

**CO<sub>2</sub> EMISSIONS  
FROM FUEL COMBUSTION**

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**HIGHLIGHTS**

**2009**  
EDITION



International  
Energy Agency

## CO<sub>2</sub> EMISSIONS FROM FUEL COMBUSTION

In the lead-up to the UN climate negotiations in Copenhagen, the latest information on the level and growth of CO<sub>2</sub> emissions, their source and geographic distribution will be essential to lay the foundation for a global agreement. To provide input to and support for the UN process the IEA is making available – both earlier and for free download – the “Highlights” version of *CO<sub>2</sub> Emissions from Fuel Combustion*.

This annual publication contains:

- estimates of CO<sub>2</sub> emissions by country from 1971 to 2007,
- selected indicators such as CO<sub>2</sub>/GDP, CO<sub>2</sub>/capita, CO<sub>2</sub>/TPES and CO<sub>2</sub>/kWh,
- CO<sub>2</sub> emissions from international marine and aviation bunkers, and other relevant information.

The fifteenth session of the Conference of the Parties to the Climate Change Convention (COP 15), in conjunction with the fifth meeting of the Parties to the Kyoto Protocol (CMP 5), will be meeting in Copenhagen from 7 to 18 December 2009. This volume of “Highlights”, drawn from the full-scale study, was specially designed for delegations and observers of the meetings in Copenhagen and the preparatory meeting in Bangkok.

**CO<sub>2</sub> EMISSIONS  
FROM FUEL COMBUSTION**

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**H I G H L I G H T S**

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# INTERNATIONAL ENERGY AGENCY

The International Energy Agency (IEA) is an autonomous body which was established in November 1974 within the framework of the Organisation for Economic Co-operation and Development (OECD) to implement an international energy programme.

It carries out a comprehensive programme of energy co-operation among twenty-eight of the thirty OECD member countries. The basic aims of the IEA are:

- To maintain and improve systems for coping with oil supply disruptions.
- To promote rational energy policies in a global context through co-operative relations with non-member countries, industry and international organisations.
- To operate a permanent information system on international oil markets.
  - To provide data on other aspects of international energy markets.
    - To improve the world's energy supply and demand structure by developing alternative energy sources and increasing the efficiency of energy use.
    - To promote international collaboration on energy technology.
      - To assist in the integration of environmental and energy policies, including relating to climate change.



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The OECD is a unique forum where the governments of thirty democracies work together to address the economic, social and environmental challenges of globalisation. The OECD is also at the forefront of efforts to understand and to help governments respond to new developments and concerns, such as corporate governance, the information economy and the challenges of an ageing population. The Organisation provides a setting where governments can compare policy experiences, seek answers to common problems, identify good practice and work to co-ordinate domestic and international policies.

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# FOREWORD

In the lead-up to the UN climate negotiations in Copenhagen the latest information on the level and growth of CO<sub>2</sub> emissions, their source and geographic distribution will be essential to lay the foundation for a global agreement. To provide input to and support for the UN process, the IEA is making available – both earlier and for free download – the “Highlights” version of *CO<sub>2</sub> Emissions from Fuel Combustion*. The PDF publication and an EXCEL file with the tables can be downloaded for free at <http://www.iea.org/co2highlights>.

Recent years have witnessed a fundamental change in the way governments approach energy-related environmental issues. Promoting sustainable development and combating climate change have become integral aspects of energy planning, analysis and policy making in many countries, including all IEA member states.

The purpose of this volume is to put our best and most current information in the hands of those who need it, including in particular the participants in the UNFCCC process. The IEA Secretariat is a contributor to the official Intergovernmental Panel on Climate Change (IPCC) methodologies for estimating greenhouse-gas emissions. The IEA’s basic energy balance data are the figures most often cited in the field. For these reasons, we felt it appropriate to publish this information in a comprehensive form.

These data are only for energy-related CO<sub>2</sub>, not for any other greenhouse gases. Thus they may differ from countries' official submissions of emissions inventories to the UNFCCC Secretariat.

However, the full-scale study contains data for CO<sub>2</sub> from non-energy-related sources and gas flaring, and emissions of CH<sub>4</sub>, N<sub>2</sub>O, HFC, PFC and SF<sub>6</sub>. In addition, the full-scale study also includes information on “Key Sources” from fuel combustion, as developed in the *IPCC Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories*.

This report is published under my responsibility as Executive Director of the IEA and does not necessarily reflect the views of IEA member countries.

**Nobuo Tanaka**  
**Executive Director**

### Important cautionary notes

- The estimates of CO<sub>2</sub> emissions from fuel combustion presented in this publication are calculated using the IEA energy balances and the default methods and emission factors from the *Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories*. There are many reasons why **the IEA Secretariat estimates may not be the same as the numbers that a country submits to the UNFCCC**, even if a country has accounted for all of its energy use and correctly applied the *IPCC Guidelines*.
- In this publication, the IEA Secretariat presents CO<sub>2</sub> emissions calculated using both the IPCC Reference Approach and the IPCC Tier 1 Sectoral Approach. In some of the OECD non-member countries, there can be **large differences between the two sets of calculations** due to various problems in some energy data. As a consequence, this can lead to different emission trends between 1990 and 2007 for certain countries. Please see Chapter 2, “IEA emissions estimates” for further details.
- Information on “key sources” from fuel combustion, as developed in the *IPCC Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories*, are only given for combustion sources and will not include key sources from fugitive emissions, industrial processes, solvents, agriculture and waste. Please see Chapter 2, “IEA emissions estimates” for further information.

Energy data on OECD member and non-member countries are collected by the Energy Statistics Division (ESD) of the IEA Secretariat, headed by Jean-Yves Garnier. Karen Tréanton, with the assistance of Stève Gervais, is responsible for the estimates of CO<sub>2</sub> emissions from fuel combustion. Desktop publishing support was provided by Sharon Burghgraeve.

CO<sub>2</sub> emission estimates from 1960 to 2007 for the Annex II countries and from 1971 to 2007 for all other countries are available on CD-ROM suitable for use on IBM-compatible personal computers. To order, please see the information provided at the end of this publication.

In addition, a data service is available on the Internet. It includes unlimited access through an annual subscription as well as the possibility to obtain data on a pay-per-view basis. Details are available at <http://www.iea.org>.

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# 1. THE ENERGY - CLIMATE CHALLENGE

## Energy and climate change

In its *Fourth Assessment Report*,<sup>1</sup> the Intergovernmental Panel on Climate Change (IPCC)<sup>2</sup> concluded, “Most of the observed increase in global average temperatures since the mid-20th century is *very likely* due to the observed increase in anthropogenic greenhouse-gas concentrations”. The language “very likely” has been upgraded from the “likely” that was referred to six years earlier in the *Third Assessment Report*, thus confirming the broad acceptance by scientists of the link between greenhouse-gas emissions and global climate change. Energy production and use has various environmental implications: since energy represents about 65% of global anthropogenic greenhouse-gas emissions, reducing emissions must necessarily start with actions geared to reduce emissions from fuel combustion.

### Greenhouse gases and global warming

The increased concentrations of key greenhouse gases (GHG) are a direct consequence of human activities. Since anthropogenic greenhouse gases accumulate in the atmosphere, they produce net warming by strengthening the natural “greenhouse effect”.

1. *IPCC Fourth Assessment Report – Climate Change 2007*, available at <http://www.ipcc.ch>. In the summary for Policymakers, the following terms have been used to indicate the assessed likelihood, using expert judgement, of an outcome or a result: *Virtually certain* > 99% probability of occurrence, *Extremely likely* > 95%, *Very likely* > 90%, *Likely* > 66%, *More likely than not* > 50%, *Unlikely* < 33%, *Very unlikely* < 10%, *Extremely unlikely* < 5%.

2. The IPCC was created in 1988 by the World Meteorological Organisation and the United Nations Environment Programme to assess scientific, technical and socio-economic information relevant for the understanding of climate change, its potential impacts, and options for adaptation and mitigation.

Carbon dioxide (CO<sub>2</sub>) has been increasing over the past century compared to the rather steady level of the pre-industrial era (about 280 parts per million in volume, or ppmv). The 2005 concentration of CO<sub>2</sub> (379 ppmv) was about 35% higher than a century and a half ago, with the fastest growth occurring in the last ten years (1.9 ppmv/year in the period 1995-2005). Comparable growth has also occurred in levels of methane (CH<sub>4</sub>) and nitrous oxide (N<sub>2</sub>O).

Some impacts of the increased greenhouse-gas concentrations may be slow to become apparent since stability is an inherent characteristic of the interacting climate, ecological and socio-economic systems. Even after stabilisation of the atmospheric concentration of CO<sub>2</sub>, anthropogenic warming and sea level rise would continue for centuries due to the time scales associated with climate processes and feedbacks. Some changes in the climate system would be effectively irreversible.

Given the long lifetime of CO<sub>2</sub> in the atmosphere, stabilising concentrations of greenhouse gases at any level would require large reductions of global CO<sub>2</sub> emissions from current levels. The lower the chosen level for stabilisation, the sooner the decline in global CO<sub>2</sub> emissions would need to begin, or the deeper the emission reduction would need to be on the longer term.

The 1992 UN Framework Convention on Climate Change (UNFCCC)<sup>3</sup> creates a structure for inter-governmental efforts to tackle the challenge posed by climate change. The Convention’s ultimate objective is to stabilise GHG concentrations in the atmosphere at a level that would prevent dangerous anthropogenic

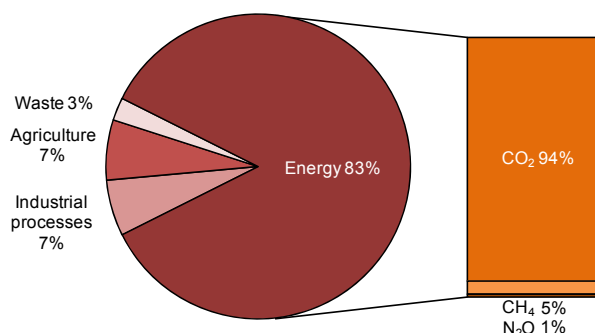
3. See <http://unfccc.int>.

interference with the climate system. This would require significant reductions in global greenhouse-gas emissions.

### Energy use and greenhouse gases

Among the many human activities that produce greenhouse gases the use of energy represents by far the largest source of emissions. As seen in Figure 1, energy accounts for over 80% of the anthropogenic greenhouse gases in Annex I countries, with emissions resulting from the production, transformation, handling and consumption of all kinds of energy commodities. Smaller shares correspond to agriculture, producing mainly CH<sub>4</sub> and N<sub>2</sub>O from domestic livestock and rice cultivation, and to industrial processes not related to energy, producing mainly fluorinated gases and N<sub>2</sub>O.

**Figure 1. Shares of anthropogenic greenhouse-gas emissions in Annex I countries, 2006\***



\* Based on Annex I data for 2006; without Land Use, Land-Use Change and Forestry, and with Solvent Use included in Industrial Processes.

Source: UNFCCC.

*Key point: Accounting for the largest share of global greenhouse-gas emissions, energy emissions are predominantly CO<sub>2</sub>.*

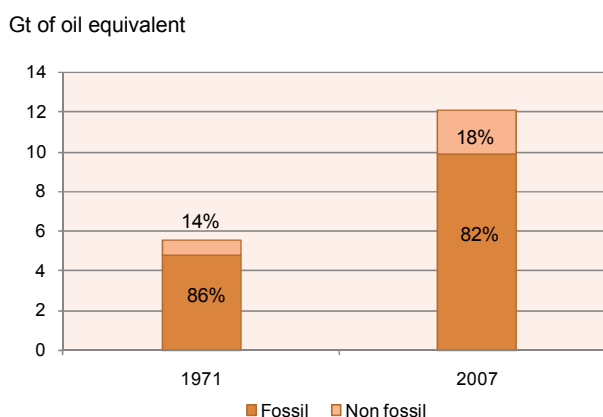
The energy sector is dominated by the direct combustion of fuels,<sup>4</sup> a process leading to large emissions of CO<sub>2</sub>. A by-product of fuel combustion, CO<sub>2</sub> results from the oxidation of carbon in fuels (in perfect combustion conditions, the total carbon content of fuels would be converted to CO<sub>2</sub>).

4. Energy includes emissions from “fuel combustion” (the large majority) and “fugitive emissions”, which are intentional or unintentional releases of gases resulting from production, processes, transmission, storage and use of fuels (e.g. CH<sub>4</sub> emissions from coal mining or oil and gas systems).

CO<sub>2</sub> from energy represents about 80% of the anthropogenic greenhouse-gas emissions for the Annex I countries<sup>5</sup> and about 60% of global emissions. This percentage varies greatly by country, due to diverse national energy structures.

Worldwide economic stability and development require energy. Global total primary energy supply (TPES) doubled between 1971 and 2007, mainly relying on fossil fuels (Figure 2). However, with the current economic crisis, early indicators suggest that growth in TPES slowed in 2008 and may have declined in 2009.

**Figure 2. World primary energy supply\***



\* World primary energy supply includes international bunkers.

*Key point: Fossil fuels still account for most of the world energy supply.*

Despite the growth of non-fossil energy (such as nuclear and hydropower) considered as non-emitting,<sup>6</sup> fossil fuels have maintained their shares of the world energy supply relatively unchanged over the course of the past 35 years. In 2007, fossil sources accounted for 82% of the global TPES.

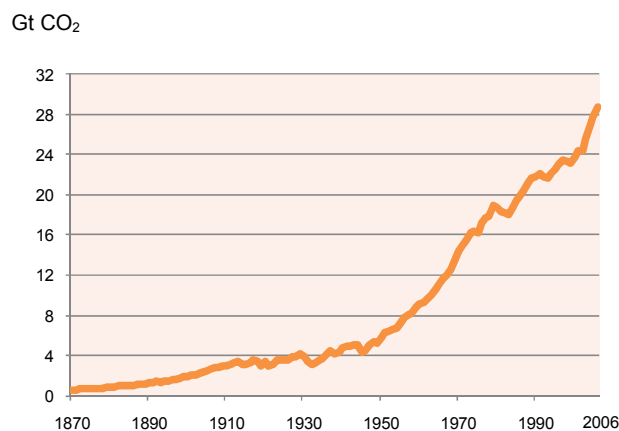
Still dependent upon fossil fuels, the growing world energy demand clearly plays a key role in the

5. Based on Annex I countries. The Annex I Parties to the UNFCCC are: Australia, Austria, Belarus, Belgium, Bulgaria, Canada, Croatia, Czech Republic, Denmark, Estonia, European Economic Community, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Latvia, Lichtenstein, Lithuania, Luxembourg, Monaco, the Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Russia, the Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine, United Kingdom and United States.

6. Excluding the life cycle of all non-emitting sources and excluding combustion of biomass (considered as non-emitting CO<sub>2</sub>, based on the assumption that the released carbon will be reabsorbed by biomass regrowth, under balanced conditions).

observed upward trends in CO<sub>2</sub> emissions (Figure 3). Since the Industrial Revolution, annual CO<sub>2</sub> emissions from fuel combustion dramatically increased from near zero to 29 Gt CO<sub>2</sub> in 2007.

**Figure 3. Trend in CO<sub>2</sub> emissions from fossil fuel combustion**



Source: Carbon Dioxide Information Analysis Center, Oak Ridge National Laboratory, US Department of Energy, Oak Ridge, Tenn., United States.

*Key point: Since 1870, CO<sub>2</sub> emissions from fuel combustion have risen exponentially.*

The *World Energy Outlook*<sup>7</sup> projects that world energy supply will rise by 40% between 2007 and 2030. With fossil fuels remaining at around 80% of TPES, CO<sub>2</sub> emissions from fuel combustion are consequently expected to continue their growth unabated, reaching 40.2 Gt CO<sub>2</sub> by 2030. Such an emission-growth trend would be in line with the worst-case scenario presented in the IPCC report,<sup>8</sup> which projects a world average temperature change between 2.4 and 6.4°C by 2100.

The link between climate change and energy is a part of the larger challenge of sustainable development. The socio-economic and technological characteristics of development paths will strongly affect emissions, the rate and magnitude of climate change, climate change impacts, the capability to adapt and the capacity to mitigate the emissions themselves.

7. Unless otherwise specified, projections from the *World Energy Outlook* refer to the Reference Scenario from the IEA information paper "How the Energy Sector can Deliver on a Climate Agreement in Copenhagen", a special early excerpt of the *World Energy Outlook 2009* for the Bangkok UNFCCC meeting.

8. IPCC Fourth Assessment Report – Climate Change 2007.

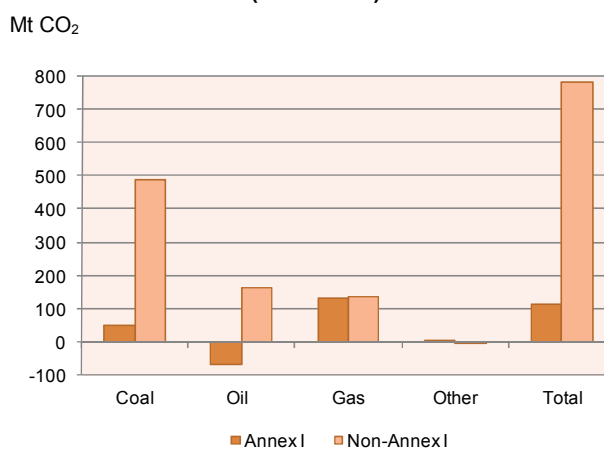
## Scrutinising the sources of CO<sub>2</sub> emissions

Trends in CO<sub>2</sub> emissions from fuel combustion illustrate the need for the global economy to shape a more sustainable energy future, with special emphasis first on the industrialised nations, with the highest per capita incomes and that are responsible for the bulk of cumulative emissions. However, with the rapidly growing energy demand of developing countries, it is important that they also strive to use energy in a rational way. *Energy Technology Perspectives 2008* shows that enhancing energy efficiency and reducing the carbon intensity of a supply largely reliant on fossil fuels are fundamental steps towards a global low-carbon energy system.

### Annual snapshot: 2006-2007

Global CO<sub>2</sub> emissions increased by 0.9 Gt CO<sub>2</sub> between 2006 and 2007, primarily due to an increase in the coal demand of developing countries (Figure 4, non-Annex I Parties to the UNFCCC). This represented a growth rate of 3% in CO<sub>2</sub> emissions, identical to that of the previous year. However, as with TPES, early indicators suggest that growth in emissions slowed in 2008 and may have declined in 2009 as a result of the global economic crisis.

**Figure 4. Global change in CO<sub>2</sub> emissions (2006-2007)**



*Key point: Combustion of coal in developing countries drove the growth in global emissions between 2006 and 2007.*

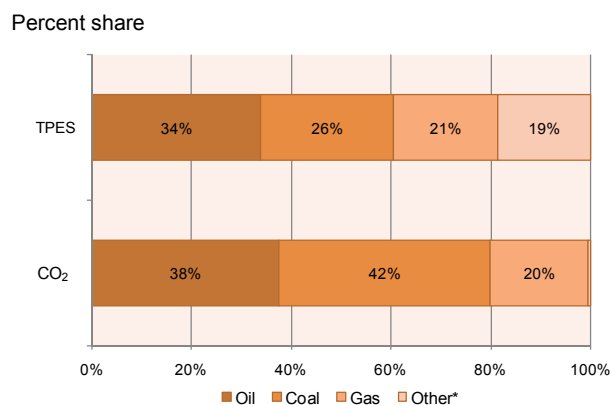
In the future, coal is expected to satisfy much of the growing energy demand of those developing countries, such as China and India, where energy-intensive industrial production is growing rapidly and large coal

reserves exist with limited reserves of other energy sources. *Energy Technology Perspectives 2008* shows that intensified use of coal would substantially increase the emissions of CO<sub>2</sub> unless there was very widespread deployment of carbon capture and storage.

### Fuel contribution to CO<sub>2</sub> emissions

Though coal represented only a quarter of the world TPES in 2007, as shown in Figure 5, it accounted for 42% of the global CO<sub>2</sub> emissions due to its heavy carbon content per unit of energy released. As compared to gas, coal is on average nearly twice as emission intensive.<sup>9</sup> Without additional measures, the *World Energy Outlook* projects that coal supply will grow from 3 184 million tonnes of oil equivalent (Mtoe) in 2007 to 4 887 Mtoe in 2030.

**Figure 5. World primary energy supply and CO<sub>2</sub> emissions: shares by fuel in 2007**



\* Other includes nuclear, hydro, geothermal, solar, tide, wind, combustible renewables and waste.

*Key point: Coal generates about twice the CO<sub>2</sub> emissions of gas, despite having a comparable share in the world energy supply.*

Oil still dominates TPES, with a share of 34% in 2007. However, the share of oil in TPES decreased by about ten percentage points since 1971, largely counter-balanced by the penetration of gas. The supply of gas in 2007 was almost three times higher than in 1971 and its share in emissions increased by five percentage points over that period.

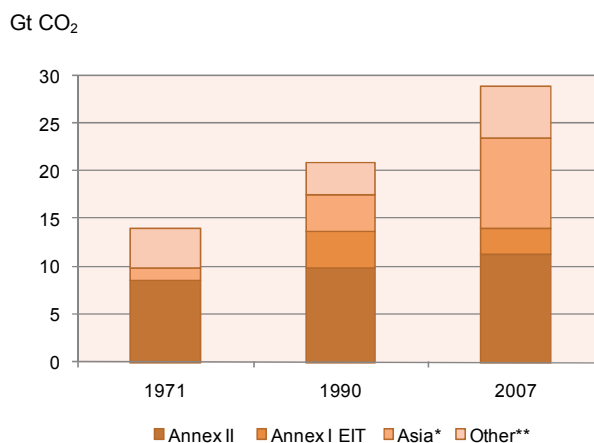
Observed and projected trends in TPES and CO<sub>2</sub> emissions vary greatly by country, depending on stages of economic development and related energy choices, as illustrated in the next section.

9. IPCC default carbon emission factors from the 1996 IPCC Guidelines: 15.3 t C/TJ for gas, 16.8 to 27.5 t C/TJ for oil products, 25.8 to 29.1 t C/TJ for primary coal products.

### Emissions by region

The dramatic increase of non-Annex I emissions between 2006 and 2007, seen in Figure 4 above, corroborated the growth already observed over the last decade. Figure 6 shows trends over the period 1971-2007, highlighting changes in the relative contributions from major world regions.

**Figure 6. Trends in regional CO<sub>2</sub> emissions**



\* Asia includes Korea and excludes Japan (which is included in Annex II).

\*\* Other includes Africa, Latin America, Middle East, non-Annex I EIT, Turkey, international bunkers, and, for 1971, Annex I EIT.

*Key point: Asian emissions will soon rival those of Annex II.*

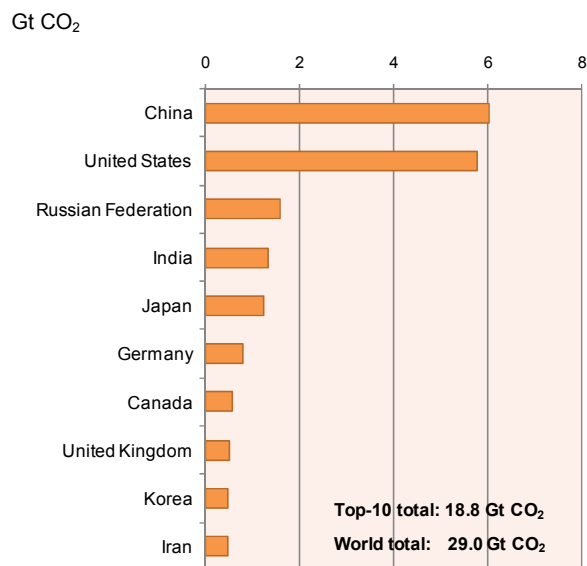
Between 1971 and 2007, global emissions doubled, with industrialised countries (Annex II Parties to the UNFCCC<sup>10</sup>) dominating historical totals. However, the share of Annex II progressively shrank (61% in 1971, 47% in 1990 and 39% in 2007), as developing countries, led by Asia, increased at a much faster rate. Between 1990 and 2007, CO<sub>2</sub> emissions rose by 108% for non-Annex I countries as a whole and more than doubled for Asia. This is in contrast to the 15% growth which occurred in the Annex II countries. The growth in Asian emissions reflects a striking rate of economic development, particularly within China and India.

10. The original Annex II Parties to the UNFCCC are Australia, Austria, Belgium, Canada, Denmark, European Economic Community, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Japan, Liechtenstein, Luxembourg, Monaco, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom and United States. Turkey was removed from Annex II on 28 June 2002.

Emissions from the group of countries with economies in transition (Annex I EIT<sup>11</sup>) followed a peculiar path due to a rapid decline in industrial productivity subsequent to the 1989 collapse of their centrally planned economies. Between 1990 and 2000, the EIT emissions declined by 36%. Emissions in the Former Soviet Union alone fell by over 1.4 Gt CO<sub>2</sub>, or 39%, between 1990 and 2000. However, this trend was reversed in recent years.

Regional differences in contributions to global emissions conceal even larger differences among individual countries (Figure 7). Two-thirds of world emissions for 2007 originated from just ten countries, with the shares of China and the United States far surpassing those of all others. Combined, these two countries alone produced 11.8 Gt CO<sub>2</sub>, about 41% of world CO<sub>2</sub> emissions. In 2007, China overtook the United States to become the world's largest emitter of CO<sub>2</sub> emissions from fuel combustion.

**Figure 7. Top 10 emitting countries in 2007**



*Key point: The Top 10 emitting countries account for about two-thirds of the world CO<sub>2</sub> emissions.*

This Top 10 group, which includes countries of very diverse economic structures, also produced 61% of the global GDP.<sup>12</sup> As detailed in the following section, economic output and CO<sub>2</sub> emissions are generally strongly linked.

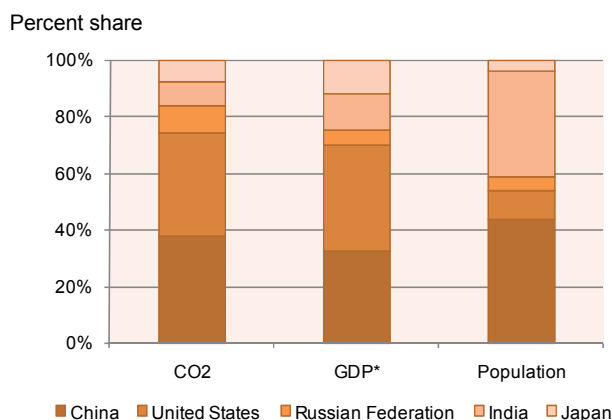
11. Annex I EIT Parties include: Belarus, Bulgaria, Croatia, Czech Republic, Slovak Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Russia, Slovenia and Ukraine.

12. In this discussion, GDP refers to GDP using purchasing power parities.

## Coupling emissions with socio-economic indicators<sup>13</sup>

In 2007, China, the United States, the Russian Federation, India and Japan, the largest five emitters, produced together 55% of the global CO<sub>2</sub> emissions, 50% of the world GDP and comprised 46% of the total population. However, for all three variables, the relative shares of these five countries within the subtotal of the group were very diverse (Figure 8).

**Figure 8. Top 5 emitting countries: relative shares in 2007**



\* GDP using purchasing power parities.

Note: this is not "world shares", but "relative shares" within the Top 5.

*Key point: Within the Top 5 emitting countries, the relative share of CO<sub>2</sub> emissions does not necessarily follow those of GDP and population.*

In 2007, the United States alone generated 20% of world CO<sub>2</sub> emissions, despite a population of less than 5% of the global total. Conversely, China, contributing to a comparable share of world emissions (21%), accounted for 20% of the world population. India, with 17% of world population contributed less than 5% of the CO<sub>2</sub> emissions. Thus, the levels of per capita emissions were very diverse, ranging from one tonne of CO<sub>2</sub> per capita for India and five tonnes for China to 19 tonnes for the United States.

In the United States, the large share of global emissions is associated with a commensurate share of economic output (GDP), the largest in the world. While the high per capita emissions of the United States in 2007 were comparable to those of 1971, its

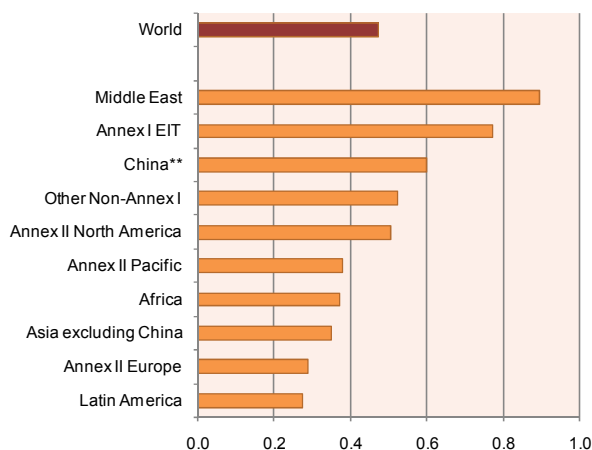
13. No single indicator can provide a complete picture of a country's CO<sub>2</sub> emissions performance or its relative capacity to reduce emissions. The indicators discussed here provide some guidance but are certainly incomplete.

emissions intensity in terms of economic output (CO<sub>2</sub>/GDP) was about half, due to energy efficiency improvements and to economic growth in less-CO<sub>2</sub>-intensive sectors over the 36-year period.

With a GDP more than double that of the Russian Federation, Japan emits 22% less. As illustrated by major world regions, economies can achieve quite diverse emission efficiencies (Figure 9).

**Figure 9. CO<sub>2</sub> emissions per GDP\* by major world regions in 2007**

Kg CO<sub>2</sub> per US\$



\* GDP in 2000 US\$ using purchasing power parities.

\*\* China includes Hong Kong.

*Key point: Emissions intensity in economic terms varies greatly around the world.*

Worldwide, the highest levels of emissions per GDP are observed for the oil and gas exporting region of the Middle East, for the relatively energy-intensive EITs and for China. The rapid decoupling of emissions from economic growth that characterised the Chinese economy during the 1980s and 1990s has recently slowed and reversed, as noted in subsequent sections.

Relatively high values of emissions per GDP indicate a potential for decoupling CO<sub>2</sub> emissions from economic growth. Possible improvements can derive from fuel switching away from carbon-intensive sources or from energy efficiency at all stages of the energy supply chain (from fuel extraction to energy end-use).<sup>14</sup>

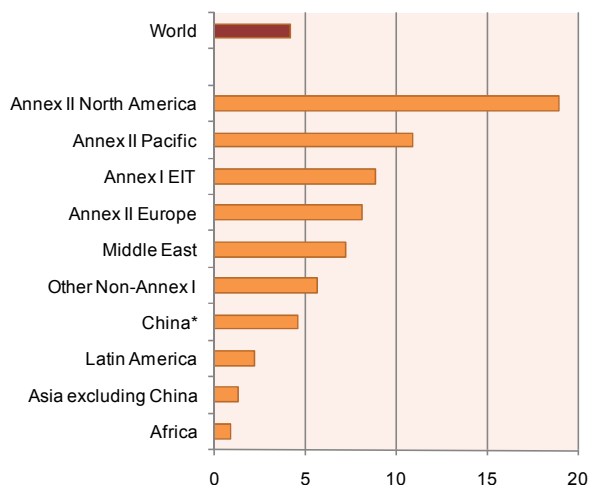
14. The IEA has developed a database on policies and measures taken or planned in IEA Member countries, Russia, and five of the world's most powerful developing economies. Comprising records collected over six years, the database provides a comprehensive annual update of the policy making process in place since 2000. The online database is available at: <http://www.iea.org/textbase/effi/index.asp>. Another data-

The ratio of CO<sub>2</sub> emissions per GDP responds to changes in energy intensity (energy per unit of GDP) and in the CO<sub>2</sub> intensity of the fuel mix (CO<sub>2</sub> per unit of energy).<sup>15</sup> For example, industrialised countries witnessed a rapid reduction in emissions per unit of GDP between 1973 and 1990, following the oil price shocks of the 1970s, through a decline in their energy intensity. On the contrary, even on a global scale, the CO<sub>2</sub> intensity of the fuel mix (as measured for example by the ratio of CO<sub>2</sub>/TPES) has remained rather constant between 1971 and 2007 as fossil fuels continued to dominate the global energy supply.

As compared to emissions per unit of GDP, the range of per capita emissions levels across the world is even larger (Figure 10), highlighting wide divergences in the way different regions use energy.

**Figure 10. CO<sub>2</sub> emissions per population by major world regions in 2007**

T CO<sub>2</sub> per capita



\* China includes Hong Kong.

*Key point: Emissions per capita vary even more widely across world regions than GDP per capita.*

Industrialised countries emit far larger amounts of CO<sub>2</sub> per capita than the world average. However, some rapidly expanding economies are significantly increasing their emissions per capita. For example, between 1990 and 2007, China more than doubled its per capita emissions and India increased them by

base on Global Renewable Energy Policies and Measures provides information on policies and measures taken or planned to encourage the uptake of renewable energy and can be consulted at <http://renewables.iea.org>.

15. See discussion in *Energy Technology Perspectives 2008*, IEA, 2008, p. 71.

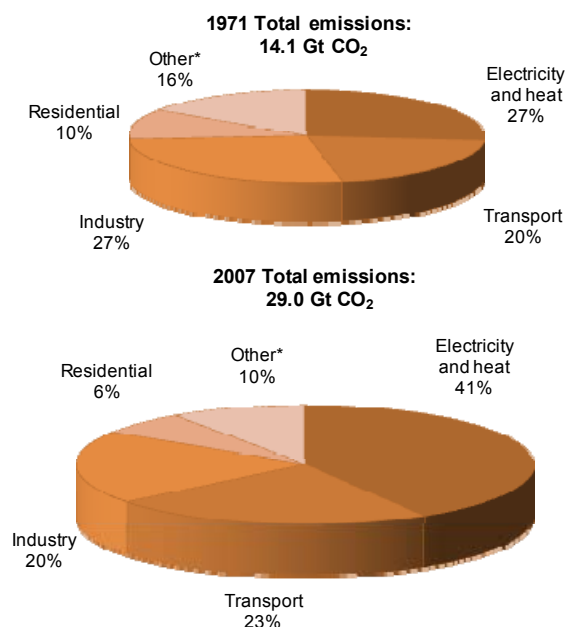
more than two-thirds. Clearly, these two countries contributed much to the 10% increase of global per capita emissions over the period.

Indicators such as those briefly discussed in this section strongly reflect energy constraints and choices made to supply the economic activities of each country. They also reflect the sectors that predominate in different countries' economies. The major sectors driving the observed growth in global emissions are discussed in the next section.

## Emissions by sector

In 2007, two sectors, electricity and heat generation and transport, produced nearly two-thirds of the global CO<sub>2</sub> emissions (Figure 11). The emissions of these same sectors also increased at faster rates than global emissions (60% and 45%, respectively, versus the average 38%, between 1990 and 2007).

**Figure 11. World CO<sub>2</sub> emissions by sector**



\* Other includes commercial/public services, agriculture/forestry, fishing, energy industries other than electricity and heat generation, and other emissions not specified elsewhere.

*Key point: Between 1971 and 2007, the combined share of electricity and heat generation and transport jumped from one-half to two-thirds of global emissions.*

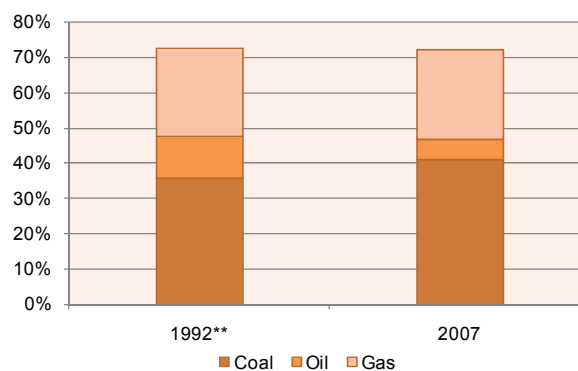
Generation of electricity and heat was responsible in 2007 for 41% of the world total CO<sub>2</sub> emissions, as compared to 27% in 1971. By 2030, the *World Energy Outlook* projects that demand for electricity will be

almost twice as high as in 2007, driven by rapid growth in population and income in developing countries, by the continuing increase in the number of electrical devices used in homes and commercial buildings, and by the growth in electrically-driven industrial processes.

Worldwide, the generation of electricity and heat relies heavily on coal, the most carbon-intensive of fossil fuels, amplifying the sector's share in global emissions. Countries such as Australia, China, India, Poland and South Africa produce between 68% and 95% of their electricity and heat through the combustion of coal.

Fossil fuels provide over 70% of the world electricity and heat generation (Figure 12). Coal, the dominant source, supplied 41% of the generation in 2007. In non-Annex I countries, the share of coal in electricity and heat generation increased from 43% in 1992 to 53% in 2007. On the contrary, the share of oil generally decreased across the world (from 12% in 1992 to 6% in 2007 globally). Gas grew significantly in industrialised countries as a result of their fuel switching efforts: Annex II countries increased the share of gas in electricity and heat generation from 12% in 1992 to 23% in 2007. The future development of the emissions intensity of this sector depends strongly on the fuels that are used to generate the electricity and on the share of non-emitting sources, such as renewables and nuclear. As an indication, Box 1 presents product-specific implied emission factors per unit of electricity produced.

**Figure 12. Coal, oil and gas: shares in world electricity and heat generation\***



\* Refers to main activity producers and autoproducers of electricity and heat.

\*\*Complete data on heat production for 1990 is not available.

*Key point: World electricity and heat generation increasingly rely on coal.*

### Box 1: Implied emission factors from electricity and heat generation

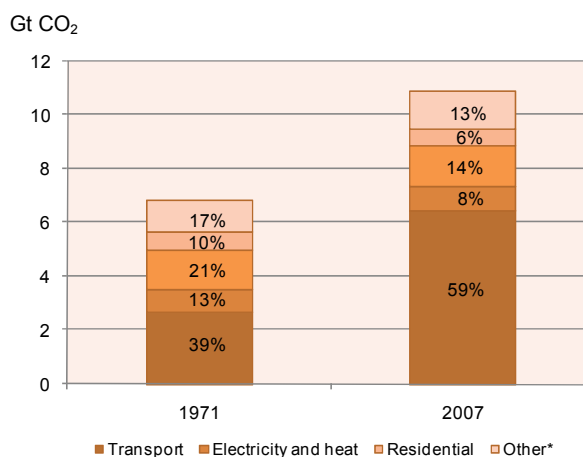
Summary tables presenting CO<sub>2</sub> emissions per kWh from electricity and heat generation by country are presented in the full-scale study. However, these values will vary enormously depending on the fuel mix of individual countries. Average implied emission factors by individual product for this sector are presented below. These values represent the average grammes of CO<sub>2</sub> per kWh of electricity and heat produced in the OECD member countries between 2005 and 2007. These figures will reflect any problems that may occur in net calorific values or in input/output efficiencies. Consequently, these values are given as an approximation and actual values may vary considerably.

Fuel	g CO <sub>2</sub> / kWh
Anthracite *	870
Coking coal *	710
Other bituminous coal	840
Sub-bituminous coal	930
Lignite/brown coal	950
Patent fuel	860
Coke oven coke *	500
BKB/peat briquettes *	720-1200
Gas works gas *	400
Coke oven gas *	370
Blast furnace gas *	2200
Oxygen steel furnace gas *	1900
Natural gas	380
Crude oil *	640
Natural gas liquids *	560
Liquefied petroleum gases *	480
Kerosene *	630
Gas/diesel oil *	750
Residual fuel oil	650
Petroleum coke *	950
Peat *	570
Industrial waste *	450-1600
Municipal waste (non-renewable) *	450-1900

\* These fuels represent less than 1% of electricity and heat output in the OECD. Values will be less reliable and should be used with caution.

While electricity and heat generation draws from various energy sources, the transport sector relies almost entirely on oil (94% of the energy used for transport came from oil in 2007). The share of transport in global oil emissions was close to 60% in 2007, as shown in Figure 13. While CO<sub>2</sub> emissions from oil consumption in most sectors remained nearly steady in absolute terms since 1971, those of transport more than doubled. Dominated by road traffic, this end-use sector is the strongest driver of world dependence on oil.

Figure 13. CO<sub>2</sub> emissions from oil



\* Other includes commercial/public services, agriculture/forestry, fishing, energy industries other than electricity and heat generation, and other emissions not specified elsewhere.

*Key point: With a share that increased by about 50% since 1971, transport dominates emissions from oil.*

Economic growth contributes to the increasing demand for transport, both for personal mobility and for shipping goods. For example, the United States has the highest level of travel per capita in the world (more than 25 000 kilometres per person per year). In addition, larger incomes favour the switch to faster modes: air travel is the most rapidly growing mode of transport in industrialised countries, while growth in car travel is first in developing countries. Car ownership generally grows with increasing income per capita.

As for energy intensity and consequent emissions, relatively high fuel prices provide an incentive for more efficient vehicles. In the United States (until recently), lower fuel prices have contributed to a trend towards the use of larger vehicles, while in Europe higher fuel prices have helped encourage improved fuel economy (along with the EU voluntary agreement with manufacturers). As a result, there is more than a 50% variation in the average fuel consumption of new light-duty vehicles across OECD member countries.<sup>16</sup>

Global demand for transport appears unlikely to decrease in the foreseeable future; the *World Energy Outlook* projects that transport will grow by 45% by 2030. To limit the emissions from this sector, policy makers first and foremost should consider measures to encourage or require improved vehicle efficiency, as the United States has recently done and the European

16. *Energy Technology Perspectives 2008*, IEA, 2008, p. 435.



### Box 2: Biofuels

Compatible with many conventional engines and blendable with current transport fuels, biofuels have the potential to contribute to energy security by diversifying supply sources for transport and to reduce greenhouse-gas emissions. However, the economic, environmental and social benefits of the current generation of biofuels vary enormously.

Though there are important uncertainties about their efficacy in reducing GHG emissions, biofuels can be classified on the basis of their well-to-wheel performance with respect to conventional fossil fuels. When ethanol is derived from corn, the well-to-wheel greenhouse-gas reduction with respect to conventional gasoline is typically in the range of 10 to 30%. The reduction is much higher for sugarcane-based ethanol from Brazil, reaching an estimated 90%. Similarly, oilseed-derived biodiesel leads to greenhouse-gas reductions, on a well-to-wheel basis, of 40% to 60% when compared to conventional petroleum diesel. "Second generation" biofuels, derived from non-food crops such as trees and perennial grasses, have the potential to dramatically expand the scope for very low-carbon biofuels production. However these biofuels are still under development. None of these estimates takes into account the possibility that changes in land use from starting biofuels production can result in one-time releases of CO<sub>2</sub> that could be quite large; more research is needed into the impacts of both direct and indirect land-use change and how to minimise adverse impacts.

For both current and second generation biofuels, production cost is the main barrier to a larger penetration of biofuels in the transport fuel mix. Without subsidies, only ethanol from sugarcane produced in Brazil has been competitive with petroleum fuels, although this may change with the higher oil prices occurring recently. The cost barrier is such that market introduction of biofuels has typically required substantial regulatory intervention and governmental support.

Currently, several countries have mandated or promoted biofuel blending standards to displace oil in domestic transport supply. In Brazil, gasoline contains 20-25% ethanol. Furthermore, 95% of the cars purchased in Brazil in 2008 can run on either 100% ethanol or on the gasoline/ethanol blend. With recent high oil prices, most drivers are choosing to operate these vehicles mainly on ethanol. In 2006, the United States introduced mandatory standards and these were extended in 2007 under the EISA law. Blending requirements will reach 12.9 billion gallons in 2010 and 36 billion gallons by 2022 (of which more than half will be required to be advanced biofuels and about one-third cellulosic).

Several years ago the European Union introduced a target for biofuel use equivalent to 2% of the market share of motor fuel by 2005 (although it was not reached) and 5.75% by the end of 2010, while the target for renewable energy sources in transport for 2020 is now set at 10%. The current legislation also requires "sustainability criteria" favouring biofuels derived from waste, residues, non-food cellulosic material, and lignocellulosic material in order to prevent mass investment in potentially environmentally harmful biofuels. Australia (New South Wales and Queensland) and Canada are also mandating the use of biofuels, as are a number of OECD non-member countries.

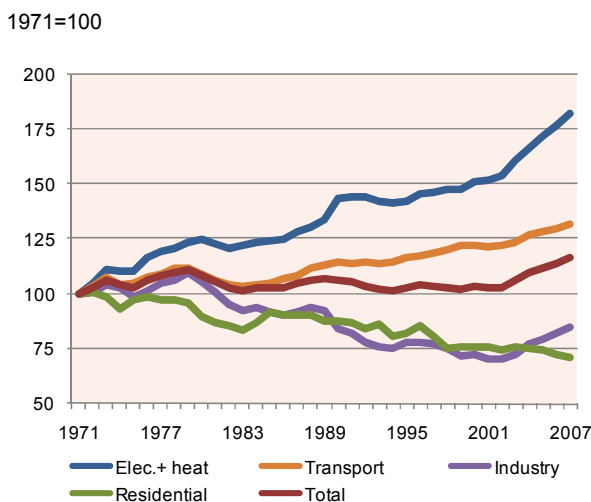
For the future, it is crucial that policies foster innovation and support the most sustainable biofuels only, through a continuous monitoring and assessment of their effectiveness in reducing GHG emissions and in providing benefits for rural workers. Suitable land availability and potential influence of biofuel production on global food prices also need to be carefully monitored, taking into account all global food, fibre and energy needs for the growing world population out to 2100. However, barriers to the commercial viability of biofuels shrink as technologies evolve and as prices of conventional fossil fuels remain high. Moreover, if well managed and coordinated with investments in infrastructures and agriculture, biofuels can provide an opportunity for increasing land productivity and creating economic development, in particular in rural areas.

Union is currently doing as a follow-up to the voluntary agreements. Policies that encourage a shift from cars to public transportation and to lower-emission modes of transportation can also help. Finally, policies can encourage a shift to new, preferably low-carbon fuels. These include electricity (e.g. electric and plug-in hybrid vehicles), hydrogen (e.g. through the introduction of fuel cell vehicles) and greater use of biofuels (e.g. as a blend in gasoline and diesel fuel, Box 2).

These policies would both reduce the environmental impact of transport and help to secure domestic fuel supplies sometimes unsettled by the geopolitics of oil trade. As they will ease demand growth, these policies are also likely to help reduce oil prices below what they otherwise might be.

The importance of electricity generation and transport in shaping global CO<sub>2</sub> emissions is apparent in Figures 14 and 15, which detail the contributions from individual sectors to trends of the socio-economic indicators discussed in previous sections such as CO<sub>2</sub> emissions per GDP and CO<sub>2</sub> emissions per capita.

The world average per capita carbon intensity remained fairly constant between 1971 and 2001. Since then it has been steadily increasing, with 2007 levels 14% above those of 2001. However, this trend concealed a significant rise in the emissions per capita of electricity generation and transport. Between 1971 and 2007, the emissions per capita for these two sectors grew by 82% and 32%, respectively. The growth in the number of people accessing electricity and the growth in electricity infrastructure contributed significantly to this rise.

**Figure 14. Per capita emissions by sector**

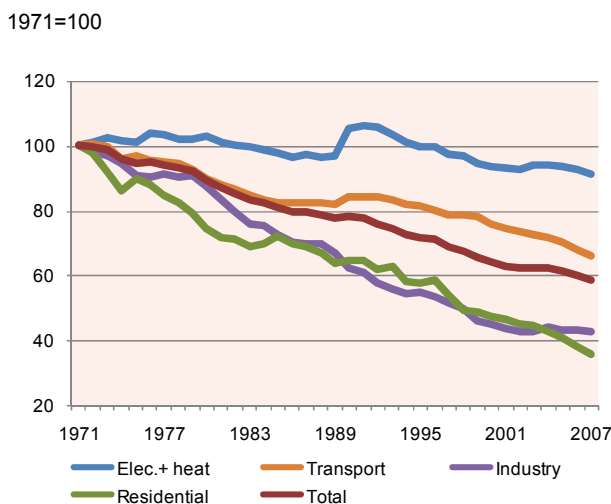
*Key point: Relative to the almost-stable average emissions per capita, those of power generation and transport have grown markedly since 1971.*

Overall, the emissions intensity of the world economy, in terms of CO<sub>2</sub> per GDP, declined by 41% between 1971 and 2007. However, the electricity and heat sector slowed the global decoupling between emissions and economic growth with a decrease in emissions per global unit of GDP of only 9% over that period.

Power generation and transport challenge the sustainability of both the global economy and the environment. This is particularly pronounced for developing countries that increased their emissions from these two sectors, respectively, by three times and by one and a half times faster than the global average between 1990 and 2007. Access to modern energy services is crucial to eradicating poverty and for economic development of these countries and the challenge will be to help developing countries use energy in a rational way.

Strong energy efficiency gains, the increased use of new technologies for road transport and the decarbonisation of electricity supply (both through a shift toward less carbon-intensive fuels such as natural gas and renewables and through the introduction of CO<sub>2</sub> capture and storage) are some of the potential means to achieve a more sustainable energy path.<sup>17</sup>

Investment decisions taken over the next few years will have a huge long-term impact, since energy systems could be locked into a fuel mix for about 50 years, and consequently into a CO<sub>2</sub> emissions trajectory, that may be difficult to change.

**Figure 15. Per GDP\* emissions by sector**

\* GDP using purchasing power parities.

*Key point: Generation of electricity and heat and to a lesser extent transport have slowed down the global decoupling of emissions from economic growth.*

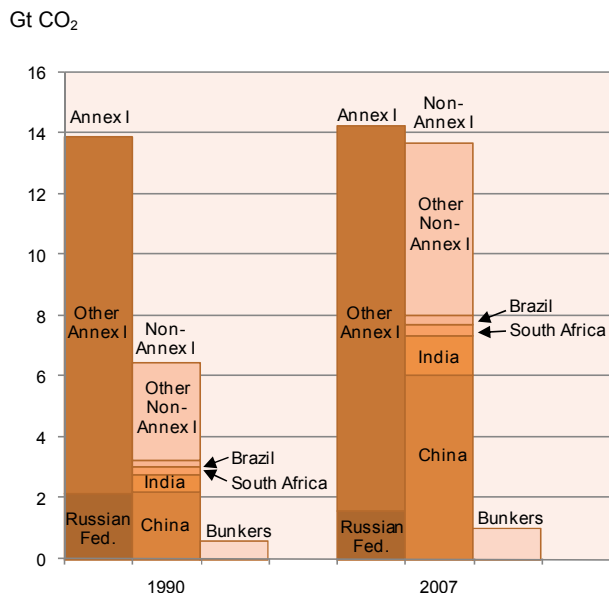
## The BRICS countries

One of the most important recent developments in the world economy is the increasing economic integration of large OECD non-member countries, in particular Brazil, the Russian Federation, India, China and South Africa, the so-called BRICS countries. Already, the BRICS represent over one-fourth of world GDP, up from 18% in 1990. In 2007, these five countries represented 30% of global energy use and 33% of CO<sub>2</sub> emissions from fuel combustion (Figure 16). These shares are likely to rise further in coming years, if the ongoing strong economic performance currently enjoyed by most of these countries continues, as many commentators expect. In fact, China, the Russian Federation and India are already three of the four countries that emit the most CO<sub>2</sub> emissions in absolute terms.

This brief discussion focuses on the BRICS countries, of which only the Russian Federation is a member of Annex I. Each of these countries has very different endemic resources, energy supply constraints and sectoral consumption patterns. Consequently, the issues relating to CO<sub>2</sub> emissions that these five countries are facing are quite different.

17. *Energy Technology Perspectives 2008*, IEA, 2008.

**Figure 16. The growing importance of the BRICS countries**

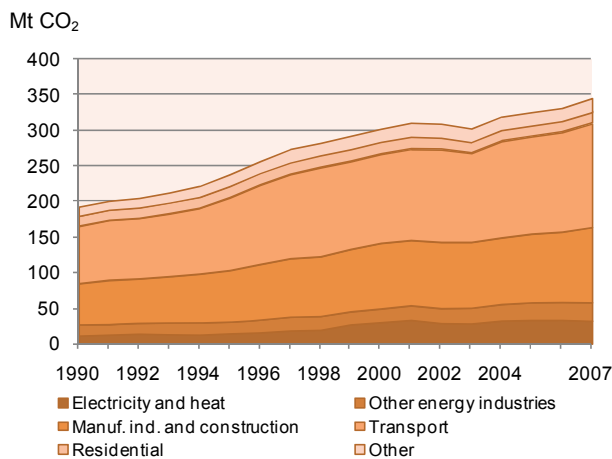


*Key point: With the exception of the Russian Federation, the BRICS countries represent a growing share of CO<sub>2</sub> emissions in the world.*

### Brazil

Brazil is the fifth largest emitter of GHGs in the world, with the particularity that the country's energy system has a relatively minor impact on GHG emissions (only 19%). The bulk of Brazilian GHG emissions (81%) come, instead, from agriculture, land-use and forestry activities, mainly through the expansion of agricultural frontiers in the Amazon region.

**Figure 17. Brazil: CO<sub>2</sub> emissions by sector**

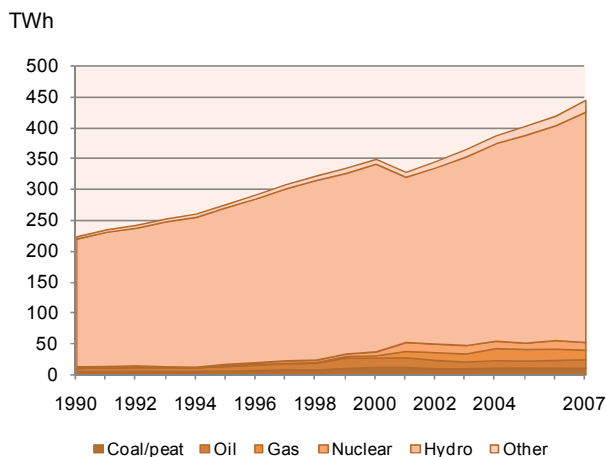


*Key point: The transport sector produces the largest share of CO<sub>2</sub> emissions from fuel combustion in Brazil.*

Compared to the Russian Federation, China and India, CO<sub>2</sub> emissions from fuel combustion in Brazil are small, representing only 1.2% of global CO<sub>2</sub> emissions from fuel combustion. Brazil's energy matrix is one of the cleanest in the world with renewables accounting for 45% of TPES. Brazil is also one of the world's largest producers of hydropower. Within the energy sector, the sub-sectors that contribute the most to total GHG emissions - the transport sector (42% in 2007) and the industrial sector (31%) - are also the ones that are likely to grow the most over the next years.

Electricity generation relies heavily on hydropower. Over the last three decades, the number of major dams has grown steadily and hydropower accounted for 84% of the total in 2007. Many of Brazil's hydropower generating facilities are located far away from the main demand centres, resulting in high transmission and distribution losses. Droughts in recent years have led to a wider diversification in the electricity production mix, increasing the use of gas. In 2008, the government announced plans to build two new hydroelectric plants along Brazil's borders with Argentina and Bolivia, representing 12 GW of new generation capacity. In addition, Suez Energy won a tender to build a 3.3 GW hydropower plant near Brasilia. However, unclear regulation of the power sector remains a source of concern. Environmental issues have also delayed some of the large hydropower projects.

**Figure 18. Brazil: Electricity generation by fuel**



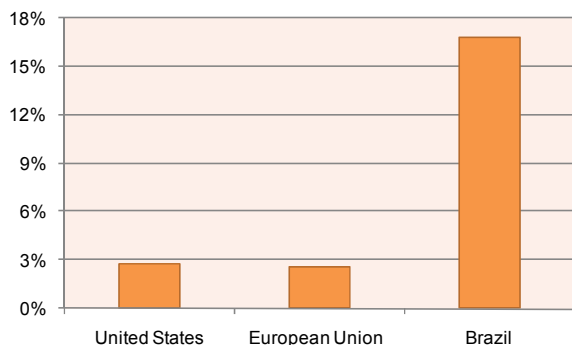
*Key point: Brazilian electricity generation draws heavily on hydropower.*

In 2007, the Brazilian government announced the development of five new nuclear power plants amid concerns about the risk of power-supply shortages

beyond 2012 unless Brazil builds new capacity. The government's 2030 National Energy Plan anticipates 5.3 GW of additional installed generation capacity from new nuclear plants (Angra 3 and four other plants) by 2030. Moreover, electricity produced from cogeneration, mainly from sugarcane bagasse, is to make up 11.4% of the country's electricity supply by 2030.

Biofuels supply a comparatively significant share of the energy consumed for road transport (Figure 19). As such, Brazilian transport has a relatively low CO<sub>2</sub> emissions intensity.<sup>18</sup> CO<sub>2</sub> emissions per unit of fuel consumed in road traffic are 10% lower than the world average (2.6 versus 2.9 t CO<sub>2</sub> per toe).

**Figure 19: Share of biofuels energy in road transport (2007)**



*Key point: Brazil's relative consumption of biofuels far outstrips that of any other country.*

Brazil is the world's largest exporter and consumer of fuel ethanol from sugarcane.<sup>19</sup> In 2007, Brazil produced 390 000 bbl/d of ethanol, up from 306 000 bbl/d in 2006. Currently, cars that can run on either 100% ethanol or a gasoline-anhydrous ethanol blend represent more than 80% of the new cars purchased in Brazil (an estimated 1.3 million in 2006) and cost the same as cars that can only run on conventional fuel. The commercial viability of biofuels in Brazil reflects both an economy well-suited to large-scale sugarcane production and several decades of government intervention through the Brazilian Alcohol Programme (Proalcool) launched in the 1970s. The government

offered a variety of incentives, including low-interest loans to build distilleries and favourable pricing relative to gasoline. Mandatory ethanol blending targets were set up for 1977 (4.5% of the gasoline, by volume) and during the 1980s (20-25%). After experiencing severe problems in the 1990s,<sup>20</sup> the program has now become the largest commercial application of biomass for energy production and use in the world.

Brazil's profile as an energy producer will be transformed in the medium term, following the discovery in November 2007 of a major deepwater oilfield in the Santos Basin. Brazil's oil and gas reserves are currently estimated at 14 billion barrels.

### Russian Federation

The Russian Federation is the only one of the BRICS countries where CO<sub>2</sub> emissions fell between 1990 and 2007, with a 27% drop over the period. The economic downturn after the break-up of the Former Soviet Union caused emissions to fall by 34% between 1990 and 1998. CO<sub>2</sub> emissions grew in 1999 and 2000 (3% a year) due to the Russian Federation's strong economic recovery, stimulated by the increase in world energy prices. CO<sub>2</sub> emissions remained fairly constant for the next five years. After a 4% increase in 2006, the CO<sub>2</sub> emissions were stable in 2007. The *World Energy Outlook* projects the Russian Federation CO<sub>2</sub> emissions will continue to increase steadily, and in 2030 will represent around 90% of the estimated 1990 level.

CO<sub>2</sub> emissions from fuel combustion in the Russian Federation have stabilised following the collapse of the Former Soviet Union. However, other sources of greenhouse gases, in particular CH<sub>4</sub> emissions from leaks in the oil and gas transmission/distribution system and CO<sub>2</sub> emissions from flaring of associated gas represent an important share of the Russian GHG

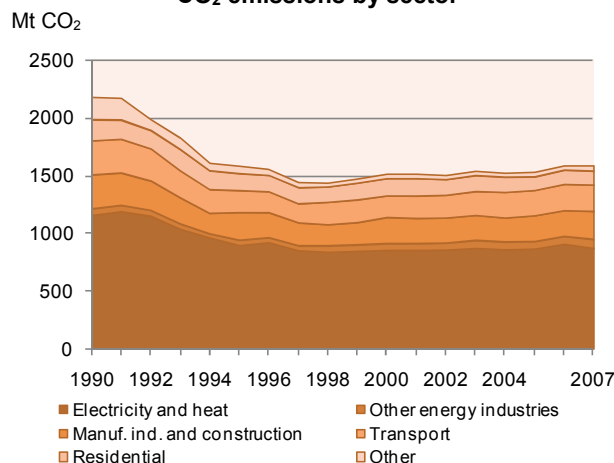
18. Box 2 provides a more complete discussion on the advantages and limitations of using biofuels to replace oil. Note: CO<sub>2</sub> emissions intensity considers the tank-to-wheel emissions and assumes that the CO<sub>2</sub> emissions derived from the combustion of biomass are zero.

19. In 2005, the United States displaced Brazil as the largest ethanol producer, although mainly derived from corn and not sugarcane.

20. By the mid-1980s more than three-quarters of the 800 000 cars could run on ethanol. However, when sugar prices rose sharply in 1989, sugarcane growers diverted crops to the export market, and a severe shortage of ethanol occurred in the second quarter of 1989. This shortage resulted in a loss of consumer confidence in the security of ethanol supply and discredited ProAlcool. In response, the government authorised ethanol imports and Brazil became the world's largest importer of ethanol. Brazilian drivers as well as Brazilian car makers were left in disarray for lack of fuel and, as a result, ethanol fell into discredit for some time. By the end of the 1990s, the sales of ethanol-fuelled cars amounted to less than 1% of total annual auto sales because fuel manufacturers could not assure hydrous-ethanol consumers security of supply. The turning points took place in the late 1990s with the price liberalisation of ethanol and sugar and in 2003 when car manufacturers (beginning with Volkswagen) introduced the "flex fuel" car, which gave consumers the choice and resilience to buy any combination of the cheapest fuel while protecting them from any fuel shortages. Over the whole period, industry was able to achieve remarkable improvements in productivity and cost reductions.

emissions. To effectively reduce GHG emissions from energy, these two problems would also need to be addressed.<sup>21</sup>

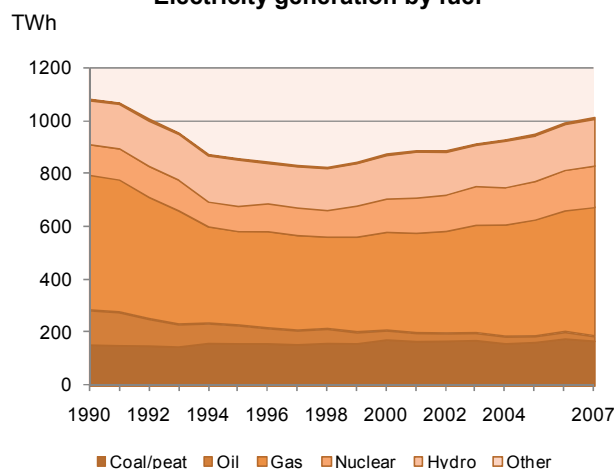
**Figure 20. Russian Federation:  
CO<sub>2</sub> emissions by sector**



*Key point: CO<sub>2</sub> emissions in the Russian Federation have remained fairly constant over the last ten years.*

In 2007, the electricity and heat generation sector represented 55% of Russian CO<sub>2</sub> emissions, compared to a global average of 41%. Within this sector, 48% of the electricity was generated by natural gas, 17% by coal and only 2% by oil.

**Figure 21. Russian Federation:  
Electricity generation by fuel**



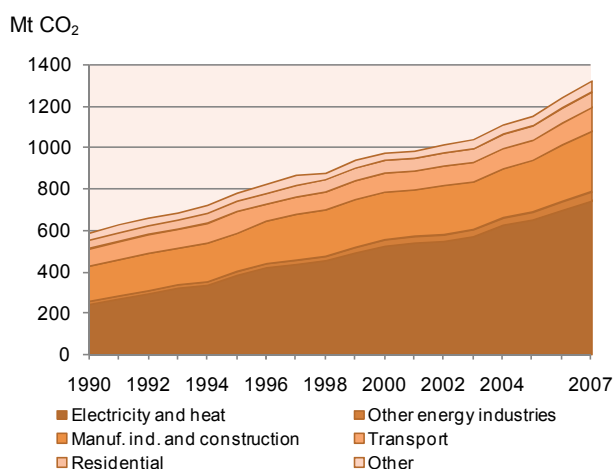
*Key point: A large portion of the Russian Federation's electricity and heat generation come from non-emitting (nuclear and hydro) or low-emitting (natural gas) sources.*

Of the BRICS countries, in 2007, the Russian Federation had the highest CO<sub>2</sub> emissions per capita (11.2 t CO<sub>2</sub>), which put it close to the average of OECD member countries (11.0 t CO<sub>2</sub>). In terms of CO<sub>2</sub>/GDP, the Russian Federation's economy remains CO<sub>2</sub> intensive with 1.0 kg CO<sub>2</sub> per unit of GDP, more than 2.5 times higher than the OECD average. Canada, whose geography and natural resources are comparable to those of the Russian Federation, has a carbon intensity of 0.5 kg CO<sub>2</sub>/US\$ – half of the Russian Federation's level. However, IEA statistics show a reduction of the Russian Federation's energy intensity of GDP of about 5% per year since 1998. It is not clear how much this can be attributed to energy efficiency improvements as opposed to the dramatic increase in GDP due to the Russian Federation's much higher oil and gas-based export earnings.

## India

India emits nearly 5% of global CO<sub>2</sub> emissions, and emissions continue to grow. As with China, CO<sub>2</sub> emissions have more than doubled between 1990 and 2007 and the *World Energy Outlook* projects that CO<sub>2</sub> emissions in India will more than double between 2007 and 2030 (increasing by 4.1% per year). A large share of these emissions is produced by the electricity and heat sector, which represented 56% of CO<sub>2</sub> in 2007, up from 42% in 1990. The transport sector, which was only 9% of CO<sub>2</sub> emissions in 2007, is growing relatively slowly compared to other sectors of the economy.

**Figure 22. India: CO<sub>2</sub> emissions by sector**

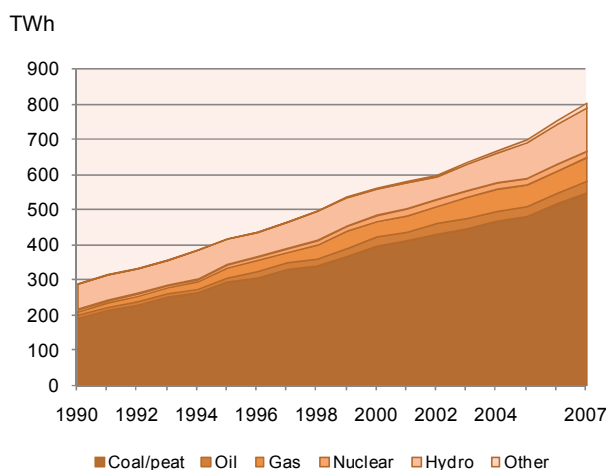


*Key point: The bulk of CO<sub>2</sub> emissions in India come from the electricity and heat generation sector and its share is continuing to grow.*

21. *Optimising Russian Natural Gas: Reform and Climate Policy*, IEA, 2006.

In 2007, 68% of electricity came from coal, another 8% from natural gas and 4% from oil. The share of fossil fuels in the generation mix grew from 73% in 1990 to 85% in 2002. Since then the share of fossil fuels has declined steadily, falling to 81% in 2007. Although electricity produced from hydro has actually increased during this period, the share fell from 25% in 1990 to 15% in 2007. India is promoting the installation of other renewable power sources into its generation mix. India had an installed capacity of 13 GW of renewable energy sources on 31 August 2009. Under its National Action Plan on Climate Change, India plans to install 20 GW of solar power by 2020. With an installed wind capacity of 10 GW in July 2009,<sup>22</sup> India has the fifth largest installed capacity of wind power in the world.

**Figure 23. India: Electricity generation by fuel**



**Key point:** About two-thirds of India's electricity comes from coal.

Of the BRICS countries, India has the lowest CO<sub>2</sub> emissions per capita (1.2 t CO<sub>2</sub> in 2007), about one-fourth that of the world average. However, due to the recent large increases in emissions, the ratio is more than one and a half times that of 1990 and will continue to grow. But India's per capita emissions in 2030 will still be well below those in the OECD member countries today.

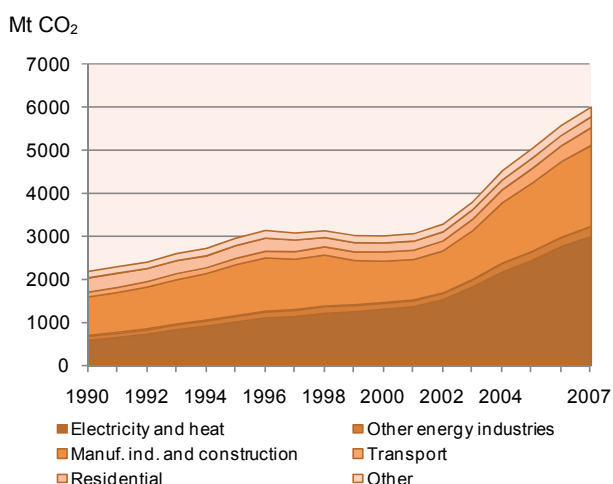
In terms of CO<sub>2</sub>/GDP, India has continuously improved the efficiency of its economy and reduced the CO<sub>2</sub> emissions per unit of GDP by 21% between 1990 and 2007.

22. According to the website of the Ministry of New and Renewable Energy of the Government of India (<http://mnes.nic.in>).

## China

With six billion tonnes of CO<sub>2</sub> in 2007 (21% of global emissions), Chinese emissions surpass by far those of the other BRICS countries – in fact, China overtook the United States in 2007 as the world's largest emitter of energy-related CO<sub>2</sub>. Chinese CO<sub>2</sub> emissions have almost tripled between 1990 and 2007. The increase was especially large in the last five years (16% in 2003, 19% in 2004, 11% in both 2005 and 2006 and 8% in 2007). The *World Energy Outlook* Reference Scenario projects that the growth in Chinese emissions will slow down to 2.9% per year up to 2030. Even with this slower growth, emissions in 2030 will be almost twice those in 2007.

**Figure 24. China: CO<sub>2</sub> emissions by sector**



**Key point:** For the last five years, China showed dramatic growth in CO<sub>2</sub> emissions from electricity and heat generation.

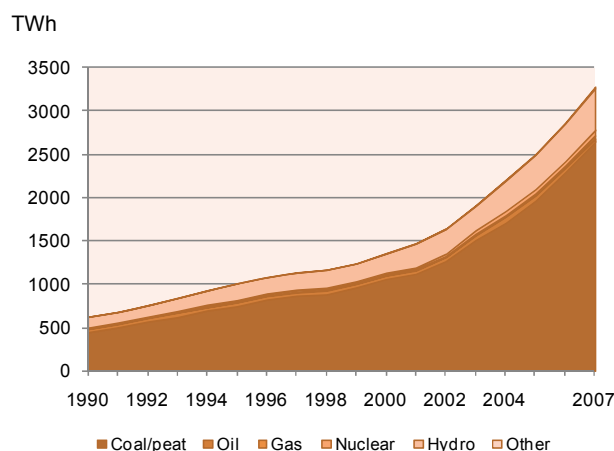
Since 1990, the electricity and heat generation sector grew the most, representing 50% of Chinese CO<sub>2</sub> emissions in 2007. The transport sector also grew rapidly, but from a much smaller base. The *World Energy Outlook* projects that the transport sector will continue to grow and will go from 7% of the energy demand in 2007 to 12% in 2030.

Chinese demand for electricity was the largest driver of the rise in emissions. The rate of capacity additions peaked in 2006, but in 2008 China still added over 90 GW of new capacity,<sup>23</sup> equivalent to the total installed capacity of Italy. At the same time, it closed nearly 17 GW of small, inefficient fossil fuel-fired

23. China Electricity Council, *China National Power Industry Statistics Flash Report 2008*, January 2009.

plants,<sup>24</sup> about the size of Finland's power sector. Figure 20 illustrates the growing demand for electricity generation and the large role played by coal. Nearly all (99%) of the 1990-2007 emissions growth from power generation derived from coal.

**Figure 25. China: Electricity generation by fuel**



*Key point: Coal dominates China's electricity generation and its very fast growth.*

In the past few decades, China had experienced a rapid decoupling of energy consumption and CO<sub>2</sub> emissions from economic growth. During the 1980s, the central government in China reduced industrial energy intensity by establishing standards and quotas for the energy supplied to firms and had the authority to shut off the power supply when enterprises exceeded their limits.<sup>25</sup> However, as the Chinese economy has moved towards an open-market operation, investment in energy conservation as a percentage of total energy investment has gradually declined.<sup>26</sup> Especially since 2003, rapid expansion of heavy industrial sectors to serve huge infrastructure investments and burgeoning demand for Chinese products from domestic and overseas consumers pushed up demand for fossil fuels, and CO<sub>2</sub> emissions per unit of GDP actually rose from 2003 to 2005. Still, the 2007 TPES/GDP is 57% less than in 1990, and a recent push by the government to reduce energy intensity has helped to resume the long-term intensity decline,

24. National Development and Reform Commission, National Energy Administration, State Environmental Protection Administration and China Electricity Council, *Status of Nationwide Closures of Small Thermal Power Units*, March 2009.

25. See the complete discussion in *Trends in Energy Efficiency Investments in China and the US*, Jiang Lin, Lawrence Berkeley National Laboratory, Berkeley, CA, 2005.

26. For a discussion on China's electricity sector, see also *China's Power Sector Reforms*, IEA, 2006.

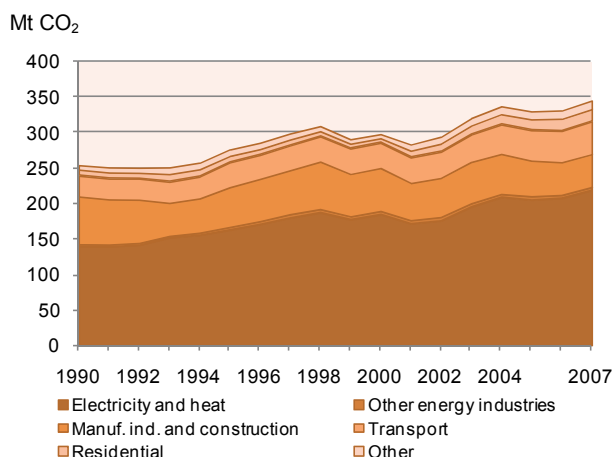
albeit at a much slower rate than in the past. The increasing share of coal in power generation, however, means that a small decline in energy intensity may still be paired with an increase in emissions intensity, as was the case in 2003 and 2004. Although per capita emissions in China in 2007 were only about one-third that of the OECD average, they have more than doubled since 1990, with the largest increases occurring in the last five years.

## South Africa

South Africa currently relies for a large part on fossil fuels as a primary energy source (88% in 2007); with coal providing most of that. Although South Africa accounted for 39% of CO<sub>2</sub> emissions from fuel combustion in Africa in 2007, it represented only 1.2% of the global total. The electricity and heat sector produced 64% of South Africa's CO<sub>2</sub> emissions in 2007.

Coal dominates the South African energy system, accounting for 72% of primary energy supply and nearly a quarter of final energy consumption. In 2007, South Africa generated 95% of its electricity using coal. It follows that the major climate change issue facing South Africa is to reduce its greenhouse-gas emissions, primarily by reducing its reliance on fossil fuels.

**Figure 26. South Africa: CO<sub>2</sub> emissions by sector**

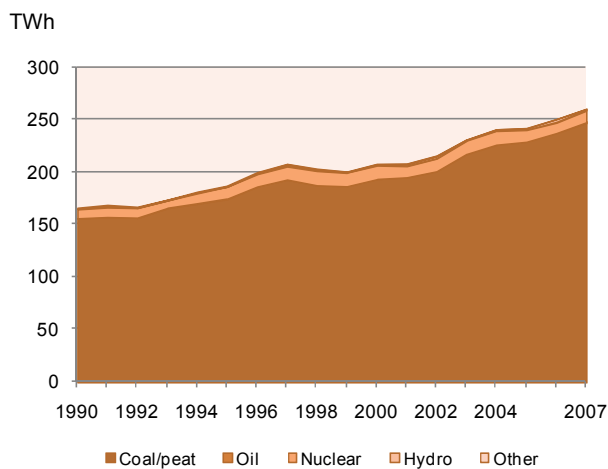


*Key point: The largest share of CO<sub>2</sub> emissions in South Africa comes from the electricity and heat sector, but growth remains moderate compared to some of the other BRICS countries.*

Prices of commercial forms of energy in South Africa are in general quite low by international standards. Given the relatively lower rate of electrification (about 88% in urban areas and only 55% in rural areas), the direct use of commercial forms of energy by households is more limited. Biomass, and especially wood, dominates energy use by rural

households, generating health and safety problems as well as concerns about the sustainability of wood supplies. Over the last 17 years, per capita CO<sub>2</sub> emissions in South Africa have remained fairly constant while emissions per unit of GDP have decreased by 15%.

**Figure 27. South Africa: Electricity generation by fuel**



*Key point: South Africa relies almost solely on coal to produce its electricity.*

## Development of a carbon-constrained world

Until now, industrialised countries have emitted the large majority of anthropogenic greenhouse gases. However, shares of developing countries are rising very rapidly and are projected to continue to do so. To shift towards a carbon-constrained world, mitigation measures now taking shape within industrialised countries will need to be refined and complemented by comprehensive efforts worldwide.

### International mitigation measures

Complementing various national policies and measures, the Kyoto Protocol of the UNFCCC is by far the most comprehensive multinational effort to mitigate climate change, both politically and geographically. Having entered into force in February 2005, the Protocol commits industrialised countries to curb domestic emissions by about 5% as a group relative to 1990 by the 2008-2012 first commitment period. The Protocol also creates “flexible mechanisms” by which industrialised countries can transfer emission allowances among themselves and earn emission credits from emissions reductions of developing countries and countries with economies in transition.

Despite its possible worldwide influence, the Protocol is limited in its potential to address global emissions since not all the major emitters are included. The United States remains outside of its jurisdiction and though most of the developing countries (i.e. non-Annex I countries) signed the Protocol, they committed to no emissions targets. The Kyoto Protocol implies action on less than a third of global CO<sub>2</sub> emissions as measured in 2007 (Table 1).

The Protocol’s quantitative emissions reductions further engendered a commoditisation of carbon, as detailed in the following examination of emissions trading schemes.

### Emissions trading schemes

Emissions trading schemes (ETS) are developing or being proposed in several regions and countries around the world. While some have definite and defined rules in the short term (e.g. EU ETS, ten Northeastern and Mid-Atlantic US states, New Zealand, Norway), others have not yet finalised their precise rules of functioning (e.g. Australia, Canada, Japan). Nonetheless, even for those schemes in which trading has commenced, policy makers have allowed flexibility in the changing design options over the longer term. Indeed, lessons from the first years of existing schemes are helping the elaboration of others.<sup>27</sup>

In the European Union, the largest scheme in operation is the EU ETS. The lessons from its first phase helped to shape the scheme’s post-2012 design.<sup>28</sup> In December 2008, the European Council and the European Parliament endorsed an agreement on the climate change and energy package, which translates into details a political commitment by the European Union to reduce its GHG emissions by 20% by 2020 compared to 1990 levels.<sup>29</sup> The ETS will play a key role in achieving this target, as the 2020 cap for ETS installations is 21% below the actual level of 2005 emissions.<sup>30</sup>

27. Reinaud, J. and C. Philibert, 2007. *Emissions Trading: Trends and Prospects*, IEA information paper.

28. Convery, F., Ellerman, A.D. and C. de Perthuis. 2008. *The European Carbon Market in Action: Lessons from the First Trading Period*, APREC research program on the ex-post evaluation of the European CO<sub>2</sub> market, Paris. Downloadable at [www.aprec.net](http://www.aprec.net).

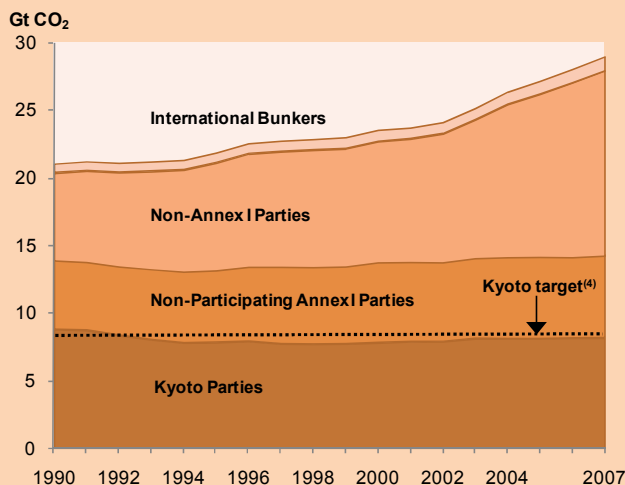
29. A 30% reduction target is proposed if other Parties were to take equally ambitious mitigation objectives.

30. Annual cap: 1 974 Mt in 2013, falling in linear fashion to 1 720 Mt by 2020; average annual cap over 2013-20: 1 846 Mt (compared to an annual cap of 2 083 Mt in phase 2).



**Table 1. World CO<sub>2</sub> emissions from fuel combustion and Kyoto targets**Mt CO<sub>2</sub>

	1990	2007	% change 90-07	Kyoto Target <sup>(1)</sup>		1990	2007	% change 90-07	Kyoto Target <sup>(1)</sup>
<b>KYOTO PARTIES</b>	<b>8 792.2</b>	<b>8 162.1</b>	<b>-7.2%</b>	<b>-4.7% e</b>	<b>NON-KYOTO PARTIES</b>	<b>11 577.8</b>	<b>19 778.3</b>	<b>70.8%</b>	
<i>North America</i>	432.3	572.9	32.5%		<i>Non-participating</i>				
Canada	432.3	572.9	32.5%	-6%	<i>Annex I Parties</i>	5 106.3	6 097.0	19.4%	
					Belarus	116.1	62.7	-46.0%	none
<i>Europe</i>	3 158.7	3 281.3	3.9%		Turkey	126.9	265.0	108.8%	none
Austria	56.2	69.7	24.0%	-13%	United States	4 863.3	5 769.3	18.6%	-7%
Belgium	107.9	106.0	-1.8%	-7.5%	<i>Other Regions</i>	6 471.5	13 681.3	111.4%	
Denmark	50.4	50.5	0.2%	-21%	Africa	546.2	882.0	61.5%	none
Finland	54.4	64.4	18.5%	0%	Middle East	588.2	1 389.0	136.1%	none
France <sup>(2)</sup>	352.1	369.3	4.9%	0%	Non-OECD Europe <sup>(3)</sup>	106.1	91.4	-13.9%	none
Germany	950.4	798.4	-16.0%	-21%	Other FSU <sup>(3)</sup>	581.6	406.7	-30.1%	none
Greece	70.1	97.8	39.5%	+25%	Latin America <sup>(3)</sup>	897.0	1 453.9	62.1%	none
Iceland	1.9	2.3	24.6%	+10%	Asia (excl. China) <sup>(3)</sup>	1 508.4	3 387.1	124.6%	none
Ireland	30.6	44.1	44.1%	+13%	China	2 244.0	6 071.2	170.6%	none
Italy	397.8	437.6	10.0%	-6.5%					
Luxembourg	10.5	10.7	2.5%	-28%	<b>INTL. MARINE BUNKERS</b>	<b>356.9</b>	<b>610.4</b>	<b>71.1%</b>	
Netherlands	156.6	182.2	16.4%	-6%	<b>INTL. AVIATION BUNKERS</b>	<b>253.6</b>	<b>411.6</b>	<b>62.3%</b>	
Norway	28.3	36.9	30.6%	+1%					
Portugal	39.3	55.2	40.5%	+27%	<b>WORLD</b>	<b>20 980.5</b>	<b>28 962.4</b>	<b>38.0%</b>	
Spain	205.8	344.7	67.5%	+15%					
Sweden	52.8	46.2	-12.4%	+4%					
Switzerland	40.7	42.2	3.6%	-8%					
United Kingdom	553.0	523.0	-5.4%	-12.5%					
<i>Pacific</i>	1 346.5	1 668.1	23.9%						
Australia	259.8	396.3	52.5%	+8%					
Japan	1 065.3	1 236.3	16.1%	-6%					
New Zealand	21.3	35.5	66.4%	0%					
<i>Economies in Transition</i>	3 854.7	2 639.8	-31.5%						
Bulgaria	74.9	50.2	-33.0%	-8%					
Croatia	21.6	22.0	2.1%	-5%					
Czech Republic	155.4	122.1	-21.4%	-8%					
Estonia	36.2	18.0	-50.1%	-8%					
Hungary	66.7	53.9	-19.1%	-6%					
Latvia	18.4	8.3	-54.6%	-8%					
Lithuania	33.1	14.4	-56.4%	-8%					
Poland	343.7	304.7	-11.4%	-6%					
Romania	167.1	91.9	-45.0%	-8%					
Russian Federation	2 179.9	1 587.4	-27.2%	0%					
Slovak Republic	56.7	36.8	-35.1%	-8%					
Slovenia	13.1	15.9	21.2%	-8%					
Ukraine	687.9	314.0	-54.4%	0%					



(1) The targets apply to a basket of six greenhouse gases and take sinks into account. The overall EU target under the Protocol is 8%, but the member countries have agreed on a burden-sharing arrangement as listed. Because of lack of data and information on base years and gases, an overall "Kyoto target" cannot be precisely calculated for total Kyoto Parties: estimates applying the targets to IEA energy data suggest the target is equivalent to about 4.7% on an aggregate basis for CO<sub>2</sub> emissions from fuel combustion.

