IEA STATISTICS

2014 EDITION

CO_2 EMISSIONS FROM FUEL COMBUSTION

HIGHLIGHTS

International Energy Agency

2014
EDITION

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In the lead-up to the UN climate negotiations in Lima, the latest information on the level and growth of CO_2 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 for free download the "Highlights" version of *CO_2 Emissions from Fuel Combustion*.

This annual publication contains, for more than 140 countries and regions:

- **estimates of CO_2 emissions from 1971 to 2012,**
- **selected indicators such as CO_2/GDP, CO_2/capita and CO_2/TPES,**
- **a decomposition of CO_2 emissions into driving factors,**
- **CO_2 emissions from international marine and aviation bunkers, and other relevant information.**

The twentieth session of the Conference of the Parties to the Climate Change Convention (COP 20), in conjunction with the tenth meeting of the Parties to the Kyoto Protocol (CMP 10), will be meeting in Lima, Peru from 1 to 12 December 2014. This volume of "Highlights", drawn from the full-scale study, was specially designed for delegations and observers of the meeting in Lima.

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HIGHLIGHTS

INTERNATIONAL ENERGY AGENCY

The International Energy Agency (IEA), an autonomous agency, was established in November 1974. Its primary mandate was – and is – two-fold: to promote energy security amongst its member countries through collective response to physical disruptions in oil supply, and provide authoritative research and analysis on ways to ensure reliable, affordable and clean energy for its 29 member countries and beyond. The IEA carries out a comprehensive programme of energy co-operation among its member countries, each of which is obliged to hold oil stocks equivalent to 90 days of its net imports. The Agency's aims include the following objectives:

- Secure member countries' access to reliable and ample supplies of all forms of energy; in particular, through maintaining effective emergency response capabilities in case of oil supply disruptions.
- Promote sustainable energy policies that spur economic growth and environmental protection in a global context – particularly in terms of reducing greenhouse-gas emissions that contribute to climate change.
- Improve transparency of international markets through collection and analysis of energy data.
- Support global collaboration on energy technology to secure future energy supplies and mitigate their environmental impact, including through improved energy efficiency and development and deployment of low-carbon technologies.
- Find solutions to global energy challenges through engagement and dialogue with non-member countries, industry, international organisations and other stakeholders.

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FOREWORD

In the lead-up to the UN climate negotiations in Lima, Peru, the latest information on the level and growth of CO_2 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 for free download the "Highlights" version of *CO_2 Emissions from Fuel Combustion*. The PDF publication and an EXCEL file with the tables can be downloaded for free at *www.iea.org/statistics/topics/co2emissions.*

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 energy 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_2, 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_2 from non-energy-related sources and gas flaring, and emissions of CH_4, N_2O, HFC, PFC and SF_6. 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.

Maria Van der Hoeven
Executive Director

What's New?

Geographical coverage

- As Estonia became an IEA member in May 2014, it is now included within the aggregate IEA Total, starting in 1990.
- The European Union aggregate now also includes Croatia, an EU member since 1 July 2013.
- The IEA continues to expand the coverage of its statistics reports and encourage more countries to collaborate on data exchange. This year data have become available for Mauritius from 1971 to 2012 and these data are presented in this edition of the publication. Therefore, Mauritius, presented individually, has been removed from the region Other Africa.
- In accordance with article 27 (1) of the Kyoto Protocol to the UNFCCC, the Government of Canada notified the Secretary-General of the United Nations of its decision to withdraw from the Kyoto Protocol. This action became effective for Canada on 15 December 2012 in accordance with article 27 (2). In this edition, Canada has been removed from the aggregate Annex I Kyoto Parties, as specified in Chapter 4: *Geographical coverage*.

Indicators

The GDP PPP data, as taken from external sources as specified in Chapter 3: *Indicator sources and methods*, have been revised to reflect the changes to purchasing power parity rates based on the 2011 International Comparison Program (ICP) published in 2014. The ICP has worked for six years to better estimate the value of the PPP basket of goods for all countries for which the World Bank calculates GDP PPP. For many countries this value has changed significantly in comparison to previous ICP exercises. This leads to significant revisions to GDP PPP for many countries compared to previous publications.

Due to these revisions, the CO_2 / GDP PPP indicator consequently shows significant revisions for some countries and regions compared with the previous edition of this publication.

Products

The product aggregate "coal/peat" has been renamed as "coal". In the tables and figures presented in this publication, "coal" refers to the aggregate of coal, peat and oil shale.

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Important cautionary notes

The estimates of CO_2 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 Chapter 6: *Regional totals*, the IEA Secretariat presents CO_2 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 2012 for certain countries and regional aggregates. Please see Chapter 3 for further details.

Energy data on OECD member and non-member countries[1] are collected by the Energy Data Centre (EDC) of the IEA Secretariat, headed by Mr. Jean-Yves Garnier. The IEA would like to thank and acknowledge the dedication and professionalism of the statisticians working on energy data in the countries. Mr. Aidan Kennedy was responsible for the CO_2 emissions from fuel combustion estimates and for the preparation of the publication. Desktop publishing support was provided by Ms. Sharon Burghgraeve. Ms. Roberta Quadrelli had overall responsibility for this publication.

CO_2 emission estimates from 1960 to 2012 for the Annex II countries and from 1971 to 2012 for all other countries are available on CD-ROM suitable for use on Windows-based systems. 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 *www.iea.org*.

Enquiries about data or methodology should be addressed to:

Energy Data Centre - CO_2 emissions
Telephone: (+33-1) 40-57-66-01,
E-mail: emissions@iea.org.

1. This document is without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area. In this publication, "country" refers to a country or a territory, as the case may be.

1. RECENT TRENDS IN CO_2 EMISSIONS FROM FUEL COMBUSTION

The growing importance of energy-related emissions

Climate scientists have observed that carbon dioxide (CO_2) concentrations in the atmosphere have been increasing significantly 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 2013 concentration of CO_2 (396 ppmv) was about 40% higher than in the mid-1800s, with an average growth of 2 ppmv/year in the last ten years. Significant increases have also occurred in levels of methane (CH_4) and nitrous oxide (N_2O).

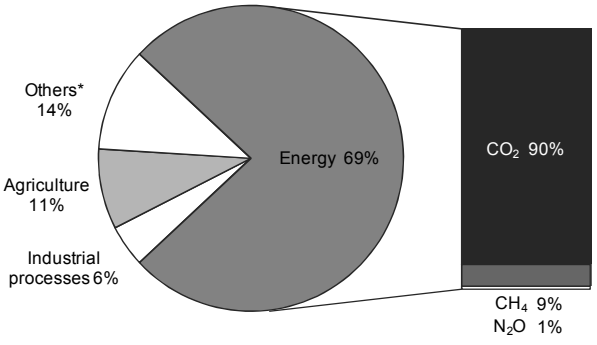
The *Fifth Assessment Report* from the Intergovernmental Panel on Climate Change (Working Group I) states that human influence on the climate system is clear (IPCC, 2013). Some impacts of the increased GHG concentrations may be slow to become apparent since stability is an inherent characteristic of the interacting climate, ecological and socio-economic systems. Even after stabilisation of the atmospheric concentration of CO_2, 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 irreversible in the course of a human lifespan.

