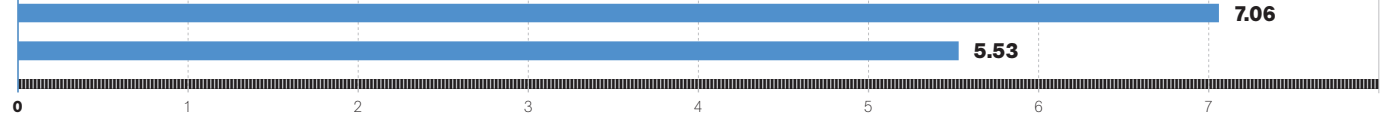
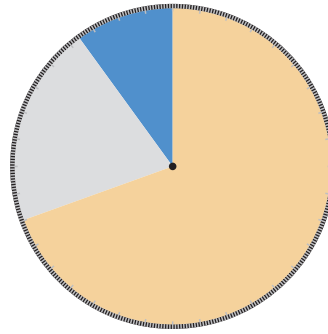
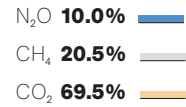
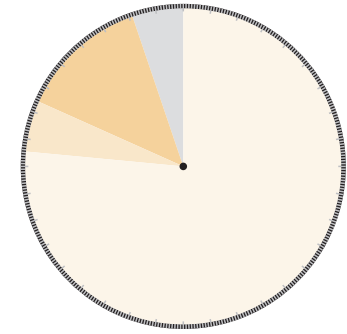
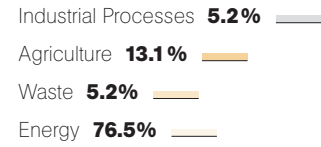


Figure III-6.

GHG total (without LUCF) by gas



GHG total (without LUCF) by sector



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

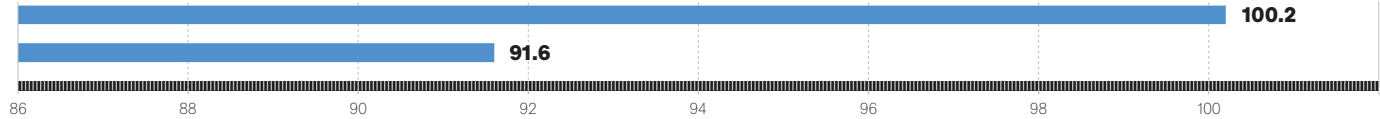
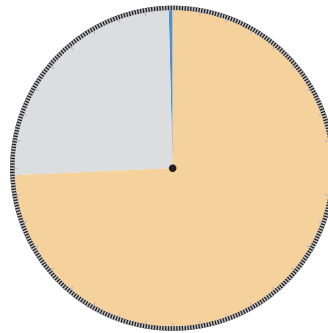
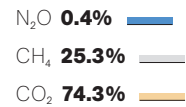
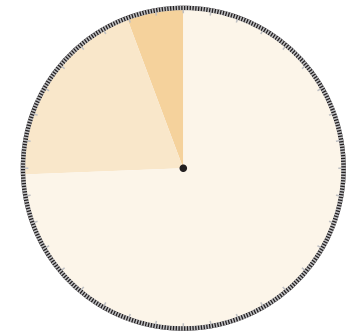
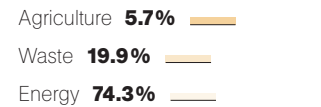


Figure III-7.

GHG total (without LUCF) by gas



GHG total (without LUCF) by sector



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

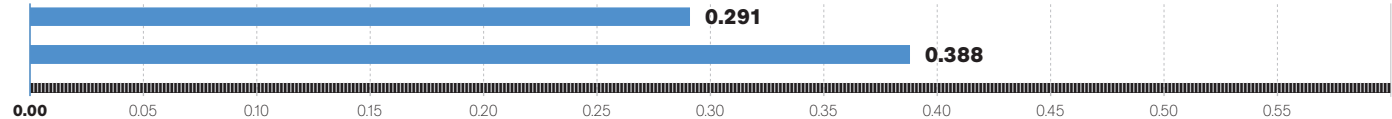
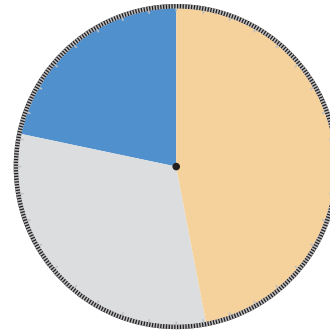


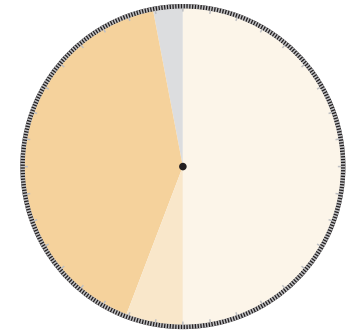
Figure III-8. GHG total (without LUCF) by gas

N₂O **21.7%**
 CH₄ **31.3%**
 CO₂ **47.0%**



GHG total (without LUCF) by sector

Industrial Processes **3.0%**
 Agriculture **41.2%**
 Waste **5.8%**
 Energy **50.0%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

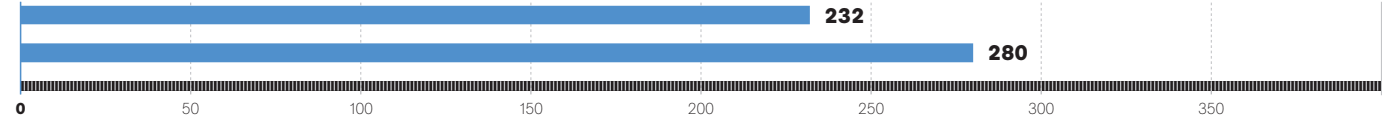
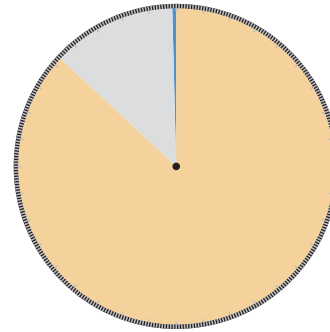


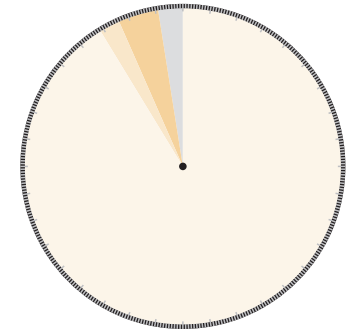
Figure III-9. GHG total (without LUCF) by gas

N₂O **0.4%**
 CH₄ **12.7%**
 CO₂ **87.0%**



GHG total (without LUCF) by sector

Industrial Processes **2.5%**
 Agriculture **4.1%**
 Waste **2.1%**
 Energy **91.3%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

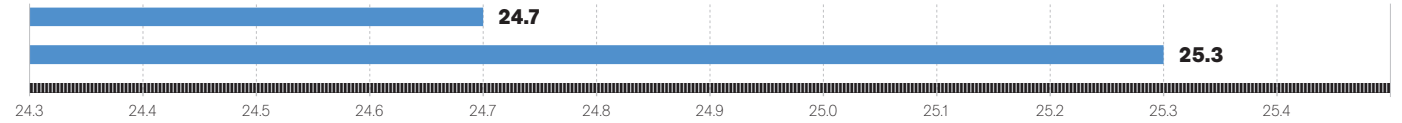
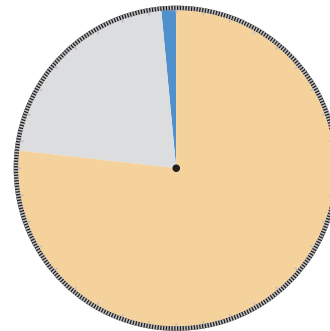


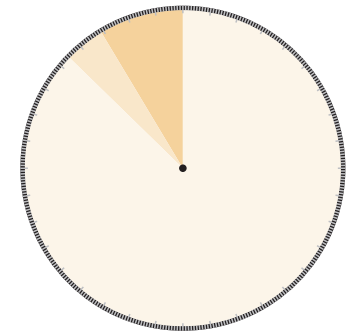
Figure III-10. GHG total (without LUCF) by gas

N₂O **1.5%**
 CH₄ **21.7%**
 CO₂ **76.7%**



GHG total (without LUCF) by sector

Agriculture **8.6%**
 Waste **4.1%**
 Energy **87.3%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

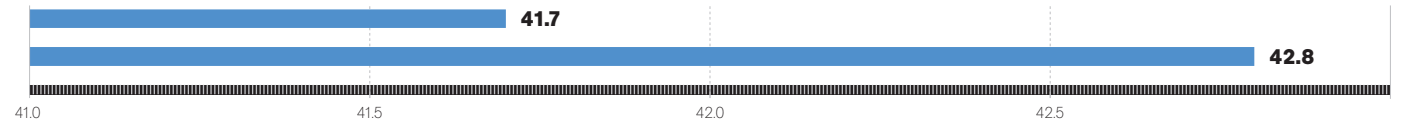
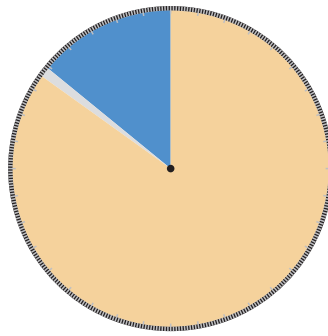


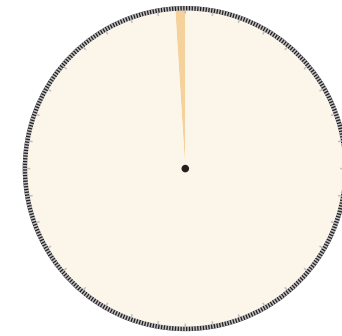
Figure III-11. GHG total (without LUCF) by gas

N₂O **14.1%**
 CH₄ **1.0%**
 CO₂ **84.9%**



GHG total (without LUCF) by sector

Agriculture **1.0%**
 Energy **99.0%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

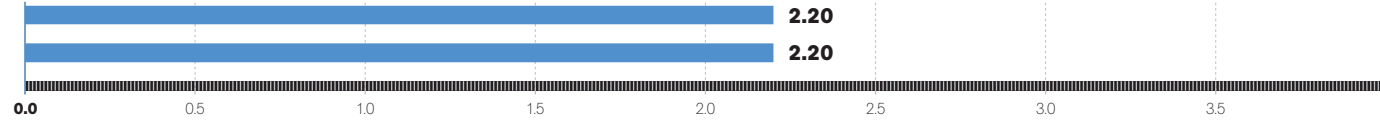
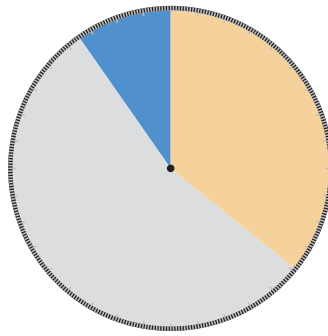


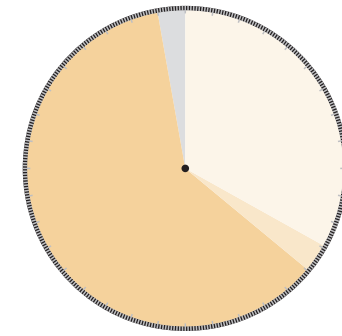
Figure III-12. GHG total (without LUCF) by gas

N₂O **9.7%**
 CH₄ **54.5%**
 CO₂ **35.8%**



GHG total (without LUCF) by sector

Industrial Processes **2.8%**
 Agriculture **61.2%**
 Waste **2.9%**
 Energy **33.1%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

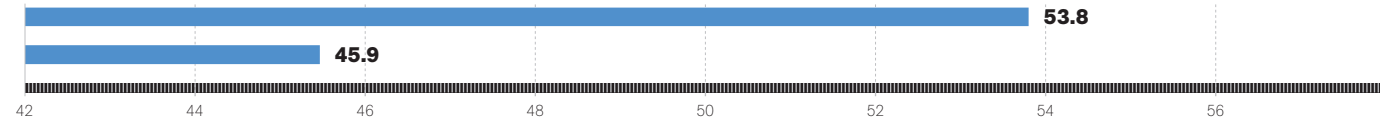
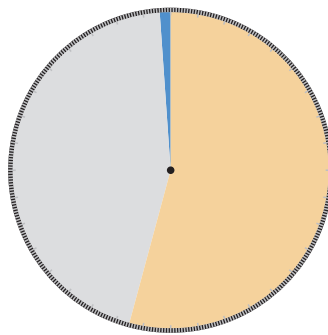


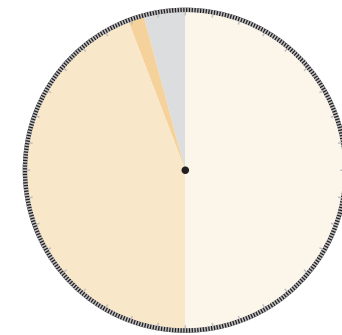
Figure III-13. GHG total (without LUCF) by gas

N₂O **1.1%**
 CH₄ **44.7%**
 CO₂ **54.2%**

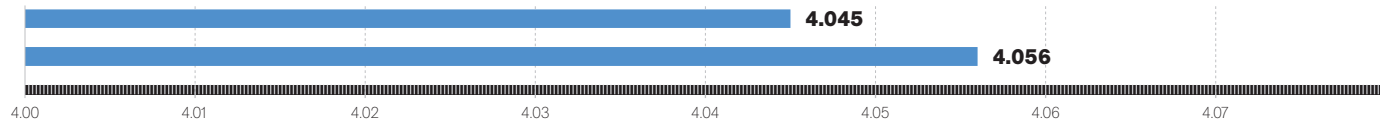


GHG total (without LUCF) by sector

Industrial Processes **4.2%**
 Agriculture **1.6%**
 Waste **44.2%**
 Energy **50.0%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent



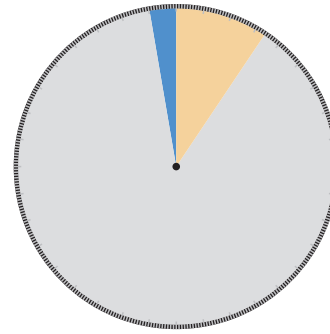
Bahamas
1994

Bangladesh
1994

Barbados
1997

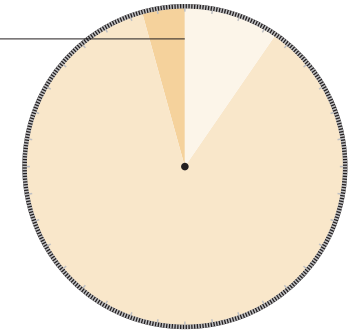
Figure III-14. GHG total (without LUCF) by gas

N₂O **2.7%**
 CH₄ **87.9%**
 CO₂ **9.4%**

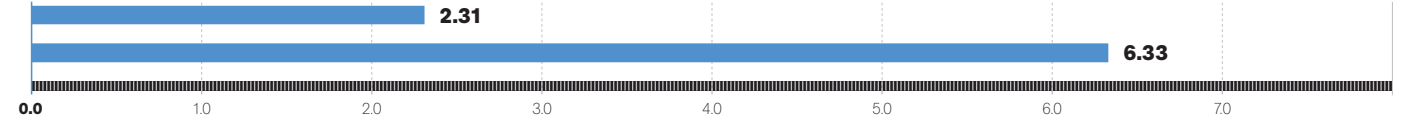


GHG total (without LUCF) by sector

Industrial Processes **0.005%**
 Agriculture **4.3%**
 Waste **86.1%**
 Energy **9.6%**



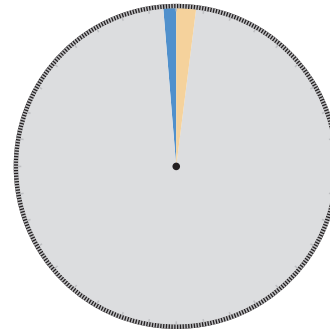
GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent



Belize
1994

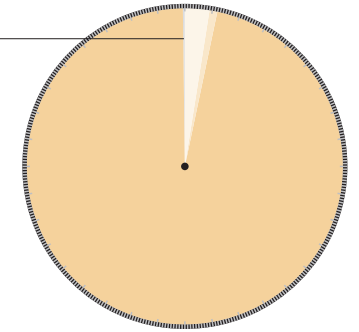
Figure III-15. GHG total (without LUCF) by gas

N₂O **1.3%**
 CH₄ **96.6%**
 CO₂ **2.0%**

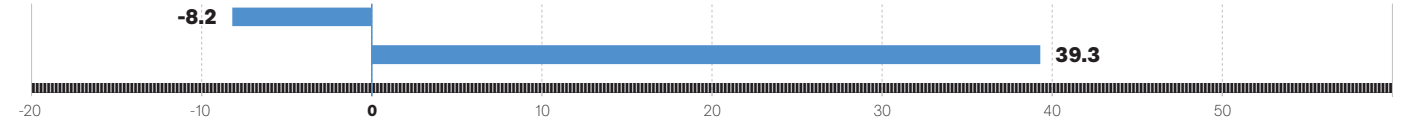


GHG total (without LUCF) by sector

Industrial Processes **0.2%**
 Agriculture **96.5%**
 Waste **0.8%**
 Energy **2.5%**



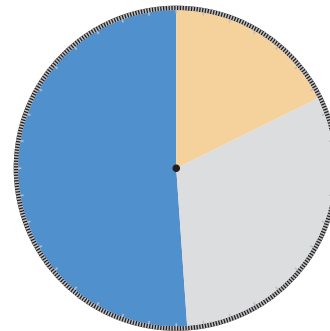
GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent



Benin
1995

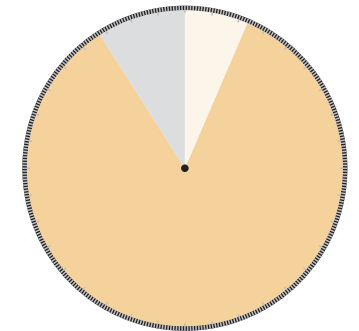
Figure III-16. GHG total (without LUCF) by gas

N₂O **51.1%**
 CH₄ **31.2%**
 CO₂ **17.7%**

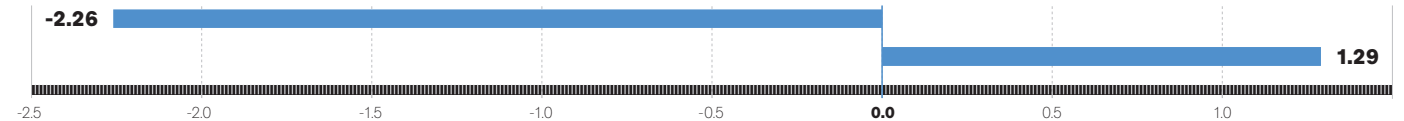


GHG total (without LUCF) by sector

Industrial Processes **10.3%**
 Agriculture **82.2%**
 Energy **7.4%**



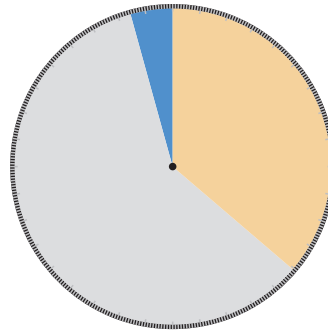
GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent



Bhutan
1994

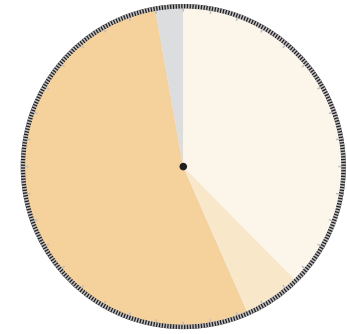
Figure III-17. GHG total (without LUCF) by gas

N₂O **4.3%**
 CH₄ **59.5%**
 CO₂ **36.3%**



GHG total (without LUCF) by sector

Industrial Processes **2.8%**
 Agriculture **53.8%**
 Waste **5.8%**
 Energy **37.6%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

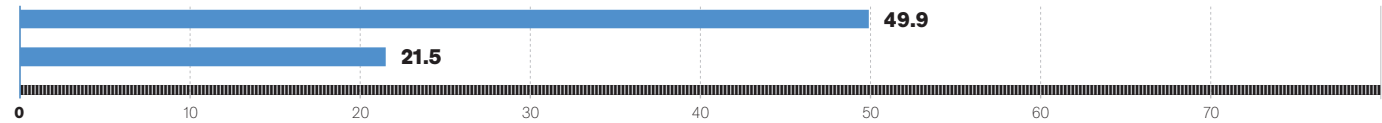
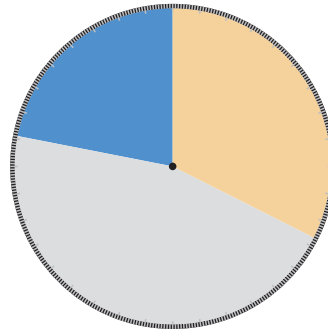


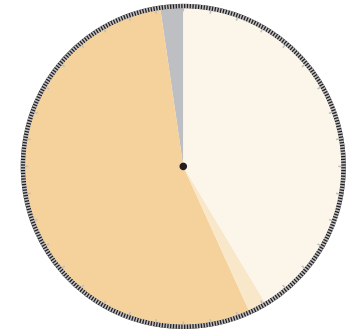
Figure III-18. GHG total (without LUCF) by gas

N₂O **21.9%**
 CH₄ **45.6%**
 CO₂ **32.4%**



GHG total (without LUCF) by sector

Industrial Processes **2.3%**
 Agriculture **54.5%**
 Waste **1.8%**
 Energy **41.4%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

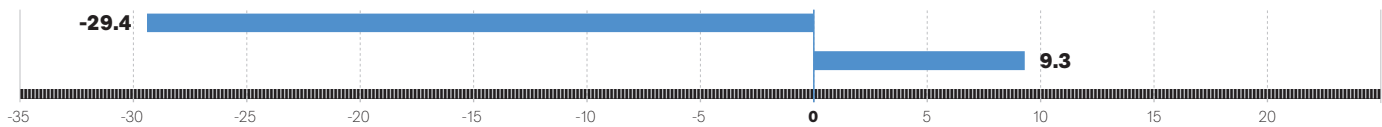
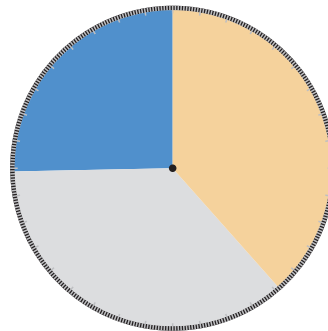


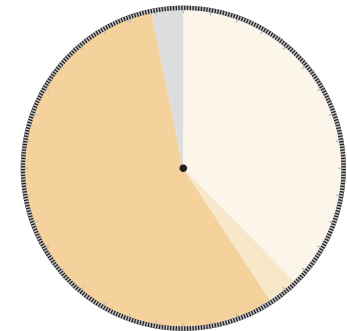
Figure III-19. GHG total (without LUCF) by gas

N₂O **25.3%**
 CH₄ **36.2%**
 CO₂ **38.4%**

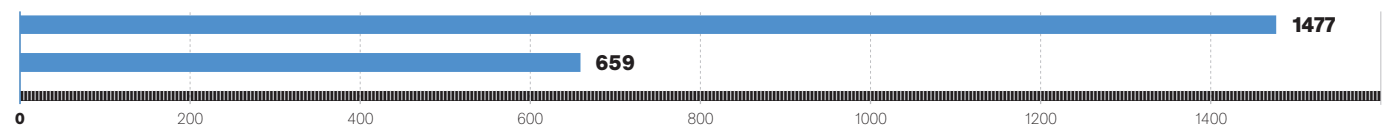


GHG total (without LUCF) by sector

Industrial Processes **3.2%**
 Agriculture **56.0%**
 Waste **3.1%**
 Energy **37.6%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent



Bolivia

2000

Botswana

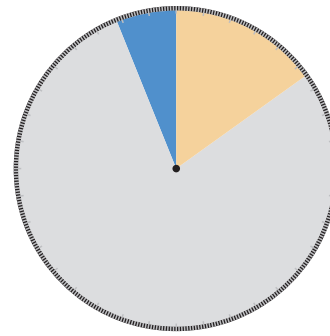
1994

Brazil

1994

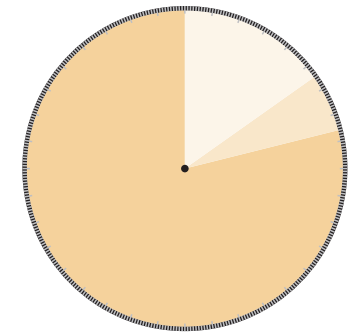
Figure III-20. GHG total (without LUCF) by gas

N₂O **6.1%**
 CH₄ **78.8%**
 CO₂ **15.1%**



GHG total (without LUCF) by sector

Agriculture **78.9%**
 Waste **5.9%**
 Energy **15.2%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

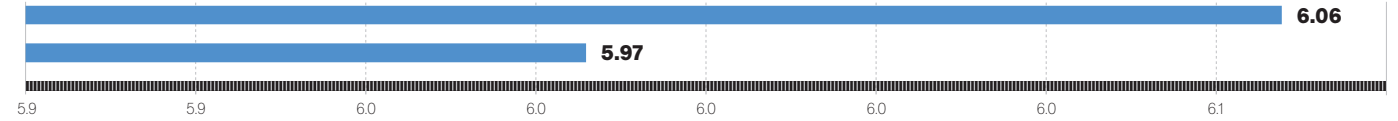
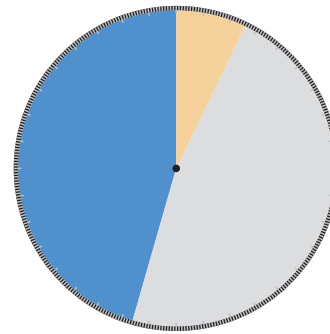


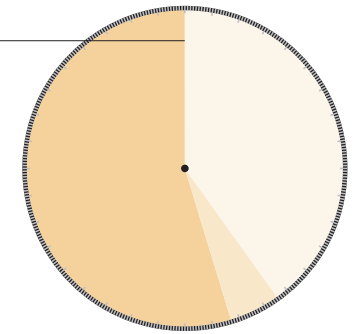
Figure III-21. GHG total (without LUCF) by gas

N₂O **45.6%**
 CH₄ **47.3%**
 CO₂ **7.2%**



GHG total (without LUCF) by sector

Industrial Processes **0.01%**
 Agriculture **54.7%**
 Waste **5.2%**
 Energy **40.1%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