(2) Emissions from Monaco are included with France.

(3) Composition of regions differs from elsewhere in this publication to take into account countries that are not Kyoto Parties.

(4) The Kyoto target is calculated as percentage of the 1990 CO<sub>2</sub> emissions from fuel combustion only, therefore it does not represent the total target for the six-gas basket. This assumes that the reduction targets are spread equally across all gases.

*Key point: Existing climate goals have not always led to reductions in CO<sub>2</sub> emissions from fuel combustion.*

The trajectory of the ETS cap proposed by the Commission in January 2008 is retained, but there will be less auctioning and more imports of credits from the Kyoto flexible mechanisms CDM and Joint Implementation (JI) than the Commission had proposed. Although this will make the ETS less effective in terms of emission reductions in the European Union than it would have been under the Commission's proposals, overall this agreement is still an achievement, establishing an aggressive trajectory for ETS emissions reductions over 2013-20 and meaningful scarcity. At present, the lower energy demand is expected to have created a surplus in the system.

In addition, since December 2006, the Commission has adopted legislation to broaden the scheme to the aviation sector. In July 2008, the European Parliament backed the proposal to include aviation in the EU ETS from January 2012, based on a deal struck by negotiators from the European Council and the European Parliament in June 2008.

Several other ETS are being developed, including in countries that are not Parties to the Kyoto Protocol. In the United States, the first regional scheme (i.e. in the Northeastern States) began on January 1, 2009. Others may follow. Further, on June 26, the House of Representatives passed the American Clean Energy and Security Act of 2009 (ACES), a comprehensive draft climate change and energy legislation introduced by the House Energy and Commerce Committee Chairman Rep. Henry Waxman and Global Warming Subcommittee Chairman Ed Markley. The bill calls for a cap-and-trade programme covering 85% of US GHG emissions, including power, industry, transport, commercial and residential sectors. The targets are set against 2005 emission levels, at 3% reduction by 2012, 17% by 2020, 42% by 2030 and 83% by 2050. ACES is currently under consideration in the Senate.

In New Zealand, the government announced an emission trading system (NZ ETS) in September 2007, proposing a staged introduction with the aim of having all the major sectors included in the scheme by 2013. In addition, unlimited use of Kyoto Protocol project credits is foreseen. The ETS, which currently only covers the forestry sector, started on 1 January 2008 and was approved by parliament in September 2008. However, the new government that came into place in 2008 established in December 2008 a committee to review the ETS. Its recommendations

are currently translated into amendments to the existing legislation, and a revised law is expected to be passed by December 2009.

In Australia, the federal government published its revised climate change policy in July 2007, announcing a plan to establish an emission trading scheme (the so-called "Carbon Pollution Reduction Scheme (CPRS)") as part of an effective framework for meeting the climate change challenge. The proposal includes broad coverage of GHG emissions and sectors, covering around 75% of Australian GHG emissions, a mix of direct and upstream point of obligation and assistance to help households and business adjust. The draft bill to enact the scheme was introduced in May 2009 into parliament. The CPRS bill will be considered in the parliament before the end of 2009.

The government of Canada is committed to reducing Canada's total GHG emissions by 20% from 2006 levels by 2020 and by 60 to 70 % by 2050. The creation of a carbon market is part of the government's commitment to reduce total GHG emissions. In June 2009, the Canadian government published new guidelines for Canada's Offset System for Greenhouse Gases. The domestic offset system is an important step in the creation of a carbon market in Canada, establishing tradable credits for GHG reductions and encouraging cost-effective domestic emission reductions in areas that will not be covered by planned federal regulations (e.g., forestry and agriculture). Under the proposed regulations, firms will have several options to meet their compliance obligations including domestic offset credits and emissions trading as an important component of the government's market-driven approach to reducing GHG emissions. The government has indicated that it will continue to monitor and consider US developments to ensure harmonised rules.

In September 2008, Japan unveiled an outline of a GHG emissions trading scheme, which was launched on a trial basis in October 2008. Initially, the system is voluntary and Japanese companies are allowed to set their own emission reduction targets. In addition to allowance trading, companies will be able to use CDM credits, national offset credits and credits from Japan's voluntary emissions trading scheme. Only recently, the new Japanese Prime Minister announced plans to introduce a mandatory domestic emissions trading system, tentatively scheduled for 2011.

## Steps for future action

Held in late 2005, the first Meeting of the Parties to the Kyoto Protocol (COP/MOP1) witnessed the official opening of talks on post-2012 climate change policy. Parties organised two official fora: the Ad Hoc Working Group (AWG) on Further Commitments for Annex I Parties and the UNFCCC “Dialogue on long-term cooperative action to address climate change by enhancing implementation of the Convention” (UNFCCC Dialogue).

The AWG focuses on the design of post-2012 commitments for Annex I Parties under the Protocol. Ideally, it would also provide some certainty to carbon-constrained investments in infrastructure and to the carbon market itself. However, the AWG has no mandate to encourage participation from non-Annex I Parties or from non-participating Annex I Parties.

The broader UNFCCC Dialogue was instead designed to explore worldwide climate change mitigation and adaptation through an “open and non-binding exchange of views, information and ideas”. Participants in its first meeting discussed strategic adaptation to climate change, sustainable development, and the mitigation potential of technology and market mechanisms. The Bali Road Map adopted at COP/MOP3 in Bali established a two-track process, i.e. both for the Convention and Kyoto Protocol strands, aiming at the identification of a post-2012 global climate regime to be adopted by COP15 and COP/MOP5 in Copenhagen in 2009. While the Bali Action Plan, adopted under the Convention track, did not introduce binding commitments to reduce GHG emissions, it included the request for developed countries to contribute to the mitigation of global warming in the context of sustainable development. In addition, the plan envisaged enhanced actions on adaptation, technology development and on the provision of financial resources, as well as measures against deforestation.

The challenge of post-2012 discussions is the need to engage developing countries with approaches, possibly including the carbon market, that suit their capacity and their legitimate aspiration for economic and social development. The Asia Pacific Partnership for Clean Development and Climate (APP or AP6), the G8 2005 Gleneagles Plan of Action, and the Major Economies Forum on Energy and Climate (MEF) seek to involve developed and developing nations in common measures to address climate change.

The AP6, which groups Australia, China, India, Japan, Korea and the United States, is one of many initiatives. AP6 focuses on the emissions of specific sectors: iron and steel, cement, aluminium, mining, buildings and appliances; and the methods of clean fossil energy use, renewable energy generation and more efficient power generation and transmission.

Canada, France, Germany, Italy, Japan, the Russian Federation, the United Kingdom and the United States launched the July 2005 G8 Gleneagles Plan of Action to, in part, promote clean energy and sustainable development while mitigating climate change. Through the Plan of Action the G8 members committed to: 1) transform the way they use energy, namely through means of energy efficiency; 2) foster research and development of lower-emission technology; 3) finance the economic transition to cleaner energy and 4) manage the effects of climate change. The IEA was tasked under the Plan of Action to develop concrete recommendations to help the G8 achieve these four objectives. Additionally, the G8 sought to engage South Africa, India, Brazil, China and Mexico in an official Dialogue to address climate change, clean energy, and sustainable development worldwide. This commitment by the G8 was reiterated at the St. Petersburg summit in July 2006 and subsequently at the 2007 summit in Heiligendamm, the 2008 summit in Hokkaido and the 2009 summit in L’Aquila.

In L’Aquila, Italy on 9 July 2009, 17 heads of industrialised and non-industrialised countries participating in the MEF set a clear goal for international climate policy: the increase in global climate temperature above pre-industrial levels ought not to exceed 2°C.

In all these efforts, timely and accurate CO<sub>2</sub> and other GHG statistics will prove essential to ascertain compliance to international agreements and to inform carbon market participants. The ability of countries to monitor and review emissions from their sources is essential in their engagement towards global GHG mitigation.

## Conclusion

Fossil fuel combustion is the single largest human influence on climate. Over the past two decades, the global community has recognised the pressing need to address and reduce CO<sub>2</sub> emissions from fuel combustion that enter the atmosphere.

Two sectors, both growing rapidly, represent the bulk of CO<sub>2</sub> emissions from fuel combustion: the electricity and heat generation sector and the transport sector. Improving the energy efficiency and reducing the carbon intensity of both sectors could significantly diminish their contribution to global climate change.

Since the Industrial Revolution, most of the CO<sub>2</sub> emissions have originated from the industrialised countries. However, this dominance appears short-lived due to the size of some of the developing

economies and the growth in their energy needs. Effective emissions mitigation will require all countries, regardless of energy demand and infrastructure, to use energy in a sustainable manner.

This analysis is based on energy statistics collected from various sources. Although quality and completeness of these statistics have increased over the last years, up-to-date and accurate information on energy use and GHG emissions will be more and more essential for monitoring progress towards addressing the energy-climate challenge..

## 2. IEA EMISSIONS ESTIMATES

The estimates of CO<sub>2</sub> emissions from fuel combustion presented in this publication are calculated using the IEA energy data<sup>31</sup> and the default methods and emission factors from the *Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories*, IPCC/OECD/IEA, Paris, 1997 (*1996 IPCC Guidelines*).

Although the IPCC approved the *2006 Guidelines* at the 25<sup>th</sup> session of the IPCC in April 2006 in Mauritius, most countries (as well as the IEA Secretariat) are still calculating their inventories using the *1996 IPCC Guidelines*.

The IEA Secretariat reviews its energy databases each year. In the light of new assessments, important revisions may be made to the time series of individual countries. Therefore, certain data in this publication may have been revised with respect to previous editions.

### Inventory quality

The *IPCC Guidelines* allow Parties under the UNFCCC to prepare and periodically update national inventories that are accurate, complete, comparable and transparent. Inventory quality is an important issue since countries are now implementing legally-binding commitments.

One way to assess inventory quality is to do comparisons among inventories, methodologies and input data. The *IPCC Guidelines* recommend that countries which have used a detailed Sectoral Approach for CO<sub>2</sub> emissions from energy combustion also use the Reference Approach for verification purposes. This will identify areas where a full accounting of emissions may not have been made (see Chapter 5 of the full-scale study).

### Reference Approach vs. Sectoral Approach

The Reference Approach and the Sectoral Approach often give different results because the Reference Approach is a top-down approach using a country's energy supply data and has no detailed information on how the individual fuels are used in each sector.

The Reference Approach provides estimates of CO<sub>2</sub> to compare with estimates derived using a Sectoral Approach. Theoretically, it indicates an upper bound to the Sectoral Approach "1A fuel combustion", because some of the carbon in the fuel is not combusted but will be emitted as fugitive emissions (as leakage or evaporation in the production and/or transformation stage).

Calculating CO<sub>2</sub> emissions inventories with the two approaches can lead to different results for some countries. In general the gap between the two approaches is relatively small (5 per cent or less) when compared to the total carbon flows involved. In cases where 1) fugitive emissions are proportional to the mass flows entering production and/or transformation processes, 2) stock changes at the level of the final consumer are not significant and 3) statistical differences in the energy data are limited, the Reference Approach and the Sectoral Approach should lead to similar evaluations of the CO<sub>2</sub> emissions trends.

When significant discrepancies and/or large time-series deviations do occur, they may be due to various reasons such as:

**Large statistical differences** between the energy supply and the energy consumption in the basic energy data. Statistical differences arise from the collection of data from different parts of the fuel flow from its supply origins to the various stages of downstream conversion and use. They are a normal part of a fuel

31. Published in *Energy Statistics of OECD Countries, Energy Balances of OECD Countries, Energy Statistics of Non-OECD Countries* and *Energy Balances of Non-OECD Countries*, IEA, Paris, 2009.

balance. Large random statistical differences must always be examined to determine the reason for the difference, but equally importantly smaller statistical differences which systematically show an excess of supply over demand (or vice versa) should be pursued.

**Significant mass imbalances** between crude oil and other feedstock entering refineries and the (gross) petroleum products manufactured.

**The use of aggregate net calorific and carbon content values** for primary fuels which are converted rather than combusted. For example, it may appear that there is not conservation of energy or carbon depending on the calorific value and/or the carbon content chosen for the crude oil entering refineries and for the mix of products produced from the refinery for a particular year. This may cause an overestimation or underestimation of the emissions associated with the Reference Approach.

**The misallocation of the quantities of fuels used for conversion into derived products** (other than power or heat) **or quantities combusted in the energy sector.** When reconciling differences between the Reference Approach and a Sectoral Approach it is important to ensure that the quantities reported in the transformation and energy sectors (e.g. for coke ovens) reflect correctly the quantities used for conversion and for fuel use, respectively, and that no misallocation has occurred. Note that the quantities of fuels converted to derived products should have been reported in the transformation sector of the energy balance. If any derived products are used to fuel the conversion process, the amounts involved should have been reported in the energy sector of the energy balance. In a Sectoral Approach the inputs to the transformation sector should not be included in the activity data used to estimate emissions.

**Missing information on certain transformation outputs.** Emissions from combustion of secondary fuels produced in integrated processes (for example, coke oven gas) may be overlooked in a Tier 1 Sectoral Approach if data are poor or unavailable. The use of secondary fuels (the output from the transformation process) should be included in the Sectoral Approach. Failure to do so will result in an underestimation of the Sectoral Approach.

**Simplifications in the Reference Approach.** Certain quantities of carbon should be included in the Reference Approach because their emissions fall under fuel combustion. These quantities have been excluded where the flows are small or not represented by a major statistic available within energy data. Examples of quantities not accounted for in the Reference

Approach include lubricants used in two-stroke engines, blast furnace and other by-product gases which are used for fuel combustion outside their source category of production and combustion of waxed products in waste plants with heat recovery. On the other hand, certain flows of carbon should be excluded from the Reference Approach, but for reasons similar to the above no practical means can be found to exclude them without over complicating the calculations. These include coals and other hydrocarbons injected into blast furnaces as well as cokes used as reductants in the manufacture of inorganic chemicals. These simplifications will determine discrepancies between the Reference Approach and a Sectoral Approach. If data are available, the magnitudes of these effects can be estimated.

**Missing information on stock changes** that may occur at the final consumer level. The relevance of consumer stocks depends on the method used for the Sectoral Approach. If delivery figures are used (this is often the case) then changes in consumers' stocks are irrelevant. If, however, the Sectoral Approach is using actual consumption of the fuel, then this could cause either an overestimation or an underestimation of the Reference Approach.

**High distribution losses or unrecorded consumption** for gas may mean that the emissions are overestimated by the Reference Approach or underestimated by the Sectoral Approach.

**The treatment of transfers and reclassifications of energy products** may cause a difference in the Sectoral Approach estimation since different net calorific values and emission factors may be used depending on how the fuel is classified.

## Differences between IEA estimates and UNFCCC submissions

It is possible to use the IEA CO<sub>2</sub> estimates for comparison with the greenhouse-gas inventories reported by countries to the UNFCCC Secretariat. In this way, problems in methods, input data or emission factors may become apparent. However, care should be used in interpreting the results of any comparison since the IEA estimates may differ from a country's official submission for many reasons.

A recent comparison of the IEA estimates with the inventories submitted to the UNFCCC showed that for most Annex II countries, the two calculations were

within 5%. For some EIT and non-Annex I countries, differences between the IEA estimates and national inventories were larger. In some of the countries the underlying energy data were different; suggesting that more work is needed on the collecting and reporting of energy statistics for those countries.

Some countries have incorrectly defined bunkers as fuel used abroad by their own ships and planes. Still other countries have made calculation errors for carbon oxidation or have included international bunkers in their totals. Since all of the above will affect the national totals of CO<sub>2</sub> emissions from fuel combustion, a systematic comparison with the IEA estimates would allow countries to verify their calculations and produce more internationally comparable inventories.

In addition, the main bias in the energy data and emission factors will probably be systematic and not random. This means that the emission trends will usually be more reliable than the absolute emission levels. By comparing trends in the IEA estimates with trends in emissions as reported to the UNFCCC, it should be possible to identify definition problems or changes in the calculations, which were not reflected in the base year.

For many reasons the IEA estimates may differ from the numbers that a country submits to the UNFCCC, even if a country has accounted for all of its energy use and correctly applied the *IPCC Guidelines*. No attempt has been made to quantify the effects of these differences. In most cases these differences will be relatively small. Some of the reasons for these differences are:

- **The IEA uses a Tier 1 method.**

The IEA uses a Tier 1 Sectoral Approach based on the *1996 IPCC Guidelines*. Countries may be using a Tier 2 or Tier 3 method that takes into account different technologies.

- **The IEA is using the 1996 IPCC Guidelines.**

The IEA is still using the *1996 IPCC Guidelines*. Some countries may have already started using the *2006 IPCC Guidelines*.

- **Energy activity data are extracted from the IEA energy balances and may differ from those used for the UNFCCC calculations.**

Countries often have several “official” sources of data such as a Ministry, a Central Bureau of Statistics, a nationalised electricity company, etc. Data can also be collected from the energy suppliers, the energy consumers or customs statistics. The IEA Secretariat tries to collect the most accurate data, but does not necessarily

have access to the complete data set that may be available to national experts calculating emission inventories for the UNFCCC. In addition to different sources, the methodology used by the national bodies providing the data to the IEA and to the UNFCCC may differ. For example, general surveys, specific surveys, questionnaires, estimations, combined methods and classifications of data used in national statistics and in their subsequent reclassification according to international standards may result in different series.

- **The IEA uses average net calorific values.**

The IEA uses an average net calorific value (NCV) for each secondary oil product. These NCVs are region-specific and constant over time. Country-specific NCVs that can vary over time are used for NGL, refinery feedstocks and additives. Crude oil NCVs are further split into production, imports, exports and average. Different coal types have specific NCVs for production, imports, exports, inputs to main activity power plants and coal used in coke ovens, blast furnaces and industry, and can vary over time for each country.

Country experts may have the possibility of going into much more detail when calculating the heat content of the fuels. This in turn could produce different values than the IEA.

- **The IEA uses average emission factors.**

The IEA uses the default emission factors which are given in the *1996 IPCC Guidelines*. Country experts may have better information available.

- **The IEA does not have detailed information for the stored carbon calculation.**

The IEA does not have complete information on the non-energy use of fuels. The amount of carbon stored is estimated using the default values given in the *1996 IPCC Guidelines*. For “other products” in the stored carbon calculation, the IEA assumes that 100% of kerosene, white spirit and petroleum coke that is reported as non-energy use in the energy balance is also stored. Country experts calculating the inventories may have more detailed information.

- **The IEA cannot allocate emissions from auto-producers into the end-use sectors.**

The *1996 IPCC Guidelines* recommend that emissions from autoproduction should be included with emissions from other fuel use by end-consumers. At the same time, the emissions from the autoproduction of electricity and heat should be excluded from the energy transformation source category to avoid double counting. The IEA is not able to allocate the fuel use

from autoproducers between the industrial and “other” sectors. Therefore, this publication shows a category called “Unallocated autoproducers”. However, this should not affect the total emissions for a country.

- **Military emissions may be treated differently.**

According to the *1996 IPCC Guidelines*, military emissions should be reported in Source/Sink Category 1 A 5, *Other (not elsewhere specified)*. Previously, the IEA questionnaires requested that warships be included in international marine bunkers and that the military use of aviation fuels be included in domestic air. All other military use should have been reported in *non-specified other sector*.

At the IEA/Eurostat/UNECE Energy Statistics Working Group meeting (Paris, November 2004), participants decided to harmonise the definitions used to collect energy data on the joint IEA/Eurostat/UNECE questionnaires with those used by the IPCC to report greenhouse-gas inventories. As a result, starting in the 2006 edition of this publication, all military consumption should be reported in non-specified other sectors. Sea-going versus coastal is no longer a criterion for splitting international and domestic navigation. For more information on the changes, please consult the Energy Statistics Working Group meeting report on our website at <http://www.iea.org/Textbase/stats/questionnaire/index.asp>.

However, it is not clear whether countries are reporting on the new basis, and if they are, whether they will be able to revise their historical data. The IEA has found that in practice most countries consider information on military consumption as confidential and therefore either combine it with other information or do not include it at all.

- **The IEA estimates include emissions from coke inputs into blast furnaces. Countries may have included these emissions in the IPCC category industrial processes.**

National greenhouse-gas inventories submitted to the UNFCCC divide emissions according to source categories. Two of these IPCC Source/Sink Categories are energy and industrial processes. The IPCC Reference Approach estimates national emissions from fuel combustion based on the supply of fuel to a country and by implication includes emissions from coke inputs to blast furnaces in the energy sector. However, within detailed sectoral calculations certain non-energy processes can be distinguished. In the reduction of iron in a blast furnace through the combustion of coke, the primary purpose of coke oxidation is to produce pig iron and the emissions can be considered as an industrial process. Care must be taken not to

double count these emissions in both energy and industrial processes. The IEA estimates of emissions from fuel combustion in this publication include the coke inputs to blast furnaces.

- **The units may be different.**

The *1996 IPCC Guidelines* and the *UNFCCC Reporting Guidelines on Annual Inventories* both ask that CO<sub>2</sub> emissions be reported in Gg of CO<sub>2</sub>. A million tonnes of CO<sub>2</sub> is equal to 1 000 Gg of CO<sub>2</sub>, so to compare the numbers in this publication with national inventories expressed in Gg, the IEA emissions must be multiplied by 1 000.

## Key sources

In May 2000, the IPCC Plenary accepted the report on *Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories*. The report provides good practice guidance to assist countries in determining their key source categories. By identifying these key sources in the national inventory, inventory agencies can prioritise their efforts and improve their overall estimates.

**The *Good Practice Guidance* identifies a key source category as one that is prioritised within the national inventory system because its estimate has a significant influence on a country’s total inventory of direct greenhouse gases in terms of the absolute level of emissions, the trend in emissions, or both.**

For a more complete description of the IPCC methodology for determining key sources, see Chapter 5 of the full-scale study.

In the *Good Practice Guidance*, the recommendation for choosing the level of the key source analysis is to “disaggregate to the level where emission factors are distinguished. In most inventories, this will be the main fuel types. If emission factors are determined independently for some sub-source categories, these should be distinguished in the analysis.”

Since the emission estimates in this publication were produced using the default emission factors from the *1996 IPCC Guidelines*, this means that the fuel combustion categories would have been divided into:

- stationary combustion – coal
- stationary combustion – oil
- stationary combustion – gas
- mobile combustion – coal
- mobile combustion – oil
- mobile combustion – gas



Clearly this level of aggregation is not particularly useful in identifying where additional work is needed in refining the inventory. It does not take into account the possibility of improving data collection methods, improving emission factors or using a higher tier calculation for certain key sectors within the energy from fuel combustion source category. For this reason the IEA has disaggregated the key source analysis to the same level of detail presented in the country tables of this publication. For each country, the 11 largest sources, split by coal, oil, gas and other, are shown in the key sources table.

To calculate the level assessment, the IEA has started with the CO<sub>2</sub> emissions from fuel combustion as calculated by the IEA. To supplement this, where possible, the IEA has used the emissions that were submitted by the Annex I Parties to the UNFCCC in the 2009 submission of the Common Reporting Format for CO<sub>2</sub> (only fugitive), CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs and SF<sub>6</sub>, not taking into account CO<sub>2</sub> emissions/removals from land use, land use change and forestry.<sup>32</sup>

For the non-Annex I Parties, CO<sub>2</sub> emissions from fuel combustion were from the IEA and the rest of the 2007 emissions were estimated by PBL.

The cumulative contribution only includes the 11 largest key sources of CO<sub>2</sub> from fuel combustion. As a result, in most cases the cumulative contribution will not be 95% as recommended in the *Good Practice Guidance* and key sources from fugitive emissions, industrial processes, solvents, agriculture and waste will not be shown. The percentage of CO<sub>2</sub> emissions from fuel combustion in total greenhouse-gas emissions has been included as a memo item at the bottom of the table.

## Notes on tables and graphs

### Table of CO<sub>2</sub> emissions by sector

**Row 1:** *Sectoral Approach* contains total CO<sub>2</sub> emissions from fuel combustion as calculated using the IPCC Tier 1 Sectoral Approach and corresponds to IPCC Source/Sink Category 1 A. Emissions calculated using a Sectoral Approach include emissions only when the fuel is actually combusted.

**Row 2:** *Main activity producer electricity and heat* contains the sum of emissions from main activity producer electricity generation, combined heat and power generation and heat plants. Main activity producers (formerly known as public utilities) are defined as those undertakings whose primary activity is to supply the public. They may be publicly or privately owned. Emissions from own on-site use of fuel are included. This corresponds to IPCC Source/Sink Category 1 A 1 a.

**Row 3:** *Unallocated autoproducers* contains the emissions from the generation of electricity and/or heat by autoproducers. Autoproducers are defined as undertakings that generate electricity and/or heat, wholly or partly for their own use as an activity which supports their primary activity. They may be privately or publicly owned. In the *1996 IPCC Guidelines*, these emissions would normally be distributed between industry, transport and “other” sectors.

**Row 4:** *Other energy industries* contains emissions from fuel combusted in petroleum refineries, for the manufacture of solid fuels, coal mining, oil and gas extraction and other energy-producing industries. This corresponds to the IPCC Source/Sink Categories 1 A 1 b and 1 A 1 c. According to the *1996 IPCC Guidelines*, emissions from coke inputs to blast furnaces can either be counted here or in the industrial processes source/sink category. Within detailed sectoral calculations, certain non-energy processes can be distinguished. In the reduction of iron in a blast furnace through the combustion of coke, the primary purpose of the coke oxidation is to produce pig iron and the emissions can be considered as an industrial process. Care must be taken not to double count these emissions in both energy and industrial processes. In the IEA estimations, these emissions have been included in this category.

**Row 5:** *Manufacturing industries and construction* contains the emissions from combustion of fuels in industry. The IPCC Source/Sink Category 1 A 2 includes these emissions. However, in the *1996 IPCC Guidelines*, the IPCC category also includes emissions from industry autoproducers that generate electricity and/or heat. The IEA data are not collected in a way that allows the energy consumption to be split by specific end-use and therefore, this publication shows autoproducers as a separate item. See Row 3, *Unallocated autoproducers*. *Manufacturing industries and construction* also includes emissions from coke inputs into blast furnaces, which may be reported either in the transformation sector, the industry sector or the

32. As recommended in the *Good Practice Guidance*.

separate IPCC Source/Sink Category 2, industrial processes.

**Row 6:** *Transport* contains emissions from the combustion of fuel for all transport activity, regardless of the sector, except for international marine bunkers and international aviation. This includes domestic aviation, domestic navigation, road, rail and pipeline transport, and corresponds to IPCC Source/Sink Category 1 A 3. In addition, the IEA data are not collected in a way that allows the autoproducer consumption to be split by specific end-use and therefore, this publication shows autoproducers as a separate item. See Row 3, *Unallocated autoproducers*.

Note: Starting in the 2006 edition, military consumption previously included in *domestic aviation* and in *road* should be in *non-specified other sectors*. See the section on Differences between IEA estimates and UNFCCC submissions, for further details.

**Row 7:** *Road* contains the emissions arising from fuel use in road vehicles, including the use of agricultural vehicles on highways. This corresponds to the IPCC Source/Sink Category 1 A 3 b.

**Row 8:** *Other Sectors* contains the emissions from commercial/institutional activities, agriculture/forestry, fishing, residential and other emissions not specified elsewhere that are included in the IPCC Source/Sink Categories 1 A 4 and 1 A 5. In the *1996 IPCC Guidelines*, the category also includes emissions from autoproducers in the commercial/residential/agricultural sectors that generate electricity and/or heat. The IEA data are not collected in a way that allows the energy consumption to be split by specific end-use and therefore, this publication shows autoproducers as a separate item. See Row 3, *Unallocated autoproducers*.

**Row 9:** *Residential* contains all emissions from fuel combustion in households. This corresponds to IPCC Source/Sink Category 1 A 4 b.

**Row 10:** *Reference Approach* contains total CO<sub>2</sub> emissions from fuel combustion as calculated using the IPCC Reference Approach. The Reference Approach is based on the supply of energy in a country and as a result, all inventories calculated using this method include fugitive emissions from energy transformation (e.g. from oil refineries) which are normally included in Category 1 B. For this reason, Reference Approach estimates are likely to overestimate national CO<sub>2</sub> emissions. In these tables, the difference between the Sectoral Approach and the Reference Approach

includes statistical differences, product transfers, transformation losses and distribution losses.

**Row 11:** *Differences due to losses and/or transformation* contains emissions that result from the transformation of energy from a primary fuel to a secondary or tertiary fuel. Included here are solid fuel transformation, oil refineries, gas works and other fuel transformation industries. These emissions are normally reported as fugitive emissions in the IPCC Source/Sink Category 1 B, but will be included in 1 A in inventories that are calculated using the IPCC Reference Approach. Theoretically, this category should show relatively small emissions representing the loss of carbon by other ways than combustion, such as evaporation or leakage.

Negative emissions for one product and positive emissions for another product would imply a change in the classification of the emission source as a result of an energy transformation between coal and gas, between coal and oil, etc. In practice, however, it often proves difficult to correctly account for all inputs and outputs in energy transformation industries, and to separate energy that is transformed from energy that is combusted. Therefore, the row *Differences due to losses and/or transformation* sometimes shows quite large positive emissions or even negative ones due to problems in the underlying energy data.

**Row 12:** *Statistical differences* can be due to unexplained discrepancies in the underlying energy data. They can also be caused by differences between emissions calculated using the Reference Approach and the Sectoral Approach.

**Row 13:** *International marine bunkers* contains emissions from fuels burned by ships of all flags that are engaged in international navigation. The international navigation may take place at sea, on inland lakes and waterways, and in coastal waters. Consumption by ships engaged in domestic navigation is excluded. The domestic/international split is determined on the basis of port of departure and port of arrival, and not by the flag or nationality of the ship. Consumption by fishing vessels and by military forces is also excluded. Emissions from international marine bunkers should be excluded from the national totals. This corresponds to IPCC Source/Sink Category 1 A 3 d i.

**Row 14:** *International aviation* contains emissions from fuels used by aircraft for international aviation. Fuels used by airlines for their road vehicles are excluded. The domestic/international split should be

determined on the basis of departure and landing locations and not by the nationality of the airline. Emissions from international aviation should be excluded from the national totals. This corresponds to IPCC Source/Sink Category 1 A 3 a i.

### Figures 2 and 3: Emissions by sector

The sector *Other* includes emissions from commercial and public services, agriculture/forestry and fishing. Emissions from unallocated autoproducers are included in *Electricity and heat*.

### Figure 5: Electricity generation by fuel

The product *Other* includes geothermal, solar, wind, combustible renewables and waste, etc. Electricity generation includes both main activity producer and autoproducer electricity.

## Country notes

### Cuba

International marine bunkers for residual fuel oil in the period 1971-1983 were estimated on the basis of 1984 figures and the data reported as domestic navigation in the energy balance.

### Cyprus

#### Note by Turkey:

With respect to Cyprus, Turkey reserves its position as stated in its declaration of 1 May 2004. The information in the report under the heading Cyprus relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Turkey recognises the Turkish Republic of Northern Cyprus (TRNC).

#### Note by all the European Union Member States of the OECD and the European Commission:

The Republic of Cyprus is recognised by all members of the United Nations with the exception of Turkey. The information in this report relates to the area under the effective control of the Government of the Republic of Cyprus.

### Estonia

The data reported as lignite in the energy balance have been considered as oil shale for the calculation of CO<sub>2</sub> emissions.

### France

The methodology for calculating main activity electricity and heat production from gas changed in 2000.

### Italy

Prior to 1990, gas use in commercial/public services was included in residential.

### Japan

For four consecutive years, the IEA received revisions from the Japanese Administration. The first set of revisions received in 2004 increased the 1990 supply by 5% for coal, 2% for natural gas and 0.7% for oil compared to the previous data. This led to an increase of 2.5% in 1990 CO<sub>2</sub> emissions calculated using the Reference Approach while the Sectoral Approach remained fairly constant. For the 2006 edition, the IEA received revisions to the coal and oil data which had a significant impact on both the energy data and the CO<sub>2</sub> emissions. The most significant revisions occurred for coke oven coke, naphtha, blast furnace gas and petroleum coke. These revisions affected consumption rather than supply in the years concerned. As a result, the sectoral approach CO<sub>2</sub> emissions increased for all the years, however at different rates. For example, the sectoral approach CO<sub>2</sub> emissions for 1990 were 4.6% higher than those calculated for the 2005 edition while the 2003 emissions were 1.1% higher than those of the previous edition. Due to the impact these successive revisions have had on the final energy balance as well as on CO<sub>2</sub> emissions, the IEA was in close contact with the Japanese Administration to better understand the reasons behind these changes. These changes are mainly due to the Government of Japan's efforts to improve the input-output balances in the production of oil products and coal products in response to inquiries from the UNFCCC Secretariat. To cope with this issue, the Japanese Administration established a working group in March 2004. The working group completed its work in April 2006. Many of its conclusions were incorporated in the 2006 edition but some further revisions to the time series (especially in industry and other sectors) were submitted for the 2007 edition.

### Netherlands Antilles

Prior to 1992, the Reference Approach overstates emissions since data for lubricants and bitumen (which store carbon) are not available.

## **Norway**

Discrepancies between Reference and Sectoral Approach estimates and the difference in the resulting growth rates arise from statistical differences between supply and consumption data for oil and natural gas. For Norway, supply of these fuels is the residual of two very large and opposite terms, production and exports.

## **Switzerland**

The sectoral breakdown for gas/diesel oil used in the residential sector before 1978 was estimated on the

basis of commercial and residential consumption in 1978 and the data reported as commercial consumption in the energy balance in previous years.

## **United Kingdom**

For reasons of confidentiality, gas for main activity electricity is included in autoproducers for 1990.

## **Vietnam**

A detailed sectoral breakdown is available starting in 1980.

## 3. INDICATORS

### Population

The main source of the 1970 to 2007 population data for the OECD member countries is *National Accounts of OECD Countries, Volume 1*, OECD, Paris, 2009. Data for 1960 to 1969 have been estimated using the growth rates from the population series published in the *OECD Economic Outlook No. 76*. For the **Czech Republic, Hungary and Poland** (1960 to 1969) and **Mexico** (1960 to 1962), the data are estimated using the growth rates from the population series from the World Bank published in the *World Development Indicators CD-ROM*. For the **Slovak Republic**, population data for 1960 to 1989 are from the Demographic Research Centre, Infostat, Slovak Republic.

The main source of the population data for the OECD non-member countries is *World Development Indicators*, World Bank, Washington D.C., 2009. Population data for **Chinese Taipei, Gibraltar, Iraq** and a few countries within the regions **Other Africa, Other Latin America** and **Other Asia** are based on the CHELEM-CEPII online database, 2009.

### GDP

The main source of the 1970 to 2007 GDP series for the OECD member countries is *National Accounts of OECD Countries, Volume 1*, 2009. GDP data for 1960 to 1969 have been estimated using the growth rates from the series in the *OECD Economic Outlook No 76* and data previously published by the OECD Secretariat. Data prior to 1990 for the **Czech Republic and Poland**, prior to 1991 for **Hungary**, and prior to 1992 for the **Slovak Republic** are IEA Secretariat estimates based on GDP growth rates from the World Bank.

The main source of the GDP series for the non-OECD member countries is *World Development Indicators*,

World Bank, Washington D.C., 2009. GDP figures for **Bosnia and Herzegovina, Brunei Darussalam, Chinese Taipei, Cuba, Gibraltar, Iraq, Democratic People's Republic of Korea, Libyan Arab Jamahiriya, Myanmar, Namibia** (1971-1979), **Netherlands Antilles** (available from 1980), **Qatar, Turkmenistan, Former Soviet Union** (before 1990), **Former Yugoslavia** (before 1990) and a few countries within the regions<sup>33</sup> **Other Africa, Other Latin America** and **Other Asia** are from the CHELEM-CEPII online databases 2008, 2009. GDP figures for **Albania** (1971-1979), **Angola** (1971-1984), **Bahrain** (1971-1979, 2006-2007), **Bulgaria** (1971-1979), **Ethiopia** (1971-1980), **Jordan** (1971-1974), **Kuwait** (1990-1991, 2006-2007), **Lebanon** (1971-1987), **Malta** (2007), **Mozambique** (1971-1979), **Oman** (2006-2007), **Romania** (1971-1979), **Serbia**<sup>34</sup> (1990-1998), **United Republic of Tanzania** (1971-1987), the **United Arab Emirates** (1971-1972 and 2006-2007), **Vietnam** (1971-1983), **Yemen** (1971-1989) and **Zimbabwe** (2006-2007) have been estimated based on the growth rates of the CHELEM-CEPII online database, 2009.

The GDP data have been compiled for individual countries at market prices in local currency and annual rates. These data have been scaled up/down to the price levels of 2000 and then converted to US dollars using the yearly average 2000 exchange rates or purchasing power parities (PPPs).<sup>35</sup>

33. Due to lack of complete time series, figures for population and for GDP of Other Latin America do not include British Virgin Islands, Cayman Islands, Falkland Islands, Martinique, Montserrat, Saint Pierre and Miquelon, and Turks and Caicos Islands; and figures for population and GDP of Other Asia do not include Cook Islands.

34. Data for GDP for Serbia include Montenegro until 2004.

35. Purchasing power parities are the rates of currency conversion that equalise the purchasing power of different currencies. A given sum of money, when converted into different currencies at the PPP rates, buys the same basket of goods and services in all countries. In other words, PPPs are the rates of currency conversion which eliminate the differences in price levels between different countries.

For the OECD member countries, the PPPs selected to convert the GDP from national currencies to US dollars come from the OECD Secretariat and were aggregated using the Geary-Khamis (GK) method and rebased on the United States. For a more detailed description of the methodology please see *Purchasing Power Parities and Real Expenditures, GK Results, Volume II, 1990*, OECD, 1993. The PPPs for the other countries come from the World Bank and CHELEM-CEPII.

For the OECD non-member countries, while both the World Bank and CHELEM-CEPII rebased this year their GDP PPP time series on 2005, this publication shows GDP data on a 2000 basis. Therefore, only for this edition, time series of GDP PPP 2000 US\$ were obtained by applying the ratio GDP 2000 US\$ to GDP PPP 2000 US\$ of last year's edition to the new GDP 2000 US\$ figures.

## CO<sub>2</sub> emissions

The estimates of CO<sub>2</sub> emissions in this publication are based on the *1996 IPCC Guidelines* and represent the total emissions from fuel combustion. Emissions have been calculated using both the IPCC Reference Approach and the IPCC Sectoral Approach (which corresponds to IPCC Source/Sink Category 1 A). Reference Approach totals may include certain fugitive emissions from energy transformation which should normally be included in Category 1 B. National totals do not include emissions from international marine bunkers and international aviation. See Chapter 2, IEA emissions estimates for further details.

## Total primary energy supply

Total primary energy supply (TPES) is made up of production + imports - exports - international marine bunkers - *international aviation bunkers* ± stock changes.

*Note: In October 2008 the IEA hosted the third meeting of InterEnerStat. This group is made up of 24 international organisations that collect or use energy statistics. One of the objectives of the group is to improve the quality of energy data by harmonising definitions for energy sources and flows. As a result of this meeting, the IEA has decided to align its energy statistics and balances with most other international organisations and to treat international aviation bunkers in the same way as international marine bunkers.*

*Starting with this edition, international aviation bunkers will no longer be included in the transport sector at the country level. It will be subtracted out of supply in the same way as international marine bunkers.*

## Electricity and heat output

Total output (shown in the summary tables section) includes electricity and heat generated in the transformation sector using fossil fuels, nuclear, hydro (excluding pumped storage), geothermal, solar, biomass, etc.

Both **main activity<sup>36</sup> producer** (formerly known as public) and **autoproducer<sup>37</sup> plants** have been included where available.

For electricity, data include the total number of TWh generated by both **electricity plants** and **CHP plants**.

For heat, data include the total amount of TJ generated by both **CHP plants** and **heat plants**.

To calculate the total electricity and heat output, the heat generated in TJ has been converted to TWh using the relationship 1 TWh = 3 600 TJ and added to electricity generated.

## Ratios

**CO<sub>2</sub> / TPES:** This ratio is expressed in tonnes of CO<sub>2</sub> per terajoule. It has been calculated using the Sectoral Approach CO<sub>2</sub> emissions and total primary energy supply (including biomass and other non-fossil forms of energy).

**CO<sub>2</sub> / GDP:** This ratio is expressed in kilogrammes of CO<sub>2</sub> per 2000 US dollar. It has been calculated using the Sectoral Approach CO<sub>2</sub> emissions and is shown with both GDP calculated using exchange rates and GDP calculated using purchasing power parities.

**CO<sub>2</sub> / population:** This ratio is expressed in tonnes of CO<sub>2</sub> per capita. It has been calculated using the Sectoral Approach CO<sub>2</sub> emissions.

36. Main activity producers (formerly known as public supply undertakings) generate electricity and/or heat for sale to third parties, as their primary activity. They may be privately or publicly owned. Note that the sale need not take place through the public grid.

37. Autoproducer undertakings generate electricity and/or heat, wholly or partly for their own use as an activity which supports their primary activity. They may be privately or publicly owned.

**Per capita CO<sub>2</sub> emissions by sector:** These ratios are expressed in kilogrammes of CO<sub>2</sub> per capita. They have been calculated in two different ways. In the first ratio, the emissions from electricity and heat production are shown separately. In the second ratio, the emissions from electricity and heat have been allocated to final consuming sectors in proportion to the electricity and heat consumed by those sectors.

**CO<sub>2</sub> emissions per kWh:** These ratios are expressed in grammes of CO<sub>2</sub> per kWh. They have been calculated using CO<sub>2</sub> emissions from electricity and heat as shown in the country tables in the rows “main activity producer electricity and heat” and “unallocated autoproducers”, and electricity and heat output as described above.

In the first table on CO<sub>2</sub> emissions per kWh, the CO<sub>2</sub> emissions include emissions from fossil fuels, industrial waste and non-renewable municipal waste that

are consumed for electricity and heat generation in the transformation sector and output includes electricity and heat generated from fossil fuels, nuclear, hydro (excluding pumped storage), geothermal, solar, biomass, etc. As a result, the emissions per kWh can vary from year to year depending on the generation mix.

In the ratios of CO<sub>2</sub> emissions per kWh **by fuel:**

- **Coal/peat** includes primary and secondary coal, peat and manufactured gases (excluding gas works gas).
- **Oil** includes petroleum products (and small amounts of crude oil for some countries).
- **Gas** includes natural gas and gas works gas.

**Note: Emissions per kWh should be used with caution due to data quality problems relating to electricity efficiencies for some countries.**





## 4. GEOGRAPHICAL COVERAGE

**Africa** includes Algeria, Angola, Benin, Botswana (from 1981), Cameroon, Congo, Democratic Republic of Congo, Côte d'Ivoire, Egypt, Eritrea, Ethiopia, Gabon, Ghana, Kenya, Libyan Arab Jamahiriya, Morocco, Mozambique, Namibia (from 1991), Nigeria, Senegal, South Africa, Sudan, United Republic of Tanzania, Togo, Tunisia, Zambia, Zimbabwe and **Other Africa**.

**Other Africa** includes Botswana (until 1980), Burkina Faso, Burundi, Cape Verde, Central African Republic, Chad, Comoros, Djibouti, Equatorial Guinea, Gambia, Guinea, Guinea-Bissau, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mauritius, Namibia (until 1990), Niger, Reunion, Rwanda, Sao Tome and Principe, Seychelles, Sierra Leone, Somalia, Swaziland and Uganda.

**Middle East** includes Bahrain, Islamic Republic of Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, Syrian Arab Republic, United Arab Emirates and Yemen.

**Non-OECD Europe** includes Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus,<sup>38</sup> Gibraltar, Former Yugoslav Republic of Macedonia (FYROM), Malta, Romania, Serbia,<sup>39</sup> and Slovenia.

**Former Soviet Union** includes Armenia, Azerbaijan, Belarus, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Republic of Moldova, Russian Federation, Tajikistan, Turkmenistan, Ukraine and Uzbekistan.

**Latin America** includes Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti,

Honduras, Jamaica, Netherlands Antilles, Nicaragua, Panama, Paraguay, Peru, Trinidad and Tobago, Uruguay, Venezuela and **Other Latin America**.

**Other Latin America** includes Antigua and Barbuda, Aruba, Bahamas, Barbados, Belize, Bermuda, British Virgin Islands, Cayman Islands, Dominica, Falkland Islands, French Guyana, Grenada, Guadeloupe, Guyana, Martinique, Montserrat, Puerto Rico<sup>40</sup> (for natural gas), St. Kitts and Nevis, Saint Lucia, Saint Pierre et Miquelon, St. Vincent and the Grenadines, Suriname and Turks/Caicos Islands.

**China** includes the People's Republic of China and Hong Kong (China).

**Asia** includes Bangladesh, Brunei Darussalam, Cambodia (from 1995), Chinese Taipei, India, Indonesia, DPR of Korea, Malaysia, Mongolia (from 1985), Myanmar, Nepal, Pakistan, Philippines, Singapore, Sri Lanka, Thailand, Vietnam and **Other Asia**.

**Other Asia** includes Afghanistan, Bhutan, Cambodia (until 1994), Cook Islands, East Timor, Fiji, French Polynesia, Kiribati, Laos, Macau, Maldives, Mongolia (until 1984), New Caledonia, Papua New Guinea, Samoa, Solomon Islands, Tonga and Vanuatu.

The **Organisation for Economic Co-Operation and Development (OECD)** includes Australia, Austria, Belgium, Canada, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Korea, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, the Slovak Republic, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States.

38. See the note concerning Cyprus in Chapter 2.

39. Serbia includes Montenegro until 2004 and Kosovo until 1999.

40. Oil statistics as well as coal trade statistics for Puerto Rico are included under the United States.

Within OECD:

**Australia** excludes the overseas territories.

**Denmark** excludes Greenland and the Danish Faroes, except prior to 1990, where data on oil for Greenland were included with the Danish statistics. The Administration is planning to revise the series back to 1974 to exclude these amounts.

**France** includes Monaco, and excludes the following overseas departments and territories (Guadeloupe, Guyana, Martinique, New Caledonia, French Polynesia, Reunion and St.-Pierre and Miquelon).

**Germany** includes the new federal states of Germany from 1970 onwards.

**Italy** includes San Marino and the Vatican.

**Japan** includes Okinawa.

The **Netherlands** excludes Suriname and the Netherlands Antilles.

**Portugal** includes the Azores and Madeira.

**Spain** includes the Canary Islands.

**Switzerland** includes Liechtenstein for the oil data. Data for other fuels do not include Liechtenstein.

**United States** includes the 50 states and the District of Columbia. Oil statistics as well as coal trade statistics also include Puerto Rico, Guam, the Virgin Islands, American Samoa, Johnston Atoll, Midway Islands, Wake Island and the Northern Mariana Islands.

The **European Union - 27 (EU-27)** includes Austria, Belgium, Bulgaria, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, the Slovak Republic, Slovenia, Spain, Sweden and the United Kingdom.

The **International Energy Agency (IEA)** includes Australia, Austria, Belgium, Canada, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Japan, Korea, Luxembourg, the Netherlands, New Zealand, Norway, Poland, Portugal, the Slovak Republic, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States.

**Annex I Parties** include Australia, Austria, Belarus, Belgium, Bulgaria, Canada, Croatia, the Czech Republic,<sup>41</sup> Denmark, Estonia, Finland, France,

Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Latvia, Liechtenstein (not available in this publication), Lithuania, Luxembourg, Monaco (included with France), the Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Russian Federation, the Slovak Republic,<sup>41</sup> Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine, the United Kingdom and the United States.

*The countries that are listed above are included in Annex I of the United Nations Framework Convention on Climate Change as amended on 11 December 1997 by the 12<sup>th</sup> Plenary meeting of the Third Conference of the Parties in Decision 4/CP.3. This includes the countries that were members of the OECD at the time of the signing of the Convention, the EEC, and fourteen countries in Central and Eastern Europe and the Former Soviet Union that are undergoing the process of transition to market economies.*

**Annex II Parties** include Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Japan, Liechtenstein (not available in this publication), Luxembourg, Monaco (included with France), the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, the United Kingdom and the United States.

*According to Decision 26/CP.7 in document FCCC/CP/2001/13/Add.4, Turkey has been deleted from the list of Annex II countries to the Convention. This amendment entered into force on 28 June 2002.*

**Economies in Transition (EITs)** are those countries in Annex I that are undergoing the process of transition to a market economy. This includes Belarus, Bulgaria, Croatia, the Czech Republic,<sup>41</sup> Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Russian Federation, the Slovak Republic,<sup>41</sup> Slovenia and Ukraine.

**Annex I Kyoto Parties** include Australia, Austria, Belgium, Bulgaria, Canada, Croatia, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Latvia, Liechtenstein (not available in this publication), Lithuania, Luxembourg, Monaco (included with France), the Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Russian Federation, the Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Ukraine and the United Kingdom.

*Membership in the Kyoto Protocol is almost identical to that of Annex I, except for Turkey and Belarus which did not agree to a target under the Protocol*

41. Czechoslovakia was in the original list of Annex I countries.

*and the United States which has expressed the intention not to ratify the Protocol. Australia ratified the Protocol on 12 December 2007 and has been included in the Kyoto aggregate in this edition.*

Please note that the following countries have not been considered due to lack of data:

**Africa:** Saint Helena and Western Sahara.

**America:** Anguilla.

**Asia and Oceania:** Christmas Island, Nauru, Niue and Palau.

**Non-OECD Europe:** Montenegro<sup>42</sup> (after 2004).

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42. Data for Montenegro are included under Serbia until 2004.



## 5. SUMMARY TABLES

CO<sub>2</sub> emissions: Sectoral Approachmillion tonnes of CO<sub>2</sub>

	1971	1975	1980	1985	1990	1995	2000	2004	2005	2006	2007	% change 90-07
<b>World *</b>	<b>14 095.0</b>	<b>15 690.6</b>	<b>18 054.8</b>	<b>18 627.7</b>	<b>20 980.5</b>	<b>21 810.4</b>	<b>23 497.3</b>	<b>26 336.1</b>	<b>27 147.0</b>	<b>28 028.0</b>	<b>28 962.4</b>	<b>38.0%</b>
<i>Annex I Parties</i>	..	..	..	..	13 898.6	13 175.5	13 758.4	14 138.4	14 158.4	14 148.6	14 259.1	2.6%
<i>Annex II Parties</i>	8 607.3	8 884.2	9 530.9	9 163.5	9 800.8	10 194.2	10 998.1	11 314.6	11 324.9	11 212.2	11 291.6	15.2%
<i>North America</i>	4 630.7	4 738.0	5 088.5	4 948.0	5 295.6	5 598.6	6 225.8	6 323.0	6 340.8	6 236.1	6 342.3	19.8%
<i>Europe</i>	3 059.9	3 092.8	3 337.3	3 099.0	3 158.7	3 139.9	3 220.0	3 377.3	3 344.3	3 345.9	3 281.3	3.9%
<i>Pacific</i>	916.7	1 053.4	1 105.1	1 116.5	1 346.5	1 455.8	1 552.3	1 614.3	1 639.8	1 630.2	1 668.1	23.9%
<i>Annex I EIT</i>	..	..	..	..	3 970.8	2 828.6	2 559.7	2 616.5	2 617.1	2 696.7	2 702.5	-31.9%
<i>Non-Annex I Parties</i>	..	..	..	..	6 471.5	7 948.5	8 928.8	11 307.9	12 047.8	12 898.7	13 681.3	111.4%
<i>Annex I Kyoto Parties</i>	..	..	..	..	8 792.2	7 829.0	7 808.7	8 098.4	8 096.8	8 146.5	8 162.1	-7.2%
<b>Intl. marine bunkers</b>	<b>344.5</b>	<b>328.6</b>	<b>344.0</b>	<b>291.7</b>	<b>356.9</b>	<b>402.0</b>	<b>466.0</b>	<b>521.7</b>	<b>549.7</b>	<b>580.6</b>	<b>610.4</b>	<b>71.1%</b>
<b>Intl. aviation bunkers</b>	<b>168.4</b>	<b>172.6</b>	<b>200.6</b>	<b>223.8</b>	<b>253.6</b>	<b>284.5</b>	<b>344.0</b>	<b>368.1</b>	<b>391.1</b>	<b>400.2</b>	<b>411.6</b>	<b>62.3%</b>
<b>Non-OECD Total</b>	<b>4 245.5</b>	<b>5 423.6</b>	<b>6 853.2</b>	<b>7 724.6</b>	<b>9 297.5</b>	<b>9 549.5</b>	<b>10 195.0</b>	<b>12 559.7</b>	<b>13 284.0</b>	<b>14 181.6</b>	<b>14 939.6</b>	<b>60.7%</b>
<b>OECD Total</b>	<b>9 336.7</b>	<b>9 765.9</b>	<b>10 657.1</b>	<b>10 387.6</b>	<b>11 072.6</b>	<b>11 574.5</b>	<b>12 492.2</b>	<b>12 886.6</b>	<b>12 922.2</b>	<b>12 865.6</b>	<b>13 000.8</b>	<b>17.4%</b>
Canada	339.4	377.1	426.9	402.2	432.3	465.2	532.8	550.6	556.4	537.7	572.9	32.5%
Mexico	97.1	138.8	212.1	251.6	292.9	309.6	356.8	375.8	403.8	417.7	437.9	49.5%
United States	4 291.3	4 360.8	4 661.6	4 545.7	4 863.3	5 133.3	5 693.0	5 772.4	5 784.5	5 698.3	5 769.3	18.6%
<b>OECD N. America</b>	<b>4 727.8</b>	<b>4 876.8</b>	<b>5 300.5</b>	<b>5 199.6</b>	<b>5 588.6</b>	<b>5 908.1</b>	<b>6 582.6</b>	<b>6 698.8</b>	<b>6 744.7</b>	<b>6 653.7</b>	<b>6 780.2</b>	<b>21.3%</b>
Australia	144.1	180.0	208.0	221.0	259.8	285.2	338.7	368.2	385.8	391.0	396.3	52.5%
Japan	758.8	856.3	880.7	876.0	1 065.3	1 146.3	1 181.4	1 210.6	1 217.8	1 201.9	1 236.3	16.1%
Korea	52.1	76.8	124.4	153.3	229.3	364.8	431.3	478.8	469.1	476.5	488.7	113.1%
New Zealand	13.7	17.1	16.4	19.6	21.3	24.3	32.3	35.5	36.3	37.2	35.5	66.4%
<b>OECD Pacific</b>	<b>968.7</b>	<b>1 130.1</b>	<b>1 229.5</b>	<b>1 269.8</b>	<b>1 575.8</b>	<b>1 820.6</b>	<b>1 983.6</b>	<b>2 093.1</b>	<b>2 108.9</b>	<b>2 106.7</b>	<b>2 156.8</b>	<b>36.9%</b>
Austria	48.7	50.2	55.7	54.3	56.2	58.8	61.4	73.5	74.0	73.9	69.7	24.0%
Belgium	116.8	115.6	125.7	101.9	107.9	115.1	118.6	116.5	112.6	109.6	106.0	-1.8%
Czech Republic	151.0	152.6	165.1	168.6	155.4	123.9	122.1	122.0	119.7	120.8	122.1	-21.4%
Denmark	55.0	52.5	62.5	60.5	50.4	57.6	49.9	50.7	47.3	55.1	50.5	0.2%
Finland	39.8	44.4	55.2	48.6	54.4	56.0	53.9	66.8	55.0	66.7	64.4	18.5%
France	431.9	430.6	461.4	360.3	352.1	353.7	376.7	385.5	388.5	378.3	369.3	4.9%
Germany	978.6	975.5	1 055.6	1 014.6	950.4	869.3	827.1	843.4	811.3	823.5	798.4	-16.0%
Greece	25.2	34.5	45.3	54.6	70.1	72.7	87.2	93.3	95.0	94.1	97.8	39.5%
Hungary	62.2	72.3	85.4	82.2	66.7	57.3	54.2	55.9	56.1	55.7	53.9	-19.1%
Iceland	1.4	1.6	1.7	1.6	1.9	1.9	2.1	2.2	2.2	2.2	2.3	24.6%
Ireland	21.7	21.1	25.9	26.4	30.6	33.0	41.2	42.1	43.7	45.2	44.1	44.1%
Italy	292.9	319.6	359.8	347.5	397.8	409.7	423.7	450.0	453.8	455.4	437.6	10.0%
Luxembourg	15.4	12.1	11.9	9.9	10.5	8.2	8.0	11.0	11.2	11.2	10.7	2.5%
Netherlands	129.6	140.8	153.2	146.7	156.6	171.3	173.1	185.1	182.6	178.3	182.2	16.4%
Norway	23.5	24.1	28.0	27.2	28.3	32.8	33.7	36.7	35.5	36.0	36.9	30.6%
Poland	286.7	338.2	413.1	419.5	343.7	331.3	291.8	295.0	294.0	305.7	304.7	-11.4%
Portugal	14.4	18.1	23.8	24.6	39.3	48.3	59.5	59.8	62.7	56.3	55.2	40.5%
Slovak Republic	39.1	43.8	55.3	54.4	56.7	40.8	37.4	37.3	38.1	37.5	36.8	-35.1%
Spain	120.0	156.6	187.9	175.5	205.8	233.7	283.9	327.4	339.7	332.3	344.7	67.5%
Sweden	82.4	79.4	73.4	58.8	52.8	57.5	52.8	53.6	50.3	48.0	46.2	-12.4%
Switzerland	38.9	36.7	39.2	41.4	40.7	41.0	41.7	44.0	44.5	44.1	42.2	3.6%
Turkey	41.4	59.2	70.9	94.6	126.9	152.7	200.6	207.2	216.4	239.7	265.0	108.8%
United Kingdom	623.5	579.5	571.1	544.5	553.0	519.1	525.6	535.6	534.3	535.8	523.0	-5.4%
<b>OECD Europe</b>	<b>3 640.2</b>	<b>3 759.0</b>	<b>4 127.1</b>	<b>3 918.3</b>	<b>3 908.2</b>	<b>3 845.8</b>	<b>3 926.0</b>	<b>4 094.7</b>	<b>4 068.6</b>	<b>4 105.2</b>	<b>4 063.9</b>	<b>4.0%</b>
<i>European Union - 27</i>	..	..	..	..	4 059.4	3 848.2	3 831.1	4 002.9	3 970.2	3 987.7	3 926.4	-3.3%

\* Total world includes non-OECD total, OECD total as well as international marine bunkers and international aviation bunkers.

CO<sub>2</sub> emissions: Sectoral Approachmillion tonnes of CO<sub>2</sub>

	1971	1975	1980	1985	1990	1995	2000	2004	2005	2006	2007	% change 90-07
<b>Non-OECD Total</b>	<b>4 245.5</b>	<b>5 423.6</b>	<b>6 853.2</b>	<b>7 724.6</b>	<b>9 297.5</b>	<b>9 549.5</b>	<b>10 195.0</b>	<b>12 559.7</b>	<b>13 284.0</b>	<b>14 181.6</b>	<b>14 939.6</b>	<b>60.7%</b>
Algeria	8.7	14.0	28.4	43.2	51.7	55.7	62.4	73.9	78.6	81.7	85.7	65.8%
Angola	1.7	2.0	2.7	2.9	4.0	4.0	5.1	8.7	7.0	8.7	10.7	165.9%
Benin	0.3	0.5	0.4	0.5	0.3	0.2	1.4	2.4	2.5	3.0	3.1	+
Botswana	..	..	..	1.6	2.9	3.3	4.2	4.1	4.3	4.5	4.8	62.0%
Cameroon	0.7	1.0	1.7	2.4	2.7	2.5	2.8	3.0	2.9	3.1	4.6	73.8%
Congo	0.6	0.7	0.8	0.8	0.7	0.5	0.6	0.9	1.0	1.2	1.3	80.9%
Dem. Rep. of Congo	2.5	2.6	3.1	3.2	3.0	2.1	2.0	2.2	2.3	2.3	2.4	-17.7%
Côte d'Ivoire	2.4	3.0	3.4	3.0	2.6	3.2	6.1	5.5	5.8	5.8	5.1	92.0%
Egypt	20.4	25.9	42.3	65.5	79.2	84.0	110.2	138.0	151.9	160.1	168.7	113.0%
Eritrea	..	..	..	..	..	0.8	0.6	0.7	0.6	0.5	0.5	..
Ethiopia	1.3	1.2	1.4	1.4	2.2	2.3	3.2	4.7	4.8	5.3	6.0	169.9%
Gabon	0.5	0.7	1.3	1.7	0.9	1.3	1.4	1.7	2.1	2.1	2.6	183.5%
Ghana	1.9	2.3	2.3	2.2	2.7	3.3	5.1	6.2	6.6	8.5	9.0	232.0%
Kenya	3.8	4.4	5.6	5.5	6.3	7.3	8.9	8.8	10.0	11.3	11.4	80.3%
Libyan Arab Jamahiriya	3.7	9.2	18.6	22.5	27.4	35.1	39.7	43.7	42.5	42.5	43.1	57.7%
Morocco	6.8	9.9	14.0	16.5	19.6	25.4	28.3	34.7	39.2	39.6	40.8	107.9%
Mozambique	2.9	2.3	2.3	1.5	1.1	1.1	1.3	1.7	1.5	1.6	2.0	81.7%
Namibia	..	..	..	..	..	1.8	1.9	2.7	2.8	3.0	3.2	..
Nigeria	5.9	11.7	26.7	32.4	29.2	30.4	41.1	49.2	55.6	51.4	51.4	76.2%
Senegal	1.2	1.6	2.0	2.1	2.0	2.5	3.6	4.5	4.6	4.5	4.2	110.9%
South Africa	173.8	209.2	214.5	229.1	254.7	276.9	298.5	337.6	330.5	331.6	345.8	35.8%
Sudan	3.3	3.3	3.7	4.2	5.5	4.6	5.5	9.5	9.7	11.0	10.9	97.4%
United Rep. of Tanzania	1.5	1.5	1.6	1.5	1.7	2.5	2.6	3.8	5.1	5.7	5.4	217.8%
Togo	0.3	0.3	0.4	0.3	0.6	0.6	1.0	1.0	1.0	0.9	0.9	57.2%
Tunisia	3.7	4.8	7.8	9.6	12.1	14.3	18.0	19.7	19.3	19.8	20.4	69.2%
Zambia	3.4	4.4	3.4	2.8	2.6	2.0	1.7	2.0	2.1	2.2	2.4	-9.0%
Zimbabwe	7.2	7.2	8.0	9.6	16.0	14.8	12.7	9.7	10.4	9.9	9.3	-41.7%
Other Africa	7.6	9.2	13.0	11.8	14.6	16.8	18.4	22.7	23.0	25.0	26.3	80.5%
<b>Africa</b>	<b>266.2</b>	<b>333.0</b>	<b>409.1</b>	<b>477.7</b>	<b>546.2</b>	<b>599.5</b>	<b>688.3</b>	<b>803.2</b>	<b>828.0</b>	<b>847.0</b>	<b>882.0</b>	<b>61.5%</b>
Bahrain	3.0	5.3	7.4	10.4	11.7	11.6	14.1	16.8	18.1	20.2	21.3	81.7%
Islamic Rep. of Iran	41.4	74.9	92.3	146.3	175.3	249.4	304.8	380.6	399.9	440.0	465.9	165.8%
Iraq	12.3	15.6	32.3	43.8	52.8	71.8	81.8	84.8	85.4	88.8	91.4	73.0%
Israel	14.4	17.1	19.6	24.5	33.6	46.3	55.5	60.9	61.1	62.6	65.9	96.3%
Jordan	1.3	2.1	4.2	7.4	9.2	12.1	14.3	16.7	17.9	18.3	19.2	108.3%
Kuwait	23.2	22.9	30.8	37.8	24.3	41.0	50.2	67.0	74.3	66.7	66.8	174.4%
Lebanon	4.6	5.7	6.6	7.7	6.4	12.6	14.2	15.3	15.8	13.3	11.4	77.7%
Oman	0.3	0.7	2.2	5.5	9.9	14.4	19.8	25.0	28.0	30.6	35.9	261.2%
Qatar	2.2	4.9	7.8	12.5	14.5	19.1	24.3	34.8	37.3	42.0	48.5	235.2%
Saudi Arabia	13.3	23.7	101.3	129.0	161.4	204.5	251.1	303.6	321.9	340.0	357.9	121.7%
Syrian Arab Republic	6.8	10.3	15.1	23.6	31.0	38.6	45.8	47.7	47.7	50.8	53.7	73.4%
United Arab Emirates	2.4	4.9	19.1	35.4	51.6	70.0	86.1	107.5	110.0	115.7	130.6	153.0%
Yemen	1.2	1.7	3.4	4.8	6.4	9.3	13.2	17.2	18.8	19.7	20.5	219.6%
<b>Middle East</b>	<b>126.5</b>	<b>189.6</b>	<b>342.1</b>	<b>488.6</b>	<b>588.2</b>	<b>800.7</b>	<b>975.1</b>	<b>1 178.0</b>	<b>1 236.2</b>	<b>1 308.7</b>	<b>1 389.0</b>	<b>136.1%</b>
Albania	3.9	4.5	7.6	7.2	6.2	1.9	3.2	3.5	4.6	4.1	4.0	-35.6%
Bosnia and Herzegovina *	..	..	..	..	23.6	3.3	13.7	14.9	15.7	17.2	18.0	-23.9%
Bulgaria	62.8	72.2	83.8	81.1	74.9	53.4	42.0	45.3	45.8	47.1	50.2	-33.0%
Croatia *	..	..	..	..	21.6	15.8	17.7	20.4	20.7	20.7	22.0	2.1%
Cyprus	1.8	1.7	2.6	2.8	3.8	5.2	6.3	6.9	7.0	7.1	7.4	91.4%
Gibraltar	0.1	0.1	0.1	0.1	0.2	0.3	0.4	0.4	0.4	0.5	0.5	164.3%
FYR of Macedonia *	..	..	..	..	8.5	8.2	8.4	8.5	8.8	8.8	9.1	7.1%
Malta	0.6	0.6	1.0	1.1	2.3	2.4	2.1	2.6	2.7	2.6	2.7	19.1%
Romania	114.9	140.6	176.1	173.3	167.1	117.1	86.3	91.5	91.7	94.9	91.9	-45.0%
Serbia *	..	..	..	..	61.4	44.0	42.5	55.1	45.2	48.0	49.7	-19.1%
Slovenia *	..	..	..	..	13.1	13.8	14.0	15.4	15.6	15.9	15.9	21.2%
Former Yugoslavia *	63.2	75.2	87.6	121.7	-	-	-	-	-	-	-	-
<b>Non-OECD Europe</b>	<b>247.3</b>	<b>294.8</b>	<b>358.8</b>	<b>387.3</b>	<b>382.9</b>	<b>265.4</b>	<b>236.5</b>	<b>264.5</b>	<b>258.2</b>	<b>266.9</b>	<b>271.5</b>	<b>-29.1%</b>

\* Data for individual countries of the Former Yugoslavia are not available prior to 1990.

CO<sub>2</sub> emissions: Sectoral Approachmillion tonnes of CO<sub>2</sub>

	1971	1975	1980	1985	1990	1995	2000	2004	2005	2006	2007	% change 90-07
Armenia	..	..	..	..	20.5	3.4	3.4	3.5	4.1	4.1	4.8	-76.6%
Azerbaijan	..	..	..	..	65.0	31.5	29.4	30.0	32.0	30.2	27.6	-57.6%
Belarus	..	..	..	..	116.1	60.5	56.1	60.3	60.8	64.0	62.7	-46.0%
Estonia	..	..	..	..	36.2	16.0	14.5	16.5	16.2	15.3	18.0	-50.1%
Georgia	..	..	..	..	28.7	7.1	4.4	3.3	3.9	4.4	5.1	-82.1%
Kazakhstan	..	..	..	..	236.4	167.0	123.3	154.5	165.2	185.7	190.5	-19.4%
Kyrgyzstan	..	..	..	..	22.7	4.6	4.6	5.6	5.4	5.2	5.7	-74.9%
Latvia	..	..	..	..	18.4	8.8	6.8	7.5	7.6	8.0	8.3	-54.6%
Lithuania	..	..	..	..	33.1	14.2	11.2	12.7	13.5	13.7	14.4	-56.4%
Republic of Moldova	..	..	..	..	30.2	10.9	6.5	7.5	7.9	7.4	7.5	-75.1%
Russian Federation	..	..	..	..	2 179.9	1 582.9	1 513.8	1 524.1	1 531.2	1 587.2	1 587.4	-27.2%
Tajikistan	..	..	..	..	11.7	4.7	4.2	5.4	5.7	6.3	6.9	-40.9%
Turkmenistan	..	..	..	..	46.6	34.4	36.2	39.3	41.4	41.3	45.3	-2.8%
Ukraine	..	..	..	..	687.9	392.8	292.0	312.6	306.0	310.3	314.0	-54.4%
Uzbekistan	..	..	..	..	119.8	101.6	116.5	115.7	109.8	112.9	113.4	-5.4%
<b>Former Soviet Union *</b>	<b>1 995.8</b>	<b>2 567.9</b>	<b>3 056.0</b>	<b>3 197.5</b>	<b>3 653.1</b>	<b>2 440.4</b>	<b>2 222.7</b>	<b>2 298.7</b>	<b>2 310.6</b>	<b>2 396.1</b>	<b>2 411.6</b>	<b>-34.0%</b>
Argentina	83.1	85.9	95.9	88.6	100.4	118.2	139.2	146.2	149.2	159.4	162.6	62.0%
Bolivia	2.1	3.2	4.3	4.5	5.4	8.2	7.6	9.3	10.7	10.1	12.3	126.2%
Brazil	90.5	136.3	178.1	167.0	193.0	239.0	303.3	320.7	326.8	333.0	347.1	79.8%
Chile	20.8	17.0	21.2	19.4	32.7	41.4	56.0	62.6	63.6	66.2	71.0	117.4%
Colombia	26.2	28.3	33.8	38.3	45.0	58.0	58.7	56.2	56.9	57.0	55.9	24.4%
Costa Rica	1.3	1.7	2.2	2.0	2.6	4.4	4.6	5.5	5.4	5.9	6.6	151.5%
Cuba	18.4	25.4	28.5	30.6	27.6	22.1	24.8	26.2	25.2	24.6	26.2	-5.1%
Dominican Republic	3.4	5.1	6.2	6.1	7.6	11.4	17.4	17.9	17.5	18.6	19.3	152.4%
Ecuador	3.7	6.2	10.6	12.1	13.2	16.3	18.5	22.2	23.6	25.4	27.0	104.6%
El Salvador	1.3	2.0	1.7	1.7	2.2	4.7	5.2	5.8	5.9	5.8	6.2	187.7%
Guatemala	2.3	3.0	4.2	3.3	3.3	6.0	8.8	10.4	11.0	11.1	11.7	254.4%
Haiti	0.4	0.4	0.6	0.8	0.9	0.9	1.4	1.9	2.0	2.0	2.3	144.9%
Honduras	1.1	1.3	1.7	1.7	2.1	3.5	4.4	6.7	6.9	6.4	8.2	282.6%
Jamaica	5.5	7.4	6.5	4.6	7.2	8.4	9.8	10.7	10.6	11.7	12.7	76.5%
Netherlands Antilles	14.4	10.2	8.7	4.6	2.7	2.8	4.0	4.1	4.2	4.2	4.5	63.9%
Nicaragua	1.5	1.8	1.8	1.8	1.8	2.5	3.5	4.1	4.1	4.0	4.4	140.3%
Panama	2.5	3.2	2.9	2.6	2.5	4.1	4.7	5.5	5.7	6.5	6.5	163.7%
Paraguay	0.6	0.7	1.4	1.4	1.9	3.4	3.3	3.7	3.4	3.6	3.7	93.1%
Peru	15.6	18.4	20.5	18.2	19.2	23.7	26.4	28.9	28.5	28.0	30.3	57.8%
Trinidad and Tobago	6.1	5.8	7.9	9.6	11.4	12.3	17.9	22.2	23.3	26.9	29.1	156.2%
Uruguay	5.2	5.5	5.6	3.1	3.7	4.5	5.3	5.4	5.2	6.1	5.7	52.7%
Venezuela	52.1	62.8	92.4	95.2	105.1	118.3	126.7	128.1	136.5	143.9	143.8	36.8%
Other Latin America	7.8	10.8	10.2	9.2	12.4	13.4	15.0	17.0	17.5	17.7	18.9	51.9%
<b>Latin America</b>	<b>366.0</b>	<b>442.6</b>	<b>547.0</b>	<b>526.4</b>	<b>604.1</b>	<b>727.5</b>	<b>866.6</b>	<b>921.2</b>	<b>943.6</b>	<b>978.3</b>	<b>1 016.0</b>	<b>68.2%</b>
Bangladesh	3.2	4.7	7.2	8.8	13.6	20.5	25.2	33.5	36.3	37.4	40.0	195.0%
Brunei Darussalam	0.4	1.4	2.6	2.9	3.4	4.7	4.6	5.2	5.1	5.8	5.8	73.2%
Cambodia	..	..	..	..	..	1.4	2.4	3.5	3.7	4.1	4.4	..
Chinese Taipei	31.0	42.5	72.2	71.7	114.7	157.8	219.4	255.1	262.0	270.0	276.2	140.9%
India	199.3	240.2	292.5	419.5	589.3	782.5	976.4	1 112.2	1 153.6	1 244.0	1 324.0	124.7%
Indonesia	25.1	38.0	69.1	84.8	140.2	192.2	264.6	316.3	330.9	344.0	377.2	169.0%
DPR of Korea	67.5	76.7	105.6	126.4	114.0	74.9	68.8	71.1	74.3	75.4	62.3	-45.3%
Malaysia	12.7	16.1	24.2	33.9	49.7	81.1	116.1	139.7	159.4	165.3	177.4	257.0%
Mongolia	..	..	..	11.6	12.7	10.1	8.8	9.2	9.6	10.6	11.3	-10.9%
Myanmar	4.5	3.9	5.1	5.8	4.0	6.7	8.1	10.6	13.4	12.1	12.4	210.7%
Nepal	0.2	0.3	0.5	0.5	0.9	1.7	3.1	2.7	3.0	3.1	3.2	262.6%
Pakistan	16.6	20.9	26.4	39.5	58.8	79.8	97.5	115.7	118.0	126.6	138.4	135.5%
Philippines	23.1	29.0	33.1	27.7	39.5	59.0	69.9	72.7	72.1	67.7	71.8	81.5%
Singapore	6.0	8.4	12.7	16.3	28.8	38.0	38.1	39.4	43.2	43.2	45.0	56.1%
Sri Lanka	2.8	2.7	3.7	3.6	3.7	5.5	10.6	12.5	13.3	11.8	12.8	242.8%
Thailand	17.2	21.9	34.2	40.5	78.6	141.3	159.5	213.4	214.1	217.1	225.7	187.2%
Vietnam	16.1	16.7	14.8	17.2	17.3	28.0	44.5	80.0	81.6	86.1	93.6	441.5%
Other Asia	8.4	10.2	16.4	9.7	10.1	9.0	10.4	14.8	14.7	14.9	16.8	67.2%
<b>Asia</b>	<b>434.0</b>	<b>533.6</b>	<b>720.1</b>	<b>920.3</b>	<b>1 279.1</b>	<b>1 694.1</b>	<b>2 128.3</b>	<b>2 507.8</b>	<b>2 608.4</b>	<b>2 739.5</b>	<b>2 898.4</b>	<b>126.6%</b>
People's Rep. of China	800.4	1 051.2	1 405.3	1 704.5	2 211.0	2 985.9	3 037.8	4 546.1	5 058.3	5 603.5	6 027.9	172.6%
Hong Kong, China	9.2	10.8	14.7	22.3	33.1	35.9	39.7	40.3	40.7	41.7	43.4	31.2%
<b>China</b>	<b>809.6</b>	<b>1 062.0</b>	<b>1 420.0</b>	<b>1 726.8</b>	<b>2 244.0</b>	<b>3 021.8</b>	<b>3 077.6</b>	<b>4 586.4</b>	<b>5 099.1</b>	<b>5 645.2</b>	<b>6 071.2</b>	<b>170.6%</b>

\* Data for individual countries of the Former Soviet Union are not available prior to 1990.



CO<sub>2</sub> emissions: Sectoral Approach - Coal/peatmillion tonnes of CO<sub>2</sub>

	1971	1975	1980	1985	1990	1995	2000	2004	2005	2006	2007	% change 90-07
<b>World *</b>	<b>5 201.2</b>	<b>5 609.0</b>	<b>6 569.7</b>	<b>7 372.0</b>	<b>8 308.2</b>	<b>8 541.4</b>	<b>8 827.4</b>	<b>10 480.3</b>	<b>11 019.8</b>	<b>11 693.4</b>	<b>12 228.1</b>	<b>47.2%</b>
<i>Annex I Parties</i>	..	..	..	..	5 108.9	4 596.3	4 716.1	4 760.6	4 768.2	4 836.6	4 884.4	-4.4%
<i>Annex II Parties</i>	2 645.9	2 604.8	2 962.8	3 316.3	3 482.0	3 391.8	3 652.5	3 725.0	3 740.8	3 739.9	3 780.2	8.6%
<i>North America</i>	1 140.5	1 253.0	1 481.2	1 725.0	1 890.8	1 994.3	2 247.0	2 210.2	2 233.6	2 201.1	2 238.6	18.4%
<i>Europe</i>	1 234.0	1 059.0	1 182.9	1 224.1	1 155.8	923.0	843.3	877.0	848.5	872.2	864.8	-25.2%
<i>Pacific</i>	271.5	292.9	298.7	367.3	435.4	474.5	562.1	637.8	658.7	666.6	676.8	55.4%
<i>Annex I EIT</i>	..	..	..	..	1 569.0	1 143.7	974.7	950.4	941.1	994.9	988.8	-37.0%
<i>Non-Annex I Parties</i>	..	..	..	..	3 199.3	3 945.2	4 111.3	5 719.7	6 251.6	6 856.8	7 343.7	129.5%
<i>Annex I Kyoto Parties</i>	..	..	..	..	3 249.7	2 639.1	2 503.4	2 574.1	2 559.3	2 642.6	2 652.1	-18.4%
<b>Intl. marine bunkers</b>	<b>0.1</b>	-	-	-	-	-	-	-	-	-	-	-
<b>Intl. aviation bunkers</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Non-OECD Total</b>	<b>2 070.8</b>	<b>2 476.8</b>	<b>2 974.9</b>	<b>3 358.2</b>	<b>4 205.2</b>	<b>4 570.6</b>	<b>4 569.5</b>	<b>6 123.6</b>	<b>6 646.7</b>	<b>7 288.1</b>	<b>7 763.5</b>	<b>84.6%</b>
<b>OECD Total</b>	<b>3 130.3</b>	<b>3 132.3</b>	<b>3 594.8</b>	<b>4 013.8</b>	<b>4 103.1</b>	<b>3 970.8</b>	<b>4 257.9</b>	<b>4 356.7</b>	<b>4 373.1</b>	<b>4 405.3</b>	<b>4 464.6</b>	<b>8.8%</b>
Canada	61.7	56.6	80.5	99.4	98.8	103.3	127.0	111.3	113.2	111.1	123.8	25.3%
Mexico	5.2	6.6	7.2	11.6	14.2	21.5	27.0	31.2	40.0	37.1	39.2	175.8%
United States	1 078.7	1 196.4	1 400.7	1 625.5	1 792.0	1 891.0	2 120.0	2 098.9	2 120.4	2 090.0	2 114.8	18.0%
<b>OECD N. America</b>	<b>1 145.6</b>	<b>1 259.6</b>	<b>1 488.5</b>	<b>1 736.6</b>	<b>1 905.1</b>	<b>2 015.8</b>	<b>2 274.1</b>	<b>2 241.4</b>	<b>2 273.6</b>	<b>2 238.1</b>	<b>2 277.8</b>	<b>19.6%</b>
Australia	73.2	90.3	104.0	116.7	137.1	152.3	189.3	208.1	220.5	226.5	222.7	62.4%
Japan	194.1	197.7	190.8	246.7	294.4	318.2	366.5	418.8	426.9	428.4	444.8	51.1%
Korea	21.2	30.6	48.1	80.2	86.3	101.6	156.9	195.4	195.0	204.8	209.8	143.0%
New Zealand	4.2	4.8	3.8	3.9	3.9	3.9	6.4	10.8	11.4	11.8	9.3	136.7%
<b>OECD Pacific</b>	<b>292.7</b>	<b>323.5</b>	<b>346.8</b>	<b>447.4</b>	<b>521.7</b>	<b>576.2</b>	<b>719.1</b>	<b>833.1</b>	<b>853.7</b>	<b>871.4</b>	<b>886.5</b>	<b>69.9%</b>
Austria	15.9	13.5	13.7	16.9	15.8	13.2	14.2	16.5	15.6	16.5	15.0	-5.1%
Belgium	42.2	37.0	40.2	37.8	39.0	33.4	29.0	21.4	19.1	17.7	16.7	-57.1%
Czech Republic	129.2	121.7	128.8	131.6	121.0	88.7	84.1	79.6	76.3	78.0	80.1	-33.8%
Denmark	6.0	8.0	23.8	28.4	23.7	25.3	15.4	17.1	14.4	21.6	18.1	-23.6%
Finland	8.4	9.3	19.6	19.8	21.1	23.2	20.9	30.4	20.0	30.7	29.0	37.2%
France	135.3	104.2	121.2	91.3	73.3	57.3	57.4	49.7	53.6	50.4	50.9	-30.6%
Germany	554.1	494.5	552.2	580.7	504.6	370.1	337.2	348.9	331.9	339.3	347.5	-31.1%
Greece	6.8	11.0	13.4	24.9	33.4	33.3	37.4	38.3	37.8	34.7	36.6	9.7%
Hungary	36.8	34.5	38.0	35.9	24.1	17.0	15.1	13.8	12.0	11.7	11.7	-51.4%
Iceland	0.0	-	0.1	0.3	0.3	0.2	0.4	0.4	0.4	0.4	0.5	74.9%
Ireland	8.8	7.1	8.0	10.5	14.5	12.3	10.6	9.6	10.6	9.7	9.0	-37.7%
Italy	31.7	30.2	43.0	58.1	55.1	44.9	43.3	62.4	62.8	69.8	60.5	9.8%
Luxembourg	11.3	7.5	7.9	6.3	5.0	2.1	0.5	0.4	0.3	0.4	0.3	-93.7%
Netherlands	14.4	11.5	13.8	23.1	31.8	33.5	29.9	31.7	30.3	28.8	31.3	-1.5%
Norway	3.7	3.9	3.9	4.4	3.4	4.1	4.2	3.5	3.0	2.6	2.9	-15.4%
Poland	252.5	289.7	350.9	359.8	286.9	268.3	217.3	210.0	207.1	215.9	212.4	-26.0%
Portugal	2.4	1.6	1.6	2.9	10.6	13.9	14.7	12.9	13.1	13.0	11.2	5.3%
Slovak Republic	23.5	23.7	32.0	33.3	30.7	21.1	16.0	16.5	15.6	16.2	15.8	-48.5%
Spain	36.9	37.5	47.9	69.4	74.1	71.8	81.5	79.9	80.2	69.2	78.7	6.3%
Sweden	5.4	6.9	5.4	10.6	10.4	9.4	8.1	10.9	9.8	9.0	8.9	-14.8%
Switzerland	2.0	1.0	1.4	2.0	1.4	0.8	0.6	0.6	0.7	0.7	0.7	-51.5%
Turkey	16.0	20.7	26.8	45.1	57.9	60.7	88.9	85.2	86.3	101.7	115.4	99.4%
United Kingdom	348.4	274.2	266.1	236.8	238.2	174.1	138.2	142.5	144.7	157.8	146.9	-38.3%
<b>OECD Europe</b>	<b>1 692.0</b>	<b>1 549.2</b>	<b>1 759.5</b>	<b>1 829.8</b>	<b>1 676.3</b>	<b>1 378.8</b>	<b>1 264.7</b>	<b>1 282.2</b>	<b>1 245.8</b>	<b>1 295.8</b>	<b>1 300.2</b>	<b>-22.4%</b>
<i>European Union - 27</i>	..	..	..	..	1 736.7	1 402.3	1 241.6	1 273.0	1 235.0	1 273.3	1 269.4	-26.9%

\* Total world includes non-OECD total, OECD total as well as international marine bunkers and international aviation bunkers.

