

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

**Key GHG Data**

## Foreword

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”,<sup>1</sup> 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”.<sup>2</sup> 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 inter-related subjects, and a considerable organizational effort by every Party. The tremendous amount of data on national GHG emissions 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 publication useful.

Richard Kinley

Officer-in-Charge  
United Nations Climate Change Secretariat

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

<sup>2</sup> Article 2 of the United Nations Framework Convention on Climate Change (UNFCCC).

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\* Only the introduction and sections II.A. Descriptive summary (for GHG data for Annex I Parties), III.A. Descriptive summary (for GHG data for non-Annex I Parties) are included here. For the other parts of the document, see the full English version of the publication.

## 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).<sup>3</sup> 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 (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF<sub>6</sub>). Data on HFCs, PFCs and SF<sub>6</sub> (taken together) are presented for Annex I Parties only. GHG totals are presented in “CO<sub>2</sub> equivalent” – calculated as the sum of CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs and SF<sub>6</sub> weighed with the corresponding values of the global warming potential (GWP);<sup>4</sup> data for individual gases and sectoral GHG emissions are also presented in CO<sub>2</sub> 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.

<sup>3</sup> Annex I and non-Annex I Parties are listed in chapter VI.

<sup>4</sup> The GWPs used are 1 for CO<sub>2</sub>, 21 for CH<sub>4</sub>, 310 for N<sub>2</sub>O, and specific values for individual HFCs, PFCs and SF<sub>6</sub>.

## 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.

#### 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.

#### 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 CO<sub>2</sub> equivalent in 1990 to 17.3 billion tonnes CO<sub>2</sub> equivalent in 2003 (see figures II-1, II-2). For GHG emissions (with LULUCF<sup>5</sup>) the corresponding change is a decrease by 6.5 per cent, from 16.8 billion tonnes CO<sub>2</sub> equivalent in 1990 to 15.7 billion tonnes CO<sub>2</sub> equivalent in 2003 (figures II-3, II-4).

12. For Annex I Parties with economies in transition (EIT Parties<sup>6</sup>), GHG emissions (without LULUCF) decreased from 5.7 billion tonnes CO<sub>2</sub> equivalent in 1990 to 3.4 billion tonnes CO<sub>2</sub> 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 CO<sub>2</sub> equivalent in 1990 to 13.9 billion tonnes CO<sub>2</sub> 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.

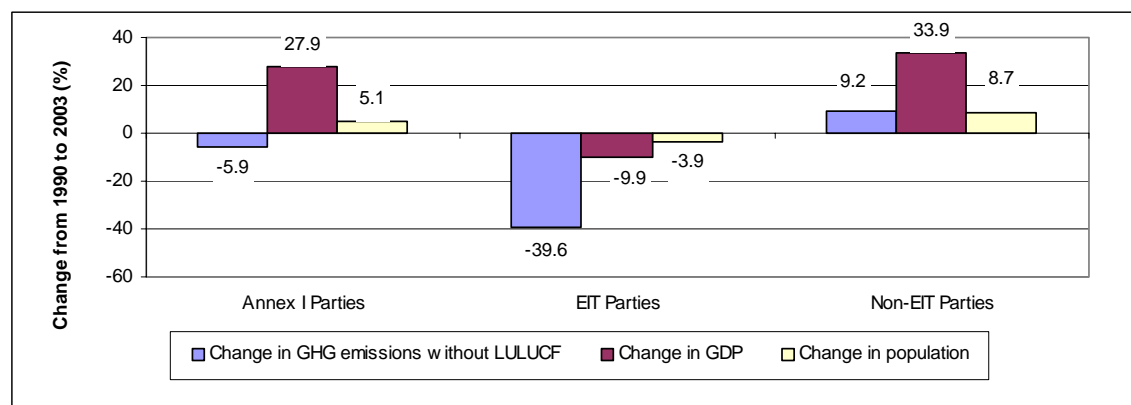
<sup>5</sup> In 2005, some Annex I Parties reported GHG emissions/removals for the LULUCF sector whereas others reported GHG emissions/removals for the LUCF sector. This resulted in an inconsistency in GHG emissions including LULUCF, see also notes in chapter IV.

<sup>6</sup> The EIT Parties are listed in chapter VI where a full list of Annex I Parties can be also found.

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.<sup>7</sup> 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.

16. Summary figure 1 and summary tables 1–3 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.

**Figure III-1. Changes in GHG emissions, population and GDP for Annex I Parties, 1990–2003**



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.