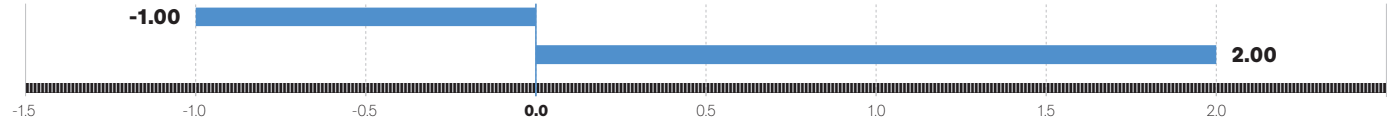
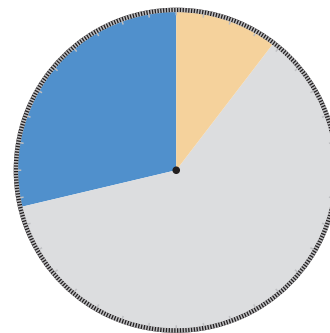


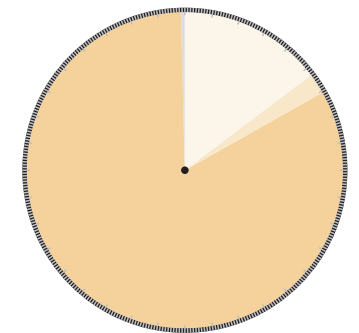
Figure III-22. GHG total (without LUCF) by gas

N₂O **28.7%**
 CH₄ **60.9%**
 CO₂ **10.4%**



GHG total (without LUCF) by sector

Industrial Processes **0.4%**
 Agriculture **82.7%**
 Waste **2.1%**
 Energy **14.7%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

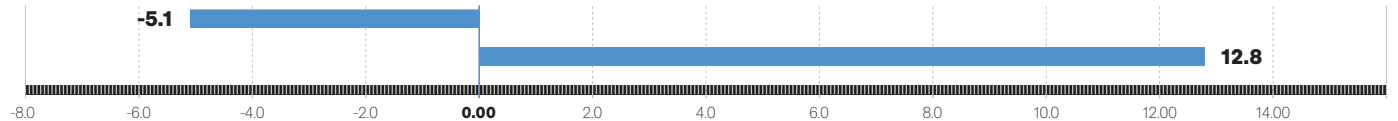
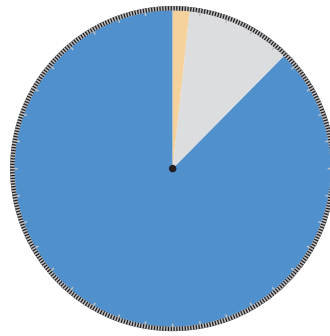


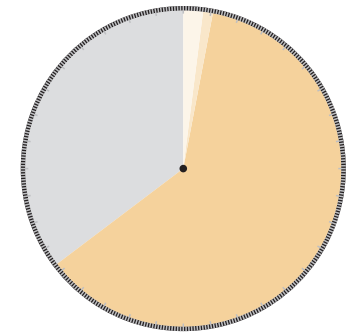
Figure III-23. GHG total (without LUCF) by gas

N₂O **87.6%**
 CH₄ **10.7%**
 CO₂ **1.7%**



GHG total (without LUCF) by sector

Industrial Processes **35.3%**
 Agriculture **61.7%**
 Waste **1.0%**
 Energy **2.0%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

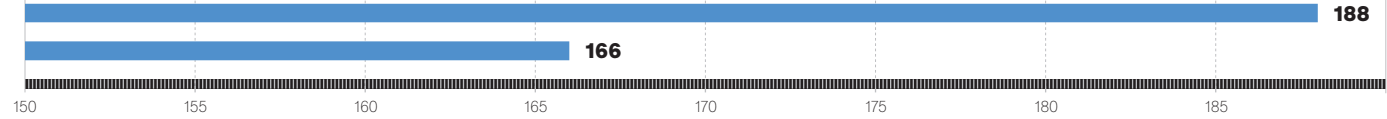
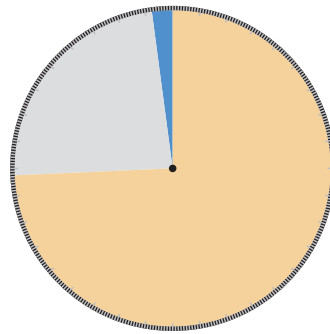


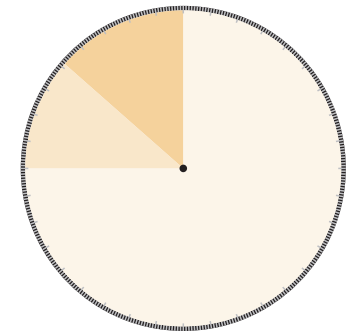
Figure III-24. GHG total (without LUCF) by gas

N₂O **2.1%**
 CH₄ **23.6%**
 CO₂ **74.3%**



GHG total (without LUCF) by sector

Agriculture **13.5%**
 Waste **11.5%**
 Energy **75.0%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

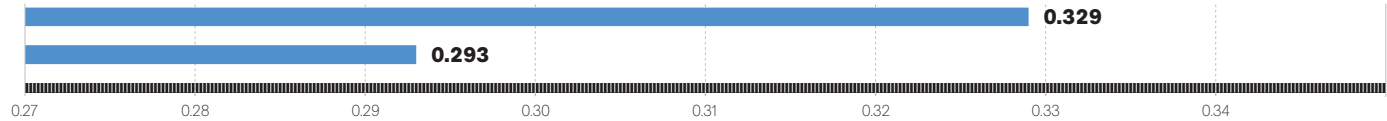
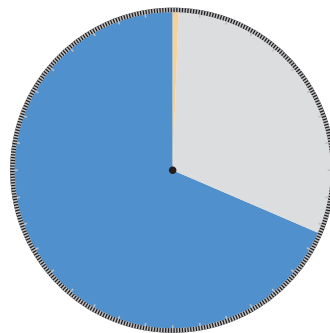


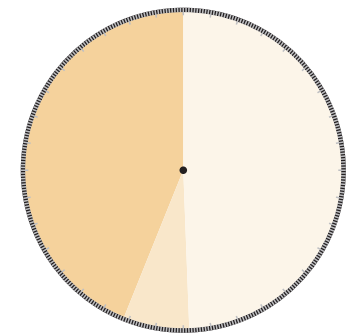
Figure III-25. GHG total (without LUCF) by gas

N₂O **68.6%**
 CH₄ **30.9%**
 CO₂ **0.6%**

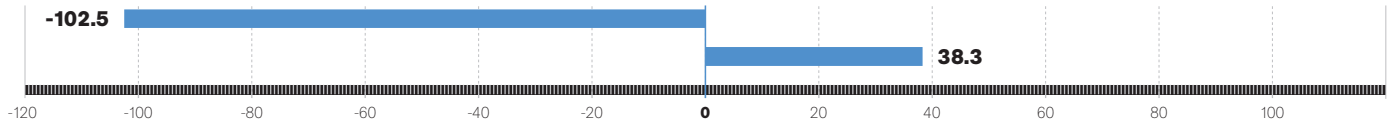


GHG total (without LUCF) by sector

Agriculture **43.9%**
 Waste **6.7%**
 Energy **49.4%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent



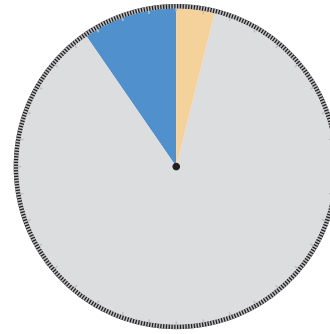
Cameroon
1994

Cape Verde
1995

Central African Republic
1994

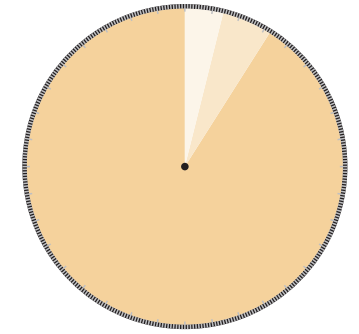
Figure III-26. GHG total (without LUCF) by gas

N₂O **9.6%**
 CH₄ **86.5%**
 CO₂ **3.9%**



GHG total (without LUCF) by sector

Agriculture **91.0%**
 Waste **5.1%**
 Energy **3.9%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

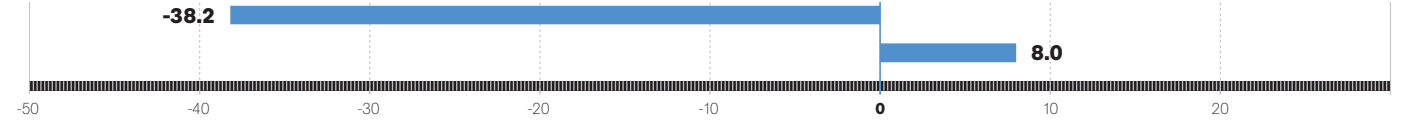
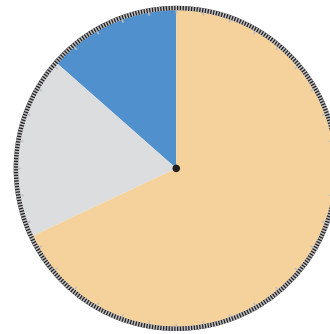


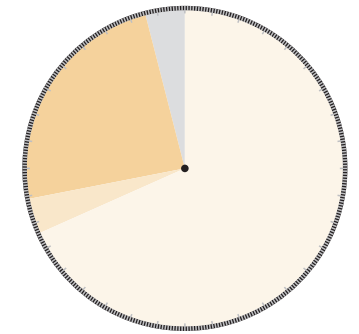
Figure III-27. GHG total (without LUCF) by gas

N₂O **13.5%**
 CH₄ **18.5%**
 CO₂ **68.0%**



GHG total (without LUCF) by sector

Industrial Processes **4.0%**
 Agriculture **24.1%**
 Waste **3.6%**
 Energy **68.4%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

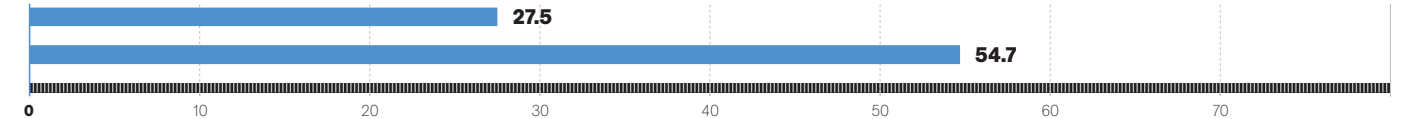
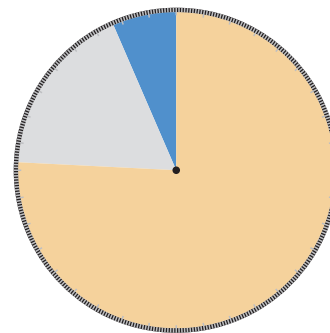


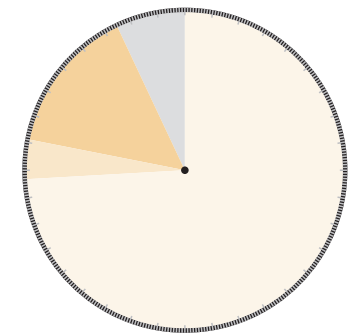
Figure III-28. GHG total (without LUCF) by gas

N₂O **6.5%**
 CH₄ **17.7%**
 CO₂ **75.8%**



GHG total (without LUCF) by sector

Industrial Processes **7.0%**
 Agriculture **14.9%**
 Waste **4.0%**
 Energy **74.1%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

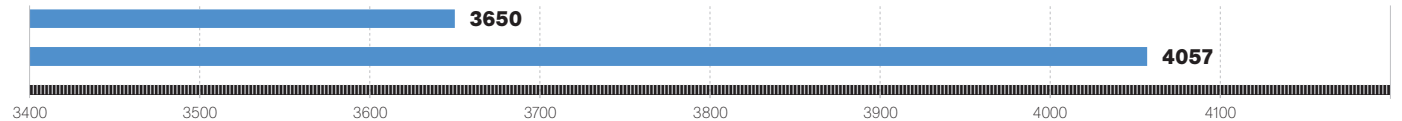
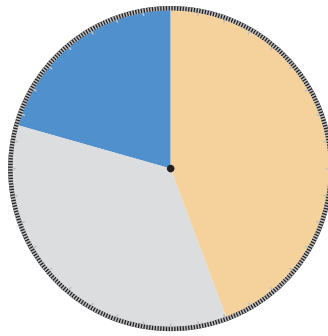


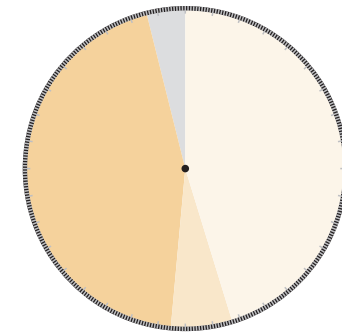
Figure III-29. GHG total (without LUCF) by gas

N₂O **20.6%**
 CH₄ **35.1%**
 CO₂ **44.3%**



GHG total (without LUCF) by sector

Industrial Processes **3.9%**
 Agriculture **44.7%**
 Waste **6.2%**
 Energy **45.3%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

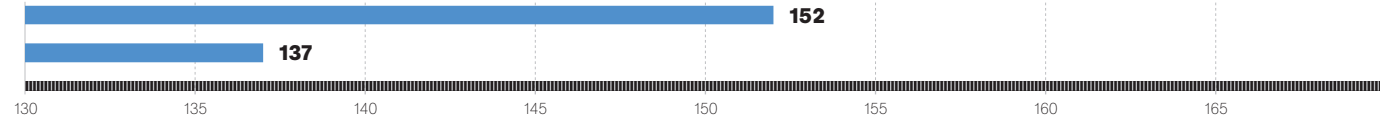
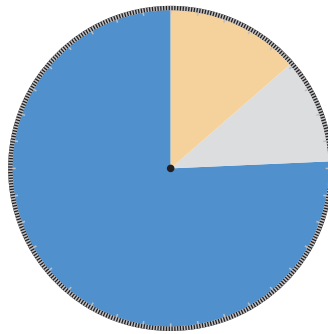


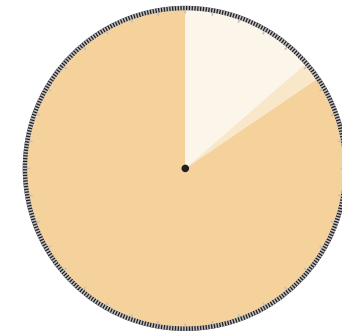
Figure III-30. GHG total (without LUCF) by gas

N₂O **75.7%**
 CH₄ **10.7%**
 CO₂ **13.6%**



GHG total (without LUCF) by sector

Agriculture **84.5%**
 Waste **1.9%**
 Energy **13.6%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

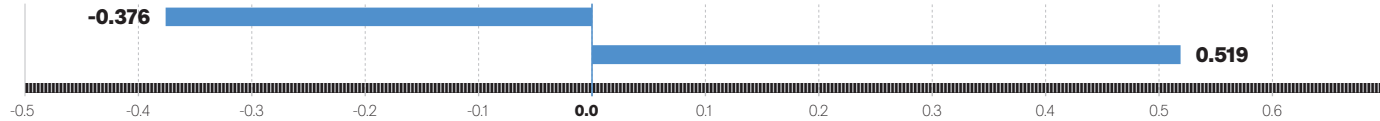
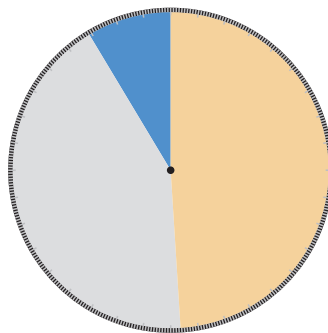


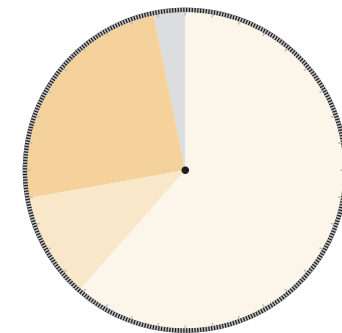
Figure III-31. GHG total (without LUCF) by gas

N₂O **8.6%**
 CH₄ **42.4%**
 CO₂ **49.0%**

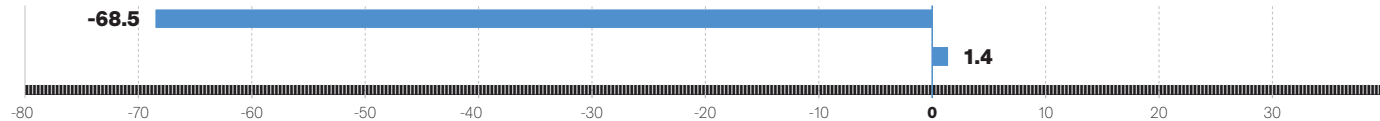


GHG total (without LUCF) by sector

Industrial Processes **3.2%**
 Agriculture **24.6%**
 Waste **10.7%**
 Energy **61.5%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent



Colombia

1994

Comoros

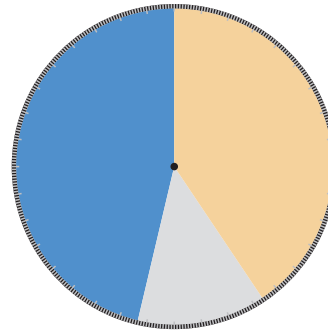
1994

Congo

1994

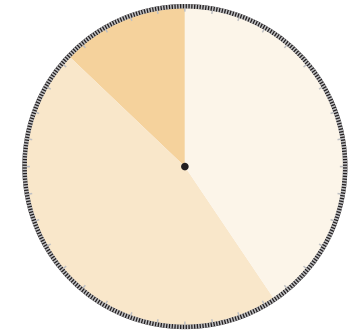
Figure III-32. GHG total (without LUCF) by gas

N₂O **46.3%**
 CH₄ **13.1%**
 CO₂ **40.6%**

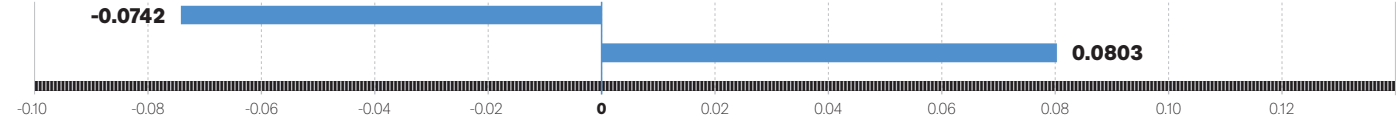


GHG total (without LUCF) by sector

Agriculture **12.9%**
 Waste **46.6%**
 Energy **40.6%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

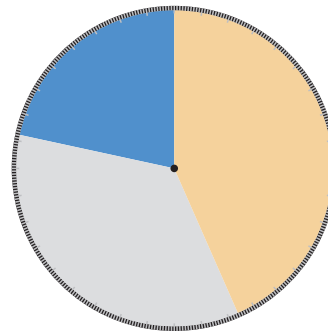


Cook Islands

1994

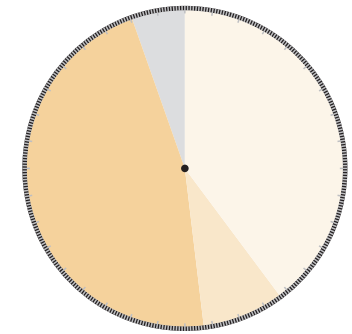
Figure III-33. GHG total (without LUCF) by gas

N₂O **21.6%**
 CH₄ **35.0%**
 CO₂ **43.4%**

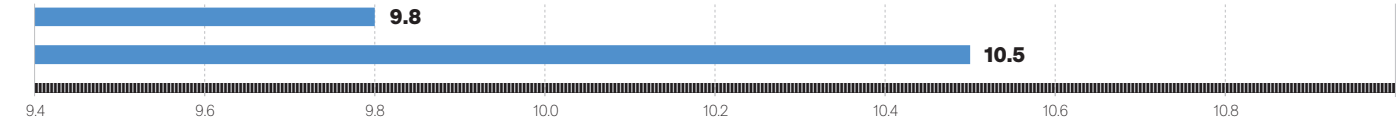


GHG total (without LUCF) by sector

Industrial Processes **5.4%**
 Agriculture **46.5%**
 Waste **8.3%**
 Energy **39.8%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

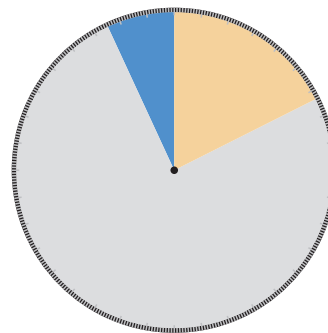


Costa Rica

1996

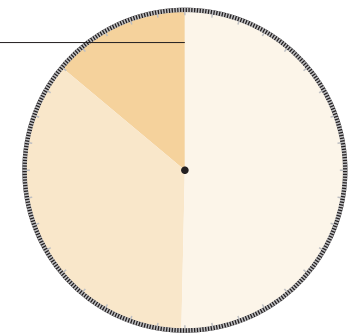
Figure III-34. GHG total (without LUCF) by gas

N₂O **6.9%**
 CH₄ **75.6%**
 CO₂ **17.6%**

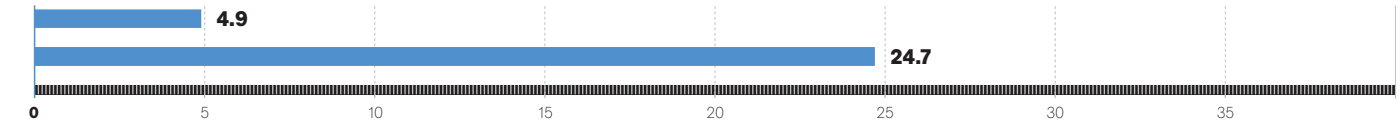


GHG total (without LUCF) by sector

Industrial Processes **0.003%**
 Agriculture **13.9%**
 Waste **35.7%**
 Energy **50.3%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

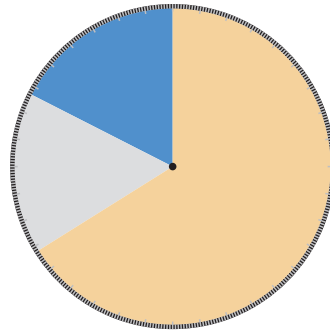


Côte d'Ivoire

1994

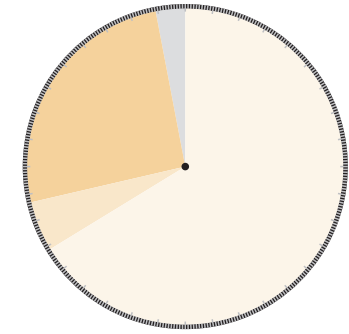
Figure III-35. GHG total (without LUCF) by gas

N₂O **17.5%**
 CH₄ **16.4%**
 CO₂ **66.1%**



GHG total (without LUCF) by sector

Industrial Processes **3.0%**
 Agriculture **25.6%**
 Waste **5.1%**
 Energy **66.2%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

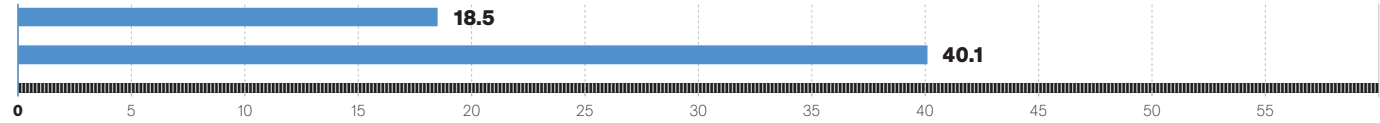
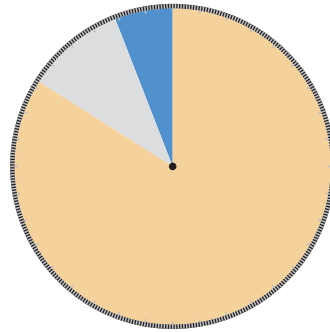


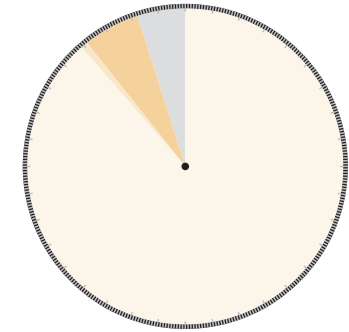
Figure III-36. GHG total (without LUCF) by gas

N₂O **5.9%**
 CH₄ **10.1%**
 CO₂ **83.9%**



GHG total (without LUCF) by sector

Industrial Processes **4.9%**
 Agriculture **5.8%**
 Waste **0.7%**
 Energy **88.6%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

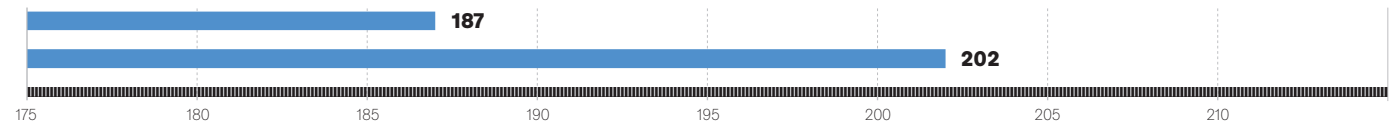
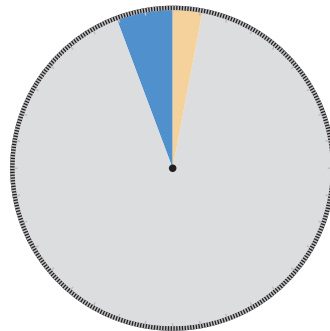


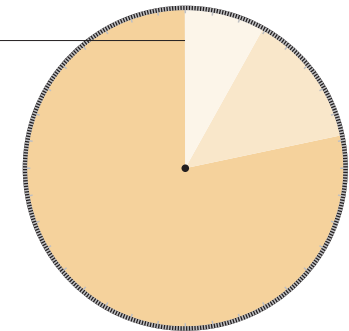
Figure III-37. GHG total (without LUCF) by gas

N₂O **5.7%**
 CH₄ **91.3%**
 CO₂ **3.0%**

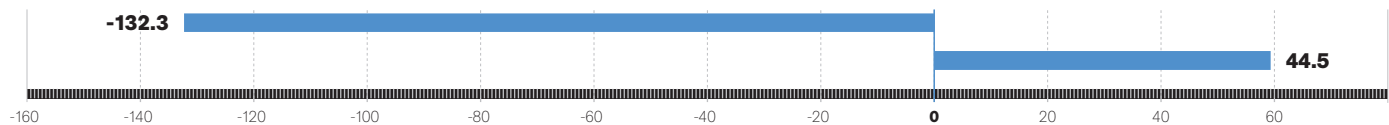


GHG total (without LUCF) by sector

Industrial Processes **0.05%**
 Agriculture **78.3%**
 Waste **13.6%**
 Energy **8.1%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent



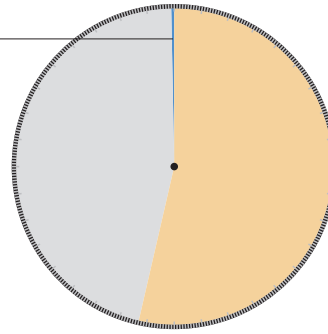
Cuba
1996

Democratic People's
Republic of Korea
1990

Democratic Republic
of the Congo
1994

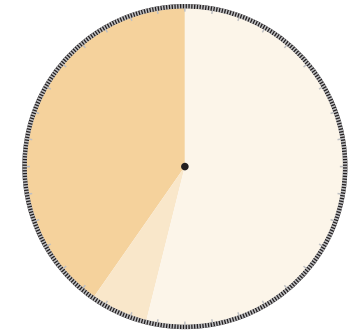
Figure III-38. GHG total (without LUCF) by gas

N₂O **0.3%**
 CH₄ **46.1%**
 CO₂ **53.6%**



GHG total (without LUCF) by sector

Agriculture **40.3%**
 Waste **5.8%**
 Energy **53.9%**



Djibouti
 1994

GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

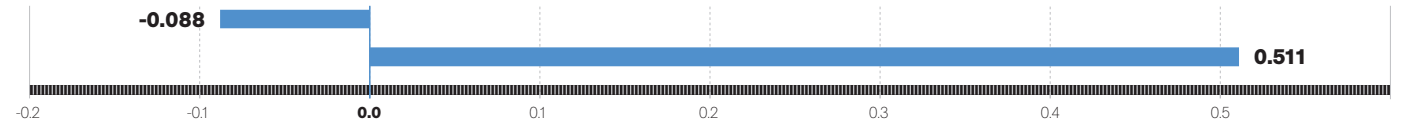
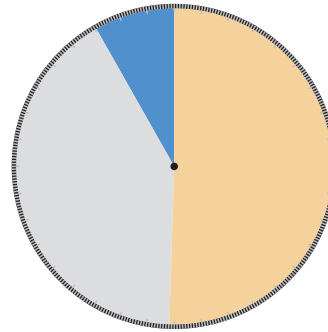


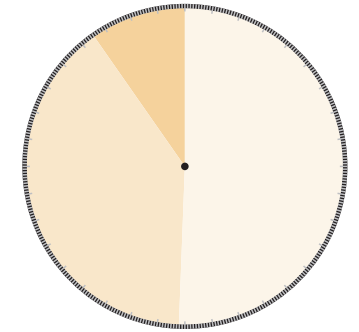
Figure III-39. GHG total (without LUCF) by gas

N₂O **8.2%**
 CH₄ **41.3%**
 CO₂ **50.5%**



GHG total (without LUCF) by sector

Agriculture **9.7%**
 Waste **39.7%**
 Energy **50.6%**



Dominica
 1994

GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

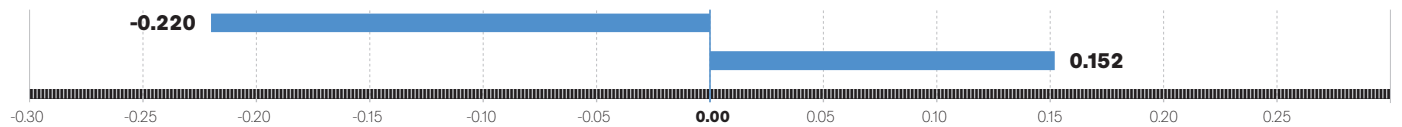
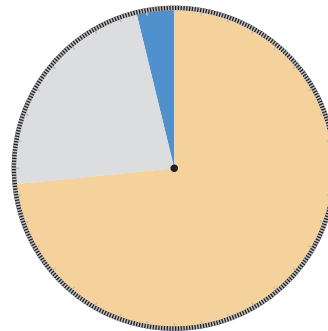


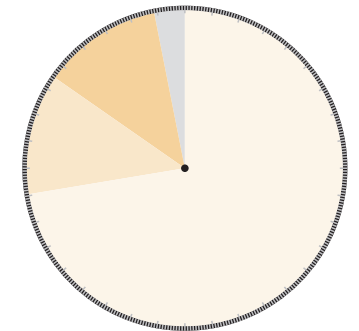
Figure III-40. GHG total (without LUCF) by gas

N₂O **3.8%**
 CH₄ **22.8%**
 CO₂ **73.4%**



GHG total (without LUCF) by sector

Industrial Processes **3.1%**
 Agriculture **12.2%**
 Waste **12.3%**
 Energy **72.3%**



Dominican Republic
 1994

GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

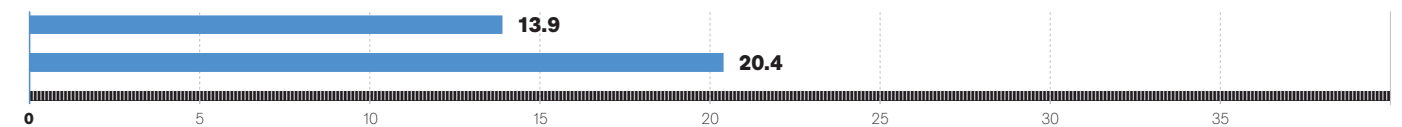
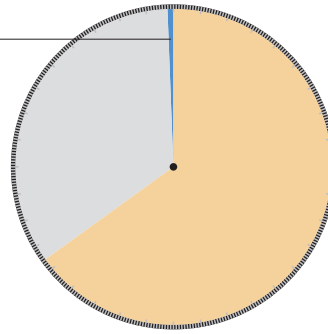


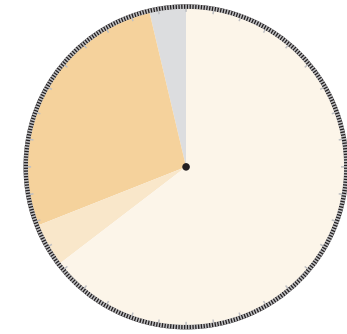
Figure III-41. GHG total (without LUCF) by gas

N₂O **0.6%**
 CH₄ **34.4%**
 CO₂ **65.1%**



GHG total (without LUCF) by sector

Industrial Processes **3.7%**
 Agriculture **27.3%**
 Waste **4.4%**
 Energy **64.6%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

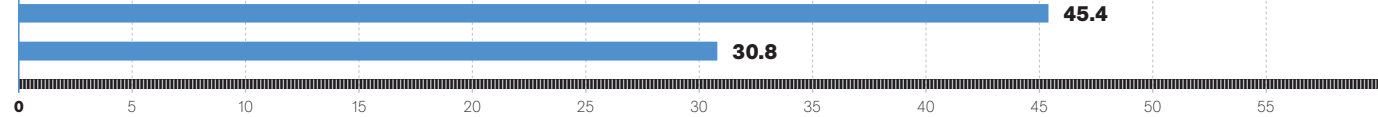
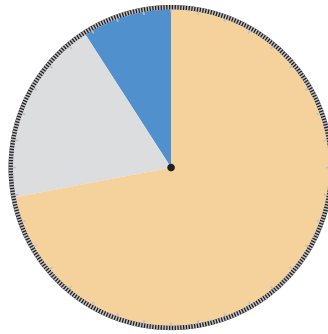


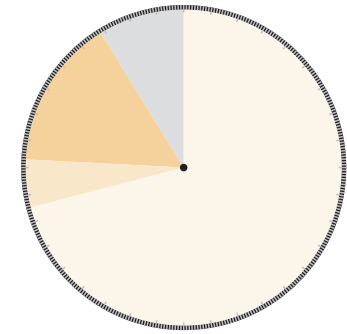
Figure III-42. GHG total (without LUCF) by gas

N₂O **9.1%**
 CH₄ **18.9%**
 CO₂ **72.0%**



GHG total (without LUCF) by sector

Industrial Processes **8.8%**
 Agriculture **15.4%**
 Waste **4.9%**
 Energy **71.0%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

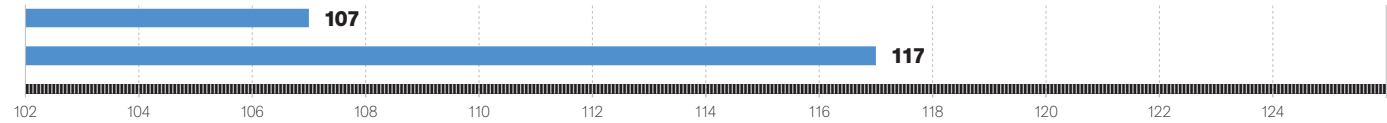
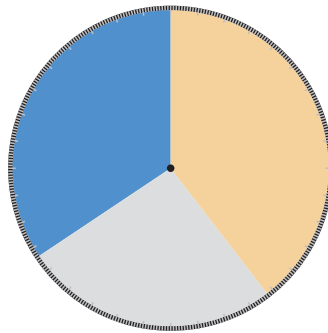


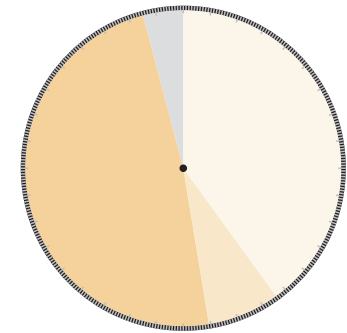
Figure III-43. GHG total (without LUCF) by gas

N₂O **34.4%**
 CH₄ **26.1%**
 CO₂ **39.6%**

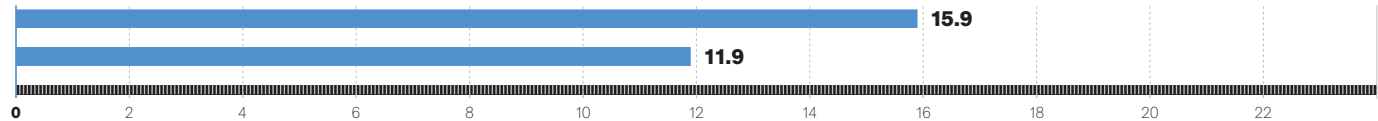


GHG total (without LUCF) by sector

Industrial Processes **4.1%**
 Agriculture **48.5%**
 Waste **7.4%**
 Energy **40.0%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent



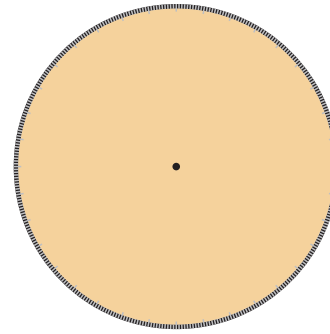
Ecuador
1990

Egypt
1990

El Salvador
1994

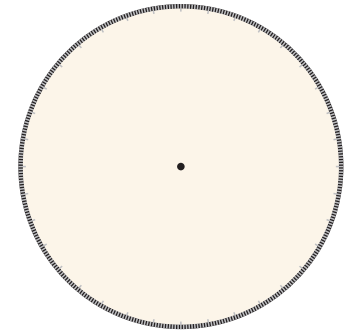
Figure III-44. GHG total (without LUCF) by gas

CO₂ **100.0%**



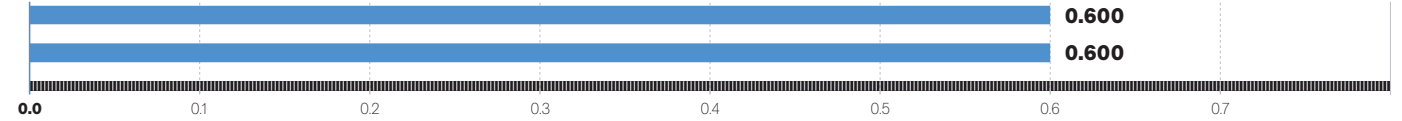
GHG total (without LUCF) by sector

Energy **100.0%**



GHG total with LUCF
GHG total without LUCF

Tg CO₂ equivalent

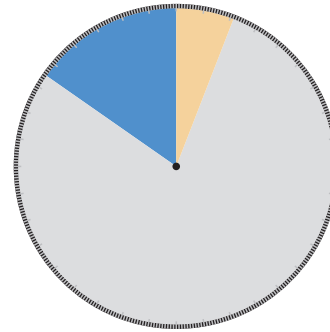


Note: Only data for CO₂ emissions from the energy sector are available for this year.

Eritrea
2000

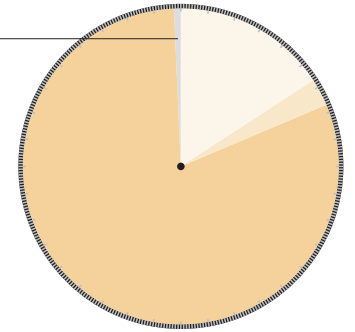
Figure III-45. GHG total (without LUCF) by gas

N₂O **15.3%**
CH₄ **78.8%**
CO₂ **5.9%**



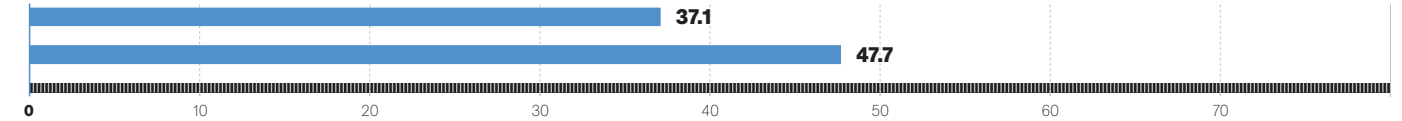
GHG total (without LUCF) by sector

Industrial Processes **0.7%**
Agriculture **80.6%**
Waste **2.8%**
Energy **15.8%**



GHG total with LUCF
GHG total without LUCF

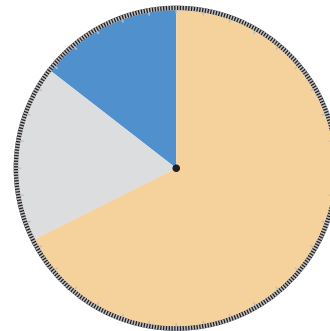
Tg CO₂ equivalent



Ethiopia
1995

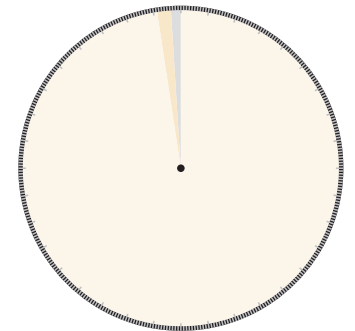
Figure III-46. GHG total (without LUCF) by gas

N₂O **14.5%**
CH₄ **17.9%**
CO₂ **67.6%**



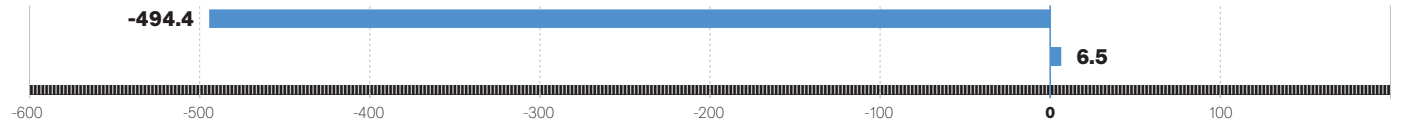
GHG total (without LUCF) by sector

Industrial Processes **1.0%**
Waste **1.4%**
Energy **97.6%**



GHG total with LUCF
GHG total without LUCF

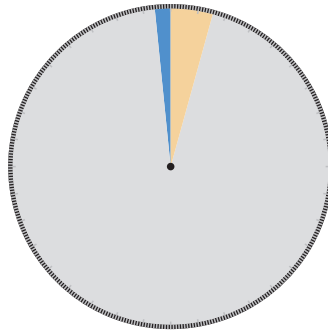
Tg CO₂ equivalent



Gabon
1994

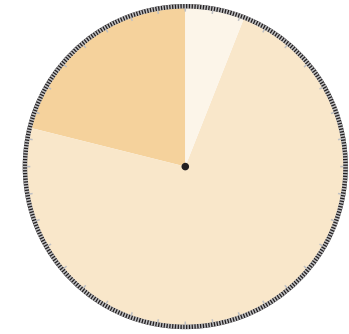
Figure III-47. GHG total (without LUCF) by gas

N₂O **1.6%**
 CH₄ **94.2%**
 CO₂ **4.3%**



GHG total (without LUCF) by sector

Agriculture **21.1%**
 Waste **72.9%**
 Energy **6.0%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

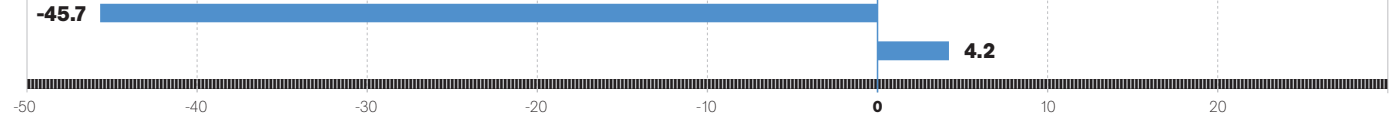
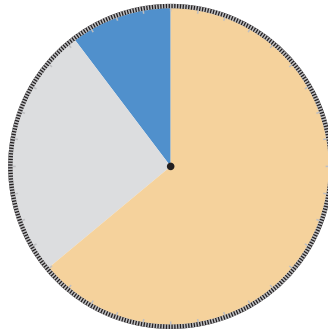


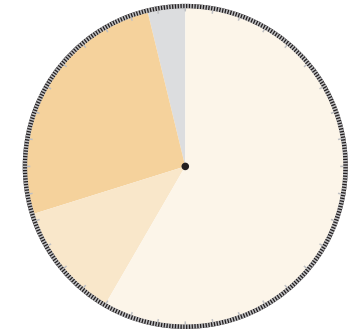
Figure III-48. GHG total (without LUCF) by gas

N₂O **10.3%**
 CH₄ **25.7%**
 CO₂ **63.9%**

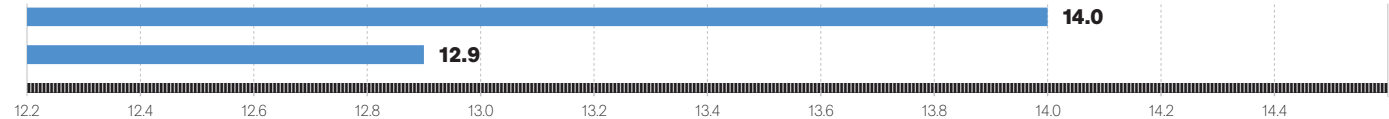


GHG total (without LUCF) by sector

Industrial Processes **3.8%**
 Agriculture **26.0%**
 Waste **11.8%**
 Energy **58.3%**



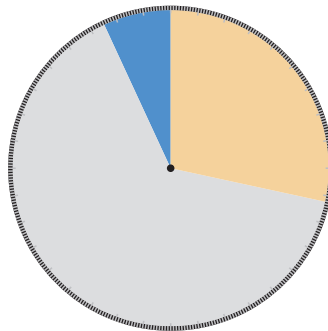
GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent



Note: LUCF data may be incomplete for this year; in particular, CO₂ sequestration may have not been taken into account.

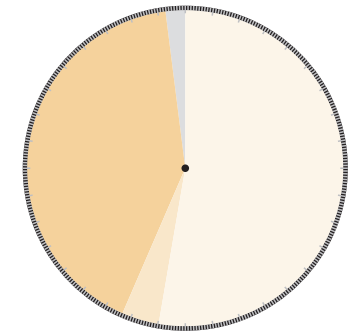
Figure III-49. GHG total (without LUCF) by gas

N₂O **6.9%**
 CH₄ **64.7%**
 CO₂ **28.4%**



GHG total (without LUCF) by sector

Industrial Processes **2.0%**
 Agriculture **41.5%**
 Waste **3.8%**
 Energy **52.7%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

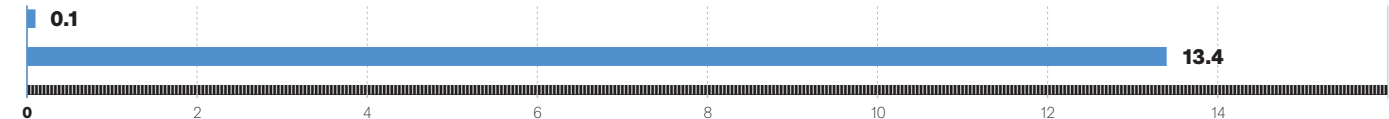
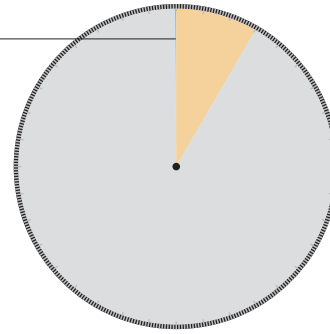


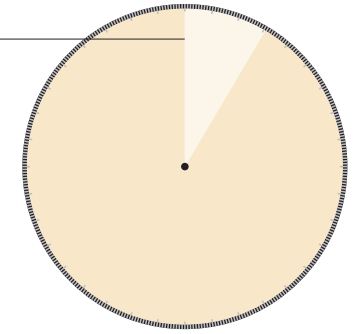
Figure III-50. GHG total (without LUCF) by gas

N₂O **0.1%**
 CH₄ **91.5%**
 CO₂ **8.4%**

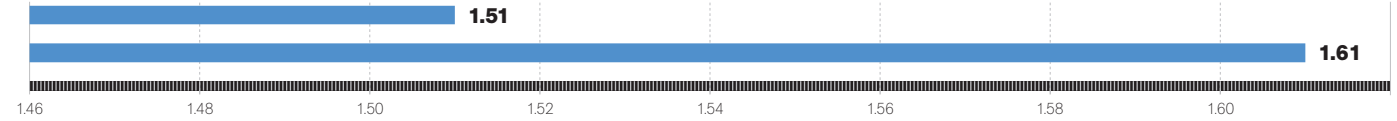


GHG total (without LUCF) by sector

Agriculture **0.03%**
 Waste **91.5%**
 Energy **8.5%**



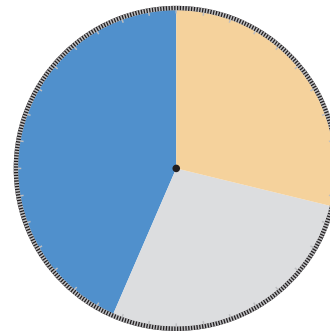
GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent



Grenada
 1994

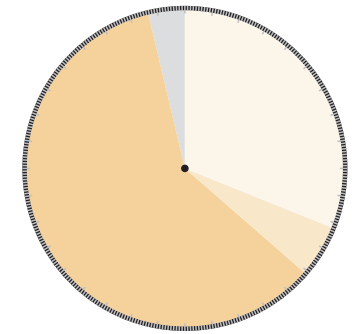
Figure III-51. GHG total (without LUCF) by gas

N₂O **43.5%**
 CH₄ **27.7%**
 CO₂ **28.8%**

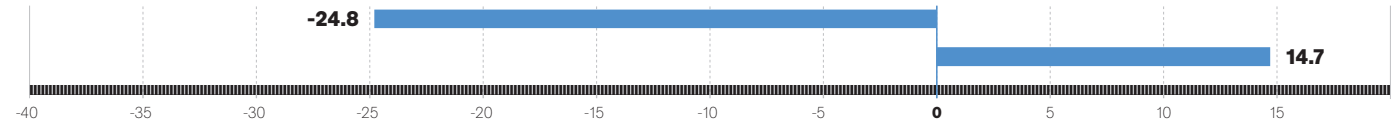


GHG total (without LUCF) by sector

Industrial Processes **3.7%**
 Agriculture **59.9%**
 Waste **5.3%**
 Energy **31.1%**



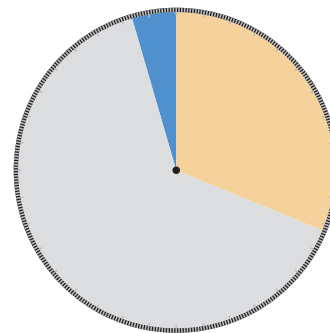
GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent



Guatemala
 1990

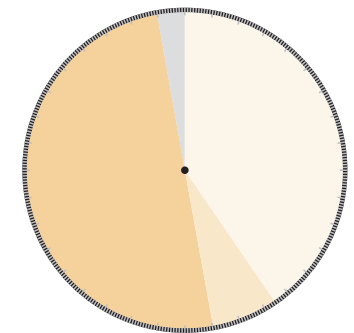
Figure III-52. GHG total (without LUCF) by gas

N₂O **4.5%**
 CH₄ **64.3%**
 CO₂ **31.2%**

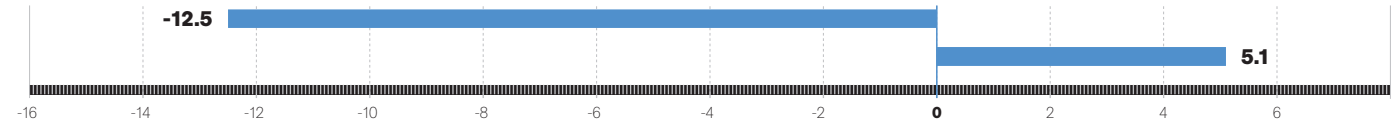


GHG total (without LUCF) by sector

Industrial Processes **2.8%**
 Agriculture **50.0%**
 Waste **6.7%**
 Energy **40.4%**



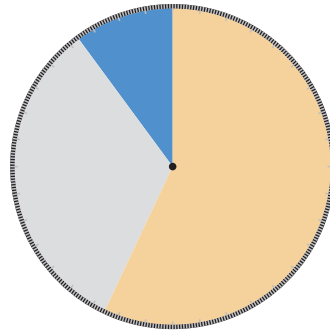
GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent



Guinea
 1994

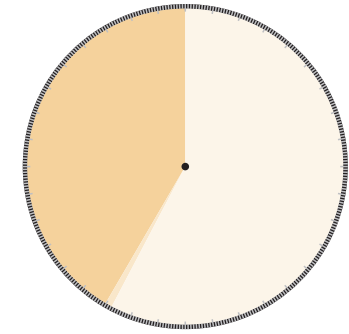
Figure III-53. GHG total (without LUCF) by gas

N₂O **10.1%**
 CH₄ **32.9%**
 CO₂ **57.0%**



GHG total (without LUCF) by sector

Agriculture **41.6%**
 Waste **0.7%**
 Energy **57.7%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

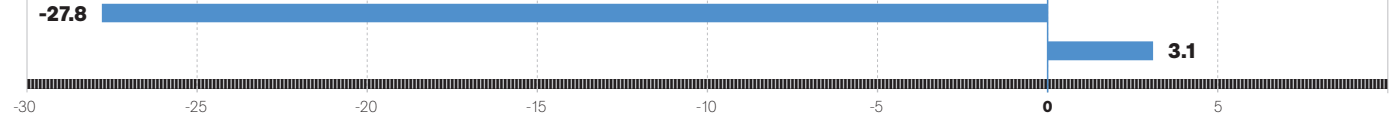
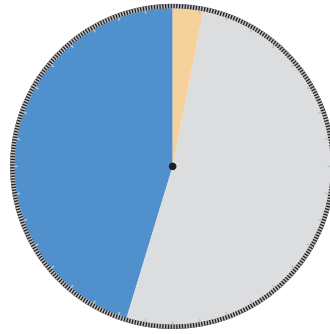