CO<sub>2</sub> emissions: Sectoral Approach - Coal/peatmillion tonnes of CO<sub>2</sub>

	1971	1975	1980	1985	1990	1995	2000	2004	2005	2006	2007	% change 90-07
<b>Non-OECD Total</b>	<b>2 070.8</b>	<b>2 476.8</b>	<b>2 974.9</b>	<b>3 358.2</b>	<b>4 205.2</b>	<b>4 570.6</b>	<b>4 569.5</b>	<b>6 123.6</b>	<b>6 646.7</b>	<b>7 288.1</b>	<b>7 763.5</b>	<b>84.6%</b>
Algeria	0.4	0.3	0.2	1.0	1.3	1.4	0.7	1.0	1.1	1.0	1.2	-7.3%
Angola	-	-	-	-	-	-	-	-	-	-	-	-
Benin	-	-	-	-	-	-	-	-	-	-	-	-
Botswana	..	..	..	1.1	1.9	2.2	2.5	2.2	2.3	2.5	2.6	34.8%
Cameroon	-	-	-	-	-	-	-	-	-	-	-	-
Congo	-	-	-	-	-	-	-	-	-	-	-	-
Dem. Rep. of Congo	1.0	0.8	0.8	0.8	0.9	1.0	0.8	0.9	1.0	1.0	1.1	26.0%
Côte d'Ivoire	-	-	-	-	-	-	-	-	-	-	-	-
Egypt	1.3	2.1	2.1	2.7	2.7	2.8	3.3	3.3	3.2	3.1	3.1	13.1%
Eritrea	..	..	..	..	..	-	-	-	-	-	-	..
Ethiopia	-	-	-	-	-	-	-	-	-	-	-	-
Gabon	-	-	-	-	-	-	-	-	-	-	-	-
Ghana	-	-	-	-	-	-	-	-	-	-	-	-
Kenya	0.2	0.1	0.0	0.2	0.4	0.2	0.2	0.3	0.2	0.3	0.3	-27.2%
Libyan Arab Jamahiriya	-	-	-	-	-	-	-	-	-	-	-	-
Morocco	1.2	1.7	1.6	2.7	4.1	6.1	9.2	10.7	11.3	11.3	11.5	178.4%
Mozambique	1.5	1.2	0.7	0.2	0.1	0.1	-	-	-	-	0.0	-84.5%
Namibia	..	..	..	..	..	0.0	0.0	0.0	0.0	0.1	0.2	..
Nigeria	0.5	0.6	0.4	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	-89.5%
Senegal	-	-	-	-	-	-	-	0.3	0.4	0.4	0.4	x
South Africa	146.3	175.1	179.4	189.5	208.3	227.3	248.1	280.0	271.0	272.3	283.0	35.9%
Sudan	-	-	0.0	-	-	-	-	-	-	-	-	-
United Rep. of Tanzania	-	-	0.0	0.0	0.0	0.1	0.2	0.2	0.2	0.2	0.2	+
Togo	-	-	-	-	-	-	-	-	-	-	-	-
Tunisia	0.3	0.3	0.3	0.3	0.3	0.3	0.3	-	-	-	-	..
Zambia	2.0	1.9	1.4	1.1	0.9	0.3	0.3	0.4	0.4	0.4	0.4	-51.5%
Zimbabwe	5.6	5.0	6.1	7.5	13.4	11.2	9.7	7.8	8.3	7.9	7.4	-44.7%
Other Africa	0.5	0.7	0.7	0.9	1.1	1.1	1.7	1.9	1.8	2.1	2.2	104.7%
<b>Africa</b>	<b>160.7</b>	<b>190.0</b>	<b>193.7</b>	<b>208.3</b>	<b>235.6</b>	<b>254.2</b>	<b>276.9</b>	<b>308.9</b>	<b>301.1</b>	<b>302.6</b>	<b>313.7</b>	<b>33.2%</b>
Bahrain	-	-	-	-	-	-	-	-	-	-	-	-
Islamic Rep. of Iran	0.8	4.1	3.8	3.1	2.3	3.3	4.1	3.4	3.9	4.8	5.1	124.6%
Iraq	-	-	-	-	-	-	-	-	-	-	-	-
Israel	0.0	0.0	0.0	7.2	9.3	16.2	25.1	31.1	31.0	31.0	32.6	250.6%
Jordan	-	-	-	-	-	-	-	-	-	-	-	-
Kuwait	-	-	-	-	-	-	-	-	-	-	-	-
Lebanon	0.0	0.0	0.0	-	-	0.5	0.5	0.5	0.5	0.5	0.5	x
Oman	-	-	-	-	-	-	-	-	-	-	-	-
Qatar	-	-	-	-	-	-	-	-	-	-	-	-
Saudi Arabia	-	-	-	-	-	-	-	-	-	-	-	-
Syrian Arab Republic	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	0.0	x
United Arab Emirates	-	-	-	-	-	-	-	-	-	-	-	-
Yemen	-	-	-	-	-	-	-	-	-	-	-	-
<b>Middle East</b>	<b>0.8</b>	<b>4.2</b>	<b>3.9</b>	<b>10.3</b>	<b>11.6</b>	<b>20.0</b>	<b>29.7</b>	<b>35.0</b>	<b>35.5</b>	<b>36.3</b>	<b>38.3</b>	<b>230.3%</b>
Albania	1.2	1.6	2.5	3.7	2.4	0.1	0.1	0.1	0.1	0.1	0.1	-95.7%
Bosnia and Herzegovina *	..	..	..	..	17.3	1.4	9.9	11.1	11.7	13.1	13.6	-21.6%
Bulgaria	33.2	35.0	37.8	42.2	36.8	29.7	25.3	28.4	27.6	28.0	31.3	-15.1%
Croatia *	..	..	..	..	3.4	0.7	1.7	2.7	2.7	2.5	2.7	-19.8%
Cyprus	-	-	-	0.2	0.2	0.2	0.1	0.2	0.1	0.2	0.1	-44.0%
Gibraltar	-	-	-	-	-	-	-	-	-	-	-	-
FYR of Macedonia *	..	..	..	..	5.5	5.9	5.6	5.8	6.1	5.9	5.9	8.2%
Malta	-	-	-	0.5	0.7	0.1	-	-	-	-	-	..
Romania	31.2	38.0	48.9	57.6	49.7	40.5	28.7	32.9	33.2	36.6	36.1	-27.3%
Serbia *	..	..	..	..	41.3	36.2	35.0	39.9	30.6	33.0	33.1	-19.8%
Slovenia *	..	..	..	..	6.3	5.5	5.4	6.2	6.3	6.4	6.6	4.0%
Former Yugoslavia *	35.8	40.5	42.6	72.4	-	-	-	-	-	-	-	-
<b>Non-OECD Europe</b>	<b>101.4</b>	<b>115.0</b>	<b>131.7</b>	<b>176.5</b>	<b>163.7</b>	<b>120.3</b>	<b>111.8</b>	<b>127.4</b>	<b>118.4</b>	<b>125.7</b>	<b>129.6</b>	<b>-20.8%</b>

\* Data for individual countries of the Former Yugoslavia are not available prior to 1990.

CO<sub>2</sub> emissions: Sectoral Approach - Coal/peatmillion tonnes of CO<sub>2</sub>

	1971	1975	1980	1985	1990	1995	2000	2004	2005	2006	2007	% change 90-07
Armenia	..	..	..	..	1.0	0.0	-	-	-	0.0	0.0	-99.5%
Azerbaijan	..	..	..	..	0.3	0.0	-	-	-	-	-	..
Belarus	..	..	..	..	9.4	5.5	3.8	2.5	2.3	2.2	2.0	-78.3%
Estonia	..	..	..	..	24.0	11.3	10.4	11.8	11.3	10.4	13.1	-45.5%
Georgia	..	..	..	..	2.2	0.1	0.0	0.0	0.0	0.0	0.1	-96.3%
Kazakhstan	..	..	..	..	153.3	111.1	80.0	99.1	99.7	112.1	111.0	-27.6%
Kyrgyzstan	..	..	..	..	10.0	1.3	1.9	2.4	2.2	2.0	2.1	-78.8%
Latvia	..	..	..	..	2.5	1.0	0.5	0.3	0.3	0.3	0.4	-83.2%
Lithuania	..	..	..	..	3.1	1.0	0.4	0.7	0.8	1.1	1.0	-66.5%
Republic of Moldova	..	..	..	..	7.8	2.3	0.4	0.3	0.3	0.3	0.2	-97.1%
Russian Federation	..	..	..	..	688.2	492.3	449.7	417.5	422.4	444.6	427.6	-37.9%
Tajikistan	..	..	..	..	2.5	0.1	0.0	0.2	0.2	0.2	0.3	-88.1%
Turkmenistan	..	..	..	..	1.2	-	-	-	-	-	-	..
Ukraine	..	..	..	..	283.0	161.2	116.3	127.4	123.3	141.0	148.0	-47.7%
Uzbekistan	..	..	..	..	13.7	4.4	3.6	3.8	4.2	4.4	4.6	-66.4%
<b>Former Soviet Union *</b>	<b>875.2</b>	<b>1 028.9</b>	<b>1 141.8</b>	<b>982.9</b>	<b>1 202.1</b>	<b>791.4</b>	<b>667.1</b>	<b>666.0</b>	<b>667.0</b>	<b>718.8</b>	<b>710.4</b>	<b>-40.9%</b>
Argentina	3.5	3.7	3.3	3.7	3.9	4.9	4.5	4.6	5.2	6.3	6.5	65.4%
Bolivia	-	-	-	0.2	-	-	-	-	-	-	-	-
Brazil	7.1	8.6	17.7	29.9	29.0	36.5	43.5	47.6	47.5	47.6	49.4	70.7%
Chile	5.0	3.5	4.7	4.8	10.2	9.5	13.0	10.9	10.7	13.9	13.9	36.3%
Colombia	5.6	6.6	7.5	8.8	10.7	12.4	11.4	8.7	9.7	8.9	9.5	-11.5%
Costa Rica	0.0	0.0	0.0	0.0	0.0	-	-	0.2	0.1	0.2	0.3	+
Cuba	0.4	0.3	0.4	0.7	0.7	0.6	0.4	0.4	0.4	0.4	0.4	-48.1%
Dominican Republic	-	-	-	0.5	0.0	0.2	0.2	1.9	1.1	2.0	2.1	+
Ecuador	-	-	-	-	-	-	-	-	-	-	-	-
El Salvador	-	-	0.0	-	-	0.0	0.0	0.0	0.0	0.0	0.0	x
Guatemala	-	-	0.1	-	-	-	0.5	1.1	1.4	1.5	1.6	x
Haiti	-	-	-	0.1	0.0	-	-	-	-	-	-	..
Honduras	-	-	-	-	0.0	0.0	0.3	0.4	0.4	0.5	0.5	+
Jamaica	-	-	-	-	0.1	0.1	0.2	0.2	0.1	0.1	0.1	-30.8%
Netherlands Antilles	-	-	-	-	-	-	-	-	-	-	-	-
Nicaragua	-	-	-	-	-	-	-	-	-	-	-	-
Panama	0.0	0.0	-	0.1	0.1	0.1	0.1	-	-	-	-	..
Paraguay	-	-	-	-	-	-	-	-	-	-	-	-
Peru	0.5	0.6	0.6	0.7	0.6	1.4	2.4	3.3	3.5	3.0	4.1	611.9%
Trinidad and Tobago	-	-	-	-	-	-	-	-	-	-	-	-
Uruguay	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-55.8%
Venezuela	0.6	1.0	0.6	0.7	1.8	0.0	0.5	-	0.1	0.1	0.2	-90.3%
Other Latin America	0.1	0.1	0.1	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	299.9%
<b>Latin America</b>	<b>22.8</b>	<b>24.5</b>	<b>35.1</b>	<b>50.4</b>	<b>57.2</b>	<b>65.7</b>	<b>77.1</b>	<b>79.2</b>	<b>80.4</b>	<b>84.6</b>	<b>88.5</b>	<b>54.8%</b>
Bangladesh	0.4	0.5	0.5	0.2	1.1	1.2	1.3	1.4	1.4	1.4	1.4	24.3%
Brunei Darussalam	-	-	-	-	-	-	-	-	-	-	-	-
Cambodia	..	..	..	..	..	-	-	-	-	-	-	..
Chinese Taipei	10.0	8.4	14.7	26.4	42.6	64.5	111.1	142.0	146.8	154.1	160.6	276.6%
India	142.6	176.1	206.0	294.6	406.3	528.0	635.1	745.3	782.1	844.4	895.0	120.3%
Indonesia	0.5	0.5	0.8	1.5	11.7	17.5	49.1	79.2	90.2	114.3	143.7	+
DPR of Korea	64.9	72.5	97.5	119.0	106.1	70.9	65.7	67.7	71.4	73.3	59.7	-43.7%
Malaysia	0.0	0.0	0.2	1.1	4.0	4.8	6.9	22.2	26.7	28.3	34.3	752.6%
Mongolia	..	..	..	9.4	10.2	9.0	7.5	7.5	7.9	8.8	9.0	-12.4%
Myanmar	0.6	0.6	0.6	0.6	0.3	0.1	0.2	0.4	0.4	0.5	0.5	99.1%
Nepal	0.0	0.1	0.2	0.0	0.2	0.3	1.0	0.6	1.0	1.0	1.0	527.1%
Pakistan	2.5	2.2	2.9	5.2	7.2	8.1	6.9	14.9	14.6	16.2	21.1	191.1%
Philippines	0.1	0.2	1.4	4.7	5.5	7.8	20.7	20.9	22.7	23.0	25.1	360.7%
Singapore	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	73.9%
Sri Lanka	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.2	0.2	881.2%
Thailand	0.5	0.6	1.9	6.5	16.1	29.4	31.4	43.5	46.9	49.8	56.0	248.4%
Vietnam	5.6	10.0	9.2	11.3	9.0	13.4	17.6	33.6	32.8	36.5	39.9	345.4%
Other Asia	4.1	4.3	7.7	0.9	0.8	0.5	1.3	1.6	1.6	1.6	1.9	125.2%
<b>Asia</b>	<b>231.9</b>	<b>276.2</b>	<b>343.6</b>	<b>481.6</b>	<b>621.3</b>	<b>755.7</b>	<b>956.0</b>	<b>1 181.1</b>	<b>1 246.8</b>	<b>1 353.6</b>	<b>1 449.7</b>	<b>133.3%</b>
People's Rep. of China	677.9	837.9	1 125.0	1 435.4	1 889.3	2 538.9	2 433.3	3 699.1	4 170.1	4 638.0	5 002.7	164.8%
Hong Kong, China	0.1	0.1	0.2	12.8	24.4	24.4	17.7	26.9	27.2	28.6	30.7	25.7%
<b>China</b>	<b>678.0</b>	<b>838.1</b>	<b>1 125.2</b>	<b>1 448.1</b>	<b>1 913.7</b>	<b>2 563.3</b>	<b>2 451.0</b>	<b>3 726.0</b>	<b>4 197.3</b>	<b>4 666.6</b>	<b>5 033.3</b>	<b>163.0%</b>

\* Data for individual countries of the Former Soviet Union are not available prior to 1990.

CO<sub>2</sub> emissions: Sectoral Approach - Oilmillion tonnes of CO<sub>2</sub>

	1971	1975	1980	1985	1990	1995	2000	2004	2005	2006	2007	% change 90-07
<b>World *</b>	<b>6 834.7</b>	<b>7 796.5</b>	<b>8 712.8</b>	<b>8 086.8</b>	<b>8 822.5</b>	<b>9 089.0</b>	<b>9 870.7</b>	<b>10 553.4</b>	<b>10 691.8</b>	<b>10 763.1</b>	<b>10 898.6</b>	<b>23.5%</b>
<i>Annex I Parties</i>	..	..	..	..	5 681.9	5 333.4	5 482.6	5 658.6	5 660.4	5 572.1	5 504.3	-3.1%
<i>Annex II Parties</i>	4 522.9	4 773.7	4 901.2	4 225.5	4 489.7	4 628.7	4 850.6	5 025.9	5 032.1	4 925.8	4 847.2	8.0%
<i>North America</i>	2 232.9	2 341.6	2 427.9	2 164.8	2 251.2	2 265.8	2 517.9	2 707.4	2 721.3	2 668.1	2 648.2	17.6%
<i>Europe</i>	1 657.7	1 700.3	1 736.7	1 423.8	1 482.3	1 565.2	1 565.5	1 581.8	1 570.8	1 554.7	1 493.5	0.8%
<i>Pacific</i>	632.3	731.8	736.6	636.9	756.3	797.8	767.2	736.8	739.9	703.0	705.5	-6.7%
<i>Annex I EIT</i>	..	..	..	..	1 129.7	625.7	549.3	554.0	551.2	569.1	578.5	-48.8%
<i>Non-Annex I Parties</i>	..	..	..	..	2 530.1	3 069.2	3 578.0	4 005.0	4 090.6	4 210.2	4 372.2	72.8%
<i>Annex I Kyoto Parties</i>	..	..	..	..	3 497.7	3 171.4	3 099.6	3 120.3	3 114.8	3 063.4	3 023.7	-13.6%
<b>Intl. marine bunkers</b>	<b>344.4</b>	<b>328.6</b>	<b>344.0</b>	<b>291.7</b>	<b>356.9</b>	<b>402.0</b>	<b>466.0</b>	<b>521.7</b>	<b>549.7</b>	<b>580.6</b>	<b>610.4</b>	<b>71.1%</b>
<b>Intl. aviation bunkers</b>	<b>168.4</b>	<b>172.6</b>	<b>200.6</b>	<b>223.8</b>	<b>253.6</b>	<b>284.5</b>	<b>344.0</b>	<b>368.1</b>	<b>391.1</b>	<b>400.2</b>	<b>411.6</b>	<b>62.3%</b>
<b>Non-OECD Total</b>	<b>1 598.0</b>	<b>2 226.6</b>	<b>2 863.9</b>	<b>2 928.4</b>	<b>3 202.9</b>	<b>3 136.1</b>	<b>3 545.7</b>	<b>3 987.4</b>	<b>4 070.0</b>	<b>4 214.0</b>	<b>4 372.1</b>	<b>36.5%</b>
<b>OECD Total</b>	<b>4 723.9</b>	<b>5 068.7</b>	<b>5 304.4</b>	<b>4 642.9</b>	<b>5 009.2</b>	<b>5 266.5</b>	<b>5 514.9</b>	<b>5 676.3</b>	<b>5 681.0</b>	<b>5 568.4</b>	<b>5 504.5</b>	<b>9.9%</b>
Canada	209.8	233.2	246.7	188.8	209.4	212.2	237.1	267.4	272.4	258.9	266.7	27.3%
Mexico	71.7	106.5	161.6	186.5	226.6	230.4	255.9	249.3	259.1	257.7	266.1	17.4%
United States	2 023.0	2 108.4	2 181.2	1 976.0	2 041.8	2 053.5	2 280.8	2 440.1	2 449.0	2 409.3	2 381.5	16.6%
<b>OECD N. America</b>	<b>2 304.6</b>	<b>2 448.1</b>	<b>2 589.5</b>	<b>2 351.3</b>	<b>2 477.8</b>	<b>2 496.1</b>	<b>2 773.8</b>	<b>2 956.7</b>	<b>2 980.4</b>	<b>2 925.8</b>	<b>2 914.3</b>	<b>17.6%</b>
Australia	66.8	80.8	87.3	79.9	89.1	94.4	104.6	105.6	109.1	107.9	109.2	22.6%
Japan	556.2	639.4	638.6	547.4	655.4	689.5	647.1	613.5	613.0	577.0	578.2	-11.8%
Korea	30.9	46.2	76.2	73.1	135.3	240.2	229.9	216.9	203.8	196.2	197.5	46.0%
New Zealand	9.3	11.6	10.7	9.6	11.7	13.9	15.5	17.7	17.9	18.1	18.1	54.5%
<b>OECD Pacific</b>	<b>663.2</b>	<b>778.0</b>	<b>812.9</b>	<b>710.0</b>	<b>891.6</b>	<b>1 038.0</b>	<b>997.1</b>	<b>953.6</b>	<b>943.8</b>	<b>899.1</b>	<b>903.1</b>	<b>1.3%</b>
Austria	27.2	29.2	33.0	26.9	27.7	29.8	31.0	37.7	37.6	37.6	35.6	28.5%
Belgium	63.3	60.4	65.0	46.7	48.7	55.4	56.9	58.7	57.9	54.9	51.9	6.7%
Czech Republic	19.9	27.9	30.6	27.9	23.0	20.5	20.2	23.8	24.9	24.7	25.1	9.3%
Denmark	49.0	44.2	38.5	30.2	22.0	24.4	23.4	21.8	21.6	21.9	21.9	-0.6%
Finland	31.4	33.6	33.9	26.9	28.2	26.2	24.0	26.8	26.1	26.6	26.5	-6.0%
France	277.3	293.5	292.8	214.5	220.1	227.3	234.0	239.7	237.2	232.8	226.1	2.7%
Germany	385.7	392.4	385.9	326.6	323.1	345.7	324.0	304.0	295.7	297.7	261.3	-19.1%
Greece	18.4	23.5	32.0	29.6	36.5	39.1	45.7	49.7	51.7	53.1	53.5	46.6%
Hungary	18.6	27.2	29.8	27.0	22.7	19.8	17.3	15.9	16.8	17.8	17.7	-22.2%
Iceland	1.4	1.6	1.7	1.4	1.6	1.7	1.7	1.8	1.8	1.9	1.9	15.8%
Ireland	12.9	14.0	16.2	11.4	12.1	15.7	22.9	23.8	24.9	26.2	25.0	106.1%
Italy	237.3	248.6	267.5	229.6	252.7	261.3	245.3	232.2	224.8	222.3	212.8	-15.8%
Luxembourg	4.1	3.8	3.0	2.9	4.4	4.7	5.9	7.7	8.0	7.8	7.5	69.1%
Netherlands	68.1	56.8	70.0	48.3	52.7	57.8	60.7	66.0	68.5	67.8	71.3	35.1%
Norway	19.8	19.8	22.0	19.8	20.0	20.4	21.0	22.4	21.9	22.4	22.9	14.6%
Poland	21.9	33.5	42.8	39.2	34.9	40.9	51.5	57.3	58.1	59.9	62.7	79.5%
Portugal	12.0	16.5	22.2	21.8	28.7	34.4	39.9	38.8	40.5	34.6	34.8	21.2%
Slovak Republic	12.6	15.2	18.1	14.3	14.4	7.1	6.8	8.6	9.1	9.1	9.5	-33.6%
Spain	82.4	117.3	136.9	101.6	121.0	143.4	166.8	190.0	191.4	189.5	190.2	57.3%
Sweden	77.1	72.5	67.6	47.3	40.1	45.4	41.5	39.0	36.6	35.0	33.6	-16.3%
Switzerland	36.9	34.8	36.0	35.8	34.2	33.5	33.2	34.0	34.2	33.8	31.9	-6.7%
Turkey	25.4	38.5	44.1	49.4	62.5	78.9	82.7	78.7	77.1	77.3	78.6	25.7%
United Kingdom	253.5	238.0	212.7	202.5	208.4	198.8	187.5	187.5	190.5	188.9	184.9	-11.3%
<b>OECD Europe</b>	<b>1 756.2</b>	<b>1 842.6</b>	<b>1 902.0</b>	<b>1 581.6</b>	<b>1 639.8</b>	<b>1 732.4</b>	<b>1 744.0</b>	<b>1 766.0</b>	<b>1 756.8</b>	<b>1 743.4</b>	<b>1 687.1</b>	<b>2.9%</b>
<i>European Union - 27</i>	..	..	..	..	1 647.1	1 675.4	1 670.1	1 698.4	1 693.1	1 679.5	1 624.5	-1.4%

\* Total world includes non-OECD total, OECD total as well as international marine bunkers and international aviation bunkers.

CO<sub>2</sub> emissions: Sectoral Approach - Oilmillion tonnes of CO<sub>2</sub>

	1971	1975	1980	1985	1990	1995	2000	2004	2005	2006	2007	% change 90-07
<b>Non-OECD Total</b>	<b>1 598.0</b>	<b>2 226.6</b>	<b>2 863.9</b>	<b>2 928.4</b>	<b>3 202.9</b>	<b>3 136.1</b>	<b>3 545.7</b>	<b>3 987.4</b>	<b>4 070.0</b>	<b>4 214.0</b>	<b>4 372.1</b>	<b>36.5%</b>
Algeria	5.9	9.1	14.8	20.5	23.0	21.8	24.1	29.7	30.7	31.7	34.3	49.4%
Angola	1.6	1.9	2.5	2.7	3.0	2.9	4.0	7.2	5.6	7.2	9.3	213.0%
Benin	0.3	0.5	0.4	0.5	0.3	0.2	1.4	2.4	2.5	3.0	3.1	+
Botswana	..	..	..	0.5	1.0	1.2	1.7	1.9	2.0	2.1	2.1	115.8%
Cameroon	0.7	1.0	1.7	2.4	2.7	2.5	2.8	3.0	2.9	3.1	4.0	49.6%
Congo	0.6	0.7	0.8	0.8	0.7	0.5	0.6	0.8	1.0	1.1	1.2	75.0%
Dem. Rep. of Congo	1.5	1.8	2.3	2.4	2.1	1.1	1.2	1.3	1.3	1.3	1.3	-35.8%
Côte d'Ivoire	2.4	3.0	3.4	3.0	2.6	3.1	3.2	2.8	2.9	3.0	2.7	2.7%
Egypt	18.9	23.6	36.9	54.8	61.6	58.2	66.9	77.6	83.0	86.5	92.0	49.5%
Eritrea	..	..	..	..	..	0.8	0.6	0.7	0.6	0.5	0.5	..
Ethiopia	1.3	1.2	1.4	1.4	2.2	2.3	3.2	4.7	4.8	5.3	6.0	169.9%
Gabon	0.5	0.7	1.3	1.6	0.7	1.1	1.1	1.4	1.8	1.8	2.2	218.9%
Ghana	1.9	2.3	2.3	2.2	2.7	3.3	5.1	6.2	6.6	8.5	9.0	232.0%
Kenya	3.6	4.3	5.5	5.3	6.0	7.0	8.7	8.5	9.8	11.0	11.2	86.8%
Libyan Arab Jamahiriya	1.6	6.7	13.1	15.5	18.3	26.6	30.9	31.7	32.1	31.2	31.8	73.1%
Morocco	5.6	8.1	12.3	13.6	15.4	19.3	19.0	24.0	27.0	27.2	28.1	82.2%
Mozambique	1.4	1.1	1.6	1.2	0.9	1.0	1.3	1.7	1.5	1.6	1.9	97.9%
Namibia	..	..	..	..	..	1.8	1.9	2.7	2.8	2.9	3.0	..
Nigeria	5.0	10.1	23.4	25.2	22.1	21.2	28.6	32.9	38.5	32.3	28.8	30.2%
Senegal	1.2	1.6	2.0	2.1	2.0	2.4	3.6	4.1	4.2	4.0	3.8	89.3%
South Africa	27.5	34.1	35.1	39.6	46.4	49.6	50.4	57.6	59.5	59.3	62.7	35.2%
Sudan	3.3	3.3	3.7	4.2	5.5	4.6	5.5	9.5	9.7	11.0	10.9	97.4%
United Rep. of Tanzania	1.5	1.5	1.6	1.5	1.7	2.4	2.4	3.4	4.2	4.5	4.2	146.2%
Togo	0.3	0.3	0.4	0.3	0.6	0.6	1.0	1.0	1.0	0.9	0.9	57.2%
Tunisia	3.4	4.0	6.7	7.1	9.0	9.5	11.3	11.9	12.1	11.7	11.9	33.2%
Zambia	1.5	2.5	1.9	1.7	1.7	1.7	1.4	1.7	1.8	1.9	2.0	12.0%
Zimbabwe	1.6	2.1	1.8	2.0	2.6	3.6	3.0	1.9	2.1	2.0	1.9	-26.6%
Other Africa	7.1	8.5	12.3	10.9	13.5	15.7	16.8	19.8	20.3	20.9	21.9	62.6%
<b>Africa</b>	<b>100.3</b>	<b>134.1</b>	<b>189.2</b>	<b>223.1</b>	<b>248.2</b>	<b>266.1</b>	<b>301.6</b>	<b>352.2</b>	<b>372.2</b>	<b>377.6</b>	<b>392.8</b>	<b>58.2%</b>
Bahrain	1.2	1.2	1.7	1.8	2.1	2.4	2.5	3.1	3.6	4.3	4.2	103.7%
Islamic Rep. of Iran	35.2	62.7	80.0	126.4	136.0	166.0	181.9	205.2	211.2	232.6	233.4	71.5%
Iraq	10.5	12.4	29.8	42.1	49.1	65.7	75.8	82.9	82.6	86.0	88.7	80.7%
Israel	14.2	17.0	19.4	17.3	24.2	30.1	30.4	27.6	26.9	27.4	28.9	19.3%
Jordan	1.3	2.1	4.2	7.4	9.0	11.6	13.8	13.9	14.7	13.6	13.6	51.1%
Kuwait	13.3	13.0	17.6	28.2	12.5	23.0	32.3	47.4	52.3	44.1	44.8	257.8%
Lebanon	4.6	5.6	6.6	7.7	6.4	12.1	13.7	14.8	15.3	12.8	10.8	69.7%
Oman	0.3	0.7	1.5	3.3	5.0	7.7	8.4	10.9	12.0	13.0	14.3	184.8%
Qatar	0.3	0.7	1.5	2.0	2.3	2.9	3.4	6.8	7.8	9.0	11.3	389.6%
Saudi Arabia	10.6	18.3	80.1	95.0	114.6	143.1	176.2	204.3	212.2	226.7	241.2	110.4%
Syrian Arab Republic	6.8	10.3	15.0	23.3	27.8	33.8	35.3	35.4	37.0	39.6	42.9	54.4%
United Arab Emirates	0.4	1.6	9.4	15.6	18.5	21.4	21.9	28.8	30.1	31.4	32.9	78.0%
Yemen	1.2	1.7	3.4	4.8	6.4	9.3	13.2	17.2	18.8	19.7	20.5	219.6%
<b>Middle East</b>	<b>99.9</b>	<b>147.4</b>	<b>270.3</b>	<b>374.7</b>	<b>413.9</b>	<b>529.1</b>	<b>608.7</b>	<b>698.3</b>	<b>724.3</b>	<b>760.2</b>	<b>787.4</b>	<b>90.2%</b>
Albania	2.4	2.3	4.4	2.8	3.4	1.7	3.1	3.4	4.4	4.0	3.9	14.4%
Bosnia and Herzegovina *	..	..	..	..	5.4	1.6	3.3	3.3	3.2	3.4	3.6	-33.0%
Bulgaria	29.1	34.9	38.6	28.0	26.1	13.7	10.4	11.5	12.0	12.6	12.4	-52.7%
Croatia *	..	..	..	..	13.4	11.0	11.3	12.4	12.9	13.2	13.5	0.2%
Cyprus	1.8	1.7	2.6	2.6	3.6	5.0	6.1	6.7	6.8	6.9	7.2	99.2%
Gibraltar	0.1	0.1	0.1	0.1	0.2	0.3	0.4	0.4	0.4	0.5	0.5	164.3%
FYR of Macedonia *	..	..	..	..	3.0	2.3	2.7	2.5	2.6	2.7	3.0	-1.5%
Malta	0.6	0.6	1.0	0.7	1.6	2.2	2.1	2.6	2.7	2.6	2.7	73.6%
Romania	31.5	40.0	51.6	41.1	50.0	32.0	26.5	27.2	27.8	27.0	27.6	-44.8%
Serbia *	..	..	..	..	14.1	4.8	4.1	10.0	10.3	10.7	12.0	-14.7%
Slovenia *	..	..	..	..	5.0	6.7	6.7	7.1	7.2	7.4	7.3	44.3%
Former Yugoslavia *	25.5	31.8	39.2	38.3	-	-	-	-	-	-	-	-
<b>Non-OECD Europe</b>	<b>91.1</b>	<b>111.4</b>	<b>137.4</b>	<b>113.7</b>	<b>125.8</b>	<b>81.3</b>	<b>76.8</b>	<b>87.1</b>	<b>90.5</b>	<b>91.0</b>	<b>93.5</b>	<b>-25.7%</b>

\* Data for individual countries of the Former Yugoslavia are not available prior to 1990.

CO<sub>2</sub> emissions: Sectoral Approach - Oilmillion tonnes of CO<sub>2</sub>

	1971	1975	1980	1985	1990	1995	2000	2004	2005	2006	2007	% change 90-07
Armenia	..	..	..	..	11.2	0.7	0.8	0.9	1.0	0.9	0.9	-91.6%
Azerbaijan	..	..	..	..	31.3	18.8	18.6	12.0	14.0	10.5	10.7	-66.0%
Belarus	..	..	..	..	79.9	29.5	19.5	19.6	19.5	22.1	20.6	-74.3%
Estonia	..	..	..	..	9.3	3.5	2.6	3.1	3.1	3.1	3.2	-65.4%
Georgia	..	..	..	..	15.8	4.8	2.1	1.6	2.0	2.0	2.5	-84.2%
Kazakhstan	..	..	..	..	58.3	32.5	22.7	24.1	26.2	28.0	28.4	-51.3%
Kyrgyzstan	..	..	..	..	9.1	1.6	1.3	1.7	1.8	1.7	2.0	-78.4%
Latvia	..	..	..	..	10.3	5.5	3.8	4.1	4.1	4.4	4.7	-54.1%
Lithuania	..	..	..	..	19.7	9.0	6.5	7.0	7.5	7.3	7.5	-61.8%
Republic of Moldova	..	..	..	..	14.8	3.1	1.2	1.9	1.9	1.9	1.9	-86.9%
Russian Federation	..	..	..	..	625.4	351.2	332.4	318.0	309.9	321.0	325.8	-47.9%
Tajikistan	..	..	..	..	5.9	3.5	2.7	4.0	4.3	4.8	5.3	-10.1%
Turkmenistan	..	..	..	..	16.9	8.2	10.7	12.4	12.7	12.5	14.0	-17.0%
Ukraine	..	..	..	..	195.5	75.4	33.7	38.5	38.2	39.3	40.9	-79.1%
Uzbekistan	..	..	..	..	30.6	19.8	19.5	19.7	16.1	15.0	14.6	-52.3%
<b>Former Soviet Union *</b>	<b>688.9</b>	<b>1 018.6</b>	<b>1 210.0</b>	<b>1 193.3</b>	<b>1 134.1</b>	<b>567.1</b>	<b>478.3</b>	<b>468.7</b>	<b>462.4</b>	<b>474.7</b>	<b>483.1</b>	<b>-57.4%</b>
Argentina	67.3	65.1	70.9	54.4	53.1	62.1	66.1	66.9	68.6	74.2	74.5	40.3%
Bolivia	2.0	2.9	3.7	3.4	3.9	5.7	5.3	6.5	7.1	6.3	7.8	98.9%
Brazil	83.2	126.9	158.8	132.8	157.7	194.0	242.5	237.7	241.2	245.5	257.0	62.9%
Chile	14.5	12.4	15.1	13.0	20.4	29.7	32.7	37.1	38.8	39.8	50.6	147.8%
Colombia	18.0	18.5	20.6	22.2	26.8	37.4	34.6	33.9	32.9	33.7	32.3	20.6%
Costa Rica	1.3	1.7	2.2	2.0	2.6	4.4	4.6	5.3	5.3	5.8	6.2	139.8%
Cuba	18.0	25.1	28.0	29.9	26.8	21.4	23.3	24.4	23.4	22.1	23.4	-12.4%
Dominican Republic	3.4	5.1	6.2	5.6	7.6	11.2	17.2	15.8	15.8	16.0	16.4	115.4%
Ecuador	3.5	5.9	10.5	11.7	12.7	15.6	17.9	21.1	22.7	24.0	25.5	101.0%
El Salvador	1.3	2.0	1.7	1.7	2.2	4.7	5.2	5.8	5.9	5.8	6.2	187.6%
Guatemala	2.3	3.0	4.2	3.3	3.3	6.0	8.3	9.3	9.6	9.6	10.1	205.9%
Haiti	0.4	0.4	0.6	0.6	0.9	0.9	1.4	1.9	2.0	2.0	2.3	152.6%
Honduras	1.1	1.3	1.7	1.7	2.1	3.5	4.1	6.3	6.5	6.0	7.7	260.5%
Jamaica	5.5	7.4	6.5	4.6	7.1	8.2	9.6	10.5	10.4	11.7	12.6	78.5%
Netherlands Antilles	14.4	10.2	8.7	4.6	2.7	2.8	4.0	4.1	4.2	4.2	4.5	63.9%
Nicaragua	1.5	1.8	1.8	1.8	1.8	2.5	3.5	4.1	4.1	4.0	4.4	140.3%
Panama	2.5	3.2	2.9	2.6	2.4	4.0	4.6	5.5	5.7	6.5	6.5	172.2%
Paraguay	0.6	0.7	1.4	1.4	1.9	3.4	3.3	3.7	3.4	3.6	3.7	93.1%
Peru	14.4	17.0	18.9	16.2	17.6	21.8	23.0	23.5	21.4	21.1	20.7	17.8%
Trinidad and Tobago	2.7	3.0	2.8	2.5	2.1	2.2	2.7	2.8	3.1	3.9	3.9	83.8%
Uruguay	5.1	5.4	5.5	3.1	3.7	4.5	5.2	5.2	5.0	5.9	5.5	48.2%
Venezuela	30.7	37.5	59.1	56.0	57.0	59.9	64.6	76.5	83.8	88.7	89.7	57.4%
Other Latin America	7.7	10.7	10.1	9.1	12.4	13.3	14.2	15.5	16.0	16.2	17.5	41.0%
<b>Latin America</b>	<b>301.6</b>	<b>367.4</b>	<b>442.0</b>	<b>384.2</b>	<b>428.7</b>	<b>519.5</b>	<b>597.9</b>	<b>623.3</b>	<b>637.0</b>	<b>656.5</b>	<b>688.9</b>	<b>60.7%</b>
Bangladesh	2.2	3.3	4.6	4.6	5.2	8.4	9.4	11.6	12.9	12.1	12.7	145.6%
Brunei Darussalam	0.2	0.2	0.5	0.6	0.9	1.3	1.4	1.6	1.6	1.8	1.9	121.9%
Cambodia	..	..	..	..	..	1.4	2.4	3.5	3.7	4.1	4.4	..
Chinese Taipei	19.0	31.3	54.2	43.5	68.7	85.5	94.5	91.5	92.4	92.5	90.1	31.1%
India	55.5	62.3	84.1	117.7	164.0	221.7	299.1	311.4	307.9	333.0	357.8	118.1%
Indonesia	24.4	36.4	61.0	69.7	91.2	116.5	153.5	176.3	179.5	166.9	165.7	81.7%
DPR of Korea	2.6	4.2	8.0	7.4	7.9	3.9	3.1	3.4	2.8	2.2	2.6	-67.0%
Malaysia	12.6	16.0	23.9	27.9	38.0	50.6	58.7	66.1	66.6	65.0	68.3	79.9%
Mongolia	..	..	..	2.2	2.4	1.0	1.3	1.7	1.7	1.9	2.3	-4.3%
Myanmar	3.8	3.0	3.8	3.4	2.0	3.9	5.2	5.6	5.9	5.3	5.6	177.7%
Nepal	0.2	0.2	0.3	0.5	0.7	1.5	2.1	2.1	2.1	2.1	2.2	202.8%
Pakistan	8.8	11.0	13.2	20.9	30.6	43.7	56.1	47.1	47.3	54.3	58.6	91.4%
Philippines	22.9	28.8	31.6	23.0	34.1	51.2	49.2	46.8	42.8	38.7	39.6	16.1%
Singapore	5.9	8.3	12.6	16.1	28.7	34.4	35.1	26.8	29.1	28.0	28.9	0.9%
Sri Lanka	2.8	2.7	3.7	3.6	3.7	5.5	10.6	12.5	13.0	11.7	12.6	239.5%
Thailand	16.8	21.3	32.3	28.3	52.6	93.7	90.8	117.4	113.4	112.3	112.0	113.1%
Vietnam	10.6	6.7	5.6	5.8	8.3	14.2	24.2	35.6	37.3	37.5	40.9	392.0%
Other Asia	3.8	5.4	8.5	7.5	8.7	7.9	8.6	13.0	12.6	12.7	14.3	65.6%
<b>Asia</b>	<b>192.0</b>	<b>241.2</b>	<b>348.0</b>	<b>382.6</b>	<b>547.6</b>	<b>746.3</b>	<b>905.4</b>	<b>974.0</b>	<b>972.6</b>	<b>981.9</b>	<b>1 020.7</b>	<b>86.4%</b>
People's Rep. of China	115.2	195.9	252.4	247.2	295.8	415.3	560.8	775.5	802.5	864.4	897.7	203.4%
Hong Kong, China	9.0	10.7	14.5	9.6	8.7	11.5	16.3	8.3	8.4	7.7	8.0	-7.3%
<b>China</b>	<b>124.2</b>	<b>206.6</b>	<b>267.0</b>	<b>256.8</b>	<b>304.5</b>	<b>426.7</b>	<b>577.1</b>	<b>783.8</b>	<b>810.9</b>	<b>872.1</b>	<b>905.7</b>	<b>197.5%</b>

\* Data for individual countries of the Former Soviet Union are not available prior to 1990.

CO<sub>2</sub> emissions: Sectoral Approach - Gasmillion tonnes of CO<sub>2</sub>

	1971	1975	1980	1985	1990	1995	2000	2004	2005	2006	2007	% change 90-07
<b>World *</b>	<b>2 058.3</b>	<b>2 281.1</b>	<b>2 767.1</b>	<b>3 161.1</b>	<b>3 809.8</b>	<b>4 107.5</b>	<b>4 705.6</b>	<b>5 205.6</b>	<b>5 344.4</b>	<b>5 472.1</b>	<b>5 733.8</b>	<b>50.5%</b>
<i>Annex I Parties</i>	..	..	..	..	3 069.0	3 176.9	3 471.7	3 631.3	3 647.6	3 650.2	3 778.6	23.1%
<i>Annex II Parties</i>	1 438.5	1 503.1	1 663.5	1 616.2	1 794.0	2 121.9	2 426.3	2 496.7	2 490.3	2 479.5	2 590.9	44.4%
<i>North America</i>	1 257.4	1 143.4	1 179.4	1 058.1	1 135.1	1 309.4	1 423.0	1 378.0	1 359.9	1 337.9	1 427.3	25.7%
<i>Europe</i>	168.1	331.0	414.3	446.1	505.8	631.3	784.1	883.5	894.0	885.9	882.7	74.5%
<i>Pacific</i>	12.9	28.7	69.8	112.0	153.1	181.3	219.1	235.2	236.4	255.6	280.9	83.5%
<i>Annex I EIT</i>	..	..	..	..	1 268.5	1 042.0	1 016.6	1 091.3	1 104.4	1 110.2	1 116.8	-12.0%
<i>Non-Annex I Parties</i>	..	..	..	..	740.8	930.5	1 233.9	1 574.3	1 696.9	1 822.0	1 955.2	163.9%
<i>Annex I Kyoto Parties</i>	..	..	..	..	2 024.3	1 978.1	2 155.7	2 343.6	2 366.7	2 379.9	2 423.0	19.7%
<b>Intl. marine bunkers</b>	-	-	-	-	-	-	-	-	-	-	-	-
<b>Intl. aviation bunkers</b>	-	-	-	-	-	-	-	-	-	-	-	-
<b>Non-OECD Total</b>	<b>576.7</b>	<b>720.2</b>	<b>1 014.4</b>	<b>1 438.0</b>	<b>1 889.5</b>	<b>1 830.6</b>	<b>2 064.0</b>	<b>2 428.8</b>	<b>2 548.1</b>	<b>2 658.7</b>	<b>2 786.9</b>	<b>47.5%</b>
<b>OECD Total</b>	<b>1 481.6</b>	<b>1 560.9</b>	<b>1 752.7</b>	<b>1 723.1</b>	<b>1 920.3</b>	<b>2 276.9</b>	<b>2 641.6</b>	<b>2 776.9</b>	<b>2 796.3</b>	<b>2 813.4</b>	<b>2 946.9</b>	<b>53.5%</b>
Canada	67.9	87.3	99.7	113.9	123.8	149.1	168.1	171.2	170.2	167.2	181.9	46.9%
Mexico	20.2	25.6	43.2	53.6	52.1	57.7	73.8	95.3	104.7	122.9	132.6	154.5%
United States	1 189.5	1 056.1	1 079.7	944.2	1 011.3	1 160.2	1 254.9	1 206.8	1 189.7	1 170.8	1 245.5	23.2%
<b>OECD N. America</b>	<b>1 277.6</b>	<b>1 169.0</b>	<b>1 222.6</b>	<b>1 111.7</b>	<b>1 187.2</b>	<b>1 367.1</b>	<b>1 496.8</b>	<b>1 473.3</b>	<b>1 464.6</b>	<b>1 460.9</b>	<b>1 559.9</b>	<b>31.4%</b>
Australia	4.1	8.9	16.7	24.4	32.8	37.7	43.9	53.8	55.7	56.1	63.9	94.9%
Japan	8.5	19.2	51.2	81.5	114.6	137.1	164.8	174.4	173.7	192.0	208.8	82.3%
Korea	-	-	-	-	6.4	19.4	39.9	60.0	63.8	68.2	73.7	+
New Zealand	0.2	0.6	1.8	6.1	5.7	6.5	10.4	7.0	7.0	7.4	8.1	42.7%
<b>OECD Pacific</b>	<b>12.9</b>	<b>28.7</b>	<b>69.8</b>	<b>112.0</b>	<b>159.4</b>	<b>200.6</b>	<b>259.0</b>	<b>295.2</b>	<b>300.2</b>	<b>323.8</b>	<b>354.6</b>	<b>122.4%</b>
Austria	5.6	7.5	9.0	10.1	11.8	14.7	15.0	17.2	18.9	17.2	16.1	36.3%
Belgium	11.3	18.2	20.5	16.9	18.9	24.5	30.7	33.9	33.3	34.3	34.5	82.5%
Czech Republic	1.9	3.1	5.6	9.1	11.5	14.5	17.0	18.0	17.8	17.4	16.2	41.8%
Denmark	-	0.0	0.0	1.5	4.2	7.3	10.3	10.9	10.4	10.6	9.5	129.0%
Finland	-	1.5	1.7	1.9	5.1	6.6	7.9	9.2	8.4	9.0	8.5	68.1%
France	19.2	33.0	47.4	54.5	56.1	65.8	81.1	90.9	92.5	90.1	87.1	55.4%
Germany	38.8	86.4	114.9	105.3	118.1	147.0	158.4	182.3	179.8	182.2	179.4	51.8%
Greece	-	-	-	0.1	0.2	0.1	3.9	5.1	5.4	6.3	7.7	+
Hungary	6.8	10.7	17.6	19.2	19.8	20.3	21.6	26.0	27.0	25.8	24.2	22.1%
Iceland	-	-	-	-	-	-	-	-	-	-	-	-
Ireland	-	-	1.7	4.5	4.0	5.0	7.7	8.7	8.2	9.3	10.1	154.0%
Italy	23.9	40.8	49.3	59.8	89.2	102.8	134.0	152.4	163.2	159.8	160.6	79.9%
Luxembourg	0.0	0.8	1.0	0.7	1.0	1.3	1.6	2.8	2.8	2.9	2.8	180.0%
Netherlands	47.0	72.5	69.4	75.3	71.0	78.6	79.8	84.2	80.6	78.5	76.3	7.5%
Norway	-	0.4	2.0	2.8	4.6	8.1	8.2	10.3	10.1	10.4	10.5	128.4%
Poland	11.4	13.5	17.6	18.2	18.4	18.3	21.0	25.6	26.7	27.0	27.1	47.1%
Portugal	-	-	-	-	-	-	4.6	7.7	8.6	8.3	8.8	x
Slovak Republic	2.9	4.9	5.1	6.7	11.7	11.7	13.1	12.0	13.2	12.0	11.3	-3.6%
Spain	0.7	1.8	3.1	4.5	10.5	17.4	34.7	56.9	67.2	72.4	74.3	605.3%
Sweden	-	-	-	0.2	1.2	1.6	1.6	1.9	1.7	1.7	1.9	54.8%
Switzerland	0.0	1.0	1.9	2.9	3.8	5.1	5.6	6.3	6.5	6.3	6.1	62.4%
Turkey	-	-	-	0.1	6.5	13.0	28.9	43.3	52.8	60.5	70.9	984.6%
United Kingdom	21.6	67.2	92.3	105.2	106.0	145.4	199.0	203.0	196.6	186.6	188.4	77.7%
<b>OECD Europe</b>	<b>191.1</b>	<b>363.2</b>	<b>460.3</b>	<b>499.4</b>	<b>573.7</b>	<b>709.2</b>	<b>885.7</b>	<b>1 008.3</b>	<b>1 031.5</b>	<b>1 028.8</b>	<b>1 032.4</b>	<b>80.0%</b>
<i>European Union - 27</i>	..	..	..	..	658.7	745.6	890.0	996.3	1 010.6	1 001.0	992.0	50.6%

\* Total world includes non-OECD total, OECD total as well as international marine bunkers and international aviation bunkers.

CO<sub>2</sub> emissions: Sectoral Approach - Gasmillion tonnes of CO<sub>2</sub>

	1971	1975	1980	1985	1990	1995	2000	2004	2005	2006	2007	% change 90-07
<b>Non-OECD Total</b>	<b>576.7</b>	<b>720.2</b>	<b>1 014.4</b>	<b>1 438.0</b>	<b>1 889.5</b>	<b>1 830.6</b>	<b>2 064.0</b>	<b>2 428.8</b>	<b>2 548.1</b>	<b>2 658.7</b>	<b>2 786.9</b>	<b>47.5%</b>
Algeria	2.4	4.6	13.4	21.7	27.4	32.4	37.6	43.1	46.9	48.9	50.2	82.9%
Angola	0.1	0.1	0.2	0.2	1.0	1.1	1.1	1.4	1.4	1.5	1.3	29.6%
Benin	-	-	-	-	-	-	-	-	-	-	-	-
Botswana	..	..	..	-	-	-	-	-	-	-	-	-
Cameroon	-	-	-	-	-	-	-	-	-	-	0.6	x
Congo	0.0	0.0	-	0.0	-	-	-	0.0	0.0	0.0	0.0	x
Dem. Rep. of Congo	-	-	-	-	-	-	-	-	-	-	-	-
Côte d'Ivoire	-	-	-	-	-	0.1	3.0	2.6	2.9	2.9	2.4	x
Egypt	0.2	0.1	3.4	7.9	14.9	22.9	40.1	57.1	65.7	70.5	73.6	392.9%
Eritrea	..	..	..	..	..	-	-	-	-	-	-	..
Ethiopia	-	-	-	-	-	-	-	-	-	-	-	-
Gabon	-	-	0.0	0.1	0.2	0.3	0.2	0.3	0.3	0.3	0.3	65.6%
Ghana	-	-	-	-	-	-	-	-	-	-	-	-
Kenya	-	-	-	-	-	-	-	-	-	-	-	-
Libyan Arab Jamahiriya	2.1	2.5	5.5	7.0	9.0	8.5	8.8	12.1	10.4	11.3	11.4	26.3%
Morocco	0.1	0.1	0.1	0.2	0.1	0.0	0.1	0.1	0.9	1.1	1.3	+
Mozambique	-	-	-	-	-	0.0	0.0	0.0	0.0	0.1	0.1	x
Namibia	..	..	..	..	..	-	-	-	-	-	-	..
Nigeria	0.4	1.0	2.9	6.9	6.9	9.2	12.5	16.3	17.1	19.1	22.6	228.3%
Senegal	-	-	-	-	0.0	0.1	0.0	0.0	0.0	0.0	0.0	57.1%
South Africa	-	-	-	-	-	-	-	-	-	-	-	-
Sudan	-	-	-	-	-	-	-	-	-	-	-	-
United Rep. of Tanzania	-	-	-	-	-	-	-	0.2	0.8	1.0	1.0	x
Togo	-	-	-	-	-	-	-	-	-	-	-	-
Tunisia	0.0	0.5	0.8	2.2	2.8	4.6	6.4	7.8	7.2	8.1	8.5	204.0%
Zambia	-	-	-	-	-	-	-	-	-	-	-	-
Zimbabwe	-	-	-	-	-	-	-	-	-	-	-	-
Other Africa	-	-	-	-	-	-	0.0	0.9	0.9	2.0	2.1	x
<b>Africa</b>	<b>5.2</b>	<b>9.0</b>	<b>26.3</b>	<b>46.2</b>	<b>62.4</b>	<b>79.2</b>	<b>109.8</b>	<b>142.1</b>	<b>154.6</b>	<b>166.8</b>	<b>175.5</b>	<b>181.3%</b>
Bahrain	1.8	4.1	5.7	8.6	9.6	9.3	11.6	13.7	14.6	15.9	17.0	77.0%
Islamic Rep. of Iran	5.5	8.1	8.5	16.8	37.0	80.0	118.9	172.0	184.8	202.6	227.4	514.8%
Iraq	1.8	3.1	2.4	1.6	3.8	6.0	6.0	1.9	2.8	2.8	2.8	-26.3%
Israel	0.2	0.1	0.2	0.1	0.0	0.0	0.0	2.3	3.1	4.2	4.4	+
Jordan	-	-	-	-	0.2	0.5	0.5	2.8	3.2	4.7	5.6	+
Kuwait	9.9	9.9	13.2	9.7	11.8	18.0	17.9	19.6	22.0	22.6	22.0	86.2%
Lebanon	-	-	-	-	-	-	-	-	-	-	-	-
Oman	-	-	0.7	2.1	4.9	6.7	11.4	14.1	16.0	17.6	21.6	339.0%
Qatar	1.9	4.2	6.3	10.5	12.2	16.2	20.9	27.9	29.4	33.0	37.2	205.9%
Saudi Arabia	2.7	5.4	21.2	34.1	46.8	61.5	75.0	99.3	109.8	113.3	116.7	149.4%
Syrian Arab Republic	-	-	0.1	0.3	3.2	4.8	10.4	12.3	10.8	11.2	10.8	238.6%
United Arab Emirates	2.0	3.3	9.6	19.8	33.1	48.5	64.2	78.7	79.9	84.3	97.7	194.9%
Yemen	-	-	-	-	-	-	-	-	-	-	-	-
<b>Middle East</b>	<b>25.8</b>	<b>38.1</b>	<b>67.9</b>	<b>103.6</b>	<b>162.7</b>	<b>251.6</b>	<b>336.7</b>	<b>444.7</b>	<b>476.4</b>	<b>512.2</b>	<b>563.3</b>	<b>246.2%</b>
Albania	0.2	0.6	0.8	0.8	0.5	0.1	0.0	0.0	0.0	0.0	0.0	-92.9%
Bosnia and Herzegovina *	..	..	..	..	0.9	0.3	0.5	0.6	0.7	0.7	0.8	-12.5%
Bulgaria	0.6	2.3	7.4	10.8	12.0	10.0	6.2	5.2	5.9	6.2	6.3	-47.4%
Croatia *	..	..	..	..	4.7	4.1	4.7	5.3	5.1	5.1	5.8	23.2%
Cyprus	-	-	-	-	-	-	-	-	-	-	-	-
Gibraltar	-	-	-	-	-	-	-	-	-	-	-	-
FYR of Macedonia *	..	..	..	..	-	-	0.1	0.1	0.1	0.2	0.2	x
Malta	-	-	-	-	-	-	-	-	-	-	-	-
Romania	52.1	62.6	75.7	74.6	67.4	43.1	30.6	30.9	30.2	30.9	28.0	-58.4%
Serbia *	..	..	..	..	6.0	3.0	3.4	5.2	4.3	4.4	4.5	-25.2%
Slovenia *	..	..	..	..	1.8	1.7	1.8	2.0	2.1	2.0	2.0	13.6%
Former Yugoslavia *	1.9	2.9	5.8	11.0	-	-	-	-	-	-	-	-
<b>Non-OECD Europe</b>	<b>54.8</b>	<b>68.4</b>	<b>89.6</b>	<b>97.1</b>	<b>93.3</b>	<b>62.3</b>	<b>47.4</b>	<b>49.4</b>	<b>48.6</b>	<b>49.5</b>	<b>47.7</b>	<b>-48.9%</b>

\* Data for individual countries of the Former Yugoslavia are not available prior to 1990.



CO<sub>2</sub> emissions: Sectoral Approach - Gasmillion tonnes of CO<sub>2</sub>

	1971	1975	1980	1985	1990	1995	2000	2004	2005	2006	2007	% change 90-07
Armenia	..	..	..	..	8.3	2.7	2.6	2.5	3.1	3.2	3.8	-54.0%
Azerbaijan	..	..	..	..	33.3	12.7	10.8	18.0	18.0	19.7	16.9	-49.2%
Belarus	..	..	..	..	26.9	25.5	32.2	37.6	38.3	38.9	39.3	46.3%
Estonia	..	..	..	..	2.9	1.2	1.4	1.7	1.7	1.8	1.7	-38.7%
Georgia	..	..	..	..	10.6	2.2	2.2	1.7	1.8	2.4	2.5	-76.1%
Kazakhstan	..	..	..	..	24.8	23.5	20.6	31.3	39.3	45.7	51.1	105.8%
Kyrgyzstan	..	..	..	..	3.6	1.7	1.3	1.6	1.4	1.5	1.6	-54.5%
Latvia	..	..	..	..	5.6	2.3	2.5	3.1	3.2	3.3	3.2	-43.1%
Lithuania	..	..	..	..	10.3	4.3	4.3	5.0	5.3	5.2	5.9	-43.0%
Republic of Moldova	..	..	..	..	7.6	5.5	4.8	5.2	5.6	5.2	5.3	-30.2%
Russian Federation	..	..	..	..	866.3	728.8	718.1	772.2	783.4	804.5	820.7	-5.3%
Tajikistan	..	..	..	..	3.2	1.2	1.5	1.3	1.3	1.3	1.3	-61.0%
Turkmenistan	..	..	..	..	28.6	26.2	25.5	26.8	28.7	28.8	31.3	9.4%
Ukraine	..	..	..	..	209.4	156.1	141.9	146.7	144.5	130.0	125.1	-40.3%
Uzbekistan	..	..	..	..	75.5	77.4	93.4	92.2	89.4	93.4	94.2	24.7%
<b>Former Soviet Union *</b>	<b>431.8</b>	<b>520.4</b>	<b>704.2</b>	<b>1 021.2</b>	<b>1 316.9</b>	<b>1 071.3</b>	<b>1 063.1</b>	<b>1 146.9</b>	<b>1 164.9</b>	<b>1 184.7</b>	<b>1 203.9</b>	<b>-8.6%</b>
Argentina	12.3	17.1	21.7	30.5	43.4	51.2	68.5	74.7	75.4	78.9	81.6	88.2%
Bolivia	0.1	0.3	0.6	0.8	1.5	2.5	2.3	2.9	3.6	3.8	4.5	197.8%
Brazil	0.2	0.7	1.7	4.3	6.4	8.5	17.3	35.5	38.0	39.9	40.7	537.8%
Chile	1.3	1.1	1.4	1.6	2.1	2.1	10.3	14.6	14.0	12.5	6.6	215.1%
Colombia	2.6	3.2	5.7	7.3	7.5	8.3	12.8	13.6	14.3	14.3	14.2	88.7%
Costa Rica	-	-	-	-	-	-	-	-	-	-	-	-
Cuba	0.0	0.0	0.0	0.0	0.1	0.0	1.1	1.3	1.4	2.1	2.3	+
Dominican Republic	-	-	-	-	-	-	-	0.3	0.5	0.6	0.9	x
Ecuador	0.1	0.3	0.1	0.4	0.5	0.6	0.7	1.2	0.9	1.5	1.5	191.5%
El Salvador	-	-	-	-	-	-	-	-	-	-	-	-
Guatemala	-	-	-	-	-	-	-	-	-	-	-	-
Haiti	-	-	-	-	-	-	-	-	-	-	-	-
Honduras	-	-	-	-	-	-	-	-	-	-	-	-
Jamaica	-	-	-	-	-	-	-	-	-	-	-	-
Netherlands Antilles	-	-	-	-	-	-	-	-	-	-	-	-
Nicaragua	-	-	-	-	-	-	-	-	-	-	-	-
Panama	-	-	-	-	-	-	-	-	-	-	-	-
Paraguay	-	-	-	-	-	-	-	-	-	-	-	-
Peru	0.6	0.8	1.0	1.3	1.0	0.6	1.1	2.0	3.5	3.9	5.5	423.7%
Trinidad and Tobago	3.4	2.8	5.1	7.1	9.3	10.0	15.3	19.4	20.2	23.0	25.3	172.5%
Uruguay	-	-	-	-	-	-	0.1	0.2	0.2	0.2	0.2	x
Venezuela	20.8	24.3	32.6	38.5	46.3	58.4	61.7	51.6	52.6	55.0	53.9	16.4%
Other Latin America	0.0	0.0	0.0	0.0	0.0	0.0	0.7	1.5	1.5	1.4	1.4	+
<b>Latin America</b>	<b>41.6</b>	<b>50.8</b>	<b>70.0</b>	<b>91.9</b>	<b>118.1</b>	<b>142.3</b>	<b>191.7</b>	<b>218.7</b>	<b>226.2</b>	<b>237.2</b>	<b>238.6</b>	<b>101.9%</b>
Bangladesh	0.6	0.9	2.1	4.0	7.3	10.8	14.5	20.6	22.1	24.0	25.9	255.6%
Brunei Darussalam	0.2	1.2	2.1	2.3	2.5	3.4	3.2	3.6	3.5	4.0	3.9	56.7%
Cambodia	..	..	..	..	..	..	..	..	..	..	..	..
Chinese Taipei	1.9	2.7	3.3	1.9	3.3	7.8	12.9	19.4	20.7	21.1	23.1	605.7%
India	1.2	1.8	2.4	7.2	18.9	32.8	42.3	55.5	63.6	66.7	71.2	276.9%
Indonesia	0.3	1.0	7.3	13.5	37.3	58.2	62.1	60.7	61.3	62.7	67.8	81.4%
DPR of Korea	-	-	-	-	-	-	-	-	-	-	-	-
Malaysia	0.0	0.1	0.2	4.9	7.7	25.7	50.6	51.3	66.0	72.0	74.7	872.6%
Mongolia	..	..	..	..	..	..	..	..	..	..	..	..
Myanmar	0.1	0.3	0.6	1.8	1.7	2.8	2.7	4.6	7.1	6.3	6.3	266.8%
Nepal	-	-	-	-	-	-	-	-	-	-	-	-
Pakistan	5.3	7.7	10.3	13.4	20.9	28.0	34.5	53.7	56.0	56.1	58.7	180.9%
Philippines	-	-	-	-	-	0.0	0.0	5.0	6.7	6.0	7.0	x
Singapore	-	-	-	-	-	3.5	2.8	12.4	13.9	15.0	15.8	x
Sri Lanka	-	-	-	-	-	-	-	-	-	-	-	-
Thailand	-	-	-	5.7	10.0	18.2	37.3	52.5	53.9	55.1	57.8	479.8%
Vietnam	-	-	-	0.1	0.0	0.4	2.6	10.8	11.5	12.1	12.8	+
Other Asia	0.5	0.5	0.2	1.2	0.6	0.5	0.5	0.2	0.5	0.6	0.6	8.9%
<b>Asia</b>	<b>10.1</b>	<b>16.2</b>	<b>28.5</b>	<b>56.1</b>	<b>110.2</b>	<b>192.1</b>	<b>265.9</b>	<b>350.4</b>	<b>386.7</b>	<b>401.7</b>	<b>425.7</b>	<b>286.4%</b>
People's Rep. of China	7.3	17.3	27.8	21.9	25.8	31.7	43.7	71.5	85.7	101.2	127.5	393.5%
Hong Kong, China	-	-	-	-	-	0.1	5.7	5.1	5.1	5.4	4.7	x
<b>China</b>	<b>7.3</b>	<b>17.3</b>	<b>27.8</b>	<b>21.9</b>	<b>25.8</b>	<b>31.8</b>	<b>49.5</b>	<b>76.6</b>	<b>90.8</b>	<b>106.5</b>	<b>132.2</b>	<b>411.7%</b>

\* Data for individual countries of the Former Soviet Union are not available prior to 1990.

CO<sub>2</sub> emissions: Reference Approachmillion tonnes of CO<sub>2</sub>

	1971	1975	1980	1985	1990	1995	2000	2004	2005	2006	2007	% change 90-07
<b>World *</b>	<b>14 617.1</b>	<b>16 160.4</b>	<b>18 660.7</b>	<b>19 304.5</b>	<b>21 474.1</b>	<b>22 067.2</b>	<b>23 758.5</b>	<b>26 807.5</b>	<b>27 600.3</b>	<b>28 446.3</b>	<b>29 320.5</b>	<b>36.5%</b>
<i>Annex I Parties</i>	..	..	..	..	14 111.2	13 266.2	13 862.5	14 267.7	14 303.2	14 287.1	14 339.6	1.6%
<i>Annex II Parties</i>	8 638.1	8 951.2	9 721.8	9 299.8	9 835.2	10 219.8	11 054.7	11 380.4	11 403.2	11 297.6	11 347.7	15.4%
<i>North America</i>	4 612.3	4 775.0	5 191.6	5 009.7	5 277.3	5 587.6	6 233.1	6 353.6	6 400.5	6 313.3	6 394.3	21.2%
<i>Europe</i>	3 098.9	3 118.9	3 387.8	3 152.0	3 204.6	3 172.7	3 253.7	3 405.5	3 373.7	3 358.1	3 306.2	3.2%
<i>Pacific</i>	927.0	1 057.4	1 142.4	1 138.1	1 353.3	1 459.4	1 567.9	1 621.2	1 629.0	1 626.2	1 647.2	21.7%
<i>Annex I EIT</i>	..	..	..	..	4 137.8	2 889.2	2 604.4	2 677.8	2 680.4	2 746.9	2 726.1	-34.1%
<i>Non-Annex I Parties</i>	..	..	..	..	6 752.5	8 114.6	9 085.9	11 650.1	12 356.3	13 178.5	13 958.8	106.7%
<i>Annex I Kyoto Parties</i>	..	..	..	..	9 001.7	7 910.8	7 883.9	8 176.3	8 162.6	8 197.9	8 154.2	-9.4%
<b>Intl. marine bunkers</b>	<b>344.5</b>	<b>328.6</b>	<b>344.0</b>	<b>291.7</b>	<b>356.9</b>	<b>402.0</b>	<b>466.0</b>	<b>521.7</b>	<b>549.7</b>	<b>580.6</b>	<b>610.4</b>	<b>71.1%</b>
<b>Intl. aviation bunkers</b>	<b>168.4</b>	<b>172.6</b>	<b>200.6</b>	<b>223.8</b>	<b>253.6</b>	<b>284.5</b>	<b>344.0</b>	<b>368.1</b>	<b>391.1</b>	<b>400.2</b>	<b>411.6</b>	<b>62.3%</b>
<b>Non-OECD Total</b>	<b>4 681.5</b>	<b>5 773.8</b>	<b>7 195.9</b>	<b>8 213.3</b>	<b>9 710.8</b>	<b>9 766.3</b>	<b>10 380.9</b>	<b>12 924.3</b>	<b>13 619.0</b>	<b>14 488.5</b>	<b>15 205.6</b>	<b>56.6%</b>
<b>OECD Total</b>	<b>9 422.7</b>	<b>9 885.4</b>	<b>10 920.3</b>	<b>10 575.7</b>	<b>11 152.8</b>	<b>11 614.5</b>	<b>12 567.5</b>	<b>12 993.4</b>	<b>13 040.5</b>	<b>12 977.1</b>	<b>13 092.9</b>	<b>17.4%</b>
Canada	337.2	392.3	428.6	399.9	423.6	452.7	517.9	536.6	543.4	534.8	540.8	27.7%
Mexico	100.8	145.1	242.2	265.7	294.3	307.4	355.8	397.0	430.6	428.1	451.4	53.3%
United States	4 275.1	4 382.7	4 763.0	4 609.9	4 853.7	5 134.9	5 715.2	5 817.0	5 857.1	5 778.5	5 853.5	20.6%
<b>OECD N. America</b>	<b>4 713.0</b>	<b>4 920.1</b>	<b>5 433.8</b>	<b>5 275.4</b>	<b>5 571.6</b>	<b>5 895.0</b>	<b>6 588.9</b>	<b>6 750.7</b>	<b>6 831.1</b>	<b>6 741.5</b>	<b>6 845.7</b>	<b>22.9%</b>
Australia	156.9	182.7	212.1	220.0	260.9	278.6	333.6	343.2	373.5	379.5	380.4	45.8%
Japan	755.6	857.1	913.0	896.4	1 069.4	1 153.8	1 203.6	1 245.9	1 223.5	1 214.0	1 235.1	15.5%
Korea	54.8	77.9	125.7	157.7	238.6	361.4	441.1	486.7	465.4	473.1	499.0	109.1%
New Zealand	14.4	17.7	17.3	21.7	23.0	27.1	30.6	32.1	32.1	32.6	31.7	38.0%
<b>OECD Pacific</b>	<b>981.8</b>	<b>1 135.3</b>	<b>1 268.1</b>	<b>1 295.7</b>	<b>1 591.9</b>	<b>1 820.9</b>	<b>2 009.0</b>	<b>2 107.9</b>	<b>2 094.5</b>	<b>2 099.3</b>	<b>2 146.1</b>	<b>34.8%</b>
Austria	51.2	52.3	58.3	55.9	57.1	60.1	62.4	73.7	75.1	74.1	70.8	24.0%
Belgium	120.0	119.5	129.8	103.9	109.4	116.3	121.4	118.4	114.8	113.3	108.2	-1.1%
Czech Republic	168.5	158.9	165.3	169.4	161.0	127.0	125.4	126.7	125.0	127.1	128.2	-20.4%
Denmark	56.2	52.6	61.0	61.0	50.7	57.7	50.4	51.1	47.4	54.7	50.6	-0.1%
Finland	39.9	45.5	57.4	50.5	52.1	54.0	54.2	69.0	56.3	67.5	65.4	25.6%
France	434.6	431.8	473.0	374.3	366.7	348.2	360.1	388.5	389.5	377.2	368.7	0.5%
Germany	993.1	976.5	1 076.4	1 022.5	971.7	877.5	843.9	843.5	820.1	821.3	801.5	-17.5%
Greece	25.3	35.4	45.4	55.9	69.2	72.6	85.3	91.6	93.1	91.1	99.5	43.8%
Hungary	58.2	67.4	80.7	78.8	67.7	59.3	55.0	57.2	57.3	56.5	54.9	-19.0%
Iceland	1.4	1.6	1.8	1.6	2.0	1.9	2.1	2.2	2.2	2.2	2.3	19.0%
Ireland	22.5	21.8	26.3	27.2	31.3	31.5	40.1	41.2	41.5	41.5	43.2	37.9%
Italy	280.3	311.2	349.0	339.6	384.8	413.5	430.9	452.6	455.7	449.9	442.0	14.9%
Luxembourg	15.2	13.1	12.0	10.0	10.5	8.3	8.0	10.9	11.2	11.2	10.7	2.6%
Netherlands	130.4	138.0	155.7	147.2	158.5	172.3	174.7	187.8	182.6	179.2	183.7	15.9%
Norway	23.4	24.0	28.6	27.1	28.5	31.8	35.9	41.3	40.5	43.5	36.4	27.9%
Poland	310.3	367.5	450.4	445.3	363.3	340.0	294.6	297.6	300.4	313.7	309.7	-14.7%
Portugal	14.9	18.9	24.6	25.5	38.5	49.5	60.0	60.9	63.3	57.1	55.8	44.7%
Slovak Republic	48.3	55.0	60.9	59.4	54.5	42.3	37.4	38.4	38.9	38.3	36.2	-33.5%
Spain	121.5	162.1	192.0	187.6	212.1	239.2	286.7	332.1	341.9	335.6	345.7	63.0%
Sweden	84.5	80.9	72.0	61.8	51.8	54.7	49.5	54.4	51.3	49.0	47.8	-7.6%
Switzerland	39.7	37.4	39.8	39.5	42.1	39.6	40.1	42.4	43.5	44.3	40.4	-3.9%
Turkey	43.7	62.4	73.3	99.7	138.2	157.3	203.5	209.5	219.7	242.6	265.8	92.3%
United Kingdom	644.9	596.3	584.7	560.8	567.7	544.2	548.0	544.0	543.8	545.4	533.3	-6.1%
<b>OECD Europe</b>	<b>3 727.9</b>	<b>3 830.0</b>	<b>4 218.3</b>	<b>4 004.5</b>	<b>3 989.3</b>	<b>3 898.6</b>	<b>3 969.6</b>	<b>4 134.9</b>	<b>4 114.9</b>	<b>4 136.3</b>	<b>4 101.1</b>	<b>2.8%</b>
<i>European Union - 27</i>	..	..	..	..	4 135.4	3 914.9	3 874.1	4 040.9	4 012.0	4 014.5	3 971.1	-4.0%

\* Total world includes non-OECD total, OECD total as well as international marine bunkers and international aviation bunkers.

CO<sub>2</sub> emissions: Reference Approachmillion tonnes of CO<sub>2</sub>

	1971	1975	1980	1985	1990	1995	2000	2004	2005	2006	2007	% change 90-07
<b>Non-OECD Total</b>	<b>4 681.5</b>	<b>5 773.8</b>	<b>7 195.9</b>	<b>8 213.3</b>	<b>9 710.8</b>	<b>9 766.3</b>	<b>10 380.9</b>	<b>12 924.3</b>	<b>13 619.0</b>	<b>14 488.5</b>	<b>15 205.6</b>	<b>56.6%</b>
Algeria	9.8	15.0	29.0	46.4	55.3	60.0	66.8	77.5	80.1	86.7	92.2	66.7%
Angola	1.7	2.1	2.7	2.9	4.1	3.9	5.1	8.4	7.2	8.6	10.3	149.1%
Benin	0.3	0.5	0.4	0.5	0.2	0.2	1.5	2.4	2.5	3.0	3.1	+
Botswana	..	..	..	1.6	2.9	3.3	4.2	4.1	4.3	4.5	4.8	62.4%
Cameroon	0.7	1.0	1.7	2.5	2.7	2.6	3.0	3.5	3.2	3.4	5.7	109.9%
Congo	0.6	0.7	0.8	1.0	0.8	0.6	0.6	1.0	1.4	1.3	1.4	76.0%
Dem. Rep. of Congo	2.7	2.9	2.9	3.4	4.1	3.0	2.0	2.3	2.4	2.4	2.5	-39.3%
Côte d'Ivoire	2.4	3.1	3.4	2.5	2.9	3.7	6.6	6.3	6.5	5.5	6.0	110.8%
Egypt	20.6	26.3	39.6	67.1	82.0	87.6	109.8	135.6	147.7	154.8	163.1	99.0%
Eritrea	..	..	..	..	..	0.8	0.6	0.8	0.8	0.6	0.6	..
Ethiopia	1.4	1.2	1.4	1.4	2.4	2.6	3.2	4.7	4.9	5.4	5.9	145.0%
Gabon	1.7	2.1	2.2	1.9	1.1	1.2	1.3	1.5	1.9	1.9	2.1	94.7%
Ghana	1.9	2.5	2.2	2.5	2.8	3.6	5.3	6.2	7.0	8.4	9.1	218.2%
Kenya	3.8	4.3	5.4	5.4	6.5	6.8	9.9	9.5	10.1	11.5	10.8	65.4%
Libyan Arab Jamahiriya	3.8	9.9	17.2	24.7	28.0	40.6	42.6	46.5	45.1	45.1	45.7	63.3%
Morocco	6.8	9.9	13.9	16.4	20.2	25.2	30.0	36.4	39.5	39.7	42.2	109.4%
Mozambique	3.0	2.4	2.4	1.5	1.0	1.1	1.5	1.7	1.5	1.6	2.1	112.8%
Namibia	..	..	..	..	..	1.8	1.9	2.7	2.8	3.0	3.2	..
Nigeria	5.9	11.8	26.9	33.2	38.2	41.6	42.9	51.9	60.8	54.4	53.7	40.6%
Senegal	1.2	1.6	2.0	1.9	2.2	2.5	3.7	4.6	4.7	4.7	4.4	99.9%
South Africa	148.8	175.6	214.5	288.4	291.1	337.8	351.7	415.1	405.6	416.1	434.1	49.1%
Sudan	4.1	3.9	3.9	4.3	5.6	4.7	7.1	11.9	12.1	10.9	11.9	113.3%
United Rep. of Tanzania	2.1	1.9	2.2	2.0	2.0	3.0	2.3	3.8	5.1	5.7	5.4	165.5%
Togo	0.3	0.3	0.4	0.3	0.6	0.6	1.0	1.0	1.0	0.9	0.9	65.4%
Tunisia	3.7	5.0	8.0	10.1	12.3	14.0	17.4	19.8	19.2	19.7	20.4	65.5%
Zambia	3.4	3.3	3.4	2.9	2.7	2.1	1.7	2.1	2.2	2.4	2.5	-8.9%
Zimbabwe	7.9	7.7	8.0	9.6	15.4	15.3	12.8	9.8	10.6	10.1	9.5	-38.4%
Other Africa	7.3	8.7	11.1	12.0	14.6	16.9	18.3	22.4	22.8	24.6	25.9	77.1%
<b>Africa</b>	<b>246.1</b>	<b>303.9</b>	<b>405.8</b>	<b>546.3</b>	<b>601.9</b>	<b>687.2</b>	<b>754.5</b>	<b>893.3</b>	<b>912.9</b>	<b>936.7</b>	<b>979.5</b>	<b>62.7%</b>
Bahrain	3.1	4.8	6.4	9.8	10.2	11.6	13.8	16.4	17.7	19.8	20.9	104.6%
Islamic Rep. of Iran	45.1	73.9	106.8	150.7	183.3	243.9	304.3	381.6	400.5	433.3	464.1	153.1%
Iraq	12.4	15.0	29.9	45.2	50.8	74.6	72.1	98.8	97.5	101.2	97.7	92.4%
Israel	17.2	21.0	23.1	23.5	35.3	48.6	56.3	60.6	62.6	65.5	67.9	92.2%
Jordan	1.4	2.1	4.3	7.5	9.4	12.4	14.3	17.1	18.4	18.5	19.4	106.9%
Kuwait	13.6	13.5	39.7	38.5	19.7	41.9	54.5	68.7	76.5	67.2	68.6	249.0%
Lebanon	4.6	5.5	6.5	7.6	6.4	12.6	14.2	15.3	15.8	13.3	11.4	77.2%
Oman	0.3	0.7	2.2	7.5	11.0	15.9	22.2	28.3	32.0	36.8	37.0	236.6%
Qatar	2.2	5.0	7.7	12.5	14.1	18.0	23.9	35.7	35.6	40.0	49.6	251.1%
Saudi Arabia	18.4	24.1	87.7	125.4	141.9	215.2	258.3	304.0	324.4	340.4	358.3	152.4%
Syrian Arab Republic	8.0	10.3	14.2	24.4	32.4	39.6	46.9	47.4	47.5	50.5	54.1	66.8%
United Arab Emirates	2.4	4.9	18.8	34.4	49.9	67.6	82.1	102.7	105.4	111.1	126.2	152.9%
Yemen	1.9	1.8	3.4	4.8	7.1	9.9	13.9	18.1	19.3	20.1	21.2	196.1%
<b>Middle East</b>	<b>130.6</b>	<b>182.7</b>	<b>350.8</b>	<b>492.0</b>	<b>571.6</b>	<b>811.9</b>	<b>976.9</b>	<b>1 194.9</b>	<b>1 253.1</b>	<b>1 317.5</b>	<b>1 396.2</b>	<b>144.3%</b>
Albania	4.1	4.7	7.9	7.4	6.5	1.9	3.1	3.7	4.4	4.0	4.1	-37.6%
Bosnia and Herzegovina *	..	..	..	..	23.9	3.5	13.7	15.2	15.8	17.4	18.2	-24.1%
Bulgaria	63.8	73.0	84.2	85.1	76.2	57.5	43.4	46.5	47.8	48.8	52.5	-31.1%
Croatia *	..	..	..	..	21.6	16.0	17.9	20.6	20.9	21.0	22.2	3.0%
Cyprus	1.8	1.7	2.6	2.8	4.1	5.2	6.3	6.5	6.6	6.9	7.3	77.2%
Gibraltar	0.1	0.1	0.1	0.1	0.2	0.3	0.4	0.4	0.4	0.5	0.5	164.3%
FYR of Macedonia *	..	..	..	..	8.6	8.2	8.6	8.6	9.1	8.9	9.3	8.3%
Malta	0.6	0.6	1.0	1.1	2.3	2.2	2.1	2.6	2.7	2.6	2.7	19.1%
Romania	111.6	138.9	177.8	178.9	171.8	127.2	87.7	92.9	91.9	98.2	94.3	-45.1%
Serbia *	..	..	..	..	61.6	44.4	41.9	55.9	46.9	49.6	49.7	-19.3%
Slovenia *	..	..	..	..	13.3	14.0	14.0	15.5	15.7	16.0	15.9	19.6%
Former Yugoslavia *	65.5	77.1	101.5	127.2	-	-	-	-	-	-	-	-
<b>Non-OECD Europe</b>	<b>247.4</b>	<b>296.1</b>	<b>375.1</b>	<b>402.7</b>	<b>390.1</b>	<b>280.3</b>	<b>239.0</b>	<b>268.5</b>	<b>262.4</b>	<b>273.8</b>	<b>276.7</b>	<b>-29.1%</b>

\* Data for individual countries of the Former Yugoslavia are not available prior to 1990.