Given the long lifetime of CO_2 in the atmosphere, stabilising concentrations of greenhouse gases at any level would require large reductions of global CO_2 emissions from current levels. The lower the chosen level for stabilisation, the sooner the decline in global CO_2 emissions would need to begin, or the deeper the emission reduction would need to be over time. The United Nations Framework Convention on Climate Change (UNFCCC) provides a structure for intergovernmental 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 interference with the climate system. The Conference of Parties (COP) further recognised that deep cuts in global GHG emissions are required, with a view to hold the increase in global average temperature below 2°C above preindustrial levels, and that Parties should take urgent action to meet this long-term goal, consistent with science and on the basis of equity.

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. Smaller shares correspond to agriculture, producing mainly CH_4 and N_2O from domestic livestock and rice cultivation, and to industrial processes not related to energy, producing mainly fluorinated gases and N_2O (Figure 1).

Figure 1. Shares of global anthropogenic GHG, 2010*



* Others include large-scale biomass burning, post-burn decay, peat decay, indirect N_2O emissions from non-agricultural emissions of NO_x and NH_3, Waste, and Solvent Use.

Source: IEA estimates for CO_2 from fuel combustion and EDGAR 4.2 FT2010 estimates for all other sources.

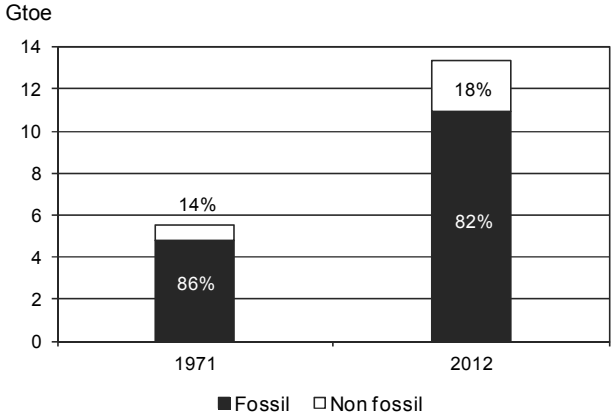
Key point: Energy emissions, mostly CO_2, account for the largest share of global GHG emissions.

Within the energy sector[2], CO_2 resulting from the oxidation of carbon in fuels during combustion dominates the total GHG emissions.

CO_2 from energy represents about three quarters of the anthropogenic GHG emissions for Annex I[3] countries, and almost 70% of global emissions. This percentage varies greatly by country, due to diverse national structures.

Increasing demand for energy comes from worldwide economic growth and development. Global total primary energy supply (TPES) more than doubled between 1971 and 2012, mainly relying on fossil fuels (Figure 2).

Figure 2. World primary energy supply*

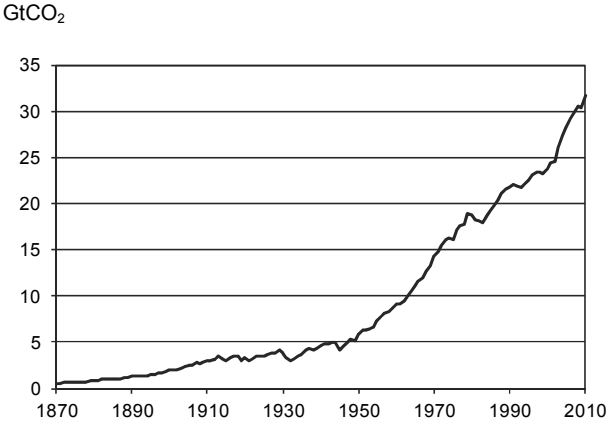


* World primary energy supply includes international bunkers.

Key point: Fossil fuels still account for most – over 80% – of the world energy supply.

Despite the growth of non-fossil energy (such as nuclear and hydropower), considered as non-emitting,[4] the share of fossil fuels within the world energy supply is relatively unchanged over the past 41 years. In 2012, fossil sources accounted for 82% of the global TPES.

Figure 3. Trend in CO_2 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_2 emissions from fuel combustion have risen exponentially.

Growing world energy demand from fossil fuels plays a key role in the upward trend in CO_2 emissions (Figure 3). Since the Industrial Revolution, annual CO_2 emissions from fuel combustion dramatically increased from near zero to almost 32 $GtCO_2$ in 2012.

The next section provides a brief overview of recent trends in energy-related CO_2 emissions, as well as in some of the socio-economic drivers of emissions.

Recent emissions trends

In 2012, global CO_2 emissions were 31.7 $GtCO_2$. This represents a 1.2% year-on-year increase in emissions, about half the average annual growth rate since 2000, and four percentage points less than in 2010, year of initial recovery after the financial crisis.

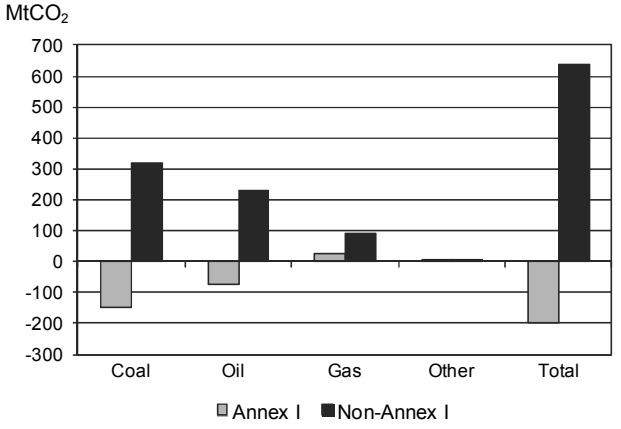
Emissions in non-Annex I countries continued to increase (3.8%), albeit at a lower rate than in 2011, while emissions in Annex I countries decreased by 1.5%. In absolute terms, global CO_2 emissions increased by 0.4 $GtCO_2$ in 2012, driven primarily by increased emissions from coal and oil in non-Annex I countries (Figure 4).

2. The energy sector 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_4 emissions from coal mining).

3. The Annex I Parties to the 1992 UN Framework Convention on Climate Change (UNFCCC) are: Australia, Austria, Belarus, Belgium, Bulgaria, Canada, Croatia, the Czech Republic, Denmark, Estonia, European Economic Community, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Monaco, the Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Russian Federation, the Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine, United Kingdom and United States. See *www.unfccc.int*. For country coverage of Annex I Economies in Transition (EIT) and Annex II, see Chapter 4: *Geographical Coverage*.

4. Excluding the life cycle of all non-emitting sources and excluding combustion of biofuels (considered as non-emitting CO_2, based on the assumption that the released carbon will be reabsorbed by biomass regrowth, under balanced conditions).

Figure 4. Change in CO_2 emissions (2011-12)

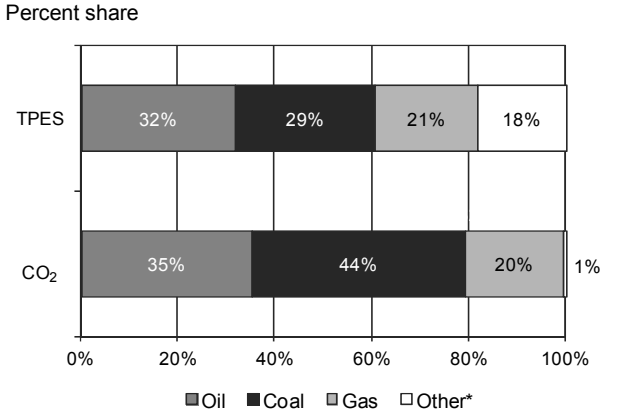


Key point: In 2012, emissions from coal and oil increased in non-Annex I countries and decreased in Annex I countries.