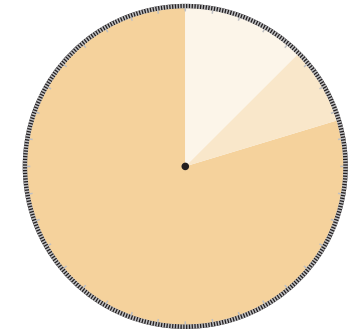
Figure III-54. GHG total (without LUCF) by gas

N₂O **45.3%**
 CH₄ **51.6%**
 CO₂ **3.1%**



GHG total (without LUCF) by sector

Agriculture **79.6%**
 Waste **7.8%**
 Energy **12.5%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

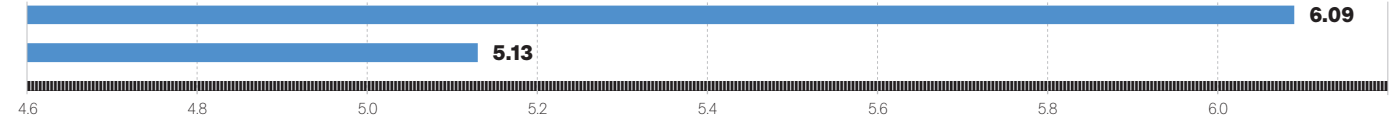
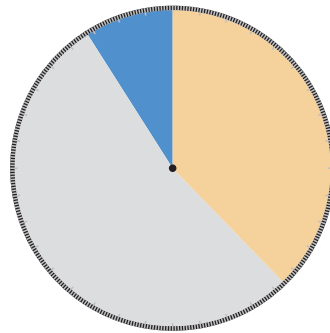


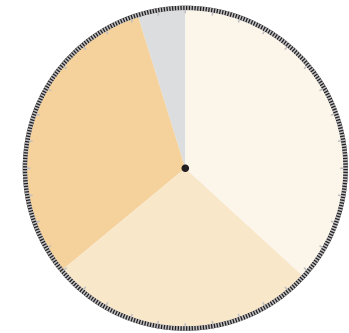
Figure III-55. GHG total (without LUCF) by gas

N₂O **9.0%**
 CH₄ **53.2%**
 CO₂ **37.7%**

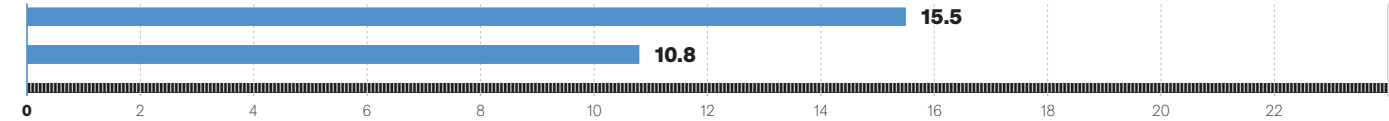


GHG total (without LUCF) by sector

Industrial Processes **4.8%**
 Agriculture **31.2%**
 Waste **27.2%**
 Energy **36.8%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent



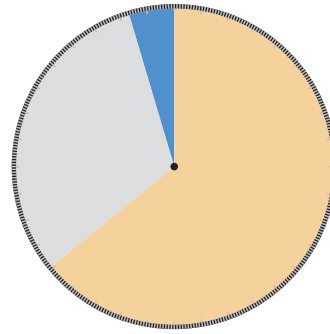
Guyana
1998

Haiti
1994

Honduras
1995

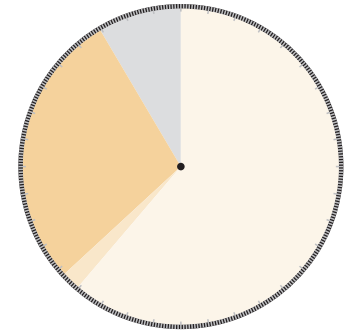
Figure III-56. GHG total (without LUCF) by gas

N₂O **4.6%**
 CH₄ **31.3%**
 CO₂ **64.2%**



GHG total (without LUCF) by sector

Industrial Processes **8.5%**
 Agriculture **28.4%**
 Waste **1.9%**
 Energy **61.3%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

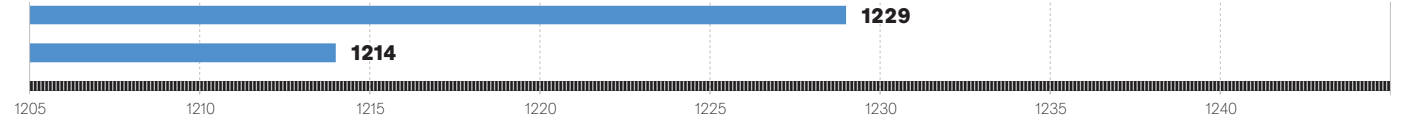
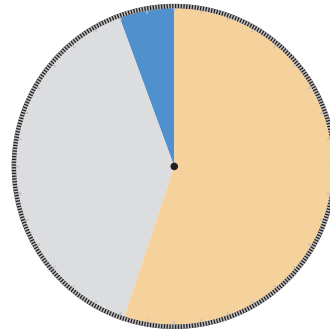


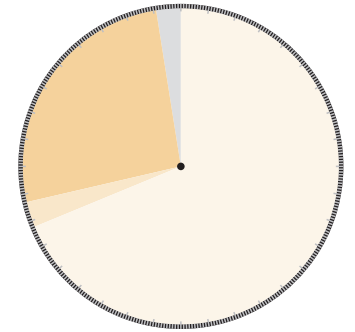
Figure III-57. GHG total (without LUCF) by gas

N₂O **5.6%**
 CH₄ **39.3%**
 CO₂ **55.1%**



GHG total (without LUCF) by sector

Industrial Processes **2.5%**
 Agriculture **26.1%**
 Waste **2.6%**
 Energy **68.7%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

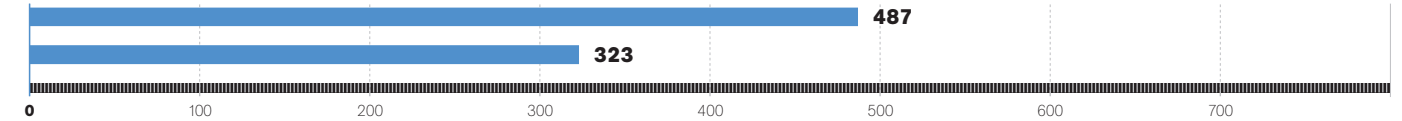
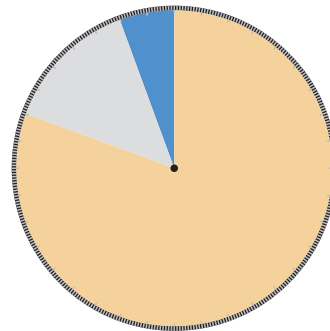


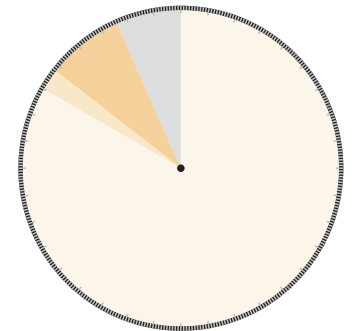
Figure III-58. GHG total (without LUCF) by gas

N₂O **5.6%**
 CH₄ **13.8%**
 CO₂ **80.6%**

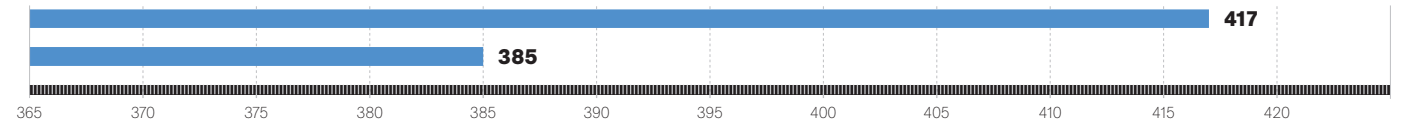


GHG total (without LUCF) by sector

Industrial Processes **6.6%**
 Agriculture **7.9%**
 Waste **2.2%**
 Energy **83.4%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent



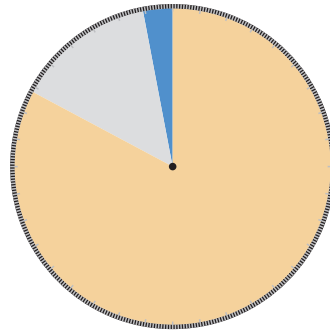
India
1994

Indonesia
1994

Iran
1994

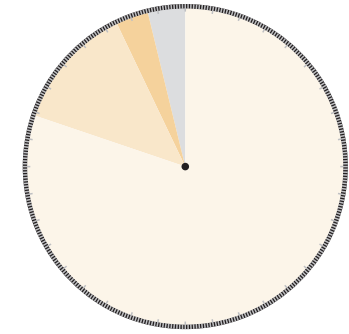
Figure III-59. GHG total (without LUCF) by gas

N₂O **3.0%**
 CH₄ **14.2%**
 CO₂ **82.8%**



GHG total (without LUCF) by sector

Industrial Processes **3.8%**
 Agriculture **3.3%**
 Waste **12.7%**
 Energy **80.2%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

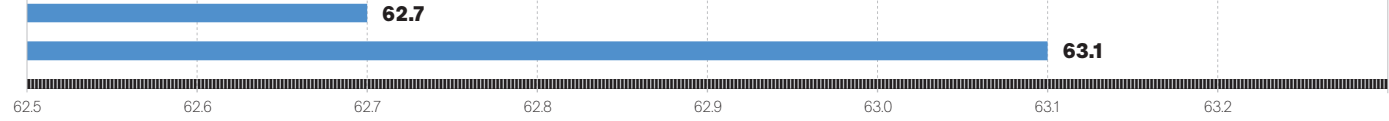
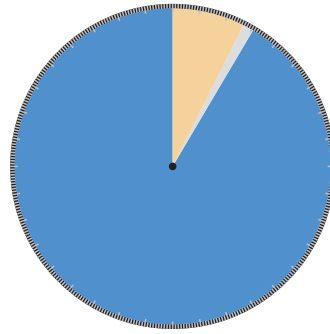


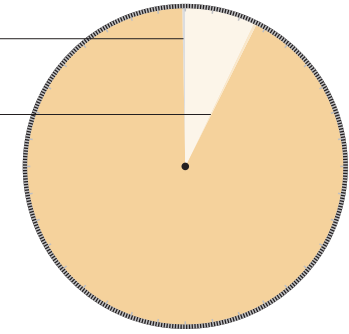
Figure III-60. GHG total (without LUCF) by gas

N₂O **91.6%**
 CH₄ **1.1%**
 CO₂ **7.4%**



GHG total (without LUCF) by sector

Industrial Processes **0.3%**
 Agriculture **92.3%**
 Waste **0.3%**
 Energy **7.1%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

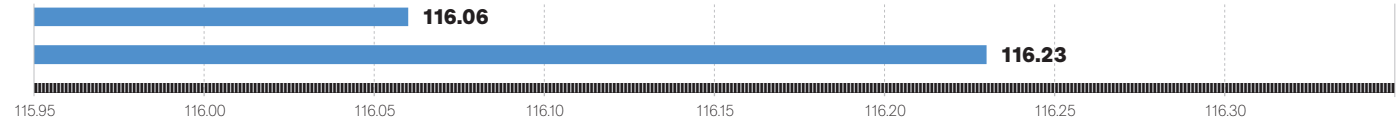
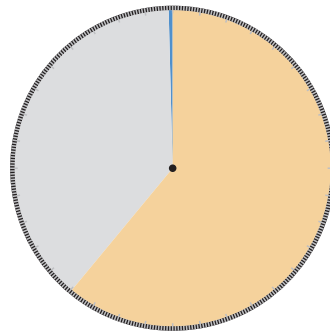


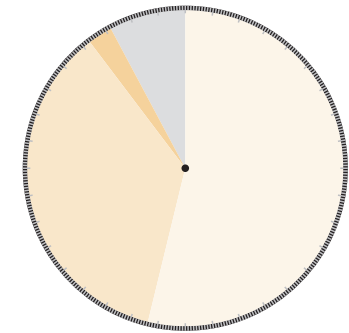
Figure III-61. GHG total (without LUCF) by gas

N₂O **0.4%**
 CH₄ **38.6%**
 CO₂ **61.0%**

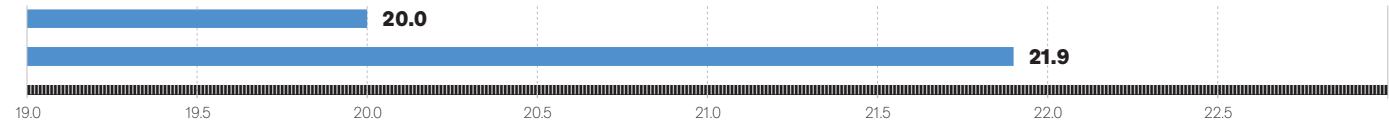


GHG total (without LUCF) by sector

Industrial Processes **7.8%**
 Agriculture **2.5%**
 Waste **35.9%**
 Energy **53.8%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent



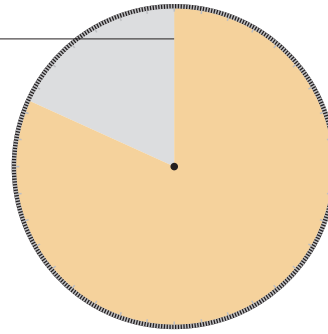
Israel
1996

Jamaica
1994

Jordan
1994

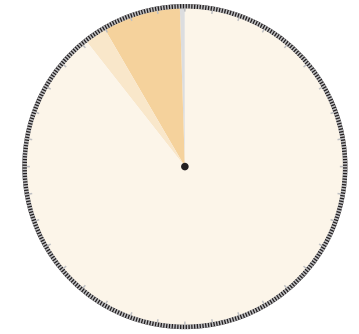
Figure III-62. GHG total (without LUCF) by gas

N₂O **0.02%**
 CH₄ **18.2%**
 CO₂ **81.8%**

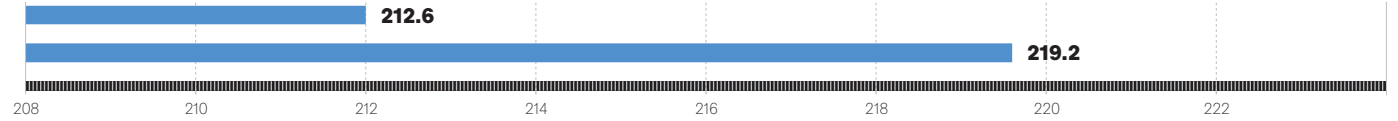


GHG total (without LUCF) by sector

Industrial Processes **0.5%**
 Agriculture **7.9%**
 Waste **2.2%**
 Energy **89.4%**



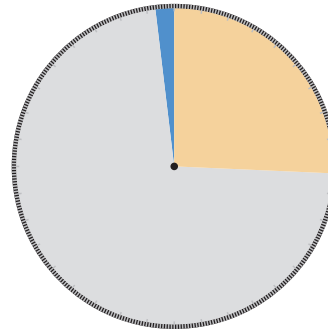
GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent



Kazakhstan
 1994

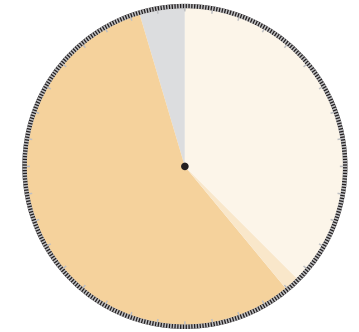
Figure III-63. GHG total (without LUCF) by gas

N₂O **1.9%**
 CH₄ **72.4%**
 CO₂ **25.7%**

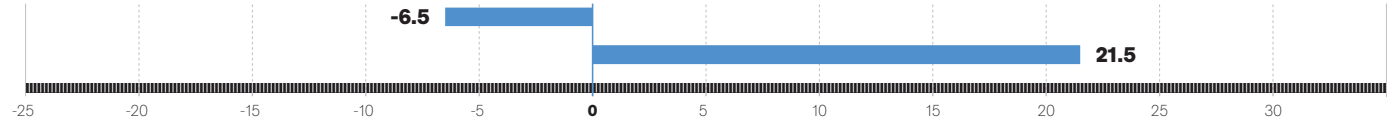


GHG total (without LUCF) by sector

Industrial Processes **4.6%**
 Agriculture **56.4%**
 Waste **1.5%**
 Energy **37.5%**



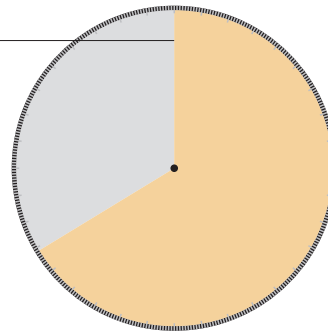
GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent



Kenya
 1994

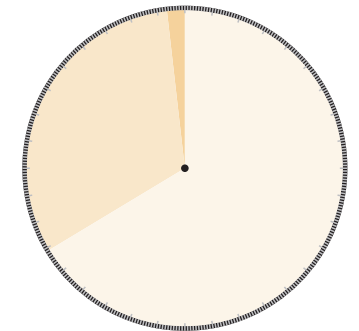
Figure III-64. GHG total (without LUCF) by gas

N₂O **0.01%**
 CH₄ **33.7%**
 CO₂ **66.3%**

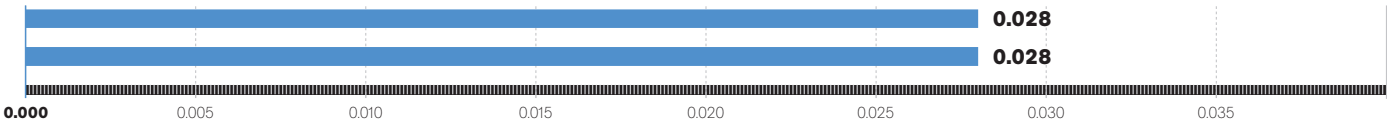


GHG total (without LUCF) by sector

Agriculture **1.8%**
 Waste **31.9%**
 Energy **66.3%**



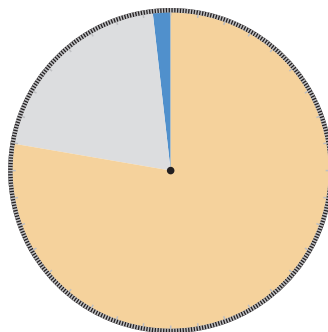
GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent



Kiribati
 1994

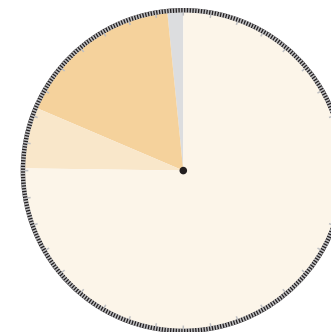
Figure III-65. GHG total (without LUCF) by gas

N₂O 1.8%
 CH₄ 20.5%
 CO₂ 77.7%



GHG total (without LUCF) by sector

Industrial Processes 1.6%
 Agriculture 17.0%
 Waste 6.2%
 Energy 75.3%



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

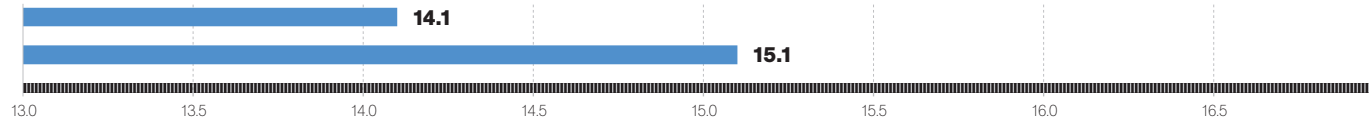
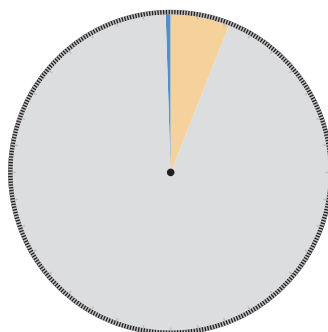


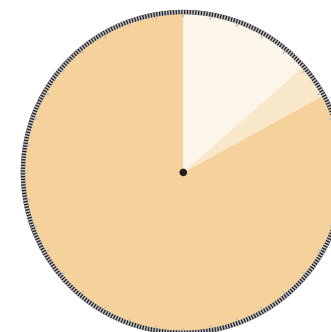
Figure III-66. GHG total (without LUCF) by gas

N₂O 0.5%
 CH₄ 93.4%
 CO₂ 6.0%



GHG total (without LUCF) by sector

Agriculture 83.0%
 Waste 3.5%
 Energy 13.5%



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

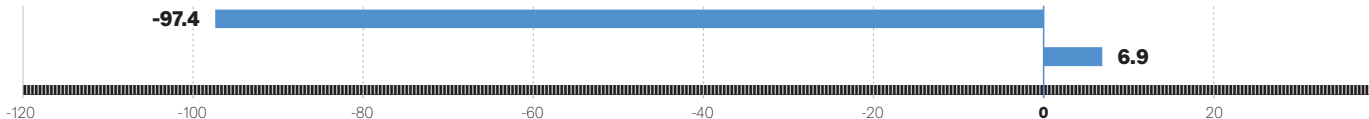
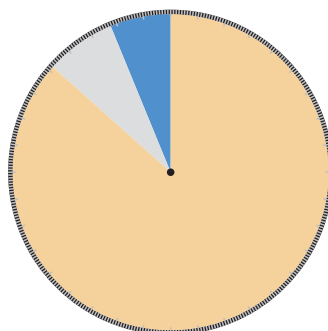


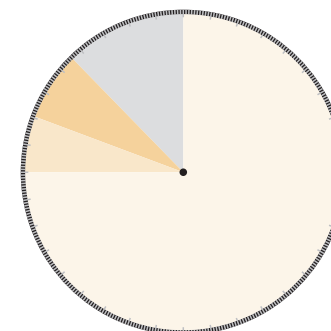
Figure III-67. GHG total (without LUCF) by gas

N₂O 6.2%
 CH₄ 7.2%
 CO₂ 86.6%

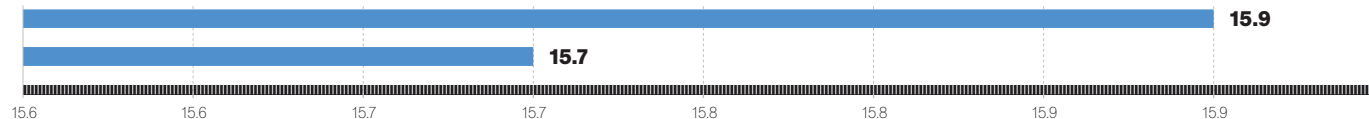


GHG total (without LUCF) by sector

Industrial Processes 12.3%
 Agriculture 7.0%
 Waste 5.7%
 Energy 75.0%



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent



Kyrgyzstan

2000

Lao People's
Democratic Republic

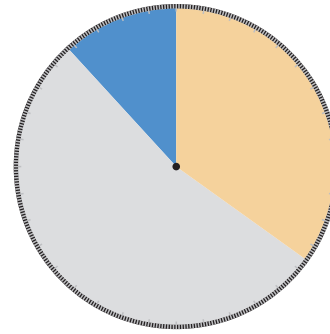
1990

Lebanon

1994

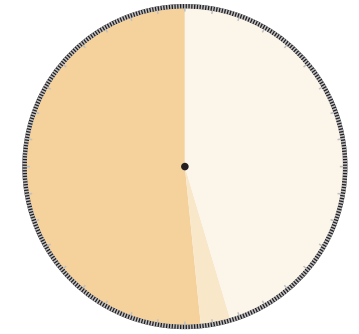
Figure III-68. GHG total (without LUCF) by gas

N₂O **11.8%**
 CH₄ **53.3%**
 CO₂ **34.9%**



GHG total (without LUCF) by sector

Agriculture **51.6%**
 Waste **3.0%**
 Energy **45.4%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

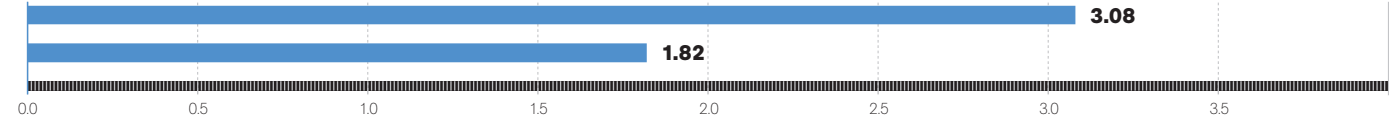
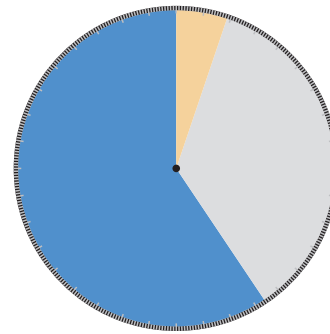


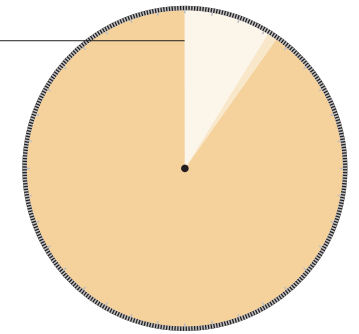
Figure III-69. GHG total (without LUCF) by gas

N₂O **59.4%**
 CH₄ **35.4%**
 CO₂ **5.2%**



GHG total (without LUCF) by sector

Industrial Processes **0.02%**
 Agriculture **90.2%**
 Waste **1.0%**
 Energy **8.8%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

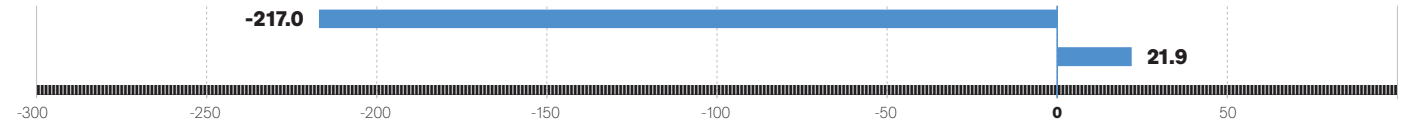
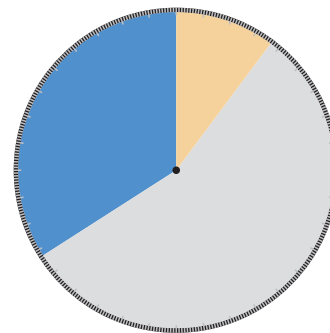


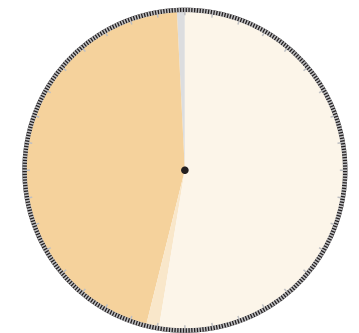
Figure III-70. GHG total (without LUCF) by gas