**Table III-1. Selected illustrative macroeconomic and GHG data for Annex I Parties taken together, 1990–2003**

	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 <sub>2</sub> emissions without LULUCF (Tg)	14,721	14,099	14,289	-2.9	-0.2	1.3
CO <sub>2</sub> / capita (Mg)	13.2	12.0	12.2	-7.6	-0.6	1.1
CO <sub>2</sub> / GDP (kg per \$)	0.67	0.52	0.51	-24.1	-2.1	-1.4
GHG emissions without LULUCF (Tg CO <sub>2</sub> eq)	18,372	17,094	17,288	-5.9	-0.5	1.1
GHG / capita (Mg CO <sub>2</sub> eq)	16.4	14.6	14.7	-10.5	-0.8	0.9
GHG / GDP (kg CO <sub>2</sub> 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.

**Table III-2. Selected illustrative macroeconomic and GHG data for EIT Parties taken together, 1990–2003**

	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 <sub>2</sub> emissions without LULUCF (Tg)	4,405	2,613	2,656	-39.7	-3.8	1.6
CO <sub>2</sub> / capita (Mg)	13.7	8.4	8.6	-37.3	-3.5	2.0
CO <sub>2</sub> / GDP (kg per \$)	1.47	1.03	0.98	-33.1	-3.0	-4.8
GHG emissions without LULUCF (Tg CO <sub>2</sub> eq)	5,681	3,374	3,433	-39.6	-3.8	1.8
GHG / capita (Mg CO <sub>2</sub> eq)	17.7	10.9	11.1	-37.1	-3.5	2.2
GHG / GDP (kg CO <sub>2</sub> 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.

<sup>7</sup> The reduction targets relate to the 2008–2012 period (the first commitment period under the Kyoto Protocol).

**Table III-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)	797.3	862.5	866.7	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 <sub>2</sub> emissions without LULUCF (Tg)	10,316	11,486	11,633	12.8	0.9	1.3
CO <sub>2</sub> / capita (Mg)	12.9	13.3	13.4	3.7	0.3	0.8
CO <sub>2</sub> / GDP (kg per \$)	0.55	0.47	0.46	–15.8	–1.3	–1.0
GHG emissions without LULUCF (Tg CO <sub>2</sub> eq)	12,691	13,720	13,855	9.2	0.7	1.0
GHG / capita (Mg CO <sub>2</sub> eq)	15.9	15.9	16.0	0.4	0.0	0.5
GHG / GDP (kg CO <sub>2</sub> 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.

### 3. Data by gas

17. Carbon dioxide (CO<sub>2</sub>) 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 CH<sub>4</sub> (12.3 per cent in 1990), 5.6 per cent for N<sub>2</sub>O (6.5 per cent in 1990) and 1.7 per cent for the sum of HFCs, PFCs and SF<sub>6</sub> (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 CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs and SF<sub>6</sub> from individual Annex I Parties can be found in tables II-9 to II-22.

### 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.<sup>8</sup>

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 CO<sub>2</sub> emissions from international bunker fuels.

### 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 CO<sub>2</sub> and non-CO<sub>2</sub> emissions from 1990 to 2003, a sectoral profile of GHG emissions in 2003, and changes in sectoral GHG emissions from 1990 to 2003.

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.

### 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

<sup>8</sup> 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.

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.





### 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.

##### 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,<sup>9</sup> in most cases at least for CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O.<sup>10</sup> Three NCIs<sup>11</sup> 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).<sup>12</sup> However, although the availability of NC2s is noted in table III-1, this publication includes NCI data only.

##### 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.

<sup>9</sup> The NCI of Marshall Islands does not contain GHG data.

<sup>10</sup> The NCI of the Maldives did not include N<sub>2</sub>O emissions; the NCI of the Solomon Islands included only CO<sub>2</sub> emissions; in some cases, Parties reported the emissions of only one or two of the main GHGs (CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O) for some years.

<sup>11</sup> The NCIs of Bahrain (submitted on 20 April 2005), São Tomé and Príncipe (19 May 2005) and Tonga (21 July 2005).

<sup>12</sup> Mexico (NC2 submitted in 2001), Republic of Korea (2003) and Uruguay (2004).

### 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, CO<sub>2</sub> is the main GHG – in 1994, the share of CO<sub>2</sub> in GHG total (without LUCF) was 61.8 per cent, the share of CH<sub>4</sub> was 26.2 per cent and the share of N<sub>2</sub>O 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 CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O emissions from individual non-Annex I 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), CO<sub>2</sub> is the dominating GHG but for quite a few Parties (42 of 121, or 35 per cent) CH<sub>4</sub> makes the largest share in the GHG total; for 14 Parties (12 per cent), N<sub>2</sub>O is the main GHG. The inclusion of emissions/removals from the LUCF sector has a considerable impact on total CO<sub>2</sub> emissions for some Parties; for 36 Parties (30 per cent) CO<sub>2</sub> removals by LUCF are larger than CO<sub>2</sub> emissions from the other sectors.

### 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 CO<sub>2</sub>. 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.

### 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.

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