Emissions by fuel

Although coal represented 29% of the world TPES in 2012, it accounted for 44% of the global CO_2 emissions due to its heavy carbon content per unit of energy released, and to the fact that 18% of the TPES derives from carbon-neutral fuels (Figure 5). As compared to gas, coal is nearly twice as emission intensive on average.[5]

Figure 5. World primary energy supply and CO_2 emissions: shares by fuel in 2012

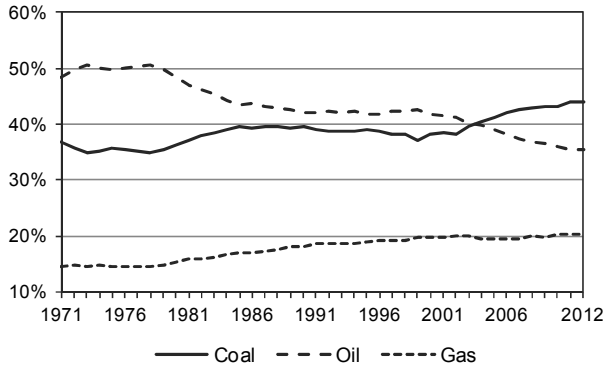


* Other includes nuclear, hydro, geothermal, solar, tide, wind, biofuels and waste.

Key point: Globally, coal combustion generates the largest share of CO_2 emissions, although oil still is the largest energy source.

Those shares evolved significantly during the last decade, following ten years of rather stable relative contributions among fuels. In 2002 in fact, oil still held the largest share of emissions (41%), three percentage points ahead of coal (Figure 6).

Figure 6. Fuel shares in global CO_2 emissions



Key point: The fossil fuel mix changed significantly in the last 10 years, with coal replacing oil as the largest source of CO_2 emissions.

In 2012, CO_2 emissions from the combustion of coal increased by 1.3% to 13.9 $GtCO_2$. Currently, coal fills 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.

Emissions by region

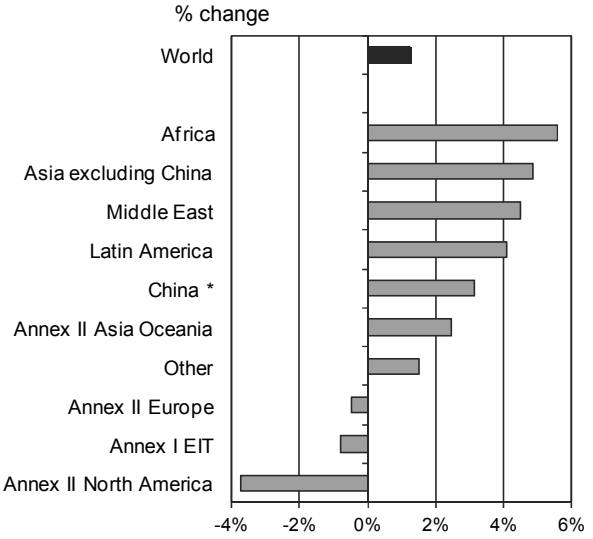
Non-Annex I countries, collectively, represented 55% of global CO_2 emissions in 2012. At the regional level, annual growth rates varied greatly: emissions growth in China (3.1%) was lower than in previous years, however, emissions grew strongly in Africa (5.6%), Asia excluding China (4.9%) and the Middle East (4.5%). Emissions in Latin America[6] (4.1%) and Annex II Asia Oceania (2.5%) grew at a more moderate rate, while emissions decreased in Annex II North America (-3.7%), Annex II Europe (-0.5%) and Annex I EIT (-0.8%) (Figure 7).

Regional differences in contributions to global emissions conceal even larger differences among individual countries. Nearly two-thirds of global emissions for 2012 originated from just ten countries, with the shares of China (26%) and the United States (16%) far surpassing those of all others. Combined, these two countries alone produced 13.3 $GtCO_2$. The top-10 emitting countries include five Annex I countries and five non-Annex I countries (Figure 8).

5. Default carbon emission factors from the *Revised 1996 IPCC Guidelines*: 15.3 tC/TJ for gas, 16.8 to 27.5 tC/TJ for oil products, 25.8 to 29.1 tC/TJ for primary coal products.

6. For the purposes of this discussion, Latin America includes non-OECD Americas and Chile.

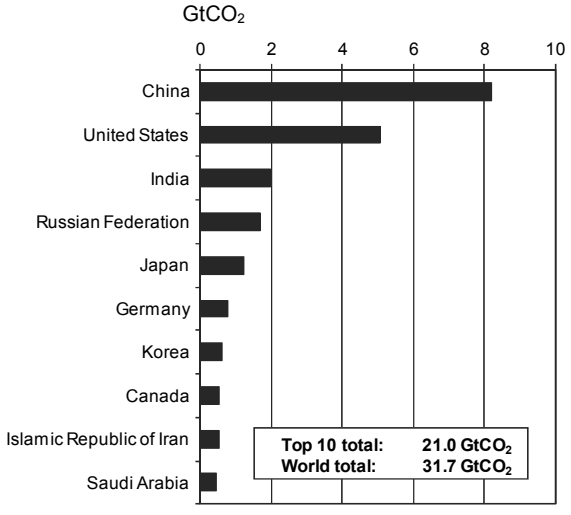
Figure 7. Change in CO_2 emissions by region (2011-12)



* China includes Hong Kong, China.

Key point: Emissions in Annex II North America fell in 2012; emissions in all non-Annex I regions grew, with Africa showing the largest relative increase.

Figure 8. Top 10 emitting countries in 2012



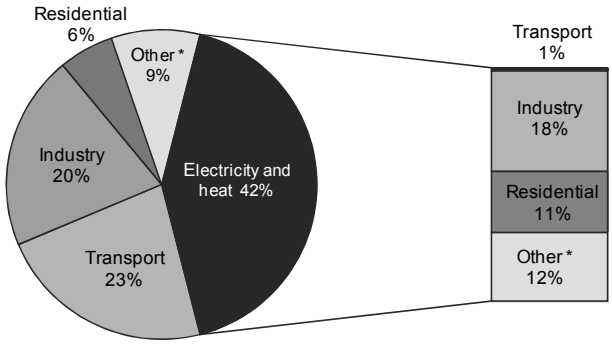
Key point: The top 10 emitting countries account for two-thirds of global CO_2 emissions.

As different regions and countries have contrasting economic and social structures, the picture would change significantly when moving from absolute emissions to indicators such as emissions per capita or per GDP. A more comprehensive analysis is given in the section *Coupling emissions with socio-economic indicators* later in this chapter.

Emissions by sector

Two sectors produced nearly two-thirds of global CO_2 emissions in 2012: electricity and heat generation, by far the largest, accounted for 42%, while transport accounted for 23% (Figure 9).

Figure 9. World CO_2 emissions by sector in 2012



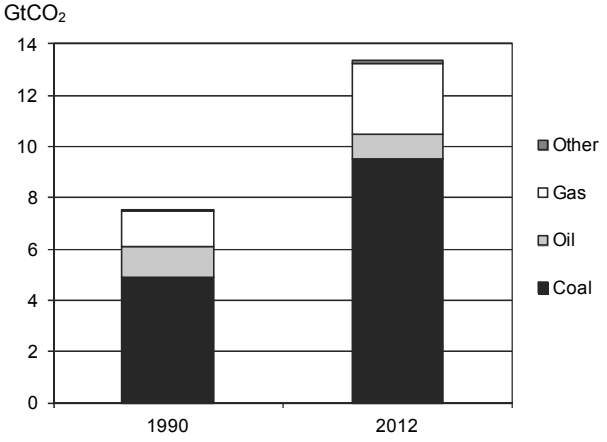
Note: Also shows allocation of electricity and heat to end-use sectors.