N₂O **34.1%**
 CH₄ **55.8%**
 CO₂ **10.2%**



GHG total (without LUCF) by sector

Industrial Processes **0.8%**
 Agriculture **45.3%**
 Waste **1.3%**
 Energy **52.6%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

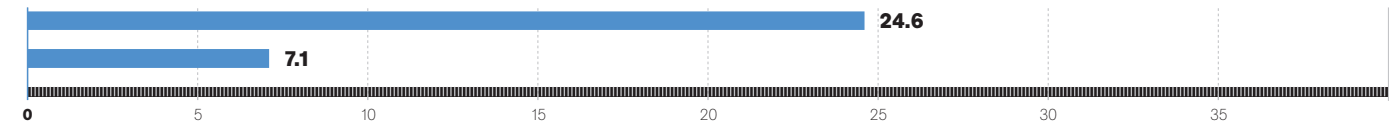
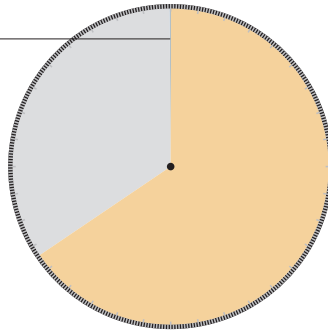


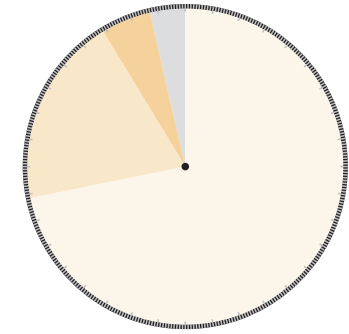
Figure III-71. GHG total (without LUCF) by gas

N₂O **0.1%**
 CH₄ **34.4%**
 CO₂ **65.6%**



GHG total (without LUCF) by sector

Industrial Processes **3.6%**
 Agriculture **5.1%**
 Waste **19.5%**
 Energy **71.8%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

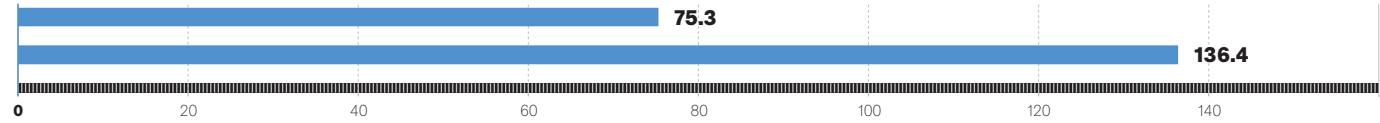
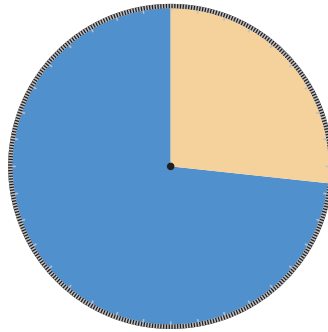


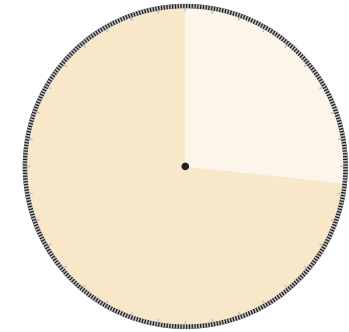
Figure III-72. GHG total (without LUCF) by gas

N₂O **73.3%**
 CO₂ **26.7%**



GHG total (without LUCF) by sector

Waste **73.3%**
 Energy **26.7%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

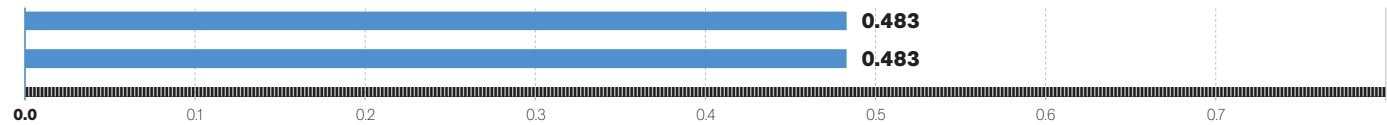
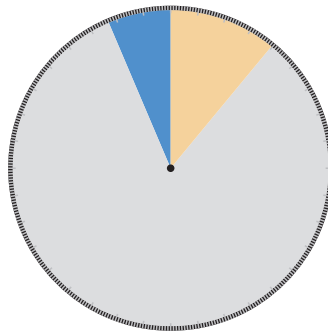


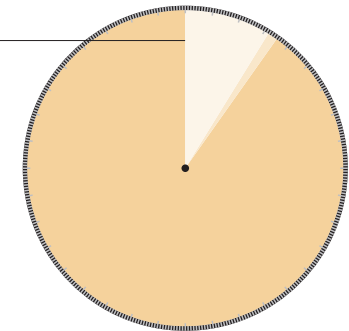
Figure III-73. GHG total (without LUCF) by gas

N₂O **6.4%**
 CH₄ **82.6%**
 CO₂ **11.0%**

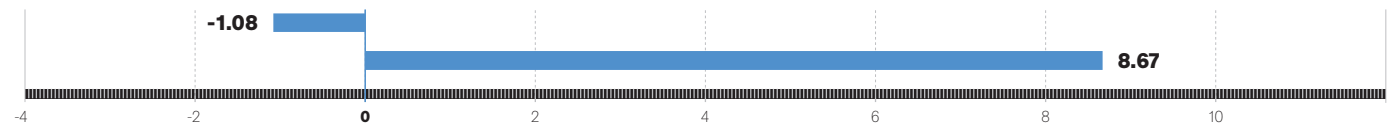


GHG total (without LUCF) by sector

Industrial Processes **0.1%**
 Agriculture **87.4%**
 Waste **1.3%**
 Energy **11.2%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent



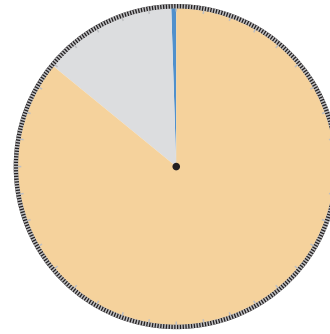
Malaysia
1994

Maldives
1994

Mali
1995

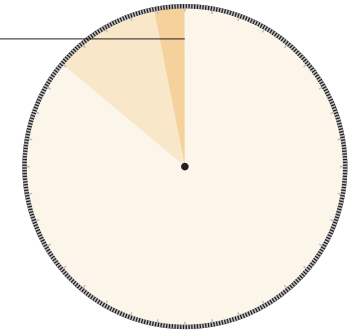
Figure III-74. GHG total (without LUCF) by gas

N₂O **0.5%**
 CH₄ **13.6%**
 CO₂ **85.9%**

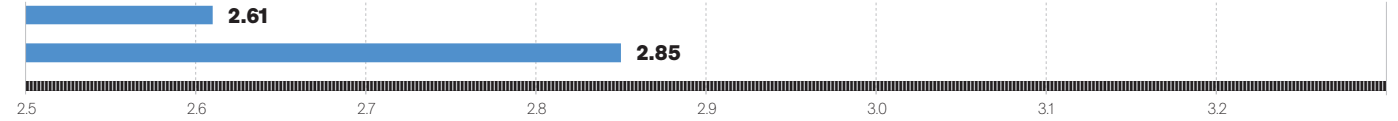


GHG total (without LUCF) by sector

Industrial Processes **0.02%**
 Agriculture **3.1%**
 Waste **10.8%**
 Energy **86.1%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

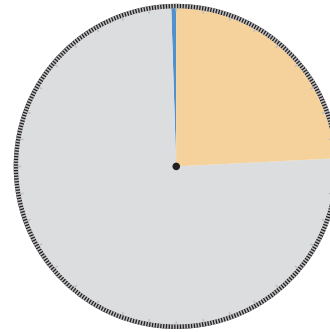


Malta

2000

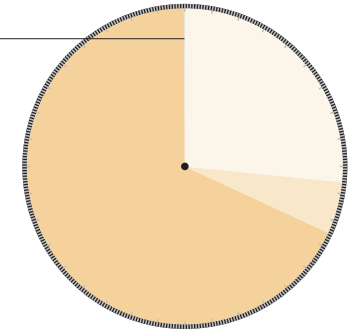
Figure III-75. GHG total (without LUCF) by gas

N₂O **0.5%**
 CH₄ **75.3%**
 CO₂ **24.2%**

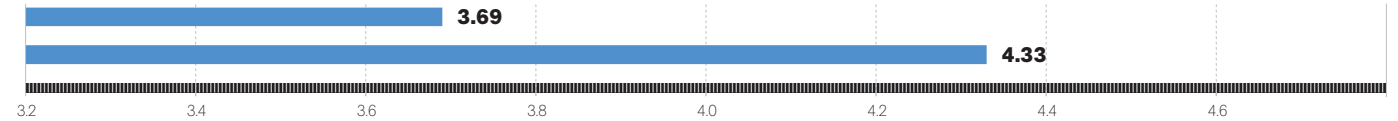


GHG total (without LUCF) by sector

Industrial Processes **0.1%**
 Agriculture **68.0%**
 Waste **5.3%**
 Energy **26.6%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

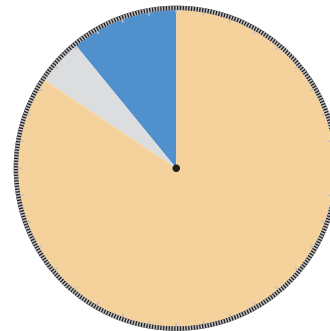


Mauritania

1995

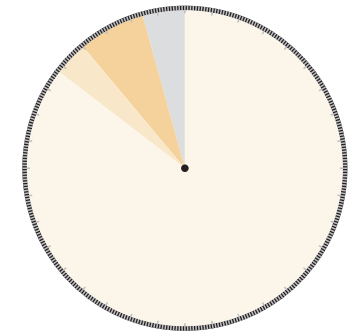
Figure III-76. GHG total (without LUCF) by gas

N₂O **10.9%**
 CH₄ **4.7%**
 CO₂ **84.4%**

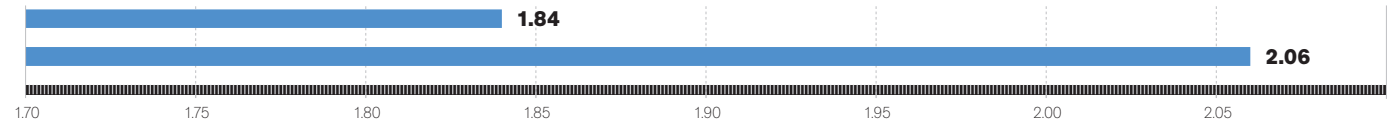


GHG total (without LUCF) by sector

Industrial Processes **4.3%**
 Agriculture **6.8%**
 Waste **3.5%**
 Energy **85.5%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

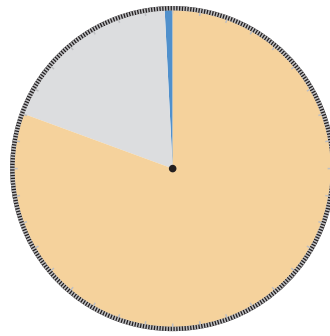
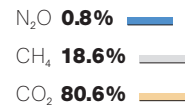


Mauritius

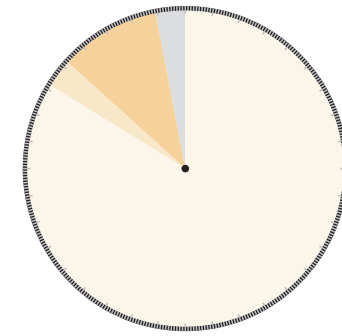
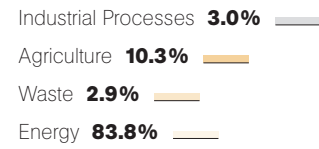
1995

Figure III-77.

GHG total (without LUCF) by gas



GHG total (without LUCF) by sector



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

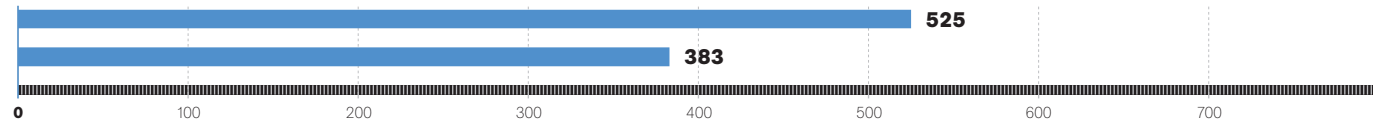
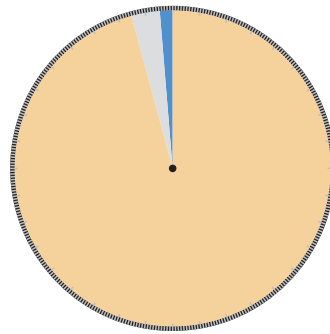
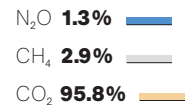
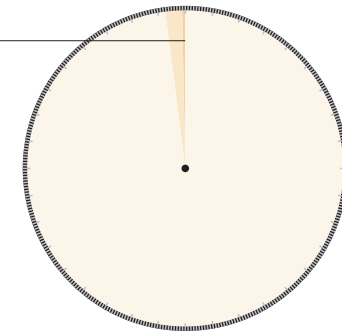
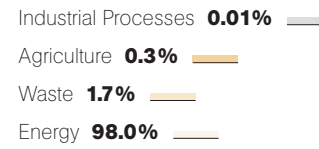


Figure III-78.

GHG total (without LUCF) by gas



GHG total (without LUCF) by sector



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

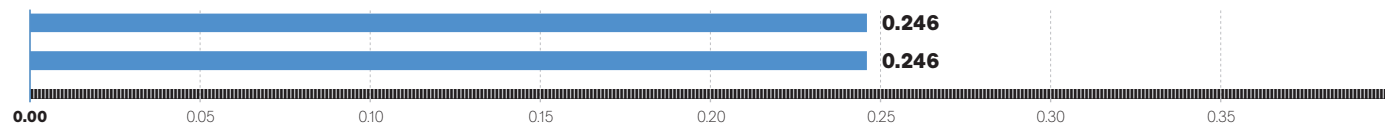
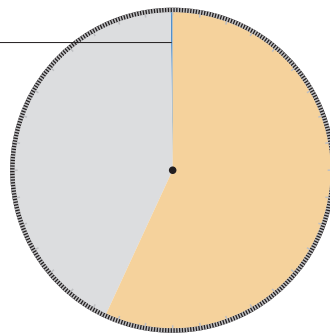
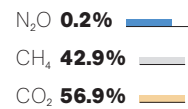
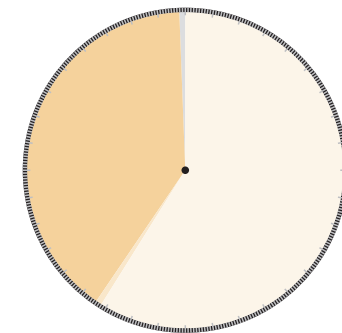
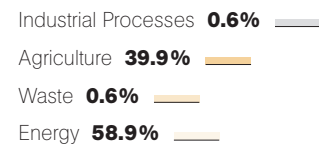


Figure III-79.

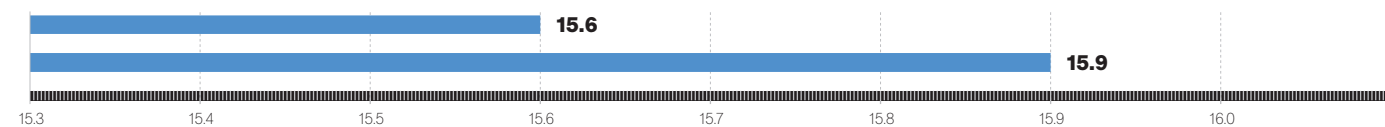
GHG total (without LUCF) by gas



GHG total (without LUCF) by sector



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent



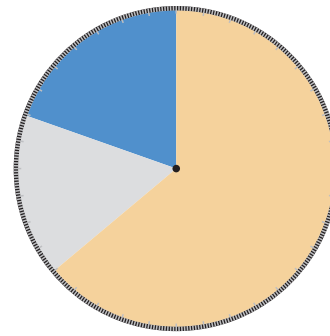
Mexico
1990

Micronesia
(Federated States of)
1994

Mongolia
1998

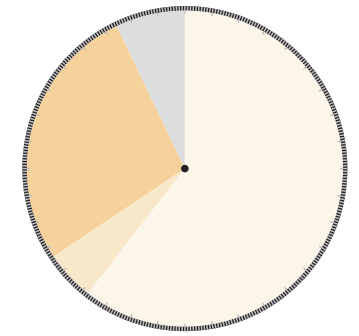
Figure III-80. GHG total (without LUCF) by gas

N₂O **19.6%**
 CH₄ **16.5%**
 CO₂ **63.9%**

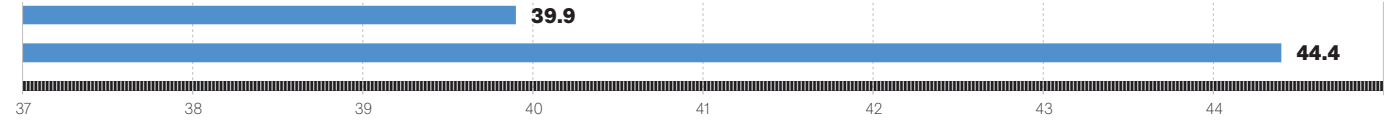


GHG total (without LUCF) by sector

Industrial Processes **7.1%**
 Agriculture **27.3%**
 Waste **5.1%**
 Energy **60.5%**



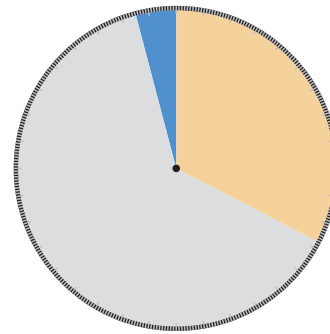
GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent



Morocco
1994

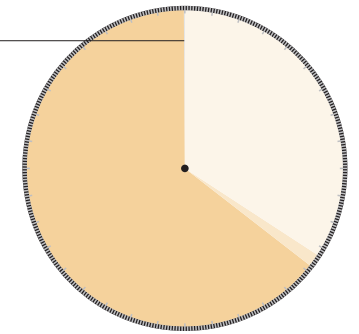
Figure III-81. GHG total (without LUCF) by gas

N₂O **4.1%**
 CH₄ **63.3%**
 CO₂ **32.6%**

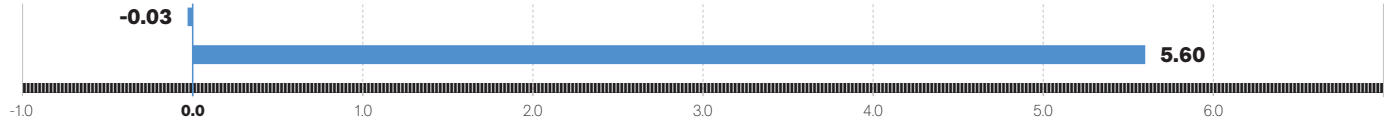


GHG total (without LUCF) by sector

Industrial Processes **0.1%**
 Agriculture **64.4%**
 Waste **1.3%**
 Energy **34.2%**



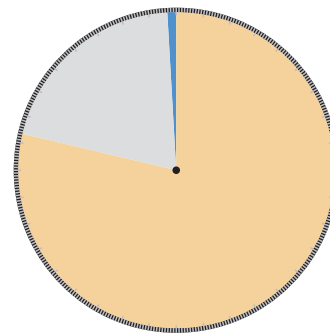
GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent



Namibia
1994

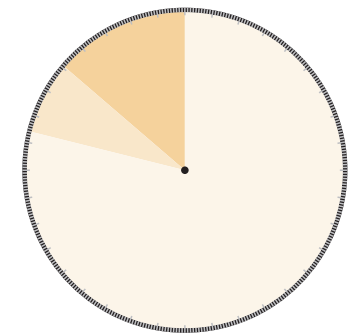
Figure III-82. GHG total (without LUCF) by gas

N₂O **0.9%**
 CH₄ **20.4%**
 CO₂ **78.7%**

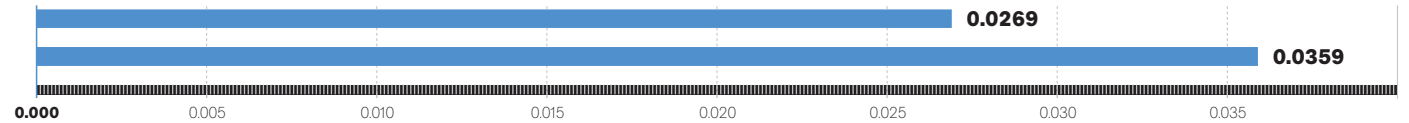


GHG total (without LUCF) by sector

Agriculture **13.7%**
 Waste **7.4%**
 Energy **78.9%**



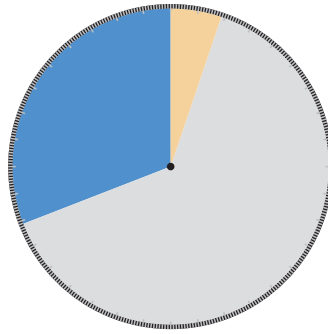
GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent



Nauru
1994

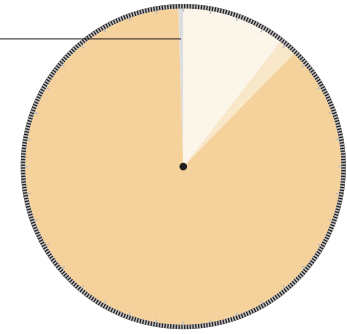
Figure III-83. GHG total (without LUCF) by gas

N₂O **30.9%**
 CH₄ **63.9%**
 CO₂ **5.2%**



GHG total (without LUCF) by sector

Industrial Processes **0.5%**
 Agriculture **87.2%**
 Waste **1.8%**
 Energy **10.5%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

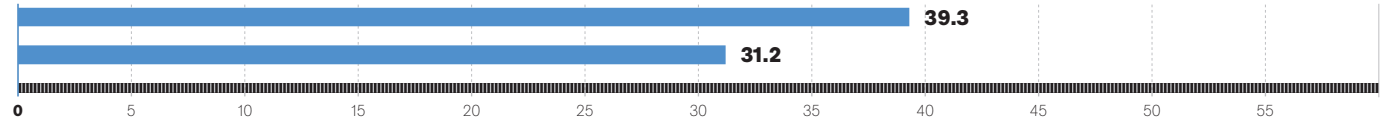
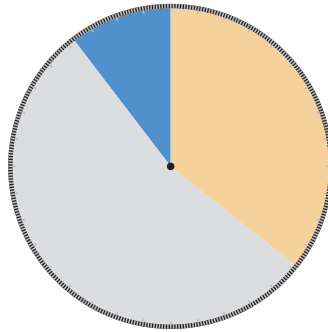


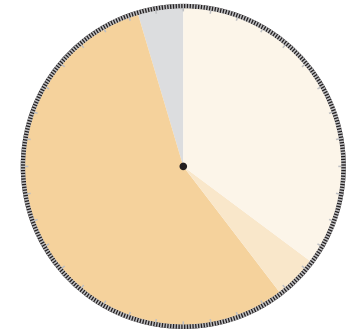
Figure III-84. GHG total (without LUCF) by gas

N₂O **10.4%**
 CH₄ **54.0%**
 CO₂ **35.7%**



GHG total (without LUCF) by sector

Industrial Processes **4.6%**
 Agriculture **55.8%**
 Waste **4.4%**
 Energy **35.2%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

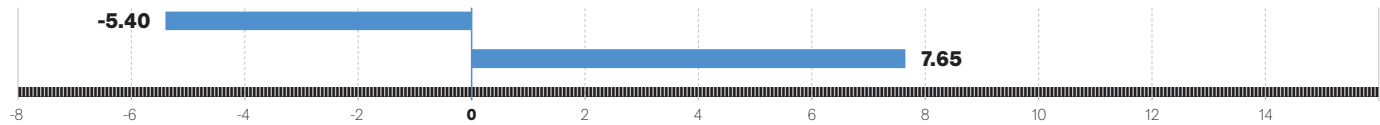
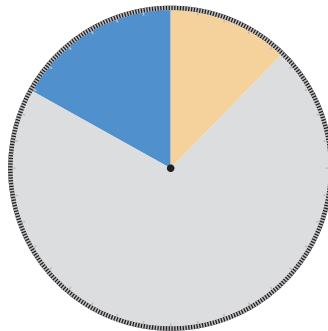


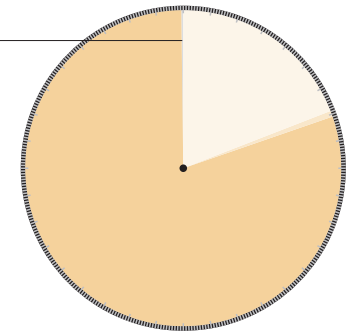
Figure III-85. GHG total (without LUCF) by gas

N₂O **16.9%**
 CH₄ **70.8%**
 CO₂ **12.3%**

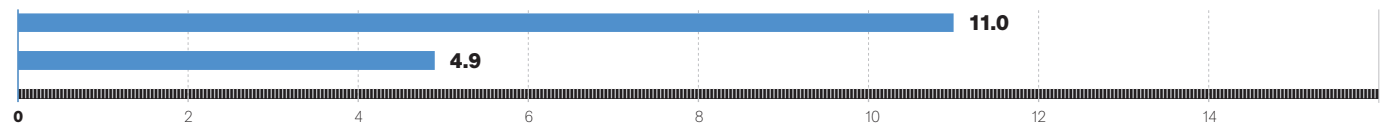


GHG total (without LUCF) by sector

Industrial Processes **0.2%**
 Agriculture **80.1%**
 Waste **0.6%**
 Energy **19.1%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent



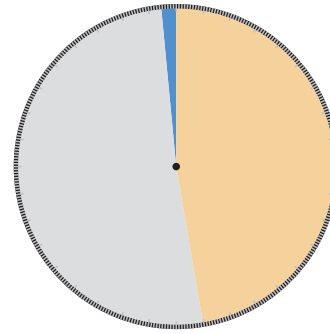
Nepal
1994

Nicaragua
1994

Niger
1990

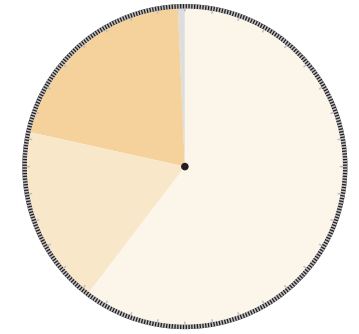
Figure III-86. GHG total (without LUCF) by gas

N₂O **1.5%**
 CH₄ **51.2%**
 CO₂ **47.3%**



GHG total (without LUCF) by sector

Industrial Processes **0.7%**
 Agriculture **20.8%**
 Waste **18.1%**
 Energy **60.3%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