CO<sub>2</sub> emissions: Reference Approachmillion tonnes of CO<sub>2</sub>

	1971	1975	1980	1985	1990	1995	2000	2004	2005	2006	2007	% change 90-07
Armenia	..	..	..	..	20.5	3.4	3.4	3.5	4.1	4.1	4.8	-76.7%
Azerbaijan	..	..	..	..	67.0	33.9	30.5	31.3	33.2	33.4	28.9	-56.8%
Belarus	..	..	..	..	117.5	63.2	60.0	64.9	63.9	68.1	66.1	-43.7%
Estonia	..	..	..	..	37.1	17.2	15.3	17.6	17.8	17.0	20.1	-46.0%
Georgia	..	..	..	..	29.2	7.2	4.4	3.7	4.5	5.1	5.8	-80.2%
Kazakhstan	..	..	..	..	237.0	169.3	130.7	165.9	177.7	200.2	205.8	-13.1%
Kyrgyzstan	..	..	..	..	22.7	4.6	4.6	5.7	5.4	5.2	5.7	-74.8%
Latvia	..	..	..	..	18.4	9.0	6.4	6.9	6.9	7.6	7.9	-56.9%
Lithuania	..	..	..	..	33.7	14.5	10.9	12.8	13.6	13.7	14.4	-57.3%
Republic of Moldova	..	..	..	..	30.2	11.4	6.5	7.6	8.0	7.5	7.5	-75.1%
Russian Federation	..	..	..	..	2 302.6	1 573.1	1 510.7	1 540.5	1 545.0	1 595.3	1 579.0	-31.4%
Tajikistan	..	..	..	..	11.9	4.7	4.2	5.5	5.7	6.3	6.9	-42.1%
Turkmenistan	..	..	..	..	52.4	34.7	36.3	39.4	41.5	41.4	45.5	-13.2%
Ukraine	..	..	..	..	699.1	428.8	325.7	339.7	335.4	325.7	324.7	-53.6%
Uzbekistan	..	..	..	..	120.6	103.8	120.9	118.8	112.9	116.2	116.7	-3.2%
<b>Former Soviet Union *</b>	<b>2 368.9</b>	<b>2 842.6</b>	<b>3 242.5</b>	<b>3 448.3</b>	<b>3 800.0</b>	<b>2 479.0</b>	<b>2 270.6</b>	<b>2 363.7</b>	<b>2 375.6</b>	<b>2 447.0</b>	<b>2 439.8</b>	<b>-35.8%</b>
Argentina	86.0	89.8	101.2	92.7	106.8	117.6	134.1	137.8	138.7	151.1	163.0	52.6%
Bolivia	2.3	3.4	4.5	4.6	5.3	8.4	11.2	10.8	10.6	10.4	12.2	130.5%
Brazil	93.5	144.0	189.8	180.2	203.5	251.4	312.5	325.5	331.6	335.0	350.1	72.1%
Chile	21.5	17.5	21.7	19.8	32.0	42.0	57.8	64.0	65.0	67.0	71.9	124.9%
Colombia	27.0	31.9	38.3	42.7	48.9	57.9	57.6	56.8	60.2	63.0	60.4	23.5%
Costa Rica	1.4	1.8	2.2	2.0	2.8	4.2	4.7	5.2	5.2	6.0	6.6	136.7%
Cuba	21.6	28.0	32.1	30.6	31.8	22.3	24.5	22.5	23.3	24.9	25.3	-20.6%
Dominican Republic	3.4	5.6	6.5	7.1	9.3	13.5	18.9	18.5	18.4	18.9	19.3	106.8%
Ecuador	3.4	6.5	10.9	12.3	13.0	16.0	19.1	24.5	24.7	27.6	29.2	124.5%
El Salvador	1.5	2.1	1.8	1.9	2.3	4.8	5.3	5.7	5.9	5.9	6.1	161.2%
Guatemala	2.4	2.7	4.3	3.4	3.7	6.0	9.3	10.3	11.1	11.1	11.8	221.9%
Haiti	0.4	0.4	0.6	0.8	0.9	0.9	1.4	1.9	2.0	2.0	2.3	145.7%
Honduras	1.1	1.3	1.7	1.6	2.2	3.5	4.5	6.7	7.0	6.4	8.2	277.8%
Jamaica	5.2	7.4	6.4	4.5	7.1	8.4	10.0	10.5	9.9	11.8	13.7	93.9%
Netherlands Antilles	13.6	9.6	10.0	4.9	4.0	3.3	3.9	4.1	3.7	3.6	4.3	7.7%
Nicaragua	1.5	1.9	1.9	1.9	1.7	2.6	3.4	4.1	4.2	4.0	4.3	146.4%
Panama	3.8	3.8	2.6	2.8	2.6	4.1	5.4	5.5	5.7	6.5	6.5	151.6%
Paraguay	0.6	0.7	1.4	1.4	1.9	3.5	3.2	3.7	3.4	3.6	3.7	90.2%
Peru	16.1	19.4	21.8	18.4	18.2	22.8	26.0	27.0	28.6	26.3	28.7	57.2%
Trinidad and Tobago	5.0	4.8	8.3	11.0	12.7	13.3	19.6	24.7	25.1	27.8	30.4	139.2%
Uruguay	5.8	5.9	6.0	3.4	4.0	4.7	6.1	5.5	5.7	6.6	5.9	47.9%
Venezuela	43.6	60.3	88.8	99.1	105.0	116.7	125.7	128.5	135.2	133.9	140.9	34.1%
Other Latin America	11.6	15.5	15.1	9.3	12.5	13.4	14.4	17.4	18.0	18.2	19.3	54.2%
<b>Latin America</b>	<b>372.5</b>	<b>464.3</b>	<b>577.8</b>	<b>556.5</b>	<b>632.3</b>	<b>741.2</b>	<b>878.7</b>	<b>921.3</b>	<b>943.2</b>	<b>971.6</b>	<b>1 024.0</b>	<b>61.9%</b>
Bangladesh	3.4	4.7	7.2	9.3	14.1	21.3	26.7	35.0	38.2	39.4	41.7	195.1%
Brunei Darussalam	0.4	1.7	3.2	4.3	4.1	5.5	6.0	6.3	6.2	6.6	6.7	63.4%
Cambodia	..	..	..	..	..	1.4	2.3	3.5	3.8	4.1	4.4	..
Chinese Taipei	31.2	43.2	75.1	74.8	115.9	162.7	226.9	269.2	270.0	277.3	284.0	145.0%
India	197.8	237.5	292.8	427.9	597.9	797.2	978.1	1 139.9	1 188.4	1 265.9	1 369.9	129.1%
Indonesia	25.5	39.3	73.3	90.0	146.1	215.4	264.4	326.8	337.9	353.0	388.8	166.2%
DPR of Korea	69.4	79.6	108.6	129.8	117.6	75.8	68.9	71.2	74.4	75.5	62.4	-46.9%
Malaysia	13.8	16.9	30.1	39.2	56.9	96.1	124.0	143.9	170.6	173.0	188.7	231.5%
Mongolia	..	..	..	11.6	12.7	10.1	8.8	9.2	9.6	10.7	11.3	-10.5%
Myanmar	4.6	4.1	5.2	6.0	4.1	6.7	8.8	11.3	14.3	12.8	12.9	215.6%
Nepal	0.2	0.3	0.5	0.5	0.9	1.8	3.1	2.6	3.0	3.1	3.2	251.9%
Pakistan	17.1	21.2	27.1	40.4	61.1	82.6	100.9	117.0	119.2	127.8	140.4	129.6%
Philippines	24.2	29.3	33.7	26.7	39.1	58.7	68.8	69.5	71.0	68.6	71.6	83.1%
Singapore	7.0	9.7	14.1	16.2	29.3	50.9	52.0	50.6	62.3	59.9	58.4	99.5%
Sri Lanka	2.9	2.9	3.9	3.7	4.0	5.8	10.6	12.2	12.4	12.0	12.8	221.8%
Thailand	17.3	21.8	34.3	42.0	81.4	143.5	162.9	222.3	227.9	232.2	240.1	195.1%
Vietnam	16.1	16.7	14.8	17.2	17.3	28.0	44.4	79.9	80.9	85.3	92.7	436.1%
Other Asia	8.3	10.1	16.3	9.6	10.0	10.4	10.4	14.5	13.9	14.0	16.1	61.3%
<b>Asia</b>	<b>439.2</b>	<b>539.2</b>	<b>740.2</b>	<b>949.3</b>	<b>1 312.4</b>	<b>1 773.8</b>	<b>2 168.1</b>	<b>2 585.0</b>	<b>2 704.1</b>	<b>2 821.2</b>	<b>3 006.3</b>	<b>129.1%</b>
People's Rep. of China	867.6	1 133.9	1 489.2	1 794.7	2 371.2	2 957.9	3 054.8	4 656.6	5 126.4	5 678.4	6 039.1	154.7%
Hong Kong, China	9.1	11.1	14.5	23.5	31.3	35.0	38.4	41.0	41.4	42.3	43.9	40.2%
<b>China</b>	<b>876.7</b>	<b>1 145.0</b>	<b>1 503.7</b>	<b>1 818.1</b>	<b>2 402.5</b>	<b>2 992.9</b>	<b>3 093.2</b>	<b>4 697.6</b>	<b>5 167.8</b>	<b>5 720.7</b>	<b>6 083.0</b>	<b>153.2%</b>

\* Data for individual countries of the Former Soviet Union are not available prior to 1990.

CO<sub>2</sub> emissions from international marine bunkersmillion tonnes of CO<sub>2</sub>

	1971	1975	1980	1985	1990	1995	2000	2004	2005	2006	2007	% change 90-07
<b>World</b>	<b>344.47</b>	<b>328.58</b>	<b>343.95</b>	<b>291.73</b>	<b>356.85</b>	<b>401.96</b>	<b>466.03</b>	<b>521.69</b>	<b>549.67</b>	<b>580.59</b>	<b>610.43</b>	<b>71.1%</b>
<i>Annex I Parties</i>	..	..	..	..	233.61	230.93	252.32	258.91	273.58	287.38	296.51	26.9%
<i>Annex II Parties</i>	202.63	216.81	234.71	171.25	223.46	227.78	249.27	253.11	267.14	281.19	290.90	30.2%
<i>North America</i>	26.41	36.12	93.91	56.43	93.55	93.68	92.24	78.69	83.63	89.86	97.98	4.7%
<i>Europe</i>	120.20	110.37	97.05	87.88	109.06	112.25	136.38	153.29	160.02	168.54	170.64	56.5%
<i>Pacific</i>	56.02	70.31	43.75	26.94	20.84	21.85	20.65	21.13	23.48	22.79	22.27	6.9%
<i>Annex I EIT</i>	..	..	..	..	9.78	2.58	1.80	2.69	3.14	3.13	2.98	-69.5%
<i>Non-Annex I Parties</i>	..	..	..	..	123.25	171.02	213.71	262.78	276.08	293.20	313.92	154.7%
<i>Annex I Kyoto Parties</i>	..	..	..	..	142.55	139.85	162.16	179.03	188.52	196.17	197.92	38.8%
<b>Non-OECD Total</b>	<b>138.16</b>	<b>108.73</b>	<b>105.71</b>	<b>115.57</b>	<b>124.49</b>	<b>156.07</b>	<b>190.25</b>	<b>238.99</b>	<b>242.26</b>	<b>259.40</b>	<b>282.53</b>	<b>127.0%</b>
<b>OECD Total</b>	<b>206.31</b>	<b>219.85</b>	<b>238.24</b>	<b>176.15</b>	<b>232.36</b>	<b>245.88</b>	<b>275.79</b>	<b>282.69</b>	<b>307.40</b>	<b>321.19</b>	<b>327.90</b>	<b>41.1%</b>
Canada	3.07	2.58	4.71	1.18	2.87	3.17	3.34	1.91	1.88	1.70	2.02	-29.4%
Mexico	0.26	0.38	1.00	1.33	2.03	1.89	4.16	2.38	2.70	2.71	2.69	32.7%
United States	23.34	33.54	89.20	55.26	90.68	90.51	88.90	76.78	81.76	88.16	95.96	5.8%
<b>OECD N. America</b>	<b>26.67</b>	<b>36.51</b>	<b>94.91</b>	<b>57.76</b>	<b>95.58</b>	<b>95.57</b>	<b>96.39</b>	<b>81.07</b>	<b>86.34</b>	<b>92.57</b>	<b>100.67</b>	<b>5.3%</b>
Australia	5.10	5.03	3.68	2.28	2.14	2.79	2.96	2.75	2.81	3.21	2.67	24.9%
Japan	49.88	64.20	38.90	23.92	17.66	17.92	16.93	17.63	19.81	18.63	18.61	5.4%
Korea	1.53	0.17	0.31	1.69	5.27	15.20	20.21	23.29	33.24	33.30	30.90	486.4%
New Zealand	1.04	1.08	1.18	0.74	1.04	1.13	0.76	0.75	0.87	0.95	0.99	-5.0%
<b>OECD Pacific</b>	<b>57.55</b>	<b>70.48</b>	<b>44.06</b>	<b>28.63</b>	<b>26.11</b>	<b>37.04</b>	<b>40.86</b>	<b>44.42</b>	<b>56.73</b>	<b>56.09</b>	<b>53.17</b>	<b>103.6%</b>
Austria	-	-	-	-	-	-	-	-	-	-	-	-
Belgium	8.06	8.64	7.52	7.30	12.97	12.36	17.03	24.65	24.40	26.40	29.54	127.8%
Czech Republic	-	-	-	-	-	-	-	-	-	-	-	-
Denmark	2.09	1.67	1.32	1.34	3.02	4.96	4.18	2.49	2.57	3.34	3.46	14.6%
Finland	0.24	0.30	1.84	1.45	1.78	1.04	2.10	1.62	1.59	1.75	1.44	-19.4%
France	12.71	14.53	12.52	7.52	7.96	7.94	9.42	9.48	8.65	8.97	9.20	15.5%
Germany	12.93	10.52	11.00	10.85	7.79	6.43	6.85	8.36	7.83	8.11	9.66	24.0%
Greece	1.78	2.70	2.63	3.51	7.97	11.17	11.28	10.16	9.02	9.74	10.05	26.1%
Hungary	-	-	-	-	-	-	-	-	-	-	-	-
Iceland	..	..	..	0.02	0.10	0.14	0.21	0.22	0.20	0.11	0.20	111.7%
Ireland	0.24	0.20	0.23	0.09	0.06	0.36	0.47	0.47	0.32	0.38	0.34	515.4%
Italy	22.80	17.97	13.08	10.75	8.37	7.59	8.49	10.54	10.64	10.95	11.07	32.3%
Luxembourg	-	-	-	-	-	-	-	-	-	-	-	-
Netherlands	28.26	32.86	29.39	27.45	34.29	35.59	41.98	46.39	53.31	55.26	50.92	48.5%
Norway	1.90	1.49	0.87	1.03	1.39	2.19	2.56	1.60	2.16	1.56	2.05	47.5%
Poland	1.63	2.21	2.22	1.63	1.24	0.44	0.90	0.80	1.01	0.93	0.78	-37.0%
Portugal	2.32	2.00	1.34	1.48	1.91	1.52	2.08	2.07	1.82	2.00	2.10	9.8%
Slovak Republic	-	-	-	-	-	-	-	-	-	-	-	-
Spain	5.94	3.44	5.07	6.76	11.46	10.00	18.97	22.78	25.00	26.11	26.71	133.2%
Sweden	3.58	3.45	2.66	1.76	2.09	3.30	4.28	5.99	6.12	6.57	6.54	212.6%
Switzerland	..	..	..	..	0.06	0.05	0.03	0.03	0.04	0.03	0.03	-50.0%
Turkey	0.26	0.29	..	0.25	0.37	0.58	1.25	3.11	3.31	3.06	2.63	607.8%
United Kingdom	17.37	10.60	7.57	6.56	7.84	7.62	6.44	6.45	6.34	7.26	7.32	-6.6%
<b>OECD Europe</b>	<b>122.10</b>	<b>112.87</b>	<b>99.26</b>	<b>89.76</b>	<b>110.68</b>	<b>113.27</b>	<b>138.53</b>	<b>157.20</b>	<b>164.34</b>	<b>172.53</b>	<b>174.05</b>	<b>57.3%</b>
<i>European Union - 27</i>	..	..	..	..	111.56	112.70	137.98	157.32	163.67	173.21	174.79	56.7%

CO<sub>2</sub> emissions from international marine bunkersmillion tonnes of CO<sub>2</sub>

	1971	1975	1980	1985	1990	1995	2000	2004	2005	2006	2007	% change 90-07
<b>Non-OECD Total</b>	<b>138.16</b>	<b>108.73</b>	<b>105.71</b>	<b>115.57</b>	<b>124.49</b>	<b>156.07</b>	<b>190.25</b>	<b>238.99</b>	<b>242.26</b>	<b>259.40</b>	<b>282.53</b>	<b>127.0%</b>
Algeria	0.61	0.77	1.29	1.16	1.36	1.17	0.77	1.03	1.17	1.07	1.09	-20.1%
Angola	0.77	0.48	0.83	0.10	0.02	0.03	..	0.50	0.35	0.05	..	..
Benin	..	..	..	..	..	..	..	..	..	..	..	..
Botswana	..	..	..	..	..	..	..	..	..	..	..	..
Cameroon	..	..	0.12	0.03	0.04	0.09	0.06	0.05	0.04	0.13	0.16	290.4%
Congo	..	..	..	..	..	..	..	..	..	..	0.09	..
Dem. Rep. of Congo	0.40	0.22	0.08	0.09	0.10	0.01	0.01	0.01	0.01	0.01	0.01	-94.1%
Côte d'Ivoire	0.06	0.01	1.35	0.73	0.12	0.27	0.29	0.28	0.35	0.15	0.34	183.3%
Egypt	0.06	1.08	3.19	4.71	5.25	7.73	8.58	5.73	4.51	3.36	3.08	-41.3%
Eritrea	..	..	..	..	..	0.42	..	..	..	..	..	..
Ethiopia	0.07	0.01	0.01	0.03	0.04	0.52	..	..	..	..	..	..
Gabon	0.20	0.14	0.19	0.22	0.08	0.44	0.60	0.46	0.48	0.48	0.48	507.1%
Ghana	0.16	0.14	0.10	..	..	..	0.16	0.06	0.12	0.12	0.14	..
Kenya	1.47	1.05	0.56	0.45	0.55	0.17	0.26	0.12	0.13	0.15	0.15	-72.3%
Libyan Arab Jamahiriya	0.01	0.01	0.02	0.04	0.25	0.28	0.28	0.28	0.28	0.28	0.28	12.5%
Morocco	0.24	0.18	0.21	0.04	0.06	0.04	0.04	0.04	0.04	0.04	0.04	-34.9%
Mozambique	0.76	0.35	0.27	0.10	0.09	0.01	0.00	0.13	0.01	0.01	..	..
Namibia	..	..	..	..	..	..	..	..	..	..	..	..
Nigeria	0.02	0.11	0.25	0.34	0.58	1.42	0.86	1.64	1.95	1.91	1.91	228.0%
Senegal	2.99	2.09	0.84	0.33	0.11	0.09	0.30	0.26	0.36	0.24	0.24	115.0%
South Africa	10.81	7.15	5.25	3.41	5.95	10.28	8.51	7.56	8.52	8.07	8.06	35.4%
Sudan	..	0.01	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	14.3%
United Rep. of Tanzania	0.05	0.05	0.12	0.08	0.08	0.07	0.07	0.07	0.07	0.07	0.07	-11.5%
Togo	..	..	..	..	..	..	0.01	0.02	0.01	0.01	0.01	..
Tunisia	0.06	0.02	0.02	0.01	0.07	0.06	0.03	0.03	0.03	0.03	0.03	-62.9%
Zambia	..	..	..	..	..	..	..	..	..	..	..	..
Zimbabwe	..	..	..	..	..	..	..	..	..	..	..	..
Other Africa	3.02	2.08	1.77	1.82	1.71	1.68	2.00	1.61	1.75	1.76	1.84	7.6%
<b>Africa</b>	<b>21.76</b>	<b>15.95</b>	<b>16.48</b>	<b>13.70</b>	<b>16.49</b>	<b>24.79</b>	<b>22.86</b>	<b>19.89</b>	<b>20.19</b>	<b>17.96</b>	<b>18.03</b>	<b>9.3%</b>
Bahrain	3.27	1.95	1.50	0.64	..	..	..	..	..	..	..	..
Islamic Rep. of Iran	1.29	1.57	1.55	1.15	1.56	2.34	1.98	1.92	1.73	1.43	2.61	67.5%
Iraq	0.26	0.29	0.37	0.46	0.40	..	..	..	..	..	..	..
Israel	..	..	..	0.35	0.38	0.65	0.58	0.71	0.87	0.81	0.86	125.6%
Jordan	..	..	..	..	..	0.03	0.13	0.15	0.25	0.13	0.12	..
Kuwait	5.60	5.63	5.00	2.12	0.55	1.82	1.50	2.53	1.26	1.02	1.55	180.5%
Lebanon	0.71	0.03	..	..	..	0.04	0.05	0.06	0.06	0.06	0.06	..
Oman	3.85	2.54	0.71	0.35	0.06	0.08	0.19	..	0.00	..	..	..
Qatar	..	..	..	..	..	..	..	..	..	..	..	..
Saudi Arabia	40.05	25.86	13.62	28.01	5.74	5.96	6.60	7.00	7.09	8.27	8.66	50.9%
Syrian Arab Republic	..	..	..	..	..	..	..	..	..	..	..	..
United Arab Emirates	..	..	5.53	9.69	18.99	33.16	29.30	33.74	37.44	40.83	44.22	132.8%
Yemen	1.13	0.91	2.13	1.24	1.24	0.31	0.30	0.39	0.39	0.39	0.39	-68.2%
<b>Middle East</b>	<b>56.17</b>	<b>38.79</b>	<b>30.42</b>	<b>44.02</b>	<b>28.93</b>	<b>44.39</b>	<b>40.64</b>	<b>46.52</b>	<b>49.08</b>	<b>52.93</b>	<b>58.47</b>	<b>102.1%</b>
Albania	..	..	..	..	..	..	..	..	..	..	..	..
Bosnia and Herzegovina *	..	..	..	..	..	..	..	..	..	..	..	..
Bulgaria	..	..	..	0.71	0.18	0.85	0.20	0.36	0.34	0.33	0.16	-10.1%
Croatia *	..	..	..	..	0.15	0.10	0.06	0.07	0.08	0.06	0.07	-49.2%
Cyprus	0.01	0.06	0.05	0.11	0.18	0.21	0.60	0.17	0.90	0.91	0.85	374.7%
Gibraltar	0.55	0.58	0.41	0.88	1.38	2.69	3.22	3.56	3.63	3.73	3.84	179.2%
FYR of Macedonia *	..	..	..	..	..	..	..	..	..	..	..	..
Malta	0.19	0.08	0.09	0.06	0.09	0.14	2.07	3.09	2.09	2.38	2.67	+
Romania	..	..	..	..	..	..	..	..	..	..	0.11	..
Serbia *	..	..	..	..	..	..	..	..	..	..	..	..
Slovenia *	..	..	..	..	..	..	..	..	0.07	0.09	0.15	..
Former Yugoslavia *	..	..	..	..	..	..	..	..	..	..	..	..
<b>Non-OECD Europe</b>	<b>0.75</b>	<b>0.72</b>	<b>0.55</b>	<b>1.75</b>	<b>1.97</b>	<b>3.99</b>	<b>6.14</b>	<b>7.25</b>	<b>7.10</b>	<b>7.51</b>	<b>7.86</b>	<b>297.9%</b>

\* Data for individual countries of the Former Yugoslavia are not available prior to 1990.

CO<sub>2</sub> emissions from international marine bunkersmillion tonnes of CO<sub>2</sub>

	1971	1975	1980	1985	1990	1995	2000	2004	2005	2006	% change	
											2007	90-07
Armenia	..	..	..	..	-	-	-	-	-	-	-	-
Azerbaijan	..	..	..	..	..	..	..	..	..	..	..	..
Belarus	..	..	..	..	-	-	-	-	-	-	-	-
Estonia	..	..	..	..	0.57	0.28	0.33	0.47	0.38	0.67	0.78	36.6%
Georgia	..	..	..	..	..	0.16	..	..	..	..	..	..
Kazakhstan	..	..	..	..	..	..	..	..	..	..	..	..
Kyrgyzstan	..	..	..	..	-	-	-	-	-	-	-	-
Latvia	..	..	..	..	1.48	0.47	0.02	0.63	0.81	0.62	0.56	-62.3%
Lithuania	..	..	..	..	0.30	0.44	0.29	0.36	0.45	0.44	0.37	26.1%
Republic of Moldova	..	..	..	..	..	..	..	..	..	..	..	..
Russian Federation	..	..	..	..	5.87	..	..	..	..	..	..	..
Tajikistan	..	..	..	..	-	-	-	-	-	-	-	-
Turkmenistan	..	..	..	..	..	..	..	..	..	..	..	..
Ukraine	..	..	..	..	..	..	..	..	..	..	..	..
Uzbekistan	..	..	..	..	-	-	-	-	-	-	-	-
<b>Former Soviet Union *</b>	<b>13.17</b>	<b>14.09</b>	<b>14.09</b>	<b>13.79</b>	<b>8.21</b>	<b>1.35</b>	<b>0.64</b>	<b>1.46</b>	<b>1.64</b>	<b>1.72</b>	<b>1.71</b>	<b>-79.2%</b>
Argentina	0.66	0.28	1.32	2.00	2.22	1.71	1.48	1.62	2.19	2.34	2.82	27.1%
Bolivia	-	-	-	-	-	-	-	-	-	-	-	-
Brazil	1.00	1.17	1.42	1.71	1.72	3.64	9.27	10.08	10.96	10.63	11.44	566.7%
Chile	0.60	0.37	0.27	0.09	..	..	..	..	..	..	..	..
Colombia	0.95	0.49	0.31	0.22	0.33	0.58	0.72	0.94	1.05	1.21	1.22	271.1%
Costa Rica	..	..	..	..	..	..	..	..	..	..	..	..
Cuba	0.49	0.55	0.56	0.68	0.75	0.26	0.32	0.22	0.23	0.20	0.17	-76.9%
Dominican Republic	..	..	..	..	..	..	..	..	..	..	..	..
Ecuador	0.28	..	0.34	0.11	0.57	1.05	0.87	0.70	0.69	0.77	0.85	48.8%
El Salvador	..	..	..	..	..	..	..	..	..	..	..	..
Guatemala	0.18	0.27	0.40	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	-
Haiti	..	..	..	..	..	..	..	..	..	..	..	..
Honduras	..	..	..	..	..	..	..	..	..	..	..	..
Jamaica	0.16	0.26	0.10	0.04	0.09	0.09	0.09	0.09	0.09	0.09	0.09	-
Netherlands Antilles	7.71	7.34	7.27	6.13	5.18	5.32	5.31	5.49	5.57	5.67	5.77	11.6%
Nicaragua	..	..	..	..	..	..	..	..	..	..	..	..
Panama	..	..	..	..	..	..	..	..	..	..	..	..
Paraguay	-	-	-	-	-	-	-	-	-	-	-	-
Peru	0.04	0.05	0.38	0.53	0.03	0.41	0.13	0.18	0.71	0.31	0.47	+
Trinidad and Tobago	5.12	3.54	1.42	0.31	0.11	0.16	0.87	2.80	0.82	0.85	0.82	657.2%
Uruguay	0.27	0.20	0.24	0.33	0.37	1.21	0.90	1.06	1.11	0.77	1.04	181.3%
Venezuela	9.13	4.82	1.99	1.76	2.50	2.30	2.06	2.11	2.37	2.56	2.77	10.7%
Other Latin America	3.08	2.04	2.79	1.87	0.86	0.71	0.79	1.03	1.07	1.06	1.10	27.5%
<b>Latin America</b>	<b>29.66</b>	<b>21.38</b>	<b>18.83</b>	<b>16.16</b>	<b>15.12</b>	<b>17.80</b>	<b>23.20</b>	<b>26.71</b>	<b>27.25</b>	<b>26.85</b>	<b>28.95</b>	<b>91.5%</b>
Bangladesh	0.06	0.05	0.19	0.07	0.06	0.11	0.11	0.11	0.11	0.11	0.11	78.6%
Brunei Darussalam	..	..	..	..	..	..	..	..	..	..	..	..
Cambodia	..	..	..	..	..	..	..	..	..	..	..	..
Chinese Taipei	0.39	0.33	0.66	1.62	4.86	7.57	11.02	7.64	7.72	7.39	6.62	36.2%
India	0.71	0.57	0.72	0.34	0.47	0.39	0.27	0.09	0.08	0.05	0.15	-67.5%
Indonesia	0.70	1.09	0.79	0.68	1.68	1.28	0.36	1.12	1.17	1.23	1.31	-22.2%
DPR of Korea	..	..	..	..	..	..	..	..	..	..	..	..
Malaysia	0.11	0.22	0.18	0.31	0.28	0.52	0.67	0.31	0.26	0.27	0.21	-27.3%
Mongolia	..	..	..	..	..	..	..	..	..	..	..	..
Myanmar	0.01	0.00	-	-	-	0.01	0.01	0.01	0.01	0.01	0.01	x
Nepal	-	-	-	-	-	-	-	-	-	-	-	-
Pakistan	0.29	0.21	0.47	0.08	0.11	0.05	0.08	0.20	0.25	0.32	0.41	288.3%
Philippines	1.27	0.44	0.59	0.49	0.21	0.35	0.67	0.43	0.37	0.40	0.74	260.8%
Singapore	8.89	10.43	14.96	15.14	33.87	35.28	57.58	72.71	78.60	87.62	97.28	187.2%
Sri Lanka	1.19	1.29	1.10	1.01	1.21	1.09	0.50	0.38	0.53	0.43	0.43	-64.1%
Thailand	0.21	0.25	0.50	0.65	1.70	3.02	2.46	4.53	5.18	5.26	5.06	197.6%
Vietnam	..	..	..	..	..	..	..	..	..	..	..	..
Other Asia	0.57	0.53	0.46	0.20	0.21	0.33	0.32	0.50	0.47	0.47	0.53	152.7%
<b>Asia</b>	<b>14.39</b>	<b>15.42</b>	<b>20.61</b>	<b>20.58</b>	<b>44.66</b>	<b>49.99</b>	<b>74.06</b>	<b>88.01</b>	<b>94.76</b>	<b>103.56</b>	<b>112.86</b>	<b>152.7%</b>
People's Rep. of China	0.30	0.69	1.87	2.47	4.59	6.62	12.13	25.17	24.47	26.10	28.70	525.2%
Hong Kong, China	1.96	1.69	2.86	3.10	4.52	7.15	10.58	23.98	17.76	22.76	25.95	474.5%
<b>China</b>	<b>2.26</b>	<b>2.37</b>	<b>4.72</b>	<b>5.57</b>	<b>9.11</b>	<b>13.77</b>	<b>22.71</b>	<b>49.15</b>	<b>42.23</b>	<b>48.86</b>	<b>54.65</b>	<b>500.1%</b>

\* Data for individual countries of the Former Soviet Union are not available prior to 1990.

CO<sub>2</sub> emissions from international aviation bunkersmillion tonnes of CO<sub>2</sub>

	1971	1975	1980	1985	1990	1995	2000	2004	2005	2006	2007	% change 90-07
<b>World</b>	<b>168.39</b>	<b>172.58</b>	<b>200.55</b>	<b>223.76</b>	<b>253.62</b>	<b>284.46</b>	<b>344.05</b>	<b>368.07</b>	<b>391.10</b>	<b>400.16</b>	<b>411.60</b>	<b>62.3%</b>
<i>Annex I Parties</i>	..	..	..	..	163.45	174.68	218.66	221.72	231.97	230.68	236.60	44.8%
<i>Annex II Parties</i>	58.57	61.75	70.77	81.47	126.28	155.41	199.99	199.81	208.06	205.89	210.93	67.0%
<i>North America</i>	16.61	17.53	21.18	21.83	41.50	48.54	60.20	53.10	54.63	50.42	51.75	24.7%
<i>Europe</i>	35.96	37.67	42.70	48.59	65.82	82.93	111.33	115.95	121.31	125.70	129.05	96.0%
<i>Pacific</i>	6.01	6.55	6.90	11.05	18.96	23.94	28.46	30.76	32.12	29.77	30.14	59.0%
<i>Annex I EIT</i>	..	..	..	..	36.64	18.50	17.12	19.04	20.69	21.87	22.25	-39.3%
<i>Non-Annex I Parties</i>	..	..	..	..	90.17	109.77	125.39	146.34	159.13	169.48	175.00	94.1%
<i>Annex I Kyoto Parties</i>	..	..	..	..	124.13	127.95	160.00	168.46	176.68	179.87	182.99	47.4%
<b>Non-OECD Total</b>	<b>106.97</b>	<b>106.63</b>	<b>122.72</b>	<b>134.14</b>	<b>118.68</b>	<b>117.08</b>	<b>130.67</b>	<b>151.37</b>	<b>161.88</b>	<b>170.90</b>	<b>175.27</b>	<b>47.7%</b>
<b>OECD Total</b>	<b>61.42</b>	<b>65.95</b>	<b>77.83</b>	<b>89.62</b>	<b>134.95</b>	<b>167.37</b>	<b>213.38</b>	<b>216.70</b>	<b>229.22</b>	<b>229.26</b>	<b>236.33</b>	<b>75.1%</b>
Canada	1.25	1.93	1.35	1.22	2.71	2.58	3.08	2.71	2.55	2.53	1.55	-42.6%
Mexico	1.39	2.40	4.23	4.53	5.48	7.10	8.07	7.62	7.89	8.45	9.37	71.1%
United States	15.35	15.60	19.83	20.61	38.79	45.96	57.11	50.39	52.07	47.90	50.19	29.4%
<b>OECD N. America</b>	<b>17.99</b>	<b>19.92</b>	<b>25.41</b>	<b>26.36</b>	<b>46.98</b>	<b>55.64</b>	<b>68.27</b>	<b>60.72</b>	<b>62.52</b>	<b>58.87</b>	<b>61.12</b>	<b>30.1%</b>
Australia	1.57	1.89	2.40	2.76	4.29	5.75	7.15	6.92	8.10	7.29	9.13	112.6%
Japan	3.80	4.32	3.92	7.63	13.31	16.61	19.57	21.22	21.37	19.84	18.39	38.1%
Korea	-	0.36	0.83	1.69	0.84	2.05	1.70	3.92	7.25	8.83	9.39	+
New Zealand	0.64	0.34	0.57	0.66	1.35	1.58	1.74	2.62	2.65	2.65	2.62	93.9%
<b>OECD Pacific</b>	<b>6.01</b>	<b>6.91</b>	<b>7.72</b>	<b>12.74</b>	<b>19.80</b>	<b>25.99</b>	<b>30.16</b>	<b>34.69</b>	<b>39.36</b>	<b>38.60</b>	<b>39.53</b>	<b>99.6%</b>
Austria	0.28	0.24	0.38	0.65	0.82	1.29	1.63	1.48	1.67	1.75	1.68	105.2%
Belgium	1.21	1.05	1.22	1.62	2.82	2.61	4.37	4.01	3.80	3.49	3.00	6.6%
Czech Republic	0.69	0.58	0.85	0.63	0.65	0.56	0.48	0.86	0.94	0.99	1.02	56.3%
Denmark	1.92	1.56	1.59	1.56	1.70	1.84	2.32	2.42	2.55	2.56	2.63	54.1%
Finland	0.18	0.40	0.46	0.48	0.97	0.86	1.02	1.23	1.24	1.38	1.59	63.1%
France	4.57	5.71	5.62	6.43	9.32	11.44	15.07	15.91	16.10	16.86	17.47	87.4%
Germany	7.57	8.16	8.22	9.46	12.58	14.13	17.39	18.29	19.69	20.69	21.45	70.5%
Greece	1.29	1.31	2.23	2.33	2.34	2.52	2.41	2.39	2.30	2.76	2.82	20.7%
Hungary	0.15	0.20	0.36	0.44	0.49	0.54	0.69	0.69	0.79	0.80	0.74	51.2%
Iceland	0.22	0.13	0.09	0.18	0.22	0.20	0.39	0.35	0.40	0.53	0.49	128.2%
Ireland	0.96	0.73	0.60	0.57	1.03	1.11	1.73	2.04	2.35	2.40	2.87	178.2%
Italy	3.47	2.44	4.15	4.33	4.07	5.55	7.75	7.98	8.45	9.00	9.61	136.2%
Luxembourg	0.11	0.15	0.19	0.22	0.39	0.56	0.95	1.26	1.28	1.20	1.29	230.5%
Netherlands	2.01	2.26	2.72	3.47	4.29	7.38	9.65	10.38	10.67	10.81	10.87	153.0%
Norway	0.70	0.51	0.67	0.92	1.24	1.09	1.05	0.72	0.80	1.11	1.09	-12.5%
Poland	0.52	0.53	0.67	0.67	0.68	0.82	0.82	0.84	0.96	1.27	1.33	95.6%
Portugal	0.70	0.80	0.88	1.27	1.49	1.49	1.69	2.05	2.13	2.28	2.61	75.5%
Slovak Republic	-	-	-	-	-	0.12	0.08	0.08	0.12	0.12	0.15	x
Spain	1.74	2.77	2.58	2.67	3.32	6.01	8.03	9.15	9.18	9.57	10.07	203.2%
Sweden	0.33	0.33	0.49	0.51	1.07	1.76	2.06	1.85	1.87	1.96	1.93	79.6%
Switzerland	1.63	1.80	2.02	2.41	3.00	3.63	4.57	3.41	3.48	3.68	3.87	29.0%
Turkey	0.09	0.14	0.12	0.18	0.53	0.78	1.54	2.87	3.21	2.91	3.42	541.7%
United Kingdom	7.08	7.32	8.59	9.53	15.14	19.45	29.24	31.02	33.36	33.66	33.70	122.6%
<b>OECD Europe</b>	<b>37.41</b>	<b>39.12</b>	<b>44.70</b>	<b>50.51</b>	<b>68.17</b>	<b>85.74</b>	<b>114.95</b>	<b>121.29</b>	<b>127.34</b>	<b>131.79</b>	<b>135.69</b>	<b>99.0%</b>
<i>European Union - 27</i>	..	..	..	..	66.31	82.89	109.48	116.39	121.98	126.15	129.51	95.3%



CO<sub>2</sub> emissions from international aviation bunkersmillion tonnes of CO<sub>2</sub>

	1971	1975	1980	1985	1990	1995	2000	2004	2005	2006	2007	% change 90-07
<b>Non-OECD Total</b>	<b>106.97</b>	<b>106.63</b>	<b>122.72</b>	<b>134.14</b>	<b>118.68</b>	<b>117.08</b>	<b>130.67</b>	<b>151.37</b>	<b>161.88</b>	<b>170.90</b>	<b>175.27</b>	<b>47.7%</b>
Algeria	0.29	0.66	0.93	1.31	1.09	0.96	1.17	1.13	1.16	1.14	1.12	2.6%
Angola	0.23	0.31	0.25	0.99	1.03	1.17	1.42	0.81	0.56	0.24	0.35	-66.0%
Benin	0.02	0.01	0.03	0.06	0.05	0.07	0.07	0.08	0.07	0.08	0.08	56.2%
Botswana	..	..	..	0.01	0.03	0.02	0.02	0.03	0.03	0.03	0.03	-9.1%
Cameroon	0.17	0.10	0.15	0.15	0.15	0.17	0.18	0.20	0.20	0.13	0.20	26.6%
Congo	-	-	-	-	-	-	-	-	-	-	-	-
Dem. Rep. of Congo	0.28	0.24	0.37	0.40	0.32	0.35	0.32	0.36	0.38	0.40	0.42	30.3%
Côte d'Ivoire	0.13	0.21	0.27	0.29	0.27	0.26	0.37	0.28	0.28	0.28	0.15	-43.5%
Egypt	0.21	0.27	0.51	0.12	0.44	0.79	1.71	2.18	2.23	2.45	3.05	590.7%
Eritrea	..	..	..	..	..	0.02	0.03	0.03	0.03	0.02	0.02	..
Ethiopia	0.14	0.16	0.20	0.34	0.53	0.20	0.24	0.37	0.46	0.56	0.69	30.4%
Gabon	0.03	0.04	0.07	0.08	0.20	0.19	0.24	0.21	0.21	0.20	0.16	-16.4%
Ghana	0.13	0.15	0.12	0.10	0.14	0.18	0.32	0.35	0.39	0.50	0.24	70.6%
Kenya	-	-	-	-	-	-	-	-	-	-	-	-
Libyan Arab Jamahiriya	0.27	0.53	0.89	1.05	0.63	0.91	1.33	0.66	0.58	0.55	0.57	-9.0%
Morocco	0.35	0.44	0.78	0.70	0.79	0.73	0.90	1.01	1.16	1.32	1.53	94.4%
Mozambique	0.12	0.05	0.08	0.09	0.13	0.06	0.13	0.13	0.14	0.17	0.20	53.7%
Namibia	..	..	..	..	..	..	-	-	-	-	-	..
Nigeria	0.24	0.70	1.14	1.33	0.95	1.25	1.74	0.60	0.71	0.71	0.73	-23.2%
Senegal	0.30	0.37	0.58	0.43	0.45	0.45	0.75	0.74	0.74	0.80	0.98	114.9%
South Africa	0.53	0.73	0.87	0.93	1.09	1.58	2.79	2.28	2.21	2.44	2.58	136.1%
Sudan	0.34	0.14	0.20	0.21	0.09	0.10	0.33	1.18	0.24	0.67	0.63	564.5%
United Rep. of Tanzania	0.08	0.20	0.17	0.13	0.22	0.19	0.18	0.24	0.26	0.28	0.30	34.5%
Togo	-	-	-	-	0.10	0.12	0.03	0.12	0.15	0.11	0.09	-9.1%
Tunisia	0.39	0.38	0.56	0.30	0.57	0.74	0.85	0.70	0.65	0.65	0.68	19.8%
Zambia	0.04	0.14	0.23	0.12	0.19	0.10	0.13	0.15	0.16	0.17	0.17	-9.5%
Zimbabwe	0.08	0.19	0.21	0.33	0.25	0.35	0.36	0.03	0.03	0.03	0.03	-89.9%
Other Africa	-	-	1.06	0.98	0.93	1.32	2.31	2.48	2.53	2.53	2.66	184.9%
<b>Africa</b>	<b>4.35</b>	<b>6.01</b>	<b>9.66</b>	<b>10.47</b>	<b>10.66</b>	<b>12.26</b>	<b>17.91</b>	<b>16.34</b>	<b>15.57</b>	<b>16.43</b>	<b>17.65</b>	<b>65.5%</b>
Bahrain	0.43	0.84	1.53	1.21	1.43	1.15	1.12	1.62	1.72	1.86	1.85	29.6%
Islamic Rep. of Iran	7.02	7.01	2.15	1.64	1.48	1.97	2.70	2.47	2.69	3.14	3.19	114.9%
Iraq	0.24	0.81	1.05	1.12	2.89	1.34	1.80	2.02	2.19	2.38	2.56	-11.4%
Israel	1.79	1.88	2.21	1.99	1.56	2.10	2.35	1.96	2.19	1.91	2.01	28.3%
Jordan	0.14	0.22	0.62	0.68	0.71	0.77	0.77	0.63	0.99	0.95	0.92	31.1%
Kuwait	0.34	0.34	1.04	0.97	0.51	1.12	1.15	1.69	1.82	1.75	1.92	274.8%
Lebanon	0.83	0.76	0.58	0.38	0.19	0.66	0.40	0.40	0.46	0.33	0.41	116.7%
Oman	0.01	0.15	0.38	0.57	0.93	0.46	0.65	1.17	1.24	1.28	1.30	38.9%
Qatar	-	0.16	0.23	0.24	0.34	0.43	0.57	1.07	1.43	1.85	2.34	580.7%
Saudi Arabia	0.47	1.40	3.45	4.57	6.14	5.71	5.72	5.20	5.22	5.43	5.64	-8.3%
Syrian Arab Republic	0.24	0.65	0.72	0.87	0.87	0.62	0.41	0.37	0.33	0.31	0.19	-78.5%
United Arab Emirates	0.02	0.34	0.80	1.80	9.79	10.08	9.87	10.02	11.04	11.33	11.81	20.6%
Yemen	0.09	0.18	0.21	0.46	0.17	0.28	0.38	0.33	0.36	0.35	0.40	129.2%
<b>Middle East</b>	<b>11.63</b>	<b>14.76</b>	<b>14.98</b>	<b>16.50</b>	<b>27.03</b>	<b>26.70</b>	<b>27.87</b>	<b>28.95</b>	<b>31.69</b>	<b>32.85</b>	<b>34.53</b>	<b>27.7%</b>
Albania	-	-	-	-	-	-	0.12	0.17	0.21	0.25	0.30	x
Bosnia and Herzegovina *	..	..	..	..	0.08	-	-	-	-	-	-	..
Bulgaria	0.61	0.61	0.91	1.11	0.71	0.98	0.24	0.45	0.56	0.53	0.54	-23.7%
Croatia *	..	..	..	..	0.15	0.17	0.10	0.09	0.12	0.12	0.13	-10.4%
Cyprus	0.15	0.02	0.23	0.44	0.72	0.79	0.82	0.90	0.89	0.91	0.87	21.6%
Gibraltar	0.02	0.02	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	-42.9%
FYR of Macedonia *	..	..	..	..	0.02	0.09	0.09	0.02	0.02	0.01	0.02	40.0%
Malta	0.17	0.18	0.23	0.14	0.21	0.22	0.37	0.30	0.26	0.23	0.27	25.7%
Romania	0.06	0.05	-	-	0.69	0.54	0.37	0.40	0.33	0.40	0.32	-53.3%
Serbia *	..	..	..	..	0.43	0.11	0.09	0.14	0.15	0.16	0.14	-66.4%
Slovenia *	..	..	..	..	0.08	0.06	0.07	0.06	0.07	0.07	0.09	19.2%
Former Yugoslavia *	0.64	0.88	1.00	0.99	-	-	-	-	-	-	-	-
<b>Non-OECD Europe</b>	<b>1.65</b>	<b>1.76</b>	<b>2.39</b>	<b>2.70</b>	<b>3.09</b>	<b>2.98</b>	<b>2.27</b>	<b>2.54</b>	<b>2.61</b>	<b>2.71</b>	<b>2.71</b>	<b>-12.4%</b>

\* Data for individual countries of the Former Yugoslavia are not available prior to 1990.

CO<sub>2</sub> emissions from international aviation bunkersmillion tonnes of CO<sub>2</sub>

	1971	1975	1980	1985	1990	1995	2000	2004	2005	2006	2007	% change 90-07
Armenia	..	..	..	..	0.59	0.10	0.19	0.12	0.13	0.12	0.17	-71.1%
Azerbaijan	..	..	..	..	0.71	1.27	0.36	1.01	1.45	1.48	1.16	63.5%
Belarus	..	..	..	..	-	-	-	-	-	-	-	-
Estonia	..	..	..	..	0.11	0.05	0.06	0.08	0.12	0.09	0.15	40.0%
Georgia	..	..	..	..	0.60	0.01	0.05	0.11	0.11	0.11	0.14	-76.1%
Kazakhstan	..	..	..	..	2.68	0.78	0.34	0.65	0.70	0.75	0.93	-65.3%
Kyrgyzstan	..	..	..	..	-	-	-	-	-	-	-	-
Latvia	..	..	..	..	0.22	0.08	0.08	0.14	0.17	0.19	0.24	9.9%
Lithuania	..	..	..	..	0.40	0.12	0.08	0.10	0.14	0.16	0.21	-46.6%
Republic of Moldova	..	..	..	..	0.22	0.03	0.06	0.03	0.04	0.04	0.04	-80.6%
Russian Federation	..	..	..	..	26.37	13.99	13.27	14.13	15.27	16.13	16.28	-38.2%
Tajikistan	..	..	..	..	-	0.02	0.01	0.01	0.01	0.01	0.01	x
Turkmenistan	..	..	..	..	-	-	-	-	-	-	-	-
Ukraine	..	..	..	..	6.11	0.47	0.78	1.11	1.11	0.99	1.06	-82.7%
Uzbekistan	..	..	..	..	-	-	-	-	-	-	-	-
<b>Former Soviet Union *</b>	<b>66.66</b>	<b>62.09</b>	<b>70.62</b>	<b>76.70</b>	<b>38.00</b>	<b>16.92</b>	<b>15.27</b>	<b>17.50</b>	<b>19.25</b>	<b>20.07</b>	<b>20.40</b>	<b>-46.3%</b>
Argentina	-	-	-	-	-	1.58	2.83	2.21	2.14	2.06	2.25	x
Bolivia	-	-	-	-	-	-	-	-	-	-	-	-
Brazil	-	-	0.61	0.74	1.41	2.06	2.03	3.35	3.35	3.87	4.20	197.1%
Chile	0.43	0.35	0.54	0.49	-	-	-	0.01	0.01	0.01	-	-
Colombia	0.77	1.03	1.42	1.39	1.56	2.14	1.89	1.78	1.83	1.75	1.53	-1.6%
Costa Rica	0.02	0.03	0.07	0.04	0.13	0.32	0.37	0.29	0.59	0.58	0.56	321.3%
Cuba	0.28	0.45	0.49	0.67	1.02	0.56	0.65	0.56	0.54	0.57	0.54	-46.7%
Dominican Republic	0.08	0.10	0.17	0.16	0.11	0.17	0.22	0.31	0.31	0.30	0.29	158.3%
Ecuador	0.27	0.14	0.45	0.45	0.39	0.55	0.66	0.85	0.96	1.00	1.04	168.3%
El Salvador	0.03	0.05	0.05	0.10	0.11	0.15	0.22	0.23	0.24	0.23	0.30	176.5%
Guatemala	0.15	0.11	0.13	0.12	0.13	0.14	0.15	0.14	0.12	0.12	0.09	-34.0%
Haiti	0.02	0.03	0.05	0.04	0.07	0.07	0.09	0.07	0.07	0.08	0.06	-13.0%
Honduras	0.02	0.03	0.06	0.12	0.09	0.07	0.11	0.09	0.07	0.09	0.08	-13.8%
Jamaica	0.42	0.33	0.30	0.39	0.46	0.52	0.53	0.55	0.60	0.78	0.76	63.3%
Netherlands Antilles	0.15	0.13	0.16	0.13	0.12	0.20	0.21	0.22	0.22	0.23	0.23	97.3%
Nicaragua	0.05	0.06	0.06	0.04	0.08	0.06	0.08	0.06	0.05	0.05	0.08	0.1%
Panama	0.43	1.11	0.41	0.26	0.20	0.31	0.54	0.53	0.57	0.67	0.81	301.6%
Paraguay	0.03	0.04	0.06	0.06	0.03	0.03	0.04	0.05	0.05	0.07	0.07	144.8%
Peru	0.51	0.74	0.92	0.71	0.64	1.10	1.06	1.35	0.96	1.43	0.52	-19.6%
Trinidad and Tobago	0.21	0.12	0.17	0.22	0.20	0.17	0.18	0.03	0.18	0.22	0.25	29.0%
Uruguay	-	-	-	-	-	-	-	-	-	-	0.20	x
Venezuela	0.29	0.37	0.73	0.81	1.02	1.00	0.94	1.92	2.31	2.13	0.44	-56.7%
Other Latin America	1.10	0.63	0.91	0.86	1.01	1.08	1.73	1.19	1.22	1.24	1.28	26.6%
<b>Latin America</b>	<b>5.28</b>	<b>5.85</b>	<b>7.76</b>	<b>7.81</b>	<b>8.79</b>	<b>12.28</b>	<b>14.53</b>	<b>15.79</b>	<b>16.39</b>	<b>17.48</b>	<b>15.59</b>	<b>77.3%</b>
Bangladesh	0.06	0.08	0.15	0.22	0.27	0.30	0.38	0.75	0.87	0.86	0.75	175.6%
Brunei Darussalam	0.00	0.06	0.07	0.05	0.11	0.21	0.21	0.24	0.25	0.23	0.24	113.9%
Cambodia	..	..	..	..	..	0.03	0.06	0.06	0.06	0.08	0.09	..
Chinese Taipei	1.48	1.62	1.66	0.92	1.79	4.09	5.38	6.24	6.46	6.72	6.64	270.4%
India	2.39	2.83	3.55	4.59	5.29	6.57	7.10	8.87	10.40	12.57	14.38	171.7%
Indonesia	0.16	0.32	0.73	0.65	0.96	1.78	1.52	2.43	2.23	2.19	2.33	142.3%
DPR of Korea	-	-	-	-	-	-	-	-	-	-	-	-
Malaysia	0.42	0.74	0.80	0.89	1.94	3.44	4.67	6.10	5.96	6.38	6.39	229.5%
Mongolia	..	..	..	-	0.01	0.06	0.06	0.07	0.06	0.13	0.12	875.0%
Myanmar	0.09	0.08	0.13	0.13	0.09	0.14	0.20	0.20	0.15	0.24	0.20	125.0%
Nepal	0.01	0.02	0.04	0.06	0.05	0.11	0.17	0.17	0.19	0.20	0.20	313.3%
Pakistan	1.13	1.08	1.69	1.41	1.39	1.70	2.28	2.70	2.84	2.72	2.27	62.6%
Philippines	0.75	0.88	0.69	1.08	1.14	1.31	1.60	2.15	2.39	2.39	3.20	181.2%
Singapore	0.70	1.32	2.71	3.19	5.63	7.81	8.60	9.12	9.74	10.54	11.03	95.8%
Sri Lanka	-	0.00	0.00	-	-	-	0.32	0.40	0.93	0.95	0.32	x
Thailand	1.26	2.17	2.39	3.12	5.59	7.51	8.27	10.05	10.17	10.70	11.67	108.8%
Vietnam	6.88	2.60	-	-	-	0.12	0.30	0.79	0.79	0.85	0.81	x
Other Asia	0.66	0.52	0.48	0.90	0.70	0.54	1.29	1.97	1.97	2.28	2.58	269.3%
<b>Asia</b>	<b>16.00</b>	<b>14.33</b>	<b>15.07</b>	<b>17.19</b>	<b>24.98</b>	<b>35.74</b>	<b>42.39</b>	<b>52.31</b>	<b>55.47</b>	<b>60.04</b>	<b>63.24</b>	<b>153.2%</b>
People's Rep. of China	-	-	-	0.22	0.50	0.99	2.13	4.55	6.19	7.29	6.59	+
Hong Kong, China	1.41	1.83	2.24	2.55	5.62	9.22	8.31	13.38	14.71	14.02	14.56	158.9%
<b>China</b>	<b>1.41</b>	<b>1.83</b>	<b>2.24</b>	<b>2.77</b>	<b>6.12</b>	<b>10.20</b>	<b>10.43</b>	<b>17.93</b>	<b>20.90</b>	<b>21.31</b>	<b>21.15</b>	<b>245.6%</b>

\* Data for individual countries of the Former Soviet Union are not available prior to 1990.

## Total primary energy supply

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	1971	1975	1980	1985	1990	1995	2000	2004	2005	2006	2007	% change 90-07
<b>World *</b>	<b>231 665</b>	<b>259 340</b>	<b>302 655</b>	<b>324 559</b>	<b>366 834</b>	<b>386 311</b>	<b>419 463</b>	<b>465 685</b>	<b>478 361</b>	<b>490 696</b>	<b>503 664</b>	<b>37.3%</b>
<i>Annex I Parties</i>	..	..	..	..	233 080	228 979	241 429	249 483	251 157	251 382	252 193	8.2%
<i>Annex II Parties</i>	130 359	138 423	153 296	154 047	167 864	180 459	195 314	200 818	201 683	200 577	201 101	19.8%
<i>North America</i>	72 382	76 178	83 622	82 358	88 838	96 390	106 112	107 982	108 651	107 684	109 247	23.0%
<i>Europe</i>	44 325	46 579	51 959	53 015	56 518	58 904	62 263	65 637	65 564	65 362	64 458	14.0%
<i>Pacific</i>	13 651	15 666	17 715	18 674	22 509	25 165	26 939	27 199	27 468	27 530	27 397	21.7%
<i>Annex I EIT</i>	..	..	..	..	63 007	45 943	42 918	45 280	45 941	46 910	46 905	-25.6%
<i>Non-Annex I Parties</i>	..	..	..	..	125 462	148 014	167 032	204 133	214 448	226 026	237 631	89.4%
<i>Annex I Kyoto Parties</i>	..	..	..	..	148 998	138 642	141 602	148 217	149 223	149 874	148 863	-0.1%
<b>Intl. marine bunkers</b>	<b>4 521</b>	<b>4 313</b>	<b>4 517</b>	<b>3 841</b>	<b>4 708</b>	<b>5 299</b>	<b>6 141</b>	<b>6 868</b>	<b>7 231</b>	<b>7 634</b>	<b>8 024</b>	<b>70.4%</b>
<b>Intl. aviation bunkers</b>	<b>2 381</b>	<b>2 439</b>	<b>2 834</b>	<b>3 162</b>	<b>3 583</b>	<b>4 019</b>	<b>4 861</b>	<b>5 200</b>	<b>5 526</b>	<b>5 654</b>	<b>5 815</b>	<b>62.3%</b>
<b>Non-OECD Total</b>	<b>84 177</b>	<b>101 740</b>	<b>125 699</b>	<b>145 680</b>	<b>171 048</b>	<b>174 713</b>	<b>188 665</b>	<b>226 137</b>	<b>236 556</b>	<b>248 734</b>	<b>259 671</b>	<b>51.8%</b>
<b>OECD Total</b>	<b>140 587</b>	<b>150 848</b>	<b>169 605</b>	<b>171 877</b>	<b>187 494</b>	<b>202 279</b>	<b>219 796</b>	<b>227 479</b>	<b>229 049</b>	<b>228 674</b>	<b>230 154</b>	<b>22.8%</b>
Canada	5 918	6 948	8 064	8 080	8 737	9 668	10 516	11 227	11 375	11 271	11 278	29.1%
Mexico	1 800	2 477	3 982	4 547	5 073	5 398	6 173	6 839	7 334	7 331	7 715	52.1%
United States	66 464	69 231	75 558	74 278	80 101	86 722	95 596	96 755	97 276	96 414	97 969	22.3%
<b>OECD N. America</b>	<b>74 182</b>	<b>78 655</b>	<b>87 604</b>	<b>86 905</b>	<b>93 910</b>	<b>101 788</b>	<b>112 285</b>	<b>114 821</b>	<b>115 984</b>	<b>115 016</b>	<b>116 961</b>	<b>24.5%</b>
Australia	2 161	2 528	2 914	3 049	3 610	3 875	4 561	4 691	5 057	5 134	5 194	43.9%
Japan	11 201	12 772	14 424	15 157	18 342	20 650	21 674	21 807	21 725	21 700	21 500	17.2%
Korea	711	1 024	1 725	2 241	3 897	6 141	7 907	8 841	8 808	8 953	9 303	138.7%
New Zealand	289	366	376	469	557	640	704	700	686	696	702	26.0%
<b>OECD Pacific</b>	<b>14 362</b>	<b>16 690</b>	<b>19 440</b>	<b>20 915</b>	<b>26 407</b>	<b>31 306</b>	<b>34 846</b>	<b>36 040</b>	<b>36 276</b>	<b>36 483</b>	<b>36 700</b>	<b>39.0%</b>
Austria	788	842	969	967	1 038	1 118	1 194	1 382	1 412	1 430	1 389	33.9%
Belgium	1 660	1 772	1 958	1 846	2 020	2 249	2 449	2 466	2 457	2 433	2 387	18.2%
Czech Republic	1 900	1 828	1 965	2 060	2 041	1 712	1 685	1 905	1 880	1 920	1 916	-6.2%
Denmark	775	732	801	808	726	814	778	812	787	841	823	13.3%
Finland	761	825	1 030	1 082	1 188	1 211	1 344	1 541	1 422	1 548	1 527	28.5%
France	6 639	6 907	8 029	8 533	9 398	9 938	10 602	11 332	11 363	11 208	11 041	17.5%
Germany	12 772	13 126	14 954	14 956	14 713	14 112	14 122	14 383	14 180	14 287	13 869	-5.7%
Greece	364	492	627	735	898	949	1 134	1 244	1 266	1 265	1 347	50.1%
Hungary	797	959	1 187	1 246	1 200	1 083	1 047	1 095	1 155	1 144	1 119	-6.7%
Iceland	38	46	63	74	87	94	130	141	146	174	205	134.4%
Ireland	281	278	345	361	417	434	569	600	602	613	631	51.1%
Italy	4 413	4 889	5 478	5 414	6 142	6 666	7 146	7 562	7 657	7 584	7 459	21.4%
Luxembourg	170	158	149	128	143	132	139	176	179	180	177	23.6%
Netherlands	2 130	2 471	2 695	2 539	2 750	2 953	3 063	3 314	3 298	3 207	3 367	22.5%
Norway	557	611	767	836	879	981	1 061	1 170	1 183	1 216	1 125	27.9%
Poland	3 606	4 314	5 301	5 221	4 317	4 165	3 731	3 828	3 868	4 074	4 066	-5.8%
Portugal	263	322	418	459	701	846	1 033	1 082	1 107	1 032	1 049	49.7%
Slovak Republic	597	702	831	868	893	744	743	768	788	780	747	-16.3%
Spain	1 784	2 408	2 834	2 970	3 772	4 221	5 106	5 823	5 938	5 923	6 027	59.8%
Sweden	1 509	1 634	1 695	1 977	1 976	2 107	1 991	2 202	2 159	2 102	2 111	6.8%
Switzerland	686	719	839	924	996	989	1 024	1 082	1 082	1 130	1 077	8.1%
Turkey	818	1 120	1 317	1 646	2 209	2 577	3 197	3 385	3 533	3 895	4 187	89.6%
United Kingdom	8 737	8 347	8 308	8 406	8 674	9 089	9 378	9 326	9 326	9 187	8 847	2.0%
<b>OECD Europe</b>	<b>52 043</b>	<b>55 503</b>	<b>62 561</b>	<b>64 057</b>	<b>67 177</b>	<b>69 185</b>	<b>72 665</b>	<b>76 618</b>	<b>76 788</b>	<b>77 175</b>	<b>76 493</b>	<b>13.9%</b>
<i>European Union - 27</i>	..	..	..	..	68 533	68 563	70 579	74 439	74 477	74 477	73 639	7.5%

\* Total world includes non-OECD total, OECD total as well as international marine bunkers and international aviation bunkers.

## Total primary energy supply

petajoules

	1971	1975	1980	1985	1990	1995	2000	2004	2005	2006	2007	% change 90-07
<b>Non-OECD Total</b>	<b>84 177</b>	<b>101 740</b>	<b>125 699</b>	<b>145 680</b>	<b>171 048</b>	<b>174 713</b>	<b>188 665</b>	<b>226 137</b>	<b>236 556</b>	<b>248 734</b>	<b>259 671</b>	<b>51.8%</b>
Algeria	145	231	469	743	929	1 010	1 132	1 300	1 353	1 454	1 543	66.1%
Angola	161	173	191	209	246	268	311	390	382	412	445	80.7%
Benin	46	52	57	65	70	77	83	104	107	117	121	73.5%
Botswana	..	..	..	37	53	63	77	76	79	82	85	60.3%
Cameroon	113	127	153	187	208	230	263	292	293	281	305	46.5%
Congo	21	24	27	33	33	33	36	45	51	50	53	58.8%
Dem. Rep. of Congo	280	313	354	417	494	548	613	689	712	735	757	53.3%
Côte d'Ivoire	103	124	150	155	181	213	282	389	403	399	418	130.8%
Egypt	325	411	635	1 077	1 332	1 478	1 891	2 340	2 547	2 672	2 815	111.3%
Eritrea	..	..	..	..	..	42	30	31	32	29	30	..
Ethiopia	360	395	454	518	622	687	780	877	899	927	955	53.4%
Gabon	45	54	58	57	49	57	61	68	73	74	77	56.4%
Ghana	125	153	168	182	222	271	324	348	365	389	398	79.6%
Kenya	235	272	331	384	470	535	630	704	726	761	766	63.1%
Libyan Arab Jamahiriya	66	153	288	418	474	661	694	764	735	738	746	57.3%
Morocco	102	143	204	234	291	360	429	508	548	559	601	106.9%
Mozambique	289	280	281	267	248	263	300	351	356	366	383	54.5%
Namibia	..	..	..	..	..	38	43	56	59	62	65	..
Nigeria	1 510	1 747	2 196	2 572	2 955	3 350	3 713	4 177	4 388	4 389	4 467	51.1%
Senegal	52	58	65	65	71	78	100	115	117	115	112	58.5%
South Africa	1 890	2 251	2 727	3 619	3 804	4 394	4 619	5 385	5 307	5 409	5 624	47.8%
Sudan	294	313	350	396	445	502	565	651	645	633	614	38.1%
United Rep. of Tanzania	317	321	336	367	407	461	561	677	716	744	765	87.8%
Togo	30	33	37	41	53	66	88	97	99	99	103	94.6%
Tunisia	69	91	137	174	207	243	306	354	345	357	370	78.6%
Zambia	147	163	188	206	226	244	261	288	296	304	312	37.8%
Zimbabwe	228	248	272	310	389	412	414	389	406	401	396	1.6%
Other Africa	1 102	1 201	1 371	1 533	1 750	1 963	2 314	2 732	2 807	2 916	3 009	71.9%
<b>Africa</b>	<b>8 057</b>	<b>9 331</b>	<b>11 500</b>	<b>14 266</b>	<b>16 232</b>	<b>18 544</b>	<b>20 918</b>	<b>24 198</b>	<b>24 846</b>	<b>25 472</b>	<b>26 337</b>	<b>62.3%</b>
Bahrain	59	89	118	174	182	206	246	292	314	347	367	101.7%
Islamic Rep. of Iran	700	1 129	1 608	2 268	2 861	3 936	4 936	6 289	6 640	7 209	7 743	170.6%
Iraq	185	237	441	661	757	1 087	1 063	1 403	1 386	1 435	1 385	82.9%
Israel	240	294	328	317	485	655	772	832	857	886	920	89.6%
Jordan	20	31	63	109	136	180	206	260	279	287	301	120.9%
Kuwait	244	242	621	598	328	672	838	1 039	1 153	1 034	1 055	222.1%
Lebanon	71	83	98	112	94	181	206	221	227	195	167	77.8%
Oman	4	10	36	117	178	256	364	464	537	622	648	264.5%
Qatar	39	87	146	254	288	364	480	693	686	770	929	222.2%
Saudi Arabia	316	385	1 323	1 957	2 481	3 640	4 391	5 451	5 809	6 079	6 294	153.7%
Syrian Arab Republic	110	145	214	362	477	588	730	748	733	777	822	72.5%
United Arab Emirates	42	81	300	559	832	1 141	1 411	1 766	1 805	1 900	2 162	159.8%
Yemen	31	29	53	73	105	143	198	258	275	287	302	187.0%
<b>Middle East</b>	<b>2 062</b>	<b>2 843</b>	<b>5 346</b>	<b>7 560</b>	<b>9 204</b>	<b>13 049</b>	<b>15 841</b>	<b>19 715</b>	<b>20 701</b>	<b>21 829</b>	<b>23 096</b>	<b>150.9%</b>
Albania	71	82	128	113	111	55	74	84	97	90	91	-18.4%
Bosnia and Herzegovina *	..	..	..	..	293	64	182	202	211	226	235	-20.1%
Bulgaria	797	973	1 189	1 283	1 196	967	781	788	833	856	847	-29.2%
Croatia *	..	..	..	..	377	295	326	370	373	374	390	3.5%
Cyprus	25	24	36	39	57	73	89	91	93	97	102	79.1%
Gibraltar	1	1	2	2	2	4	5	6	6	6	6	162.9%
FYR of Macedonia *	..	..	..	..	104	105	112	116	121	122	127	22.0%
Malta	9	9	13	14	29	30	28	34	36	34	36	24.9%
Romania	1 764	2 169	2 731	2 719	2 606	1 938	1 515	1 606	1 603	1 668	1 629	-37.5%
Serbia *	..	..	..	..	810	569	557	730	629	658	662	-18.3%
Slovenia *	..	..	..	..	237	251	269	298	305	307	307	29.4%
Former Yugoslavia *	918	1 068	1 411	1 722	..	..	..	..	..	..	..	..
<b>Non-OECD Europe</b>	<b>3 584</b>	<b>4 326</b>	<b>5 510</b>	<b>5 892</b>	<b>5 824</b>	<b>4 352</b>	<b>3 940</b>	<b>4 325</b>	<b>4 307</b>	<b>4 439</b>	<b>4 432</b>	<b>-23.9%</b>

\* Data for individual countries of the Former Yugoslavia are not available prior to 1990.

## Total primary energy supply

petajoules

	1971	1975	1980	1985	1990	1995	2000	2004	2005	2006	2007	% change 90-07
Armenia	..	..	..	..	322	68	84	87	105	107	119	-63.0%
Azerbaijan	..	..	..	..	1 082	534	479	529	559	568	499	-53.9%
Belarus	..	..	..	..	1 772	1 038	1 034	1 125	1 125	1 198	1 174	-33.7%
Estonia	..	..	..	..	401	201	189	214	217	210	236	-41.1%
Georgia	..	..	..	..	507	156	120	116	132	127	140	-72.4%
Kazakhstan	..	..	..	..	3 046	2 176	1 688	2 138	2 352	2 658	2 783	-8.6%
Kyrgyzstan	..	..	..	..	317	102	102	117	117	118	122	-61.5%
Latvia	..	..	..	..	326	192	155	182	185	190	196	-40.0%
Lithuania	..	..	..	..	675	366	299	384	360	355	387	-42.6%
Republic of Moldova	..	..	..	..	413	184	119	141	148	141	140	-66.2%
Russian Federation	..	..	..	..	36 425	26 131	25 544	26 693	27 267	28 083	28 141	-22.7%
Tajikistan	..	..	..	..	233	127	119	141	147	155	163	-30.0%
Turkmenistan	..	..	..	..	822	582	607	655	692	690	757	-7.9%
Ukraine	..	..	..	..	10 540	6 859	5 601	6 024	5 982	5 750	5 750	-45.4%
Uzbekistan	..	..	..	..	1 941	1 782	2 109	2 069	1 968	2 029	2 038	5.0%
<b>Former Soviet Union *</b>	<b>32 169</b>	<b>39 351</b>	<b>46 453</b>	<b>52 248</b>	<b>58 822</b>	<b>40 499</b>	<b>38 249</b>	<b>40 615</b>	<b>41 355</b>	<b>42 380</b>	<b>42 644</b>	<b>-27.5%</b>
Argentina	1 409	1 505	1 751	1 731	1 929	2 258	2 552	2 616	2 642	2 869	3 059	58.6%
Bolivia	43	63	102	109	116	166	207	206	201	202	228	96.1%
Brazil	2 913	3 815	4 763	5 405	5 841	6 706	7 920	8 792	9 031	9 334	9 862	68.9%
Chile	364	320	397	401	579	788	1 097	1 210	1 240	1 275	1 289	122.7%
Colombia	577	645	776	876	1 014	1 192	1 121	1 129	1 172	1 240	1 216	19.9%
Costa Rica	47	54	63	69	83	106	133	151	164	183	200	140.8%
Cuba	457	546	620	602	691	429	472	408	397	413	415	-39.9%
Dominican Republic	98	129	144	153	172	247	324	321	323	324	330	92.5%
Ecuador	96	137	211	242	251	287	338	416	416	459	494	96.8%
El Salvador	73	95	105	110	103	141	166	182	188	194	205	97.9%
Guatemala	115	140	159	158	186	224	297	315	338	341	347	86.8%
Haiti	63	72	87	79	65	71	84	96	108	111	116	78.0%
Honduras	58	64	78	84	100	118	125	161	168	169	199	99.4%
Jamaica	84	112	95	72	117	135	157	163	155	181	207	77.7%
Netherlands Antilles	229	161	164	75	61	55	83	85	82	80	91	49.2%
Nicaragua	52	62	64	81	88	98	114	137	139	144	145	66.0%
Panama	70	71	59	65	62	83	108	107	109	121	118	89.4%
Paraguay	57	62	87	95	129	165	161	168	166	169	176	36.8%
Peru	382	434	471	443	408	459	510	535	571	553	589	44.6%
Trinidad and Tobago	110	96	160	212	250	264	410	518	531	596	640	155.9%
Uruguay	101	102	111	84	94	108	129	121	124	134	133	40.7%
Venezuela	818	1 045	1 482	1 651	1 824	2 160	2 362	2 361	2 493	2 552	2 669	46.3%
Other Latin America	198	251	250	162	203	218	241	287	296	299	315	55.2%
<b>Latin America</b>	<b>8 417</b>	<b>9 981</b>	<b>12 201</b>	<b>12 960</b>	<b>14 365</b>	<b>16 476</b>	<b>19 111</b>	<b>20 486</b>	<b>21 054</b>	<b>21 946</b>	<b>23 065</b>	<b>60.6%</b>
Bangladesh	238	282	352	417	533	666	778	944	1 000	1 031	1 078	102.3%
Brunei Darussalam	7	31	57	75	74	97	103	109	106	114	116	57.0%
Cambodia	..	..	..	..	..	141	167	194	200	208	215	..
Chinese Taipei	422	602	1 171	1 432	2 020	2 672	3 563	4 302	4 295	4 389	4 600	127.7%
India	6 540	7 427	8 685	10 751	13 321	16 132	19 150	21 627	22 362	23 486	24 908	87.0%
Indonesia	1 511	1 755	2 397	2 833	4 291	5 504	6 319	7 169	7 336	7 562	7 982	86.0%
DPR of Korea	813	932	1 271	1 507	1 391	920	828	862	898	907	769	-44.7%
Malaysia	247	300	507	666	949	1 606	2 080	2 284	2 732	2 790	3 039	220.2%
Mongolia	..	..	..	131	143	113	99	105	109	121	129	-9.7%
Myanmar	330	350	393	459	446	493	523	610	670	649	655	46.9%
Nepal	153	169	191	213	242	281	339	370	382	391	400	65.0%
Pakistan	713	851	1 043	1 356	1 796	2 247	2 645	3 072	3 157	3 290	3 486	94.2%
Philippines	628	739	917	960	1 151	1 446	1 715	1 660	1 661	1 649	1 674	45.4%
Singapore	114	155	215	283	480	789	809	951	1 159	1 135	1 120	133.5%
Sri Lanka	159	172	190	209	231	249	349	368	377	380	389	68.3%
Thailand	573	726	921	1 056	1 760	2 614	3 024	3 950	4 072	4 181	4 354	147.4%
Vietnam	730	776	820	907	1 018	1 258	1 552	2 090	2 135	2 208	2 336	129.3%
Other Asia	185	222	307	244	253	285	287	350	345	353	387	53.1%
<b>Asia</b>	<b>13 364</b>	<b>15 490</b>	<b>19 436</b>	<b>23 499</b>	<b>30 098</b>	<b>37 513</b>	<b>44 330</b>	<b>51 016</b>	<b>52 997</b>	<b>54 845</b>	<b>57 637</b>	<b>91.5%</b>
People's Rep. of China	16 400	20 266	25 057	28 973	36 135	43 833	45 726	65 237	70 746	77 264	81 884	126.6%
Hong Kong, China	126	152	196	283	368	447	549	545	549	559	575	56.6%
<b>China</b>	<b>16 526</b>	<b>20 418</b>	<b>25 254</b>	<b>29 256</b>	<b>36 503</b>	<b>44 280</b>	<b>46 275</b>	<b>65 782</b>	<b>71 295</b>	<b>77 823</b>	<b>82 459</b>	<b>125.9%</b>

\* Data for individual countries of the Former Soviet Union are not available prior to 1990.

## Total primary energy supply

million tonnes of oil equivalent

	1971	1975	1980	1985	1990	1995	2000	2004	2005	2006	2007	% change 90-07
<b>World *</b>	<b>5 533.2</b>	<b>6 194.2</b>	<b>7 228.8</b>	<b>7 752.0</b>	<b>8 761.7</b>	<b>9 226.9</b>	<b>10 018.7</b>	<b>11 122.7</b>	<b>11 425.5</b>	<b>11 720.1</b>	<b>12 029.8</b>	<b>37.3%</b>
<i>Annex I Parties</i>	..	..	..	..	5 567.0	5 469.1	5 766.4	5 958.8	5 998.8	6 004.2	6 023.5	8.2%
<i>Annex II Parties</i>	3 113.6	3 306.2	3 661.4	3 679.3	4 009.4	4 310.2	4 665.0	4 796.5	4 817.1	4 790.7	4 803.2	19.8%
<i>North America</i>	1 728.8	1 819.5	1 997.3	1 967.1	2 121.8	2 302.2	2 534.4	2 579.1	2 595.1	2 572.0	2 609.3	23.0%
<i>Europe</i>	1 058.7	1 112.5	1 241.0	1 266.2	1 349.9	1 406.9	1 487.1	1 567.7	1 566.0	1 561.1	1 539.6	14.0%
<i>Pacific</i>	326.1	374.2	423.1	446.0	537.6	601.1	643.4	649.6	656.1	657.5	654.4	21.7%
<i>Annex I EIT</i>	..	..	..	..	1 504.9	1 097.3	1 025.1	1 081.5	1 097.3	1 120.4	1 120.3	-25.6%
<i>Non-Annex I Parties</i>	..	..	..	..	2 996.6	3 535.3	3 989.5	4 875.6	5 122.0	5 398.5	5 675.7	89.4%
<i>Annex I Kyoto Parties</i>	..	..	..	..	3 558.8	3 311.4	3 382.1	3 540.1	3 564.1	3 579.7	3 555.5	-0.1%
<b>Intl. marine bunkers</b>	<b>108.0</b>	<b>103.0</b>	<b>107.9</b>	<b>91.7</b>	<b>112.5</b>	<b>126.6</b>	<b>146.7</b>	<b>164.0</b>	<b>172.7</b>	<b>182.3</b>	<b>191.6</b>	<b>70.4%</b>
<b>Intl. aviation bunkers</b>	<b>56.9</b>	<b>58.3</b>	<b>67.7</b>	<b>75.5</b>	<b>85.6</b>	<b>96.0</b>	<b>116.1</b>	<b>124.2</b>	<b>132.0</b>	<b>135.0</b>	<b>138.9</b>	<b>62.3%</b>
<b>Non-OECD Total</b>	<b>2 010.5</b>	<b>2 430.0</b>	<b>3 002.3</b>	<b>3 479.5</b>	<b>4 085.4</b>	<b>4 173.0</b>	<b>4 506.2</b>	<b>5 401.2</b>	<b>5 650.0</b>	<b>5 940.9</b>	<b>6 202.1</b>	<b>51.8%</b>
<b>OECD Total</b>	<b>3 357.9</b>	<b>3 603.0</b>	<b>4 051.0</b>	<b>4 105.2</b>	<b>4 478.2</b>	<b>4 831.4</b>	<b>5 249.7</b>	<b>5 433.2</b>	<b>5 470.7</b>	<b>5 461.8</b>	<b>5 497.1</b>	<b>22.8%</b>
Canada	141.3	165.9	192.6	193.0	208.7	230.9	251.2	268.2	271.7	269.2	269.4	29.1%
Mexico	43.0	59.2	95.1	108.6	121.2	128.9	147.4	163.3	175.2	175.1	184.3	52.1%
United States	1 587.5	1 653.5	1 804.7	1 774.1	1 913.2	2 071.3	2 283.3	2 311.0	2 323.4	2 302.8	2 339.9	22.3%
<b>OECD N. America</b>	<b>1 771.8</b>	<b>1 878.6</b>	<b>2 092.4</b>	<b>2 075.7</b>	<b>2 243.0</b>	<b>2 431.2</b>	<b>2 681.9</b>	<b>2 742.5</b>	<b>2 770.2</b>	<b>2 747.1</b>	<b>2 793.6</b>	<b>24.5%</b>
Australia	51.6	60.4	69.6	72.8	86.2	92.6	108.9	112.1	120.8	122.6	124.1	43.9%
Japan	267.5	305.1	344.5	362.0	438.1	493.2	517.7	520.9	518.9	518.3	513.5	17.2%
Korea	17.0	24.5	41.2	53.5	93.1	146.7	188.9	211.2	210.4	213.8	222.2	138.7%
New Zealand	6.9	8.8	9.0	11.2	13.3	15.3	16.8	16.7	16.4	16.6	16.8	26.0%
<b>OECD Pacific</b>	<b>343.0</b>	<b>398.6</b>	<b>464.3</b>	<b>499.6</b>	<b>630.7</b>	<b>747.7</b>	<b>832.3</b>	<b>860.8</b>	<b>866.4</b>	<b>871.4</b>	<b>876.6</b>	<b>39.0%</b>
Austria	18.8	20.1	23.2	23.1	24.8	26.7	28.5	33.0	33.7	34.2	33.2	33.9%
Belgium	39.7	42.3	46.8	44.1	48.2	53.7	58.5	58.9	58.7	58.1	57.0	18.2%
Czech Republic	45.4	43.7	46.9	49.2	48.8	40.9	40.3	45.5	44.9	45.9	45.8	-6.2%
Denmark	18.5	17.5	19.1	19.3	17.3	19.4	18.6	19.4	18.8	20.1	19.6	13.3%
Finland	18.2	19.7	24.6	25.8	28.4	28.9	32.1	36.8	34.0	37.0	36.5	28.5%
France	158.6	165.0	191.8	203.8	224.5	237.4	253.2	270.7	271.4	267.7	263.7	17.5%
Germany	305.0	313.5	357.2	357.2	351.4	337.1	337.3	343.5	338.7	341.2	331.3	-5.7%
Greece	8.7	11.7	15.0	17.6	21.4	22.7	27.1	29.7	30.2	30.2	32.2	50.1%
Hungary	19.0	22.9	28.4	29.8	28.7	25.9	25.0	26.2	27.6	27.3	26.7	-6.7%
Iceland	0.9	1.1	1.5	1.8	2.1	2.3	3.1	3.4	3.5	4.2	4.9	134.4%
Ireland	6.7	6.6	8.2	8.6	10.0	10.4	13.6	14.3	14.4	14.7	15.1	51.1%
Italy	105.4	116.8	130.8	129.3	146.7	159.2	170.7	180.6	182.9	181.1	178.2	21.4%
Luxembourg	4.1	3.8	3.6	3.1	3.4	3.2	3.3	4.2	4.3	4.3	4.2	23.6%
Netherlands	50.9	59.0	64.4	60.6	65.7	70.5	73.1	79.2	78.8	76.6	80.4	22.5%
Norway	13.3	14.6	18.3	20.0	21.0	23.4	25.4	27.9	28.2	29.1	26.9	27.9%
Poland	86.1	103.0	126.6	124.7	103.1	99.5	89.1	91.4	92.4	97.3	97.1	-5.8%
Portugal	6.3	7.7	10.0	11.0	16.7	20.2	24.7	25.8	26.4	24.7	25.1	49.7%
Slovak Republic	14.3	16.8	19.8	20.7	21.3	17.8	17.7	18.4	18.8	18.6	17.8	-16.3%
Spain	42.6	57.5	67.7	70.9	90.1	100.8	121.9	139.1	141.8	141.5	144.0	59.8%
Sweden	36.0	39.0	40.5	47.2	47.2	50.3	47.6	52.6	51.6	50.2	50.4	6.8%
Switzerland	16.4	17.2	20.0	22.1	23.8	23.6	24.5	25.9	25.8	27.0	25.7	8.1%
Turkey	19.5	26.8	31.4	39.3	52.8	61.5	76.3	80.9	84.4	93.0	100.0	89.6%
United Kingdom	208.7	199.4	198.4	200.8	207.2	217.1	224.0	222.7	222.7	219.4	211.3	2.0%
<b>OECD Europe</b>	<b>1 243.0</b>	<b>1 325.7</b>	<b>1 494.2</b>	<b>1 530.0</b>	<b>1 604.5</b>	<b>1 652.5</b>	<b>1 735.6</b>	<b>1 830.0</b>	<b>1 834.0</b>	<b>1 843.3</b>	<b>1 827.0</b>	<b>13.9%</b>
<i>European Union - 27</i>	..	..	..	..	1 636.9	1 637.6	1 685.7	1 777.9	1 778.9	1 778.9	1 758.8	7.5%

\* Total world includes non-OECD total, OECD total as well as international marine bunkers and international aviation bunkers.