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

Key point: Two sectors combined, generation of electricity and heat and transport, represented nearly two-thirds of global emissions in 2012.

Generation of electricity and heat worldwide relies heavily on coal, the most carbon-intensive fossil fuel. Countries such as Australia, China, India, Poland and South Africa produce over two-thirds of their electricity and heat through the combustion of coal.

Figure 10. CO_2 emissions from electricity and heat generation*



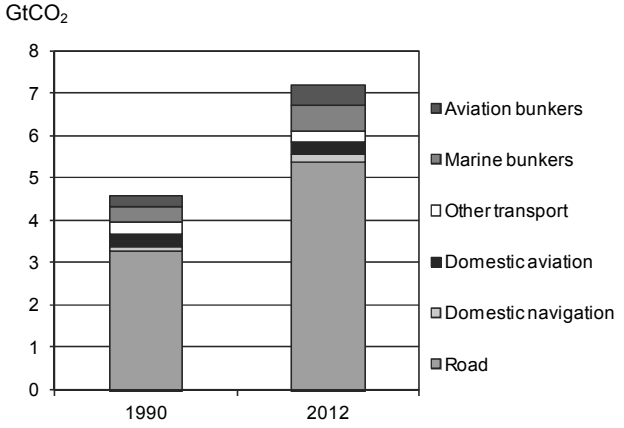
* Refers to main activity producers and autoproducers of electricity and heat.

Key point: CO_2 emissions from electricity and heat almost doubled between 1990 and 2012, driven by the large increase of generation from coal.

Between 2011 and 2012, CO_2 emissions from electricity and heat increased by 1.8%, faster than total emissions. While the share of oil in electricity and heat emissions has declined steadily since 1990, the share of gas increased slightly, and the share of coal increased significantly, from 65% in 1990 to 72% in 2012 (Figure 10). Carbon intensity developments for this sector will strongly depend on the fuel mix used to generate electricity, including the share of non-emitting sources, such as renewables and nuclear, as well as on the potential penetration of CCS technologies.

As for transport, the fast emissions growth was driven by emissions from the road sector, which increased by 64% since 1990 and accounted for about three quarters of transport emissions in 2012 (Figure 11). It is interesting to note that despite efforts to limit emissions from international transport, emissions from marine and aviation bunkers, 66% and 80% higher in 2012 than in 1990 respectively, grew even faster than those from road.

Figure 11. CO_2 emissions from transport



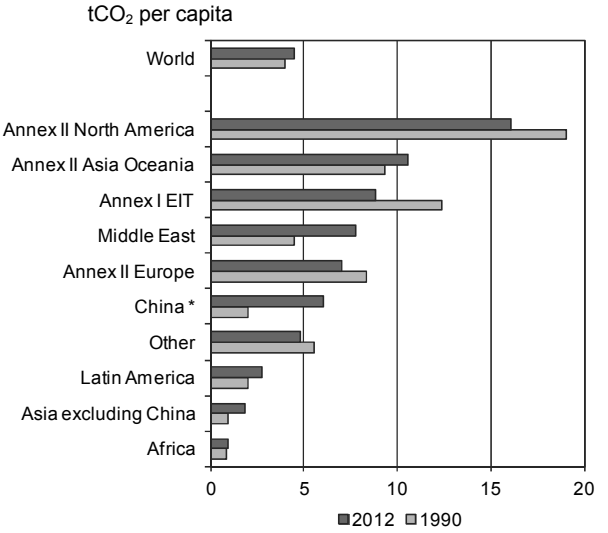
Key point: CO_2 emissions from road are driving the growth of transport emissions.

Coupling emissions with socio-economic indicators[7]

Indicators such as those briefly discussed in this section strongly reflect energy constraints and choices made to support the economic activities of each country. They also reflect sectors that predominate in different countries' economies.

The range of per-capita emission levels across the world is very large, highlighting wide divergences in the way different countries and regions use energy (Figure 12). For example, among the five largest emitters, the levels of per-capita emissions were very diverse, ranging from 1.6 tCO_2 for India and 6.1 tCO_2 for China to 16.1 tCO_2 for the United States. On average, industrialised countries emit far larger amounts of CO_2 per capita than developing countries. The lowest levels worldwide are in Asia excluding China and in Africa.

Figure 12. CO_2 emissions per capita by major world regions



* China includes Hong Kong, China.

Key point: Emissions per capita generally decreased in time across regions.

Emissions per unit of GDP[8] are also very variable across regions (Figure 13). Although climate, economic structure and other variables can affect energy use, relatively high values of emissions per GDP indicate a potential for decoupling CO_2 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 value chain (from raw material extraction to energy end-use).[9]

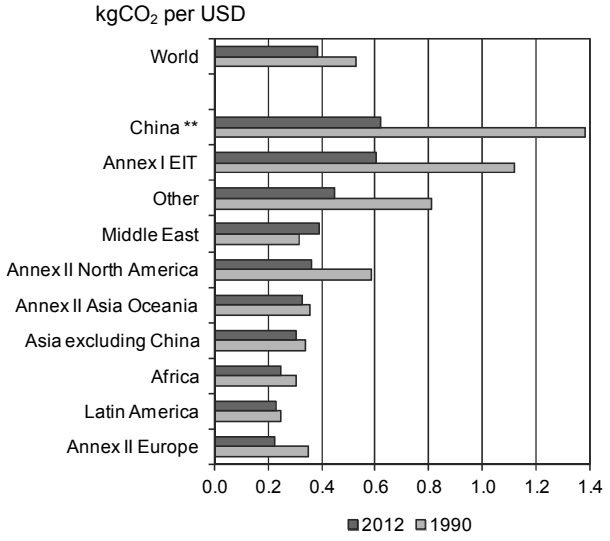
All the five largest emitters have shown reductions of emissions per unit of GDP between 1990 and 2012, in line with the average reduction observed globally (28%). This decreasing trend was most pronounced

7. No single indicator can provide a complete picture of a country's CO_2 emissions performance or its relative capacity to reduce emissions. The indicators discussed here are certainly incomplete and should only be used to provide a rough description of the situation in a country.

8. Throughout this analysis, GDP refers to GDP in 2005 USD, using purchasing power parities. A note of caution is necessary concerning the indicator of CO_2 emissions per GDP. It can be very useful to measure efforts over time for one country, but has limitations when comparing countries, as it is very sensitive to the base year used for the GDP purchasing power parity (PPP).

9. The IEA's Policies and Measures Databases offer access to information on energy-related policies and measures taken or planned to reduce GHG emissions, improve energy efficiency and support renewable energy development and deployment. The online databases can be consulted at: *www.iea.org/policiesandmeasures/*.

Figure 13. CO_2 emissions per GDP* by major world regions



* GDP in 2005 USD, using purchasing power parities.

** China includes Hong Kong, China.

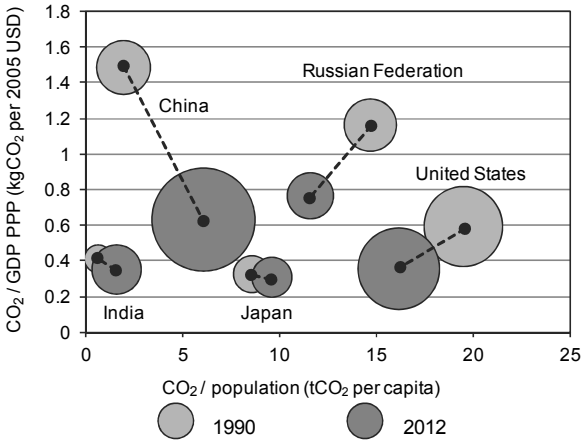
Key point: Emission intensities in economic terms vary greatly around the world.

for China and the Russian Federation, whose 1990 levels were significantly higher than those of other countries (Figure 14), and for the United States.