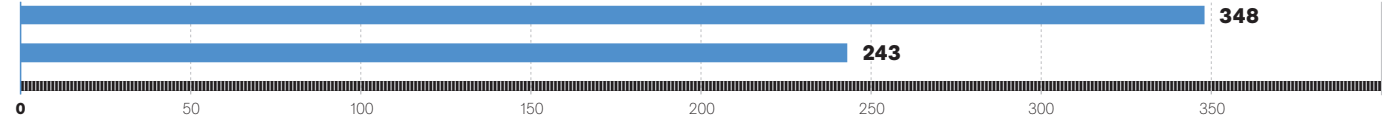
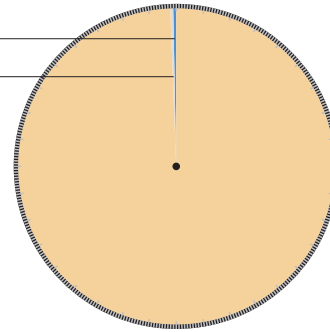


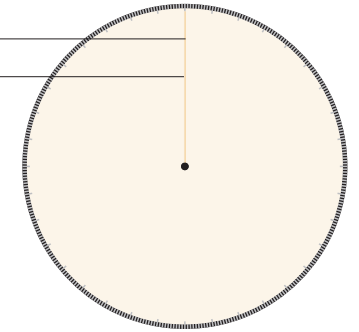
Figure III-87. GHG total (without LUCF) by gas

N₂O **0.3%**
 CH₄ **0.3%**
 CO₂ **99.4%**



GHG total (without LUCF) by sector

Agriculture **0.02%**
 Waste **0.03%**
 Energy **99.9%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

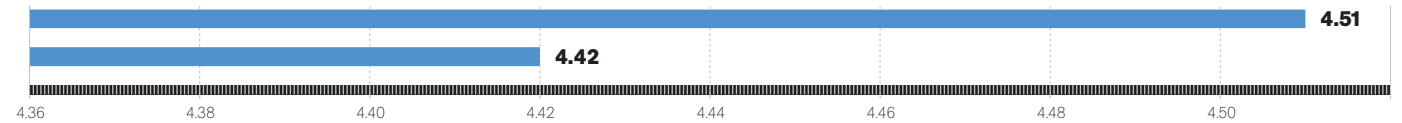
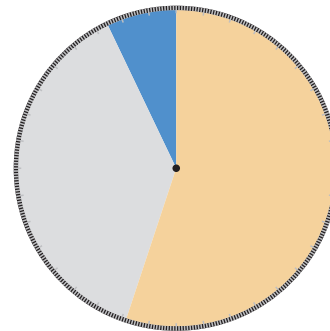


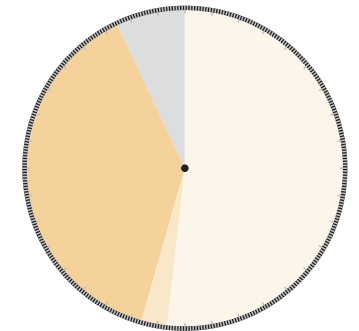
Figure III-88. GHG total (without LUCF) by gas

N₂O **7.1%**
 CH₄ **37.8%**
 CO₂ **55.1%**

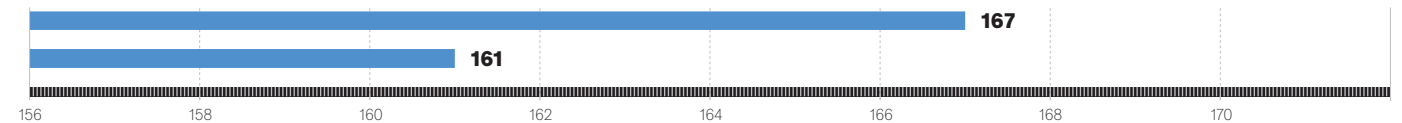


GHG total (without LUCF) by sector

Industrial Processes **7.0%**
 Agriculture **38.6%**
 Waste **2.6%**
 Energy **51.8%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent



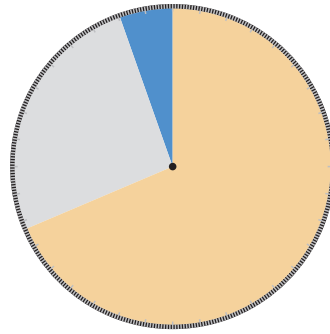
Nigeria
 1994

Niue
 1994

Pakistan
 1994

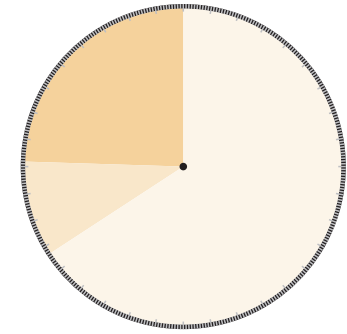
Figure III-89. GHG total (without LUCF) by gas

N₂O **5.4%**
 CH₄ **26.0%**
 CO₂ **68.6%**



GHG total (without LUCF) by sector

Agriculture **24.5%**
 Waste **9.7%**
 Energy **65.8%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

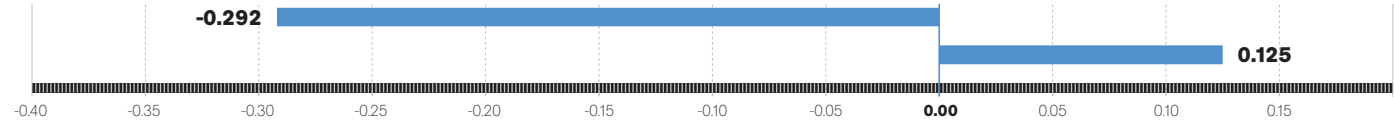
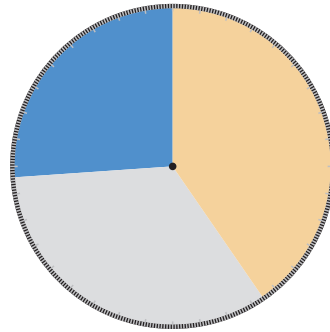


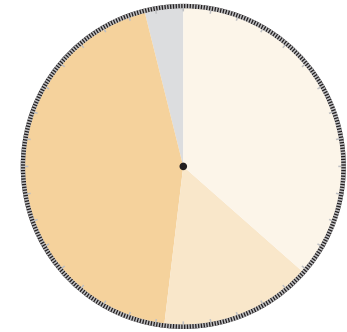
Figure III-90. GHG total (without LUCF) by gas

N₂O **26.1%**
 CH₄ **33.5%**
 CO₂ **40.4%**



GHG total (without LUCF) by sector

Industrial Processes **3.9%**
 Agriculture **44.2%**
 Waste **15.4%**
 Energy **36.5%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

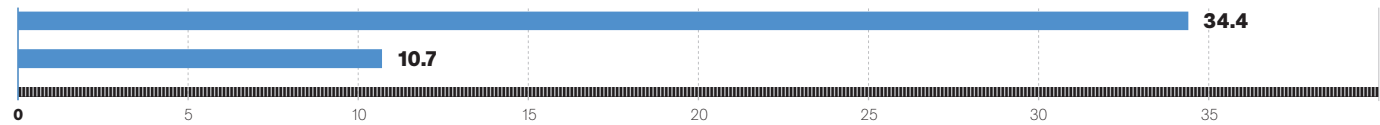
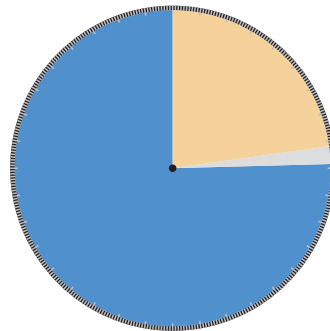


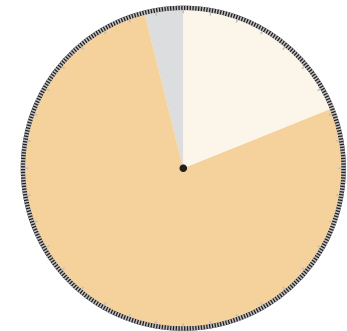
Figure III-91. GHG total (without LUCF) by gas

N₂O **75.5%**
 CH₄ **1.8%**
 CO₂ **22.8%**

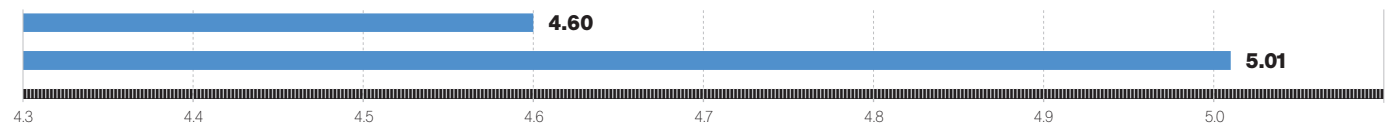


GHG total (without LUCF) by sector

Industrial Processes **3.9%**
 Agriculture **77.2%**
 Energy **18.9%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent



Palau

1994

Panama

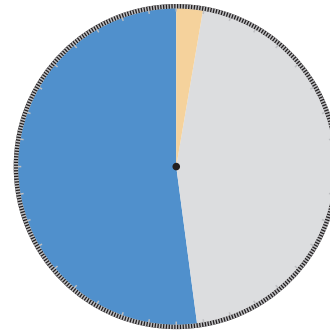
1994

Papua New Guinea

1994

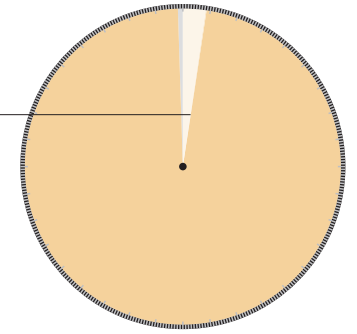
Figure III-92. GHG total (without LUCF) by gas

N₂O **52.1%**
 CH₄ **45.2%**
 CO₂ **2.7%**

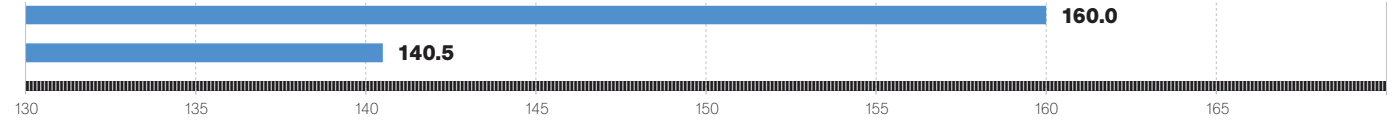


GHG total (without LUCF) by sector

Industrial Processes **0.5%**
 Agriculture **97.0%**
 Waste **0.1%**
 Energy **2.3%**



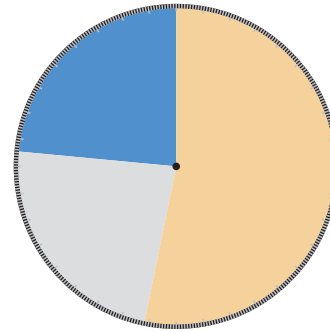
GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent



Paraguay
1994

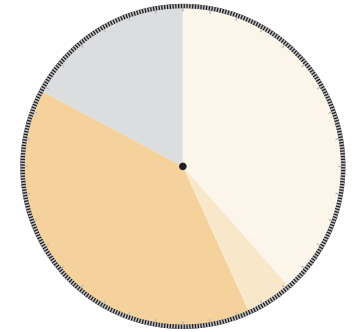
Figure III-93. GHG total (without LUCF) by gas

N₂O **23.5%**
 CH₄ **23.3%**
 CO₂ **53.2%**

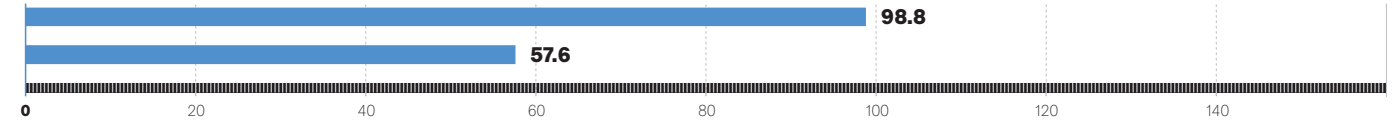


GHG total (without LUCF) by sector

Industrial Processes **17.2%**
 Agriculture **39.6%**
 Waste **4.7%**
 Energy **38.5%**



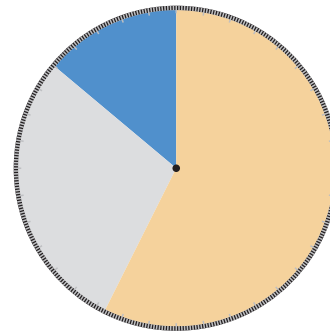
GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent



Peru
1994

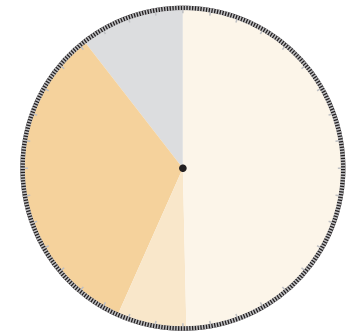
Figure III-94. GHG total (without LUCF) by gas

N₂O **13.9%**
 CH₄ **28.7%**
 CO₂ **57.4%**

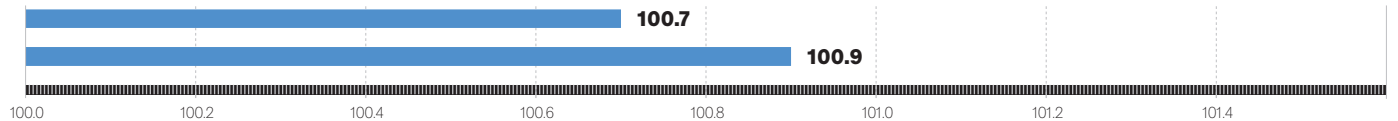


GHG total (without LUCF) by sector

Industrial Processes **10.5%**
 Agriculture **32.8%**
 Waste **7.0%**
 Energy **49.6%**



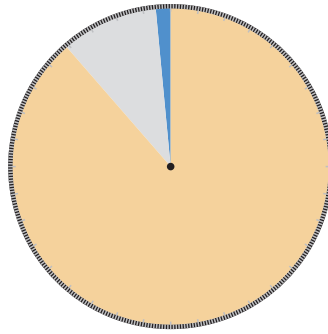
GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent



Philippines
1994

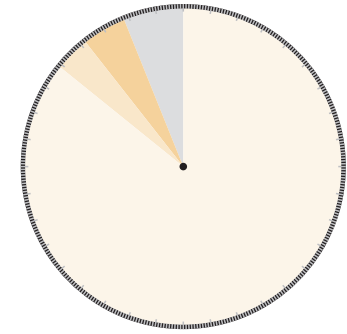
Figure III-95. GHG total (without LUCF) by gas

N₂O **1.5%**
 CH₄ **9.9%**
 CO₂ **88.6%**



GHG total (without LUCF) by sector

Industrial Processes **6.1%**
 Agriculture **4.5%**
 Waste **3.6%**
 Energy **85.9%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

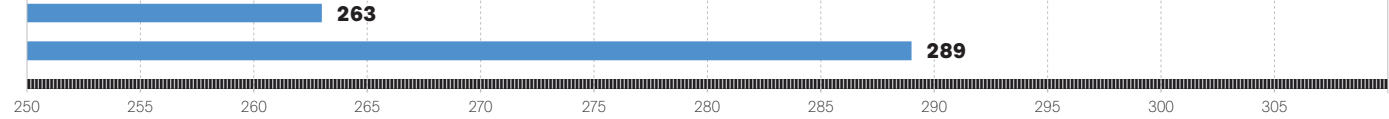
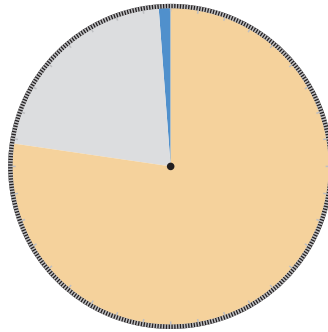


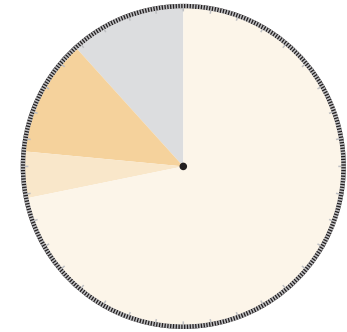
Figure III-96. GHG total (without LUCF) by gas

N₂O **1.2%**
 CH₄ **21.5%**
 CO₂ **77.3%**



GHG total (without LUCF) by sector

Industrial Processes **11.7%**
 Agriculture **11.8%**
 Waste **4.7%**
 Energy **71.8%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

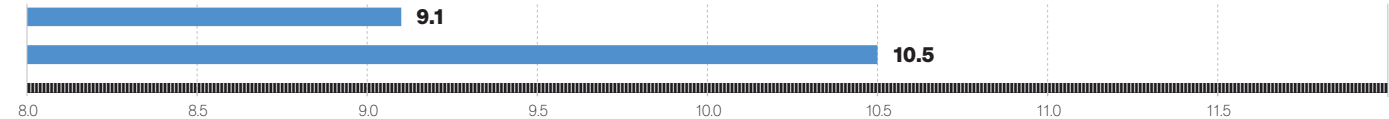
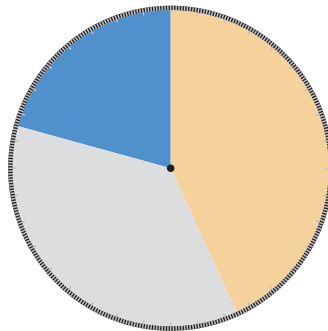


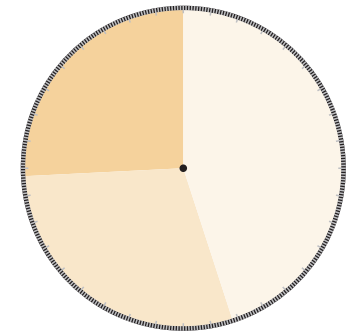
Figure III-97. GHG total (without LUCF) by gas

N₂O **20.7%**
 CH₄ **36.1%**
 CO₂ **43.1%**

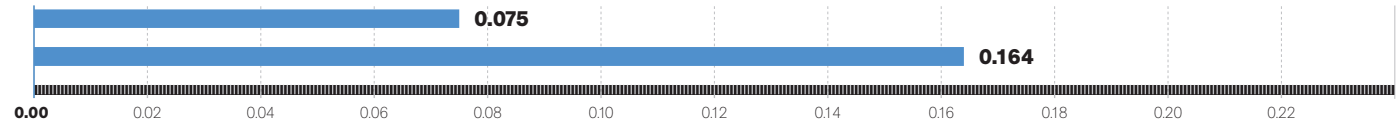


GHG total (without LUCF) by sector

Agriculture **25.8%**
 Waste **29.2%**
 Energy **45.0%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent



Republic of Korea

1990

Republic of Moldova

1998

Saint Kitts and Nevis

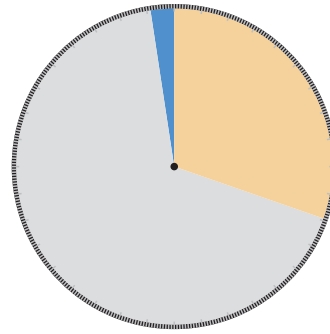
1994

Saint Lucia

1994

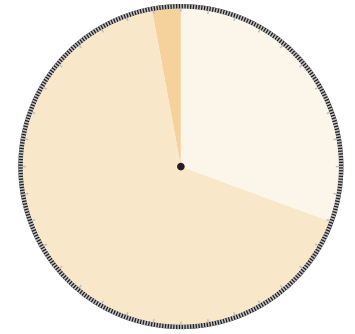
Figure III-98. GHG total (without LUCF) by gas

N₂O **2.4%**
 CH₄ **67.2%**
 CO₂ **30.3%**



GHG total (without LUCF) by sector

Agriculture **2.9%**
 Waste **66.5%**
 Energy **30.6%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

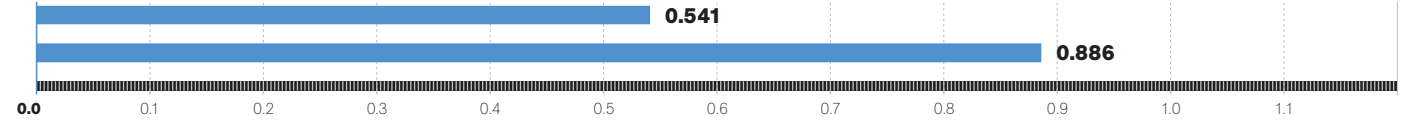
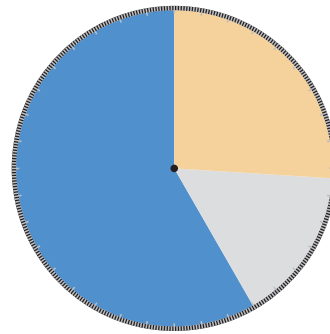


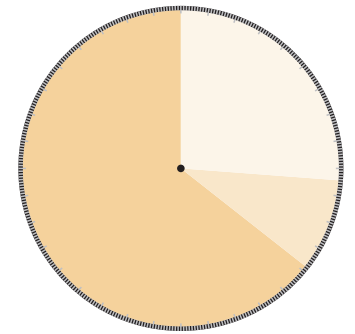
Figure III-99. GHG total (without LUCF) by gas

N₂O **58.3%**
 CH₄ **15.7%**
 CO₂ **26.0%**



GHG total (without LUCF) by sector

Agriculture **64.4%**
 Waste **9.4%**
 Energy **26.2%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

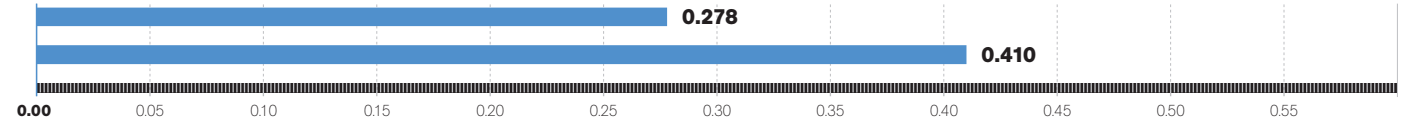
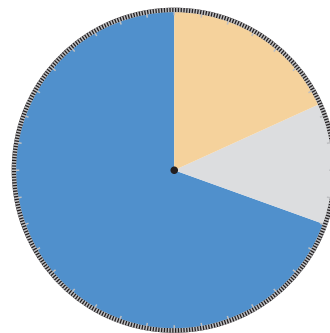


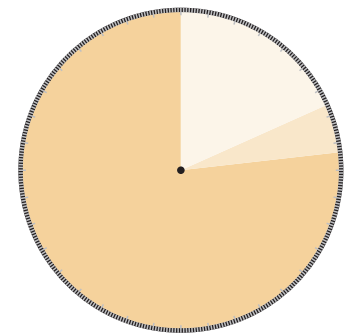
Figure III-100. GHG total (without LUCF) by gas

N₂O **69.5%**
 CH₄ **12.3%**
 CO₂ **18.2%**

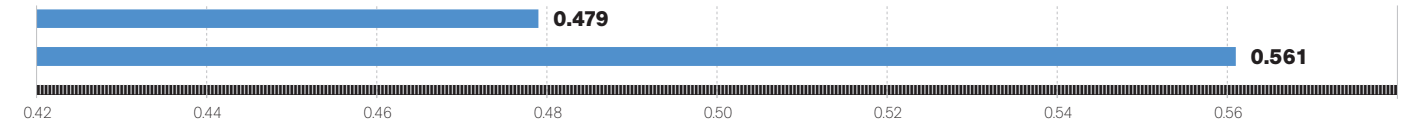


GHG total (without LUCF) by sector

Agriculture **76.8%**
 Waste **4.9%**
 Energy **18.3%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

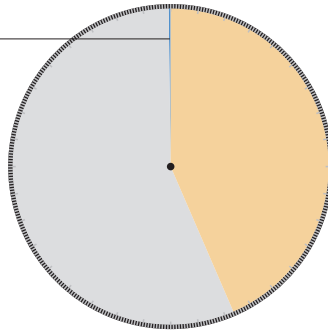


Samoa

1994

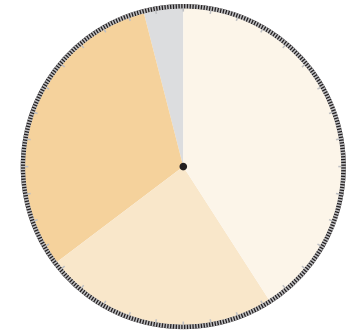
Figure III-101. GHG total (without LUCF) by gas

N₂O **0.2%**
 CH₄ **56.3%**
 CO₂ **43.5%**



GHG total (without LUCF) by sector

Industrial Processes **4.0%**
 Agriculture **31.3%**
 Waste **23.8%**
 Energy **40.9%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

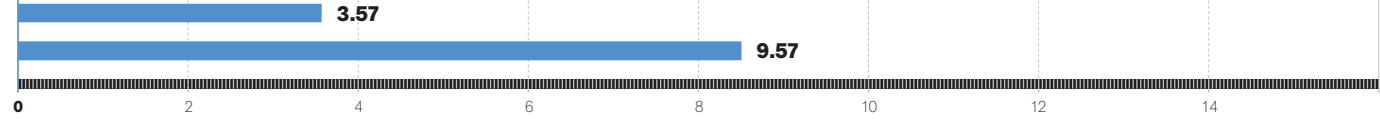
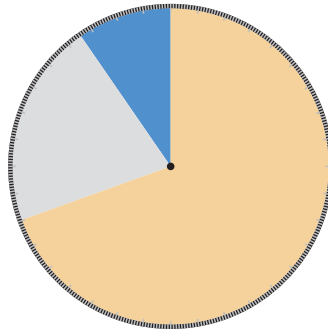


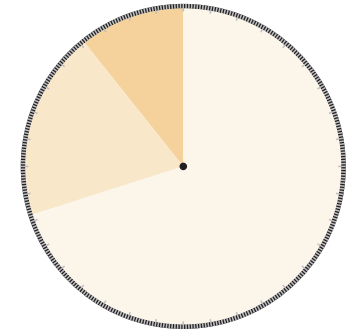
Figure III-102. GHG total (without LUCF) by gas

N₂O **9.6%**
 CH₄ **20.9%**
 CO₂ **69.5%**



GHG total (without LUCF) by sector

Agriculture **10.7%**
 Waste **19.2%**
 Energy **70.0%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

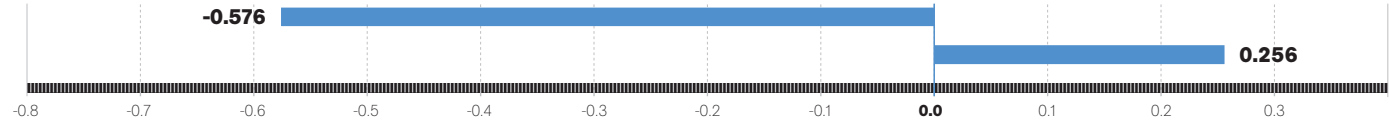
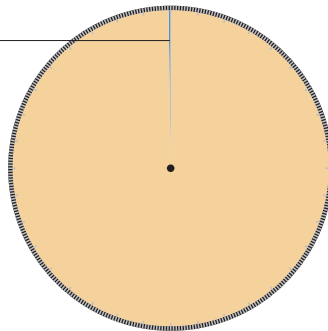


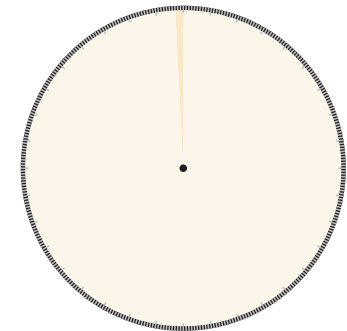
Figure III-103. GHG total (without LUCF) by gas

N₂O **0.2%**
 CO₂ **99.8%**

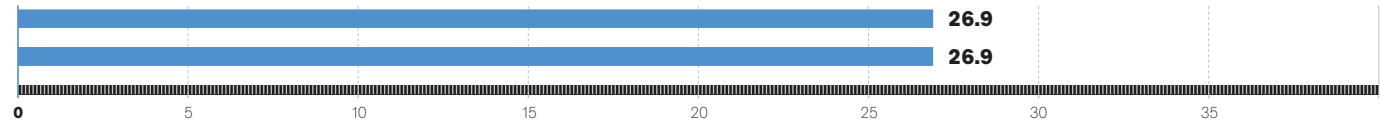


GHG total (without LUCF) by sector

Waste **0.8%**
 Energy **99.2%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent



Senegal
1995

Seychelles
1995

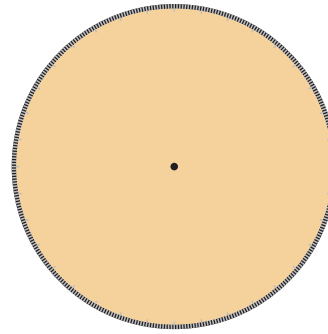
Singapore
1994

Figure III-104. GHG total (without LUCF) by gas

Solomon Islands

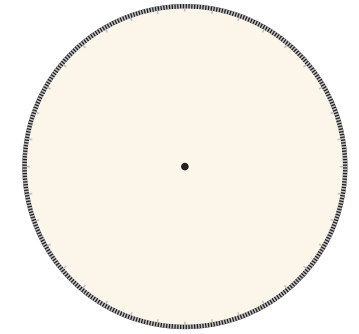
1994

CO₂ 100.0%



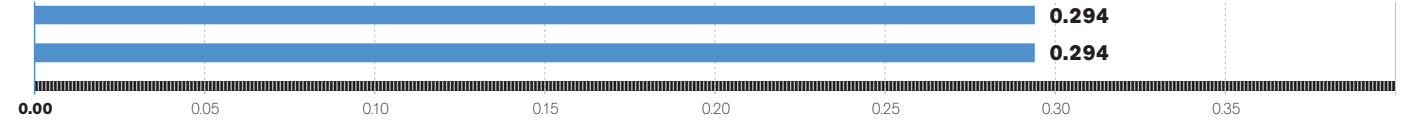
GHG total (without LUCF) by sector

Energy 100.0%



GHG total with LUCF
GHG total without LUCF

Tg CO₂ equivalent



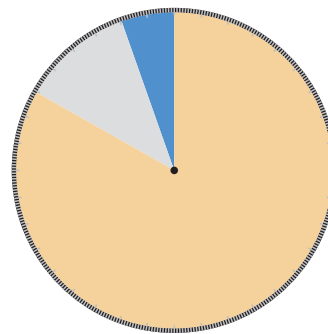
Note: only data for CO₂ emissions from the energy sector are available for this year.