## Total primary energy supply

million tonnes of oil equivalent

	1971	1975	1980	1985	1990	1995	2000	2004	2005	2006	2007	% change 90-07
<b>Non-OECD Total</b>	<b>2 010.5</b>	<b>2 430.0</b>	<b>3 002.3</b>	<b>3 479.5</b>	<b>4 085.4</b>	<b>4 173.0</b>	<b>4 506.2</b>	<b>5 401.2</b>	<b>5 650.0</b>	<b>5 940.9</b>	<b>6 202.1</b>	<b>51.8%</b>
Algeria	3.5	5.5	11.2	17.7	22.2	24.1	27.0	31.0	32.3	34.7	36.9	66.1%
Angola	3.9	4.1	4.6	5.0	5.9	6.4	7.4	9.3	9.1	9.8	10.6	80.7%
Benin	1.1	1.2	1.4	1.5	1.7	1.8	2.0	2.5	2.6	2.8	2.9	73.5%
Botswana	..	..	..	0.9	1.3	1.5	1.8	1.8	1.9	1.9	2.0	60.3%
Cameroon	2.7	3.0	3.7	4.5	5.0	5.5	6.3	7.0	7.0	6.7	7.3	46.5%
Congo	0.5	0.6	0.7	0.8	0.8	0.8	0.8	1.1	1.2	1.2	1.3	58.8%
Dem. Rep. of Congo	6.7	7.5	8.5	10.0	11.8	13.1	14.6	16.5	17.0	17.6	18.1	53.3%
Côte d'Ivoire	2.5	3.0	3.6	3.7	4.3	5.1	6.7	9.3	9.6	9.5	10.0	130.8%
Egypt	7.8	9.8	15.2	25.7	31.8	35.3	45.2	55.9	60.8	63.8	67.2	111.3%
Eritrea	..	..	..	..	..	1.0	0.7	0.7	0.8	0.7	0.7	..
Ethiopia	8.6	9.4	10.8	12.4	14.9	16.4	18.6	20.9	21.5	22.1	22.8	53.4%
Gabon	1.1	1.3	1.4	1.4	1.2	1.4	1.5	1.6	1.7	1.8	1.8	56.4%
Ghana	3.0	3.7	4.0	4.4	5.3	6.5	7.7	8.3	8.7	9.3	9.5	79.6%
Kenya	5.6	6.5	7.9	9.2	11.2	12.8	15.0	16.8	17.3	18.2	18.3	63.1%
Libyan Arab Jamahiriya	1.6	3.7	6.9	10.0	11.3	15.8	16.6	18.2	17.6	17.6	17.8	57.3%
Morocco	2.4	3.4	4.9	5.6	6.9	8.6	10.2	12.1	13.1	13.4	14.4	106.9%
Mozambique	6.9	6.7	6.7	6.4	5.9	6.3	7.2	8.4	8.5	8.7	9.1	54.5%
Namibia	..	..	..	..	..	0.9	1.0	1.3	1.4	1.5	1.6	..
Nigeria	36.1	41.7	52.5	61.4	70.6	80.0	88.7	99.8	104.8	104.8	106.7	51.1%
Senegal	1.2	1.4	1.6	1.6	1.7	1.9	2.4	2.7	2.8	2.8	2.7	58.5%
South Africa	45.1	53.8	65.1	86.4	90.9	104.9	110.3	128.6	126.8	129.2	134.3	47.8%
Sudan	7.0	7.5	8.4	9.5	10.6	12.0	13.5	15.5	15.4	15.1	14.7	38.1%
United Rep. of Tanzania	7.6	7.7	8.0	8.8	9.7	11.0	13.4	16.2	17.1	17.8	18.3	87.8%
Togo	0.7	0.8	0.9	1.0	1.3	1.6	2.1	2.3	2.4	2.4	2.5	94.6%
Tunisia	1.7	2.2	3.3	4.2	4.9	5.8	7.3	8.5	8.2	8.5	8.8	78.6%
Zambia	3.5	3.9	4.5	4.9	5.4	5.8	6.2	6.9	7.1	7.3	7.4	37.8%
Zimbabwe	5.4	5.9	6.5	7.4	9.3	9.8	9.9	9.3	9.7	9.6	9.4	1.6%
Other Africa	26.3	28.7	32.7	36.6	41.8	46.9	55.3	65.2	67.0	69.6	71.9	71.9%
<b>Africa</b>	<b>192.4</b>	<b>222.9</b>	<b>274.7</b>	<b>340.7</b>	<b>387.7</b>	<b>442.9</b>	<b>499.6</b>	<b>578.0</b>	<b>593.4</b>	<b>608.4</b>	<b>629.0</b>	<b>62.3%</b>
Bahrain	1.4	2.1	2.8	4.2	4.4	4.9	5.9	7.0	7.5	8.3	8.8	101.7%
Islamic Rep. of Iran	16.7	27.0	38.4	54.2	68.3	94.0	117.9	150.2	158.6	172.2	184.9	170.6%
Iraq	4.4	5.7	10.5	15.8	18.1	26.0	25.4	33.5	33.1	34.3	33.1	82.9%
Israel	5.7	7.0	7.8	7.6	11.6	15.6	18.4	19.9	20.5	21.2	22.0	89.6%
Jordan	0.5	0.7	1.5	2.6	3.3	4.3	4.9	6.2	6.7	6.8	7.2	120.9%
Kuwait	5.8	5.8	14.8	14.3	7.8	16.0	20.0	24.8	27.5	24.7	25.2	222.1%
Lebanon	1.7	2.0	2.3	2.7	2.2	4.3	4.9	5.3	5.4	4.7	4.0	77.8%
Oman	0.1	0.2	0.9	2.8	4.2	6.1	8.7	11.1	12.8	14.9	15.5	264.5%
Qatar	0.9	2.1	3.5	6.1	6.9	8.7	11.5	16.6	16.4	18.4	22.2	222.2%
Saudi Arabia	7.6	9.2	31.6	46.7	59.3	86.9	104.9	130.2	138.7	145.2	150.3	153.7%
Syrian Arab Republic	2.6	3.5	5.1	8.7	11.4	14.0	17.4	17.9	17.5	18.6	19.6	72.5%
United Arab Emirates	1.0	1.9	7.2	13.3	19.9	27.3	33.7	42.2	43.1	45.4	51.6	159.8%
Yemen	0.7	0.7	1.3	1.7	2.5	3.4	4.7	6.2	6.6	6.9	7.2	187.0%
<b>Middle East</b>	<b>49.2</b>	<b>67.9</b>	<b>127.7</b>	<b>180.6</b>	<b>219.8</b>	<b>311.7</b>	<b>378.4</b>	<b>470.9</b>	<b>494.4</b>	<b>521.4</b>	<b>551.6</b>	<b>150.9%</b>
Albania	1.7	2.0	3.1	2.7	2.7	1.3	1.8	2.0	2.3	2.1	2.2	-18.4%
Bosnia and Herzegovina *	..	..	..	..	7.0	1.5	4.4	4.8	5.0	5.4	5.6	-20.1%
Bulgaria	19.0	23.2	28.4	30.6	28.6	23.1	18.7	18.8	19.9	20.4	20.2	-29.2%
Croatia *	..	..	..	..	9.0	7.0	7.8	8.8	8.9	8.9	9.3	3.5%
Cyprus	0.6	0.6	0.9	0.9	1.4	1.7	2.1	2.2	2.2	2.3	2.4	79.1%
Gibraltar	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2	162.9%
FYR of Macedonia *	..	..	..	..	2.5	2.5	2.7	2.8	2.9	2.9	3.0	22.0%
Malta	0.2	0.2	0.3	0.3	0.7	0.7	0.7	0.8	0.9	0.8	0.9	24.9%
Romania	42.1	51.8	65.2	64.9	62.3	46.3	36.2	38.4	38.3	39.8	38.9	-37.5%
Serbia *	..	..	..	..	19.3	13.6	13.3	17.4	15.0	15.7	15.8	-18.3%
Slovenia *	..	..	..	..	5.7	6.0	6.4	7.1	7.3	7.3	7.3	29.4%
Former Yugoslavia *	21.9	25.5	33.7	41.1	..	..	..	..	..	..	..	..
<b>Non-OECD Europe</b>	<b>85.6</b>	<b>103.3</b>	<b>131.6</b>	<b>140.7</b>	<b>139.1</b>	<b>103.9</b>	<b>94.1</b>	<b>103.3</b>	<b>102.9</b>	<b>106.0</b>	<b>105.8</b>	<b>-23.9%</b>

\* Data for individual countries of the Former Yugoslavia are not available prior to 1990.

## Total primary energy supply

million tonnes of oil equivalent

	1971	1975	1980	1985	1990	1995	2000	2004	2005	2006	2007	% change 90-07
Armenia	..	..	..	..	7.7	1.6	2.0	2.1	2.5	2.5	2.8	-63.0%
Azerbaijan	..	..	..	..	25.8	12.7	11.4	12.6	13.4	13.6	11.9	-53.9%
Belarus	..	..	..	..	42.3	24.8	24.7	26.9	26.9	28.6	28.0	-33.7%
Estonia	..	..	..	..	9.6	4.8	4.5	5.1	5.2	5.0	5.6	-41.1%
Georgia	..	..	..	..	12.1	3.7	2.9	2.8	3.1	3.0	3.3	-72.4%
Kazakhstan	..	..	..	..	72.7	52.0	40.3	51.1	56.2	63.5	66.5	-8.6%
Kyrgyzstan	..	..	..	..	7.6	2.4	2.4	2.8	2.8	2.8	2.9	-61.5%
Latvia	..	..	..	..	7.8	4.6	3.7	4.3	4.4	4.5	4.7	-40.0%
Lithuania	..	..	..	..	16.1	8.7	7.1	9.2	8.6	8.5	9.3	-42.6%
Republic of Moldova	..	..	..	..	9.9	4.4	2.8	3.4	3.5	3.4	3.3	-66.2%
Russian Federation	..	..	..	..	870.0	624.1	610.1	637.5	651.3	670.8	672.1	-22.7%
Tajikistan	..	..	..	..	5.6	3.0	2.9	3.4	3.5	3.7	3.9	-30.0%
Turkmenistan	..	..	..	..	19.6	13.9	14.5	15.7	16.5	16.5	18.1	-7.9%
Ukraine	..	..	..	..	251.8	163.8	133.8	143.9	142.9	137.3	137.3	-45.4%
Uzbekistan	..	..	..	..	46.4	42.6	50.4	49.4	47.0	48.5	48.7	5.0%
<b>Former Soviet Union *</b>	<b>768.3</b>	<b>939.9</b>	<b>1 109.5</b>	<b>1 247.9</b>	<b>1 404.9</b>	<b>967.3</b>	<b>913.6</b>	<b>970.1</b>	<b>987.7</b>	<b>1 012.2</b>	<b>1 018.5</b>	<b>-27.5%</b>
Argentina	33.7	35.9	41.8	41.3	46.1	53.9	61.0	62.5	63.1	68.5	73.1	58.6%
Bolivia	1.0	1.5	2.4	2.6	2.8	4.0	4.9	4.9	4.8	4.8	5.4	96.1%
Brazil	69.6	91.1	113.8	129.1	139.5	160.2	189.2	210.0	215.7	222.9	235.6	68.9%
Chile	8.7	7.6	9.5	9.6	13.8	18.8	26.2	28.9	29.6	30.5	30.8	122.7%
Colombia	13.8	15.4	18.5	20.9	24.2	28.5	26.8	27.0	28.0	29.6	29.0	19.9%
Costa Rica	1.1	1.3	1.5	1.7	2.0	2.5	3.2	3.6	3.9	4.4	4.8	140.8%
Cuba	10.9	13.0	14.8	14.4	16.5	10.3	11.3	9.8	9.5	9.9	9.9	-39.9%
Dominican Republic	2.3	3.1	3.4	3.6	4.1	5.9	7.7	7.7	7.7	7.7	7.9	92.5%
Ecuador	2.3	3.3	5.0	5.8	6.0	6.9	8.1	9.9	9.9	11.0	11.8	96.8%
El Salvador	1.8	2.3	2.5	2.6	2.5	3.4	4.0	4.4	4.5	4.6	4.9	97.9%
Guatemala	2.7	3.3	3.8	3.8	4.4	5.4	7.1	7.5	8.1	8.1	8.3	86.8%
Haiti	1.5	1.7	2.1	1.9	1.6	1.7	2.0	2.3	2.6	2.6	2.8	78.0%
Honduras	1.4	1.5	1.9	2.0	2.4	2.8	3.0	3.9	4.0	4.0	4.7	99.4%
Jamaica	2.0	2.7	2.3	1.7	2.8	3.2	3.7	3.9	3.7	4.3	5.0	77.7%
Netherlands Antilles	5.5	3.8	3.9	1.8	1.5	1.3	2.0	2.0	2.0	1.9	2.2	49.2%
Nicaragua	1.2	1.5	1.5	1.9	2.1	2.3	2.7	3.3	3.3	3.4	3.5	66.0%
Panama	1.7	1.7	1.4	1.6	1.5	2.0	2.6	2.6	2.6	2.9	2.8	89.4%
Paraguay	1.4	1.5	2.1	2.3	3.1	3.9	3.9	4.0	4.0	4.0	4.2	36.8%
Peru	9.1	10.4	11.3	10.6	9.7	11.0	12.2	12.8	13.6	13.2	14.1	44.6%
Trinidad and Tobago	2.6	2.3	3.8	5.1	6.0	6.3	9.8	12.4	12.7	14.2	15.3	155.9%
Uruguay	2.4	2.4	2.6	2.0	2.3	2.6	3.1	2.9	3.0	3.2	3.2	40.7%
Venezuela	19.5	25.0	35.4	39.4	43.6	51.6	56.4	56.4	59.5	61.0	63.7	46.3%
Other Latin America	4.7	6.0	6.0	3.9	4.8	5.2	5.8	6.9	7.1	7.2	7.5	55.2%
<b>Latin America</b>	<b>201.0</b>	<b>238.4</b>	<b>291.4</b>	<b>309.5</b>	<b>343.1</b>	<b>393.5</b>	<b>456.5</b>	<b>489.3</b>	<b>502.9</b>	<b>524.2</b>	<b>550.9</b>	<b>60.6%</b>
Bangladesh	5.7	6.7	8.4	9.9	12.7	15.9	18.6	22.5	23.9	24.6	25.8	102.3%
Brunei Darussalam	0.2	0.7	1.4	1.8	1.8	2.3	2.5	2.6	2.5	2.7	2.8	57.0%
Cambodia	..	..	..	..	..	3.4	4.0	4.6	4.8	5.0	5.1	..
Chinese Taipei	10.1	14.4	28.0	34.2	48.2	63.8	85.1	102.7	102.6	104.8	109.9	127.7%
India	156.2	177.4	207.4	256.8	318.2	385.3	457.4	516.6	534.1	561.0	594.9	87.0%
Indonesia	36.1	41.9	57.3	67.7	102.5	131.5	150.9	171.2	175.2	180.6	190.6	86.0%
DPR of Korea	19.4	22.3	30.4	36.0	33.2	22.0	19.8	20.6	21.4	21.7	18.4	-44.7%
Malaysia	5.9	7.2	12.1	15.9	22.7	38.3	49.7	54.6	65.3	66.6	72.6	220.2%
Mongolia	..	..	..	3.1	3.4	2.7	2.4	2.5	2.6	2.9	3.1	-9.7%
Myanmar	7.9	8.4	9.4	11.0	10.7	11.8	12.5	14.6	16.0	15.5	15.6	46.9%
Nepal	3.7	4.0	4.6	5.1	5.8	6.7	8.1	8.8	9.1	9.3	9.6	65.0%
Pakistan	17.0	20.3	24.9	32.4	42.9	53.7	63.2	73.4	75.4	78.6	83.3	94.2%
Philippines	15.0	17.7	21.9	22.9	27.5	34.5	41.0	39.6	39.7	39.4	40.0	45.4%
Singapore	2.7	3.7	5.1	6.8	11.5	18.9	19.3	22.7	27.7	27.1	26.8	133.5%
Sri Lanka	3.8	4.1	4.5	5.0	5.5	5.9	8.3	8.8	9.0	9.1	9.3	68.3%
Thailand	13.7	17.3	22.0	25.2	42.0	62.4	72.2	94.3	97.3	99.9	104.0	147.4%
Vietnam	17.4	18.5	19.6	21.7	24.3	30.1	37.1	49.9	51.0	52.7	55.8	129.3%
Other Asia	4.4	5.3	7.3	5.8	6.0	6.8	6.9	8.4	8.2	8.4	9.2	53.1%
<b>Asia</b>	<b>319.2</b>	<b>370.0</b>	<b>464.2</b>	<b>561.3</b>	<b>718.9</b>	<b>896.0</b>	<b>1 058.8</b>	<b>1 218.5</b>	<b>1 265.8</b>	<b>1 309.9</b>	<b>1 376.6</b>	<b>91.5%</b>
People's Rep. of China	391.7	484.0	598.5	692.0	863.1	1 046.9	1 092.2	1 558.2	1 689.8	1 845.4	1 955.8	126.6%
Hong Kong, China	3.0	3.6	4.7	6.8	8.8	10.7	13.1	13.0	13.1	13.4	13.7	56.6%
<b>China</b>	<b>394.7</b>	<b>487.7</b>	<b>603.2</b>	<b>698.8</b>	<b>871.9</b>	<b>1 057.6</b>	<b>1 105.3</b>	<b>1 571.2</b>	<b>1 702.9</b>	<b>1 858.8</b>	<b>1 969.5</b>	<b>125.9%</b>

\* Data for individual countries of the Former Soviet Union are not available prior to 1990.



## GDP using exchange rates

billion 2000 US dollars

	1971	1975	1980	1985	1990	1995	2000	2004	2005	2006	2007	% change 90-07
<b>World</b>	<b>12 913.4</b>	<b>14 963.9</b>	<b>18 112.3</b>	<b>20 509.0</b>	<b>24 199.8</b>	<b>27 133.3</b>	<b>31 979.8</b>	<b>35 356.1</b>	<b>36 585.9</b>	<b>38 046.5</b>	<b>39 493.3</b>	<b>63.2%</b>
<i>Annex I Parties</i>	..	..	..	..	19 869.2	21 607.5	25 091.8	27 075.0	27 760.1	28 579.5	29 299.4	47.5%
<i>Annex II Parties</i>	10 319.9	11 697.5	13 928.5	15 822.3	18 844.8	20 761.3	24 112.4	25 899.7	26 512.6	27 245.4	27 880.9	48.0%
<i>North America</i>	4 138.8	4 620.2	5 540.0	6 482.7	7 598.6	8 564.9	10 489.7	11 421.7	11 757.5	12 086.9	12 337.3	62.4%
<i>Europe</i>	4 094.4	4 602.3	5 345.0	5 795.6	6 803.1	7 374.8	8 502.9	9 073.5	9 240.9	9 508.9	9 764.5	43.5%
<i>Pacific</i>	2 086.8	2 474.9	3 043.6	3 544.0	4 443.0	4 821.7	5 119.7	5 404.5	5 514.2	5 649.6	5 779.1	30.1%
<i>Annex I EIT</i>	..	..	..	..	838.5	628.3	712.9	868.0	914.5	978.2	1 046.7	24.8%
<i>Non-Annex I Parties</i>	..	..	..	..	4 330.6	5 525.9	6 888.0	8 281.1	8 825.8	9 466.9	10 193.9	135.4%
<i>Annex I Kyoto Parties</i>	..	..	..	..	12 613.9	13 407.5	15 047.7	16 127.1	16 472.1	16 962.8	17 437.8	38.2%
<b>Non-OECD Total</b>	<b>2 073.7</b>	<b>2 599.1</b>	<b>3 347.1</b>	<b>3 717.4</b>	<b>4 196.2</b>	<b>5 012.0</b>	<b>6 156.1</b>	<b>7 521.4</b>	<b>8 050.3</b>	<b>8 667.0</b>	<b>9 383.7</b>	<b>123.6%</b>
<b>OECD Total</b>	<b>10 839.7</b>	<b>12 364.8</b>	<b>14 765.2</b>	<b>16 791.7</b>	<b>20 003.6</b>	<b>22 121.3</b>	<b>25 823.7</b>	<b>27 834.7</b>	<b>28 535.6</b>	<b>29 379.4</b>	<b>30 109.6</b>	<b>50.5%</b>
Canada	288.3	343.3	412.0	471.7	543.6	592.1	724.9	797.8	820.8	846.3	869.3	59.9%
Mexico	208.0	274.1	378.4	416.5	452.6	488.2	636.7	676.4	698.1	731.7	755.1	66.9%
United States	3 850.5	4 276.9	5 128.0	6 011.0	7 055.0	7 972.8	9 764.8	10 623.9	10 936.7	11 240.6	11 468.0	62.6%
<b>OECD N. America</b>	<b>4 346.8</b>	<b>4 894.4</b>	<b>5 918.3</b>	<b>6 899.2</b>	<b>8 051.2</b>	<b>9 053.1</b>	<b>11 126.4</b>	<b>12 098.2</b>	<b>12 455.6</b>	<b>12 818.6</b>	<b>13 092.4</b>	<b>62.6%</b>
Australia	163.2	181.1	210.1	243.6	281.0	330.1	399.6	457.6	471.2	486.2	507.7	80.7%
Japan	1 894.9	2 259.9	2 800.6	3 261.9	4 122.4	4 445.4	4 667.5	4 885.1	4 979.6	5 099.0	5 205.0	26.3%
Korea	66.1	87.8	122.8	179.0	283.6	413.0	511.7	613.6	639.4	672.2	705.6	148.9%
New Zealand	28.7	33.9	32.9	38.5	39.6	46.2	52.7	61.8	63.5	64.5	66.4	67.5%
<b>OECD Pacific</b>	<b>2 152.8</b>	<b>2 562.8</b>	<b>3 166.4</b>	<b>3 723.0</b>	<b>4 726.5</b>	<b>5 234.7</b>	<b>5 631.4</b>	<b>6 018.2</b>	<b>6 153.6</b>	<b>6 321.8</b>	<b>6 484.8</b>	<b>37.2%</b>
Austria	87.9	101.4	119.2	128.2	149.1	165.0	191.2	201.9	207.7	214.8	221.3	48.5%
Belgium	114.5	131.5	153.7	161.1	187.5	203.0	231.9	246.8	251.3	258.8	266.0	41.8%
Czech Republic	38.3	43.7	48.7	51.1	55.3	52.7	56.7	64.1	68.1	72.8	77.1	39.4%
Denmark	83.2	88.1	101.0	115.5	123.9	139.1	160.1	166.3	170.4	176.1	179.0	44.5%
Finland	53.0	64.1	74.5	85.1	100.3	96.5	121.9	134.2	138.0	144.7	151.3	50.8%
France	630.8	727.7	861.1	929.8	1 091.8	1 156.3	1 328.0	1 415.5	1 442.3	1 473.6	1 505.6	37.9%
Germany	950.5	1 038.9	1 225.9	1 311.9	1 543.2	1 720.5	1 900.2	1 942.8	1 957.8	2 015.8	2 065.4	33.8%
Greece	64.8	76.8	94.2	94.8	100.8	107.3	127.1	151.7	156.1	163.2	169.7	68.3%
Hungary	26.0	33.3	39.6	43.3	44.4	39.4	48.0	56.8	59.0	61.5	62.1	39.9%
Iceland	3.2	3.8	5.2	5.8	6.8	6.9	8.7	10.0	10.7	11.2	11.6	72.0%
Ireland	22.2	27.3	34.1	38.7	48.7	61.1	96.6	119.0	126.6	133.8	141.9	191.4%
Italy	518.2	594.6	739.1	803.5	937.6	998.7	1 097.3	1 139.4	1 145.7	1 166.8	1 183.8	26.3%
Luxembourg	6.1	6.8	7.6	8.6	12.4	15.1	20.3	23.0	24.2	25.7	27.1	118.1%
Netherlands	173.6	196.5	223.9	237.6	282.0	315.8	385.1	402.9	411.2	425.1	439.8	56.0%
Norway	61.0	73.1	91.2	107.5	117.0	140.5	168.3	182.8	187.8	192.1	198.1	69.4%
Poland	89.2	114.1	119.0	120.0	118.2	131.6	171.3	192.4	199.4	211.8	225.9	91.1%
Portugal	41.3	48.0	61.5	64.3	84.7	92.2	112.7	116.6	117.7	119.3	121.6	43.5%
Slovak Republic	12.9	14.7	16.3	17.6	18.9	17.3	20.4	24.3	25.9	28.1	31.1	64.2%
Spain	241.9	299.4	330.0	353.6	440.6	474.9	580.7	658.1	681.9	708.4	734.3	66.7%
Sweden	134.8	151.8	162.2	177.7	201.5	208.4	245.6	269.7	278.6	290.4	297.8	47.8%
Switzerland	166.1	166.2	180.7	194.7	224.8	225.9	249.9	259.8	266.3	275.3	284.5	26.6%
Turkey	79.3	99.6	111.9	141.9	186.0	217.8	266.6	307.2	333.0	356.0	371.8	100.0%
United Kingdom	741.4	806.3	879.9	977.1	1 150.5	1 247.9	1 477.5	1 633.0	1 666.6	1 713.9	1 765.8	53.5%
<b>OECD Europe</b>	<b>4 340.0</b>	<b>4 907.6</b>	<b>5 680.5</b>	<b>6 169.5</b>	<b>7 225.9</b>	<b>7 833.6</b>	<b>9 065.8</b>	<b>9 718.3</b>	<b>9 926.4</b>	<b>10 239.0</b>	<b>10 532.4</b>	<b>45.8%</b>
<i>European Union - 27</i>	..	..	..	..	6 808.1	7 341.6	8 480.0	9 091.5	9 268.9	9 555.2	9 827.3	44.3%

## GDP using exchange rates

billion 2000 US dollars

	1971	1975	1980	1985	1990	1995	2000	2004	2005	2006	2007	% change 90-07
<b>Non-OECD Total</b>	<b>2 073.7</b>	<b>2 599.1</b>	<b>3 347.1</b>	<b>3 717.4</b>	<b>4 196.2</b>	<b>5 012.0</b>	<b>6 156.1</b>	<b>7 521.4</b>	<b>8 050.3</b>	<b>8 667.0</b>	<b>9 383.7</b>	<b>123.6%</b>
Algeria	17.5	26.1	35.3	44.6	46.4	47.0	54.8	66.2	69.6	70.8	73.0	57.5%
Angola	6.7	6.7	6.7	7.2	8.5	6.7	9.1	12.4	14.9	17.7	21.4	153.4%
Benin	0.8	0.9	1.1	1.4	1.4	1.7	2.3	2.7	2.7	2.8	3.0	109.7%
Botswana	..	..	..	1.9	3.4	4.1	6.2	7.7	8.1	8.4	8.8	160.0%
Cameroon	3.5	4.7	6.3	9.9	8.8	8.0	10.1	11.8	12.1	12.5	12.9	46.9%
Congo	1.0	1.4	1.7	2.8	2.8	2.9	3.2	3.7	4.0	4.2	4.2	48.6%
Dem. Rep. of Congo	7.1	7.6	7.0	7.7	7.7	5.3	4.3	4.9	5.2	5.5	5.9	-23.5%
Côte d'Ivoire	5.1	6.3	7.7	7.8	8.3	8.9	10.4	10.3	10.4	10.5	10.7	28.6%
Egypt	21.0	24.1	38.5	53.3	65.6	77.5	99.8	113.7	118.8	126.9	135.9	107.2%
Eritrea	..	..	..	..	..	0.6	0.6	0.7	0.7	0.7	0.7	..
Ethiopia	4.2	4.6	5.1	4.9	6.2	6.6	8.2	10.0	11.2	12.4	13.8	120.8%
Gabon	1.9	3.9	3.6	4.1	4.3	5.0	5.1	5.4	5.5	5.6	5.9	37.2%
Ghana	2.7	2.5	2.6	2.6	3.3	4.0	5.0	6.0	6.4	6.8	7.2	120.3%
Kenya	4.0	5.2	7.1	8.0	10.5	11.4	12.7	14.3	15.2	16.1	17.2	63.6%
Libyan Arab Jamahiriya	34.4	27.8	43.8	37.7	29.8	31.8	34.5	42.5	44.0	46.5	49.6	66.6%
Morocco	12.8	15.4	20.1	23.6	29.3	30.7	37.0	45.8	47.2	50.9	52.2	78.2%
Mozambique	2.8	2.4	2.5	1.9	2.5	3.0	4.2	5.9	6.4	7.0	7.5	198.9%
Namibia	..	..	..	..	..	2.9	3.4	4.1	4.3	4.4	4.7	..
Nigeria	22.6	26.0	31.5	27.0	35.0	39.5	46.0	58.7	61.9	65.7	69.6	99.1%
Senegal	2.3	2.5	2.7	3.1	3.5	3.8	4.7	5.6	5.9	6.0	6.3	82.4%
South Africa	71.5	82.0	95.5	102.2	110.9	115.8	132.9	153.0	160.7	169.3	178.0	60.5%
Sudan	4.0	4.9	5.5	5.7	7.1	9.1	12.4	15.6	16.6	18.4	20.3	187.6%
United Rep. of Tanzania	3.6	4.3	4.9	5.2	6.8	7.4	9.1	11.7	12.5	13.4	14.3	110.6%
Togo	0.6	0.8	1.0	0.9	1.1	1.1	1.3	1.5	1.5	1.5	1.6	46.2%
Tunisia	4.7	6.3	8.6	10.6	12.2	14.8	19.4	23.2	24.1	25.5	27.1	121.6%
Zambia	2.4	2.7	2.7	2.8	3.0	2.8	3.2	3.9	4.1	4.3	4.6	52.0%
Zimbabwe	3.5	4.1	4.4	5.4	6.7	7.1	7.4	5.9	5.6	5.3	5.0	-25.4%
Other Africa	24.0	26.0	30.6	32.3	37.3	38.3	48.5	59.8	62.7	65.6	68.9	84.7%
<b>Africa</b>	<b>264.7</b>	<b>299.1</b>	<b>376.6</b>	<b>414.5</b>	<b>462.3</b>	<b>497.8</b>	<b>595.8</b>	<b>707.0</b>	<b>742.2</b>	<b>784.9</b>	<b>830.3</b>	<b>79.6%</b>
Bahrain	1.3	2.4	4.0	3.7	4.6	6.5	8.0	9.9	10.7	11.5	12.3	164.7%
Islamic Rep. of Iran	46.6	66.1	57.3	69.4	70.3	83.1	101.3	127.1	133.0	140.8	151.8	116.0%
Iraq	50.5	64.2	96.6	61.8	33.0	12.6	25.9	19.1	19.8	19.9	20.9	-36.7%
Israel	31.8	41.3	49.8	57.6	71.1	97.4	123.7	130.8	137.6	144.7	152.5	114.3%
Jordan	2.1	2.0	4.2	5.4	5.1	7.2	8.5	10.7	11.4	12.1	12.9	150.7%
Kuwait	31.9	26.4	27.9	22.0	25.3	34.3	37.7	50.8	56.6	59.4	62.2	145.3%
Lebanon	12.7	12.4	10.5	14.8	8.4	14.9	16.8	20.3	20.5	20.5	20.9	149.7%
Oman	3.2	4.1	5.4	10.9	12.7	16.8	19.9	23.5	24.9	26.8	28.9	128.1%
Qatar	9.0	9.1	10.6	9.0	8.8	10.2	17.8	24.6	26.1	28.4	32.4	267.2%
Saudi Arabia	52.9	110.0	153.7	121.8	144.1	166.0	188.4	215.0	226.9	234.1	242.0	67.9%
Syrian Arab Republic	4.0	6.9	9.5	10.9	11.8	17.3	19.3	22.7	23.8	25.0	26.6	126.2%
United Arab Emirates	8.8	22.7	47.3	41.3	46.4	54.8	70.6	90.4	97.8	107.3	115.2	148.4%
Yemen	1.3	1.9	3.3	4.7	5.5	7.2	9.4	11.0	11.6	12.0	12.4	125.4%
<b>Middle East</b>	<b>256.1</b>	<b>369.6</b>	<b>480.1</b>	<b>433.2</b>	<b>447.2</b>	<b>528.4</b>	<b>647.3</b>	<b>756.0</b>	<b>800.7</b>	<b>842.6</b>	<b>891.0</b>	<b>99.2%</b>
Albania	1.7	2.1	2.8	3.1	3.2	2.8	3.7	4.5	4.8	5.0	5.3	65.9%
Bosnia and Herzegovina *	..	..	..	..	1.4	1.5	5.1	6.1	6.4	6.8	7.2	416.7%
Bulgaria	6.4	8.8	11.8	13.9	15.0	13.1	12.6	15.3	16.3	17.3	18.4	22.6%
Croatia *	..	..	..	..	21.5	15.6	18.4	22.3	23.2	24.4	25.7	19.7%
Cyprus	2.1	1.9	3.4	4.4	6.2	7.7	9.3	10.5	10.9	11.4	11.9	91.3%
Gibraltar	0.4	0.4	0.4	0.5	0.6	0.6	0.7	0.8	0.8	0.9	0.9	52.0%
FYR of Macedonia *	..	..	..	..	3.9	3.1	3.6	3.7	3.8	4.0	4.2	6.8%
Malta	0.6	0.9	1.6	1.8	2.4	3.1	3.9	3.9	4.1	4.2	4.3	81.8%
Romania	18.8	28.4	40.9	48.2	44.0	39.5	37.1	46.9	48.9	52.8	55.9	27.1%
Serbia *	..	..	..	..	10.2	10.0	9.9	12.0	11.6	12.2	13.1	28.9%
Slovenia *	..	..	..	..	16.6	16.1	19.9	22.8	23.8	25.2	26.9	61.9%
Former Yugoslavia *	33.7	41.3	55.6	56.6	..	..	..	..	..	..	..	..
<b>Non-OECD Europe</b>	<b>63.7</b>	<b>83.9</b>	<b>116.7</b>	<b>128.5</b>	<b>125.0</b>	<b>113.2</b>	<b>124.2</b>	<b>149.0</b>	<b>154.7</b>	<b>164.1</b>	<b>173.9</b>	<b>39.1%</b>

\* Data for individual countries of the Former Yugoslavia are not available prior to 1990.

## GDP using exchange rates

billion 2000 US dollars

	1971	1975	1980	1985	1990	1995	2000	2004	2005	2006	2007	% change 90-07
Armenia	..	..	..	..	2.8	1.5	1.9	3.0	3.4	3.9	4.4	55.5%
Azerbaijan	..	..	..	..	9.0	3.7	5.3	7.9	9.9	13.4	16.7	86.4%
Belarus	..	..	..	..	14.4	9.4	12.7	16.7	18.3	20.1	21.8	51.5%
Estonia	..	..	..	..	5.9	4.2	5.6	7.5	8.2	9.1	9.6	62.1%
Georgia	..	..	..	..	8.2	2.3	3.1	4.0	4.4	4.8	5.4	-34.3%
Kazakhstan	..	..	..	..	26.3	16.2	18.3	27.3	30.0	33.2	36.1	37.1%
Kyrgyzstan	..	..	..	..	2.1	1.0	1.4	1.7	1.6	1.7	1.8	-10.5%
Latvia	..	..	..	..	10.4	5.9	7.8	10.5	11.6	13.0	14.4	37.9%
Lithuania	..	..	..	..	16.1	9.3	11.4	15.4	16.6	17.9	19.5	21.0%
Republic of Moldova	..	..	..	..	3.6	1.5	1.3	1.7	1.8	1.9	2.0	-45.9%
Russian Federation	..	..	..	..	385.9	239.7	259.7	328.8	349.9	375.7	406.2	5.3%
Tajikistan	..	..	..	..	2.3	0.9	0.9	1.3	1.3	1.4	1.6	-31.3%
Turkmenistan	..	..	..	..	3.7	2.3	2.9	5.3	5.8	6.3	7.1	89.2%
Ukraine	..	..	..	..	72.0	34.5	31.3	44.0	45.2	48.5	52.2	-27.4%
Uzbekistan	..	..	..	..	14.0	11.4	13.8	16.7	17.9	19.2	21.0	49.8%
<b>Former Soviet Union *</b>	<b>404.4</b>	<b>505.6</b>	<b>616.9</b>	<b>685.7</b>	<b>576.7</b>	<b>343.9</b>	<b>377.2</b>	<b>491.8</b>	<b>526.0</b>	<b>570.1</b>	<b>619.7</b>	<b>7.5%</b>
Argentina	167.5	184.7	212.1	186.6	182.2	250.3	284.2	287.3	313.6	340.2	369.6	102.9%
Bolivia	4.1	5.2	5.7	5.2	5.8	7.1	8.4	9.4	9.8	10.2	10.7	84.7%
Brazil	212.7	311.6	430.4	454.2	501.8	583.6	644.7	717.0	739.6	767.4	808.9	61.2%
Chile	23.0	19.7	28.0	29.2	40.5	61.4	75.2	87.5	92.4	96.4	101.3	150.5%
Colombia	32.0	39.7	51.6	57.7	73.4	89.9	94.1	107.8	114.0	121.9	131.1	78.6%
Costa Rica	4.6	5.8	7.5	7.5	9.6	12.5	15.9	18.4	19.5	21.2	22.8	138.5%
Cuba	15.5	18.5	21.8	32.8	32.5	22.5	28.2	31.7	35.5	39.9	42.7	31.4%
Dominican Republic	4.9	6.8	8.8	9.6	11.1	13.6	19.8	21.4	23.4	25.9	28.1	153.6%
Ecuador	5.9	8.4	10.9	11.7	13.3	15.2	15.9	19.6	20.8	21.6	22.1	66.1%
El Salvador	7.2	8.7	8.7	7.6	8.4	11.3	13.1	14.2	14.7	15.3	16.0	91.2%
Guatemala	7.2	8.9	11.8	11.2	12.9	15.9	19.3	21.7	22.4	23.6	24.9	93.5%
Haiti	3.3	3.5	4.6	4.4	4.4	3.4	3.8	3.7	3.7	3.8	4.0	-10.0%
Honduras	2.5	2.9	4.0	4.4	5.1	6.1	7.1	8.4	8.9	9.5	10.1	95.9%
Jamaica	5.6	6.0	5.1	5.2	6.6	8.0	8.0	8.6	8.7	8.9	8.3	24.9%
Netherlands Antilles	..	..	1.0	1.0	1.0	1.2	1.2	1.2	1.3	1.3	1.3	24.8%
Nicaragua	3.2	4.0	3.2	3.3	2.8	3.1	3.9	4.4	4.6	4.8	5.0	75.7%
Panama	4.5	5.2	6.2	7.3	7.1	9.3	11.6	13.4	14.3	15.6	17.4	144.9%
Paraguay	2.0	2.7	4.5	4.9	5.9	7.1	7.1	7.8	8.0	8.4	8.9	50.8%
Peru	28.5	34.9	39.1	39.7	36.1	47.1	53.3	61.3	65.4	70.5	76.7	112.6%
Trinidad and Tobago	4.5	5.1	7.5	6.7	6.0	6.4	8.2	11.3	12.0	13.5	14.2	138.0%
Uruguay	11.4	12.3	15.4	12.7	15.4	18.6	20.7	20.3	21.6	23.2	24.9	62.1%
Venezuela	68.3	77.8	87.8	83.8	95.3	112.9	117.1	120.5	132.9	146.6	159.0	66.9%
Other Latin America	10.0	10.3	13.9	14.8	19.4	20.7	24.8	26.6	27.5	28.5	29.5	51.9%
<b>Latin America</b>	<b>628.5</b>	<b>782.8</b>	<b>989.6</b>	<b>1 001.4</b>	<b>1 096.5</b>	<b>1 327.3</b>	<b>1 485.7</b>	<b>1 623.4</b>	<b>1 714.7</b>	<b>1 818.1</b>	<b>1 937.6</b>	<b>76.7%</b>
Bangladesh	17.8	16.7	20.4	24.5	29.5	36.5	47.1	57.9	61.4	65.4	69.6	136.3%
Brunei Darussalam	2.2	2.7	4.4	3.7	3.8	4.1	4.3	4.8	4.8	5.0	5.1	34.8%
Cambodia	..	..	..	..	..	2.6	3.7	5.2	5.9	6.5	7.1	..
Chinese Taipei	35.1	47.7	79.4	109.9	170.9	242.4	321.2	361.3	376.0	393.6	416.0	143.4%
India	119.1	135.2	157.6	202.6	270.5	346.6	460.2	589.6	644.7	707.0	771.1	185.1%
Indonesia	29.5	40.2	58.8	77.4	109.2	159.4	165.0	196.7	207.9	219.3	233.2	113.7%
DPR of Korea	3.0	4.7	8.2	13.1	15.6	12.2	10.9	11.1	11.3	11.5	11.4	-26.9%
Malaysia	13.1	17.5	26.4	33.9	47.2	74.2	93.8	112.2	118.2	125.1	133.0	181.7%
Mongolia	..	..	..	0.9	1.1	1.0	1.1	1.4	1.5	1.6	1.8	62.3%
Myanmar	2.6	2.9	4.0	5.0	4.5	5.9	8.9	14.4	16.2	17.4	18.3	307.9%
Nepal	1.7	1.9	2.1	2.7	3.4	4.3	5.5	6.3	6.5	6.7	6.9	105.1%
Pakistan	17.4	20.2	27.3	37.9	50.2	63.0	74.0	87.6	94.4	100.2	106.2	111.4%
Philippines	28.2	35.4	47.6	44.6	56.2	62.6	75.9	90.1	94.5	99.6	106.8	89.9%
Singapore	10.5	14.5	21.8	29.7	44.7	68.2	92.7	106.3	114.1	123.4	132.9	197.6%
Sri Lanka	4.3	5.0	6.5	8.3	9.8	12.8	16.3	18.7	19.8	21.4	22.8	132.2%
Thailand	20.1	25.4	37.3	48.6	79.4	120.0	122.7	150.5	157.3	165.3	173.2	118.2%
Vietnam	8.1	8.2	8.6	11.9	15.0	22.3	31.2	41.3	44.8	48.5	52.6	250.0%
Other Asia	10.6	11.8	13.8	15.6	17.9	22.0	23.7	30.7	32.3	35.2	39.9	122.6%
<b>Asia</b>	<b>323.4</b>	<b>390.1</b>	<b>524.2</b>	<b>670.2</b>	<b>928.8</b>	<b>1 260.2</b>	<b>1 558.2</b>	<b>1 885.9</b>	<b>2 011.5</b>	<b>2 152.7</b>	<b>2 307.8</b>	<b>148.5%</b>
People's Rep. of China	107.1	133.4	182.9	304.5	444.6	792.8	1 198.5	1 715.0	1 893.4	2 113.0	2 387.7	437.0%
Hong Kong, China	25.9	34.6	60.2	79.4	115.2	148.5	169.1	193.4	207.1	221.6	235.7	104.7%
<b>China</b>	<b>133.0</b>	<b>168.0</b>	<b>243.1</b>	<b>383.8</b>	<b>559.8</b>	<b>941.3</b>	<b>1 367.6</b>	<b>1 908.4</b>	<b>2 100.4</b>	<b>2 334.6</b>	<b>2 623.4</b>	<b>368.7%</b>

\* Data for individual countries of the Former Soviet Union are not available prior to 1990.

## GDP using purchasing power parities

billion 2000 US dollars

	1971	1975	1980	1985	1990	1995	2000	2004	2005	2006	2007	% change 90-07
<b>World</b>	<b>17 506.0</b>	<b>20 608.5</b>	<b>25 055.8</b>	<b>28 618.6</b>	<b>33 299.1</b>	<b>37 759.5</b>	<b>45 572.7</b>	<b>52 626.0</b>	<b>55 156.7</b>	<b>58 179.4</b>	<b>61 428.0</b>	<b>84.5%</b>
<i>Annex I Parties</i>	..	..	..	..	22 366.9	23 480.2	27 338.1	29 844.8	30 680.4	31 698.8	32 627.2	45.9%
<i>Annex II Parties</i>	10 521.3	11 910.8	14 138.7	15 982.2	18 948.5	20 888.6	24 416.6	26 279.0	26 901.1	27 652.7	28 311.0	49.4%
<i>North America</i>	4 197.7	4 690.4	5 624.1	6 579.1	7 709.7	8 685.8	10 637.8	11 584.7	11 925.2	12 259.8	12 514.9	62.3%
<i>Europe</i>	4 747.6	5 359.1	6 240.8	6 755.9	7 942.3	8 607.2	9 927.5	10 601.6	10 797.2	11 109.9	11 408.1	43.6%
<i>Pacific</i>	1 575.9	1 861.2	2 273.8	2 647.2	3 296.5	3 595.6	3 851.2	4 092.7	4 178.7	4 283.0	4 388.0	33.1%
<i>Annex I EIT</i>	..	..	..	..	3 007.8	2 110.7	2 333.0	2 887.4	3 044.0	3 260.1	3 495.2	16.2%
<i>Non-Annex I Parties</i>	..	..	..	..	10 932.2	14 279.3	18 234.6	22 781.2	24 476.3	26 480.6	28 800.8	163.5%
<i>Annex I Kyoto Parties</i>	..	..	..	..	14 847.2	14 991.2	16 936.7	18 479.5	18 939.4	19 596.3	20 256.1	36.4%
<b>Non-OECD Total</b>	<b>5 968.4</b>	<b>7 403.8</b>	<b>9 335.2</b>	<b>10 822.1</b>	<b>12 211.6</b>	<b>14 404.2</b>	<b>18 066.8</b>	<b>22 848.1</b>	<b>24 589.4</b>	<b>26 653.6</b>	<b>29 067.1</b>	<b>138.0%</b>
<b>OECD Total</b>	<b>11 537.6</b>	<b>13 204.7</b>	<b>15 720.6</b>	<b>17 796.5</b>	<b>21 087.5</b>	<b>23 355.3</b>	<b>27 505.9</b>	<b>29 777.9</b>	<b>30 567.3</b>	<b>31 525.8</b>	<b>32 360.9</b>	<b>53.5%</b>
Canada	347.2	413.5	496.1	568.1	654.7	713.0	873.0	960.8	988.5	1 019.2	1 046.9	59.9%
Mexico	322.1	424.5	585.8	644.9	700.7	756.0	985.9	1 047.4	1 080.9	1 133.0	1 169.2	66.9%
United States	3 850.5	4 276.9	5 128.0	6 011.0	7 055.0	7 972.8	9 764.8	10 623.9	10 936.7	11 240.6	11 468.0	62.6%
<b>OECD N. America</b>	<b>4 519.8</b>	<b>5 114.9</b>	<b>6 210.0</b>	<b>7 224.0</b>	<b>8 410.4</b>	<b>9 441.8</b>	<b>11 623.7</b>	<b>12 632.1</b>	<b>13 006.1</b>	<b>13 392.8</b>	<b>13 684.1</b>	<b>62.7%</b>
Australia	214.3	237.9	275.8	319.9	369.0	433.5	524.8	601.0	618.7	638.4	666.8	80.7%
Japan	1 317.9	1 571.8	1 947.9	2 268.7	2 867.2	3 091.8	3 246.3	3 397.6	3 463.4	3 546.4	3 620.2	26.3%
Korea	99.8	132.7	185.5	270.3	428.3	623.8	772.8	926.8	965.7	1 015.3	1 065.7	148.9%
New Zealand	43.7	51.6	50.1	58.6	60.3	70.3	80.2	94.1	96.6	98.2	101.1	67.5%
<b>OECD Pacific</b>	<b>1 675.7</b>	<b>1 993.9</b>	<b>2 459.3</b>	<b>2 917.5</b>	<b>3 724.7</b>	<b>4 219.4</b>	<b>4 624.0</b>	<b>5 019.5</b>	<b>5 144.4</b>	<b>5 298.2</b>	<b>5 453.8</b>	<b>46.4%</b>
Austria	105.8	122.1	143.5	154.3	179.5	198.7	230.2	243.2	250.1	258.6	266.5	48.5%
Belgium	139.3	159.9	187.0	196.0	228.2	246.9	282.2	300.2	305.8	314.9	323.6	41.8%
Czech Republic	103.9	118.6	132.0	138.6	150.0	142.9	153.8	173.8	184.8	197.4	209.1	39.4%
Denmark	79.9	84.6	97.0	110.9	118.9	133.5	153.7	159.7	163.6	169.0	171.8	44.5%
Finland	57.7	69.9	81.1	92.7	109.3	105.2	132.8	146.2	150.4	157.7	164.8	50.8%
France	728.2	840.0	994.0	1 073.3	1 260.3	1 334.7	1 532.9	1 633.9	1 664.9	1 701.0	1 738.0	37.9%
Germany	1 065.6	1 164.7	1 374.3	1 470.7	1 730.0	1 928.7	2 130.2	2 177.9	2 194.8	2 259.7	2 315.3	33.8%
Greece	102.3	121.3	148.7	149.8	159.3	169.5	200.8	239.7	246.6	257.7	268.1	68.3%
Hungary	67.8	86.9	103.6	113.0	116.0	102.9	125.3	148.4	154.2	160.6	162.3	39.9%
Iceland	2.9	3.5	4.8	5.4	6.3	6.4	8.1	9.3	10.0	10.4	10.8	71.9%
Ireland	25.1	30.8	38.5	43.6	54.9	68.8	108.9	134.1	142.7	150.8	159.9	191.3%
Italy	687.4	788.8	980.5	1 065.9	1 243.8	1 324.9	1 455.7	1 511.5	1 519.8	1 547.8	1 570.4	26.3%
Luxembourg	7.0	7.9	8.8	10.0	14.3	17.4	23.4	26.5	27.9	29.7	31.2	118.1%
Netherlands	210.8	238.6	271.9	288.6	342.4	383.5	467.7	489.3	499.3	516.2	534.1	56.0%
Norway	58.7	70.4	87.9	103.5	112.6	135.2	162.1	176.0	180.8	185.0	190.8	69.4%
Poland	210.3	269.0	280.5	283.0	278.6	310.2	403.8	453.6	470.0	499.3	532.4	91.1%
Portugal	64.0	74.3	95.3	99.6	131.3	142.9	174.5	180.6	182.3	184.8	188.3	43.5%
Slovak Republic	37.3	42.6	47.4	51.2	54.9	50.1	59.2	70.6	75.2	81.6	90.1	64.2%
Spain	357.1	442.1	487.3	522.2	650.7	701.2	857.4	971.8	1 006.9	1 046.0	1 084.3	66.7%
Sweden	135.1	152.0	162.4	178.0	201.9	208.7	246.0	270.2	279.1	290.9	298.3	47.8%
Switzerland	151.4	151.4	164.6	177.4	204.8	205.8	227.7	236.7	242.6	250.8	259.2	26.6%
Turkey	175.1	219.8	247.1	313.3	410.6	480.9	588.6	678.3	735.3	786.0	821.0	100.0%
United Kingdom	769.5	836.8	913.2	1 014.1	1 194.0	1 295.2	1 533.5	1 694.8	1 729.7	1 778.8	1 832.6	53.5%
<b>OECD Europe</b>	<b>5 342.1</b>	<b>6 096.0</b>	<b>7 051.4</b>	<b>7 655.0</b>	<b>8 952.4</b>	<b>9 694.2</b>	<b>11 258.2</b>	<b>12 126.3</b>	<b>12 416.8</b>	<b>12 834.8</b>	<b>13 223.1</b>	<b>47.7%</b>
<i>European Union - 27</i>	..	..	..	..	8 557.2	9 151.5	10 570.2	11 398.6	11 641.5	12 025.8	12 392.8	44.8%

## GDP using purchasing power parities

billion 2000 US dollars

	1971	1975	1980	1985	1990	1995	2000	2004	2005	2006	2007	% change 90-07
<b>Non-OECD Total</b>	<b>5 968.4</b>	<b>7 403.8</b>	<b>9 335.2</b>	<b>10 822.1</b>	<b>12 211.6</b>	<b>14 404.2</b>	<b>18 066.8</b>	<b>22 848.1</b>	<b>24 589.4</b>	<b>26 653.6</b>	<b>29 067.1</b>	<b>138.0%</b>
Algeria	51.8	77.4	104.5	132.2	137.3	139.1	162.3	196.0	206.0	209.7	216.2	57.5%
Angola	14.8	14.9	15.0	16.0	18.8	14.9	20.2	27.5	33.1	39.3	47.6	153.4%
Benin	2.5	2.8	3.4	4.2	4.4	5.4	7.0	8.2	8.5	8.8	9.2	109.7%
Botswana	..	..	..	4.6	8.1	9.8	14.7	18.3	19.2	19.9	20.9	160.0%
Cameroon	9.7	12.9	17.6	27.4	24.4	22.1	27.9	32.7	33.5	34.6	35.8	46.9%
Congo	1.1	1.6	2.0	3.2	3.1	3.2	3.6	4.2	4.5	4.8	4.7	48.7%
Dem. Rep. of Congo	49.9	52.9	49.1	53.8	53.6	36.8	30.1	34.4	36.6	38.5	41.0	-23.5%
Côte d'Ivoire	12.9	16.1	19.7	20.0	21.2	22.8	26.6	26.2	26.6	26.8	27.2	28.6%
Egypt	50.0	57.4	91.5	126.8	155.9	184.2	237.3	270.2	282.3	301.6	323.0	107.2%
Eritrea	..	..	..	..	..	3.5	3.6	4.0	4.1	4.1	4.1	..
Ethiopia	28.0	30.6	34.1	32.2	41.3	43.4	54.2	66.2	74.1	82.1	91.2	120.8%
Gabon	2.8	5.7	5.3	6.0	6.3	7.3	7.4	7.9	8.1	8.2	8.7	37.2%
Ghana	20.6	19.3	20.3	19.8	25.1	30.9	38.2	46.1	48.8	52.0	55.2	120.3%
Kenya	10.0	13.0	17.7	20.0	26.3	28.5	31.7	35.7	37.8	40.2	43.0	63.6%
Libyan Arab Jamahiriya	46.7	37.8	59.6	51.2	40.5	43.2	46.9	57.8	59.8	63.1	67.4	66.6%
Morocco	38.6	46.5	60.7	71.3	88.5	92.7	111.8	138.4	142.6	153.6	157.8	78.2%
Mozambique	10.8	9.1	9.3	7.3	9.5	11.2	16.1	22.4	24.3	26.4	28.3	198.9%
Namibia	..	..	..	..	..	9.3	11.1	13.3	14.0	14.4	15.2	..
Nigeria	51.9	59.6	72.2	61.9	80.3	90.8	105.6	134.9	142.2	151.0	159.9	99.1%
Senegal	7.6	8.6	9.1	10.4	11.7	13.0	15.8	18.8	19.9	20.4	21.3	82.4%
South Africa	207.5	238.0	277.2	296.5	322.0	336.1	385.6	444.1	466.3	491.5	516.6	60.5%
Sudan	16.0	19.7	22.1	22.9	28.3	36.3	49.6	62.4	66.4	73.9	81.4	187.6%
United Rep. of Tanzania	6.9	8.3	9.5	10.0	13.2	14.4	17.6	22.7	24.3	26.0	27.8	110.6%
Togo	3.5	4.2	5.3	5.2	5.9	5.9	7.3	8.0	8.1	8.4	8.6	46.2%
Tunisia	14.5	19.6	26.6	32.7	37.8	45.7	60.1	71.7	74.5	78.8	83.8	121.6%
Zambia	6.2	7.0	7.1	7.3	7.9	7.3	8.4	10.1	10.6	11.3	12.0	52.0%
Zimbabwe	14.9	17.3	18.6	22.9	28.6	30.4	31.5	25.2	23.9	22.8	21.4	-25.4%
Other Africa	95.9	102.4	117.5	124.3	140.5	141.6	176.0	209.5	219.2	229.1	243.1	73.1%
<b>Africa</b>	<b>775.2</b>	<b>882.6</b>	<b>1 074.8</b>	<b>1 190.0</b>	<b>1 340.3</b>	<b>1 429.9</b>	<b>1 708.2</b>	<b>2 017.3</b>	<b>2 119.4</b>	<b>2 241.0</b>	<b>2 372.5</b>	<b>77.0%</b>
Bahrain	1.7	3.2	5.2	4.9	6.1	8.5	10.4	13.0	14.0	15.1	16.1	164.7%
Islamic Rep. of Iran	170.0	241.3	209.1	253.3	256.5	303.2	369.7	463.8	485.2	513.8	554.0	116.0%
Iraq	69.0	87.8	132.0	84.5	45.1	17.2	35.4	26.1	27.1	27.2	28.5	-36.7%
Israel	39.9	51.8	62.4	72.2	89.2	122.1	155.0	164.0	172.4	181.3	191.1	114.3%
Jordan	4.9	4.8	10.0	12.9	12.2	17.2	20.1	25.4	27.2	28.9	30.6	150.7%
Kuwait	36.3	30.0	31.7	25.1	28.8	39.1	42.9	57.8	64.4	67.6	70.7	145.3%
Lebanon	12.2	12.0	10.2	14.2	8.1	14.4	16.2	19.6	19.8	19.8	20.2	149.7%
Oman	4.9	6.4	8.3	16.8	19.6	26.1	30.8	36.5	38.7	41.6	44.7	128.1%
Qatar	8.1	8.2	9.5	8.0	7.9	9.1	15.9	22.0	23.3	25.4	29.0	267.2%
Saudi Arabia	78.8	164.0	229.1	181.5	214.8	247.4	280.8	320.4	338.2	348.9	360.7	67.9%
Syrian Arab Republic	11.1	18.9	26.1	30.1	32.4	47.5	53.2	62.5	65.4	68.7	73.2	126.2%
United Arab Emirates	8.7	22.4	46.7	40.8	45.8	54.2	69.7	89.3	96.7	106.0	113.9	148.4%
Yemen	2.1	2.9	5.1	7.3	8.6	11.3	14.7	17.2	18.1	18.7	19.4	125.4%
<b>Middle East</b>	<b>447.7</b>	<b>653.6</b>	<b>785.5</b>	<b>751.6</b>	<b>775.1</b>	<b>917.2</b>	<b>1 115.0</b>	<b>1 317.7</b>	<b>1 390.5</b>	<b>1 463.1</b>	<b>1 552.2</b>	<b>100.3%</b>
Albania	5.3	6.6	8.8	9.7	9.9	8.7	11.4	14.0	14.8	15.5	16.5	65.9%
Bosnia and Herzegovina *	..	..	..	..	5.7	6.1	20.5	24.9	26.2	27.8	29.3	416.0%
Bulgaria	24.9	34.0	45.8	54.0	58.2	51.0	48.9	59.5	63.2	67.2	71.4	22.6%
Croatia *	..	..	..	..	47.8	34.7	41.0	49.6	51.8	54.2	57.3	19.7%
Cyprus	3.1	2.8	4.9	6.4	9.0	11.2	13.6	15.3	15.9	16.5	17.2	91.4%
Gibraltar	0.4	0.4	0.5	0.5	0.6	0.7	0.8	0.9	0.9	0.9	0.9	52.2%
FYR of Macedonia *	..	..	..	..	13.3	10.5	12.2	12.5	13.1	13.6	14.2	6.8%
Malta	1.1	1.7	2.9	3.2	4.2	5.5	6.9	7.0	7.2	7.4	7.7	81.8%
Romania	67.0	101.4	146.2	172.0	157.0	141.0	132.3	167.6	174.6	188.4	199.7	27.1%
Serbia *	..	..	..	..	37.5	36.8	36.6	44.1	42.6	45.0	48.4	28.9%
Slovenia *	..	..	..	..	28.8	27.9	34.5	39.5	41.3	43.7	46.7	61.9%
Former Yugoslavia *	73.0	89.6	120.6	122.7	..	..	..	..	..	..	..	..
<b>Non-OECD Europe</b>	<b>174.8</b>	<b>236.5</b>	<b>329.6</b>	<b>368.5</b>	<b>372.2</b>	<b>334.1</b>	<b>358.6</b>	<b>435.0</b>	<b>451.4</b>	<b>480.2</b>	<b>509.3</b>	<b>36.8%</b>

\* Data for individual countries of the Former Yugoslavia are not available prior to 1990.

## GDP using purchasing power parities

billion 2000 US dollars

	1971	1975	1980	1985	1990	1995	2000	2004	2005	2006	2007	% change 90-07
Armenia	..	..	..	..	11.0	5.8	7.5	11.7	13.3	15.0	17.1	55.5%
Azerbaijan	..	..	..	..	33.8	14.2	19.9	29.7	37.5	50.5	63.1	86.4%
Belarus	..	..	..	..	54.2	35.4	48.1	63.1	69.0	75.9	82.1	51.5%
Estonia	..	..	..	..	13.6	9.6	12.9	17.2	18.8	20.7	22.0	62.1%
Georgia	..	..	..	..	25.1	7.1	9.4	12.3	13.4	14.7	16.5	-34.3%
Kazakhstan	..	..	..	..	93.2	57.2	64.7	96.5	105.9	117.2	127.7	37.1%
Kyrgyzstan	..	..	..	..	11.0	5.6	7.4	8.9	8.9	9.1	9.9	-10.5%
Latvia	..	..	..	..	25.2	14.4	18.9	25.4	28.0	31.5	34.7	38.0%
Lithuania	..	..	..	..	43.0	25.0	30.5	41.2	44.5	47.9	52.1	21.0%
Republic of Moldova	..	..	..	..	15.9	6.4	5.6	7.4	7.9	8.3	8.6	-45.9%
Russian Federation	..	..	..	..	1 523.6	946.5	1 025.4	1 298.3	1 381.3	1 483.6	1 603.7	5.3%
Tajikistan	..	..	..	..	11.5	4.4	4.4	6.4	6.9	7.3	7.9	-31.3%
Turkmenistan	..	..	..	..	20.2	12.6	15.4	28.8	31.4	34.2	38.2	89.2%
Ukraine	..	..	..	..	456.9	219.3	198.5	279.7	287.2	308.2	331.6	-27.4%
Uzbekistan	..	..	..	..	37.7	30.6	36.9	44.9	48.0	51.6	56.4	49.8%
<b>Former Soviet Union *</b>	<b>1 665.5</b>	<b>2 082.2</b>	<b>2 540.8</b>	<b>2 823.8</b>	<b>2 375.9</b>	<b>1 393.8</b>	<b>1 505.4</b>	<b>1 971.3</b>	<b>2 102.1</b>	<b>2 275.7</b>	<b>2 471.6</b>	<b>4.0%</b>
Argentina	263.1	290.0	333.1	292.9	286.1	392.9	446.3	451.0	492.4	534.1	580.4	102.9%
Bolivia	9.7	12.2	13.6	12.3	13.7	16.8	19.9	22.1	23.1	24.2	25.3	84.7%
Brazil	410.5	601.4	830.6	876.7	968.4	1 126.4	1 244.3	1 383.7	1 427.4	1 481.0	1 561.3	61.2%
Chile	43.0	36.8	52.3	54.7	75.7	114.8	140.7	163.8	172.9	180.4	189.6	150.5%
Colombia	95.0	118.1	153.4	171.4	218.1	267.1	279.5	320.4	338.7	362.3	389.6	78.6%
Costa Rica	9.3	11.7	15.0	15.0	19.3	25.2	32.1	37.0	39.2	42.7	46.0	138.5%
Cuba	35.7	42.8	50.3	75.7	75.0	52.0	65.1	73.2	81.8	92.1	98.5	31.4%
Dominican Republic	13.8	19.2	24.8	27.3	31.3	38.4	55.9	60.5	66.2	73.2	79.5	153.6%
Ecuador	14.7	21.0	27.1	29.0	33.2	37.9	39.7	48.8	51.8	53.8	55.2	66.1%
El Salvador	15.9	19.2	19.1	16.6	18.4	24.8	28.9	31.3	32.3	33.6	35.2	91.2%
Guatemala	16.9	21.0	27.7	26.2	30.2	37.2	45.2	50.8	52.5	55.3	58.4	93.5%
Haiti	10.9	11.6	15.3	14.5	14.7	11.4	12.9	12.3	12.5	12.8	13.2	-10.0%
Honduras	7.7	8.9	12.5	13.7	15.9	19.0	22.0	26.1	27.6	29.4	31.2	96.0%
Jamaica	6.5	7.0	5.9	6.0	7.7	9.3	9.3	10.0	10.1	10.4	9.6	24.9%
Netherlands Antilles	..	..	2.3	2.2	2.4	2.7	2.7	2.8	2.8	2.9	2.9	24.8%
Nicaragua	12.6	15.7	12.7	13.1	11.0	12.1	15.4	17.3	18.0	18.7	19.4	75.7%
Panama	7.0	8.0	9.5	11.3	10.9	14.2	17.8	20.6	22.0	23.9	26.7	144.9%
Paraguay	6.4	8.4	14.2	15.4	18.7	22.5	22.3	24.6	25.3	26.4	28.1	50.8%
Peru	65.6	80.3	89.9	91.4	83.0	108.4	122.6	140.9	150.5	162.2	176.5	112.6%
Trinidad and Tobago	6.5	7.3	10.7	9.6	8.6	9.2	11.7	16.2	17.2	19.3	20.3	137.9%
Uruguay	16.2	17.4	21.8	18.0	21.7	26.4	29.3	28.7	30.6	32.8	35.2	62.1%
Venezuela	81.6	93.0	105.0	100.2	113.8	134.9	140.0	144.0	158.8	175.2	190.0	66.9%
Other Latin America	15.5	16.3	20.7	21.4	27.1	29.4	34.7	37.4	38.6	40.3	41.7	54.1%
<b>Latin America</b>	<b>1 163.9</b>	<b>1 467.1</b>	<b>1 867.5</b>	<b>1 914.5</b>	<b>2 104.9</b>	<b>2 533.0</b>	<b>2 838.2</b>	<b>3 123.6</b>	<b>3 292.6</b>	<b>3 486.9</b>	<b>3 713.9</b>	<b>76.4%</b>
Bangladesh	75.3	70.4	86.4	103.7	124.5	154.3	199.0	244.6	259.2	276.4	294.1	136.3%
Brunei Darussalam	2.7	3.3	5.3	4.4	4.5	4.9	5.2	5.8	5.8	6.0	6.0	34.7%
Cambodia	..	..	..	..	..	16.0	22.8	31.5	35.6	39.5	43.5	..
Chinese Taipei	53.6	73.0	121.4	168.1	261.4	370.8	491.4	552.6	575.1	602.0	636.3	143.4%
India	621.7	705.5	822.5	1 057.5	1 411.9	1 809.1	2 402.0	3 077.3	3 365.1	3 690.5	4 024.9	185.1%
Indonesia	107.2	145.9	213.6	280.9	396.4	578.8	599.3	714.3	754.9	796.6	846.9	113.7%
DPR of Korea	10.6	16.7	28.7	45.9	54.8	43.0	38.2	39.1	39.8	40.5	40.0	-26.9%
Malaysia	28.7	38.3	57.7	74.0	103.0	162.0	204.7	245.0	258.1	273.0	290.3	181.7%
Mongolia	..	..	..	3.5	4.3	3.7	4.2	5.4	5.8	6.3	6.9	62.3%
Myanmar	15.8	17.6	23.9	30.3	27.2	35.9	53.9	86.8	98.2	105.1	110.9	307.9%
Nepal	10.1	11.2	12.5	15.9	19.9	25.6	32.4	37.0	38.2	39.6	40.8	105.1%
Pakistan	61.5	71.7	96.8	134.3	178.0	223.2	262.0	310.4	334.2	354.9	376.2	111.4%
Philippines	113.6	142.6	191.5	179.6	226.3	251.9	305.5	362.4	380.4	400.9	429.7	89.9%
Singapore	10.8	14.8	22.3	30.4	45.7	69.8	94.8	108.7	116.6	126.2	135.9	197.6%
Sri Lanka	17.5	20.6	26.6	33.9	40.1	52.1	66.7	76.2	81.0	87.2	93.1	132.2%
Thailand	63.8	80.4	118.0	153.8	251.1	379.8	388.4	476.1	497.7	523.1	548.0	118.2%
Vietnam	41.0	41.4	43.8	60.4	76.3	113.2	158.4	209.7	227.5	246.2	267.0	250.0%
Other Asia	36.0	39.0	44.3	51.1	52.8	57.3	62.5	80.8	86.0	91.9	101.0	91.4%
<b>Asia</b>	<b>1 269.9</b>	<b>1 492.2</b>	<b>1 915.2</b>	<b>2 427.7</b>	<b>3 278.1</b>	<b>4 351.4</b>	<b>5 391.1</b>	<b>6 663.8</b>	<b>7 159.2</b>	<b>7 705.7</b>	<b>8 291.7</b>	<b>152.9%</b>
People's Rep. of China	444.5	553.6	759.4	1 263.9	1 845.6	3 291.0	4 975.2	7 119.3	7 859.8	8 771.5	9 911.8	437.0%
Hong Kong, China	26.8	35.9	62.3	82.2	119.2	153.8	175.1	200.2	214.4	229.4	244.1	104.7%
<b>China</b>	<b>471.3</b>	<b>589.5</b>	<b>821.7</b>	<b>1 346.1</b>	<b>1 964.9</b>	<b>3 444.8</b>	<b>5 150.2</b>	<b>7 319.6</b>	<b>8 074.2</b>	<b>9 000.9</b>	<b>10 155.8</b>	<b>416.9%</b>

\* Data for individual countries of the Former Soviet Union are not available prior to 1990.

## Population

millions

	1971	1975	1980	1985	1990	1995	2000	2004	2005	2006	2007	% change 90-07
<b>World</b>	<b>3 758.4</b>	<b>4 063.9</b>	<b>4 435.4</b>	<b>4 828.5</b>	<b>5 259.2</b>	<b>5 675.7</b>	<b>6 072.7</b>	<b>6 382.3</b>	<b>6 458.9</b>	<b>6 535.2</b>	<b>6 609.3</b>	<b>25.7%</b>
<i>Annex I Parties</i>	827.8	858.5	891.8	920.9	1 176.5	1 208.7	1 234.3	1 256.0	1 260.8	1 266.2	1 271.5	8.1%
<i>Annex II Parties</i>	705.1	729.1	754.8	775.7	799.2	827.6	853.0	876.2	881.9	887.6	893.3	11.8%
<i>North America</i>	229.7	239.1	252.2	264.3	277.9	295.9	313.1	325.6	328.7	331.8	335.1	20.6%
<i>Europe</i>	354.6	361.4	367.8	371.3	377.3	384.4	389.9	398.5	400.8	403.0	405.2	7.4%
<i>Pacific</i>	120.8	128.6	134.8	140.0	144.0	147.3	150.0	152.1	152.4	152.7	153.1	6.3%
<i>Annex I EIT</i>	86.6	89.3	92.7	94.9	321.1	319.5	313.9	308.0	306.8	305.6	304.3	-5.2%
<i>Non-Annex I Parties</i>	2 930.5	3 205.3	3 543.5	3 907.6	4 082.8	4 467.0	4 838.3	5 126.3	5 198.2	5 269.0	5 337.8	30.7%
<i>Annex I Kyoto Parties</i>	583.9	602.5	619.7	632.1	859.9	870.3	874.4	880.7	882.5	884.3	885.8	3.0%
<b>Non-OECD Total</b>	<b>2 876.8</b>	<b>3 143.3</b>	<b>3 470.7</b>	<b>3 824.9</b>	<b>4 215.7</b>	<b>4 586.0</b>	<b>4 942.8</b>	<b>5 219.5</b>	<b>5 289.1</b>	<b>5 357.7</b>	<b>5 424.0</b>	<b>28.7%</b>
<b>OECD Total</b>	<b>881.6</b>	<b>920.6</b>	<b>964.6</b>	<b>1 003.6</b>	<b>1 043.6</b>	<b>1 089.8</b>	<b>1 129.9</b>	<b>1 162.7</b>	<b>1 169.8</b>	<b>1 177.4</b>	<b>1 185.3</b>	<b>13.6%</b>
Canada	22.0	23.1	24.5	25.8	27.7	29.3	30.7	32.0	32.3	32.6	33.0	19.1%
Mexico	49.9	56.7	65.7	73.5	81.3	91.1	98.3	102.9	103.8	104.7	105.7	30.1%
United States	207.7	216.0	227.7	238.5	250.2	266.6	282.4	293.6	296.4	299.2	302.1	20.7%
<b>OECD N. America</b>	<b>279.5</b>	<b>295.9</b>	<b>317.9</b>	<b>337.9</b>	<b>359.1</b>	<b>387.0</b>	<b>411.4</b>	<b>428.5</b>	<b>432.5</b>	<b>436.6</b>	<b>440.7</b>	<b>22.7%</b>
Australia	13.2	14.0	14.8	15.9	17.2	18.2	19.3	20.2	20.5	20.8	21.1	23.1%
Japan	104.8	111.5	116.8	120.8	123.5	125.5	126.8	127.8	127.8	127.8	127.8	3.5%
Korea	32.9	35.3	38.1	40.8	42.9	45.1	47.0	48.0	48.1	48.3	48.5	13.0%
New Zealand	2.9	3.1	3.1	3.3	3.4	3.7	3.9	4.1	4.1	4.1	4.2	24.5%
<b>OECD Pacific</b>	<b>153.7</b>	<b>163.9</b>	<b>172.9</b>	<b>180.8</b>	<b>186.9</b>	<b>192.4</b>	<b>197.0</b>	<b>200.1</b>	<b>200.5</b>	<b>201.0</b>	<b>201.5</b>	<b>7.8%</b>
Austria	7.5	7.6	7.5	7.6	7.7	7.9	8.0	8.2	8.2	8.3	8.3	8.3%
Belgium	9.7	9.8	9.9	9.9	10.0	10.1	10.2	10.4	10.5	10.5	10.6	6.6%
Czech Republic	9.8	10.1	10.3	10.3	10.4	10.3	10.3	10.2	10.2	10.3	10.3	-0.4%
Denmark	5.0	5.1	5.1	5.1	5.1	5.2	5.3	5.4	5.4	5.4	5.5	6.2%
Finland	4.6	4.7	4.8	4.9	5.0	5.1	5.2	5.2	5.2	5.3	5.3	6.1%
France	52.4	53.9	55.1	56.6	58.2	59.4	60.8	62.4	62.8	63.2	63.6	9.3%
Germany	78.3	78.7	78.3	77.7	79.4	81.7	82.2	82.5	82.5	82.4	82.3	3.7%
Greece	9.0	9.2	9.8	10.1	10.3	10.6	10.9	11.1	11.1	11.1	11.2	8.3%
Hungary	10.4	10.5	10.7	10.6	10.4	10.3	10.2	10.1	10.1	10.1	10.1	-3.0%
Iceland	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	22.0%
Ireland	3.0	3.2	3.4	3.5	3.5	3.6	3.8	4.1	4.1	4.3	4.4	24.3%
Italy	54.1	55.4	56.4	56.6	56.7	56.8	56.9	58.2	58.6	58.9	59.3	4.6%
Luxembourg	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	25.7%
Netherlands	13.2	13.7	14.1	14.5	14.9	15.5	15.9	16.3	16.3	16.3	16.4	9.6%
Norway	3.9	4.0	4.1	4.2	4.2	4.4	4.5	4.6	4.6	4.7	4.7	11.0%
Poland	32.8	34.0	35.6	37.2	38.0	38.3	38.3	38.2	38.2	38.1	38.1	0.2%
Portugal	8.7	9.2	9.9	10.1	10.0	10.0	10.2	10.5	10.5	10.6	10.6	6.1%
Slovak Republic	4.6	4.7	5.0	5.2	5.3	5.4	5.4	5.4	5.4	5.4	5.4	1.9%
Spain	34.3	35.7	37.7	38.6	39.0	39.4	40.3	42.7	43.4	44.1	44.9	15.0%
Sweden	8.1	8.2	8.3	8.4	8.6	8.8	8.9	9.0	9.0	9.1	9.1	6.9%
Switzerland	6.3	6.4	6.4	6.5	6.8	7.0	7.2	7.4	7.4	7.5	7.5	10.5%
Turkey	36.2	40.1	44.4	50.3	56.2	61.6	67.5	71.8	72.1	73.0	73.9	31.5%
United Kingdom	55.9	56.2	56.3	56.6	57.2	58.0	58.9	59.8	60.2	60.6	60.8	6.2%
<b>OECD Europe</b>	<b>448.4</b>	<b>460.9</b>	<b>473.8</b>	<b>484.9</b>	<b>497.6</b>	<b>510.3</b>	<b>521.5</b>	<b>534.1</b>	<b>536.8</b>	<b>539.8</b>	<b>543.0</b>	<b>9.1%</b>
<i>European Union - 27</i>	431.7	441.0	450.6	456.2	472.9	478.7	482.9	489.8	492.0	493.9	495.9	4.9%

## Population

millions

	1971	1975	1980	1985	1990	1995	2000	2004	2005	2006	2007	% change 90-07
<b>Non-OECD Total</b>	<b>2 876.8</b>	<b>3 143.3</b>	<b>3 470.7</b>	<b>3 824.9</b>	<b>4 215.7</b>	<b>4 586.0</b>	<b>4 942.8</b>	<b>5 219.5</b>	<b>5 289.1</b>	<b>5 357.7</b>	<b>5 424.0</b>	<b>28.7%</b>
Algeria	14.2	16.0	18.8	22.1	25.3	28.3	30.5	32.4	32.9	33.4	33.9	33.9%
Angola	6.2	6.8	7.8	9.3	10.5	12.3	13.9	15.6	16.1	16.6	17.0	61.6%
Benin	2.9	3.2	3.7	4.4	5.2	6.2	7.2	8.2	8.5	8.8	9.0	74.3%
Botswana	..	..	..	1.2	1.4	1.6	1.7	1.8	1.8	1.9	1.9	37.6%
Cameroon	7.0	7.8	9.1	10.5	12.2	14.1	15.9	17.4	17.8	18.2	18.5	51.4%
Congo	1.4	1.5	1.8	2.1	2.4	2.8	3.2	3.5	3.6	3.7	3.8	55.5%
Dem. Rep. of Congo	21.2	24.0	28.1	32.4	37.9	45.3	50.7	56.9	58.7	60.6	62.4	64.5%
Côte d'Ivoire	5.5	6.6	8.3	10.5	12.8	15.0	17.0	18.3	18.6	18.9	19.3	50.8%
Egypt	36.0	39.2	43.7	49.2	55.1	60.6	66.5	71.6	72.9	74.2	75.5	36.9%
Eritrea	..	..	..	..	..	3.2	3.7	4.4	4.5	4.7	4.8	..
Ethiopia	30.7	34.2	37.1	43.5	51.2	56.6	65.8	73.2	75.2	77.2	79.1	54.5%
Gabon	0.5	0.6	0.7	0.8	0.9	1.1	1.2	1.3	1.3	1.3	1.3	44.9%
Ghana	9.3	10.3	11.4	13.5	15.6	17.9	20.1	22.1	22.5	23.0	23.5	50.6%
Kenya	11.7	13.5	16.3	19.7	23.4	27.4	31.3	34.7	35.6	36.6	37.5	60.1%
Libyan Arab Jamahiriya	2.1	2.5	3.1	3.9	4.4	4.8	5.3	5.8	5.9	6.0	6.2	41.1%
Morocco	15.4	17.1	19.4	21.8	24.2	26.4	28.5	29.8	30.1	30.5	30.9	27.7%
Mozambique	9.7	10.6	12.1	13.3	13.5	15.9	18.2	20.1	20.5	21.0	21.4	57.8%
Namibia	..	..	..	..	..	1.7	1.9	2.0	2.0	2.0	2.1	..
Nigeria	55.1	61.2	71.1	81.6	94.5	109.0	124.8	138.0	141.4	144.7	148.0	56.7%
Senegal	4.5	5.1	5.9	6.8	7.9	9.1	10.3	11.5	11.8	12.1	12.4	57.2%
South Africa	22.6	24.7	27.6	31.3	35.2	39.1	44.0	46.3	46.9	47.4	47.6	35.2%
Sudan	14.9	16.8	19.6	23.1	25.9	29.5	33.3	36.1	36.9	37.7	38.6	48.7%
United Rep. of Tanzania	14.0	16.0	18.7	21.8	25.5	29.9	33.8	37.5	38.5	39.5	40.4	58.6%
Togo	2.2	2.4	2.8	3.4	4.0	4.5	5.4	6.1	6.2	6.4	6.6	66.1%
Tunisia	5.2	5.6	6.4	7.3	8.2	9.0	9.6	9.9	10.0	10.1	10.2	25.7%
Zambia	4.4	5.0	5.9	7.0	8.1	9.3	10.5	11.3	11.5	11.7	11.9	46.8%
Zimbabwe	5.4	6.2	7.3	8.9	10.5	11.8	12.7	13.0	13.1	13.2	13.4	27.8%
Other Africa	68.9	75.9	88.7	99.8	116.0	127.0	148.1	166.4	171.3	176.3	181.4	56.4%
<b>Africa</b>	<b>371.0</b>	<b>412.9</b>	<b>475.3</b>	<b>549.0</b>	<b>631.8</b>	<b>719.3</b>	<b>815.2</b>	<b>895.2</b>	<b>916.2</b>	<b>937.5</b>	<b>958.4</b>	<b>51.7%</b>
Bahrain	0.2	0.3	0.3	0.4	0.5	0.6	0.7	0.7	0.7	0.7	0.8	52.7%
Islamic Rep. of Iran	29.4	33.2	39.1	47.1	54.4	59.0	63.9	68.1	69.1	70.1	71.0	30.6%
Iraq	9.7	11.1	13.2	15.7	18.1	19.6	22.7	25.4	26.1	26.8	27.5	51.6%
Israel	3.1	3.5	3.9	4.2	4.7	5.5	6.3	6.8	6.9	7.0	7.2	53.9%
Jordan	1.6	1.8	2.2	2.6	3.2	4.2	4.8	5.3	5.4	5.5	5.7	80.4%
Kuwait	0.8	1.0	1.4	1.7	2.1	1.8	2.2	2.5	2.5	2.6	2.7	25.3%
Lebanon	2.5	2.7	2.8	2.9	3.0	3.5	3.8	4.0	4.0	4.1	4.1	37.8%
Oman	0.8	0.9	1.2	1.5	1.8	2.2	2.4	2.5	2.5	2.5	2.6	41.1%
Qatar	0.1	0.2	0.2	0.4	0.5	0.5	0.6	0.8	0.8	0.8	0.8	79.0%
Saudi Arabia	6.0	7.3	9.6	12.9	16.4	18.5	20.7	22.5	23.1	23.7	24.2	47.7%
Syrian Arab Republic	6.6	7.5	9.0	10.8	12.7	14.6	16.5	18.4	18.9	19.4	19.9	56.4%
United Arab Emirates	0.3	0.5	1.0	1.4	1.8	2.4	3.2	3.9	4.1	4.2	4.4	146.2%
Yemen	6.5	7.1	8.4	10.1	12.3	15.5	18.2	20.5	21.1	21.7	22.4	81.8%
<b>Middle East</b>	<b>67.5</b>	<b>77.1</b>	<b>92.3</b>	<b>111.8</b>	<b>131.5</b>	<b>147.9</b>	<b>165.9</b>	<b>181.3</b>	<b>185.3</b>	<b>189.3</b>	<b>193.2</b>	<b>47.0%</b>
Albania	2.2	2.4	2.7	3.0	3.3	3.2	3.1	3.1	3.2	3.2	3.2	-3.3%
Bosnia and Herzegovina *	..	..	..	..	4.3	3.3	3.7	3.8	3.8	3.8	3.8	-12.4%
Bulgaria	8.5	8.7	8.9	8.9	8.7	8.4	8.1	7.8	7.7	7.7	7.6	-12.3%
Croatia *	..	..	..	..	4.8	4.7	4.5	4.4	4.4	4.4	4.4	-7.2%
Cyprus	0.6	0.5	0.5	0.5	0.6	0.7	0.7	0.7	0.8	0.8	0.8	35.7%
Gibraltar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-3.4%
FYR of Macedonia *	..	..	..	..	1.9	2.0	2.0	2.0	2.0	2.0	2.0	6.7%
Malta	0.3	0.3	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	13.6%
Romania	20.5	21.2	22.2	22.7	23.2	22.7	22.4	21.7	21.6	21.6	21.5	-7.2%
Serbia *	..	..	..	..	9.9	10.9	8.2	8.1	7.4	7.4	7.4	-25.6%
Slovenia *	..	..	..	..	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.0%
Former Yugoslavia *	20.0	20.7	21.6	22.2	..	..	..	..	..	..	..	..
<b>Non-OECD Europe</b>	<b>52.2</b>	<b>54.0</b>	<b>56.3</b>	<b>57.7</b>	<b>59.1</b>	<b>58.1</b>	<b>55.1</b>	<b>54.1</b>	<b>53.4</b>	<b>53.3</b>	<b>53.2</b>	<b>-9.9%</b>

\* Data for individual countries of the Former Yugoslavia are not available prior to 1990.