Per-capita emissions, which increased by 13% globally between 1990 and 2012, showed instead contrasting trends among the top five emitting countries. For example, China tripled its per-capita emissions, while India more than doubled theirs, as did some other rapidly expanding economies. Conversely, per-capita emissions decreased significantly in both the Russian Federation (21%) and the United States (17%), although following very different patterns. Values for Russia dramatically dropped in the early nineties, and have progressively increased in recent years, while values for the United States started to decrease from 2008 onwards, having remained stable for many years.

On a global level, CO_2 emissions grew by 51% between 1990 and 2012. A simple decomposition[10] shows the main driving factors of the world CO_2 emissions trend. Globally, the economic growth partially decoupled from energy use, as energy intensity decreased by 27% over the period. However, with a practically unchanged carbon intensity of the energy

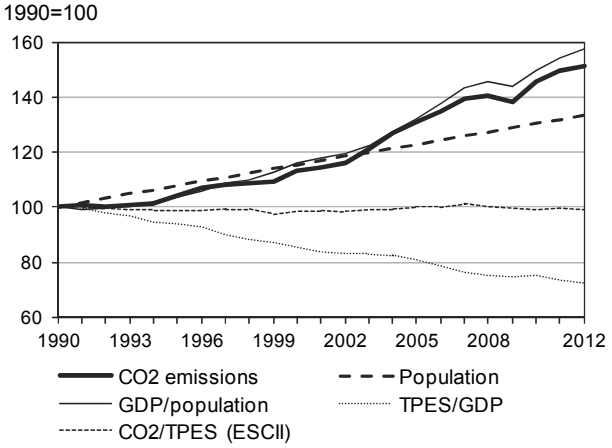
Figure 14. Trends in CO_2 emission intensities for the top five emitting countries*



* The size of the circle represents the total CO_2 emissions from the country in that year.

Key point: All top five emitters reduced their emissions per unit of GDP between 1990 and 2012, while emissions per capita showed contrasting trends.

Figure 15. Global CO_2 emissions and drivers (Kaya decomposition)



Key point: Despite some decoupling between economic growth and energy use, increasing wealth and population, with an unchanged carbon intensity of the mix, drove dramatic CO_2 emissions increases

mix[11], the combined growth in population (33%) and in per capita GDP (57%) led to a dramatic increase in global CO_2 emissions between 1990 and 2012.

Such behaviour varies greatly among countries and regions. Understanding the factors driving CO_2 emissions trends will be essential to designing sound and effective policies aiming at emissions reductions.

10. CO_2 emissions can be decomposed into the product of four factors: population, per capita GDP, TPES/GDP, CO_2/TPES. For a more detailed description of the Kaya decomposition, see Chapter 2: *IEA emissions estimates*.

11. Also known, in its index form, as Energy Sector Carbon Intensity Index (ESCII), as in the IEA publication *Tracking Clean Energy Progress 2014*.

Developing a low-carbon world

Traditionally, industrialised countries have emitted the large majority of anthropogenic greenhouse gases (GHGs). More recently, shares of developing country emissions surpassed those of industrialised countries, and have kept rising very rapidly. To shift towards a low-carbon world, mitigation efforts must occur across all countries: decarbonising the energy supplies of industrialised countries, and shifting developing countries onto a low-carbon development path.

The first binding commitments to reduce greenhouse gas emissions were set under the Kyoto Protocol's first commitment period (2008-12). Participating industrialised countries were required (as a group) to curb domestic emissions by about 5% relative to 1990 over this period. Thirty-eight countries have also agreed to take commitments under a second commitment period which will run from 2013 to 2020. The amendments to the Kyoto Protocol bringing the second commitment period into force require ratification by 144 countries (two-thirds of those participating); as of September 2014 only 18 have ratified.

Countries comply with their Kyoto Protocol targets by reducing emissions from fossil fuel combustion, reducing emission in other sectors (*i.e.* land-use or direct industrial emissions), or through use of the Kyoto Protocol's "flexible mechanisms" by which industrialised countries can earn emission credits from emissions reduction projects in participating developing countries and economies in transition (EITs).

Data on CO_2 emissions from fuel combustion are now available for the Kyoto Protocol's first commitment period (Table 1). According to IEA estimates, in 2012, CO_2 emissions from fuel combustion across all Parties with Kyoto Protocol targets were 14% below 1990 levels. Emissions in the EU-15 were 8% below 1990 levels, in line with their economy-wide goal of an 8% reduction. Some industrialised countries have seen significant increases, led by Australia (+48%), New Zealand (+44%)[12] and Spain (30%). To comply with their Kyoto Protocol obligations, these countries will need to offset these increases by reductions in other sectors, or use the Kyoto Protocol's flexibility mechanisms[13].

Despite its extensive participation (192 countries), the Kyoto Protocol is limited in its potential to address global emissions. The United States remains outside of the Protocol's jurisdiction, and developing countries do not face emissions targets. The Kyoto Protocol implies action on less than one-quarter of global CO_2 emissions, as measured in 2012.

Through its flexibility mechanisms and provisions for international trading, the Kyoto Protocol has made CO_2 a tradable commodity, and has been a key driver for the development of national emissions trading schemes.

Building future international action

Recognising that the Kyoto Protocol framework is inadequate to deliver the global goal of limiting global temperature increase to less than 2°C above pre-industrial levels, countries are now negotiating a new climate agreement, to be finalised at COP21 in Paris in December 2015, and to apply from 2020. If agreement can be reached, this will be the first international climate agreement to extend mitigation obligations to all countries, both developed and developing.

This will build on the voluntary emissions reduction pledges for 2020 that were made at COP15 in Copenhagen. Developed and developing countries that submitted pledges under the Copenhagen Accord collectively account for over 80% of global emissions. Although the ambition of these pledges is currently insufficient to limit temperature rise to 2°C above pre-industrial levels, the breadth of participation in mitigation commitments marks a significant improvement on the coverage of the Kyoto Protocol.

In order to respect countries' different responsibilities and capabilities, mitigation contributions in the 2015 climate agreement will be nationally determined. A key challenge in designing the new agreement will be how to, over time, bring these nationally-determined targets to levels consistent with the collective global goal of keeping temperature rise below 2°C.

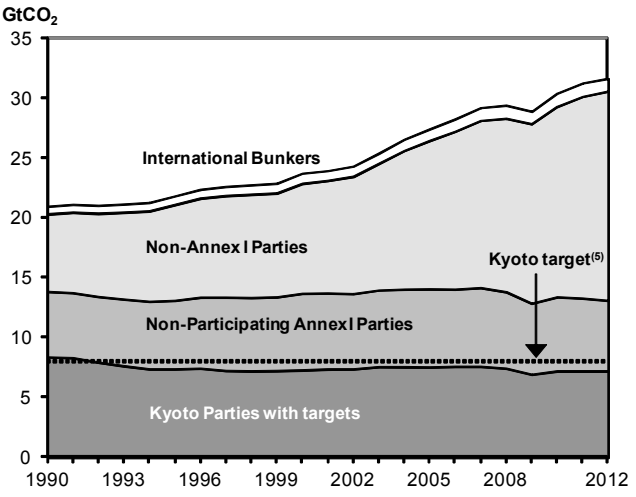
12. Note that for some countries (e.g. Australia and New Zealand), the share of non-CO_2 emissions may be very significant. Therefore, the trend in CO_2 emissions from fuel combustion may differ substantially from the trend in total greenhouse gas emissions.