Figure III-105. GHG total (without LUCF) by gas

South Africa

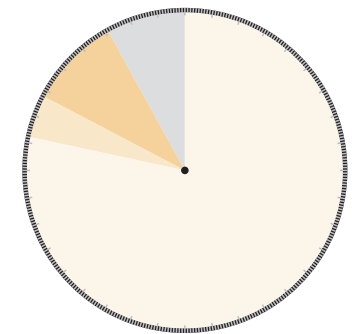
1994

N₂O 5.4%
CH₄ 11.4%
CO₂ 83.2%



GHG total (without LUCF) by sector

Industrial Processes 8.0%
Agriculture 9.3%
Waste 4.3%
Energy 78.3%



GHG total with LUCF
GHG total without LUCF

Tg CO₂ equivalent

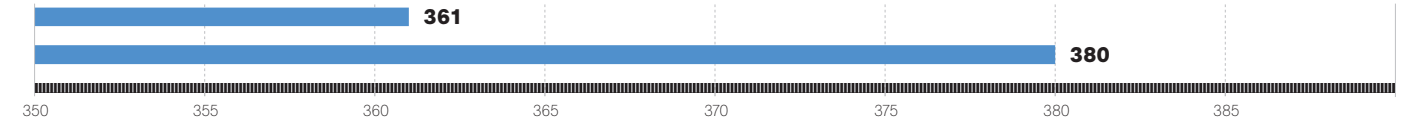
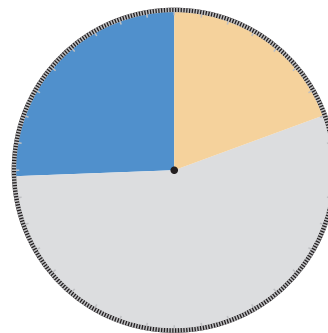


Figure III-106. GHG total (without LUCF) by gas

Sri Lanka

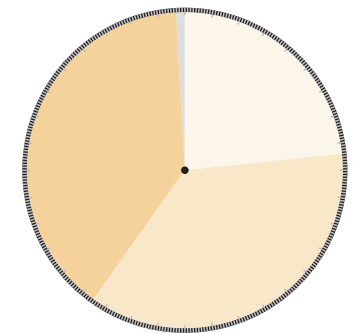
1995

N₂O 25.6%
CH₄ 55.0%
CO₂ 19.4%



GHG total (without LUCF) by sector

Industrial Processes 0.9%
Agriculture 39.3%
Waste 36.5%
Energy 23.3%



GHG total with LUCF
GHG total without LUCF

Tg CO₂ equivalent

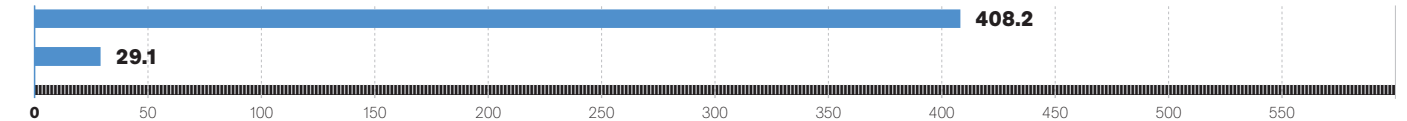
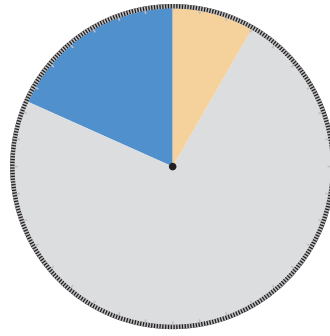


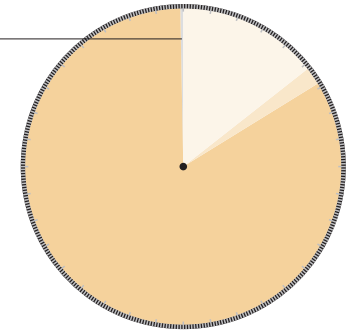
Figure III-107. GHG total (without LUCF) by gas

N₂O **18.3%**
 CH₄ **73.4%**
 CO₂ **8.3%**



GHG total (without LUCF) by sector

Industrial Processes **0.3%**
 Agriculture **83.5%**
 Waste **1.8%**
 Energy **14.4%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

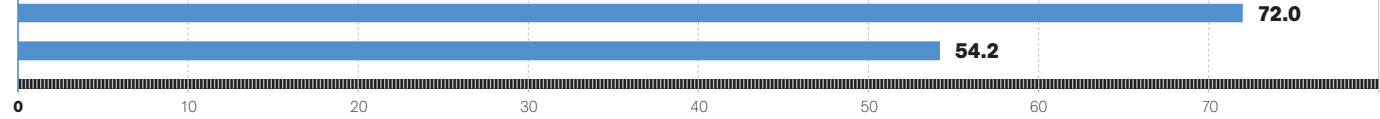
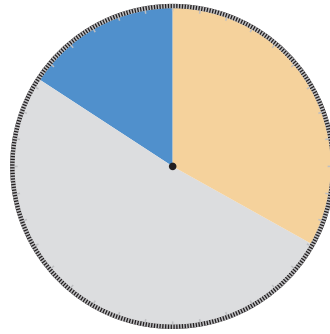


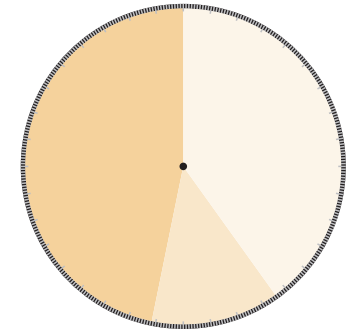
Figure III-108. GHG total (without LUCF) by gas

N₂O **15.8%**
 CH₄ **51.1%**
 CO₂ **33.1%**



GHG total (without LUCF) by sector

Agriculture **46.8%**
 Waste **13.1%**
 Energy **40.1%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

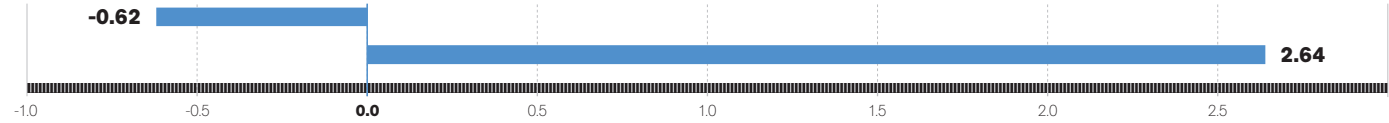
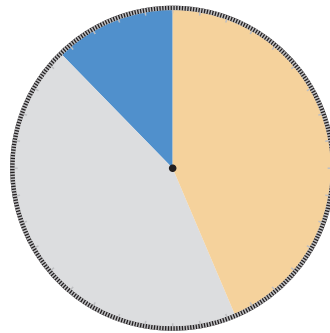


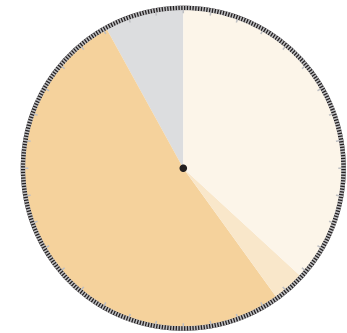
Figure III-109. GHG total (without LUCF) by gas

N₂O **12.3%**
 CH₄ **44.1%**
 CO₂ **43.6%**

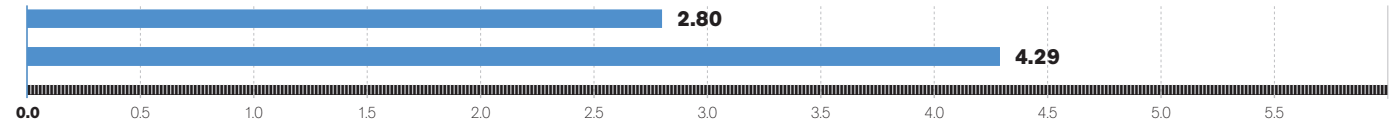


GHG total (without LUCF) by sector

Industrial Processes **8.0%**
 Agriculture **51.9%**
 Waste **3.2%**
 Energy **36.8%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent



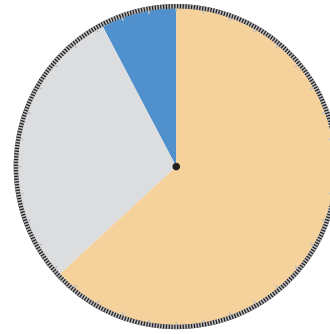
Sudan
1995

Swaziland
1994

Tajikistan
1998

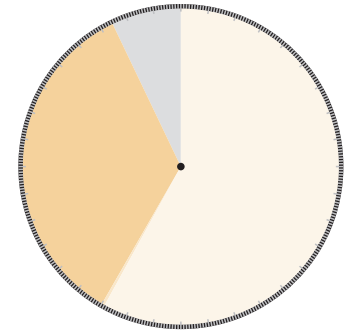
Figure III-110. GHG total (without LUCF) by gas

N₂O **7.7%**
 CH₄ **29.2%**
 CO₂ **63.2%**



GHG total (without LUCF) by sector

Industrial Processes **7.1%**
 Agriculture **34.6%**
 Waste **0.3%**
 Energy **58.0%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

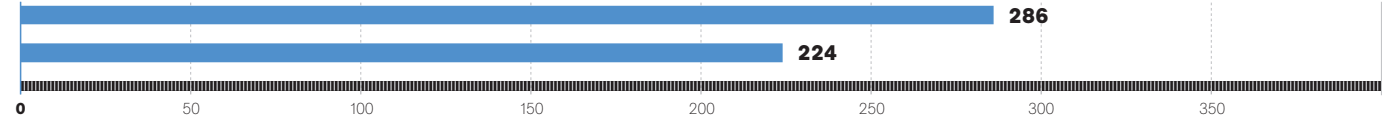
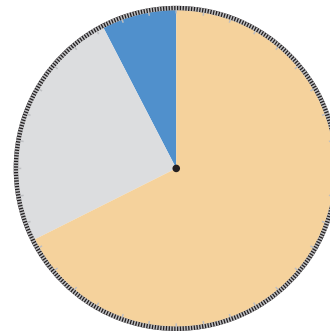


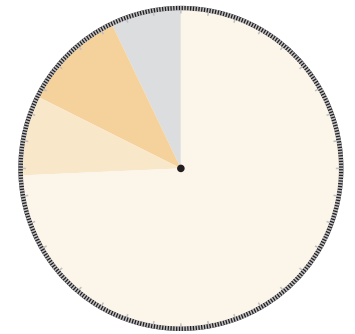
Figure III-111. GHG total (without LUCF) by gas

N₂O **7.6%**
 CH₄ **24.8%**
 CO₂ **67.6%**



GHG total (without LUCF) by sector

Industrial Processes **7.1%**
 Agriculture **10.5%**
 Waste **8.1%**
 Energy **74.3%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

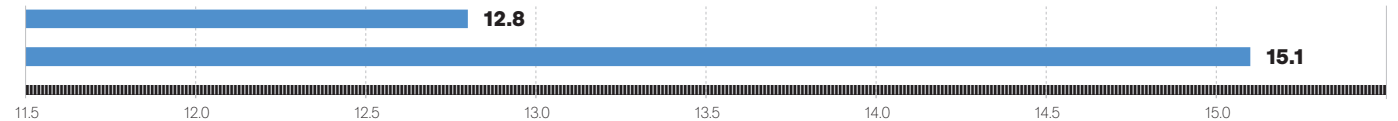
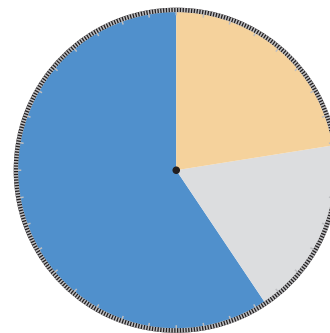


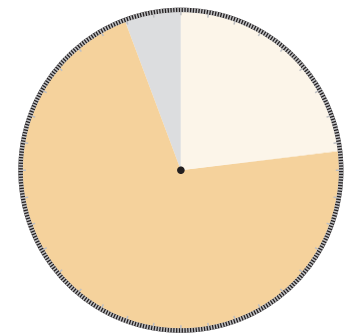
Figure III-112. GHG total (without LUCF) by gas

N₂O **59.4%**
 CH₄ **18.1%**
 CO₂ **22.5%**



GHG total (without LUCF) by sector

Industrial Processes **5.7%**
 Agriculture **71.2%**
 Waste **0.1%**
 Energy **23.0%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

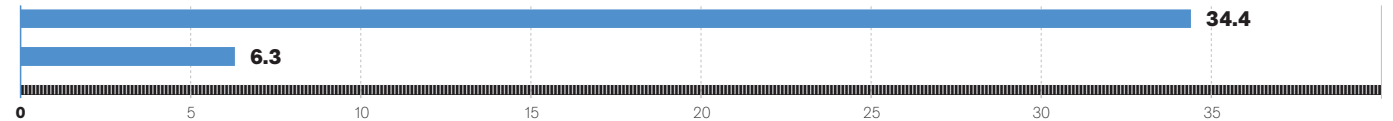
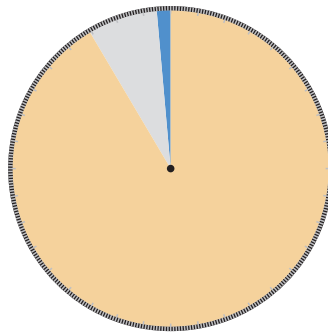


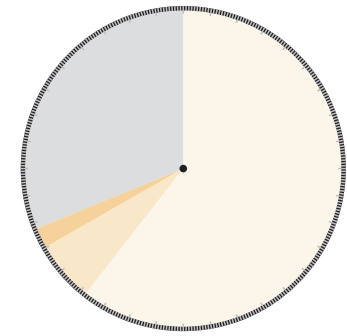
Figure III-113. GHG total (without LUCF) by gas

N₂O **1.4%**
 CH₄ **7.1%**
 CO₂ **91.4%**



GHG total (without LUCF) by sector

Industrial Processes **31.2%**
 Agriculture **2.1%**
 Waste **6.2%**
 Energy **60.6%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

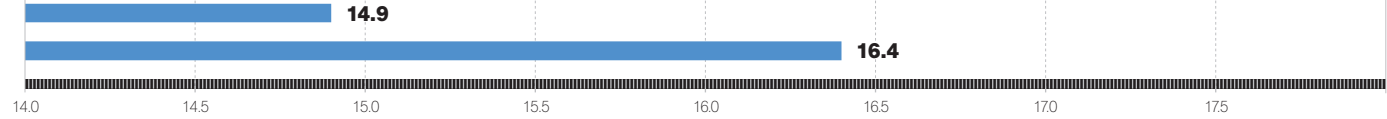
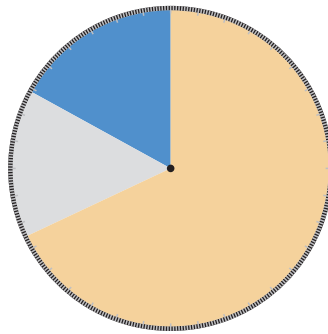


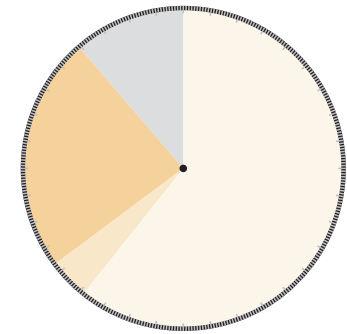
Figure III-114. GHG total (without LUCF) by gas

N₂O **17.0%**
 CH₄ **15.0%**
 CO₂ **68.0%**



GHG total (without LUCF) by sector

Industrial Processes **11.3%**
 Agriculture **23.9%**
 Waste **4.1%**
 Energy **60.7%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

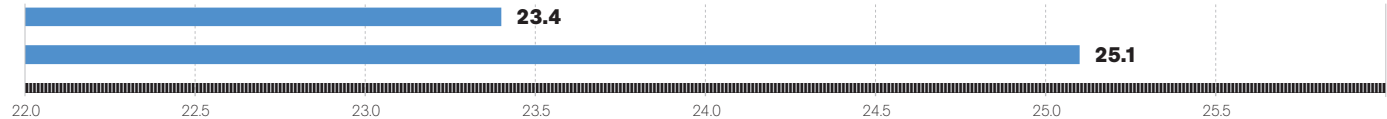
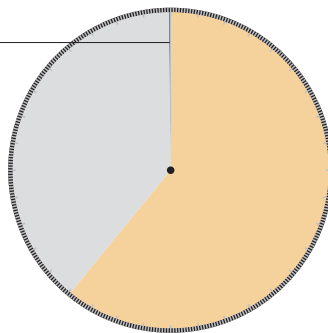


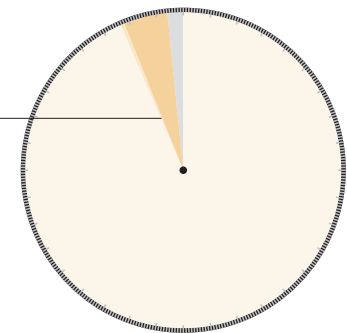
Figure III-115. GHG total (without LUCF) by gas

N₂O **0.2%**
 CH₄ **38.9%**
 CO₂ **60.9%**

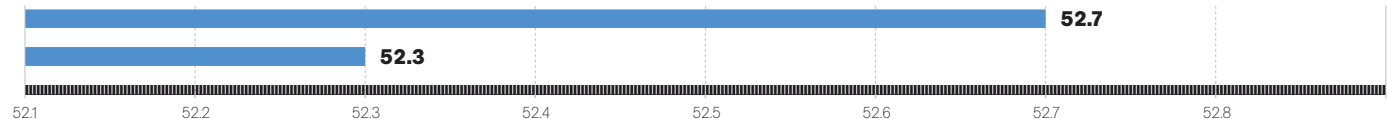


GHG total (without LUCF) by sector

Industrial Processes **1.6%**
 Agriculture **4.5%**
 Waste **0.4%**
 Energy **93.5%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent



Trinidad and Tobago

1990

Tunisia

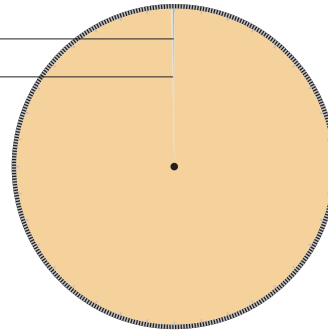
1994

Turkmenistan

1994

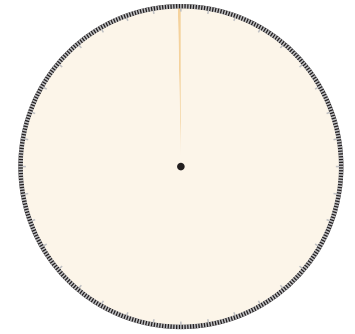
Figure III-116. GHG total (without LUCF) by gas

N₂O **0.1%**
 CH₄ **0.2%**
 CO₂ **99.7%**



GHG total (without LUCF) by sector

Agriculture **0.3%**
 Energy **99.7%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

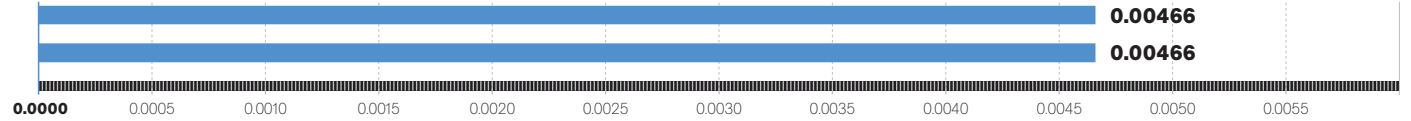
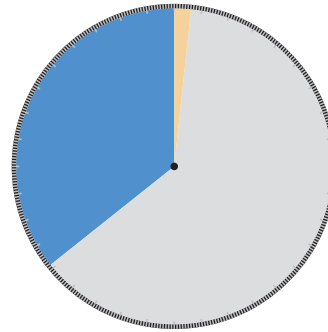


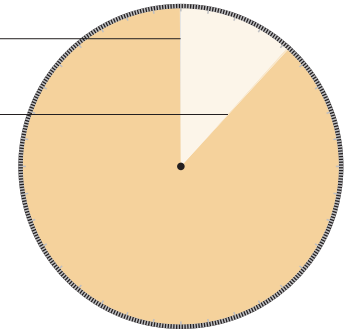
Figure III-117. GHG total (without LUCF) by gas

N₂O **35.7%**
 CH₄ **62.6%**
 CO₂ **1.7%**



GHG total (without LUCF) by sector

Industrial Processes **0.1%**
 Agriculture **88.0%**
 Waste **0.2%**
 Energy **11.6%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

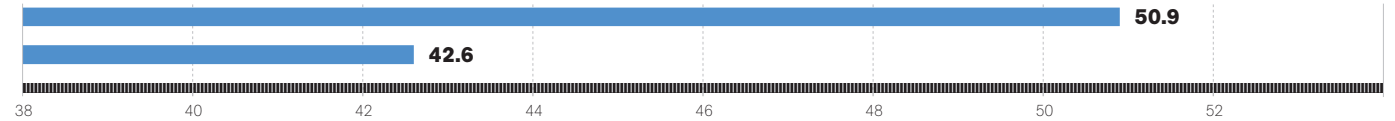
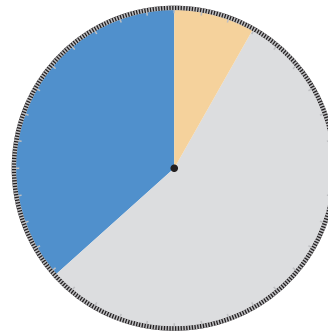


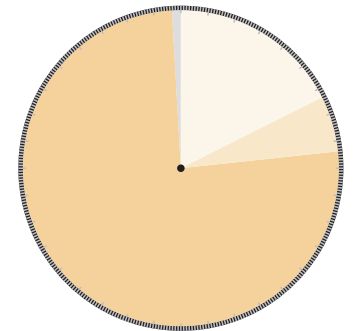
Figure III-118. GHG total (without LUCF) by gas

N₂O **36.6%**
 CH₄ **55.1%**
 CO₂ **8.2%**



GHG total (without LUCF) by sector

Industrial Processes **0.9%**
 Agriculture **75.8%**
 Waste **5.7%**
 Energy **17.6%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

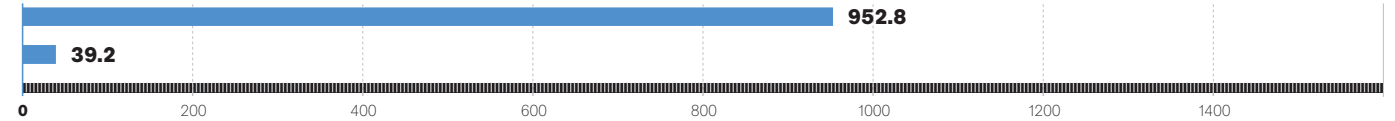
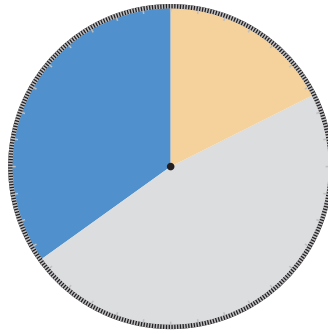