## Population

millions

	1971	1975	1980	1985	1990	1995	2000	2004	2005	2006	2007	% change 90-07
Armenia	..	..	..	..	3.5	3.2	3.1	3.0	3.0	3.0	3.0	-15.3%
Azerbaijan	..	..	..	..	7.2	7.7	8.0	8.3	8.4	8.5	8.6	19.7%
Belarus	..	..	..	..	10.2	10.2	10.0	9.8	9.8	9.7	9.7	-4.8%
Estonia	..	..	..	..	1.6	1.4	1.4	1.3	1.3	1.3	1.3	-14.5%
Georgia	..	..	..	..	5.5	5.0	4.7	4.5	4.5	4.4	4.4	-19.5%
Kazakhstan	..	..	..	..	16.3	15.8	14.9	15.0	15.1	15.3	15.5	-5.3%
Kyrgyzstan	..	..	..	..	4.4	4.6	4.9	5.1	5.1	5.2	5.2	18.5%
Latvia	..	..	..	..	2.7	2.5	2.4	2.3	2.3	2.3	2.3	-14.8%
Lithuania	..	..	..	..	3.7	3.6	3.5	3.4	3.4	3.4	3.4	-8.7%
Republic of Moldova	..	..	..	..	4.4	4.4	4.1	3.9	3.9	3.8	3.8	-13.6%
Russian Federation	..	..	..	..	148.3	148.1	146.3	143.9	143.2	142.5	141.6	-4.5%
Tajikistan	..	..	..	..	5.3	5.8	6.2	6.5	6.6	6.6	6.7	27.1%
Turkmenistan	..	..	..	..	3.7	4.2	4.5	4.8	4.8	4.9	5.0	35.3%
Ukraine	..	..	..	..	51.9	51.5	49.2	47.5	47.1	46.8	46.4	-10.6%
Uzbekistan	..	..	..	..	20.5	22.8	24.7	25.9	26.2	26.5	26.9	31.0%
<b>Former Soviet Union *</b>	<b>244.9</b>	<b>254.5</b>	<b>265.9</b>	<b>277.8</b>	<b>289.1</b>	<b>290.9</b>	<b>287.8</b>	<b>285.2</b>	<b>284.7</b>	<b>284.3</b>	<b>283.8</b>	<b>-1.8%</b>
Argentina	24.4	26.0	28.1	30.3	32.6	34.8	36.9	38.4	38.7	39.1	39.5	21.2%
Bolivia	4.3	4.8	5.4	6.0	6.7	7.5	8.3	9.0	9.2	9.4	9.5	42.7%
Brazil	98.4	108.1	121.6	136.1	149.5	161.6	174.2	184.3	186.8	189.3	191.6	28.1%
Chile	9.7	10.4	11.2	12.1	13.2	14.4	15.4	16.1	16.3	16.4	16.6	25.9%
Colombia	23.1	25.3	28.4	31.6	34.9	38.3	41.7	44.3	44.9	45.6	46.1	32.2%
Costa Rica	1.9	2.1	2.3	2.7	3.1	3.5	3.9	4.3	4.3	4.4	4.5	45.1%
Cuba	8.9	9.4	9.8	10.1	10.6	10.9	11.1	11.2	11.3	11.3	11.3	6.1%
Dominican Republic	4.7	5.3	5.9	6.6	7.3	8.0	8.7	9.3	9.5	9.6	9.8	33.7%
Ecuador	6.1	6.9	8.0	9.1	10.3	11.4	12.3	12.9	13.1	13.2	13.3	29.9%
El Salvador	3.7	4.1	4.6	4.8	5.1	5.6	6.2	6.6	6.7	6.8	6.9	34.1%
Guatemala	5.6	6.2	7.0	7.9	8.9	10.0	11.2	12.4	12.7	13.0	13.3	49.8%
Haiti	4.8	5.1	5.7	6.4	7.1	7.8	8.6	9.1	9.3	9.4	9.6	35.2%
Honduras	2.8	3.1	3.6	4.2	4.9	5.6	6.2	6.7	6.8	7.0	7.1	45.0%
Jamaica	1.9	2.0	2.1	2.3	2.4	2.5	2.6	2.6	2.7	2.7	2.7	12.0%
Netherlands Antilles	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	..
Nicaragua	2.5	2.8	3.3	3.7	4.1	4.7	5.1	5.4	5.5	5.5	5.6	35.4%
Panama	1.5	1.7	1.9	2.2	2.4	2.7	3.0	3.2	3.2	3.3	3.3	38.6%
Paraguay	2.4	2.7	3.1	3.6	4.2	4.8	5.3	5.8	5.9	6.0	6.1	45.1%
Peru	13.6	15.2	17.3	19.5	21.8	23.9	25.7	27.0	27.3	27.6	27.9	28.2%
Trinidad and Tobago	1.0	1.0	1.1	1.2	1.2	1.3	1.3	1.3	1.3	1.3	1.3	8.9%
Uruguay	2.8	2.8	2.9	3.0	3.1	3.2	3.3	3.3	3.3	3.3	3.3	6.9%
Venezuela	11.1	12.7	15.1	17.5	19.8	22.0	24.3	26.1	26.6	27.0	27.5	39.1%
Other Latin America	2.6	2.7	2.7	2.9	3.0	3.2	3.3	3.5	3.6	3.6	3.6	20.2%
<b>Latin America</b>	<b>237.8</b>	<b>260.6</b>	<b>291.4</b>	<b>323.9</b>	<b>356.3</b>	<b>387.8</b>	<b>418.9</b>	<b>443.1</b>	<b>449.1</b>	<b>455.0</b>	<b>460.6</b>	<b>29.3%</b>
Bangladesh	71.6	79.0	88.9	100.5	113.0	126.3	139.4	150.5	153.3	156.0	158.6	40.3%
Brunei Darussalam	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.4	0.4	51.4%
Cambodia	..	..	..	..	..	11.4	12.8	13.7	14.0	14.2	14.4	..
Chinese Taipei	14.9	16.1	17.8	19.3	20.3	21.3	22.2	22.6	22.7	22.8	22.9	12.7%
India	560.3	613.5	687.3	765.1	849.5	932.2	1 015.9	1 079.7	1 094.6	1 109.8	1 123.3	32.2%
Indonesia	120.4	132.6	148.3	163.0	178.2	192.8	206.3	217.6	220.6	223.0	225.6	26.6%
DPR of Korea	14.6	16.1	17.2	18.7	20.1	21.7	22.9	23.5	23.6	23.7	23.8	18.1%
Malaysia	11.1	12.3	13.8	15.7	18.1	20.6	23.3	25.2	25.7	26.1	26.6	46.7%
Mongolia	..	..	..	1.9	2.1	2.3	2.4	2.5	2.6	2.6	2.6	24.0%
Myanmar	27.0	29.8	33.3	36.8	40.1	43.1	45.9	47.6	48.0	48.4	48.8	21.5%
Nepal	12.4	13.5	15.2	17.0	19.1	21.7	24.4	26.6	27.1	27.6	28.1	47.1%
Pakistan	62.5	71.0	82.7	94.8	108.0	122.4	138.1	152.1	155.8	159.0	162.4	50.4%
Philippines	37.6	42.0	48.1	54.3	61.2	68.6	76.2	82.9	84.6	86.3	87.9	43.6%
Singapore	2.1	2.3	2.4	2.7	3.0	3.5	4.0	4.2	4.3	4.4	4.6	50.6%
Sri Lanka	12.6	13.5	14.7	15.8	17.0	18.1	19.4	19.5	19.7	19.9	19.9	17.2%
Thailand	38.2	42.2	46.8	50.8	54.3	57.5	60.7	62.6	63.0	63.4	63.8	17.6%
Vietnam	43.7	48.0	53.7	58.9	66.2	73.0	77.6	82.0	83.1	84.1	85.1	28.6%
Other Asia	28.9	31.3	32.8	32.4	36.3	34.3	38.8	44.7	46.4	47.9	49.0	35.0%
<b>Asia</b>	<b>1 058.3</b>	<b>1 163.4</b>	<b>1 303.3</b>	<b>1 448.2</b>	<b>1 607.0</b>	<b>1 771.0</b>	<b>1 930.6</b>	<b>2 057.7</b>	<b>2 089.1</b>	<b>2 119.6</b>	<b>2 147.9</b>	<b>33.7%</b>
People's Rep. of China	841.1	916.4	981.2	1 051.0	1 135.2	1 204.9	1 262.6	1 296.2	1 304.5	1 311.8	1 320.0	16.3%
Hong Kong, China	4.0	4.5	5.1	5.5	5.7	6.2	6.7	6.8	6.8	6.9	6.9	21.4%
<b>China</b>	<b>845.2</b>	<b>920.9</b>	<b>986.3</b>	<b>1 056.5</b>	<b>1 140.9</b>	<b>1 211.0</b>	<b>1 269.3</b>	<b>1 302.9</b>	<b>1 311.3</b>	<b>1 318.7</b>	<b>1 326.9</b>	<b>16.3%</b>

\* Data for individual countries of the Former Soviet Union are not available prior to 1990.

CO<sub>2</sub> emissions / TPEStonnes CO<sub>2</sub> / terajoule

	1971	1975	1980	1985	1990	1995	2000	2004	2005	2006	2007	% change 90-07
<b>World *</b>	<b>60.8</b>	<b>60.5</b>	<b>59.7</b>	<b>57.4</b>	<b>57.2</b>	<b>56.5</b>	<b>56.0</b>	<b>56.6</b>	<b>56.7</b>	<b>57.1</b>	<b>57.5</b>	<b>0.5%</b>
<i>Annex I Parties</i>	..	..	..	..	59.6	57.5	57.0	56.7	56.4	56.3	56.5	-5.2%
<i>Annex II Parties</i>	66.0	64.2	62.2	59.5	58.4	56.5	56.3	56.3	56.2	55.9	56.1	-3.8%
<i>North America</i>	64.0	62.2	60.9	60.1	59.6	58.1	58.7	58.6	58.4	57.9	58.1	-2.6%
<i>Europe</i>	69.0	66.4	64.2	58.5	55.9	53.3	51.7	51.5	51.0	51.2	50.9	-8.9%
<i>Pacific</i>	67.1	67.2	62.4	59.8	59.8	57.8	57.6	59.4	59.7	59.2	60.9	1.8%
<i>Annex I EIT</i>	..	..	..	..	63.0	61.6	59.6	57.8	57.0	57.5	57.6	-8.6%
<i>Non-Annex I Parties</i>	..	..	..	..	51.6	53.7	53.5	55.4	56.2	57.1	57.6	11.6%
<i>Annex I Kyoto Parties</i>	..	..	..	..	59.0	56.5	55.1	54.6	54.3	54.4	54.8	-7.1%
<b>Non-OECD Total</b>	<b>50.4</b>	<b>53.3</b>	<b>54.5</b>	<b>53.0</b>	<b>54.4</b>	<b>54.7</b>	<b>54.0</b>	<b>55.5</b>	<b>56.2</b>	<b>57.0</b>	<b>57.5</b>	<b>5.8%</b>
<b>OECD Total</b>	<b>66.4</b>	<b>64.7</b>	<b>62.8</b>	<b>60.4</b>	<b>59.1</b>	<b>57.2</b>	<b>56.8</b>	<b>56.6</b>	<b>56.4</b>	<b>56.3</b>	<b>56.5</b>	<b>-4.3%</b>
Canada	57.4	54.3	52.9	49.8	49.5	48.1	50.7	49.0	48.9	47.7	50.8	2.7%
Mexico	53.9	56.0	53.3	55.3	57.7	57.3	57.8	55.0	55.1	57.0	56.8	-1.7%
United States	64.6	63.0	61.7	61.2	60.7	59.2	59.6	59.7	59.5	59.1	58.9	-3.0%
<b>OECD N. America</b>	<b>63.7</b>	<b>62.0</b>	<b>60.5</b>	<b>59.8</b>	<b>59.5</b>	<b>58.0</b>	<b>58.6</b>	<b>58.3</b>	<b>58.2</b>	<b>57.9</b>	<b>58.0</b>	<b>-2.6%</b>
Australia	66.7	71.2	71.4	72.5	72.0	73.6	74.3	78.5	76.3	76.2	76.3	6.0%
Japan	67.7	67.0	61.1	57.8	58.1	55.5	54.5	55.5	56.1	55.4	57.5	-1.0%
Korea	73.3	75.0	72.1	68.4	58.8	59.4	54.5	54.2	53.3	53.2	52.5	-10.7%
New Zealand	47.5	46.5	43.6	41.8	38.3	38.0	45.8	50.8	52.8	53.5	50.5	32.0%
<b>OECD Pacific</b>	<b>67.5</b>	<b>67.7</b>	<b>63.2</b>	<b>60.7</b>	<b>59.7</b>	<b>58.2</b>	<b>56.9</b>	<b>58.1</b>	<b>58.1</b>	<b>57.7</b>	<b>58.8</b>	<b>-1.5%</b>
Austria	61.8	59.5	57.4	56.2	54.2	52.6	51.4	53.2	52.4	51.7	50.2	-7.4%
Belgium	70.4	65.2	64.2	55.2	53.4	51.2	48.4	47.3	45.8	45.1	44.4	-16.9%
Czech Republic	79.4	83.5	84.0	81.8	76.2	72.4	72.4	64.1	63.7	62.9	63.8	-16.3%
Denmark	71.0	71.7	78.1	74.9	69.4	70.8	64.1	62.4	60.1	65.5	61.3	-11.6%
Finland	52.3	53.8	53.6	44.9	45.8	46.3	40.1	43.4	38.7	43.1	42.2	-7.8%
France	65.1	62.3	57.5	42.2	37.5	35.6	35.5	34.0	34.2	33.7	33.4	-10.7%
Germany	76.6	74.3	70.6	67.8	64.6	61.6	58.6	58.6	57.2	57.6	57.6	-10.9%
Greece	69.2	70.3	72.3	74.3	78.1	76.6	76.9	75.0	75.0	74.4	72.6	-7.1%
Hungary	78.1	75.4	71.9	66.0	55.6	52.9	51.7	51.0	48.6	48.7	48.2	-13.3%
Iceland	37.0	34.7	27.7	21.8	21.5	20.7	16.5	15.8	15.0	12.8	11.4	-46.8%
Ireland	77.2	75.8	75.1	73.0	73.4	76.1	72.3	70.2	72.6	73.7	70.0	-4.6%
Italy	66.4	65.4	65.7	64.2	64.8	61.5	59.3	59.5	59.3	60.0	58.7	-9.4%
Luxembourg	90.7	76.6	80.0	77.4	73.3	61.9	57.8	62.4	62.5	62.0	60.7	-17.1%
Netherlands	60.8	57.0	56.8	57.8	56.9	58.0	56.5	55.9	55.4	55.6	54.1	-5.0%
Norway	42.2	39.4	36.5	32.5	32.2	33.5	31.7	31.4	30.0	29.6	32.8	2.1%
Poland	79.5	78.4	77.9	80.3	79.6	79.5	78.2	77.1	76.0	75.0	74.9	-5.9%
Portugal	55.0	56.3	56.9	53.7	56.1	57.1	57.6	55.3	56.7	54.6	52.6	-6.2%
Slovak Republic	65.4	62.4	66.6	62.7	63.5	54.9	50.3	48.5	48.3	48.0	49.2	-22.5%
Spain	67.3	65.0	66.3	59.1	54.6	55.4	55.6	56.2	57.2	56.1	57.2	4.8%
Sweden	54.6	48.6	43.3	29.7	26.7	27.3	26.5	24.3	23.3	22.8	21.9	-18.0%
Switzerland	56.8	51.0	46.8	44.8	40.9	41.5	40.7	40.6	41.1	39.0	39.2	-4.1%
Turkey	50.6	52.9	53.9	57.5	57.5	59.2	62.7	61.2	61.2	61.5	63.3	10.2%
United Kingdom	71.4	69.4	68.7	64.8	63.8	57.1	56.0	57.4	57.3	58.3	59.1	-7.3%
<b>OECD Europe</b>	<b>69.9</b>	<b>67.7</b>	<b>66.0</b>	<b>61.2</b>	<b>58.2</b>	<b>55.6</b>	<b>54.0</b>	<b>53.4</b>	<b>53.0</b>	<b>53.2</b>	<b>53.1</b>	<b>-8.7%</b>
<i>European Union - 27</i>	..	..	..	..	59.2	56.1	54.3	53.8	53.3	53.5	53.3	-10.0%

\* The ratio for the world has been calculated to include international marine bunkers and international aviation bunkers.

CO<sub>2</sub> emissions / TPEStonnes CO<sub>2</sub> / terajoule

	1971	1975	1980	1985	1990	1995	2000	2004	2005	2006	2007	% change 90-07
<b>Non-OECD Total</b>	<b>50.4</b>	<b>53.3</b>	<b>54.5</b>	<b>53.0</b>	<b>54.4</b>	<b>54.7</b>	<b>54.0</b>	<b>55.5</b>	<b>56.2</b>	<b>57.0</b>	<b>57.5</b>	<b>5.8%</b>
Algeria	59.6	60.6	60.5	58.1	55.6	55.2	55.2	56.8	58.1	56.2	55.5	-0.2%
Angola	10.3	11.6	14.0	13.8	16.3	14.8	16.4	22.2	18.4	21.1	24.0	47.1%
Benin	6.5	8.8	6.9	7.2	3.6	2.8	17.0	23.1	23.5	25.8	26.0	611.4%
Botswana	..	..	..	42.5	55.6	53.2	54.5	54.1	54.6	55.4	56.2	1.1%
Cameroon	6.4	8.2	10.8	13.0	12.8	10.8	10.6	10.3	10.0	11.0	15.2	18.6%
Congo	27.1	27.6	29.2	25.4	20.9	16.0	16.6	19.7	19.7	23.5	23.8	13.9%
Dem. Rep. of Congo	9.0	8.2	8.8	7.7	6.0	3.8	3.3	3.2	3.2	3.2	3.2	-46.3%
Côte d'Ivoire	23.2	24.3	22.5	19.6	14.6	15.1	21.7	14.0	14.5	14.6	12.1	-16.8%
Egypt	62.8	63.0	66.7	60.8	59.4	56.8	58.3	58.9	59.7	59.9	59.9	0.8%
Eritrea	..	..	..	..	..	18.5	20.3	22.1	18.8	17.8	16.9	..
Ethiopia	3.7	3.0	3.1	2.7	3.6	3.4	4.1	5.3	5.4	5.7	6.2	75.9%
Gabon	10.5	13.8	22.2	29.7	18.2	23.4	22.5	24.9	29.2	28.8	33.0	81.3%
Ghana	15.4	15.3	13.5	11.9	12.2	12.2	15.9	17.9	18.0	21.8	22.6	84.9%
Kenya	16.2	16.1	16.8	14.2	13.5	13.6	14.1	12.5	13.9	14.9	14.9	10.5%
Libyan Arab Jamahiriya	56.8	59.8	64.3	53.9	57.7	53.1	57.2	57.3	57.8	57.6	57.8	0.3%
Morocco	67.2	69.4	68.4	70.5	67.6	70.7	66.0	68.3	71.5	70.8	67.9	0.5%
Mozambique	10.0	8.4	8.2	5.6	4.4	4.3	4.4	4.8	4.3	4.4	5.1	17.6%
Namibia	..	..	..	..	..	47.7	44.0	47.2	47.9	48.8	48.9	..
Nigeria	3.9	6.7	12.2	12.6	9.9	9.1	11.1	11.8	12.7	11.7	11.5	16.6%
Senegal	23.3	27.6	30.5	32.3	28.5	31.7	35.8	39.0	39.7	38.7	37.9	33.1%
South Africa	92.0	92.9	78.7	63.3	66.9	63.0	64.6	62.7	62.3	61.3	61.5	-8.2%
Sudan	11.1	10.5	10.6	10.6	12.4	9.1	9.6	14.5	15.1	17.4	17.7	43.0%
United Rep. of Tanzania	4.8	4.7	4.7	4.2	4.2	5.5	4.6	5.6	7.2	7.6	7.1	69.2%
Togo	11.2	9.6	9.8	7.1	10.8	8.8	10.8	10.6	9.8	9.0	8.7	-19.2%
Tunisia	53.1	52.7	57.3	54.9	58.3	58.9	58.9	55.6	56.0	55.4	55.3	-5.2%
Zambia	23.4	26.9	17.8	13.6	11.5	8.4	6.5	7.0	7.2	7.4	7.6	-34.0%
Zimbabwe	31.8	29.0	29.3	30.9	41.1	36.0	30.7	24.9	25.5	24.7	23.6	-42.7%
Other Africa	6.9	7.7	9.5	7.7	8.3	8.6	8.0	8.3	8.2	8.6	8.7	5.0%
<b>Africa</b>	<b>33.0</b>	<b>35.7</b>	<b>35.6</b>	<b>33.5</b>	<b>33.7</b>	<b>32.3</b>	<b>32.9</b>	<b>33.2</b>	<b>33.3</b>	<b>33.3</b>	<b>33.5</b>	<b>-0.5%</b>
Bahrain	51.1	59.5	62.9	59.7	64.2	56.3	57.5	57.6	57.8	58.2	57.9	-9.9%
Islamic Rep. of Iran	59.2	66.3	57.4	64.5	61.3	63.3	61.8	60.5	60.2	61.0	60.2	-1.8%
Iraq	66.4	65.6	73.2	66.2	69.8	66.0	77.0	60.4	61.6	61.9	66.0	-5.4%
Israel	59.9	58.0	59.8	77.3	69.2	70.7	71.9	73.2	71.3	70.7	71.7	3.5%
Jordan	64.8	67.5	66.9	67.7	67.4	67.5	69.3	64.3	64.1	63.8	63.6	-5.7%
Kuwait	95.2	94.8	49.6	63.3	74.3	61.0	59.8	64.5	64.5	64.5	63.3	-14.8%
Lebanon	65.3	68.0	67.5	68.5	67.9	69.5	68.7	69.2	69.4	68.2	67.9	-0.0%
Oman	71.4	71.5	61.5	46.7	55.8	56.2	54.3	54.0	52.1	49.2	55.3	-0.9%
Qatar	57.3	56.1	53.4	49.1	50.2	52.5	50.6	50.2	54.3	54.5	52.2	4.1%
Saudi Arabia	42.0	61.5	76.6	65.9	65.1	56.2	57.2	55.7	55.4	55.9	56.9	-12.6%
Syrian Arab Republic	61.7	70.9	70.7	65.1	65.0	65.7	62.7	63.8	65.1	65.3	65.3	0.5%
United Arab Emirates	57.8	60.2	63.7	63.4	62.0	61.3	61.0	60.9	60.9	60.9	60.4	-2.6%
Yemen	38.7	60.0	64.6	66.1	61.1	65.3	66.6	66.5	68.4	68.7	68.0	11.4%
<b>Middle East</b>	<b>61.4</b>	<b>66.7</b>	<b>64.0</b>	<b>64.6</b>	<b>63.9</b>	<b>61.4</b>	<b>61.6</b>	<b>59.7</b>	<b>59.7</b>	<b>60.0</b>	<b>60.1</b>	<b>-5.9%</b>
Albania	54.5	54.0	59.4	63.5	56.0	33.5	42.7	41.8	47.1	45.9	44.2	-21.1%
Bosnia and Herzegovina *	..	..	..	..	80.5	52.2	74.9	74.1	74.1	76.0	76.7	-4.8%
Bulgaria	78.9	74.2	70.5	63.2	62.6	55.2	53.8	57.5	55.0	55.1	59.3	-5.3%
Croatia *	..	..	..	..	57.2	53.6	54.1	55.1	55.6	55.4	56.5	-1.3%
Cyprus	72.2	70.8	71.9	72.3	67.4	71.5	70.1	75.1	75.3	73.0	72.1	6.9%
Gibraltar	72.1	72.4	73.6	72.8	72.6	72.9	72.9	72.9	73.0	73.0	73.0	0.5%
FYR of Macedonia *	..	..	..	..	82.1	78.1	75.4	73.3	72.7	72.0	72.1	-12.2%
Malta	73.5	73.6	73.9	79.6	78.6	79.2	74.5	74.8	74.8	74.8	74.9	-4.6%
Romania	65.1	64.8	64.5	63.7	64.1	60.4	56.9	57.0	57.2	56.9	56.4	-12.0%
Serbia *	..	..	..	..	75.8	77.4	76.3	75.5	71.9	73.0	75.1	-1.0%
Slovenia *	..	..	..	..	55.4	55.0	51.9	51.5	51.1	51.8	51.9	-6.3%
Former Yugoslavia *	68.9	70.4	62.1	70.7	..	..	..	..	..	..	..	..
<b>Non-OECD Europe</b>	<b>69.0</b>	<b>68.1</b>	<b>65.1</b>	<b>65.7</b>	<b>65.7</b>	<b>61.0</b>	<b>60.0</b>	<b>61.2</b>	<b>60.0</b>	<b>60.1</b>	<b>61.3</b>	<b>-6.8%</b>

\* Data for individual countries of the Former Yugoslavia are not available prior to 1990.

CO<sub>2</sub> emissions / TPEStonnes CO<sub>2</sub> / terajoule

	1971	1975	1980	1985	1990	1995	2000	2004	2005	2006	2007	% change 90-07
Armenia	..	..	..	..	63.5	50.0	40.6	39.6	39.3	38.9	40.2	-36.7%
Azerbaijan	..	..	..	..	60.1	59.0	61.3	56.7	57.2	53.2	55.3	-7.9%
Belarus	..	..	..	..	65.5	58.3	54.3	53.6	54.0	53.4	53.4	-18.5%
Estonia	..	..	..	..	90.3	79.7	76.7	77.1	74.6	72.6	76.5	-15.3%
Georgia	..	..	..	..	56.6	45.3	36.4	28.3	29.5	34.6	36.6	-35.3%
Kazakhstan	..	..	..	..	77.6	76.7	73.1	72.3	70.2	69.9	68.4	-11.8%
Kyrgyzstan	..	..	..	..	71.6	45.0	44.7	48.4	46.4	44.4	46.8	-34.6%
Latvia	..	..	..	..	56.3	45.8	43.8	41.0	40.9	42.1	42.6	-24.3%
Lithuania	..	..	..	..	49.1	38.7	37.5	33.1	37.5	38.5	37.3	-24.0%
Republic of Moldova	..	..	..	..	73.1	59.4	54.4	53.4	53.1	52.5	53.7	-26.5%
Russian Federation	..	..	..	..	59.8	60.6	59.3	57.1	56.2	56.5	56.4	-5.7%
Tajikistan	..	..	..	..	50.0	37.2	35.1	38.7	39.0	40.5	42.3	-15.5%
Turkmenistan	..	..	..	..	56.7	59.2	59.6	59.9	59.8	59.8	59.9	5.5%
Ukraine	..	..	..	..	65.3	57.3	52.1	51.9	51.2	54.0	54.6	-16.3%
Uzbekistan	..	..	..	..	61.7	57.0	55.2	55.9	55.8	55.6	55.6	-9.9%
<b>Former Soviet Union *</b>	<b>62.0</b>	<b>65.3</b>	<b>65.8</b>	<b>61.2</b>	<b>62.1</b>	<b>60.3</b>	<b>58.1</b>	<b>56.6</b>	<b>55.9</b>	<b>56.5</b>	<b>56.6</b>	<b>-8.9%</b>
Argentina	58.9	57.1	54.8	51.2	52.0	52.3	54.5	55.9	56.5	55.6	53.1	2.1%
Bolivia	49.4	50.8	42.2	41.0	46.9	49.2	36.9	45.3	53.2	50.1	54.1	15.3%
Brazil	31.1	35.7	37.4	30.9	33.0	35.6	38.3	36.5	36.2	35.7	35.2	6.5%
Chile	57.2	53.1	53.5	48.5	56.5	52.5	51.0	51.7	51.3	51.9	55.1	-2.4%
Colombia	45.3	43.9	43.6	43.7	44.3	48.7	52.3	49.8	48.6	45.9	46.0	3.7%
Costa Rica	26.7	31.9	34.6	28.8	31.5	41.9	34.2	36.4	33.0	32.3	32.9	4.4%
Cuba	40.3	46.6	45.9	50.8	39.9	51.4	52.4	64.1	63.5	59.5	63.1	58.0%
Dominican Republic	35.2	39.8	43.4	40.2	44.5	46.1	53.8	55.7	54.1	57.5	58.3	31.1%
Ecuador	38.2	45.4	50.4	50.1	52.6	56.8	54.9	53.5	56.6	55.4	54.6	4.0%
El Salvador	17.9	21.0	15.9	15.3	20.9	33.4	31.6	31.7	31.6	30.2	30.4	45.4%
Guatemala	19.9	21.8	26.6	20.6	17.8	26.8	29.7	33.2	32.6	32.5	33.7	89.8%
Haiti	5.9	5.7	7.0	10.0	14.5	12.8	16.7	19.8	18.3	18.3	19.9	37.6%
Honduras	19.2	20.4	21.5	19.8	21.4	29.9	35.4	41.6	41.3	38.0	41.1	91.9%
Jamaica	65.5	66.0	68.2	64.3	61.5	62.2	62.3	65.5	68.3	64.8	61.1	-0.6%
Netherlands Antilles	63.0	63.1	53.2	60.9	45.0	51.4	48.7	47.5	51.4	51.8	49.4	9.9%
Nicaragua	28.4	29.4	27.9	22.2	20.9	25.4	31.0	30.0	29.5	27.7	30.3	44.8%
Panama	36.2	45.5	49.3	40.3	39.4	49.4	43.6	50.9	51.8	53.9	54.9	39.2%
Paraguay	10.0	11.2	15.5	14.8	14.9	21.0	20.2	22.3	20.8	21.1	21.0	41.2%
Peru	40.7	42.5	43.6	41.1	47.1	51.6	51.9	54.0	49.8	50.5	51.4	9.1%
Trinidad and Tobago	56.0	60.4	49.7	45.2	45.5	46.5	43.7	42.7	43.8	45.2	45.5	0.1%
Uruguay	51.6	53.3	50.2	37.3	39.8	42.0	41.2	44.4	42.2	46.0	43.2	8.6%
Venezuela	63.6	60.1	62.4	57.6	57.6	54.8	53.7	54.2	54.8	56.4	53.9	-6.5%
Other Latin America	39.5	43.1	40.9	56.6	61.3	61.5	62.1	59.2	59.1	59.0	60.0	-2.1%
<b>Latin America</b>	<b>43.5</b>	<b>44.3</b>	<b>44.8</b>	<b>40.6</b>	<b>42.1</b>	<b>44.2</b>	<b>45.3</b>	<b>45.0</b>	<b>44.8</b>	<b>44.6</b>	<b>44.0</b>	<b>4.7%</b>
Bangladesh	13.4	16.5	20.5	21.2	25.4	30.7	32.4	35.6	36.3	36.3	37.1	45.9%
Brunei Darussalam	53.7	45.4	46.5	39.3	45.6	48.6	45.3	47.8	47.9	50.5	50.3	10.3%
Cambodia	..	..	..	..	..	9.9	14.5	18.1	18.7	19.5	20.6	..
Chinese Taipei	73.4	70.6	61.7	50.1	56.8	59.0	61.6	59.3	61.0	61.5	60.0	5.8%
India	30.5	32.3	33.7	39.0	44.2	48.5	51.0	51.4	51.6	53.0	53.2	20.2%
Indonesia	16.6	21.6	28.8	29.9	32.7	34.9	41.9	44.1	45.1	45.5	47.3	44.6%
DPR of Korea	83.1	82.3	83.0	83.8	82.0	81.3	83.1	82.4	82.7	83.2	81.0	-1.2%
Malaysia	51.5	53.7	47.7	50.8	52.4	50.5	55.8	61.2	58.3	59.3	58.4	11.5%
Mongolia	..	..	..	88.5	88.5	88.8	89.0	87.9	88.4	87.8	87.3	-1.4%
Myanmar	13.6	11.3	12.9	12.6	8.9	13.7	15.5	17.4	20.0	18.6	18.9	111.6%
Nepal	1.2	1.9	2.7	2.6	3.6	6.2	9.0	7.2	7.9	8.0	8.0	119.7%
Pakistan	23.3	24.6	25.3	29.1	32.7	35.5	36.9	37.7	37.4	38.5	39.7	21.3%
Philippines	36.7	39.2	36.0	28.9	34.3	40.8	40.8	43.8	43.4	41.1	42.9	24.8%
Singapore	52.1	54.1	59.0	57.4	60.0	48.2	47.1	41.4	37.3	38.1	40.1	-33.1%
Sri Lanka	17.4	15.7	19.6	17.1	16.2	22.2	30.5	34.0	35.3	31.2	33.0	103.7%
Thailand	30.1	30.1	37.1	38.4	44.7	54.0	52.7	54.0	52.6	51.9	51.8	16.1%
Vietnam	22.1	21.5	18.0	19.0	17.0	22.3	28.7	38.3	38.2	39.0	40.1	136.1%
Other Asia	45.3	46.0	53.5	39.8	39.8	31.5	36.3	42.4	42.5	42.1	43.5	9.2%
<b>Asia</b>	<b>32.5</b>	<b>34.4</b>	<b>37.0</b>	<b>39.2</b>	<b>42.5</b>	<b>45.2</b>	<b>48.0</b>	<b>49.2</b>	<b>49.2</b>	<b>49.9</b>	<b>50.3</b>	<b>18.3%</b>
People's Rep. of China	48.8	51.9	56.1	58.8	61.2	68.1	66.4	69.7	71.5	72.5	73.6	20.3%
Hong Kong, China	72.9	71.1	75.0	78.9	89.9	80.2	72.5	73.9	74.2	74.6	75.4	-16.2%
<b>China</b>	<b>49.0</b>	<b>52.0</b>	<b>56.2</b>	<b>59.0</b>	<b>61.5</b>	<b>68.2</b>	<b>66.5</b>	<b>69.7</b>	<b>71.5</b>	<b>72.5</b>	<b>73.6</b>	<b>19.8%</b>

\* Data for individual countries of the Former Soviet Union are not available prior to 1990.

CO<sub>2</sub> emissions / GDP using exchange rateskilogrammes CO<sub>2</sub> / US dollar using 2000 prices

	1971	1975	1980	1985	1990	1995	2000	2004	2005	2006	2007	% change 90-07
<b>World *</b>	<b>1.09</b>	<b>1.05</b>	<b>1.00</b>	<b>0.91</b>	<b>0.87</b>	<b>0.80</b>	<b>0.73</b>	<b>0.74</b>	<b>0.74</b>	<b>0.74</b>	<b>0.73</b>	<b>-15.4%</b>
<i>Annex I Parties</i>	..	..	..	..	0.70	0.61	0.55	0.52	0.51	0.50	0.49	-30.4%
<i>Annex II Parties</i>	0.83	0.76	0.68	0.58	0.52	0.49	0.46	0.44	0.43	0.41	0.41	-22.1%
<i>North America</i>	1.12	1.03	0.92	0.76	0.70	0.65	0.59	0.55	0.54	0.52	0.51	-26.2%
<i>Europe</i>	0.75	0.67	0.62	0.53	0.46	0.43	0.38	0.37	0.36	0.35	0.34	-27.6%
<i>Pacific</i>	0.44	0.43	0.36	0.32	0.30	0.30	0.30	0.30	0.30	0.29	0.29	-4.8%
<i>Annex I EIT</i>	..	..	..	..	4.74	4.50	3.59	3.01	2.86	2.76	2.58	-45.5%
<i>Non-Annex I Parties</i>	..	..	..	..	1.49	1.44	1.30	1.37	1.37	1.36	1.34	-10.2%
<i>Annex I Kyoto Parties</i>	..	..	..	..	0.70	0.58	0.52	0.50	0.49	0.48	0.47	-32.8%
<b>Non-OECD Total</b>	<b>2.04</b>	<b>2.08</b>	<b>2.05</b>	<b>2.08</b>	<b>2.22</b>	<b>1.91</b>	<b>1.66</b>	<b>1.67</b>	<b>1.65</b>	<b>1.64</b>	<b>1.59</b>	<b>-28.1%</b>
<b>OECD Total</b>	<b>0.86</b>	<b>0.79</b>	<b>0.72</b>	<b>0.62</b>	<b>0.55</b>	<b>0.52</b>	<b>0.48</b>	<b>0.46</b>	<b>0.45</b>	<b>0.44</b>	<b>0.43</b>	<b>-22.0%</b>
Canada	1.18	1.10	1.04	0.85	0.80	0.79	0.74	0.69	0.68	0.64	0.66	-17.1%
Mexico	0.47	0.51	0.56	0.60	0.65	0.63	0.56	0.56	0.58	0.57	0.58	-10.4%
United States	1.11	1.02	0.91	0.76	0.69	0.64	0.58	0.54	0.53	0.51	0.50	-27.0%
<b>OECD N. America</b>	<b>1.09</b>	<b>1.00</b>	<b>0.90</b>	<b>0.75</b>	<b>0.69</b>	<b>0.65</b>	<b>0.59</b>	<b>0.55</b>	<b>0.54</b>	<b>0.52</b>	<b>0.52</b>	<b>-25.4%</b>
Australia	0.88	0.99	0.99	0.91	0.92	0.86	0.85	0.80	0.82	0.80	0.78	-15.6%
Japan	0.40	0.38	0.31	0.27	0.26	0.26	0.25	0.25	0.24	0.24	0.24	-8.1%
Korea	0.79	0.87	1.01	0.86	0.81	0.88	0.84	0.78	0.73	0.71	0.69	-14.3%
New Zealand	0.48	0.50	0.50	0.51	0.54	0.53	0.61	0.58	0.57	0.58	0.53	-0.7%
<b>OECD Pacific</b>	<b>0.45</b>	<b>0.44</b>	<b>0.39</b>	<b>0.34</b>	<b>0.33</b>	<b>0.35</b>	<b>0.35</b>	<b>0.35</b>	<b>0.34</b>	<b>0.33</b>	<b>0.33</b>	<b>-0.2%</b>
Austria	0.55	0.49	0.47	0.42	0.38	0.36	0.32	0.36	0.36	0.34	0.31	-16.5%
Belgium	1.02	0.88	0.82	0.63	0.58	0.57	0.51	0.47	0.45	0.42	0.40	-30.7%
Czech Republic	3.94	3.49	3.39	3.30	2.81	2.35	2.15	1.90	1.76	1.66	1.58	-43.6%
Denmark	0.66	0.60	0.62	0.52	0.41	0.41	0.31	0.30	0.28	0.31	0.28	-30.7%
Finland	0.75	0.69	0.74	0.57	0.54	0.58	0.44	0.50	0.40	0.46	0.43	-21.5%
France	0.68	0.59	0.54	0.39	0.32	0.31	0.28	0.27	0.27	0.26	0.25	-23.9%
Germany	1.03	0.94	0.86	0.77	0.62	0.51	0.44	0.43	0.41	0.41	0.39	-37.2%
Greece	0.39	0.45	0.48	0.58	0.70	0.68	0.69	0.61	0.61	0.58	0.58	-17.1%
Hungary	2.40	2.17	2.15	1.90	1.50	1.45	1.13	0.98	0.95	0.91	0.87	-42.2%
Iceland	0.44	0.42	0.34	0.28	0.28	0.28	0.25	0.22	0.20	0.20	0.20	-27.5%
Ireland	0.98	0.77	0.76	0.68	0.63	0.54	0.43	0.35	0.35	0.34	0.31	-50.5%
Italy	0.57	0.54	0.49	0.43	0.42	0.41	0.39	0.40	0.40	0.39	0.37	-12.9%
Luxembourg	2.54	1.77	1.56	1.15	0.84	0.54	0.40	0.48	0.46	0.43	0.40	-53.0%
Netherlands	0.75	0.72	0.68	0.62	0.56	0.54	0.45	0.46	0.44	0.42	0.41	-25.4%
Norway	0.39	0.33	0.31	0.25	0.24	0.23	0.20	0.20	0.19	0.19	0.19	-22.9%
Poland	3.21	2.96	3.47	3.50	2.91	2.52	1.70	1.53	1.47	1.44	1.35	-53.6%
Portugal	0.35	0.38	0.39	0.38	0.46	0.52	0.53	0.51	0.53	0.47	0.45	-2.0%
Slovak Republic	3.04	2.99	3.39	3.08	3.00	2.37	1.83	1.53	1.47	1.33	1.19	-60.5%
Spain	0.50	0.52	0.57	0.50	0.47	0.49	0.49	0.50	0.50	0.47	0.47	0.5%
Sweden	0.61	0.52	0.45	0.33	0.26	0.28	0.21	0.20	0.18	0.17	0.16	-40.8%
Switzerland	0.23	0.22	0.22	0.21	0.18	0.18	0.17	0.17	0.17	0.16	0.15	-18.1%
Turkey	0.52	0.59	0.63	0.67	0.68	0.70	0.75	0.67	0.65	0.67	0.71	4.4%
United Kingdom	0.84	0.72	0.65	0.56	0.48	0.42	0.36	0.33	0.32	0.31	0.30	-38.4%
<b>OECD Europe</b>	<b>0.84</b>	<b>0.77</b>	<b>0.73</b>	<b>0.64</b>	<b>0.54</b>	<b>0.49</b>	<b>0.43</b>	<b>0.42</b>	<b>0.41</b>	<b>0.40</b>	<b>0.39</b>	<b>-28.7%</b>
<i>European Union - 27</i>	..	..	..	..	0.60	0.52	0.45	0.44	0.43	0.42	0.40	-33.0%

\* The ratio for the world has been calculated to include international marine bunkers and international aviation bunkers.

CO<sub>2</sub> emissions / GDP using exchange rateskilogrammes CO<sub>2</sub> / US dollar using 2000 prices

	1971	1975	1980	1985	1990	1995	2000	2004	2005	2006	2007	% change 90-07
<b>Non-OECD Total</b>	<b>2.04</b>	<b>2.08</b>	<b>2.05</b>	<b>2.08</b>	<b>2.22</b>	<b>1.91</b>	<b>1.66</b>	<b>1.67</b>	<b>1.65</b>	<b>1.64</b>	<b>1.59</b>	<b>-28.1%</b>
Algeria	0.49	0.54	0.81	0.97	1.12	1.19	1.14	1.12	1.13	1.15	1.17	5.3%
Angola	0.25	0.30	0.40	0.40	0.47	0.59	0.56	0.70	0.47	0.49	0.50	4.9%
Benin	0.37	0.52	0.36	0.35	0.18	0.13	0.63	0.91	0.92	1.06	1.06	488.8%
Botswana	..	..	..	0.81	0.86	0.81	0.68	0.53	0.53	0.54	0.54	-37.7%
Cameroon	0.21	0.22	0.26	0.25	0.30	0.31	0.28	0.25	0.24	0.25	0.36	18.3%
Congo	0.57	0.48	0.46	0.30	0.25	0.18	0.18	0.24	0.25	0.28	0.30	21.7%
Dem. Rep. of Congo	0.35	0.34	0.44	0.42	0.39	0.40	0.47	0.45	0.44	0.43	0.42	7.5%
Côte d'Ivoire	0.47	0.48	0.44	0.39	0.32	0.36	0.59	0.53	0.56	0.56	0.47	49.4%
Egypt	0.97	1.07	1.10	1.23	1.21	1.08	1.10	1.21	1.28	1.26	1.24	2.8%
Eritrea	..	..	..	..	..	1.27	0.95	0.98	0.84	0.73	0.71	..
Ethiopia	0.31	0.26	0.27	0.29	0.35	0.36	0.39	0.47	0.43	0.43	0.43	22.3%
Gabon	0.25	0.19	0.36	0.42	0.21	0.27	0.27	0.32	0.38	0.38	0.43	106.5%
Ghana	0.72	0.93	0.86	0.84	0.83	0.82	1.03	1.04	1.03	1.25	1.25	50.7%
Kenya	0.95	0.84	0.78	0.68	0.60	0.64	0.70	0.61	0.66	0.70	0.66	10.2%
Libyan Arab Jamahiriya	0.11	0.33	0.42	0.60	0.92	1.11	1.15	1.03	0.97	0.92	0.87	-5.3%
Morocco	0.54	0.65	0.69	0.70	0.67	0.83	0.76	0.76	0.83	0.78	0.78	16.7%
Mozambique	1.01	0.97	0.94	0.78	0.43	0.39	0.31	0.29	0.24	0.23	0.26	-39.2%
Namibia	..	..	..	..	..	0.63	0.55	0.65	0.66	0.68	0.68	..
Nigeria	0.26	0.45	0.85	1.20	0.83	0.77	0.89	0.84	0.90	0.78	0.74	-11.5%
Senegal	0.53	0.63	0.74	0.69	0.58	0.64	0.77	0.80	0.79	0.74	0.67	15.6%
South Africa	2.43	2.55	2.25	2.24	2.30	2.39	2.25	2.21	2.06	1.96	1.94	-15.4%
Sudan	0.82	0.67	0.67	0.74	0.78	0.50	0.44	0.61	0.59	0.60	0.54	-31.3%
United Rep. of Tanzania	0.43	0.35	0.32	0.30	0.25	0.34	0.28	0.33	0.41	0.42	0.38	50.9%
Togo	0.53	0.41	0.38	0.31	0.53	0.53	0.72	0.71	0.66	0.58	0.57	7.5%
Tunisia	0.79	0.76	0.91	0.90	0.99	0.97	0.93	0.85	0.80	0.78	0.75	-23.6%
Zambia	1.44	1.64	1.23	1.00	0.86	0.73	0.52	0.52	0.52	0.52	0.51	-40.1%
Zimbabwe	2.07	1.77	1.82	1.78	2.38	2.08	1.72	1.63	1.84	1.85	1.86	-21.9%
Other Africa	0.32	0.35	0.43	0.36	0.39	0.44	0.38	0.38	0.37	0.38	0.38	-2.3%
<b>Africa</b>	<b>1.01</b>	<b>1.11</b>	<b>1.09</b>	<b>1.15</b>	<b>1.18</b>	<b>1.20</b>	<b>1.16</b>	<b>1.14</b>	<b>1.12</b>	<b>1.08</b>	<b>1.06</b>	<b>-10.1%</b>
Bahrain	2.29	2.18	1.86	2.80	2.52	1.80	1.77	1.69	1.69	1.75	1.73	-31.3%
Islamic Rep. of Iran	0.89	1.13	1.61	2.11	2.49	3.00	3.01	2.99	3.01	3.13	3.07	23.1%
Iraq	0.24	0.24	0.33	0.71	1.60	5.69	3.16	4.44	4.31	4.47	4.38	173.5%
Israel	0.45	0.41	0.39	0.43	0.47	0.48	0.45	0.47	0.44	0.43	0.43	-8.4%
Jordan	0.63	1.03	1.00	1.36	1.79	1.68	1.69	1.57	1.57	1.51	1.49	-16.9%
Kuwait	0.73	0.87	1.10	1.72	0.96	1.19	1.33	1.32	1.31	1.12	1.08	11.9%
Lebanon	0.37	0.46	0.62	0.52	0.76	0.84	0.84	0.75	0.77	0.65	0.54	-28.8%
Oman	0.08	0.17	0.42	0.50	0.78	0.86	0.99	1.06	1.12	1.14	1.24	58.3%
Qatar	0.25	0.54	0.73	1.39	1.64	1.88	1.37	1.42	1.43	1.48	1.50	-8.7%
Saudi Arabia	0.25	0.22	0.66	1.06	1.12	1.23	1.33	1.41	1.42	1.45	1.48	32.0%
Syrian Arab Republic	1.68	1.50	1.59	2.16	2.63	2.24	2.37	2.10	2.01	2.03	2.02	-23.3%
United Arab Emirates	0.28	0.22	0.40	0.86	1.11	1.28	1.22	1.19	1.12	1.08	1.13	1.9%
Yemen	0.90	0.93	1.05	1.03	1.17	1.29	1.40	1.56	1.62	1.65	1.65	41.8%
<b>Middle East</b>	<b>0.49</b>	<b>0.51</b>	<b>0.71</b>	<b>1.13</b>	<b>1.32</b>	<b>1.52</b>	<b>1.51</b>	<b>1.56</b>	<b>1.54</b>	<b>1.55</b>	<b>1.56</b>	<b>18.5%</b>
Albania	2.27	2.07	2.68	2.29	1.94	0.66	0.86	0.77	0.95	0.82	0.75	-61.2%
Bosnia and Herzegovina *	..	..	..	..	16.90	2.22	2.71	2.44	2.43	2.52	2.49	-85.3%
Bulgaria	9.78	8.24	7.10	5.82	5.00	4.06	3.34	2.95	2.81	2.72	2.73	-45.3%
Croatia *	..	..	..	..	1.00	1.02	0.96	0.91	0.89	0.85	0.86	-14.7%
Cyprus	0.83	0.87	0.77	0.63	0.62	0.68	0.67	0.65	0.64	0.62	0.62	0.0%
Gibraltar	0.26	0.24	0.26	0.24	0.31	0.51	0.53	0.52	0.53	0.53	0.53	73.9%
FYR of Macedonia *	..	..	..	..	2.17	2.64	2.35	2.29	2.29	2.20	2.17	0.3%
Malta	1.05	0.68	0.60	0.65	0.96	0.75	0.54	0.65	0.67	0.61	0.63	-34.5%
Romania	6.12	4.95	4.30	3.60	3.80	2.96	2.33	1.95	1.88	1.80	1.64	-56.7%
Serbia *	..	..	..	..	6.03	4.41	4.28	4.60	3.91	3.93	3.78	-37.2%
Slovenia *	..	..	..	..	0.79	0.86	0.70	0.67	0.66	0.63	0.59	-25.2%
Former Yugoslavia *	1.88	1.82	1.58	2.15	..	..	..	..	..	..	..	..
<b>Non-OECD Europe</b>	<b>3.88</b>	<b>3.51</b>	<b>3.08</b>	<b>3.01</b>	<b>3.06</b>	<b>2.35</b>	<b>1.90</b>	<b>1.78</b>	<b>1.67</b>	<b>1.63</b>	<b>1.56</b>	<b>-49.0%</b>

\* Data for individual countries of the Former Yugoslavia are not available prior to 1990.

CO<sub>2</sub> emissions / GDP using exchange rateskilogrammes CO<sub>2</sub> / US dollar using 2000 prices

	1971	1975	1980	1985	1990	1995	2000	2004	2005	2006	2007	% change 90-07
Armenia	..	..	..	..	7.26	2.30	1.78	1.16	1.21	1.08	1.09	-85.0%
Azerbaijan	..	..	..	..	7.26	8.40	5.57	3.83	3.22	2.26	1.65	-77.2%
Belarus	..	..	..	..	8.09	6.45	4.40	3.61	3.32	3.18	2.88	-64.4%
Estonia	..	..	..	..	6.09	3.82	2.57	2.20	1.97	1.69	1.87	-69.2%
Georgia	..	..	..	..	3.52	3.07	1.43	0.83	0.89	0.92	0.96	-72.8%
Kazakhstan	..	..	..	..	8.97	10.32	6.74	5.66	5.51	5.60	5.27	-41.2%
Kyrgyzstan	..	..	..	..	11.05	4.42	3.34	3.42	3.29	3.07	3.10	-71.9%
Latvia	..	..	..	..	1.76	1.48	0.87	0.71	0.65	0.62	0.58	-67.1%
Lithuania	..	..	..	..	2.06	1.52	0.98	0.82	0.81	0.76	0.74	-64.0%
Republic of Moldova	..	..	..	..	8.34	7.52	5.03	4.45	4.33	3.91	3.83	-54.1%
Russian Federation	..	..	..	..	5.65	6.60	5.83	4.64	4.38	4.22	3.91	-30.8%
Tajikistan	..	..	..	..	5.16	5.52	4.86	4.32	4.25	4.35	4.45	-13.9%
Turkmenistan	..	..	..	..	12.47	14.77	12.70	7.36	7.11	6.51	6.40	-48.6%
Ukraine	..	..	..	..	9.56	11.37	9.34	7.10	6.77	6.39	6.01	-37.1%
Uzbekistan	..	..	..	..	8.53	8.92	8.46	6.91	6.13	5.87	5.39	-36.8%
<b>Former Soviet Union *</b>	<b>4.94</b>	<b>5.08</b>	<b>4.95</b>	<b>4.66</b>	<b>6.33</b>	<b>7.10</b>	<b>5.89</b>	<b>4.67</b>	<b>4.39</b>	<b>4.20</b>	<b>3.89</b>	<b>-38.6%</b>
Argentina	0.50	0.47	0.45	0.47	0.55	0.47	0.49	0.51	0.48	0.47	0.44	-20.2%
Bolivia	0.52	0.62	0.75	0.86	0.94	1.15	0.91	1.00	1.09	0.99	1.15	22.4%
Brazil	0.43	0.44	0.41	0.37	0.38	0.41	0.47	0.45	0.44	0.43	0.43	11.5%
Chile	0.91	0.86	0.76	0.67	0.81	0.67	0.74	0.71	0.69	0.69	0.70	-13.2%
Colombia	0.82	0.71	0.66	0.66	0.61	0.65	0.62	0.52	0.50	0.47	0.43	-30.4%
Costa Rica	0.27	0.30	0.29	0.27	0.27	0.35	0.29	0.30	0.28	0.28	0.29	5.4%
Cuba	1.19	1.37	1.31	0.93	0.85	0.88	0.88	0.83	0.71	0.62	0.61	-27.8%
Dominican Republic	0.71	0.76	0.71	0.64	0.69	0.84	0.88	0.84	0.75	0.72	0.69	-0.5%
Ecuador	0.62	0.74	0.98	1.04	0.99	1.07	1.16	1.14	1.14	1.18	1.22	23.2%
El Salvador	0.18	0.23	0.19	0.22	0.26	0.42	0.40	0.41	0.41	0.38	0.39	50.5%
Guatemala	0.32	0.34	0.36	0.29	0.26	0.38	0.46	0.48	0.49	0.47	0.47	83.2%
Haiti	0.12	0.12	0.13	0.18	0.22	0.26	0.37	0.52	0.53	0.53	0.59	172.1%
Honduras	0.45	0.46	0.42	0.38	0.42	0.58	0.62	0.80	0.78	0.68	0.81	95.3%
Jamaica	0.98	1.23	1.28	0.89	1.09	1.04	1.22	1.25	1.21	1.32	1.53	41.3%
Netherlands Antilles	..	..	8.41	4.61	2.62	2.32	3.36	3.26	3.32	3.24	3.44	31.3%
Nicaragua	0.46	0.46	0.55	0.54	0.65	0.81	0.90	0.94	0.89	0.83	0.89	36.7%
Panama	0.56	0.62	0.47	0.36	0.35	0.44	0.40	0.41	0.40	0.42	0.37	7.7%
Paraguay	0.28	0.26	0.30	0.29	0.32	0.48	0.46	0.48	0.43	0.43	0.41	28.0%
Peru	0.55	0.53	0.53	0.46	0.53	0.50	0.50	0.47	0.44	0.40	0.40	-25.8%
Trinidad and Tobago	1.36	1.14	1.06	1.44	1.90	1.92	2.20	1.96	1.94	2.00	2.05	7.6%
Uruguay	0.46	0.44	0.36	0.25	0.24	0.24	0.26	0.26	0.24	0.27	0.23	-5.8%
Venezuela	0.76	0.81	1.05	1.14	1.10	1.05	1.08	1.06	1.03	0.98	0.90	-18.0%
Other Latin America	0.78	1.05	0.74	0.62	0.64	0.65	0.60	0.64	0.63	0.62	0.64	0.0%
<b>Latin America</b>	<b>0.56</b>	<b>0.55</b>	<b>0.55</b>	<b>0.53</b>	<b>0.55</b>	<b>0.55</b>	<b>0.58</b>	<b>0.57</b>	<b>0.55</b>	<b>0.54</b>	<b>0.52</b>	<b>-4.8%</b>
Bangladesh	0.18	0.28	0.35	0.36	0.46	0.56	0.53	0.58	0.59	0.57	0.57	24.9%
Brunei Darussalam	0.18	0.52	0.59	0.80	0.90	1.16	1.08	1.07	1.05	1.15	1.15	28.5%
Cambodia	..	..	..	..	..	0.53	0.64	0.68	0.64	0.63	0.62	..
Chinese Taipei	0.88	0.89	0.91	0.65	0.67	0.65	0.68	0.71	0.70	0.69	0.66	-1.0%
India	1.67	1.78	1.86	2.07	2.18	2.26	2.12	1.89	1.79	1.76	1.72	-21.2%
Indonesia	0.85	0.94	1.17	1.10	1.28	1.21	1.60	1.61	1.59	1.57	1.62	25.9%
DPR of Korea	22.35	16.20	12.93	9.67	7.32	6.12	6.34	6.40	6.57	6.55	5.48	-25.2%
Malaysia	0.97	0.92	0.92	1.00	1.05	1.09	1.24	1.24	1.35	1.32	1.33	26.7%
Mongolia	..	..	..	12.75	11.52	10.55	8.09	6.63	6.44	6.57	6.32	-45.1%
Myanmar	1.72	1.35	1.28	1.15	0.89	1.13	0.91	0.74	0.82	0.70	0.68	-23.8%
Nepal	0.11	0.17	0.24	0.20	0.26	0.40	0.56	0.43	0.47	0.47	0.46	76.8%
Pakistan	0.96	1.03	0.96	1.04	1.17	1.27	1.32	1.32	1.25	1.26	1.30	11.4%
Philippines	0.82	0.82	0.70	0.62	0.70	0.94	0.92	0.81	0.76	0.68	0.67	-4.4%
Singapore	0.57	0.58	0.58	0.55	0.64	0.56	0.41	0.37	0.38	0.35	0.34	-47.5%
Sri Lanka	0.64	0.53	0.57	0.43	0.38	0.43	0.65	0.67	0.67	0.55	0.56	47.6%
Thailand	0.86	0.86	0.92	0.83	0.99	1.18	1.30	1.42	1.36	1.31	1.30	31.6%
Vietnam	2.00	2.05	1.72	1.45	1.15	1.26	1.43	1.94	1.82	1.78	1.78	54.7%
Other Asia	0.79	0.86	1.19	0.62	0.56	0.41	0.44	0.48	0.45	0.42	0.42	-24.9%
<b>Asia</b>	<b>1.34</b>	<b>1.37</b>	<b>1.37</b>	<b>1.37</b>	<b>1.38</b>	<b>1.34</b>	<b>1.37</b>	<b>1.33</b>	<b>1.30</b>	<b>1.27</b>	<b>1.26</b>	<b>-8.8%</b>
People's Rep. of China	7.47	7.88	7.68	5.60	4.97	3.77	2.53	2.65	2.67	2.65	2.52	-49.2%
Hong Kong, China	0.35	0.31	0.24	0.28	0.29	0.24	0.24	0.21	0.20	0.19	0.18	-35.9%
<b>China</b>	<b>6.09</b>	<b>6.32</b>	<b>5.84</b>	<b>4.50</b>	<b>4.01</b>	<b>3.21</b>	<b>2.25</b>	<b>2.40</b>	<b>2.43</b>	<b>2.42</b>	<b>2.31</b>	<b>-42.3%</b>

\* Data for individual countries of the Former Soviet Union are not available prior to 1990.

CO<sub>2</sub> Emissions / GDP using purchasing power paritieskilogrammes CO<sub>2</sub> / US dollar using 2000 prices

	1971	1975	1980	1985	1990	1995	2000	2004	2005	2006	2007	% change 90-07
<b>World *</b>	<b>0.80</b>	<b>0.76</b>	<b>0.72</b>	<b>0.65</b>	<b>0.63</b>	<b>0.58</b>	<b>0.52</b>	<b>0.50</b>	<b>0.49</b>	<b>0.48</b>	<b>0.47</b>	<b>-25.2%</b>
<i>Annex I Parties</i>	..	..	..	..	0.62	0.56	0.50	0.47	0.46	0.45	0.44	-29.7%
<i>Annex II Parties</i>	0.82	0.75	0.67	0.57	0.52	0.49	0.45	0.43	0.42	0.41	0.40	-22.9%
<i>North America</i>	1.10	1.01	0.90	0.75	0.69	0.64	0.59	0.55	0.53	0.51	0.51	-26.2%
<i>Europe</i>	0.64	0.58	0.53	0.46	0.40	0.36	0.32	0.32	0.31	0.30	0.29	-27.7%
<i>Pacific</i>	0.58	0.57	0.49	0.42	0.41	0.40	0.40	0.39	0.39	0.38	0.38	-7.0%
<i>Annex I EIT</i>	..	..	..	..	1.32	1.34	1.10	0.91	0.86	0.83	0.77	-41.4%
<i>Non-Annex I Parties</i>	..	..	..	..	0.59	0.56	0.49	0.50	0.49	0.49	0.48	-19.8%
<i>Annex I Kyoto Parties</i>	..	..	..	..	0.59	0.52	0.46	0.44	0.43	0.42	0.40	-32.0%
<b>Non-OECD Total</b>	<b>0.71</b>	<b>0.73</b>	<b>0.73</b>	<b>0.71</b>	<b>0.76</b>	<b>0.66</b>	<b>0.56</b>	<b>0.55</b>	<b>0.54</b>	<b>0.53</b>	<b>0.51</b>	<b>-32.5%</b>
<b>OECD Total</b>	<b>0.81</b>	<b>0.74</b>	<b>0.68</b>	<b>0.58</b>	<b>0.53</b>	<b>0.50</b>	<b>0.45</b>	<b>0.43</b>	<b>0.42</b>	<b>0.41</b>	<b>0.40</b>	<b>-23.5%</b>
Canada	0.98	0.91	0.86	0.71	0.66	0.65	0.61	0.57	0.56	0.53	0.55	-17.1%
Mexico	0.30	0.33	0.36	0.39	0.42	0.41	0.36	0.36	0.37	0.37	0.37	-10.4%
United States	1.11	1.02	0.91	0.76	0.69	0.64	0.58	0.54	0.53	0.51	0.50	-27.0%
<b>OECD N. America</b>	<b>1.05</b>	<b>0.95</b>	<b>0.85</b>	<b>0.72</b>	<b>0.66</b>	<b>0.63</b>	<b>0.57</b>	<b>0.53</b>	<b>0.52</b>	<b>0.50</b>	<b>0.50</b>	<b>-25.4%</b>
Australia	0.67	0.76	0.75	0.69	0.70	0.66	0.65	0.61	0.62	0.61	0.59	-15.6%
Japan	0.58	0.54	0.45	0.39	0.37	0.37	0.36	0.36	0.35	0.34	0.34	-8.1%
Korea	0.52	0.58	0.67	0.57	0.54	0.58	0.56	0.52	0.49	0.47	0.46	-14.3%
New Zealand	0.31	0.33	0.33	0.33	0.35	0.35	0.40	0.38	0.38	0.38	0.35	-0.7%
<b>OECD Pacific</b>	<b>0.58</b>	<b>0.57</b>	<b>0.50</b>	<b>0.44</b>	<b>0.42</b>	<b>0.43</b>	<b>0.43</b>	<b>0.42</b>	<b>0.41</b>	<b>0.40</b>	<b>0.40</b>	<b>-6.5%</b>
Austria	0.46	0.41	0.39	0.35	0.31	0.30	0.27	0.30	0.30	0.29	0.26	-16.5%
Belgium	0.84	0.72	0.67	0.52	0.47	0.47	0.42	0.39	0.37	0.35	0.33	-30.8%
Czech Republic	1.45	1.29	1.25	1.22	1.04	0.87	0.79	0.70	0.65	0.61	0.58	-43.6%
Denmark	0.69	0.62	0.65	0.55	0.42	0.43	0.32	0.32	0.29	0.33	0.29	-30.7%
Finland	0.69	0.64	0.68	0.52	0.50	0.53	0.41	0.46	0.37	0.42	0.39	-21.5%
France	0.59	0.51	0.46	0.34	0.28	0.27	0.25	0.24	0.23	0.22	0.21	-23.9%
Germany	0.92	0.84	0.77	0.69	0.55	0.45	0.39	0.39	0.37	0.36	0.34	-37.2%
Greece	0.25	0.28	0.30	0.36	0.44	0.43	0.43	0.39	0.39	0.37	0.36	-17.1%
Hungary	0.92	0.83	0.82	0.73	0.58	0.56	0.43	0.38	0.36	0.35	0.33	-42.2%
Iceland	0.48	0.45	0.36	0.30	0.30	0.31	0.26	0.24	0.22	0.21	0.22	-27.5%
Ireland	0.87	0.69	0.67	0.60	0.56	0.48	0.38	0.31	0.31	0.30	0.28	-50.5%
Italy	0.43	0.41	0.37	0.33	0.32	0.31	0.29	0.30	0.30	0.29	0.28	-12.9%
Luxembourg	2.20	1.53	1.35	0.99	0.73	0.47	0.34	0.41	0.40	0.38	0.34	-53.0%
Netherlands	0.61	0.59	0.56	0.51	0.46	0.45	0.37	0.38	0.37	0.35	0.34	-25.4%
Norway	0.40	0.34	0.32	0.26	0.25	0.24	0.21	0.21	0.20	0.19	0.19	-22.9%
Poland	1.36	1.26	1.47	1.48	1.23	1.07	0.72	0.65	0.63	0.61	0.57	-53.6%
Portugal	0.23	0.24	0.25	0.25	0.30	0.34	0.34	0.33	0.34	0.30	0.29	-2.0%
Slovak Republic	1.05	1.03	1.17	1.06	1.03	0.81	0.63	0.53	0.51	0.46	0.41	-60.5%
Spain	0.34	0.35	0.39	0.34	0.32	0.33	0.33	0.34	0.34	0.32	0.32	0.5%
Sweden	0.61	0.52	0.45	0.33	0.26	0.28	0.21	0.20	0.18	0.17	0.15	-40.7%
Switzerland	0.26	0.24	0.24	0.23	0.20	0.20	0.18	0.19	0.18	0.18	0.16	-18.1%
Turkey	0.24	0.27	0.29	0.30	0.31	0.32	0.34	0.31	0.29	0.30	0.32	4.4%
United Kingdom	0.81	0.69	0.63	0.54	0.46	0.40	0.34	0.32	0.31	0.30	0.29	-38.4%
<b>OECD Europe</b>	<b>0.68</b>	<b>0.62</b>	<b>0.59</b>	<b>0.51</b>	<b>0.44</b>	<b>0.40</b>	<b>0.35</b>	<b>0.34</b>	<b>0.33</b>	<b>0.32</b>	<b>0.31</b>	<b>-29.6%</b>
<i>European Union - 27</i>	..	..	..	..	0.47	0.42	0.36	0.35	0.34	0.33	0.32	-33.2%

\* The ratio for the world has been calculated to include international marine bunkers and international aviation bunkers.



CO<sub>2</sub> Emissions / GDP using purchasing power paritieskilogrammes CO<sub>2</sub> / US dollar using 2000 prices

	1971	1975	1980	1985	1990	1995	2000	2004	2005	2006	2007	% change 90-07
<b>Non-OECD Total</b>	<b>0.71</b>	<b>0.73</b>	<b>0.73</b>	<b>0.71</b>	<b>0.76</b>	<b>0.66</b>	<b>0.56</b>	<b>0.55</b>	<b>0.54</b>	<b>0.53</b>	<b>0.51</b>	<b>-32.5%</b>
Algeria	0.17	0.18	0.27	0.33	0.38	0.40	0.38	0.38	0.38	0.39	0.40	5.3%
Angola	0.11	0.13	0.18	0.18	0.21	0.27	0.25	0.32	0.21	0.22	0.22	4.9%
Benin	0.12	0.17	0.12	0.11	0.06	0.04	0.20	0.29	0.30	0.34	0.34	488.4%
Botswana	..	..	..	0.34	0.36	0.34	0.29	0.22	0.22	0.23	0.23	-37.7%
Cameroon	0.08	0.08	0.09	0.09	0.11	0.11	0.10	0.09	0.09	0.09	0.13	18.3%
Congo	0.51	0.42	0.41	0.26	0.22	0.16	0.16	0.21	0.22	0.25	0.27	21.7%
Dem. Rep. of Congo	0.05	0.05	0.06	0.06	0.06	0.06	0.07	0.06	0.06	0.06	0.06	7.4%
Côte d'Ivoire	0.18	0.19	0.17	0.15	0.12	0.14	0.23	0.21	0.22	0.22	0.19	49.4%
Egypt	0.41	0.45	0.46	0.52	0.51	0.46	0.46	0.51	0.54	0.53	0.52	2.8%
Eritrea	..	..	..	..	..	0.22	0.17	0.17	0.15	0.13	0.12	..
Ethiopia	0.05	0.04	0.04	0.04	0.05	0.05	0.06	0.07	0.07	0.06	0.07	22.2%
Gabon	0.17	0.13	0.24	0.28	0.14	0.18	0.19	0.22	0.26	0.26	0.30	106.6%
Ghana	0.09	0.12	0.11	0.11	0.11	0.11	0.13	0.14	0.13	0.16	0.16	50.7%
Kenya	0.38	0.34	0.31	0.27	0.24	0.26	0.28	0.25	0.27	0.28	0.27	10.2%
Libyan Arab Jamahiriya	0.08	0.24	0.31	0.44	0.68	0.81	0.85	0.76	0.71	0.67	0.64	-5.3%
Morocco	0.18	0.21	0.23	0.23	0.22	0.27	0.25	0.25	0.27	0.26	0.26	16.7%
Mozambique	0.27	0.26	0.25	0.20	0.11	0.10	0.08	0.08	0.06	0.06	0.07	-39.2%
Namibia	..	..	..	..	..	0.19	0.17	0.20	0.20	0.21	0.21	..
Nigeria	0.11	0.20	0.37	0.52	0.36	0.33	0.39	0.36	0.39	0.34	0.32	-11.5%
Senegal	0.16	0.19	0.22	0.20	0.17	0.19	0.23	0.24	0.23	0.22	0.20	15.6%
South Africa	0.84	0.88	0.77	0.77	0.79	0.82	0.77	0.76	0.71	0.67	0.67	-15.4%
Sudan	0.20	0.17	0.17	0.18	0.19	0.13	0.11	0.15	0.15	0.15	0.13	-31.3%
United Rep. of Tanzania	0.22	0.18	0.17	0.15	0.13	0.17	0.15	0.17	0.21	0.22	0.19	50.9%
Togo	0.10	0.08	0.07	0.06	0.10	0.10	0.13	0.13	0.12	0.11	0.10	7.5%
Tunisia	0.25	0.24	0.29	0.29	0.32	0.31	0.30	0.28	0.26	0.25	0.24	-23.6%
Zambia	0.55	0.63	0.47	0.39	0.33	0.28	0.20	0.20	0.20	0.20	0.20	-40.1%
Zimbabwe	0.49	0.42	0.43	0.42	0.56	0.49	0.40	0.38	0.43	0.43	0.44	-21.9%
Other Africa	0.08	0.09	0.11	0.09	0.10	0.12	0.10	0.11	0.11	0.11	0.11	4.2%
<b>Africa</b>	<b>0.34</b>	<b>0.38</b>	<b>0.38</b>	<b>0.40</b>	<b>0.41</b>	<b>0.42</b>	<b>0.40</b>	<b>0.40</b>	<b>0.39</b>	<b>0.38</b>	<b>0.37</b>	<b>-8.8%</b>
Bahrain	1.74	1.66	1.42	2.14	1.92	1.37	1.35	1.29	1.29	1.34	1.32	-31.4%
Islamic Rep. of Iran	0.24	0.31	0.44	0.58	0.68	0.82	0.82	0.82	0.82	0.86	0.84	23.1%
Iraq	0.18	0.18	0.24	0.52	1.17	4.16	2.31	3.25	3.15	3.27	3.21	173.5%
Israel	0.36	0.33	0.31	0.34	0.38	0.38	0.36	0.37	0.35	0.35	0.34	-8.4%
Jordan	0.27	0.43	0.42	0.57	0.75	0.71	0.71	0.66	0.66	0.63	0.63	-16.9%
Kuwait	0.64	0.76	0.97	1.51	0.84	1.05	1.17	1.16	1.15	0.99	0.94	11.9%
Lebanon	0.38	0.47	0.65	0.54	0.79	0.87	0.87	0.78	0.80	0.67	0.56	-28.8%
Oman	0.05	0.11	0.27	0.32	0.51	0.55	0.64	0.69	0.72	0.74	0.80	58.3%
Qatar	0.28	0.60	0.82	1.55	1.83	2.09	1.53	1.58	1.60	1.65	1.67	-8.7%
Saudi Arabia	0.17	0.14	0.44	0.71	0.75	0.83	0.89	0.95	0.95	0.97	0.99	32.0%
Syrian Arab Republic	0.61	0.54	0.58	0.78	0.96	0.81	0.86	0.76	0.73	0.74	0.73	-23.3%
United Arab Emirates	0.28	0.22	0.41	0.87	1.13	1.29	1.23	1.20	1.14	1.09	1.15	1.9%
Yemen	0.58	0.60	0.67	0.66	0.75	0.83	0.90	1.00	1.04	1.05	1.06	41.8%
<b>Middle East</b>	<b>0.28</b>	<b>0.29</b>	<b>0.44</b>	<b>0.65</b>	<b>0.76</b>	<b>0.87</b>	<b>0.87</b>	<b>0.89</b>	<b>0.89</b>	<b>0.89</b>	<b>0.89</b>	<b>17.9%</b>
Albania	0.73	0.67	0.87	0.74	0.63	0.21	0.28	0.25	0.31	0.27	0.24	-61.1%
Bosnia and Herzegovina *	..	..	..	..	4.16	0.55	0.67	0.60	0.60	0.62	0.61	-85.2%
Bulgaria	2.52	2.12	1.83	1.50	1.29	1.05	0.86	0.76	0.72	0.70	0.70	-45.3%
Croatia *	..	..	..	..	0.45	0.46	0.43	0.41	0.40	0.38	0.38	-14.7%
Cyprus	0.57	0.60	0.53	0.43	0.43	0.47	0.46	0.45	0.44	0.43	0.43	0.0%
Gibraltar	0.25	0.23	0.25	0.23	0.29	0.49	0.51	0.50	0.50	0.51	0.51	73.6%
FYR of Macedonia *	..	..	..	..	0.64	0.78	0.69	0.68	0.68	0.65	0.64	0.3%
Malta	0.59	0.38	0.34	0.36	0.54	0.42	0.30	0.37	0.37	0.35	0.35	-34.5%
Romania	1.71	1.39	1.20	1.01	1.06	0.83	0.65	0.55	0.53	0.50	0.46	-56.7%
Serbia *	..	..	..	..	1.64	1.20	1.16	1.25	1.06	1.07	1.03	-37.2%
Slovenia *	..	..	..	..	0.46	0.50	0.40	0.39	0.38	0.36	0.34	-25.2%
Former Yugoslavia *	0.87	0.84	0.73	0.99	..	..	..	..	..	..	..	..
<b>Non-OECD Europe</b>	<b>1.41</b>	<b>1.25</b>	<b>1.09</b>	<b>1.05</b>	<b>1.03</b>	<b>0.79</b>	<b>0.66</b>	<b>0.61</b>	<b>0.57</b>	<b>0.56</b>	<b>0.53</b>	<b>-48.2%</b>

\* Data for individual countries of the Former Yugoslavia are not available prior to 1990.