13. For Spain, a 15% increase is allowed under the EU effort-sharing arrangements.

Table 1. World CO_2 emissions from fuel combustion and Kyoto Protocol targets[1]

	1990 $MtCO_2$	2012 $MtCO_2$	% change 90-12	Kyoto Target
KYOTO PARTIES WITH TARGETS [1]	**8,339.6**	**7,157.0**	**-14.2%**	**-4.6% [2]**
Europe	*3,154.5*	*2,906.4*	*-7.9%*	
Austria	56.4	64.7	14.8%	-13%
Belgium	107.9	104.6	-3.1%	-7.5%
Denmark	50.6	37.1	-26.7%	-21%
Finland	54.4	49.4	-9.1%	0%
France [3]	352.8	333.9	-5.4%	0%
Germany	949.7	755.3	-20.5%	-21%
Greece	70.1	77.5	10.5%	+25%
Iceland	1.9	1.8	-2.5%	+10%
Ireland	30.6	35.5	16.3%	+13%
Italy	397.4	374.8	-5.7%	-6.5%
Luxembourg	10.4	10.2	-1.3%	-28%
Netherlands	155.8	173.8	11.5%	-6%
Norway	28.3	36.2	27.9%	+1%
Portugal	39.4	45.9	16.4%	+27%
Spain	205.2	266.6	29.9%	+15%
Sweden	52.8	40.4	-23.4%	+4%
Switzerland	41.6	41.3	-0.8%	-8%
United Kingdom	549.3	457.5	-16.7%	-12.5%
European Union - 15	3,082.7	2,827.1	-8.3%	-8%
Asia Oceania	*1,339.5*	*1,641.7*	*22.6%*	
Australia	260.5	386.3	48.3%	+8%
Japan	1,056.7	1,223.3	15.8%	-6%
New Zealand	22.3	32.1	44.0%	0%
Economies in Transition	*3,845.6*	*2,608.8*	*-32.2%*	
Bulgaria	74.9	44.3	-40.9%	-8%
Croatia	21.5	17.2	-20.1%	-5%
Czech Republic	148.8	107.8	-27.6%	-8%
Estonia	35.8	16.3	-54.3%	-8%
Hungary	66.4	43.6	-34.4%	-6%
Latvia	18.6	7.0	-62.4%	-8%
Lithuania	33.1	13.3	-59.8%	-8%
Poland	342.1	293.8	-14.1%	-6%
Romania	167.5	79.0	-52.9%	-8%
Russian Federation	2,178.8	1,659.0	-23.9%	0%
Slovak Republic	56.7	31.9	-43.8%	-8%
Slovenia	13.3	14.6	9.6%	-8%
Ukraine	687.9	281.1	-59.1%	0%

	1990 $MtCO_2$	2012 $MtCO_2$	% change 90-12	Kyoto Target
OTHER COUNTRIES	**12,014.7**	**23,497.4**	**95.6%**	
Non-participating Annex I Parties	*5,550.9*	*5,983.9*	*7.8%*	
Belarus	124.8	71.1	-43.0%	-8%
Canada [1]	428.2	533.7	24.6%	-6%
Malta	2.3	2.5	10.4%	none
Turkey	126.9	302.4	138.3%	none
United States	4,868.7	5,074.1	4.2%	-7%
Other Regions	*6,352.7*	*17,334.0*	*172.9%*	none
Africa	545.0	1,032.4	89.4%	none
Middle East	549.9	1,647.1	199.5%	none
N-OECD Eur. & Eurasia [4]	630.0	528.8	-16.1%	none
Latin America [4]	842.5	1,583.3	87.9%	none
Asia (excl. China) [4]	1,507.5	4,291.4	184.7%	none
China	2,277.7	8,250.8	262.2%	none
INTL. MARINE BUNKERS	**363.2**	**602.2**	**65.8%**	
INTL. AVIATION BUNKERS	**256.3**	**477.8**	**86.4%**	
WORLD	**20,973.9**	**31,734.3**	**51.3%**	



(1) On 15 December 2011, Canada withdrew from the Kyoto Protocol. This action became effective for Canada on 15 December 2012.

(2) The actual country targets apply to a basket of six greenhouse gases and allow sinks and international credits to be used for compliance. The overall "Kyoto target" is estimated for this publication by applying the country targets to IEA data for CO_2 emissions from fuel combustion, and is only shown as an indication. The overall target for the combined EU-15 under the Protocol is -8%, but the member countries have agreed on a burden-sharing arrangement as listed.

(3) Emissions from Monaco are included with France.

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

(5) The Kyoto target is calculated as percentage of the 1990 CO_2 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: The existing targets under the Kyoto Protocol are not sufficiently comprehensive to lead to reductions in global CO_2 emissions from fuel combustion.

The nationally-determined targets will be complemented by an agreed framework for measuring, reporting and verifying emissions, and accounting for achievement of targets, and by enhanced actions on adaptation, technology development and on the provision of financial resources. While obligations are to start from 2020, emissions from the energy sector need to peak by 2020 if there is to be a reasonable chance of limiting temperature rise to below 2°C (IEA, 2012). This highlights the need for an ambitious start point in 2020, but also the importance of complementary initiatives outside the UNFCCC that can constrain emissions in the period up to 2020.

Action beyond the UNFCCC

Alongside the UNFCCC process, progress toward a low-carbon future is being made in numerous other multilateral fora. The challenge of post-2012 discussions is the need to engage all countries with approaches, possibly including the carbon market, that suit their capacity and their legitimate aspiration for economic and social development. The G8 2005 Gleneagles Plan of Action, the G20 Clean Energy and Energy Efficiency (C3E) Working Group, and the Major Economies Forum on Energy and Climate (MEF) and Clean Energy Ministerial (CEM) processes have sought to involve developed and developing countries in common measures to address climate change. Other international fora gathering both developed and developing countries have emerged that can further mitigate efforts in specific areas, such as the International Renewable Energy Agency (IRENA), and the International Partnership for Energy Efficiency Co-operation (IPEEC).

In addition to international multilateral efforts, action on climate change is increasingly being taken unilaterally by individual countries, regions, and cities. A 2014 survey showed that 61 of the 66 countries surveyed now have climate change and clean energy legislation in place and that developing and emerging economies have been taking the lead in bringing forward new climate change laws and regulation. There was legislative progress in 2013 in Bolivia, El Salvador, Ecuador, Costa Rica, China, Indonesia, Kazakhstan, Micronesia, Poland, Switzerland, Jordan, United Arab Emirates, Kenya, Mozambique, Tanzania, and Nigeria (Nachmany et al., 2014).

The most significant development in 2013-14 has been the launch of pilot emissions trading systems in five Chinese cities (Shenzhen, Beijing, Tianjin, Chongqing, and Shanghai) and two provinces (Hubei and Guangdong). Together these cover over 1.2Gt of greenhouse gas emissions, second only to the size of the EU emissions trading system (World Bank, 2014). China has also announced an intention to implement a nation-wide ETS after 2016, building on the experience gained in these pilots.