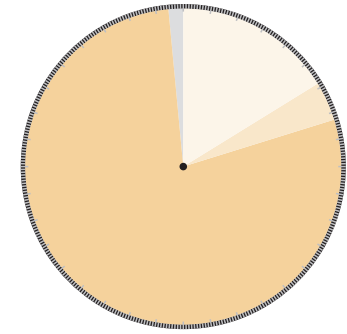
Figure III-119. GHG total (without LUCF) by gas

N₂O **34.9%**
 CH₄ **47.5%**
 CO₂ **17.6%**



GHG total (without LUCF) by sector

Industrial Processes **1.5%**
 Agriculture **78.3%**
 Waste **4.0%**
 Energy **16.2%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

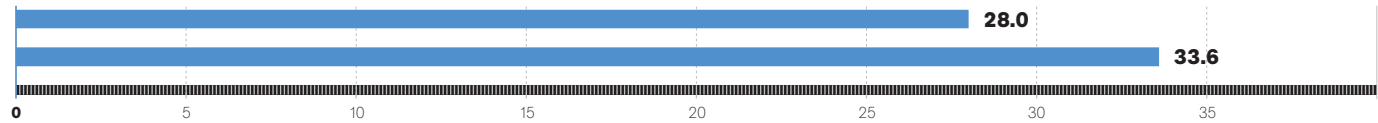
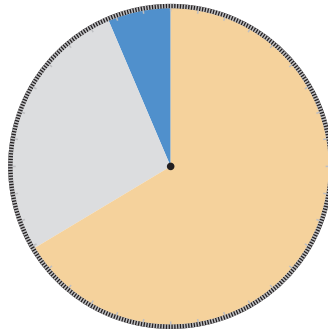


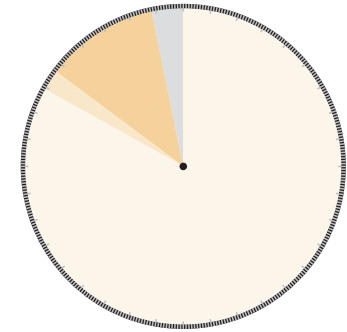
Figure III-120. GHG total (without LUCF) by gas

N₂O **6.4%**
 CH₄ **27.2%**
 CO₂ **66.4%**



GHG total (without LUCF) by sector

Industrial Processes **3.2%**
 Agriculture **11.6%**
 Waste **2.1%**
 Energy **83.1%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent

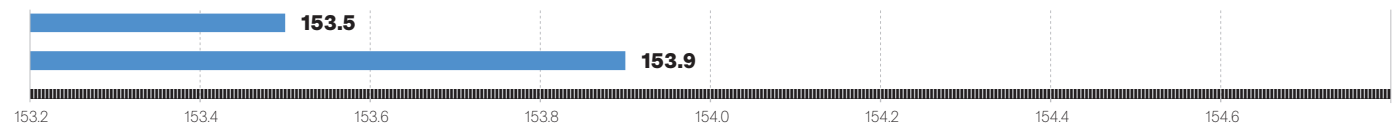
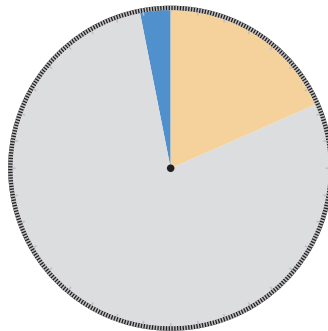


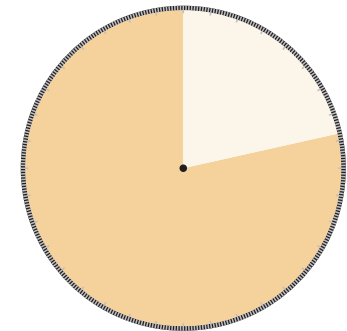
Figure III-121. GHG total (without LUCF) by gas

N₂O **3.1%**
 CH₄ **78.5%**
 CO₂ **18.4%**

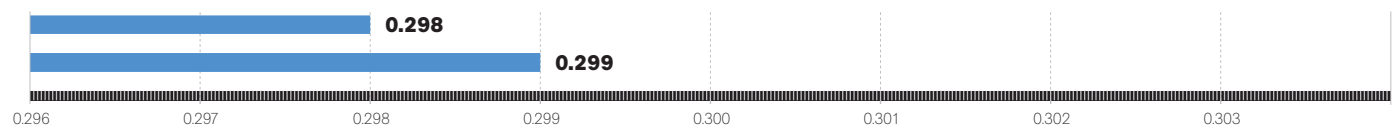


GHG total (without LUCF) by sector

Agriculture **78.5%**
 Energy **21.5%**



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent



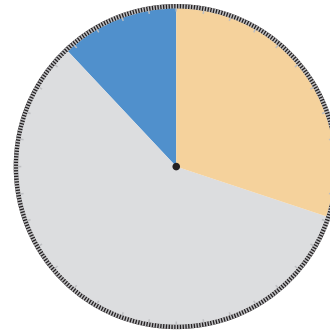
Uruguay
1998

Uzbekistan
1994

Vanuatu
1994

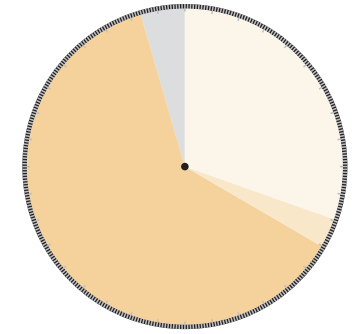
Figure III-122. GHG total (without LUCF) by gas

N₂O **12.0%**
 CH₄ **57.9%**
 CO₂ **30.1%**

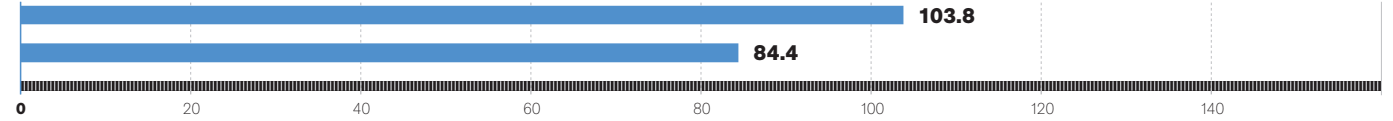


GHG total (without LUCF) by sector

Industrial Processes **4.5%**
 Agriculture **62.1%**
 Waste **3.0%**
 Energy **30.4%**



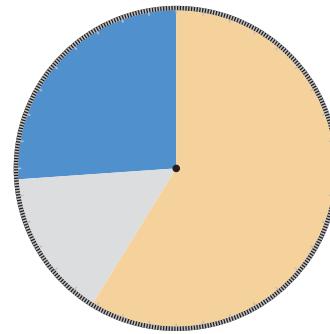
GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent



Viet Nam
 1994

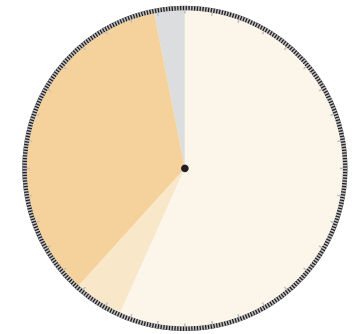
Figure III-123. GHG total (without LUCF) by gas

N₂O **26.1%**
 CH₄ **15.1%**
 CO₂ **58.8%**

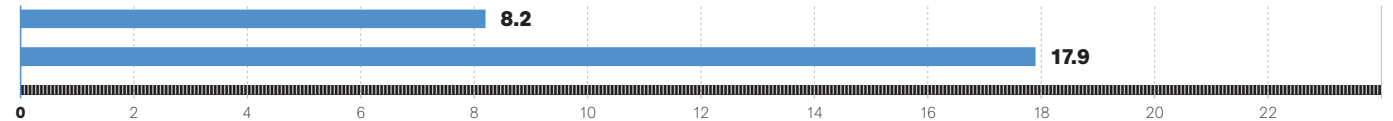


GHG total (without LUCF) by sector

Industrial Processes **3.1%**
 Agriculture **35.2%**
 Waste **5.0%**
 Energy **56.7%**



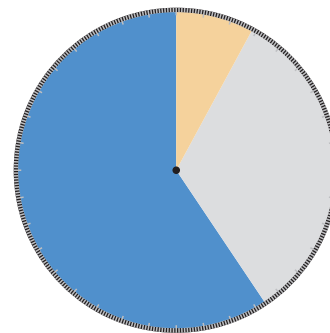
GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent



Yemen
 1995

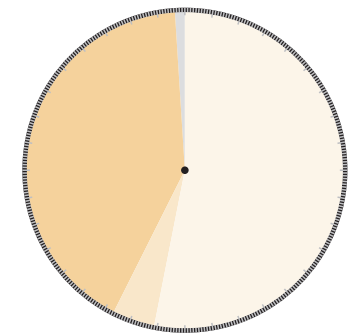
Figure III-124. GHG total (without LUCF) by gas

N₂O **59.4%**
 CH₄ **32.7%**
 CO₂ **7.9%**

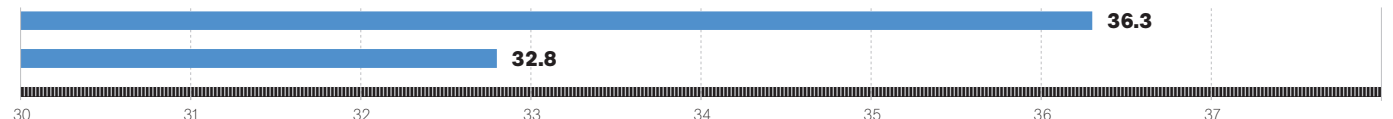


GHG total (without LUCF) by sector

Industrial Processes **1.0%**
 Agriculture **41.6%**
 Waste **4.3%**
 Energy **53.1%**



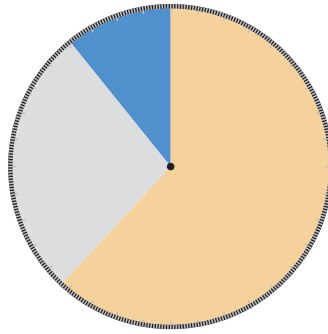
GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent



Zambia
 1994

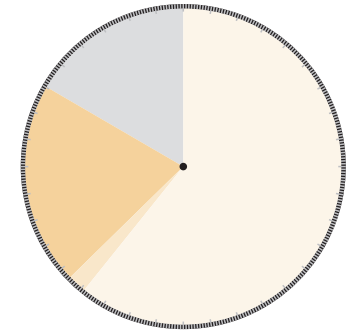
Figure III-125. GHG total (without LUCF) by gas

N₂O 10.8%
 CH₄ 27.3%
 CO₂ 61.9%

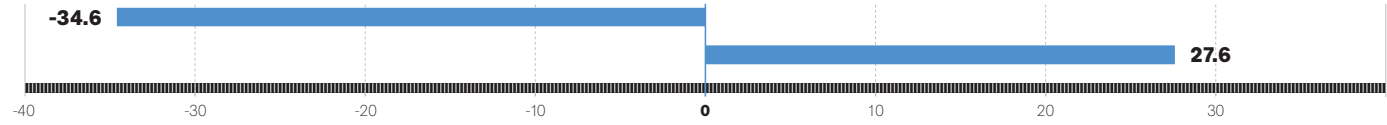


GHG total (without LUCF) by sector

Industrial Processes 16.6%
 Agriculture 20.7%
 Waste 1.9%
 Energy 60.7%



GHG total with LUCF
 GHG total without LUCF
Tg CO₂ equivalent



IV. NOTES TO DATA TABLES AND FIGURES

A. NOTES

Note 1. Unless indicated otherwise, for Annex I Parties GHG emissions are the sum of CO₂, CH₄, N₂O, HFCs, PFCs and SF₆; for non-Annex I Parties GHG emissions are the sum of CO₂, CH₄ and N₂O. The sum of gases is made using the global warming potentials as agreed under the UNFCCC (1 for CO₂, 21 for CH₄, 310 for N₂O, and specific values for individual HFCs, PFCs and SF₆).

Note 2. In some graphs, non-CO₂ emissions are shown; these emissions are defined as the sum of CH₄, N₂O, HFCs, PFCs and SF₆; the sum is made using the global warming potentials as agreed under the UNFCCC (21 for CH₄, 310 for N₂O, and specific values for HFCs, PFCs and SF₆).

Note 3. All data are data submitted by Parties to the UNFCCC. The exceptions are the population and GDP data used in some tables to illustrate changes in macroeconomic indicators – these data are from the World Bank, see

<http://www.worldbank.org/data/>.

The use of base year data instead of 1990 for some EIT Parties (Bulgaria, Hungary, Poland, Romania and Slovenia) leads to some inconsistency in the ratios of emissions (taken for the base year) to GDP and population (taken for 1990).

Note 4. In the GDP data from the World Bank, Liechtenstein and Monaco are not included because of the absence of data.

Note 5. The GDP data from the World Bank are in international dollars (\$) of 2000; the purchasing power parities (PPP) approach is used.

Note 6. For Annex I Parties, some data are given for the group of those Annex I Parties that are considered as Parties with economies in transition (EIT) under the Convention as well as for the rest of Annex I (Annex I Parties excluding EIT Parties). There are 14 EIT Parties: Belarus, Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Russian Federation, Slovakia, Slovenia and Ukraine. The 27 non-EIT Parties are Australia, Austria, Belgium, Canada, Denmark, European Community, Finland, France, Germany, Greece, Iceland, Ireland, Italy,

Japan, Liechtenstein, Luxembourg, Monaco, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom of Great Britain and Northern Ireland and the United States of America. Full lists of Annex I and non-Annex I Parties to the UNFCCC can be found in chapter VI.

Note 7. Two Annex I Parties are not included in the calculated totals used in tables and figures for the groups of Annex I Parties taken together and non-EIT Parties taken together: the European Community (excluded to avoid double counting of national emissions of its Member States) and Turkey (GHG data under the UNFCCC are not yet available). Where data for the European Community are given, these are data reported by the European Community separately from those reported individually by the Annex I Parties that are Member States of the European Community. As established under the UNFCCC, in all calculations the European Community is assumed to include the following 15 Member States: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, the United Kingdom of Great Britain and Northern Ireland.

Note 8. In tables and graphs, base year data are used instead of 1990 data for the EIT Parties with a special base year definition as per COP decisions 9/CP.2 and 11/CP.4: Bulgaria (1988), Hungary (average of 1985 – 1987), Poland (1988), Romania (1989) and Slovenia (1986).

Note 9. For Annex I Parties, GHG data are presented for the period from 1990 to 2003. For non-Annex I Parties, GHG data are presented for 1990, 1994 and the latest available year (the latest available year may coincide with 1990 or 1994).

Note 10. For Annex I Parties, most of the data come from the 2005 submissions of GHG inventories due by 15 April 2005 (including the resubmissions with revised data received by 30 May). For those Parties that have not reported their inventories in 2005, data from earlier inventory submissions and national communications are used. For non-Annex I Parties, GHG data are taken from the initial national communications received by the secretariat before 1 April 2005 (for some Parties, documents sent to the UNFCCC as additional materials to the NCI are also used); data from the second national communications are not included.

Note 11. Shares of gases/sectors in GHG totals and the relative changes in GHG emissions (in per cent), shown in some tables and figures, are calculated using exact numbers from the GHG database; these values can slightly differ from the values one could obtain with the rounded numbers provided in tables and figures.

Note 12. Sectoral GHG data are presented using the CRF definition of sectors. For Annex I Parties, the sectors are energy; industrial processes; solvent and other product use; agriculture; land use, land-use change and forestry (LULUCF); waste; and other. For non-Annex I Parties, the sectors are energy; industrial processes; agriculture; land-use change and forestry (LUCF); and waste. For Annex I Parties, two additional values are presented for the energy sector: GHG emissions for transport and GHG emissions for the energy sector excluding transport.

Note 13. Until 2004, Annex I Parties had been reporting GHG emissions from land-use change and forestry (LUCF). In 2005, the reporting format changed and Annex I Parties

reported, for the first time, GHG emissions from land use, land-use change and forestry (LULUCF) instead of LUCF. However, some Annex I Parties reported LUCF data in 2005. Therefore, the relevant data from the 2005 submissions represent a mix of LUCF and LULUCF data; such data are not fully compatible among Annex I Parties, which also makes the CO₂, CH₄, N₂O and GHG emissions including LULUCF (or LUCF) not fully compatible.

Note 14. Non-Annex I Parties report GHG emissions from land-use change and forestry (LUCF). Such data are not fully compatible with the corresponding data of Annex I Parties (see note 13).

Note 15. In some tables and graphs, total emissions from Annex I Parties, EIT Parties and non-EIT Parties are presented to illustrate the overall trends in GHG emissions. In the calculation of such totals, extrapolations and interpolations were used to fill in the data gaps for those Parties where the data series from 1990 to 2003 are not complete; such extrapolations/interpolations should not influence much the overall trends. Extrapolations were also used for some Parties in the calculation of GHG changes from 1990 to 2003: if 2003 data were not available, data from the latest available year were extrapolated to 2003.

Extrapolations/interpolations were not used for those gases or sectors where data were not reported for all years from 1990 to 2003; in such cases, the corresponding Party was not included in the calculation of totals (such cases are explicitly noted).

Note 16. The following definitions of projection scenarios are used in the chapter on GHG projections: the “with measures” scenario includes those policies and measures that have already been implemented and adopted at the time when the projections were prepared; the scenario “with additional measures” includes, additionally, the policies and measures that are planned; the “without measures” scenario is a scenario where the impact of GHG-related policies and measures, both in the future and in the past, is not taken into account. According to the UNFCCC guidelines, “... Parties shall report a “with measures” projection ... and may report “without measures” and “with additional measures” projections ...”. For some Parties, the projection scenarios in their national communications were not defined as “with measures”, “with additional measures”, “without measures” scenarios, but it was possible to interpret such scenarios consistent with the definitions in the guidelines.

Note 17. For some Annex I Parties GHG projections are not fully consistent with their latest GHG inventory because of recent inventory recalculations and/or incomplete coverage of gases or sectors in the projections. Therefore, direct comparison of projections data for 1990 and 2000 with the corresponding inventory data may not be possible.

Note 18. The following Parties revised their GHG projections after the completion of the in-depth review of their national communications:

- Canada revised its GHG projections in the paper “A guide to the assumptions and methodology underlying the AMG results (draft)” presented by the Analysis and Modelling Group (AMG) at the National Stakeholder Workshops on Climate Change on 7 – 24 June 2002.

- Croatia revised its GHG projections in the paper “Republic of Croatia projections of greenhouse gas emissions. Report prepared at the order of the Ministry of Environmental Protection and Physical Planning by EKONERG – Energy Research and Environmental Protection Institute”, Zagreb (2003).
- The European Community revised its GHG projections in “Greenhouse gas emission trends and projections in Europe 2004”, report No.5/2004 of the European Environment Agency (EEA), Copenhagen (2004).

These revised projections are used in the tables and graphs for these Parties.

Note 19. GHG projections for Annex I, EIT and non-EIT Parties taken together cover 35 of the 41 Annex I Parties (excluding the European Community, Lithuania, Luxembourg, Monaco, Turkey, Ukraine).

Note 20. GHG projections are not available for some Annex I Parties. Therefore, the values of total GHG emissions from Annex I Parties, EIT Parties and non-EIT Parties for 1990 and 2000, given in the chapter on GHG projections, differ from the corresponding values given in the chapter with historical data from national GHG inventories. Similarly, the values for GHG changes from 1990 to 2000 differ. Information from the inventory chapter should be used when data on GHG emissions in 1990 – 2003 are required.

Note 21. Only a few Annex I Parties provided GHG projections for the LUCF sector. Therefore, only projected GHG emissions without LUCF are presented; the LULUCF changes expected by some Parties for the 2008 – 2012 period are also not included.

Note 22. Due to differences in assumptions and projections methodologies used by Annex I Parties, GHG projections from individual Parties are not always comparable. Therefore, the sums of national emissions should be understood as only rough estimates.

Note 23. The “ – ” symbol is used to indicate that the data are not available, or the data item is not applicable, or the corresponding value cannot be calculated.

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V. ACRONYMS AND ABBREVIATIONS

CH ₄	methane
COP	Conference of the Parties to the United Nations Framework Convention on Climate Change
CO ₂	carbon dioxide
CO ₂ eq	carbon dioxide equivalent
CRF	common reporting format
EIT	economy in transition
GDP	gross domestic product
Gg	gigagram (1 Gg = 1,000 tonnes)
GHG	greenhouse gas
HFCs	hydrofluorocarbons
IDR	in-depth review
kg	kilogram (1 kg = 1,000 grams)
LUCF	land-use change and forestry
LULUCF	land use, land-use change and forestry
Mg	Megagram (1 Mg = 1 tonne)
N ₂ O	nitrous oxide
NC1	first national communication
NC2	second national communication
NC2&3	combined second and third national communication
NC3	third national communication
NCI	initial national communication
PFCs	perfluorocarbons
PPP	purchasing power parities
SF ₆	sulphur hexafluoride
Tg	teragram (1 Tg = 1 million tonnes)
UNFCCC	United Nations Framework Convention on Climate Change
\$	dollar

VI. LIST OF UNFCCC PARTIES¹

A. PARTIES INCLUDED IN ANNEX I TO THE UNFCCC (ANNEX I PARTIES)

Party	EIT	Annex II
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		
Netherlands		•
New Zealand		•
Norway		•
Poland*	•	
Portugal		•
Romania*	•	
Russian Federation	•	
Slovakia	•	
Slovenia*	•	
Spain		•
Sweden		•
Switzerland		•
Turkey		
Ukraine	•	
United Kingdom of Great Britain and Northern Ireland		•
United States of America		•

¹
The list of Parties is as of 1 April 2005.

* EIT Parties with a special base year definition as per COP decisions 9/CP.2 and 11/CP.4: Bulgaria (1988), Hungary (average of 1985–1987), Poland (1988), Romania (1989) and Slovenia (1986).

B. PARTIES NOT INCLUDED IN ANNEX I TO THE UNFCCC (NON-ANNEX I PARTIES)

Afghanistan	Democratic Republic of the Congo	Libyan Arab Jamahiriya	Saint Vincent and the Grenadines
Albania	Djibouti	Madagascar	Samoa
Algeria	Dominica	Malawi	San Marino
Angola	Dominican Republic	Malaysia	São Tomé and Príncipe
Antigua and Barbuda	Ecuador	Maldives	Saudi Arabia
Argentina	Egypt	Mali	Senegal
Armenia	El Salvador	Malta	Serbia and Montenegro
Azerbaijan	Equatorial Guinea	Marshall Islands	Seychelles
Bahamas	Eritrea	Mauritania	Sierra Leone
Bahrain	Ethiopia	Mauritius	Singapore
Bangladesh	Fiji	Mexico	Solomon Islands
Barbados	Gabon	Micronesia (Federated States of)	South Africa
Belize	Gambia	Mongolia	Sri Lanka
Benin	Georgia	Morocco	Sudan
Bhutan	Ghana	Mozambique	Suriname
Bolivia	Grenada	Myanmar	Swaziland
Bosnia and Herzegovina	Guatemala	Namibia	Syrian Arab Republic
Botswana	Guinea	Nauru	Tajikistan
Brazil	Guinea-Bissau	Nepal	Thailand
Burkina Faso	Guyana	Nicaragua	The former Yugoslav Republic of Macedonia
Burundi	Haiti	Niger	Togo
Cambodia	Honduras	Nigeria	Tonga
Cameroon	India	Niue	Trinidad and Tobago
Cape Verde	Indonesia	Oman	Tunisia
Central African Republic	Iran (Islamic Republic of)	Pakistan	Turkmenistan
Chad	Israel	Palau	Tuvalu
Chile	Jamaica	Panama	Uganda
China	Jordan	Papua New Guinea	United Arab Emirates
Colombia	Kazakhstan	Paraguay	United Republic of Tanzania
Comoros	Kenya	Peru	Uruguay
Congo	Kiribati	Philippines	Uzbekistan
Cook Islands	Kuwait	Qatar	Vanuatu
Costa Rica	Kyrgyzstan	Republic of Korea	Venezuela
Côte d'Ivoire	Lao People's Democratic Republic	Republic of Moldova	Viet Nam
Cuba	Lebanon	Rwanda	Yemen
Cyprus	Lesotho	Saint Kitts and Nevis	Zambia
Democratic People's Republic of Korea	Liberia	Saint Lucia	Zimbabwe

VII. UNFCCC DOCUMENTS AND PUBLICATIONS WITH GHG DATA

GHG DATA FROM PARTIES TO THE UNFCCC

National greenhouse gas inventory data for the period 1990 – 2003 and status of reporting. UNFCCC document FCCC/SBI/2005/17 (2005) (available on the UNFCCC web site at

<http://unfccc.int/resource/docs/2005/sbi/eng/17.pdf>,

language versions in Arabic, Chinese, French, Russian and Spanish are also available)

Information on national greenhouse gas inventory data from Parties included in Annex I to the Convention for the period 1990 – 2002, including the status of reporting. Executive summary. UNFCCC document FCCC/CP/2004/5 (2004) (available on the UNFCCC web site at

<http://unfccc.int/resource/docs/cop10/05.pdf>,

language versions in Arabic, Chinese, French, Russian and Spanish are also available)

Information on national greenhouse gas inventory data from Parties included in Annex I to the Convention for the period 1990 – 2002, including the structure of reporting. UNFCCC document FCCC/WEB/2004/3 (2004) (available on the UNFCCC web site at

<http://unfccc.int/resource/webdocs/2004/03.pdf>)

Greenhouse Gas Inventory Data from the UNFCCC Online –

<http://ghg.unfccc.int/index.html>

GUIDELINES AND PROCEDURES FOR THE PREPARATION OF GHG DATA BY PARTIES TO THE UNFCCC

Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part I: UNFCCC reporting guidelines on annual inventories (following incorporation of the provisions of decision 13/CP.9). UNFCCC document FCCC/SBSTA/2004/8 (2004) (available on the UNFCCC web site at

<http://unfccc.int/resource/docs/2004/sbsta/08.pdf>,

language versions in Arabic, Chinese, French, Russian and Spanish are also available)

Guidelines for the preparation of national communications from Parties not included in Annex I to the Convention. Annex to decision 17/CP.8 in UNFCCC document FCCC/CP/2002/7/Add.2 (2002) (available on the UNFCCC web site at

<http://unfccc.int/resource/docs/cop8/07a02.pdf>,

language versions in Arabic, Chinese, French, Russian and Spanish are also available)

Reporting on climate change: user manual for the guidelines on national communications from non-Annex I Parties. Publication of the UNFCCC secretariat, Bonn, Germany (2003) (available on the UNFCCC web site at

http://unfccc.int/resource/userman_nc.pdf,

language versions in French and Spanish are also available)

Counting emissions and removals: greenhouse gas inventories under the UNFCCC. Publication of the UNFCCC secretariat, Bonn, Germany (2003) (available on the UNFCCC web site at

<http://unfccc.int/resource/docs/publications/counting.pdf>)

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