CO<sub>2</sub> Emissions / GDP using purchasing power paritieskilogrammes CO<sub>2</sub> / US dollar using 2000 prices

	1971	1975	1980	1985	1990	1995	2000	2004	2005	2006	2007	% change 90-07
Armenia	..	..	..	..	1.86	0.59	0.46	0.30	0.31	0.28	0.28	-84.9%
Azerbaijan	..	..	..	..	1.92	2.22	1.47	1.01	0.85	0.60	0.44	-77.2%
Belarus	..	..	..	..	2.14	1.71	1.17	0.96	0.88	0.84	0.76	-64.4%
Estonia	..	..	..	..	2.66	1.67	1.13	0.96	0.86	0.74	0.82	-69.2%
Georgia	..	..	..	..	1.14	0.99	0.46	0.27	0.29	0.30	0.31	-72.8%
Kazakhstan	..	..	..	..	2.54	2.92	1.91	1.60	1.56	1.58	1.49	-41.2%
Kyrgyzstan	..	..	..	..	2.06	0.82	0.62	0.64	0.61	0.57	0.58	-71.9%
Latvia	..	..	..	..	0.73	0.61	0.36	0.29	0.27	0.25	0.24	-67.1%
Lithuania	..	..	..	..	0.77	0.57	0.37	0.31	0.30	0.29	0.28	-64.0%
Republic of Moldova	..	..	..	..	1.90	1.72	1.15	1.02	0.99	0.89	0.87	-54.1%
Russian Federation	..	..	..	..	1.43	1.67	1.48	1.17	1.11	1.07	0.99	-30.8%
Tajikistan	..	..	..	..	1.01	1.08	0.95	0.85	0.83	0.85	0.87	-13.9%
Turkmenistan	..	..	..	..	2.31	2.74	2.35	1.36	1.32	1.21	1.19	-48.7%
Ukraine	..	..	..	..	1.51	1.79	1.47	1.12	1.07	1.01	0.95	-37.1%
Uzbekistan	..	..	..	..	3.18	3.32	3.15	2.58	2.28	2.19	2.01	-36.8%
<b>Former Soviet Union *</b>	<b>1.20</b>	<b>1.23</b>	<b>1.20</b>	<b>1.13</b>	<b>1.54</b>	<b>1.75</b>	<b>1.48</b>	<b>1.17</b>	<b>1.10</b>	<b>1.05</b>	<b>0.98</b>	<b>-36.5%</b>
Argentina	0.32	0.30	0.29	0.30	0.35	0.30	0.31	0.32	0.30	0.30	0.28	-20.2%
Bolivia	0.22	0.26	0.32	0.36	0.40	0.49	0.38	0.42	0.46	0.42	0.49	22.4%
Brazil	0.22	0.23	0.21	0.19	0.20	0.21	0.24	0.23	0.23	0.22	0.22	11.5%
Chile	0.48	0.46	0.41	0.36	0.43	0.36	0.40	0.38	0.37	0.37	0.37	-13.2%
Colombia	0.28	0.24	0.22	0.22	0.21	0.22	0.21	0.18	0.17	0.16	0.14	-30.4%
Costa Rica	0.14	0.15	0.14	0.13	0.14	0.18	0.14	0.15	0.14	0.14	0.14	5.5%
Cuba	0.52	0.59	0.57	0.40	0.37	0.42	0.38	0.36	0.31	0.27	0.27	-27.8%
Dominican Republic	0.25	0.27	0.25	0.23	0.24	0.30	0.31	0.30	0.26	0.25	0.24	-0.5%
Ecuador	0.25	0.30	0.39	0.42	0.40	0.43	0.47	0.46	0.46	0.47	0.49	23.2%
El Salvador	0.08	0.10	0.09	0.10	0.12	0.19	0.18	0.18	0.18	0.17	0.18	50.5%
Guatemala	0.14	0.15	0.15	0.12	0.11	0.16	0.20	0.21	0.21	0.20	0.20	83.2%
Haiti	0.03	0.04	0.04	0.05	0.06	0.08	0.11	0.15	0.16	0.16	0.18	172.0%
Honduras	0.14	0.15	0.13	0.12	0.13	0.19	0.20	0.26	0.25	0.22	0.26	95.2%
Jamaica	0.84	1.06	1.10	0.77	0.94	0.90	1.05	1.07	1.04	1.14	1.32	41.3%
Netherlands Antilles	..	..	3.74	2.05	1.16	1.03	1.49	1.45	1.48	1.44	1.53	31.3%
Nicaragua	0.12	0.12	0.14	0.14	0.17	0.21	0.23	0.24	0.23	0.21	0.23	36.8%
Panama	0.37	0.41	0.31	0.23	0.23	0.29	0.26	0.27	0.26	0.27	0.24	7.7%
Paraguay	0.09	0.08	0.10	0.09	0.10	0.15	0.15	0.15	0.14	0.14	0.13	28.0%
Peru	0.24	0.23	0.23	0.20	0.23	0.22	0.22	0.20	0.19	0.17	0.17	-25.8%
Trinidad and Tobago	0.95	0.79	0.74	1.00	1.33	1.34	1.54	1.37	1.35	1.40	1.43	7.7%
Uruguay	0.32	0.31	0.25	0.17	0.17	0.17	0.18	0.19	0.17	0.19	0.16	-5.7%
Venezuela	0.64	0.68	0.88	0.95	0.92	0.88	0.91	0.89	0.86	0.82	0.76	-18.0%
Other Latin America	0.50	0.67	0.49	0.43	0.46	0.46	0.43	0.45	0.45	0.44	0.45	-1.4%
<b>Latin America</b>	<b>0.30</b>	<b>0.29</b>	<b>0.29</b>	<b>0.28</b>	<b>0.29</b>	<b>0.29</b>	<b>0.31</b>	<b>0.29</b>	<b>0.29</b>	<b>0.28</b>	<b>0.27</b>	<b>-4.7%</b>
Bangladesh	0.04	0.07	0.08	0.09	0.11	0.13	0.13	0.14	0.14	0.14	0.14	24.9%
Brunei Darussalam	0.15	0.43	0.50	0.67	0.75	0.97	0.90	0.90	0.88	0.96	0.97	28.6%
Cambodia	..	..	..	..	..	0.09	0.11	0.11	0.10	0.10	0.10	..
Chinese Taipei	0.58	0.58	0.59	0.43	0.44	0.43	0.45	0.46	0.46	0.45	0.43	-1.0%
India	0.32	0.34	0.36	0.40	0.42	0.43	0.41	0.36	0.34	0.34	0.33	-21.2%
Indonesia	0.23	0.26	0.32	0.30	0.35	0.33	0.44	0.44	0.44	0.43	0.45	25.9%
DPR of Korea	6.35	4.61	3.68	2.75	2.08	1.74	1.80	1.82	1.87	1.86	1.56	-25.2%
Malaysia	0.44	0.42	0.42	0.46	0.48	0.50	0.57	0.57	0.62	0.61	0.61	26.7%
Mongolia	..	..	..	3.29	2.97	2.72	2.09	1.71	1.66	1.70	1.63	-45.1%
Myanmar	0.28	0.22	0.21	0.19	0.15	0.19	0.15	0.12	0.14	0.11	0.11	-23.8%
Nepal	0.02	0.03	0.04	0.03	0.04	0.07	0.09	0.07	0.08	0.08	0.08	76.8%
Pakistan	0.27	0.29	0.27	0.29	0.33	0.36	0.37	0.37	0.35	0.36	0.37	11.4%
Philippines	0.20	0.20	0.17	0.15	0.17	0.23	0.23	0.20	0.19	0.17	0.17	-4.4%
Singapore	0.55	0.57	0.57	0.53	0.63	0.55	0.40	0.36	0.37	0.34	0.33	-47.5%
Sri Lanka	0.16	0.13	0.14	0.11	0.09	0.11	0.16	0.16	0.16	0.14	0.14	47.5%
Thailand	0.27	0.27	0.29	0.26	0.31	0.37	0.41	0.45	0.43	0.42	0.41	31.7%
Vietnam	0.39	0.40	0.34	0.28	0.23	0.25	0.28	0.38	0.36	0.35	0.35	54.7%
Other Asia	0.23	0.26	0.37	0.19	0.19	0.16	0.17	0.18	0.17	0.16	0.17	-12.6%
<b>Asia</b>	<b>0.34</b>	<b>0.36</b>	<b>0.38</b>	<b>0.38</b>	<b>0.39</b>	<b>0.39</b>	<b>0.39</b>	<b>0.38</b>	<b>0.36</b>	<b>0.36</b>	<b>0.35</b>	<b>-10.4%</b>
People's Rep. of China	1.80	1.90	1.85	1.35	1.20	0.91	0.61	0.64	0.64	0.64	0.61	-49.2%
Hong Kong, China	0.34	0.30	0.24	0.27	0.28	0.23	0.23	0.20	0.19	0.18	0.18	-35.9%
<b>China</b>	<b>1.72</b>	<b>1.80</b>	<b>1.73</b>	<b>1.28</b>	<b>1.14</b>	<b>0.88</b>	<b>0.60</b>	<b>0.63</b>	<b>0.63</b>	<b>0.63</b>	<b>0.60</b>	<b>-47.7%</b>

\* Data for individual countries of the Former Soviet Union are not available prior to 1990.

CO<sub>2</sub> emissions / populationtonnes CO<sub>2</sub> / capita

	1971	1975	1980	1985	1990	1995	2000	2004	2005	2006	2007	% change 90-07
<b>World *</b>	<b>3.75</b>	<b>3.86</b>	<b>4.07</b>	<b>3.86</b>	<b>3.99</b>	<b>3.84</b>	<b>3.87</b>	<b>4.13</b>	<b>4.20</b>	<b>4.29</b>	<b>4.38</b>	<b>9.8%</b>
<i>Annex I Parties</i>	..	..	..	..	11.81	10.90	11.15	11.26	11.23	11.17	11.21	-5.1%
<i>Annex II Parties</i>	12.21	12.18	12.63	11.81	12.26	12.32	12.89	12.91	12.84	12.63	12.64	3.1%
<i>North America</i>	20.16	19.81	20.17	18.72	19.06	18.92	19.88	19.42	19.29	18.79	18.93	-0.7%
<i>Europe</i>	8.63	8.56	9.08	8.35	8.37	8.17	8.26	8.48	8.34	8.30	8.10	-3.3%
<i>Pacific</i>	7.59	8.19	8.20	7.97	9.35	9.88	10.35	10.62	10.76	10.67	10.90	16.5%
<i>Annex I EIT</i>	..	..	..	..	12.37	8.85	8.16	8.50	8.53	8.82	8.88	-28.2%
<i>Non-Annex I Parties</i>	..	..	..	..	1.59	1.78	1.85	2.21	2.32	2.45	2.56	61.7%
<i>Annex I Kyoto Parties</i>	..	..	..	..	10.22	9.00	8.93	9.20	9.17	9.21	9.21	-9.9%
<b>Non-OECD Total</b>	<b>1.48</b>	<b>1.73</b>	<b>1.97</b>	<b>2.02</b>	<b>2.21</b>	<b>2.08</b>	<b>2.06</b>	<b>2.41</b>	<b>2.51</b>	<b>2.65</b>	<b>2.75</b>	<b>24.9%</b>
<b>OECD Total</b>	<b>10.59</b>	<b>10.61</b>	<b>11.05</b>	<b>10.35</b>	<b>10.61</b>	<b>10.62</b>	<b>11.06</b>	<b>11.08</b>	<b>11.05</b>	<b>10.93</b>	<b>10.97</b>	<b>3.4%</b>
Canada	15.46	16.30	17.41	15.56	15.61	15.88	17.36	17.21	17.22	16.47	17.37	11.3%
Mexico	1.95	2.45	3.23	3.42	3.61	3.40	3.63	3.65	3.89	3.99	4.14	14.9%
United States	20.66	20.19	20.47	19.06	19.44	19.26	20.16	19.66	19.52	19.05	19.10	-1.8%
<b>OECD N. America</b>	<b>16.91</b>	<b>16.48</b>	<b>16.67</b>	<b>15.39</b>	<b>15.56</b>	<b>15.27</b>	<b>16.00</b>	<b>15.63</b>	<b>15.59</b>	<b>15.24</b>	<b>15.38</b>	<b>-1.1%</b>
Australia	10.92	12.89	14.05	13.90	15.13	15.68	17.57	18.20	18.80	18.78	18.75	23.9%
Japan	7.24	7.68	7.54	7.25	8.63	9.14	9.31	9.48	9.53	9.41	9.68	12.2%
Korea	1.58	2.18	3.26	3.76	5.35	8.09	9.17	9.97	9.75	9.87	10.09	88.6%
New Zealand	4.80	5.52	5.22	5.99	6.34	6.62	8.36	8.75	8.84	8.99	8.48	33.7%
<b>OECD Pacific</b>	<b>6.30</b>	<b>6.90</b>	<b>7.11</b>	<b>7.02</b>	<b>8.43</b>	<b>9.46</b>	<b>10.07</b>	<b>10.46</b>	<b>10.52</b>	<b>10.48</b>	<b>10.70</b>	<b>26.9%</b>
Austria	6.49	6.62	7.37	7.18	7.32	7.39	7.66	8.99	8.99	8.92	8.38	14.5%
Belgium	12.09	11.82	12.75	10.34	10.82	11.36	11.57	11.19	10.75	10.40	9.97	-7.8%
Czech Republic	15.35	15.17	15.98	16.31	15.00	11.99	11.88	11.95	11.70	11.77	11.83	-21.1%
Denmark	11.09	10.37	12.21	11.83	9.80	11.02	9.34	9.38	8.73	10.14	9.24	-5.7%
Finland	8.62	9.42	11.54	9.91	10.91	10.97	10.42	12.79	10.49	12.67	12.19	11.7%
France	8.24	7.99	8.37	6.37	6.05	5.95	6.20	6.17	6.18	5.99	5.81	-4.0%
Germany	12.49	12.40	13.48	13.06	11.98	10.65	10.06	10.22	9.84	10.00	9.71	-19.0%
Greece	2.80	3.75	4.62	5.41	6.78	6.84	7.99	8.43	8.56	8.44	8.74	28.8%
Hungary	6.00	6.87	7.97	7.77	6.43	5.54	5.30	5.53	5.56	5.53	5.36	-16.7%
Iceland	6.79	7.37	7.62	6.71	7.37	7.30	7.60	7.62	7.36	7.31	7.53	2.2%
Ireland	7.29	6.64	7.62	7.45	8.74	9.17	10.84	10.38	10.53	10.62	10.13	16.0%
Italy	5.42	5.76	6.38	6.14	7.01	7.21	7.44	7.74	7.74	7.73	7.38	5.2%
Luxembourg	45.11	33.69	32.75	27.03	27.40	19.92	18.27	23.92	24.11	23.64	22.35	-18.4%
Netherlands	9.82	10.31	10.82	10.13	10.48	11.08	10.87	11.37	11.19	10.91	11.13	6.2%
Norway	6.02	6.01	6.85	6.54	6.67	7.53	7.50	7.99	7.67	7.72	7.85	17.7%
Poland	8.74	9.94	11.61	11.28	9.04	8.66	7.63	7.73	7.71	8.02	7.99	-11.6%
Portugal	1.66	1.97	2.41	2.44	3.93	4.82	5.82	5.70	5.94	5.32	5.20	32.4%
Slovak Republic	8.57	9.25	11.10	10.54	10.71	7.61	6.92	6.93	7.07	6.95	6.82	-36.3%
Spain	3.49	4.39	4.99	4.55	5.28	5.93	7.05	7.67	7.83	7.54	7.68	45.6%
Sweden	10.18	9.69	8.84	7.04	6.16	6.52	5.95	5.96	5.58	5.29	5.05	-18.1%
Switzerland	6.14	5.73	6.14	6.34	5.99	5.85	5.81	5.97	6.00	5.91	5.62	-6.2%
Turkey	1.14	1.48	1.60	1.88	2.26	2.48	2.97	2.89	3.00	3.28	3.59	58.8%
United Kingdom	11.15	10.31	10.14	9.63	9.66	8.95	8.93	8.95	8.87	8.84	8.60	-10.9%
<b>OECD Europe</b>	<b>8.12</b>	<b>8.16</b>	<b>8.71</b>	<b>8.08</b>	<b>7.85</b>	<b>7.54</b>	<b>7.53</b>	<b>7.67</b>	<b>7.58</b>	<b>7.60</b>	<b>7.48</b>	<b>-4.7%</b>
<i>European Union - 27</i>	..	..	..	..	8.58	8.04	7.93	8.17	8.07	8.07	7.92	-7.8%

\* The ratio for the world has been calculated to include international marine bunkers and international aviation bunkers.

CO<sub>2</sub> emissions / populationtonnes CO<sub>2</sub> / capita

	1971	1975	1980	1985	1990	1995	2000	2004	2005	2006	2007	% change 90-07
<b>Non-OECD Total</b>	<b>1.48</b>	<b>1.73</b>	<b>1.97</b>	<b>2.02</b>	<b>2.21</b>	<b>2.08</b>	<b>2.06</b>	<b>2.41</b>	<b>2.51</b>	<b>2.65</b>	<b>2.75</b>	<b>24.9%</b>
Algeria	0.61	0.88	1.51	1.95	2.05	1.97	2.05	2.28	2.39	2.45	2.53	23.8%
Angola	0.27	0.29	0.34	0.31	0.38	0.32	0.37	0.55	0.44	0.53	0.63	64.6%
Benin	0.10	0.14	0.11	0.11	0.05	0.04	0.20	0.29	0.30	0.34	0.35	608.4%
Botswana	..	..	..	1.34	2.15	2.13	2.42	2.26	2.35	2.43	2.53	17.8%
Cameroon	0.10	0.13	0.18	0.23	0.22	0.18	0.18	0.17	0.16	0.17	0.25	14.7%
Congo	0.42	0.43	0.45	0.40	0.29	0.19	0.18	0.25	0.28	0.32	0.34	16.4%
Dem. Rep. of Congo	0.12	0.11	0.11	0.10	0.08	0.05	0.04	0.04	0.04	0.04	0.04	-49.9%
Côte d'Ivoire	0.43	0.46	0.40	0.29	0.21	0.21	0.36	0.30	0.31	0.31	0.26	27.4%
Egypt	0.57	0.66	0.97	1.33	1.44	1.38	1.66	1.93	2.09	2.16	2.24	55.6%
Eritrea	..	..	..	..	..	0.24	0.16	0.16	0.13	0.11	0.11	..
Ethiopia	0.04	0.03	0.04	0.03	0.04	0.04	0.05	0.06	0.06	0.07	0.08	74.5%
Gabon	0.87	1.26	1.87	2.14	0.98	1.26	1.17	1.33	1.64	1.63	1.92	95.7%
Ghana	0.21	0.23	0.20	0.16	0.17	0.19	0.25	0.28	0.29	0.37	0.38	120.5%
Kenya	0.32	0.32	0.34	0.28	0.27	0.27	0.29	0.25	0.28	0.31	0.30	12.6%
Libyan Arab Jamahiriya	1.79	3.72	6.06	5.84	6.27	7.27	7.42	7.54	7.18	7.04	7.01	11.8%
Morocco	0.45	0.58	0.72	0.76	0.81	0.96	0.99	1.16	1.30	1.30	1.32	62.8%
Mozambique	0.30	0.22	0.19	0.11	0.08	0.07	0.07	0.08	0.07	0.08	0.09	15.1%
Namibia	..	..	..	..	..	1.09	1.00	1.34	1.40	1.47	1.54	..
Nigeria	0.11	0.19	0.38	0.40	0.31	0.28	0.33	0.36	0.39	0.36	0.35	12.5%
Senegal	0.27	0.31	0.34	0.31	0.25	0.27	0.35	0.39	0.39	0.37	0.34	34.2%
South Africa	7.69	8.46	7.78	7.32	7.24	7.08	6.78	7.28	7.05	7.00	7.27	0.4%
Sudan	0.22	0.20	0.19	0.18	0.21	0.15	0.16	0.26	0.26	0.29	0.28	32.8%
United Rep. of Tanzania	0.11	0.09	0.09	0.07	0.07	0.08	0.08	0.10	0.13	0.14	0.13	100.4%
Togo	0.15	0.13	0.13	0.09	0.14	0.13	0.18	0.17	0.16	0.14	0.14	-5.4%
Tunisia	0.71	0.85	1.23	1.32	1.48	1.60	1.88	1.99	1.92	1.95	2.00	34.6%
Zambia	0.78	0.87	0.56	0.40	0.32	0.22	0.16	0.18	0.19	0.19	0.20	-38.0%
Zimbabwe	1.34	1.17	1.09	1.08	1.53	1.26	1.00	0.74	0.79	0.75	0.70	-54.4%
Other Africa	0.11	0.12	0.15	0.12	0.13	0.13	0.12	0.14	0.13	0.14	0.15	15.4%
<b>Africa</b>	<b>0.72</b>	<b>0.81</b>	<b>0.86</b>	<b>0.87</b>	<b>0.86</b>	<b>0.83</b>	<b>0.84</b>	<b>0.90</b>	<b>0.90</b>	<b>0.90</b>	<b>0.92</b>	<b>6.4%</b>
Bahrain	13.21	19.53	21.31	25.16	23.73	20.11	21.74	23.68	25.03	27.31	28.23	19.0%
Islamic Rep. of Iran	1.41	2.26	2.36	3.11	3.22	4.23	4.77	5.59	5.79	6.28	6.56	103.6%
Iraq	1.26	1.40	2.44	2.79	2.91	3.67	3.61	3.34	3.27	3.31	3.33	14.1%
Israel	4.69	4.94	5.05	5.79	7.20	8.35	8.83	8.95	8.82	8.89	9.19	27.5%
Jordan	0.83	1.15	1.93	2.78	2.90	2.89	2.98	3.16	3.31	3.30	3.35	15.5%
Kuwait	29.21	22.74	22.40	22.09	11.46	22.76	22.90	27.24	29.33	25.66	25.09	119.0%
Lebanon	1.85	2.06	2.36	2.65	2.15	3.60	3.76	3.85	3.94	3.28	2.77	29.0%
Oman	0.33	0.78	1.88	3.57	5.39	6.63	8.23	10.10	11.15	12.02	13.79	156.0%
Qatar	18.26	28.64	33.94	34.53	30.98	36.31	39.34	45.53	46.81	51.13	58.01	87.3%
Saudi Arabia	2.22	3.26	10.55	10.02	9.85	11.05	12.15	13.48	13.92	14.36	14.79	50.1%
Syrian Arab Republic	1.03	1.36	1.68	2.18	2.44	2.64	2.77	2.60	2.53	2.61	2.70	10.9%
United Arab Emirates	9.71	9.67	18.28	25.67	29.11	29.02	26.50	27.24	26.80	27.24	29.91	2.8%
Yemen	0.18	0.24	0.41	0.47	0.52	0.60	0.73	0.84	0.89	0.91	0.92	75.8%
<b>Middle East</b>	<b>1.87</b>	<b>2.46</b>	<b>3.71</b>	<b>4.37</b>	<b>4.47</b>	<b>5.41</b>	<b>5.88</b>	<b>6.50</b>	<b>6.67</b>	<b>6.91</b>	<b>7.19</b>	<b>60.7%</b>
Albania	1.78	1.85	2.84	2.43	1.90	0.59	1.03	1.12	1.45	1.30	1.27	-33.4%
Bosnia and Herzegovina *	..	..	..	..	5.49	1.01	3.70	3.97	4.14	4.56	4.77	-13.1%
Bulgaria	7.36	8.28	9.46	9.07	8.60	6.36	5.21	5.82	5.92	6.13	6.57	-23.5%
Croatia *	..	..	..	..	4.51	3.39	3.92	4.59	4.66	4.67	4.96	10.0%
Cyprus	2.86	3.39	5.07	5.13	6.62	8.03	9.04	9.28	9.23	9.14	9.34	41.1%
Gibraltar	3.51	3.37	3.99	4.17	6.13	11.97	13.94	15.26	15.59	16.24	16.79	173.7%
FYR of Macedonia *	..	..	..	..	4.46	4.17	4.20	4.17	4.34	4.32	4.48	0.4%
Malta	2.00	1.97	2.71	3.34	6.35	6.22	5.40	6.41	6.68	6.33	6.65	4.8%
Romania	5.61	6.62	7.93	7.63	7.20	5.16	3.84	4.22	4.24	4.39	4.27	-40.7%
Serbia *	..	..	..	..	6.19	4.05	5.20	6.82	6.08	6.48	6.73	8.8%
Slovenia *	..	..	..	..	6.57	6.95	7.02	7.70	7.80	7.92	7.89	20.0%
Former Yugoslavia *	3.16	3.63	4.05	5.48	..	..	..	..	..	..	..	..
<b>Non-OECD Europe</b>	<b>4.74</b>	<b>5.46</b>	<b>6.38</b>	<b>6.71</b>	<b>6.48</b>	<b>4.57</b>	<b>4.29</b>	<b>4.89</b>	<b>4.83</b>	<b>5.00</b>	<b>5.10</b>	<b>-21.3%</b>

\* Data for individual countries of the Former Yugoslavia are not available prior to 1990.

CO<sub>2</sub> emissions / populationtonnes CO<sub>2</sub> / capita

	1971	1975	1980	1985	1990	1995	2000	2004	2005	2006	2007	% change 90-07
Armenia	..	..	..	..	5.77	1.06	1.10	1.14	1.37	1.38	1.60	-72.4%
Azerbaijan	..	..	..	..	9.08	4.10	3.65	3.62	3.81	3.56	3.22	-64.6%
Belarus	..	..	..	..	11.40	5.93	5.61	6.14	6.22	6.58	6.46	-43.3%
Estonia	..	..	..	..	23.06	11.14	10.57	12.26	12.00	11.36	13.45	-41.7%
Georgia	..	..	..	..	5.25	1.40	0.93	0.73	0.87	0.99	1.17	-77.8%
Kazakhstan	..	..	..	..	14.46	10.56	8.29	10.29	10.91	12.13	12.30	-14.9%
Kyrgyzstan	..	..	..	..	5.14	1.01	0.93	1.11	1.05	1.01	1.09	-78.8%
Latvia	..	..	..	..	6.87	3.49	2.87	3.23	3.29	3.50	3.66	-46.7%
Lithuania	..	..	..	..	8.95	3.90	3.20	3.70	3.96	4.02	4.28	-52.2%
Republic of Moldova	..	..	..	..	6.88	2.49	1.56	1.91	2.03	1.94	1.98	-71.2%
Russian Federation	..	..	..	..	14.70	10.69	10.35	10.60	10.70	11.14	11.21	-23.8%
Tajikistan	..	..	..	..	2.20	0.82	0.68	0.84	0.87	0.94	1.02	-53.5%
Turkmenistan	..	..	..	..	12.71	8.21	8.04	8.24	8.56	8.43	9.13	-28.2%
Ukraine	..	..	..	..	13.26	7.63	5.94	6.59	6.50	6.63	6.77	-48.9%
Uzbekistan	..	..	..	..	5.84	4.46	4.72	4.47	4.20	4.26	4.22	-27.8%
<b>Former Soviet Union *</b>	<b>8.15</b>	<b>10.09</b>	<b>11.49</b>	<b>11.51</b>	<b>12.64</b>	<b>8.39</b>	<b>7.72</b>	<b>8.06</b>	<b>8.12</b>	<b>8.43</b>	<b>8.50</b>	<b>-32.7%</b>
Argentina	3.41	3.30	3.41	2.92	3.08	3.39	3.77	3.81	3.85	4.07	4.12	33.6%
Bolivia	0.50	0.67	0.81	0.75	0.82	1.09	0.92	1.04	1.17	1.08	1.29	58.5%
Brazil	0.92	1.26	1.46	1.23	1.29	1.48	1.74	1.74	1.75	1.76	1.81	40.3%
Chile	2.14	1.63	1.90	1.61	2.48	2.87	3.63	3.88	3.90	4.03	4.28	72.6%
Colombia	1.13	1.12	1.19	1.21	1.29	1.52	1.41	1.27	1.27	1.25	1.21	-5.9%
Costa Rica	0.68	0.85	0.93	0.74	0.85	1.28	1.16	1.29	1.25	1.35	1.47	73.4%
Cuba	2.08	2.70	2.90	3.03	2.60	2.02	2.22	2.33	2.24	2.18	2.32	-10.6%
Dominican Republic	0.73	0.97	1.05	0.93	1.05	1.42	1.99	1.92	1.84	1.94	1.98	88.8%
Ecuador	0.60	0.90	1.33	1.33	1.28	1.43	1.51	1.72	1.80	1.93	2.02	57.6%
El Salvador	0.35	0.48	0.37	0.35	0.42	0.83	0.85	0.88	0.89	0.86	0.91	114.5%
Guatemala	0.41	0.49	0.60	0.41	0.37	0.60	0.79	0.84	0.87	0.85	0.88	136.5%
Haiti	0.08	0.08	0.11	0.12	0.13	0.12	0.16	0.21	0.21	0.21	0.24	81.3%
Honduras	0.40	0.42	0.46	0.39	0.44	0.63	0.72	1.00	1.02	0.92	1.15	163.9%
Jamaica	2.91	3.68	3.05	2.01	3.01	3.37	3.78	4.04	3.98	4.41	4.74	57.6%
Netherlands Antilles	89.64	61.14	50.26	25.01	14.38	14.79	22.30	22.05	22.56	22.01	23.57	63.9%
Nicaragua	0.60	0.65	0.55	0.48	0.44	0.53	0.69	0.76	0.75	0.72	0.79	77.5%
Panama	1.64	1.88	1.49	1.21	1.02	1.54	1.59	1.72	1.75	1.98	1.94	90.3%
Paraguay	0.24	0.26	0.44	0.39	0.45	0.72	0.61	0.64	0.58	0.59	0.60	33.1%
Peru	1.15	1.22	1.19	0.93	0.88	0.99	1.03	1.07	1.04	1.01	1.09	23.1%
Trinidad and Tobago	6.26	5.76	7.33	8.15	9.29	9.66	13.79	16.79	17.57	20.28	21.85	135.2%
Uruguay	1.85	1.93	1.91	1.04	1.21	1.41	1.61	1.62	1.59	1.85	1.73	42.9%
Venezuela	4.70	4.93	6.12	5.45	5.32	5.37	5.21	4.90	5.14	5.32	5.24	-1.6%
Other Latin America	3.00	4.06	3.72	3.20	4.16	4.22	4.49	4.83	4.92	4.95	5.26	26.4%
<b>Latin America</b>	<b>1.54</b>	<b>1.70</b>	<b>1.88</b>	<b>1.63</b>	<b>1.70</b>	<b>1.88</b>	<b>2.07</b>	<b>2.08</b>	<b>2.10</b>	<b>2.15</b>	<b>2.21</b>	<b>30.1%</b>
Bangladesh	0.04	0.06	0.08	0.09	0.12	0.16	0.18	0.22	0.24	0.24	0.25	110.3%
Brunei Darussalam	2.93	8.74	13.64	13.16	13.08	15.94	13.96	14.18	13.62	15.10	14.97	14.4%
Cambodia	..	..	..	..	..	0.12	0.19	0.26	0.27	0.29	0.31	..
Chinese Taipei	2.08	2.63	4.04	3.71	5.65	7.41	9.89	11.28	11.54	11.85	12.08	113.7%
India	0.36	0.39	0.43	0.55	0.69	0.84	0.96	1.03	1.05	1.12	1.18	69.9%
Indonesia	0.21	0.29	0.47	0.52	0.79	1.00	1.28	1.45	1.50	1.54	1.67	112.5%
DPR of Korea	4.61	4.77	6.12	6.75	5.66	3.45	3.00	3.02	3.14	3.18	2.62	-53.7%
Malaysia	1.14	1.31	1.76	2.16	2.74	3.94	4.99	5.55	6.21	6.33	6.68	143.4%
Mongolia	..	..	..	6.08	6.01	4.42	3.68	3.66	3.76	4.12	4.32	-28.1%
Myanmar	0.17	0.13	0.15	0.16	0.10	0.16	0.18	0.22	0.28	0.25	0.25	155.6%
Nepal	0.02	0.02	0.03	0.03	0.05	0.08	0.13	0.10	0.11	0.11	0.11	146.4%
Pakistan	0.27	0.29	0.32	0.42	0.54	0.65	0.71	0.76	0.76	0.80	0.85	56.6%
Philippines	0.61	0.69	0.69	0.51	0.65	0.86	0.92	0.88	0.85	0.79	0.82	26.4%
Singapore	2.82	3.71	5.25	5.94	9.45	10.79	9.47	9.44	10.14	9.83	9.80	3.7%
Sri Lanka	0.22	0.20	0.25	0.23	0.22	0.30	0.55	0.64	0.68	0.60	0.64	192.5%
Thailand	0.45	0.52	0.73	0.80	1.45	2.46	2.63	3.41	3.40	3.42	3.54	144.3%
Vietnam	0.37	0.35	0.28	0.29	0.26	0.38	0.57	0.98	0.98	1.02	1.10	321.0%
Other Asia	0.29	0.33	0.50	0.30	0.28	0.26	0.27	0.33	0.32	0.31	0.34	24.0%
<b>Asia</b>	<b>0.41</b>	<b>0.46</b>	<b>0.55</b>	<b>0.64</b>	<b>0.80</b>	<b>0.96</b>	<b>1.10</b>	<b>1.22</b>	<b>1.25</b>	<b>1.29</b>	<b>1.35</b>	<b>69.5%</b>
People's Rep. of China	0.95	1.15	1.43	1.62	1.95	2.48	2.41	3.51	3.88	4.27	4.57	134.5%
Hong Kong, China	2.27	2.42	2.91	4.09	5.79	5.83	5.96	5.94	5.98	6.08	6.26	8.1%
<b>China</b>	<b>0.96</b>	<b>1.15</b>	<b>1.44</b>	<b>1.63</b>	<b>1.97</b>	<b>2.50</b>	<b>2.42</b>	<b>3.52</b>	<b>3.89</b>	<b>4.28</b>	<b>4.58</b>	<b>132.6%</b>

\* Data for individual countries of the Former Soviet Union are not available prior to 1990.

## Per capita emissions by sector\* in 2007

kg CO<sub>2</sub> / capita

	Total CO <sub>2</sub> emissions from fuel combustion	Main activity producer electricity and heat	Unallocated auto-producers	Other energy industries**	Manuf. industries and construction	Transport	of which: road	Other sectors
<b>World</b>	<b>4 382</b>	<b>1 650</b>	<b>162</b>	<b>217</b>	<b>865</b>	<b>1 004</b>	<b>731</b>	<b>485</b>
<i>Annex I Parties</i>	11 215	4 123	567	549	1 684	2 846	2 415	1 446
<i>Annex II Parties</i>	12 640	4 644	356	642	1 794	3 559	3 094	1 644
<i>North America</i>	18 929	7 527	209	1 012	2 207	5 886	4 939	2 087
<i>Europe</i>	8 098	2 376	395	412	1 307	2 160	2 010	1 448
<i>Pacific</i>	10 897	4 338	575	441	2 177	2 170	1 928	1 196
<i>Annex I EIT</i>	8 882	3 309	1 288	384	1 565	1 284	870	1 051
<i>Non-Annex I Parties</i>	2 563	1 060	66	138	670	373	330	257
<i>Annex I Kyoto Parties</i>	9 215	3 088	723	471	1 611	1 983	1 690	1 339
<b>Non-OECD Total</b>	<b>2 754</b>	<b>1 130</b>	<b>122</b>	<b>138</b>	<b>704</b>	<b>381</b>	<b>319</b>	<b>279</b>
<b>OECD Total</b>	<b>10 969</b>	<b>4 029</b>	<b>346</b>	<b>576</b>	<b>1 599</b>	<b>2 990</b>	<b>2 618</b>	<b>1 428</b>
Canada	17 375	3 839	197	2 036	3 078	4 997	3 859	3 227
Mexico	4 144	1 101	232	490	593	1 397	1 323	331
United States	19 098	7 930	211	900	2 112	5 983	5 057	1 963
<b>OECD N. America</b>	<b>15 384</b>	<b>5 986</b>	<b>215</b>	<b>887</b>	<b>1 820</b>	<b>4 810</b>	<b>4 072</b>	<b>1 666</b>
Australia	18 749	10 568	361	1 015	2 265	3 703	3 181	838
Japan	9 677	3 395	591	350	2 192	1 874	1 680	1 277
Korea	10 086	3 717	801	631	1 857	1 826	1 671	1 253
New Zealand	8 477	1 663	1 199	304	1 275	3 487	3 170	548
<b>OECD Pacific</b>	<b>10 702</b>	<b>4 189</b>	<b>630</b>	<b>486</b>	<b>2 100</b>	<b>2 088</b>	<b>1 866</b>	<b>1 210</b>
Austria	8 378	1 252	660	850	1 511	2 876	2 725	1 228
Belgium	9 975	2 128	148	460	2 572	2 355	2 284	2 311
Czech Republic	11 832	5 868	698	336	2 046	1 790	1 714	1 094
Denmark	9 243	4 002	224	462	982	2 543	2 382	1 030
Finland	12 185	5 201	682	473	2 307	2 569	2 330	953
France	5 809	489	375	264	1 091	2 054	1 958	1 537
Germany	9 706	3 764	632	304	1 425	1 807	1 712	1 773
Greece	8 741	4 179	52	385	968	2 036	1 732	1 121
Hungary	5 363	1 892	21	147	724	1 286	1 258	1 292
Iceland	7 526	64	-	-	2 551	3 005	2 748	1 907
Ireland	10 132	3 080	143	140	1 188	3 267	3 171	2 314
Italy	7 376	2 111	275	312	1 335	2 041	1 963	1 302
Luxembourg	22 347	2 179	433	-	3 476	13 499	13 421	2 760
Netherlands	11 125	3 021	492	1 038	2 356	2 130	2 061	2 088
Norway	7 848	194	28	2 283	1 515	3 098	2 292	729
Poland	7 994	4 111	236	233	1 041	1 107	1 067	1 266
Portugal	5 203	1 553	282	244	882	1 765	1 703	476
Slovak Republic	6 818	1 403	285	1 016	1 795	1 212	1 013	1 107
Spain	7 681	2 374	239	423	1 227	2 573	2 242	846
Sweden	5 050	783	84	239	1 168	2 466	2 299	311
Switzerland	5 618	4	215	130	833	2 239	2 203	2 197
Turkey	3 586	1 170	147	101	844	649	563	674
United Kingdom	8 604	2 841	501	532	1 000	2 154	1 961	1 577
<b>OECD Europe</b>	<b>7 484</b>	<b>2 382</b>	<b>348</b>	<b>357</b>	<b>1 233</b>	<b>1 848</b>	<b>1 717</b>	<b>1 317</b>
<i>European Union - 27</i>	7 917	2 623	367	372	1 276	1 941	1 814	1 337

\* This table shows per capita emissions for the same sectors which are present throughout this publication. In particular, the emissions from electricity and heat production are shown separately and not reallocated as in the table on pages 95-97.

\*\* Includes emissions from own use in petroleum refining, the manufacture of solid fuels, coal mining, oil and gas extraction and other energy-producing industries.

## Per capita emissions by sector in 2007

kg CO<sub>2</sub> / capita

	Total CO <sub>2</sub> emissions from fuel combustion	Main activity producer electricity and heat	Unallocated auto- producers	Other energy industries	Manuf. industries and construction	Transport	of which: road	Other sectors
<b>Non-OECD Total</b>	<b>2 754</b>	<b>1 130</b>	<b>122</b>	<b>138</b>	<b>704</b>	<b>381</b>	<b>319</b>	<b>279</b>
Algeria	2 532	644	12	319	350	585	505	622
Angola	626	31	3	14	168	251	209	159
Benin	347	8	2	-	18	211	211	108
Botswana	2 528	848	254	-	475	854	832	97
Cameroon	251	22	71	10	13	113	108	21
Congo	335	11	-	-	7	299	227	18
Dem. Rep. of Congo	39	-	-	-	13	9	9	17
Côte d'Ivoire	262	107	-	8	23	67	56	57
Egypt	2 235	747	-	174	578	478	437	258
Eritrea	105	38	2	-	5	25	25	36
Ethiopia	75	2	-	-	19	44	44	10
Gabon	1 922	417	201	20	701	377	377	205
Ghana	383	107	-	5	44	162	151	65
Kenya	304	55	-	16	43	149	86	40
Libyan Arab Jamahiriya	7 007	3 530	-	432	1 032	1 606	1 605	407
Morocco	1 323	459	69	12	202	319	319	263
Mozambique	92	-	-	-	18	65	59	9
Namibia	1 536	81	-	-	125	914	819	415
Nigeria	347	64	-	76	33	144	144	30
Senegal	342	104	17	2	50	139	123	30
South Africa	7 266	4 435	188	77	994	973	899	599
Sudan	282	61	-	13	26	162	161	21
United Rep. of Tanzania	134	22	3	-	18	75	75	15
Togo	136	11	1	-	7	97	97	20
Tunisia	1 995	714	83	21	331	464	452	383
Zambia	199	2	3	6	85	86	78	16
Zimbabwe	695	393	-	4	112	87	81	100
Other Africa	145	39	11	-	20	49	48	27
<b>Africa</b>	<b>920</b>	<b>385</b>	<b>18</b>	<b>46</b>	<b>150</b>	<b>209</b>	<b>194</b>	<b>113</b>
Bahrain	28 233	12 264	-	5 445	6 570	3 698	3 698	256
Islamic Rep. of Iran	6 560	1 439	99	347	1 244	1 463	1 463	1 968
Iraq	3 325	979	-	132	776	1 065	1 065	374
Israel	9 187	5 690	38	434	255	1 484	1 484	1 286
Jordan	3 353	1 276	60	119	513	877	873	507
Kuwait	25 094	11 806	-	5 362	4 150	3 602	3 602	174
Lebanon	2 770	1 492	-	-	266	724	724	289
Oman	13 789	4 783	-	2 439	4 195	1 764	1 764	607
Qatar	58 008	3 598	8 387	19 451	19 331	7 011	7 011	230
Saudi Arabia	14 792	4 774	979	1 744	3 417	3 719	3 641	159
Syrian Arab Republic	2 701	1 124	53	129	576	628	609	192
United Arab Emirates	29 915	14 491	-	458	8 739	5 559	5 559	668
Yemen	918	166	17	133	102	241	241	259
<b>Middle East</b>	<b>7 189</b>	<b>2 300</b>	<b>206</b>	<b>635</b>	<b>1 517</b>	<b>1 588</b>	<b>1 576</b>	<b>943</b>
Albania	1 265	8	31	53	237	658	590	278
Bosnia and Herzegovina	4 769	3 133	72	37	324	702	690	501
Bulgaria	6 574	3 682	190	236	1 169	1 031	924	266
Croatia	4 964	1 258	71	485	981	1 425	1 326	745
Cyprus	9 341	4 634	74	-	1 351	2 473	2 469	808
Gibraltar	16 785	4 267	-	-	2 233	10 285	10 285	-
FYR of Macedonia	4 478	2 866	117	3	679	574	561	239
Malta	6 652	5 184	-	-	-	1 312	1 312	155
Romania	4 266	1 708	169	291	970	613	556	514
Serbia	6 730	3 883	383	1	1 085	743	738	635
Slovenia	7 888	3 178	49	3	1 276	2 511	2 491	870
<b>Non-OECD Europe</b>	<b>5 099</b>	<b>2 426</b>	<b>169</b>	<b>198</b>	<b>925</b>	<b>876</b>	<b>823</b>	<b>504</b>

## Per capita emissions by sector in 2007

kg CO<sub>2</sub> / capita

	Total CO <sub>2</sub> emissions from fuel combustion	Main activity producer electricity and heat	Unallocated auto-producers	Other energy industries	Manuf. industries and construction	Transport	of which: road	Other sectors
Armenia	1 595	358	-	-	577	170	170	490
Azerbaijan	3 218	1 398	109	193	247	423	389	847
Belarus	6 462	2 603	634	162	1 387	633	437	1 043
Estonia	13 449	9 815	148	149	1 100	1 796	1 667	441
Georgia	1 166	324	-	-	138	451	438	253
Kazakhstan	12 302	5 731	-	677	2 516	773	677	2 605
Kyrgyzstan	1 090	297	-	-	304	227	146	261
Latvia	3 663	861	57	-	525	1 649	1 523	571
Lithuania	4 278	906	31	486	992	1 486	1 384	377
Republic of Moldova	1 978	943	75	-	157	283	225	520
Russian Federation	11 207	3 777	2 418	535	1 705	1 615	848	1 158
Tajikistan	1 024	88	-	-	-	644	644	292
Turkmenistan	9 130	2 704	-	1 314	-	514	514	4 598
Ukraine	6 769	2 322	421	176	2 172	689	508	989
Uzbekistan	4 220	1 323	3	162	771	316	166	1 645
<b>Former Soviet Union</b>	<b>8 498</b>	<b>2 974</b>	<b>1 303</b>	<b>389</b>	<b>1 508</b>	<b>1 106</b>	<b>661</b>	<b>1 218</b>
Argentina	4 115	819	206	249	977	1 057	986	807
Bolivia	1 294	289	10	177	131	473	429	214
Brazil	1 812	100	71	135	553	764	690	188
Chile	4 281	1 317	33	201	946	1 491	1 009	292
Colombia	1 213	131	22	110	347	456	438	147
Costa Rica	1 470	117	28	17	262	959	957	86
Cuba	2 324	1 284	45	14	666	75	74	240
Dominican Republic	1 977	694	252	14	147	595	474	275
Ecuador	2 024	296	126	72	326	952	854	253
El Salvador	907	236	8	7	169	400	400	88
Guatemala	876	225	12	-	149	446	446	45
Haiti	241	25	-	-	55	137	71	24
Honduras	1 152	374	-	-	265	447	447	66
Jamaica	4 740	1 062	1 227	2	137	1 104	569	1 207
Netherlands Antilles	23 573	2 386	2 483	7 977	3 092	6 677	6 677	959
Nicaragua	785	301	-	13	117	290	274	64
Panama	1 942	612	2	-	315	872	390	141
Paraguay	604	-	-	-	13	560	553	31
Peru	1 087	178	22	64	330	385	380	107
Trinidad and Tobago	21 851	4 232	19	3 055	12 737	1 609	1 609	200
Uruguay	1 725	295	1	83	248	759	754	339
Venezuela	5 235	826	47	1 069	1 434	1 619	1 608	241
Other Latin America	5 260	1 865	185	6	341	1 505	1 457	1 358
<b>Latin America</b>	<b>2 206</b>	<b>355</b>	<b>76</b>	<b>183</b>	<b>582</b>	<b>766</b>	<b>694</b>	<b>245</b>
Bangladesh	252	103	-	2	66	31	23	51
Brunei Darussalam	14 973	6 678	651	4 010	483	2 866	2 866	285
Cambodia	307	108	-	-	11	81	80	107
Chinese Taipei	12 082	5 149	1 707	784	2 430	1 571	1 508	440
India	12 082	5 149	1 707	784	2 430	1 571	1 508	440
Indonesia	1 179	590	73	40	257	106	98	112
DPR of Korea	1 672	435	2	155	602	318	291	160
Malaysia	2 620	424	-	2	1 643	50	50	502
Mongolia	6 681	2 253	110	862	1 746	1 507	1 487	203
Myanmar	254	46	-	12	58	80	78	57
Nepal	114	-	-	-	38	31	31	44
Pakistan	852	255	-	12	292	200	194	93
Philippines	817	304	-	52	118	295	272	47
Singapore	9 799	4 792	-	2 254	1 125	1 581	1 581	46
Sri Lanka	643	196	-	8	66	322	290	52
Thailand	3 537	1 094	110	232	1 000	844	837	257
Vietnam	1 099	296	42	-	353	274	255	134
Other Asia	343	90	41	-	84	83	64	46
<b>Asia</b>	<b>1 349</b>	<b>546</b>	<b>64</b>	<b>72</b>	<b>347</b>	<b>202</b>	<b>191</b>	<b>119</b>
People's Rep. of China	4 567	2 254	41	168	1 430	309	209	365
Hong Kong, China	6 263	4 357	-	-	915	631	631	360
<b>China</b>	<b>4 575</b>	<b>2 265</b>	<b>41</b>	<b>168</b>	<b>1 427</b>	<b>310</b>	<b>211</b>	<b>365</b>



## Per capita emissions with electricity and heat allocated to consuming sectors\* in 2007

kg CO<sub>2</sub> / capita

	Total CO <sub>2</sub> emissions from fuel combustion	Other energy industries**	Manufacturing industries and construction	Transport	of which: road	Other sectors
<b>World</b>	<b>4 382</b>	<b>301</b>	<b>1 598</b>	<b>1 027</b>	<b>731</b>	<b>1 455</b>
<i>Annex I Parties</i>	11 215	795	3 243	2 924	2 415	4 253
<i>Annex II Parties</i>	12 640	787	3 376	3 615	3 094	4 862
<i>North America</i>	18 929	1 261	4 247	5 907	4 939	7 514
<i>Europe</i>	8 098	490	2 356	2 217	2 010	3 036
<i>Pacific</i>	10 897	539	3 876	2 253	1 928	4 228
<i>Annex I EIT</i>	8 882	928	3 256	1 434	870	3 265
<i>Non-Annex I Parties</i>	2 563	180	1 256	382	330	745
<i>Annex I Kyoto Parties</i>	9 215	716	3 019	2 075	1 690	3 404
<b>Non-OECD Total</b>	<b>2 754</b>	<b>218</b>	<b>1 301</b>	<b>400</b>	<b>319</b>	<b>835</b>
<b>OECD Total</b>	<b>10 969</b>	<b>707</b>	<b>3 059</b>	<b>3 038</b>	<b>2 618</b>	<b>4 164</b>
Canada	17 375	2 261	4 631	5 027	3 859	5 456
Mexico	4 144	532	1 348	1 405	1 323	859
United States	19 098	1 136	4 124	6 000	5 057	7 838
<b>OECD N. America</b>	<b>15 384</b>	<b>1 086</b>	<b>3 535</b>	<b>4 827</b>	<b>4 072</b>	<b>5 935</b>
Australia	18 749	1 544	6 916	3 832	3 181	6 457
Japan	9 677	407	3 497	1 947	1 680	3 827
Korea	10 086	646	4 241	1 851	1 671	3 347
New Zealand	8 477	337	2 338	3 514	3 170	2 288
<b>OECD Pacific</b>	<b>10 702</b>	<b>562</b>	<b>3 991</b>	<b>2 155</b>	<b>1 866</b>	<b>3 994</b>
Austria	8 378	883	2 273	2 957	2 725	2 266
Belgium	9 975	596	3 647	2 396	2 284	3 336
Czech Republic	11 832	822	4 460	1 961	1 714	4 589
Denmark	9 243	526	1 801	2 567	2 382	4 348
Finland	12 185	527	5 279	2 600	2 330	3 780
France	5 809	303	1 323	2 076	1 958	2 107
Germany	9 706	398	3 375	1 904	1 712	4 029
Greece	8 741	551	2 087	2 054	1 732	4 049
Hungary	5 363	346	1 215	1 330	1 258	2 471
Iceland	7 526	1	2 593	3 005	2 748	1 927
Ireland	10 132	163	2 237	3 274	3 171	4 459
Italy	7 376	373	2 264	2 107	1 963	2 632
Luxembourg	22 347	-	5 128	13 541	13 421	3 678
Netherlands	11 125	1 220	3 783	2 169	2 061	3 953
Norway	7 848	2 290	1 610	3 101	2 292	847
Poland	7 994	676	2 420	1 181	1 067	3 716
Portugal	5 203	266	1 627	1 782	1 703	1 528
Slovak Republic	6 818	1 107	2 416	1 240	1 013	2 055
Spain	7 681	504	2 192	2 612	2 242	2 374
Sweden	5 050	251	1 467	2 480	2 299	852
Switzerland	5 618	130	906	2 250	2 203	2 332
Turkey	3 586	119	1 502	656	563	1 308
United Kingdom	8 604	617	2 153	2 230	1 961	3 604
<b>OECD Europe</b>	<b>7 484</b>	<b>449</b>	<b>2 266</b>	<b>1 902</b>	<b>1 717</b>	<b>2 867</b>
<i>European Union - 27</i>	7 917	484	2 378	2 001	1 814	3 053

\* Emissions from electricity and heat generation have been allocated to final consuming sectors in proportion to the electricity and heat consumed. The detailed unallocated emissions are shown in the table on pages 92-94.

\*\* Includes emissions from own use in petroleum refining, the manufacture of solid fuels, coal mining, oil and gas extraction and other energy-producing industries.

## Per capita emissions with electricity and heat allocated to consuming sectors in 2007

<i>kg CO<sub>2</sub> / capita</i>	Total CO <sub>2</sub> emissions from fuel combustion	Other energy industries	Manufacturing industries and construction	Transport	<i>of which: road</i>	Other sectors
<b>Non-OECD Total</b>	<b>2 754</b>	<b>218</b>	<b>1 301</b>	<b>400</b>	<b>319</b>	<b>835</b>
Algeria	2 532	332	574	597	505	1 029
Angola	626	14	179	251	209	183
Benin	347	-	20	211	211	116
Botswana	2 528	-	1 048	854	832	626
Cameroon	251	10	76	113	108	52
Congo	335	-	13	299	227	23
Dem. Rep. of Congo	39	-	13	9	9	17
Côte d'Ivoire	262	8	51	67	56	137
Egypt	2 235	174	838	478	437	746
Eritrea	105	-	16	25	25	64
Ethiopia	75	-	20	44	44	11
Gabon	1 922	34	865	379	377	645
Ghana	383	5	96	162	151	121
Kenya	304	16	77	149	86	61
Libyan Arab Jamahiriya	7 007	432	1 839	1 606	1 605	3 130
Morocco	1 323	27	413	327	319	556
Mozambique	92	-	18	65	59	9
Namibia	1 536	-	141	914	819	481
Nigeria	347	76	47	144	144	80
Senegal	342	2	87	139	123	115
South Africa	7 266	318	3 465	1 048	899	2 436
Sudan	282	13	36	162	161	71
United Rep. of Tanzania	134	1	30	75	75	29
Togo	136	-	11	97	97	28
Tunisia	1 995	21	698	475	452	802
Zambia	199	6	89	86	78	17
Zimbabwe	695	4	288	87	81	317
Other Africa	145	1	31	49	48	64
<b>Africa</b>	<b>920</b>	<b>59</b>	<b>326</b>	<b>213</b>	<b>194</b>	<b>323</b>
Bahrain	28 233	5 445	8 426	3 698	3 698	10 664
Islamic Rep. of Iran	6 560	365	1 753	1 465	1 463	2 977
Iraq	3 325	132	776	1 065	1 065	1 353
Israel	9 187	434	1 769	1 484	1 484	5 500
Jordan	3 353	132	861	877	873	1 483
Kuwait	25 094	7 183	4 150	3 602	3 602	10 160
Lebanon	2 770	-	657	724	724	1 389
Oman	13 789	2 439	4 691	1 764	1 764	4 895
Qatar	58 008	19 451	23 426	7 011	7 011	8 119
Saudi Arabia	14 792	2 195	4 003	3 719	3 641	4 875
Syrian Arab Republic	2 701	129	1 031	628	609	913
United Arab Emirates	29 915	458	10 179	5 559	5 559	13 720
Yemen	918	133	102	241	241	442
<b>Middle East</b>	<b>7 189</b>	<b>724</b>	<b>1 983</b>	<b>1 589</b>	<b>1 576</b>	<b>2 894</b>
Albania	1 265	53	244	658	590	310
Bosnia and Herzegovina	4 769	37	1 187	702	690	2 843
Bulgaria	6 574	598	2 492	1 069	924	2 416
Croatia	4 964	518	1 303	1 448	1 326	1 695
Cyprus	9 341	6	1 998	2 510	2 469	4 826
Gibraltar	16 785	-	2 233	10 285	10 285	4 267
FYR of Macedonia	4 478	120	1 767	585	561	2 006
Malta	6 652	-	1 484	1 312	1 312	3 855
Romania	4 266	502	1 682	653	556	1 430
Serbia	6 730	95	2 507	771	738	3 357
Slovenia	7 888	40	2 987	2 552	2 491	2 310
<b>Non-OECD Europe</b>	<b>5 099</b>	<b>364</b>	<b>1 828</b>	<b>910</b>	<b>823</b>	<b>1 997</b>

## Per capita emissions with electricity and heat allocated to consuming sectors in 2007

kg CO<sub>2</sub> / capita

	Total CO <sub>2</sub> emissions from fuel combustion	Other energy industries	Manufacturing industries and construction	Transport	of which: road	Other sectors
Armenia	1 595	-	678	178	170	739
Azerbaijan	3 218	386	795	477	389	1 560
Belarus	6 462	348	2 611	693	437	2 810
Estonia	13 449	516	3 377	1 854	1 667	7 703
Georgia	1 166	46	176	466	438	477
Kazakhstan	12 302	860	5 447	899	677	5 096
Kyrgyzstan	1 090	9	384	230	146	467
Latvia	3 663	15	660	1 659	1 523	1 329
Lithuania	4 278	522	1 240	1 490	1 384	1 026
Republic of Moldova	1 978	55	387	292	225	1 243
Russian Federation	11 207	1 378	3 947	1 838	848	4 044
Tajikistan	1 024	-	37	644	644	343
Turkmenistan	9 130	1 661	689	563	514	6 217
Ukraine	6 769	317	3 561	797	508	2 094
Uzbekistan	4 220	188	1 057	341	166	2 634
<b>Former Soviet Union</b>	<b>8 498</b>	<b>883</b>	<b>3 113</b>	<b>1 250</b>	<b>661</b>	<b>3 252</b>
Argentina	4 115	249	1 446	1 063	986	1 356
Bolivia	1 294	177	243	473	429	402
Brazil	1 812	135	636	765	690	275
Chile	4 281	216	1 848	1 502	1 009	715
Colombia	1 213	110	397	456	438	249
Costa Rica	1 470	17	297	959	957	197
Cuba	2 324	14	1 128	85	74	1 097
Dominican Republic	1 977	14	528	595	474	841
Ecuador	2 024	72	409	952	854	592
El Salvador	907	7	296	400	400	205
Guatemala	876	-	245	446	446	185
Haiti	241	-	66	137	71	38
Honduras	1 152	-	363	447	447	342
Jamaica	4 740	2	1 815	1 104	569	1 818
Netherlands Antilles	23 573	7 977	5 771	6 677	6 677	3 148
Nicaragua	785	13	205	290	274	277
Panama	1 942	-	357	872	390	712
Paraguay	604	-	13	560	553	31
Peru	1 087	64	440	385	380	198
Trinidad and Tobago	21 851	3 055	15 241	1 609	1 609	1 946
Uruguay	1 725	83	328	759	754	555
Venezuela	5 235	1 091	1 814	1 622	1 608	708
Other Latin America	5 260	6	1 035	1 505	1 457	2 714
<b>Latin America</b>	<b>2 206</b>	<b>184</b>	<b>782</b>	<b>768</b>	<b>694</b>	<b>472</b>
Bangladesh	252	2	110	31	23	110
Brunei Darussalam	14 973	4 010	1 793	2 866	2 866	6 304
Cambodia	307	-	34	81	80	192
Chinese Taipei	12 082	924	6 200	1 597	1 508	3 361
India	1 179	40	558	119	98	461
Indonesia	1 672	155	767	318	291	431
DPR of Korea	2 620	2	1 855	50	50	714
Malaysia	6 681	862	2 849	1 508	1 487	1 461
Mongolia	4 318	15	1 562	631	430	2 109
Myanmar	254	12	78	80	78	84
Nepal	114	-	38	31	31	44
Pakistan	852	12	364	200	194	276
Philippines	817	52	221	296	272	248
Singapore	9 799	2 541	2 839	1 633	1 581	2 787
Sri Lanka	643	8	136	322	290	177
Thailand	3 537	232	1 553	845	837	906
Vietnam	1 099	-	531	277	255	292
Other Asia	343	8	136	83	64	116
<b>Asia</b>	<b>1 349</b>	<b>75</b>	<b>620</b>	<b>208</b>	<b>191</b>	<b>446</b>
People's Rep. of China	4 567	318	2 921	327	209	1 001
Hong Kong, China	6 263	-	1 304	631	631	4 329
<b>China</b>	<b>4 575</b>	<b>316</b>	<b>2 910</b>	<b>328</b>	<b>211</b>	<b>1 021</b>

## Electricity and heat output \*

terawatt hours

	1990	1995	1999	2000	2001	2002	2003	2004	2005	2006	2007	% change 90-07
<b>World</b>	..	17 055.9	18 005.1	18 753.4	18 898.6	19 515.2	20 264.5	21 079.5	22 015.5	22 877.8	23 631.5	..
<i>Annex I Parties</i>	..	12 728.0	12 799.5	13 132.1	13 022.7	13 251.2	13 478.7	13 705.6	14 005.1	14 225.9	14 269.3	..
<i>Annex II Parties</i>	..	8 183.4	8 868.5	9 154.0	9 008.3	9 280.6	9 455.0	9 679.3	9 939.6	10 057.5	10 177.1	..
<i>North America</i>	..	4 241.0	4 567.8	4 731.2	4 523.2	4 740.9	4 757.3	4 824.6	4 975.2	5 051.2	5 125.8	..
<i>Europe</i>	2 547.1	2 769.2	3 025.5	3 121.0	3 192.9	3 217.4	3 384.4	3 503.0	3 580.4	3 611.5	3 622.3	42.2%
<i>Pacific</i>	1 025.1	1 173.1	1 275.2	1 301.8	1 292.2	1 322.3	1 313.2	1 351.7	1 384.1	1 394.9	1 429.1	39.4%
<i>Annex I EIT</i>	..	4 458.4	3 814.5	3 848.7	3 888.2	3 836.4	3 878.9	3 870.4	3 893.6	3 980.9	3 888.6	..
<i>Non-Annex I Parties</i>	..	4 327.8	5 205.7	5 621.3	5 875.9	6 263.9	6 785.8	7 373.9	8 010.4	8 651.9	9 362.1	..
<i>Annex I Kyoto Parties</i>	..	8 864.2	8 592.5	8 783.5	8 866.3	8 882.1	9 070.3	9 225.3	9 384.3	9 500.9	9 482.5	..
<b>Non-OECD Total</b>	..	7 985.4	8 137.2	8 494.1	8 740.6	9 060.4	9 590.0	10 133.1	10 750.7	11 455.6	12 047.3	..
<b>OECD Total</b>	..	9 070.5	9 868.0	10 259.3	10 157.9	10 454.8	10 674.4	10 946.4	11 264.8	11 422.2	11 584.2	..
Canada	490.0	568.8	588.7	615.6	600.3	611.7	601.0	611.3	637.4	626.4	649.6	32.6%
Mexico	124.1	157.5	189.9	203.6	209.1	214.6	217.8	224.1	242.0	249.6	257.5	107.4%
United States	..	3 672.2	3 979.1	4 115.6	3 922.9	4 129.2	4 156.2	4 213.3	4 337.8	4 424.8	4 476.2	..
<b>OECD N. America</b>	..	4 398.5	4 757.6	4 934.9	4 732.3	4 955.5	4 975.1	5 048.6	5 217.2	5 300.8	5 383.2	..
Australia	155.0	173.0	203.0	207.4	216.5	226.2	227.9	234.3	245.1	251.3	254.6	64.3%
Japan	837.9	964.8	1 034.0	1 055.1	1 036.3	1 055.0	1 044.1	1 074.3	1 095.6	1 099.9	1 130.4	34.9%
Korea	105.4	190.8	248.5	327.4	347.6	369.9	382.4	418.1	441.3	454.8	481.1	356.6%
New Zealand	32.3	35.3	38.2	39.2	39.4	41.1	41.2	43.2	43.3	43.6	44.0	36.3%
<b>OECD Pacific</b>	1 130.5	1 364.0	1 523.8	1 629.2	1 639.9	1 692.2	1 695.7	1 769.8	1 825.4	1 849.7	1 910.2	69.0%
Austria	57.2	66.1	73.2	73.2	75.3	74.1	72.6	77.6	79.8	79.3	78.6	37.4%
Belgium	73.0	76.3	88.4	89.2	85.2	87.3	90.0	90.9	91.9	93.9	95.6	31.0%
Czech Republic	105.3	109.4	104.8	111.6	115.7	115.6	123.7	123.9	120.6	120.1	121.5	15.3%
Denmark	51.6	69.7	73.2	69.2	73.4	74.6	82.4	76.5	71.9	81.1	72.8	41.0%
Finland	78.5	91.2	104.0	104.8	112.5	115.1	131.6	133.1	115.9	137.7	135.3	72.3%
France	422.8	497.5	528.0	573.7	591.3	601.4	607.8	615.8	619.9	614.3	609.0	44.1%
Germany	672.2	648.5	658.0	660.1	671.1	669.8	799.8	810.9	839.8	854.0	847.4	26.1%
Greece	34.8	41.3	49.7	53.8	53.4	54.3	58.4	59.3	60.0	60.8	63.2	81.7%
Hungary	49.0	51.1	58.0	54.4	56.3	53.4	51.9	51.1	53.4	52.9	55.8	14.0%
Iceland	6.0	7.2	9.6	9.9	10.2	11.3	11.2	11.4	11.3	12.8	14.5	143.4%
Ireland	14.2	17.6	21.8	23.7	24.6	24.8	24.9	25.2	25.6	27.1	27.9	95.9%
Italy	213.1	237.4	259.3	269.9	271.9	277.5	286.3	348.4	350.5	365.7	365.0	71.2%
Luxembourg	0.6	0.6	0.6	0.7	0.9	3.2	3.3	4.0	4.1	4.3	3.8	512.9%
Netherlands	76.1	100.5	117.9	121.9	125.6	127.6	128.5	135.7	147.7	137.7	142.0	86.6%
Norway	123.4	124.2	124.8	141.9	122.0	133.2	110.1	113.6	140.8	124.9	140.5	13.9%
Poland	339.9	253.9	243.2	237.8	246.6	240.1	252.3	248.6	250.0	255.5	247.9	-27.0%
Portugal	28.7	33.6	43.9	44.9	48.0	48.0	49.1	47.8	50.0	52.4	50.8	77.2%
Slovak Republic	34.8	38.1	38.7	41.0	48.1	46.4	46.4	45.4	45.9	44.2	39.7	14.1%
Spain	151.2	165.6	205.9	222.2	233.2	241.6	257.9	277.2	288.9	295.5	300.2	98.6%
Sweden	167.7	193.6	201.1	189.1	209.9	194.9	184.2	201.0	208.7	193.7	198.1	18.1%
Switzerland	58.2	65.9	72.8	70.2	75.4	69.7	69.9	68.5	62.6	67.0	71.2	22.4%
Turkey	57.5	86.2	116.4	129.4	126.2	134.2	144.8	155.9	171.8	187.4	203.6	253.8%
United Kingdom	317.8	332.5	393.4	402.7	408.9	408.9	416.6	406.0	411.3	409.2	406.1	27.8%
<b>OECD Europe</b>	3 133.6	3 308.0	3 586.6	3 695.3	3 785.7	3 807.1	4 003.6	4 127.9	4 222.2	4 271.7	4 290.8	36.9%
<i>European Union - 27</i>	..	3 328.2	3 506.1	3 578.6	3 696.8	3 696.3	3 908.6	4 016.1	4 073.1	4 117.9	4 094.6	..

\* Includes electricity, CHP and heat only from both main activity producer and autoproducer plants. Due to missing data for heat in 1990, the output for some countries and regions is not available.

## Electricity and heat output

terawatt hours

	1990	1995	1999	2000	2001	2002	2003	2004	2005	2006	2007	% change 90-07
<b>Non-OECD Total</b>	..	<b>7 985.4</b>	<b>8 137.2</b>	<b>8 494.1</b>	<b>8 740.6</b>	<b>9 060.4</b>	<b>9 590.0</b>	<b>10 133.1</b>	<b>10 750.7</b>	<b>11 455.6</b>	<b>12 047.3</b>	..
Algeria	..	19.7	24.8	25.4	26.6	27.6	29.6	31.3	33.9	35.2	37.2	..
Angola	..	1.0	1.3	1.4	1.6	1.8	2.0	2.2	2.6	3.0	3.8	..
Benin	..	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	..
Botswana	..	1.0	1.1	0.9	1.0	1.1	1.1	1.0	1.0	1.0	1.1	..
Cameroon	..	2.8	3.4	3.5	3.5	3.3	3.7	4.1	4.0	5.1	5.8	..
Congo	..	0.4	0.1	0.3	0.3	0.4	0.4	0.4	0.4	0.5	0.4	..
Dem. Rep. of Congo	..	6.2	5.3	6.0	5.9	6.1	6.4	6.9	7.4	7.8	8.3	..
Côte d'Ivoire	..	2.9	4.8	4.8	4.9	5.3	5.1	5.5	5.7	5.7	5.6	..
Egypt	..	52.0	68.5	78.1	83.3	89.2	95.2	101.3	108.7	115.4	125.1	..
Eritrea	..	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	..
Ethiopia	..	1.5	1.6	1.7	2.0	2.0	2.3	2.5	2.8	3.3	3.5	..
Gabon	..	1.1	1.3	1.3	1.4	1.5	1.5	1.5	1.6	1.7	1.8	..
Ghana	..	6.1	5.9	7.2	7.9	7.3	5.9	6.0	6.8	8.4	7.0	..
Kenya	..	4.2	4.5	4.1	4.6	5.0	5.3	5.7	6.1	6.6	6.8	..
Libyan Arab Jamahiriya	..	11.4	14.4	15.5	16.1	17.5	18.9	20.2	22.3	24.0	25.7	..
Morocco	..	12.3	13.5	13.7	15.6	16.7	18.1	19.3	22.5	23.2	22.9	..
Mozambique	..	0.4	7.7	9.7	11.9	12.7	10.9	11.7	13.3	14.7	16.1	..
Namibia	..	1.2	1.2	1.3	1.4	1.4	1.6	1.6	1.6	1.5	1.7	..
Nigeria	..	15.9	16.1	14.7	15.5	19.7	20.2	24.2	23.5	23.1	23.0	..
Senegal	..	1.1	1.4	1.9	2.2	2.5	2.6	2.7	3.0	2.5	2.1	..
South Africa	..	186.6	200.4	207.8	208.2	215.7	231.2	240.9	242.1	250.9	260.5	..
Sudan	..	1.9	2.4	2.6	2.8	3.1	3.4	3.5	3.8	4.2	4.5	..
United Rep. of Tanzania	..	1.9	2.4	2.5	2.8	2.9	2.7	2.9	3.6	3.5	4.2	..
Togo	..	0.3	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	..
Tunisia	..	7.7	10.0	10.6	11.4	11.8	12.4	13.1	13.8	14.1	14.7	..
Zambia	..	7.9	7.8	7.8	7.9	8.2	8.3	8.5	8.9	9.4	9.9	..
Zimbabwe	..	7.8	7.1	7.0	7.9	8.6	8.8	9.7	10.3	9.8	9.2	..
Other Africa	..	8.8	10.6	11.2	11.6	12.0	12.2	12.8	13.1	13.2	13.8	..
<b>Africa</b>	..	<b>364.3</b>	<b>418.3</b>	<b>441.7</b>	<b>458.7</b>	<b>483.7</b>	<b>510.3</b>	<b>540.2</b>	<b>563.4</b>	<b>588.4</b>	<b>615.2</b>	..
Bahrain	..	4.6	6.0	6.3	6.8	7.3	7.8	8.4	8.9	9.7	10.9	..
Islamic Rep. of Iran	..	85.0	112.7	121.4	130.1	140.8	152.6	166.0	180.4	192.7	204.0	..
Iraq	..	29.0	31.6	31.9	32.3	33.9	28.3	32.3	30.4	31.9	33.2	..
Israel	..	30.4	39.2	42.7	44.0	45.5	47.0	47.2	48.6	50.6	53.8	..
Jordan	..	5.6	7.1	7.4	7.5	8.1	8.0	9.0	10.1	11.6	13.0	..
Kuwait	..	24.1	32.1	32.9	34.8	36.9	39.8	41.3	43.7	47.6	48.8	..
Lebanon	..	5.5	8.2	7.8	8.2	9.7	10.5	10.2	10.1	9.3	9.6	..
Oman	..	6.5	8.4	9.1	9.7	10.3	10.7	11.5	12.6	13.6	14.4	..
Qatar	..	6.0	8.6	9.1	10.0	10.9	12.0	13.2	14.4	15.3	16.1	..
Saudi Arabia	..	97.8	119.0	126.2	133.7	141.7	153.0	159.4	175.0	179.8	189.1	..
Syrian Arab Republic	..	16.6	22.8	25.2	26.7	28.0	29.5	32.1	34.9	37.3	38.6	..
United Arab Emirates	..	25.0	37.1	39.9	43.2	46.9	49.5	52.4	60.7	66.8	76.1	..
Yemen	..	2.4	3.1	3.4	3.6	3.8	4.1	4.4	4.8	5.4	6.0	..
<b>Middle East</b>	..	<b>338.6</b>	<b>435.9</b>	<b>463.3</b>	<b>490.5</b>	<b>523.7</b>	<b>552.9</b>	<b>587.4</b>	<b>634.6</b>	<b>671.4</b>	<b>713.6</b>	..
Albania	..	4.5	5.6	5.0	3.9	3.9	5.3	5.6	5.5	5.2	2.9	..
Bosnia and Herzegovina	..	4.5	10.8	10.9	11.1	11.3	11.9	13.5	13.6	14.4	13.0	..
Bulgaria	..	78.9	53.4	54.7	57.8	56.0	57.3	55.5	58.4	59.5	57.4	..
Croatia	..	12.5	15.8	13.8	15.6	15.5	16.2	16.7	16.1	15.6	15.3	..
Cyprus	..	2.5	3.1	3.4	3.6	3.8	4.1	4.2	4.4	4.7	4.9	..
Gibraltar	..	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	..
FYR of Macedonia	..	7.7	9.0	8.9	8.2	7.9	8.5	8.3	8.6	8.6	8.2	..
Malta	..	1.6	1.9	1.9	1.9	2.1	2.2	2.2	2.2	2.3	2.3	..
Romania	..	139.0	110.6	104.9	107.1	98.2	97.0	94.1	94.9	97.0	92.3	..
Serbia	..	39.8	38.3	39.0	40.6	40.9	41.3	45.0	50.0	49.0	49.0	..
Slovenia	..	15.4	15.7	16.2	17.1	17.1	16.5	18.0	17.9	17.8	17.5	..
<b>Non-OECD Europe</b>	..	<b>306.5</b>	<b>264.3</b>	<b>258.9</b>	<b>267.1</b>	<b>256.8</b>	<b>260.4</b>	<b>263.3</b>	<b>271.9</b>	<b>274.1</b>	<b>263.0</b>	..

## Electricity and heat output

terawatt hours

	1990	1995	1999	2000	2001	2002	2003	2004	2005	2006	2007	% change 90-07
Armenia	..	6.5	6.4	6.8	6.3	6.0	5.9	6.4	6.8	6.5	6.6	..
Azerbaijan	..	28.4	23.7	23.4	24.4	25.6	27.8	28.1	27.5	30.1	29.6	..
Belarus	..	105.4	111.4	103.6	107.2	105.7	107.3	111.1	111.2	112.7	107.1	..
Estonia	..	17.4	16.4	16.0	16.0	16.1	17.4	17.8	17.6	17.2	19.4	..
Georgia	..	8.9	7.7	7.4	6.9	8.1	8.1	7.9	8.0	7.7	8.8	..
Kazakhstan	..	163.0	121.1	130.2	137.2	150.6	163.4	168.8	174.1	168.6	185.2	..
Kyrgyzstan	..	17.2	16.5	18.7	17.3	15.2	17.5	18.4	18.5	19.1	18.4	..
Latvia	..	16.8	14.2	13.0	13.7	13.2	13.3	13.3	13.6	13.2	12.7	..
Lithuania	..	32.1	27.9	24.5	27.6	31.3	33.1	32.5	28.3	26.6	27.1	..
Republic of Moldova	..	10.2	7.4	5.4	5.9	5.1	5.3	7.2	7.7	8.0	7.6	..
Russian Federation	..	3 095.9	2 604.5	2 678.4	2 674.9	2 638.5	2 665.9	2 665.1	2 683.1	2 780.0	2 720.4	..
Tajikistan	..	15.7	16.8	15.1	15.3	16.2	17.5	17.5	18.1	18.0	18.6	..
Turkmenistan	..	9.8	11.0	11.2	12.0	12.1	12.2	13.5	14.5	15.5	16.9	..
Ukraine	..	492.5	400.0	378.7	384.4	389.4	380.5	377.2	382.5	368.4	354.3	..
Uzbekistan	..	77.6	75.9	77.7	77.7	79.5	79.5	80.0	77.7	79.2	78.8	..
<b>Former Soviet Union *</b>	..	<b>4 097.4</b>	<b>3 461.0</b>	<b>3 510.2</b>	<b>3 527.0</b>	<b>3 512.7</b>	<b>3 554.8</b>	<b>3 564.9</b>	<b>3 589.2</b>	<b>3 670.9</b>	<b>3 611.6</b>	..
Argentina	..	67.0	80.5	88.9	90.1	84.5	92.0	100.2	105.5	115.0	115.1	..
Bolivia	..	3.0	3.9	3.9	4.0	4.2	4.3	4.5	4.9	5.3	5.7	..
Brazil	..	275.6	335.6	350.0	328.9	346.6	366.0	388.7	404.2	421.0	449.5	..
Chile	..	28.0	38.4	40.1	42.5	43.7	46.8	51.2	52.5	55.3	58.5	..
Colombia	..	42.7	42.9	43.2	43.5	45.1	46.6	49.8	50.4	53.9	55.3	..
Costa Rica	..	4.9	6.2	6.9	6.9	7.5	7.6	8.2	8.3	8.7	9.1	..
Cuba	..	12.5	14.5	15.0	15.3	15.7	15.8	15.6	15.3	16.5	17.6	..
Dominican Republic	..	5.5	7.7	8.5	10.3	11.5	13.5	13.8	12.9	14.2	14.8	..
Ecuador	..	8.4	10.3	10.6	11.1	11.9	11.5	12.6	13.4	15.7	17.3	..
El Salvador	..	3.4	3.8	3.9	3.9	4.1	4.4	4.4	4.8	5.6	5.8	..
Guatemala	..	3.4	5.2	6.0	5.9	6.2	6.6	7.0	7.6	7.9	8.8	..
Haiti	..	0.5	0.7	0.5	0.6	0.5	0.5	0.5	0.6	0.6	0.5	..
Honduras	..	2.7	3.4	3.7	3.9	4.1	4.5	4.9	5.6	6.0	6.3	..
Jamaica	..	5.8	6.6	6.6	6.7	6.9	7.1	7.2	7.4	7.5	7.8	..
Netherlands Antilles	..	1.0	1.1	1.1	1.1	1.1	1.2	1.2	1.2	1.3	1.3	..
Nicaragua	..	1.8	2.1	2.3	2.5	2.7	2.7	2.8	2.9	3.0	3.2	..
Panama	..	3.5	4.6	4.9	5.1	5.3	5.6	5.8	5.8	6.0	6.5	..
Paraguay	..	42.2	52.0	53.5	45.3	48.2	51.8	51.9	51.2	53.8	53.7	..
Peru	..	16.1	19.0	19.9	20.8	22.0	22.9	24.3	25.5	27.4	29.9	..
Trinidad and Tobago	..	4.3	5.2	5.5	5.6	5.6	6.4	6.4	7.1	7.0	7.7	..
Uruguay	..	6.3	7.2	7.6	9.3	9.6	8.6	5.9	7.7	5.6	9.4	..
Venezuela	..	73.4	80.6	85.3	90.1	91.9	91.8	98.6	106.0	112.3	114.9	..
Other Latin America	..	9.0	10.3	10.6	10.8	11.1	11.3	11.4	11.7	12.0	12.3	..
<b>Latin America</b>	..	<b>621.2</b>	<b>741.8</b>	<b>778.5</b>	<b>764.2</b>	<b>790.0</b>	<b>829.6</b>	<b>877.0</b>	<b>912.3</b>	<b>961.2</b>	<b>1 011.0</b>	..
Bangladesh	..	10.8	14.5	15.8	17.4	18.7	19.7	21.5	22.6	24.3	24.4	..
Brunei Darussalam	..	2.0	2.4	2.5	2.6	2.7	3.2	3.3	3.3	3.3	3.4	..
Cambodia	..	0.2	0.4	0.5	0.5	0.6	0.6	0.8	0.9	1.1	1.3	..
Chinese Taipei	..	129.1	165.6	180.6	184.5	195.2	205.2	215.1	223.5	231.6	239.2	..
India	..	417.6	537.4	562.2	581.0	598.4	635.2	667.6	699.1	753.0	803.4	..
Indonesia	..	58.9	84.3	92.6	101.6	108.2	112.9	120.2	127.4	133.1	142.2	..
DPR of Korea	..	23.0	18.6	19.4	20.2	19.8	21.0	22.0	22.9	22.4	21.5	..
Malaysia	..	45.5	65.2	69.3	71.4	74.2	78.5	82.0	84.8	89.8	101.3	..
Mongolia	..	10.6	10.8	11.0	10.7	11.2	11.5	12.4	12.6	12.8	12.8	..
Myanmar	..	4.1	4.6	5.1	4.7	5.1	5.4	5.6	6.0	6.2	6.5	..
Nepal	..	1.2	1.5	1.7	1.9	2.1	2.3	2.4	2.6	2.7	2.8	..
Pakistan	..	57.0	65.8	68.1	72.4	75.7	80.8	85.7	93.8	98.4	95.7	..
Philippines	..	33.6	41.4	45.3	47.1	48.5	52.9	56.0	56.6	56.8	59.6	..
Singapore	..	22.2	29.5	31.7	33.1	34.7	35.3	36.8	38.2	39.4	41.1	..
Sri Lanka	..	4.8	6.2	7.0	6.8	7.1	7.7	8.2	9.3	9.5	9.9	..
Thailand	..	80.1	90.0	96.0	102.4	109.0	117.0	125.7	132.2	138.7	143.4	..
Vietnam	..	14.6	23.6	26.6	30.6	35.8	40.9	46.0	53.5	61.8	69.5	..
Other Asia	..	8.7	11.4	12.8	13.8	14.8	15.2	16.1	16.0	16.1	18.3	..
<b>Asia</b>	..	<b>923.9</b>	<b>1 173.2</b>	<b>1 248.0</b>	<b>1 302.7</b>	<b>1 361.7</b>	<b>1 445.5</b>	<b>1 527.2</b>	<b>1 605.4</b>	<b>1 701.1</b>	<b>1 796.4</b>	..
People's Rep. of China	..	1 305.6	1 613.3	1 762.2	1 898.0	2 097.5	2 401.0	2 736.0	3 135.4	3 549.8	3 997.6	..
Hong Kong, China	..	27.9	29.5	31.3	32.4	34.3	35.5	37.1	38.5	38.6	39.0	..
<b>China</b>	..	<b>1 333.5</b>	<b>1 642.8</b>	<b>1 793.5</b>	<b>1 930.4</b>	<b>2 131.8</b>	<b>2 436.5</b>	<b>2 773.1</b>	<b>3 173.8</b>	<b>3 588.4</b>	<b>4 036.5</b>	..

CO<sub>2</sub> emissions per kWh from electricity and heat generation \*grammes CO<sub>2</sub> / kilowatt hour

	1990	1995	1999	2000	2001	2002	2003	2004	2005	2006	2007	Average 05-07
<b>World</b>	..	<b>471</b>	<b>488</b>	<b>486</b>	<b>492</b>	<b>488</b>	<b>497</b>	<b>501</b>	<b>501</b>	<b>503</b>	<b>507</b>	<b>504</b>
<i>Annex I Parties</i>	..	418	430	428	435	426	429	421	418	412	418	416
<i>Annex II Parties</i>	..	459	458	456	468	454	454	447	443	432	439	438
<i>North America</i>	..	526	542	539	566	522	527	526	522	499	506	509
<i>Europe</i>	399	355	329	326	325	332	326	316	307	310	310	309
<i>Pacific</i>	482	461	467	469	480	504	521	506	513	506	526	515
<i>Annex I EIT</i>	..	342	360	357	355	357	367	355	355	359	360	358
<i>Non-Annex I Parties</i>	..	626	632	622	618	619	631	651	646	652	642	647
<i>Annex I Kyoto Parties</i>	..	352	356	354	355	361	365	353	350	352	356	352
<b>Non-OECD Total</b>	..	<b>473</b>	<b>513</b>	<b>512</b>	<b>511</b>	<b>519</b>	<b>536</b>	<b>552</b>	<b>555</b>	<b>564</b>	<b>564</b>	<b>561</b>
<b>OECD Total</b>	..	<b>469</b>	<b>468</b>	<b>465</b>	<b>476</b>	<b>461</b>	<b>461</b>	<b>454</b>	<b>450</b>	<b>441</b>	<b>448</b>	<b>446</b>
Canada	203	184	212	222	231	216	226	209	196	190	205	197
Mexico	538	507	561	566	568	570	576	528	567	554	547	556
United States	..	579	591	586	617	567	571	572	570	542	549	554
<b>OECD N. America</b>	..	<b>526</b>	<b>543</b>	<b>540</b>	<b>566</b>	<b>524</b>	<b>529</b>	<b>526</b>	<b>524</b>	<b>501</b>	<b>508</b>	<b>511</b>
Australia	813	808	867	863	890	934	913	909	918	917	907	914
Japan	434	411	397	401	402	422	445	428	430	419	450	433
Korea	520	540	482	447	477	454	449	475	460	464	455	460
New Zealand	128	113	239	230	278	250	295	275	312	320	272	301
<b>OECD Pacific</b>	<b>486</b>	<b>472</b>	<b>469</b>	<b>465</b>	<b>479</b>	<b>493</b>	<b>505</b>	<b>499</b>	<b>500</b>	<b>496</b>	<b>508</b>	<b>501</b>
Austria	245	214	193	180	202	196	235	228	223	214	202	213
Belgium	344	357	278	284	272	266	274	281	271	260	253	261
Czech Republic	597	602	580	596	584	561	524	525	525	527	558	537
Denmark	476	430	363	339	336	332	357	308	283	343	317	314
Finland	227	247	212	211	241	252	292	253	193	241	230	221
France	109	76	86	84	72	77	81	79	93	87	90	90
Germany	553	522	489	494	506	508	434	436	405	404	427	412
Greece	990	871	817	813	832	814	774	776	776	727	749	751
Hungary	420	432	412	401	394	391	425	392	341	344	345	343
Iceland	1	2	4	1	1	1	1	1	1	1	1	1
Ireland	740	727	697	642	668	635	603	574	582	546	504	544
Italy	575	545	494	498	482	503	511	416	413	424	388	408
Luxembourg	2 588	1 340	258	255	240	329	330	334	328	326	328	327
Netherlands	588	530	468	447	460	458	463	440	387	394	405	395
Norway	3	4	6	4	6	5	8	7	6	7	7	7
Poland	641	671	664	671	660	662	662	664	657	659	668	661
Portugal	516	569	539	479	442	512	413	452	501	416	383	434
Slovak Republic	376	375	340	267	241	215	255	240	229	223	229	227
Spain	427	453	444	430	382	434	378	382	397	369	390	385
Sweden	48	50	49	42	42	52	59	51	44	48	40	44
Switzerland	22	22	22	22	21	22	23	24	26	26	23	25
Turkey	568	512	549	519	544	472	444	419	426	438	478	448
United Kingdom	672	529	441	461	474	460	478	485	484	506	500	497
<b>OECD Europe</b>	<b>435</b>	<b>393</b>	<b>367</b>	<b>364</b>	<b>362</b>	<b>364</b>	<b>358</b>	<b>347</b>	<b>338</b>	<b>342</b>	<b>345</b>	<b>342</b>
<i>European Union - 27</i>	..	415	383	382	378	382	375	364	355	358	362	358

\* CO<sub>2</sub> emissions from fossil fuels consumed for electricity, combined heat and power and main activity heat plants divided by the output of electricity and heat generated from fossil fuels, nuclear, hydro (excl. pumped storage), geothermal, solar and biomass. Both main activity producers and autoproducers have been included in the calculation of the emissions. Due to missing data for heat in 1990, the ratio for some countries and regions is not available.