There has also been progress with other carbon pricing mechanisms in 2014, including the launch of the Kazakhstan ETS (after a one-year trial period in 2013), formal linking of the California and Quebec trading systems, and the announcement of proposals to reform the EU ETS, which covers the 29 member states of the European Union plus Norway, Liechtenstein and Iceland. The European Commission has proposed to establish a reserve mechanism that would withdraw allowances from auction when the system is oversupplied, with the intention of creating better balance between supply and demand. Looking ahead to 2015, trading will begin in Korea's emissions trading system. This system is designed to assist in delivering Korea's target of a 30% improvement on business-as-usual (BAU) emissions by 2020. Progress has not all been positive for carbon pricing however: despite early indications of its effectiveness, the Australian ETS legislation was repealed in 2014.

Action at the level of cities and regions is also accelerating. In addition to emissions trading systems in California and Quebec, the Regional Greenhouse Gas Initiative caps electricity sector emissions in nine north-eastern US states. A successful carbon tax is in place in the Canadian province of British Columbia, and there are emissions trading systems in Alberta, Canada and the city of Tokyo in Japan.

An important development in extending emissions trading to developing economies has been the World Bank's Partnership for Market Readiness, which provides funding and technical assistance to developing countries for capacity building toward the development and piloting of market-based instruments for GHG reduction. Brazil, Chile, China, Columbia, Costa Rica, India, Indonesia, Mexico, Morocco, Peru, South Africa, Thailand, Turkey, Ukraine and Viet Nam are currently participating as implementing countries.

In all these efforts, timely and accurate CO_2 and other GHG statistics will prove central to ascertaining compliance with international agreements and to informing policy makers and carbon market participants. The ability of countries to monitor and review emissions from their sources is essential in their engagement towards national and global GHG mitigation.

References

IEA (2012), *World Energy Outlook 2012* (WEO 2012), OECD/IEA, Paris.

IPCC (2007), *Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories (1996 IPCC Guidelines)*, IPCC, Bracknell, UK.

IPCC (2013), *Working Group I Contribution to the IPCC Fifth Assessment Report, Climate Change 2013: The Physical Science Basis, Summary for Policy Makers*, available at: *www.ipcc.ch/*.

Nachmany, M., S. Fankhauser, T. Townshend, M. Collins, T. Landesman, A. Matthews, C. Pavese, K. Rietig, P. Schleifer, and J. Setzer (2014) *The GLOBE Climate Legislation Study: A Review of Climate Change Legislation in 66 Countries. Fourth Edition.* London: GLOBE International and the Grantham Research Institute, London School of Economics.

World Bank (2014), *State and Trends of Carbon Pricing 2014*, World Bank, Washington D.C.

2. IEA EMISSIONS ESTIMATES

The estimates of CO_2 emissions from fuel combustion presented in this publication are calculated using the IEA energy data[14] 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 25th session of the IPCC in April 2006 in Mauritius, many countries (as well as the IEA Secretariat) are still calculating their inventories using the *1996 IPCC Guidelines* since this was the version used for the Kyoto Protocol. In December 2011 in Durban, the Parties adopted Decision 15/CP.17 to update their reporting tables so as to implement the *2006 Guidelines*. The new reporting tables will be used by Annex I Parties from 15 April 2015.

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_2 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 publication: *IPCC methodologies*).

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_2 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_2 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_2 emissions trends.

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

14. 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, 2014.

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 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) oil 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 energy industry own use***. When reconciling differences between the Reference Approach and a Sectoral Approach it is important to ensure that the quantities reported in transformation and energy industry own use (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 transformation in the energy balance. If any derived products are used to fuel the conversion process, the amounts involved should have been reported in energy industry own use of the energy balance. In a Sectoral Approach the inputs to transformation 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 natural 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_2 estimates for comparison with the greenhouse-gas (GHG) 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 5-10% depending on the coverage of the fuel combustion sector in the national inventory. 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_2 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 continues to use 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" data sources 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 autoproducers 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 industry and *other*. 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*.

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 GHG inventories. As a result, starting in the 2006 edition of this publication, all military consumption should be reported in *non-specified other*. Sea-going versus coastal is no longer a criterion for splitting international and domestic navigation.

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 GHG 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 energy industry own use. 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_2 emissions be reported in Gg of CO_2. A million tonnes of CO_2 is equal to 1 000 Gg of CO_2, so to compare the numbers in this publication with national inventories expressed in Gg, the IEA emissions must be multiplied by 1 000.

Identifying drivers of CO_2 emissions trends

In this edition, new graphs and tables present the decomposition of CO_2 emissions into four driving factors following the Kaya identity[15], which is generally presented in the form:

Kaya identity
$C = P\ (G/P)\ (E/G)\ (C/E)$

where:

C = CO_2 emissions;
P = population;
G = GDP;
E = primary energy consumption.

The identity expresses, for a given time, CO_2 emissions as the product of population, per capita economic output (G/P), energy intensity of the economy (E/G) and carbon intensity of the energy mix (C/E). Because of possible non-linear interactions between terms, the sum of the percentage changes of the four factors, e.g. $(P_y\text{-}P_x)/P_x$, will not generally add up to the percentage change of CO_2 emissions $(C_y\text{-}C_x)/C_x$. However, relative changes of CO_2 emissions in time

15. Yamaji, K., Matsuhashi, R., Nagata, Y. Kaya, Y., *An integrated system for CO_2/Energy/GNP analysis: case studies on economic measures for CO_2 reduction in Japan*. Workshop on CO_2 reduction and removal: measures for the next century, March 19, 1991, International Institute for Applied Systems Analysis, Laxenburg, Austria.

can be obtained from relative changes of the four factors as follows:

Kaya identity: relative changes in time
$$C_y/C_x = P_y/P_x\ (G/P)_y/(G/P)_x\ (C/E)_y/(C/E)_x$$

where x and y represent for example two different years.

In this publication, the Kaya decomposition is presented as:

CO_2 emissions and drivers
$$CO_2 = P\ (GDP/P)\ (TPES/GDP)\ (CO_2/TPES)$$

where:

CO_2	=	CO_2 emissions;
P	=	population;
GDP[16]/P	=	GDP/population;
TPES/GDP[16]	=	Total Primary Energy Supply per GDP;
CO_2/TPES	=	CO_2 emissions per unit TPES.

Indices of all terms (1990 = 100 unless otherwise specified) are shown for each country and regional aggregate in the Summary tables and in the individual country/region pages (Table 1, Key indicators, and Figure 6, CO_2 emissions and drivers). Note that in its index form, CO_2/TPES corresponds to the Energy Sector Carbon Intensity Index (ESCII)[17].

The Kaya identity can be used to discuss the primary driving forces of CO_2 emissions. For example, it shows that, globally, increases in population and GDP per capita have been driving upwards trends in CO_2 emissions, more than offsetting the reduction in energy intensity. In fact, the carbon intensity of the energy mix is almost unchanged, due to the continued dominance of fossil fuels - particularly coal - in the energy mix, and to the slow uptake of low-carbon technologies.

However, it should be noted that there are important caveats in the use of the Kaya identity. Most important, the four terms on the right-hand side of equation should be considered neither as fundamental driving forces in themselves, nor as generally independent from each other.

16. GDP based on purchasing power parities (PPP).
17. See the IEA publication *Tracking Clean Energy Progress 2014*.

Notes on tables and graphs

In the tables and figures presented in this publication, peat and oil shale are aggregated with *coal*; the product *gas* refers to natural gas; and with the exception of figure 4, the product *other* includes industrial waste and non-renewable municipal waste.

In figure 4, the product *other* includes geothermal, solar, wind, combustible renewables, waste, etc.