CO<sub>2</sub> emissions per kWh from electricity and heat generationgrammes CO<sub>2</sub> / kilowatt hour

	1990	1995	1999	2000	2001	2002	2003	2004	2005	2006	2007	Average 05-07
<b>Non-OECD Total</b>	..	<b>473</b>	<b>513</b>	<b>512</b>	<b>511</b>	<b>519</b>	<b>536</b>	<b>552</b>	<b>555</b>	<b>564</b>	<b>564</b>	<b>561</b>
Algeria	..	633	627	620	621	632	632	632	606	621	597	608
Angola	..	177	341	382	381	354	373	216	154	98	153	135
Benin	..	951	659	601	955	950	752	740	709	696	694	700
Botswana	..	1 800	1 575	1 876	1 318	1 323	1 320	1 739	1 851	1 851	1 852	1 852
Cameroon	..	10	11	10	16	27	31	28	40	83	301	141
Congo	..	9	114	-	-	-	82	97	103	102	102	102
Dem. Rep. of Congo	..	4	4	4	4	4	3	3	3	3	3	3
Côte d'Ivoire	..	275	414	379	394	409	384	356	457	385	368	403
Egypt	..	443	455	412	381	437	432	473	474	473	450	466
Eritrea	..	1 463	700	713	749	659	694	722	677	690	666	678
Ethiopia	..	42	10	11	9	8	6	6	3	3	36	14
Gabon	..	255	326	326	272	282	306	329	390	365	446	400
Ghana	..	3	187	68	115	255	277	84	147	276	360	261
Kenya	..	72	412	562	392	265	196	274	301	312	305	306
Libyan Arab Jamahiriya	..	1 131	1 056	1 022	996	971	978	888	907	879	846	877
Morocco	..	869	758	770	764	766	737	756	728	713	712	718
Mozambique	..	64	3	5	4	3	3	3	1	1	1	1
Namibia	..	37	30	5	6	-	13	1	29	95	100	74
Nigeria	..	292	350	407	340	354	340	400	383	386	413	394
Senegal	..	881	908	782	799	645	520	555	634	726	713	691
South Africa	..	878	890	893	829	819	849	871	852	832	845	843
Sudan	..	465	428	508	481	592	662	690	509	512	516	512
United Rep. of Tanzania	..	284	126	192	70	57	51	121	361	431	248	347
Togo	..	185	399	561	1 493	333	216	442	352	459	404	405
Tunisia	..	588	598	574	584	564	554	532	476	546	557	526
Zambia	..	7	7	7	7	7	7	7	7	7	7	7
Zimbabwe	..	920	812	740	848	717	515	572	572	573	573	573
Other Africa	..	413	431	480	586	594	598	592	594	646	646	629
<b>Africa</b>	..	<b>684</b>	<b>677</b>	<b>665</b>	<b>622</b>	<b>624</b>	<b>637</b>	<b>651</b>	<b>636</b>	<b>628</b>	<b>627</b>	<b>630</b>
Bahrain	..	815	852	868	840	835	883	881	873	831	847	850
Islamic Rep. of Iran	..	605	582	568	578	560	534	532	528	545	536	536
Iraq	..	698	678	731	813	751	787	811	811	811	811	811
Israel	..	821	767	766	771	820	818	801	797	777	764	779
Jordan	..	834	747	708	702	740	680	682	631	602	588	607
Kuwait	..	638	673	689	670	624	663	754	808	643	645	698
Lebanon	..	654	815	733	751	722	709	565	667	695	638	667
Oman	..	830	809	796	817	829	853	885	862	870	861	864
Qatar	..	1 131	823	771	781	782	779	649	618	626	623	622
Saudi Arabia	..	815	811	810	778	751	739	762	752	755	736	748
Syrian Arab Republic	..	586	598	567	559	554	563	556	588	606	606	600
United Arab Emirates	..	737	708	728	746	764	805	913	844	820	831	832
Yemen	..	946	921	930	930	919	884	874	841	781	679	767
<b>Middle East</b>	..	<b>728</b>	<b>709</b>	<b>706</b>	<b>705</b>	<b>691</b>	<b>687</b>	<b>702</b>	<b>697</b>	<b>687</b>	<b>678</b>	<b>687</b>
Albania	..	37	39	49	60	58	30	32	34	32	43	36
Bosnia and Herzegovina	..	173	709	797	767	825	849	740	752	801	932	828
Bulgaria	..	429	446	431	465	433	470	470	447	441	515	468
Croatia	..	272	305	303	313	357	380	300	314	320	385	340
Cyprus	..	822	856	838	777	756	833	773	788	758	761	769
Gibraltar	..	766	766	760	754	760	755	766	761	771	771	768
FYR of Macedonia	..	776	687	682	780	724	709	708	701	698	740	713
Malta	..	957	903	819	928	849	840	872	917	878	923	906
Romania	..	440	360	396	412	412	451	418	400	429	438	422
Serbia	..	900	730	807	764	795	825	781	596	642	644	627
Slovenia	..	362	340	330	340	374	368	341	345	355	372	357
<b>Non-OECD Europe</b>	..	<b>491</b>	<b>455</b>	<b>485</b>	<b>496</b>	<b>503</b>	<b>532</b>	<b>505</b>	<b>468</b>	<b>489</b>	<b>526</b>	<b>494</b>



CO<sub>2</sub> emissions per kWh from electricity and heat generationgrammes CO<sub>2</sub> / kilowatt hour

	1990	1995	1999	2000	2001	2002	2003	2004	2005	2006	2007	Average 05-07
Armenia	..	214	225	236	243	153	148	120	138	138	163	147
Azerbaijan	..	502	614	648	561	490	523	511	504	473	436	471
Belarus	..	325	299	308	298	299	294	302	296	296	293	295
Estonia	..	680	700	691	678	663	717	701	671	642	688	667
Georgia	..	487	154	193	133	72	76	100	103	147	162	138
Kazakhstan	..	448	438	480	422	465	466	455	440	549	479	490
Kyrgyzstan	..	127	104	106	101	106	94	90	82	79	85	82
Latvia	..	238	218	200	189	188	183	166	162	167	164	164
Lithuania	..	174	178	160	147	123	114	114	136	138	117	130
Republic of Moldova	..	514	631	739	767	738	755	515	519	476	507	500
Russian Federation	..	292	327	321	321	327	329	325	325	329	323	325
Tajikistan	..	36	41	38	36	28	29	33	32	33	32	32
Turkmenistan	..	931	791	795	795	795	795	795	795	795	795	795
Ukraine	..	383	339	347	330	325	381	316	331	344	359	345
Uzbekistan	..	433	483	458	467	475	454	448	442	446	452	447
<b>Former Soviet Union</b>	..	<b>315</b>	<b>336</b>	<b>334</b>	<b>330</b>	<b>334</b>	<b>342</b>	<b>332</b>	<b>333</b>	<b>341</b>	<b>336</b>	<b>337</b>
Argentina	..	273	365	338	267	258	275	317	307	307	352	322
Bolivia	..	480	312	304	507	469	448	525	513	505	497	505
Brazil	..	55	83	88	104	86	79	85	84	81	73	80
Chile	..	256	451	336	266	270	287	322	318	304	383	335
Colombia	..	205	122	160	165	154	152	117	131	127	127	128
Costa Rica	..	156	21	8	14	15	20	17	27	47	72	49
Cuba	..	1 137	1 032	1 024	991	1 090	1 138	1 075	1 012	856	849	906
Dominican Republic	..	876	850	759	658	734	661	605	590	624	622	612
Ecuador	..	314	236	215	272	281	299	313	355	403	324	361
El Salvador	..	403	279	293	308	315	302	280	268	221	288	259
Guatemala	..	306	338	392	421	484	404	434	384	334	361	360
Haiti	..	327	289	346	340	399	320	301	307	305	511	375
Honduras	..	326	241	281	332	287	352	452	412	267	420	366
Jamaica	..	888	823	821	824	803	795	825	824	787	787	799
Netherlands Antilles	..	717	719	717	717	718	717	718	718	717	719	718
Nicaragua	..	484	605	610	613	563	558	557	539	550	526	538
Panama	..	317	224	231	399	270	356	266	275	310	317	301
Paraguay	..	2	0	-	-	-	-	-	-	-	-	-
Peru	..	186	171	152	120	143	148	206	199	174	187	186
Trinidad and Tobago	..	711	708	691	694	772	731	759	709	724	740	724
Uruguay	..	53	187	57	3	4	2	150	103	296	104	168
Venezuela	..	219	199	191	241	266	265	222	210	221	209	213
Other Latin America	..	687	507	595	594	600	608	598	597	595	597	597
<b>Latin America</b>	..	<b>182</b>	<b>198</b>	<b>193</b>	<b>201</b>	<b>196</b>	<b>196</b>	<b>199</b>	<b>194</b>	<b>192</b>	<b>196</b>	<b>194</b>
Bangladesh	..	601	592	556	602	604	574	628	557	584	667	603
Brunei Darussalam	..	880	831	795	799	818	801	802	782	821	840	814
Cambodia	..	1 816	1 764	1 798	1 940	1 970	1 880	1 301	1 205	1 141	1 152	1 166
Chinese Taipei	..	533	596	626	641	631	651	646	651	659	655	655
India	..	927	920	939	935	920	904	943	937	931	928	932
Indonesia	..	552	626	596	679	655	711	690	694	701	692	695
DPR of Korea	..	481	552	584	583	568	542	528	522	533	469	508
Malaysia	..	556	528	517	541	591	525	538	641	643	619	634
Mongolia	..	610	560	587	585	613	554	526	533	523	563	540
Myanmar	..	508	572	457	405	376	426	414	365	346	346	352
Nepal	..	26	34	12	7	2	1	6	4	4	4	4
Pakistan	..	404	467	479	463	443	371	397	380	413	432	408
Philippines	..	458	448	494	480	450	453	452	463	433	449	448
Singapore	..	939	656	664	635	595	574	556	544	536	535	538
Sri Lanka	..	51	229	448	429	470	488	513	476	335	394	402
Thailand	..	606	596	564	562	548	528	539	535	511	536	527
Vietnam	..	301	403	427	399	430	381	413	412	439	414	421
Other Asia	..	263	270	269	286	332	359	365	364	350	350	355
<b>Asia</b>	..	<b>711</b>	<b>722</b>	<b>731</b>	<b>734</b>	<b>721</b>	<b>709</b>	<b>727</b>	<b>726</b>	<b>727</b>	<b>729</b>	<b>727</b>
People's Rep. of China	..	803	798	765	740	748	776	805	787	788	758	778
Hong Kong, China	..	854	716	712	720	725	795	749	755	754	775	761
<b>China</b>	..	<b>804</b>	<b>796</b>	<b>764</b>	<b>739</b>	<b>748</b>	<b>776</b>	<b>804</b>	<b>787</b>	<b>787</b>	<b>758</b>	<b>777</b>

CO<sub>2</sub> emissions per kWh from electricity and heat generation using coal/peat\*grammes CO<sub>2</sub> / kilowatt hour

	1990	1995	1999	2000	2001	2002	2003	2004	2005	2006	2007	Average 05-07
<b>World</b>	..	<b>883</b>	<b>902</b>	<b>879</b>	<b>899</b>	<b>882</b>	<b>891</b>	<b>912</b>	<b>909</b>	<b>910</b>	<b>903</b>	<b>907</b>
<i>Annex I Parties</i>	..	838	857	840	874	851	854	858	865	864	876	868
<i>Annex II Parties</i>	..	923	910	911	959	919	910	914	906	904	916	908
<i>North America</i>	..	941	914	917	984	919	917	923	912	900	920	911
<i>Europe</i>	858	857	849	847	868	868	847	851	845	865	867	859
<i>Pacific</i>	1 033	992	1 007	1 003	1 004	1 012	993	987	978	984	979	980
<i>Annex I EIT</i>	..	614	675	613	616	627	666	661	711	717	723	717
<i>Non-Annex I Parties</i>	..	985	984	951	940	929	941	980	959	958	927	948
<i>Annex I Kyoto Parties</i>	..	758	803	768	778	789	798	800	820	827	834	827
<b>Non-OECD Total</b>	..	<b>849</b>	<b>904</b>	<b>858</b>	<b>852</b>	<b>856</b>	<b>883</b>	<b>920</b>	<b>922</b>	<b>924</b>	<b>902</b>	<b>916</b>
<b>OECD Total</b>	..	<b>909</b>	<b>900</b>	<b>897</b>	<b>939</b>	<b>905</b>	<b>897</b>	<b>904</b>	<b>894</b>	<b>893</b>	<b>903</b>	<b>897</b>
Canada	1 010	992	935	934	915	890	900	927	874	853	910	879
Mexico	921	919	1 084	1 090	1 058	1 063	1 011	1 004	979	897	963	946
United States	..	938	913	916	988	921	918	923	914	903	920	912
<b>OECD N. America</b>	..	<b>940</b>	<b>915</b>	<b>919</b>	<b>985</b>	<b>921</b>	<b>918</b>	<b>924</b>	<b>913</b>	<b>900</b>	<b>920</b>	<b>911</b>
Australia	963	968	1 044	1 046	1 064	1 101	1 073	1 062	1 065	1 061	1 068	1 064
Japan	1 099	1 006	966	961	950	940	930	925	911	917	910	913
Korea	2 017	1 250	1 105	891	940	898	943	987	971	980	902	951
New Zealand	2 056	2 055	2 476	2 753	2 471	2 663	1 878	1 854	1 634	1 769	2 282	1 895
<b>OECD Pacific</b>	<b>1 101</b>	<b>1 028</b>	<b>1 025</b>	<b>977</b>	<b>988</b>	<b>984</b>	<b>981</b>	<b>987</b>	<b>977</b>	<b>983</b>	<b>959</b>	<b>973</b>
Austria	866	922	898	845	840	865	846	926	940	935	987	954
Belgium	990	1 024	1 104	992	1 072	1 088	1 092	1 136	1 180	1 237	1 337	1 251
Czech Republic	736	777	777	782	777	787	773	790	780	787	818	795
Denmark	577	555	521	519	517	538	600	556	536	602	589	576
Finland	504	536	556	546	567	572	622	613	532	590	576	566
France	1 053	1 111	1 036	938	903	919	886	905	898	931	938	922
Germany	825	854	813	814	873	871	820	818	803	839	848	830
Greece	1 137	1 019	982	979	981	988	983	1 006	1 000	1 007	983	996
Hungary	867	860	893	838	931	940	955	987	962	916	915	931
Iceland	-	-	-	-	-	-	-	-	-	-	-	-
Ireland	917	923	964	898	897	912	908	877	868	866	831	855
Italy	963	987	1 006	974	963	976	967	942	970	1 117	1 001	1 029
Luxembourg	3 170	3 701	-	-	-	-	-	-	-	-	-	-
Netherlands	859	907	961	951	960	962	965	958	788	756	774	773
Norway	1 100	574	663	612	721	663	664	584	655	666	639	653
Poland	666	682	682	689	681	686	687	692	687	689	703	693
Portugal	886	854	851	865	849	842	838	843	857	859	848	854
Slovak Republic	745	795	811	760	700	788	838	778	786	790	783	786
Spain	936	911	899	917	915	912	910	891	886	901	941	909
Sweden	467	473	624	638	621	608	616	585	638	620	621	626
Switzerland	495	908	-	-	-	-	-	-	-	-	-	-
Turkey	1 199	1 132	1 131	1 080	1 082	1 102	1 068	1 045	916	1 015	1 037	989
United Kingdom	910	880	916	906	898	890	901	927	935	923	927	928
<b>OECD Europe</b>	<b>810</b>	<b>822</b>	<b>820</b>	<b>819</b>	<b>831</b>	<b>834</b>	<b>818</b>	<b>823</b>	<b>813</b>	<b>832</b>	<b>840</b>	<b>828</b>
<i>European Union - 27</i>	..	818	813	813	825	829	815	821	814	828	835	826

\* CO<sub>2</sub> emissions from coal consumed for electricity, combined heat and power and main activity heat plants divided by output of electricity and heat generated from coal. Both main activity producers and autoproducers have been included in the calculation of the emissions. Due to missing data for heat in 1990, the ratio for some countries and regions is not available.

CO<sub>2</sub> emissions per kWh from electricity and heat generation using coal/peatgrammes CO<sub>2</sub> / kilowatt hour

	1990	1995	1999	2000	2001	2002	2003	2004	2005	2006	2007	Average 05-07
<b>Non-OECD Total</b>	..	849	904	858	852	856	883	920	922	924	902	916
Algeria	..	-	-	-	-	-	-	-	-	-	-	-
Angola	..	-	-	-	-	-	-	-	-	-	-	-
Benin	..	-	-	-	-	-	-	-	-	-	-	-
Botswana	..	1 815	1 588	1 900	1 325	1 329	1 326	1 776	1 856	1 856	1 857	1 856
Cameroon	..	-	-	-	-	-	-	-	-	-	-	-
Congo	..	-	-	-	-	-	-	-	-	-	-	-
Dem. Rep. of Congo	..	-	-	-	-	-	-	-	-	-	-	-
Côte d'Ivoire	..	-	-	-	-	-	-	-	-	-	-	-
Egypt	..	-	-	-	-	-	-	-	-	-	-	-
Eritrea	..	-	-	-	-	-	-	-	-	-	-	-
Ethiopia	..	-	-	-	-	-	-	-	-	-	-	-
Gabon	..	-	-	-	-	-	-	-	-	-	-	-
Ghana	..	-	-	-	-	-	-	-	-	-	-	-
Kenya	..	-	-	-	-	-	-	-	-	-	-	-
Libyan Arab Jamahiriya	..	-	-	-	-	-	-	-	-	-	-	-
Morocco	..	912	856	839	821	821	817	814	822	831	829	827
Mozambique	..	-	-	-	-	-	-	-	-	-	-	-
Namibia	..	1 346	1 148	1 262	1 403	-	1 403	2 104	1 503	1 388	1 339	1 410
Nigeria	..	-	-	-	-	-	-	-	-	-	-	-
Senegal	..	-	-	-	-	-	-	-	-	-	-	-
South Africa	..	938	955	960	884	879	902	927	900	878	888	889
Sudan	..	-	-	-	-	-	-	-	-	-	-	-
United Rep. of Tanzania	..	1 116	1 111	1 107	1 116	1 116	1 114	1 113	1 111	1 106	1 101	1 106
Togo	..	-	-	-	-	-	-	-	-	-	-	-
Tunisia	..	-	-	-	-	-	-	-	-	-	-	-
Zambia	..	1 718	1 636	1 636	1 527	1 527	1 575	1 617	1 654	1 688	1 718	1 687
Zimbabwe	..	1 287	1 379	1 383	1 362	1 287	1 311	1 321	1 321	1 321	1 322	1 321
Other Africa	..	956	955	955	956	955	955	955	955	956	956	956
<b>Africa</b>	..	<b>952</b>	<b>964</b>	<b>966</b>	<b>894</b>	<b>888</b>	<b>906</b>	<b>932</b>	<b>907</b>	<b>888</b>	<b>896</b>	<b>897</b>
Bahrain	..	-	-	-	-	-	-	-	-	-	-	-
Islamic Rep. of Iran	..	-	-	-	-	-	-	-	-	-	-	-
Iraq	..	-	-	-	-	-	-	-	-	-	-	-
Israel	..	849	848	853	855	847	855	849	855	864	873	864
Jordan	..	-	-	-	-	-	-	-	-	-	-	-
Kuwait	..	-	-	-	-	-	-	-	-	-	-	-
Lebanon	..	-	-	-	-	-	-	-	-	-	-	-
Oman	..	-	-	-	-	-	-	-	-	-	-	-
Qatar	..	-	-	-	-	-	-	-	-	-	-	-
Saudi Arabia	..	-	-	-	-	-	-	-	-	-	-	-
Syrian Arab Republic	..	-	-	-	-	-	-	-	-	-	-	-
United Arab Emirates	..	-	-	-	-	-	-	-	-	-	-	-
Yemen	..	-	-	-	-	-	-	-	-	-	-	-
<b>Middle East</b>	..	<b>849</b>	<b>848</b>	<b>853</b>	<b>855</b>	<b>847</b>	<b>855</b>	<b>849</b>	<b>855</b>	<b>908</b>	<b>917</b>	<b>894</b>
Albania	..	-	799	920	967	759	1 898	1 898	1 898	1 898	1 898	1 898
Bosnia and Herzegovina	..	977	1 622	1 615	1 554	1 686	1 479	1 436	1 445	1 449	1 447	1 447
Bulgaria	..	892	875	853	882	870	897	934	952	931	890	924
Croatia	..	1 037	985	894	938	907	859	913	896	863	862	874
Cyprus	..	-	-	-	-	-	-	-	-	-	-	-
Gibraltar	..	-	-	-	-	-	-	-	-	-	-	-
FYR of Macedonia	..	991	986	959	1 014	967	1 011	1 022	1 005	1 038	999	1 014
Malta	..	1 382	-	-	-	-	-	-	-	-	-	-
Romania	..	861	827	823	826	830	824	845	822	853	877	851
Serbia	..	1 568	1 354	1 367	1 308	1 335	1 277	1 261	993	1 022	1 004	1 006
Slovenia	..	811	830	817	827	883	840	840	826	840	873	846
<b>Non-OECD Europe</b>	..	<b>1 031</b>	<b>1 018</b>	<b>1 013</b>	<b>1 000</b>	<b>1 020</b>	<b>1 003</b>	<b>1 023</b>	<b>949</b>	<b>964</b>	<b>957</b>	<b>957</b>

CO<sub>2</sub> emissions per kWh from electricity and heat generation using coal/peatgrammes CO<sub>2</sub> / kilowatt hour

	1990	1995	1999	2000	2001	2002	2003	2004	2005	2006	2007	Average 05-07
Armenia	..	-	-	-	-	-	-	-	-	-	-	-
Azerbaijan	..	-	-	-	-	-	-	-	-	-	-	-
Belarus	..	560	478	483	575	576	592	648	490	475	473	479
Estonia	..	931	1 016	1 002	984	954	963	986	962	928	936	942
Georgia	..	967	-	-	-	-	-	-	-	-	-	-
Kazakhstan	..	450	453	494	433	477	483	480	455	581	501	512
Kyrgyzstan	..	517	531	527	509	508	668	608	474	475	449	466
Latvia	..	498	580	697	608	564	537	486	510	460	478	483
Lithuania	..	525	441	468	500	487	526	477	435	433	445	438
Republic of Moldova	..	804	1 011	1 011	1 010	1 058	1 013	400	398	390	377	388
Russian Federation	..	471	592	501	509	523	565	558	634	645	633	637
Tajikistan	..	-	-	-	-	-	-	-	-	-	-	-
Turkmenistan	..	-	-	-	-	-	-	-	-	-	-	-
Ukraine	..	1 222	1 024	1 042	939	953	1 120	1 091	1 166	1 085	1 085	1 112
Uzbekistan	..	1 140	1 019	1 019	1 019	1 019	1 018	1 018	1 018	1 018	1 018	1 018
<b>Former Soviet Union</b>	..	<b>535</b>	<b>612</b>	<b>542</b>	<b>533</b>	<b>551</b>	<b>596</b>	<b>583</b>	<b>641</b>	<b>677</b>	<b>654</b>	<b>657</b>
Argentina	..	2 026	1 149	1 246	1 370	1 945	1 709	1 420	1 372	1 229	1 149	1 250
Bolivia	..	-	-	-	-	-	-	-	-	-	-	-
Brazil	..	1 543	1 333	1 464	1 487	1 511	1 566	1 455	1 585	1 616	1 605	1 602
Chile	..	853	946	966	959	1 115	1 275	850	923	866	763	850
Colombia	..	1 167	916	1 091	1 218	1 204	1 200	1 124	1 140	1 063	948	1 050
Costa Rica	..	-	-	-	-	-	-	-	-	-	-	-
Cuba	..	-	-	-	-	-	-	-	-	-	-	-
Dominican Republic	..	886	887	886	886	886	886	886	886	886	886	886
Ecuador	..	-	-	-	-	-	-	-	-	-	-	-
El Salvador	..	-	-	-	-	-	-	-	-	-	-	-
Guatemala	..	-	1 055	1 029	957	957	925	919	929	948	957	945
Haiti	..	-	-	-	-	-	-	-	-	-	-	-
Honduras	..	-	-	-	-	-	-	-	-	-	-	-
Jamaica	..	-	-	-	-	-	-	-	-	-	-	-
Netherlands Antilles	..	-	-	-	-	-	-	-	-	-	-	-
Nicaragua	..	-	-	-	-	-	-	-	-	-	-	-
Panama	..	-	-	-	-	-	-	-	-	-	-	-
Paraguay	..	-	-	-	-	-	-	-	-	-	-	-
Peru	..	-	-	1 112	1 113	1 112	1 112	1 112	1 112	1 112	1 113	1 112
Trinidad and Tobago	..	-	-	-	-	-	-	-	-	-	-	-
Uruguay	..	-	-	-	-	-	-	-	-	-	-	-
Venezuela	..	-	-	-	-	-	-	-	-	-	-	-
Other Latin America	..	-	-	-	-	-	-	-	-	-	-	-
<b>Latin America</b>	..	<b>1 258</b>	<b>1 100</b>	<b>1 221</b>	<b>1 283</b>	<b>1 321</b>	<b>1 334</b>	<b>1 167</b>	<b>1 256</b>	<b>1 185</b>	<b>1 090</b>	<b>1 177</b>
Bangladesh	..	-	-	-	-	-	-	-	-	-	-	-
Brunei Darussalam	..	-	-	-	-	-	-	-	-	-	-	-
Cambodia	..	-	-	-	-	-	-	-	-	-	-	-
Chinese Taipei	..	854	938	944	937	923	924	923	929	938	935	934
India	..	1 213	1 220	1 203	1 199	1 153	1 161	1 224	1 244	1 247	1 252	1 248
Indonesia	..	806	1 038	836	1 072	967	1 025	983	1 027	980	980	996
DPR of Korea	..	1 253	1 218	1 217	1 208	1 208	1 208	1 208	1 208	1 208	1 208	1 208
Malaysia	..	856	855	975	771	856	1 083	972	972	972	972	972
Mongolia	..	613	560	586	585	612	552	523	530	519	559	536
Myanmar	..	-	-	-	-	-	-	-	-	-	-	-
Nepal	..	-	-	-	-	-	-	-	-	-	-	-
Pakistan	..	1 498	1 402	1 412	1 475	1 542	1 819	1 945	2 194	2 478	2 497	2 390
Philippines	..	1 436	970	970	840	912	952	917	1 038	1 038	1 008	1 028
Singapore	..	-	-	-	-	-	-	-	-	-	-	-
Sri Lanka	..	-	-	-	-	-	-	-	-	-	-	-
Thailand	..	986	970	959	955	976	989	989	980	812	927	907
Vietnam	..	1 415	1 469	1 479	1 605	1 240	958	961	991	991	988	990
Other Asia	..	-	-	-	-	-	-	-	-	-	-	-
<b>Asia</b>	..	<b>1 130</b>	<b>1 142</b>	<b>1 117</b>	<b>1 118</b>	<b>1 081</b>	<b>1 090</b>	<b>1 124</b>	<b>1 142</b>	<b>1 137</b>	<b>1 142</b>	<b>1 141</b>
People's Rep. of China	..	987	952	911	901	902	918	968	937	930	893	920
Hong Kong, China	..	855	879	868	875	879	889	880	880	887	890	886
<b>China</b>	..	<b>984</b>	<b>951</b>	<b>911</b>	<b>901</b>	<b>902</b>	<b>917</b>	<b>967</b>	<b>937</b>	<b>930</b>	<b>893</b>	<b>920</b>

CO<sub>2</sub> emissions per kWh from electricity and heat generation using oil \*grammes CO<sub>2</sub> / kilowatt hour

	1990	1995	1999	2000	2001	2002	2003	2004	2005	2006	2007	Average 05-07
<b>World</b>	..	<b>591</b>	<b>658</b>	<b>667</b>	<b>656</b>	<b>659</b>	<b>665</b>	<b>655</b>	<b>675</b>	<b>663</b>	<b>662</b>	<b>667</b>
<i>Annex I Parties</i>	..	485	560	573	558	562	576	555	576	531	542	550
<i>Annex II Parties</i>	..	605	652	659	643	633	651	622	638	589	594	607
<i>North America</i>	..	506	766	789	705	743	741	761	738	752	707	732
<i>Europe</i>	635	611	581	589	600	575	596	502	560	491	507	519
<i>Pacific</i>	631	652	633	630	631	616	614	610	615	598	603	606
<i>Annex I EIT</i>	..	352	394	403	399	409	401	385	400	394	390	395
<i>Non-Annex I Parties</i>	..	766	776	757	750	750	752	740	758	759	745	754
<i>Annex I Kyoto Parties</i>	..	487	514	526	524	528	534	495	528	494	512	511
<b>Non-OECD Total</b>	..	<b>572</b>	<b>650</b>	<b>672</b>	<b>665</b>	<b>677</b>	<b>677</b>	<b>686</b>	<b>701</b>	<b>700</b>	<b>701</b>	<b>701</b>
<b>OECD Total</b>	..	<b>620</b>	<b>669</b>	<b>660</b>	<b>645</b>	<b>635</b>	<b>650</b>	<b>613</b>	<b>641</b>	<b>603</b>	<b>599</b>	<b>614</b>
Canada	701	624	613	613	687	688	705	668	685	940	819	815
Mexico	734	690	765	756	756	795	851	733	855	878	844	859
United States	..	491	784	811	707	750	747	777	744	731	693	723
<b>OECD N. America</b>	..	<b>582</b>	<b>766</b>	<b>775</b>	<b>724</b>	<b>763</b>	<b>772</b>	<b>753</b>	<b>772</b>	<b>797</b>	<b>754</b>	<b>774</b>
Australia	652	743	552	557	634	470	554	823	765	769	749	761
Japan	630	651	634	631	631	620	615	607	613	594	601	603
Korea	765	682	689	482	484	410	400	404	420	415	407	414
New Zealand	1 223	1 087	-	-	-	-	986	744	781	679	-	730
<b>OECD Pacific</b>	<b>640</b>	<b>658</b>	<b>639</b>	<b>589</b>	<b>583</b>	<b>562</b>	<b>558</b>	<b>545</b>	<b>561</b>	<b>543</b>	<b>553</b>	<b>552</b>
Austria	500	422	449	378	414	388	419	420	391	383	436	403
Belgium	403	341	907	729	536	511	825	828	747	749	719	739
Czech Republic	430	351	551	550	473	456	440	406	398	406	414	406
Denmark	413	551	589	624	562	531	407	400	389	394	414	399
Finland	341	323	319	322	333	332	350	341	344	340	333	339
France	603	506	538	238	201	191	275	320	585	521	542	549
Germany	497	363	334	438	564	473	496	376	718	411	532	554
Greece	746	737	761	731	730	743	749	721	714	694	731	713
Hungary	457	574	577	599	637	555	574	779	751	827	813	797
Iceland	520	490	327	296	327	270	270	781	624	781	493	633
Ireland	756	736	712	696	736	759	826	766	740	818	650	736
Italy	672	663	665	704	706	640	690	489	472	451	403	442
Luxembourg	1 021	1 226	-	-	-	-	-	-	-	-	-	-
Netherlands	693	534	386	536	563	536	530	534	383	403	389	391
Norway	1 640	1 035	372	400	383	281	316	299	401	314	359	358
Poland	385	451	444	463	452	456	456	484	492	510	508	503
Portugal	693	709	624	593	623	621	616	596	600	550	545	565
Slovak Republic	381	753	926	757	405	414	410	382	400	403	386	396
Spain	802	795	652	630	657	654	645	660	696	603	723	674
Sweden	297	301	339	333	326	316	324	345	329	333	338	334
Switzerland	498	556	460	349	342	339	342	351	363	368	418	383
Turkey	899	951	889	852	735	672	668	688	654	740	675	690
United Kingdom	660	672	460	431	563	553	641	668	585	534	542	553
<b>OECD Europe</b>	<b>616</b>	<b>610</b>	<b>589</b>	<b>598</b>	<b>602</b>	<b>575</b>	<b>593</b>	<b>509</b>	<b>560</b>	<b>498</b>	<b>514</b>	<b>524</b>
<i>European Union - 27</i>	..	560	559	571	576	561	583	507	559	499	518	525

\* CO<sub>2</sub> emissions from oil consumed for electricity, combined heat and power and main activity heat plants divided by output of electricity and heat generated from oil. Both main activity producers and autoproducers have been included in the calculation of the emissions. Due to missing data for heat in 1990, the ratio for some countries and regions is not available.

CO<sub>2</sub> emissions per kWh from electricity and heat generation using oilgrammes CO<sub>2</sub> / kilowatt hour

	1990	1995	1999	2000	2001	2002	2003	2004	2005	2006	2007	Average 05-07
<b>Non-OECD Total</b>	..	<b>572</b>	<b>650</b>	<b>672</b>	<b>665</b>	<b>677</b>	<b>677</b>	<b>686</b>	<b>701</b>	<b>700</b>	<b>701</b>	<b>701</b>
Algeria	..	1 178	1 135	863	840	968	864	869	948	957	912	939
Angola	..	2 835	1 034	1 037	1 006	1 004	986	988	984	988	989	987
Benin	..	951	678	616	985	981	771	749	716	696	699	704
Botswana	..	1 054	1 051	1 051	1 050	1 085	1 085	1 055	1 026	1 026	1 026	1 026
Cameroon	..	893	907	919	853	753	733	600	698	739	739	725
Congo	..	1 587	794	-	-	-	-	-	-	-	-	-
Dem. Rep. of Congo	..	1 219	1 097	1 155	1 155	1 097	1 045	997	954	914	844	904
Côte d'Ivoire	..	692	1 068	970	970	970	1 042	718	933	968	1 037	979
Egypt	..	660	768	708	698	773	744	778	810	743	621	725
Eritrea	..	1 463	703	717	752	661	696	725	680	696	671	682
Ethiopia	..	641	836	828	1 003	756	794	882	794	953	955	900
Gabon	..	803	846	777	648	680	676	682	697	702	686	695
Ghana	..	836	1 465	802	720	824	811	665	860	827	772	820
Kenya	..	728	1 253	1 083	1 197	1 161	1 124	1 069	1 041	1 040	1 059	1 046
Libyan Arab Jamahiriya	..	1 290	1 194	1 144	1 111	1 089	1 067	943	1 003	1 078	1 077	1 053
Morocco	..	916	750	769	820	801	793	895	898	874	850	874
Mozambique	..	907	866	1 058	1 058	1 027	840	814	907	794	1 058	920
Namibia	..	833	804	-	-	-	1 666	-	666	740	740	716
Nigeria	..	693	964	966	965	965	963	964	988	1 002	1 360	1 116
Senegal	..	980	948	1 045	1 012	993	845	876	917	871	883	890
South Africa	..	819	-	-	1 026	1 154	769	-	1 026	1 042	753	940
Sudan	..	972	855	942	869	1 014	1 014	1 014	759	758	759	759
United Rep. of Tanzania	..	1 495	1 488	1 488	1 509	1 482	1 459	1 499	924	919	891	911
Togo	..	1 058	769	1 309	2 516	780	732	799	589	798	842	743
Tunisia	..	921	934	907	937	919	1 000	953	960	839	813	871
Zambia	..	917	743	922	896	896	896	896	847	847	847	847
Zimbabwe	..	-	2 556	1 539	2 020	3 175	2 963	1 965	2 117	2 117	2 117	2 117
Other Africa	..	782	756	863	1 073	1 103	1 113	1 107	1 099	1 101	1 101	1 101
<b>Africa</b>	..	<b>909</b>	<b>928</b>	<b>935</b>	<b>967</b>	<b>973</b>	<b>961</b>	<b>905</b>	<b>926</b>	<b>904</b>	<b>845</b>	<b>891</b>
Bahrain	..	-	-	-	-	-	-	-	-	1 229	1 269	1 249
Islamic Rep. of Iran	..	968	1 020	883	812	830	816	811	841	1 400	1 509	1 250
Iraq	..	712	691	745	829	763	799	824	823	824	824	824
Israel	..	777	603	578	518	730	695	707	685	723	705	704
Jordan	..	860	756	717	716	755	686	753	700	675	675	683
Kuwait	..	734	730	746	722	667	700	795	847	693	695	745
Lebanon	..	753	849	778	783	776	814	634	744	751	680	725
Oman	..	1 056	1 056	1 056	1 056	1 055	1 055	1 055	1 056	1 056	1 055	1 055
Qatar	..	-	-	-	-	-	-	-	-	-	-	-
Saudi Arabia	..	804	830	844	805	743	718	763	744	746	714	735
Syrian Arab Republic	..	777	763	729	728	730	714	730	729	779	731	746
United Arab Emirates	..	968	925	953	976	999	1 052	1 194	1 194	1 194	1 194	1 194
Yemen	..	946	921	930	930	919	884	874	841	781	679	767
<b>Middle East</b>	..	<b>811</b>	<b>800</b>	<b>793</b>	<b>781</b>	<b>756</b>	<b>748</b>	<b>781</b>	<b>787</b>	<b>832</b>	<b>813</b>	<b>811</b>
Albania	..	501	811	665	658	599	1 115	1 203	1 709	1 189	1 005	1 301
Bosnia and Herzegovina	..	583	582	288	425	510	498	470	477	462	476	472
Bulgaria	..	321	497	511	635	577	595	522	542	570	575	562
Croatia	..	456	584	582	639	630	622	578	531	547	600	559
Cyprus	..	822	856	838	777	756	833	773	789	758	761	769
Gibraltar	..	766	766	760	754	760	755	766	761	771	771	768
FYR of Macedonia	..	376	344	434	376	382	328	336	324	389	474	396
Malta	..	932	903	819	928	849	840	872	917	878	923	906
Romania	..	378	373	374	385	392	406	411	395	389	428	404
Serbia	..	418	419	394	422	676	688	437	381	427	465	424
Slovenia	..	973	406	477	667	494	436	439	437	396	535	456
<b>Non-OECD Europe</b>	..	<b>412</b>	<b>485</b>	<b>485</b>	<b>491</b>	<b>518</b>	<b>554</b>	<b>564</b>	<b>543</b>	<b>548</b>	<b>607</b>	<b>566</b>

CO<sub>2</sub> emissions per kWh from electricity and heat generation using oilgrammes CO<sub>2</sub> / kilowatt hour

	1990	1995	1999	2000	2001	2002	2003	2004	2005	2006	2007	Average 05-07
Armenia	..	306	-	-	-	-	-	-	-	-	-	-
Azerbaijan	..	600	725	725	725	725	725	725	725	577	660	654
Belarus	..	352	364	359	353	346	343	370	350	362	328	347
Estonia	..	349	368	365	412	404	419	380	396	373	403	390
Georgia	..	1 349	1 055	1 052	2 999	2 603	2 603	2 603	2 603	2 603	2 603	2 603
Kazakhstan	..	1 033	686	1 109	815	1 293	682	233	478	423	398	433
Kyrgyzstan	..	-	-	-	-	-	-	-	-	-	-	-
Latvia	..	341	372	373	356	337	354	372	350	386	409	382
Lithuania	..	353	379	376	390	398	409	439	463	433	331	409
Republic of Moldova	..	760	875	805	839	835	815	345	402	379	458	413
Russian Federation	..	328	384	398	391	407	392	372	392	383	375	383
Tajikistan	..	-	-	-	-	-	-	-	-	-	-	-
Turkmenistan	..	-	-	-	-	-	-	-	-	-	-	-
Ukraine	..	481	366	372	377	395	433	771	889	940	914	915
Uzbekistan	..	606	698	530	594	730	526	442	380	398	430	403
<b>Former Soviet Union</b>	..	<b>369</b>	<b>413</b>	<b>429</b>	<b>413</b>	<b>435</b>	<b>419</b>	<b>390</b>	<b>409</b>	<b>395</b>	<b>391</b>	<b>398</b>
Argentina	..	632	896	1 013	1 141	1 059	1 132	922	808	767	777	784
Bolivia	..	972	838	925	1 266	1 267	1 272	1 275	1 275	1 275	1 272	1 274
Brazil	..	819	785	804	794	702	766	714	764	730	699	731
Chile	..	863	777	989	800	429	330	1 305	1 104	1 139	705	983
Colombia	..	891	874	864	864	861	874	877	877	874	871	874
Costa Rica	..	918	974	949	980	936	1 119	747	818	772	902	831
Cuba	..	1 199	1 101	1 086	1 051	1 158	1 211	1 129	1 058	886	872	939
Dominican Republic	..	998	1 009	836	687	792	689	653	689	682	681	684
Ecuador	..	810	777	761	756	749	739	729	748	744	663	718
El Salvador	..	938	753	605	685	665	711	615	632	502	630	588
Guatemala	..	873	773	769	769	774	774	775	811	810	792	804
Haiti	..	669	688	716	649	761	611	573	587	582	761	643
Honduras	..	842	638	737	655	476	578	646	619	423	674	572
Jamaica	..	923	851	849	844	826	820	859	859	823	821	834
Netherlands Antilles	..	717	719	717	717	718	717	718	718	717	719	718
Nicaragua	..	842	794	748	748	714	741	741	772	740	740	751
Panama	..	1 027	719	781	787	764	727	782	769	778	735	761
Paraguay	..	926	1 467	-	-	-	-	-	-	-	-	-
Peru	..	964	763	854	863	827	793	763	898	825	683	802
Trinidad and Tobago	..	-	1 058	1 058	1 058	1 058	1 058	705	794	635	1 411	947
Uruguay	..	810	814	850	1 126	1 104	1 214	820	821	843	805	823
Venezuela	..	1 200	1 062	890	983	909	915	936	900	998	929	943
Other Latin America	..	821	595	655	653	659	669	658	659	658	658	658
<b>Latin America</b>	..	<b>933</b>	<b>855</b>	<b>850</b>	<b>834</b>	<b>830</b>	<b>843</b>	<b>836</b>	<b>829</b>	<b>791</b>	<b>762</b>	<b>794</b>
Bangladesh	..	1 004	939	1 078	1 182	1 121	1 084	1 017	1 097	1 097	1 123	1 105
Brunei Darussalam	..	847	722	690	794	762	762	766	766	770	770	769
Cambodia	..	1 816	1 764	1 798	1 940	2 076	2 010	1 350	1 269	1 199	1 201	1 223
Chinese Taipei	..	697	686	689	673	676	752	793	807	784	832	808
India	..	1 105	1 003	1 036	1 035	870	915	930	924	843	798	855
Indonesia	..	685	737	786	693	713	775	709	691	688	688	689
DPR of Korea	..	1 379	1 380	1 379	1 380	1 379	1 379	1 379	1 379	1 378	1 380	1 379
Malaysia	..	778	837	856	856	861	839	845	831	812	896	846
Mongolia	..	481	548	606	600	700	682	726	864	906	844	871
Myanmar	..	894	917	868	778	747	738	736	735	984	988	902
Nepal	..	827	761	755	755	850	850	971	1 020	1 020	1 020	1 020
Pakistan	..	757	747	755	758	773	675	795	692	749	719	720
Philippines	..	646	652	675	661	705	720	711	752	751	748	750
Singapore	..	1 201	707	707	707	707	707	707	707	707	707	707
Sri Lanka	..	696	703	826	795	761	855	803	758	657	657	691
Thailand	..	741	744	749	805	751	725	715	729	739	764	744
Vietnam	..	900	936	914	936	907	894	891	1 148	1 053	1 056	1 085
Other Asia	..	532	574	574	551	632	669	688	687	694	694	692
<b>Asia</b>	..	<b>792</b>	<b>766</b>	<b>791</b>	<b>778</b>	<b>770</b>	<b>795</b>	<b>789</b>	<b>776</b>	<b>761</b>	<b>757</b>	<b>765</b>
People's Rep. of China	..	619	650	637	635	645	667	667	683	648	615	649
Hong Kong, China	..	813	844	942	934	1 011	863	818	935	979	977	964
<b>China</b>	..	<b>620</b>	<b>651</b>	<b>637</b>	<b>636</b>	<b>645</b>	<b>667</b>	<b>667</b>	<b>683</b>	<b>648</b>	<b>616</b>	<b>649</b>

CO<sub>2</sub> emissions per kWh from electricity and heat generation using gas\*grammes CO<sub>2</sub> / kilowatt hour

	1990	1995	1999	2000	2001	2002	2003	2004	2005	2006	2007	Average 05-07
<b>World</b>	..	<b>366</b>	<b>395</b>	<b>388</b>	<b>389</b>	<b>390</b>	<b>386</b>	<b>387</b>	<b>390</b>	<b>384</b>	<b>388</b>	<b>387</b>
<i>Annex I Parties</i>	..	332	360	350	348	349	344	342	344	337	342	341
<i>Annex II Parties</i>	..	457	455	415	407	404	390	389	386	372	373	377
<i>North America</i>	..	502	532	459	453	434	426	436	435	393	397	408
<i>Europe</i>	403	372	370	353	340	346	328	320	316	320	317	318
<i>Pacific</i>	469	455	432	428	429	447	447	448	452	453	450	452
<i>Annex I EIT</i>	..	265	288	296	297	298	302	298	301	299	304	301
<i>Non-Annex I Parties</i>	..	561	542	540	539	536	527	529	531	527	521	526
<i>Annex I Kyoto Parties</i>	..	294	320	324	323	326	326	319	320	321	325	322
<b>Non-OECD Total</b>	..	<b>325</b>	<b>361</b>	<b>373</b>	<b>379</b>	<b>383</b>	<b>386</b>	<b>387</b>	<b>393</b>	<b>391</b>	<b>396</b>	<b>393</b>
<b>OECD Total</b>	..	<b>454</b>	<b>449</b>	<b>411</b>	<b>403</b>	<b>400</b>	<b>387</b>	<b>388</b>	<b>386</b>	<b>376</b>	<b>377</b>	<b>380</b>
Canada	371	360	379	407	411	395	424	392	395	391	384	390
Mexico	555	542	536	529	486	461	468	497	512	550	528	530
United States	..	509	541	462	455	437	427	438	437	393	398	409
<b>OECD N. America</b>	..	<b>504</b>	<b>532</b>	<b>463</b>	<b>455</b>	<b>436</b>	<b>430</b>	<b>442</b>	<b>443</b>	<b>409</b>	<b>411</b>	<b>421</b>
Australia	496	417	374	362	392	583	577	560	570	577	559	569
Japan	465	457	436	433	431	432	432	434	437	440	437	438
Korea	496	389	356	336	353	338	325	347	343	349	351	348
New Zealand	506	533	469	471	451	440	439	428	429	434	404	423
<b>OECD Pacific</b>	<b>470</b>	<b>448</b>	<b>423</b>	<b>417</b>	<b>419</b>	<b>431</b>	<b>429</b>	<b>428</b>	<b>429</b>	<b>431</b>	<b>429</b>	<b>429</b>
Austria	384	404	344	315	318	308	314	300	313	290	291	298
Belgium	454	412	346	335	311	310	336	334	348	307	307	321
Czech Republic	237	227	284	271	267	269	266	284	273	283	275	277
Denmark	222	235	255	250	249	250	252	254	249	252	244	248
Finland	241	274	233	238	242	242	244	243	233	247	236	238
France	337	335	325	250	250	245	240	233	241	263	265	257
Germany	372	314	360	345	314	326	259	259	260	257	258	258
Greece	459	435	518	505	482	446	434	416	459	416	416	430
Hungary	343	359	296	305	286	315	335	308	305	312	329	315
Iceland	-	-	-	-	-	-	-	-	-	-	-	-
Ireland	499	480	507	460	473	445	421	407	412	405	413	410
Italy	475	466	439	431	402	435	420	348	344	336	317	332
Luxembourg	662	307	221	206	202	327	322	328	325	326	329	327
Netherlands	434	363	341	300	313	316	317	308	282	297	302	294
Norway	-	302	296	293	328	288	283	288	283	283	320	295
Poland	289	318	297	304	313	330	320	332	334	330	335	333
Portugal	-	-	392	364	346	347	347	339	337	331	329	332
Slovak Republic	442	429	387	333	278	239	240	251	241	236	239	239
Spain	423	469	363	311	281	325	316	324	319	356	350	342
Sweden	217	218	220	227	222	252	219	216	219	218	215	217
Switzerland	241	232	230	230	232	233	237	236	238	242	245	242
Turkey	488	419	408	346	359	357	347	355	357	341	347	348
United Kingdom	521	426	386	382	387	379	379	388	383	391	385	386
<b>OECD Europe</b>	<b>397</b>	<b>371</b>	<b>368</b>	<b>349</b>	<b>337</b>	<b>342</b>	<b>327</b>	<b>321</b>	<b>318</b>	<b>320</b>	<b>320</b>	<b>319</b>
<i>European Union - 27</i>	..	356	356	343	331	336	324	315	312	315	314	314

\* CO<sub>2</sub> emissions from gas consumed for electricity, combined heat and power and main activity heat plants divided by output of electricity and heat generated from gas. Both main activity producers and autoproducers have been included in the calculation of the emissions. Due to missing data for heat in 1990, the ratio for some countries and regions is not available.



CO<sub>2</sub> emissions per kWh from electricity and heat generation using gasgrammes CO<sub>2</sub> / kilowatt hour

	1990	1995	1999	2000	2001	2002	2003	2004	2005	2006	2007	Average 05-07
<b>Non-OECD Total</b>	..	<b>325</b>	<b>361</b>	<b>373</b>	<b>379</b>	<b>383</b>	<b>386</b>	<b>387</b>	<b>393</b>	<b>391</b>	<b>396</b>	<b>393</b>
Algeria	..	621	618	614	616	625	632	631	609	618	594	607
Angola	..	-	-	-	-	-	-	-	-	-	-	-
Benin	..	-	-	-	-	-	-	-	-	-	-	-
Botswana	..	-	-	-	-	-	-	-	-	-	-	-
Cameroon	..	-	-	-	-	-	-	-	-	-	1 470	1 470
Congo	..	-	-	-	-	-	573	576	573	572	575	573
Dem. Rep. of Congo	..	-	-	-	-	-	-	-	-	-	-	-
Côte d'Ivoire	..	736	615	598	622	606	600	536	627	539	554	574
Egypt	..	529	515	467	442	484	484	490	490	490	490	490
Eritrea	..	-	-	-	-	-	-	-	-	-	-	-
Ethiopia	..	-	-	-	-	-	-	-	-	-	-	-
Gabon	..	876	919	929	894	893	899	965	1 007	1 017	1 063	1 029
Ghana	..	-	-	-	-	-	-	-	-	-	-	-
Kenya	..	-	-	-	-	-	-	-	-	-	-	-
Libyan Arab Jamahiriya	..	591	591	591	591	529	632	662	662	591	562	605
Morocco	..	-	-	-	-	-	-	-	332	334	368	345
Mozambique	..	652	628	778	1 106	1 155	1 674	775	724	684	573	660
Namibia	..	-	-	-	-	-	-	-	-	-	-	-
Nigeria	..	410	515	628	515	515	515	515	515	515	515	515
Senegal	..	604	611	628	-	518	512	517	519	516	511	515
South Africa	..	-	-	-	-	-	-	-	-	-	-	-
Sudan	..	-	-	-	-	-	-	-	-	-	-	-
United Rep. of Tanzania	..	-	-	-	-	-	-	484	569	602	579	583
Togo	..	-	-	-	-	-	-	-	-	-	-	-
Tunisia	..	533	555	536	550	529	521	502	440	503	511	485
Zambia	..	-	-	-	-	-	-	-	-	-	-	-
Zimbabwe	..	-	-	-	-	-	-	-	-	-	-	-
Other Africa	..	-	-	-	-	-	-	-	-	-	-	-
<b>Africa</b>	..	<b>544</b>	<b>554</b>	<b>529</b>	<b>508</b>	<b>527</b>	<b>529</b>	<b>533</b>	<b>523</b>	<b>527</b>	<b>524</b>	<b>525</b>
Bahrain	..	815	852	868	840	835	883	881	873	805	833	837
Islamic Rep. of Iran	..	507	507	507	529	527	525	511	516	451	430	466
Iraq	..	-	-	-	-	-	-	-	-	-	-	-
Israel	..	516	525	541	529	535	542	535	555	468	412	478
Jordan	..	681	688	671	626	646	667	622	582	576	566	574
Kuwait	..	539	539	553	539	478	516	586	627	510	515	551
Lebanon	..	-	-	-	-	-	-	-	-	-	-	-
Oman	..	776	759	742	765	780	809	848	819	830	819	822
Qatar	..	1 131	823	771	781	782	779	649	618	626	623	622
Saudi Arabia	..	830	784	766	749	759	761	760	761	765	764	763
Syrian Arab Republic	..	543	543	543	543	543	543	543	543	543	543	543
United Arab Emirates	..	730	700	721	740	758	798	906	836	812	824	824
Yemen	..	-	-	-	-	-	-	-	-	-	-	-
<b>Middle East</b>	..	<b>680</b>	<b>638</b>	<b>637</b>	<b>651</b>	<b>654</b>	<b>660</b>	<b>668</b>	<b>661</b>	<b>620</b>	<b>612</b>	<b>631</b>
Albania	..	-	-	-	-	-	-	-	-	-	-	-
Bosnia and Herzegovina	..	-	275	287	287	287	287	287	287	287	287	287
Bulgaria	..	302	285	296	288	288	261	232	236	244	266	249
Croatia	..	423	337	339	324	346	313	318	304	323	356	327
Cyprus	..	-	-	-	-	-	-	-	-	-	-	-
Gibraltar	..	-	-	-	-	-	-	-	-	-	-	-
FYR of Macedonia	..	-	238	238	235	235	248	254	242	242	238	241
Malta	..	-	-	-	-	-	-	-	-	-	-	-
Romania	..	322	285	295	292	309	349	313	311	315	308	311
Serbia	..	241	259	260	270	258	268	268	230	229	266	242
Slovenia	..	234	229	237	249	271	278	246	260	244	266	256
<b>Non-OECD Europe</b>	..	<b>314</b>	<b>285</b>	<b>294</b>	<b>291</b>	<b>302</b>	<b>320</b>	<b>293</b>	<b>284</b>	<b>291</b>	<b>300</b>	<b>292</b>

## CO<sub>2</sub> emissions per kWh from electricity and heat generation using gas

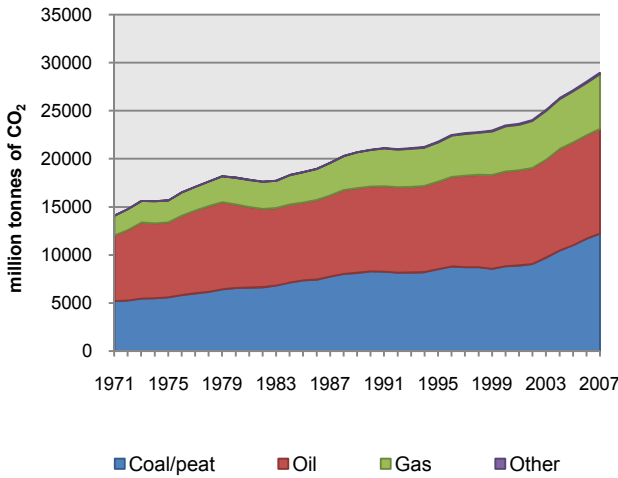
grammes CO<sub>2</sub> / kilowatt hour

	1990	1995	1999	2000	2001	2002	2003	2004	2005	2006	2007	Average 05-07
Armenia	..	328	457	457	458	454	455	351	404	442	495	447
Azerbaijan	..	341	445	582	521	444	481	496	496	496	435	476
Belarus	..	299	281	298	288	292	289	298	297	297	300	298
Estonia	..	223	227	232	235	236	236	231	233	234	232	233
Georgia	..	934	924	887	616	393	348	369	389	459	704	517
Kazakhstan	..	559	535	591	585	585	585	585	585	585	585	585
Kyrgyzstan	..	309	309	309	309	309	309	309	309	309	310	309
Latvia	..	247	249	240	241	239	236	238	236	234	232	234
Lithuania	..	255	270	268	268	257	257	260	264	257	258	260
Republic of Moldova	..	402	609	734	769	744	752	525	527	483	509	506
Russian Federation	..	259	286	293	298	301	297	299	305	305	309	306
Tajikistan	..	515	517	517	517	428	422	501	498	459	405	454
Turkmenistan	..	931	791	795	795	795	795	795	795	795	795	795
Ukraine	..	273	300	317	308	294	347	293	283	264	274	274
Uzbekistan	..	422	472	465	466	467	468	469	469	469	469	469
<b>Former Soviet Union</b>	..	<b>272</b>	<b>299</b>	<b>308</b>	<b>311</b>	<b>311</b>	<b>314</b>	<b>310</b>	<b>313</b>	<b>312</b>	<b>317</b>	<b>314</b>
Argentina	..	437	520	514	490	482	474	467	448	459	468	458
Bolivia	..	845	563	605	1 043	882	635	898	738	743	745	742
Brazil	..	742	494	496	455	478	445	472	473	451	450	458
Chile	..	358	398	425	448	424	416	400	465	414	463	448
Colombia	..	646	510	534	480	495	502	492	496	485	544	509
Costa Rica	..	-	-	-	-	-	-	-	-	-	-	-
Cuba	..	377	477	477	477	477	-	-	-	-	-	-
Dominican Republic	..	-	-	-	-	-	502	502	502	502	502	502
Ecuador	..	-	-	-	-	937	976	903	630	723	767	707
El Salvador	..	-	-	-	-	-	-	-	-	-	-	-
Guatemala	..	-	-	-	-	-	-	-	-	-	-	-
Haiti	..	-	-	-	-	-	-	-	-	-	-	-
Honduras	..	-	-	-	-	-	-	-	-	-	-	-
Jamaica	..	-	-	-	-	-	-	-	-	-	-	-
Netherlands Antilles	..	-	-	-	-	-	-	-	-	-	-	-
Nicaragua	..	-	-	-	-	-	-	-	-	-	-	-
Panama	..	-	-	-	-	-	-	-	-	-	-	-
Paraguay	..	-	-	-	-	-	-	-	-	-	-	-
Peru	..	670	670	670	646	646	646	604	1 016	818	468	768
Trinidad and Tobago	..	716	710	693	697	776	732	762	711	727	739	726
Uruguay	..	-	-	-	-	-	451	578	469	536	578	528
Venezuela	..	675	715	644	615	654	652	638	658	654	631	648
Other Latin America	..	580	708	703	711	703	692	659	686	697	720	701
<b>Latin America</b>	..	<b>570</b>	<b>557</b>	<b>541</b>	<b>524</b>	<b>535</b>	<b>515</b>	<b>508</b>	<b>514</b>	<b>513</b>	<b>518</b>	<b>515</b>
Bangladesh	..	586	595	555	597	603	573	639	552	583	676	604
Brunei Darussalam	..	881	832	796	799	819	801	802	782	822	840	815
Cambodia	..	-	-	-	-	-	-	-	-	-	-	-
Chinese Taipei	..	505	444	462	473	446	432	425	428	429	423	427
India	..	539	448	503	493	538	469	480	480	480	462	474
Indonesia	..	575	484	495	560	475	472	507	429	469	442	447
DPR of Korea	..	-	-	-	-	-	-	-	-	-	-	-
Malaysia	..	569	547	527	547	568	454	432	560	568	506	545
Mongolia	..	-	-	-	-	-	-	-	-	-	-	-
Myanmar	..	843	692	686	637	654	725	725	725	725	725	725
Nepal	..	-	-	-	-	-	-	-	-	-	-	-
Pakistan	..	594	545	550	537	529	536	526	537	536	573	548
Philippines	..	854	860	1 202	333	300	349	356	343	325	330	333
Singapore	..	447	454	472	449	449	488	488	488	488	488	488
Sri Lanka	..	-	-	-	-	-	-	-	-	-	-	-
Thailand	..	468	486	489	506	503	483	475	472	472	470	471
Vietnam	..	514	601	591	584	643	522	546	515	515	515	515
Other Asia	..	-	-	-	-	-	-	-	-	-	-	-
<b>Asia</b>	..	<b>546</b>	<b>506</b>	<b>515</b>	<b>526</b>	<b>520</b>	<b>483</b>	<b>486</b>	<b>493</b>	<b>496</b>	<b>489</b>	<b>493</b>
People's Rep. of China	..	516	353	334	315	304	326	325	351	370	434	385
Hong Kong, China	..	859	500	468	467	448	457	451	454	454	454	454
<b>China</b>	..	<b>524</b>	<b>426</b>	<b>388</b>	<b>375</b>	<b>360</b>	<b>367</b>	<b>365</b>	<b>378</b>	<b>392</b>	<b>437</b>	<b>403</b>

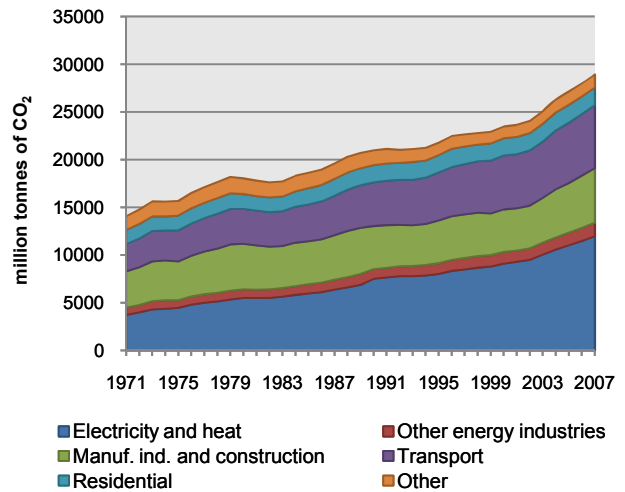
## 6. GLOBAL TOTAL

## World / Monde

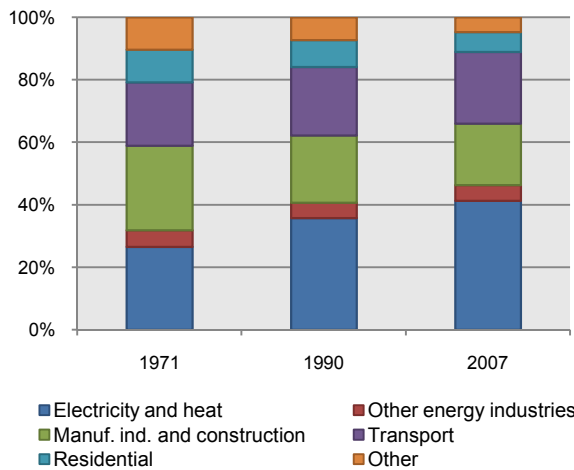
**Figure 1. CO<sub>2</sub> emissions by fuel**



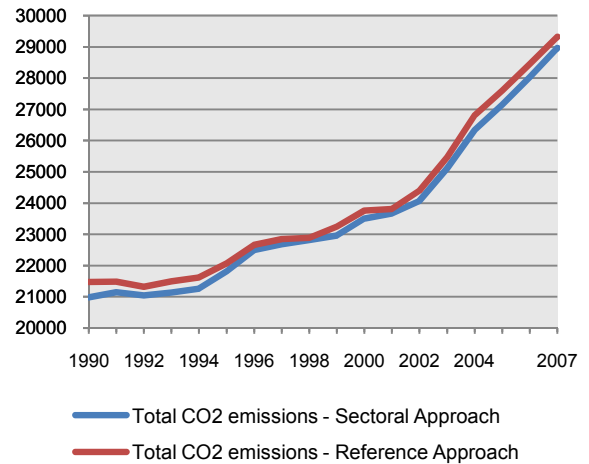
**Figure 2. CO<sub>2</sub> emissions by sector**



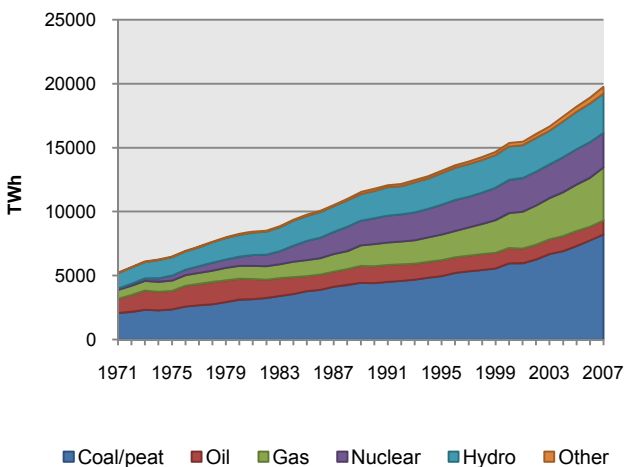
**Figure 3. CO<sub>2</sub> emissions by sector**



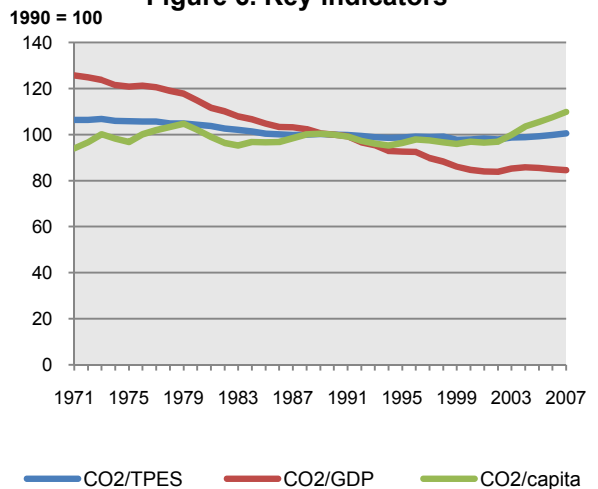
**Figure 4. Reference vs Sectoral Approach**



**Figure 5. Electricity generation by fuel**



**Figure 6. Key indicators**



## World / Monde

### Key indicators

	1990	1995	2000	2004	2005	2006	2007	% change 90-07
CO <sub>2</sub> Sectoral Approach (Mt of CO <sub>2</sub> )	20 980.5	21 810.4	23 497.3	26 336.1	27 147.0	28 028.0	28 962.4	38.0%
CO <sub>2</sub> Reference Approach (Mt of CO <sub>2</sub> )	21 474.1	22 067.2	23 758.5	26 807.5	27 600.3	28 446.3	29 320.5	36.5%
TPES (PJ)	366 834	386 311	419 463	465 685	478 361	490 696	503 664	37.3%
TPES (Mtoe)	8 761.7	9 226.9	10 018.7	11 122.7	11 425.5	11 720.1	12 029.8	37.3%
GDP (billion 2000 US\$)	24 199.8	27 133.3	31 979.8	35 356.1	36 585.9	38 046.5	39 493.3	63.2%
GDP PPP (billion 2000 US\$)	33 299.1	37 759.5	45 572.7	52 626.0	55 156.7	58 179.4	61 428.0	84.5%
Population (millions)	5 259.2	5 675.7	6 072.7	6 382.3	6 458.9	6 535.2	6 609.3	25.7%
CO <sub>2</sub> / TPES (t CO <sub>2</sub> per TJ)	57.2	56.5	56.0	56.6	56.7	57.1	57.5	0.5%
CO <sub>2</sub> / GDP (kg CO <sub>2</sub> per 2000 US\$)	0.87	0.80	0.73	0.74	0.74	0.74	0.73	-15.4%
CO <sub>2</sub> / GDP PPP (kg CO <sub>2</sub> per 2000 US\$)	0.63	0.58	0.52	0.50	0.49	0.48	0.47	-25.2%
CO <sub>2</sub> / population (t CO <sub>2</sub> per capita)	3.99	3.84	3.87	4.13	4.20	4.29	4.38	9.8%

Ratios are based on the Sectoral Approach.

### 2007 CO<sub>2</sub> emissions by sector

<i>million tonnes of CO<sub>2</sub></i>	Coal/peat	Oil	Gas	Other *	Total	% change 90-07
<b>Sectoral Approach</b>	<b>12 228.1</b>	<b>10 898.6</b>	<b>5 733.8</b>	<b>102.0</b>	<b>28 962.4</b>	<b>38.0%</b>
Main activity producer elec. and heat	8 207.5	730.7	1 930.4	34.0	10 902.6	57.0%
Unallocated autoproducers	473.1	167.4	394.4	37.6	1 072.6	87.9%
Other energy industries	249.6	673.6	508.2	0.5	1 432.0	40.9%
Manufacturing industries and construction	2 847.4	1 544.0	1 297.6	25.8	5 714.8	26.4%
Transport	13.7	6 444.0	174.7	-	6 632.5	44.5%
<i>of which: road</i>	-	4 806.3	28.2	-	4 834.5	46.9%
Other sectors	436.6	1 338.8	1 428.4	4.1	3 208.0	-3.9%
<i>of which: residential</i>	267.5	624.2	949.9	0.0	1 841.7	1.3%
<b>Reference Approach</b>	<b>12 411.5</b>	<b>11 027.5</b>	<b>5 779.2</b>	<b>102.4</b>	<b>29 320.5</b>	<b>36.5%</b>
Diff. due to losses and/or transformation	229.4	72.0	77.7	0.0	379.1	
Statistical differences	- 46.0	56.8	- 32.2	0.3	- 21.1	
<i>Memo: international marine bunkers **</i>	-	610.4	-	-	610.4	71.1%
<i>Memo: international aviation bunkers **</i>	-	411.6	-	-	411.6	62.3%

\* Other includes industrial waste and non-renewable municipal waste.

\*\* World includes international marine bunkers and international aviation bunkers.

### Key sources for CO<sub>2</sub> emissions from fuel combustion in 2007

IPCC source category	CO <sub>2</sub> emissions (Mt of CO <sub>2</sub> )	% change 90-07	Level assessment (%) ***	Cumulative total (%)
Main activity prod. elec. and heat - coal/peat	8 207.5	76.9%	19.2	19.2
Road - oil	4 806.3	46.2%	11.2	30.4
Manufacturing industries - coal/peat	2 847.4	29.9%	6.6	37.0
Main activity prod. elec. and heat - gas	1 930.4	59.2%	4.5	41.5
Other transport - oil	1 637.7	45.4%	3.8	45.3
Manufacturing industries - oil	1 544.0	15.2%	3.6	48.9
Manufacturing industries - gas	1 297.6	31.8%	3.0	52.0
Residential - gas	949.9	48.3%	2.2	54.2
Main activity prod. elec. and heat - oil	730.7	-32.8%	1.7	55.9
Non-specified other sectors - oil	714.6	-2.0%	1.7	57.6
Other energy industries - oil	673.6	19.2%	1.6	59.1
<i>Memo: total CO<sub>2</sub> from fuel combustion</i>	<i>28 962.4</i>	<i>38.0%</i>	<i>67.6</i>	<i>67.6</i>

\*\*\* Percent calculated using the total GHG estimate for CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs and SF<sub>6</sub> excluding CO<sub>2</sub> emissions/removals from land use change and forestry.

# Energy Data Manager / Statistician

Possible Staff Vacancies

International Energy Agency, Paris, France

## The IEA

The International Energy Agency, based in Paris, acts as energy policy advisor to 27 member countries in their effort to ensure reliable, affordable and clean energy for their citizens. Founded during the oil crisis of 1973-74, the IEA's initial role was to co-ordinate measures in times of oil supply emergencies. As energy markets have changed, so has the IEA. Its mandate has broadened to incorporate the "Three E's" of balanced energy policy making: energy security, economic development and environmental protection. Current work focuses on climate change policies, market reform, energy technology collaboration and outreach to the rest of the world, especially major consumers and producers of energy like China, India, the Russian Federation and the OPEC countries.

The Energy Statistics Division, with a staff of around 30 people, provides a dynamic environment for young people just finishing their studies or with one to two years of work experience.

## Job description

The data managers/statisticians compile, verify and disseminate information on all aspects of energy including production, transformation and consumption of all fuels, renewables, the emergency reporting system, energy efficiency indicators, CO<sub>2</sub> emissions, and energy prices and taxes. The data managers are responsible for receiving, reviewing and inputting data submissions from Member countries and other sources into large computerised databases. They check for completeness, correct calculations, internal consistency, accuracy and consistency with definitions. Often this entails proactively investigating and helping to resolve anomalies in collaboration with national administrations of Member and non-Member countries. The data managers/statisticians also play a key role in helping to design and implement computer macros used in the preparation of their energy statistics publication(s).

## Principal Qualifications

- University degree in a topic relevant to energy, computer programming or statistics. We currently have staff with degrees in Mathematics, Statistics, Information Technology, Economics, Engineering, Physics, Chemistry, Environmental Studies, Hydrology, Public Administration and Business.
- Experience in the basic use of databases and computer software. Good computer programming skills in Visual Basic.
- Ability to work accurately, pay attention to detail and work to deadlines. Ability to deal simultaneously with a wide variety of tasks and to organise work efficiently.
- Good communication skills; ability to work well in a team and in a multicultural environment, particularly in liaising with contacts in national administrations and industry.
- Very good knowledge of one of the two official languages of the Organisation (English or French). Knowledge of other languages would be an advantage.
- Some knowledge of energy industry operations and terminology would also be an advantage, but is not required.

Nationals of any OECD Member country are eligible for appointment. Basic salaries range from 2 900 to 3 900 Euros per month, depending on qualifications. The possibilities for advancement are good for candidates with appropriate qualifications and experience. Tentative enquiries about future vacancies are welcomed from men and women with relevant qualifications and experience. Applications in French or English, accompanied by a curriculum vitae, should be sent to:

Personnel and Finance Division  
International Energy Agency  
9 rue de la Fédération  
75739 Paris Cedex 15, France  
Email: [recruitment@iea.org](mailto:recruitment@iea.org)

## On-Line Data Services

*Users can instantly access not only all the data published in this book, but also all the time series used for preparing this publication and all the other statistics publications of the IEA. The data are available on-line, either through annual subscription or pay-per-view access. More information on this service can be found on our website: <http://data.iea.org>*

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## Ten Annual Publications

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### ■ Energy Statistics of OECD Countries, 2009 Edition

No other publication offers such in-depth statistical coverage. It is intended for anyone involved in analytical or policy work related to energy issues. It contains data on energy supply and consumption in original units for coal, oil, natural gas, combustible renewables/wastes and products derived from these primary fuels, as well as for electricity and heat. Complete data are available for 2006 and 2007 and supply estimates are available for the most recent year (*i.e.* 2008). Historical tables summarise data on production, trade and final consumption. Each issue includes definitions of products and flows and explanatory notes on the individual country data.

*Published July 2009 - Price €120*

### ■ Energy Balances of OECD Countries, 2009 Edition

A companion volume to *Energy Statistics of OECD Countries*, this publication presents standardised energy balances expressed in million tonnes of oil equivalent. Energy supply and consumption data are divided by main fuel: coal, oil, gas, nuclear, hydro, geothermal/solar, combustible renewables/wastes, electricity and heat. This allows for easy comparison of the contributions each fuel makes to the economy and their interrelationships through the conversion of one fuel to another. All of this is essential for estimating total energy supply, forecasting, energy conservation, and analysing the potential for interfuel substitution. Complete data are available for 2006 and 2007 and supply estimates are available for the most recent year (*i.e.* 2008). Historical tables summarise key energy and economic indicators as well as data on production, trade and final consumption. Each issue includes definitions of products and flows and explanatory notes on the individual country data as well as conversion factors from original units to tonnes of oil equivalent.

*Published July 2009 - Price €120*

### ■ Energy Statistics of Non-OECD Countries, 2009 Edition

This publication offers the same in-depth statistical coverage as the homonymous publication covering OECD countries. It includes data in original units for more than 100 individual countries and nine main regions. The consistency of OECD and non-OECD countries' detailed statistics provides an accurate picture of the global energy situation for 2006 and 2007. For a description of the content, please see *Energy Statistics of OECD Countries* above.

*Published August 2009 - Price €120*

### ■ **Energy Balances of Non-OECD Countries, 2009 Edition**

A companion volume to the publication *Energy Statistics of Non-OECD Countries*, this publication presents energy balances in million tonnes of oil equivalent and key economic and energy indicators for more than 100 individual countries and nine main regions. It offers the same statistical coverage as the homonymous publication covering OECD countries, and thus provides an accurate picture of the global energy situation for 2006 and 2007. For a description of the content, please see *Energy Balances of OECD Countries* above.

*Published August 2009 - Price €120*

### ■ **Electricity Information 2009**

This reference document provides essential statistics on electricity and heat for each OECD member country by bringing together information on production, installed capacity, input energy mix to electricity and heat production, input fuel prices, consumption, end-user electricity prices and electricity trades. The document also presents selected non-OECD country statistics on the main electricity and heat flows. It is an essential document for electricity and heat market and policy analysts.

*Published August 2009 - Price €150*

### ■ **Coal Information 2009**

This well-established publication provides detailed information on past and current evolution of the world coal market. It presents country-specific statistics for OECD member countries and selected non-OECD countries on coal production, demand, trade and prices. This publication represents a key reference tool for all those involved in the coal supply or consumption stream, as well as institutions and governments involved in market and policy analysis of the world coal market.

*Published August 2009 - Price €165*

### ■ **Natural Gas Information 2009**

A detailed reference work on gas supply and demand, covering not only the OECD countries but also the rest of the world. Contains essential information on LNG and pipeline trade, gas reserves, storage capacity and prices. The main part of the book, however, concentrates on OECD countries, showing a detailed gas supply and demand balance for each individual country and for the three OECD regions: North America, Europe and Asia-Pacific, as well as a breakdown of gas consumption by end-user. Import and export data are reported by source and destination.

*Published August 2009 - Price €165*

### ■ **Oil Information 2009**

A comprehensive reference book on current developments in oil supply and demand. The first part of this publication contains key data on world production, trade, prices and consumption of major oil product groups, with time series back to the early 1970s. The second part gives a more detailed and comprehensive picture of oil supply, demand, trade, production and consumption by end-user for each OECD country individually and for the OECD regions. Trade data are reported extensively by origin and destination.

*Published August 2009 - Price €165*



**■ Renewables Information 2009**

This reference document brings together in one volume essential statistics on renewables and waste energy sources. It presents a detailed and comprehensive picture of developments for renewable and waste energy sources for each of the OECD member countries, encompassing energy indicators, generating capacity, electricity and heat production from renewable and waste sources, as well as production and consumption of renewable and waste products. It also includes a selection of indicators for non-OECD countries. This report provides a strong foundation for renewables energy policy and market analysis to assess progress towards domestic and international objectives.

*Published August 2009 - Price €110*

**■ CO<sub>2</sub> Emissions from Fuel Combustion, 2009 Edition**

In order for nations to tackle the problem of climate change, they need accurate greenhouse gas emissions data. This publication provides a basis for comparative analysis of CO<sub>2</sub> emissions from fossil fuel combustion, a major source of anthropogenic emissions. The data in this book are designed to assist in understanding the evolution of the emissions of CO<sub>2</sub> from 1971 to 2007 for more than 140 countries and regions by sector and by fuel. Emissions were calculated using IEA energy databases and the default methods and emissions factors from the *Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories*.

*Published November 2009 - Price €165*

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## **Two Quarterlies**

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**■ Oil, Gas, Coal and Electricity, Quarterly Statistics**

This publication provides up-to-date, detailed quarterly statistics on oil, coal, natural gas and electricity for the OECD countries. Oil statistics cover production, trade, refinery intake and output, stock changes and consumption for crude oil, NGL and nine selected oil product groups. Statistics for electricity, natural gas and coal show supply and trade. Import and export data are reported by origin and destination. Moreover, oil as well as hard coal and brown coal production are reported on a worldwide basis.

*Published Quarterly - Price €120, annual subscription €380*

**■ Energy Prices and Taxes**

This publication responds to the needs of the energy industry and OECD governments for up-to-date information on prices and taxes in national and international energy markets. It contains prices at all market levels for OECD countries and certain non-OECD countries: import prices, industry prices and consumer prices. The statistics cover the main petroleum products, gas, coal and electricity, giving for imported products an average price both for importing country and country of origin. Every issue includes full notes on sources and methods and a description of price mechanisms in each country.

*Published Quarterly - Price €120, annual subscription €380*

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| ■ Energy Balances of OECD Countries, 1960-2008              | Price: €550 (single user)          |
| ■ Energy Statistics of Non-OECD Countries, 1971-2007        | Price: €550 (single user)          |
| ■ Energy Balances of Non-OECD Countries, 1971-2007          | Price: €550 (single user)          |
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| ■ Natural Gas Information 2009                              | Price: €550 (single user)          |
| ■ Oil Information 2009                                      | Price: €550 (single user)          |
| ■ Renewables Information 2009                               | Price: €400 (single user)          |
| ■ CO <sub>2</sub> Emissions from Fuel Combustion, 1971-2007 | Price: €550 (single user)          |

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### ■ The Monthly Oil Data Service

The IEA Monthly Oil Data Service provides the detailed databases of historical and projected information which is used in preparing the IEA's monthly *Oil Market Report* (OMR). The IEA Monthly Oil Data Service comprises three packages available separately or combined as a subscriber service on the Internet. The data are available at the same time as the official release of the Oil Market Report.

The packages include:

- |                                       |                                    |
|---------------------------------------|------------------------------------|
| ■ Supply, Demand, Balances and Stocks | Price: €6 000 (single user)        |
| ■ Trade                               | Price: €2 000 (single user)        |
| ■ Field-by-Field Supply               | Price: €3 000 (single user)        |
| ■ <i>Complete Service</i>             | <i>Price: €9 000 (single user)</i> |

A description of this service is available on our website: <http://modsinfo.iea.org>

### ■ The Monthly Gas Data Service

The service provides monthly natural gas data for OECD countries:

- supply balances in terajoules and cubic metres;
- production, trade, stock changes and levels where available, gross inland deliveries, own use and losses;
- highly detailed trade data with about 50 imports origins and exports destinations;
- LNG trade detail available from January 2002.

The databases cover the time period January 1984 to current month with a time lag of two months for the most recent data.

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