Table 1: Key indicators

Row 1: *CO2 Sectoral Approach* presents total CO_2 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: *TPES* presents the Total Primary Energy Supply, calculated as production + imports - exports - international marine bunkers - international aviation bunkers ± stock changes.

Row 3: *GDP* presents the Gross Domestic Product in 2005 US dollars using exchange rates. For notes on methods and sources, please see Chapter 3*: Indicator sources and methods.*

Row 4: *GDP PPP* presents the Gross Domestic Product in 2005 US dollars using purchasing power parities. For notes on methods and sources, see Chapter 3: *Indicator sources and methods.*

Row 5: *Population*. For notes on sources see Chapter 3: *Indicator sources and methods*.

Row 6: CO_2/TPES presents the carbon intensity of the energy mix. For notes on methods see Chapter 3: *Indicator sources and methods.*

Row 7: *CO_2/GDP* presents the carbon intensity of the economy, using exchange rates. For notes on methods and sources, see Chapter 3: *Indicator sources and methods*.

Row 8: *CO_2/GDP PPP* presents the carbon intensity of the economy, using purchasing power parities. For notes on methods and sources, see Chapter 3: *Indicator sources and methods.*

Row 9: *CO_2/population* presents the per capita CO_2 emissions, based on CO2 Sectoral approach. For notes on sources, see Chapter 3: *Indicator sources and methods*.

Row 10-14: *CO_2 emissions and drivers - Kaya decomposition* present indices of CO_2 emissions, population, GDP/population, TPES/GDP and CO2/TPES, (based on GDP PPP time series). It represents the decomposition of CO_2 emissions into drivers (Kaya identity) explained earlier in this chapter, in the section Identifying drivers of CO_2 emissions trends.

Table 2: CO_2 emissions by sector

Row 1: *Sectoral Approach*: as in Row 1 of Table 1.

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 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*.

Row 4: *Other energy industry own use* contains emissions from fuel combusted in oil 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, emissions from energy industry own use in blast furnaces 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 some emissions from coke inputs into blast furnaces, which may be reported either in transformation, energy industry own use, industry or the 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 bunkers*, which are not included in *transport* emissions at a national or regional level (except for World transport emissions). This includes domestic aviation, domestic navigation, road, rail and pipeline transport, and corresponds to IPCC Source/Sink Category 1 A 3. 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*. 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* 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 commercial/public services, residential and agriculture 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_2 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_2 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 bunkers* 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.

Table 3: Key sources for CO_2 emissions from fuel combustion in 2012

See *Identifying key sources* in Part I, Chapter 1 of the main publication for methodological explanations. This table only shows the nine largest key sources of CO_2 from fuel combustion. As a result, in most cases the cumulative contribution will not be 95% as recommended in the *Good Practice Guidance.* Key sources from fugitive emissions, industrial processes, solvents, agriculture and waste are not shown. The percentage of CO_2 emissions from fuel combustion in total GHG emissions is included as a memo item at the bottom of the table.

Figure 1: CO_2 emissions by fuel

Based on Sectoral approach CO_2 emissions. The product *coal* refers to the aggregate of coal, peat and oil shale. The product *gas* refers to natural gas. The product *other* includes industrial waste and non-renewable municipal waste.

Figure 2: CO_2 emissions by sector

Based on Sectoral approach CO_2 emissions. The sector *other* includes emissions from commercial/public services, agriculture/forestry and fishing. Emissions from unallocated autoproducers are included in *Electricity and heat*.

Figure 3: Reference vs Sectoral approach

Also includes CO_2 estimates as submitted by national administrations to the UNFCCC, either in National Communications or in national GHG inventories submissions.

Figure 4: 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.

Figure 5: Changes in selected indicators

Presents average annual changes, computed as compounded annual growth rates, for three different periods, for the following variables: CO_2 emissions, CO_2/TPES, CO_2/GDP PPP, CO_2/population. For notes on methodologies and sources, see Chapter 3*: Indicator sources and methods.*

Figure 6: CO_2 emissions and drivers

Presents indices of CO_2 emissions and of four drivers of emission trends, as identified in the Kaya identity: population, GDP/population, TPES/GDP, CO_2/TPES (1990=100 unless otherwise specified), based on GDP PPP time series. For methodology, see section *Identifying drivers of CO_2 emissions trends* earlier in this chapter. For notes on sources, see Chapter 3: *Indicator sources and methods*.

Country notes

Australia

In the 2013 edition, data for Australia were revised back to 2003 due to the adoption of the National Greenhouse and Energy reporting (NGER) as the main energy consumption data source for the Australian energy Statistics. As a result, there are breaks in the time series for many data between 2002 and 2003. The revisions have also introduced some methodological problems. The national statistics appear to have problems identifying inputs and outputs to certain transformation processes such as gas works plants, electricity plants and CHP plants. Energy industry own use and inputs to the transformation processes are sometimes not reported separately in the correct categories. More detailed information is given in the online data documentation of *Energy Balances of OECD countries*, Chapter 5: *Country notes*.[18]

18. Available at: *www.iea.org/statistics/topics/energybalances/.*

Cambodia

The break in the CO_2/TPES and TPES/GDP timeseries between 2008 and 2009 is due to a break in the timeseries for solid biofuels which creates an artificial increase in TPES between those years.

People's Republic of China

In 2012, the National Bureau of Statistics (NBS) revised the format and detail of their energy balance. New expanded questionnaires have allowed for data collection at a more detailed level than in previous years for some products and flows. However, the increase in data availability has not been completely uniform, with more information for energy supply than for energy demand. This may lead to increased statistical differences for some products from 2010 to 2012, in particular for coal. As a result, significant differences between CO_2 emissions computed according to the Reference and Sectoral approaches may occur.

In this edition, emissions from diesel consumption in road transportation from 2000 to 2012 were revised based on information on the definition for diesel consumption in various sectors. Portions of consumption from the residential and the commercial and public services sectors were allocated to road transportation consumption to conform to the definitions for respective consumption flows used in calculating emissions in this publication.

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.

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

Between 2004 and 2007, 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_2 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_2 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_2 emissions increased for all the years, however at different rates. For example, the sectoral approach CO_2 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_2 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*) were submitted for the 2007 edition.

Democratic People's Republic of Korea

Time series data for 2011 for primary coals were revised based on new information received in 2014. This may lead to breaks in the time series between 2010 and 2011 and differences in trends compared to previous editions for some products.

Malta

Large discrepancies were observed by the IEA secretariat in the 2012 questionnaires received from Malta, these included unbalanced interproduct transfers in 2012, and breaks in time series for heat and waste production between 2011 and 2012. These discrepancies in the underlying energy data are reflected in the CO_2 emissions estimates. No responses were received from Malta when questions were raised about these issues. The IEA hopes to obtain explanations from Malta for its next edition.

Malta reported the use of motor gasoline in international marine bunkers for the first time in 2011. These data relate to unleaded petrol used by outboard engines in small vessels.

In 2011, a new power generation station fuelled by municipal and industrial waste became operation in Malta. This may lead to breaks in time series for some products and flows.

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.

Singapore

Due to Singapore's large trade volume in comparison to its final consumption, a slight misalignment of trade figures can have a significant impact on the Energy balance of Singapore. As a result, large discrepancies between the Reference and Sectoral Approach estimates arise from statistical differences between supply and consumption of oil and oil products.

The IEA secretariat, the Energy Market Authority and the National Climate Change Secretariat (NCCS) are working closely together on improving data quality for Singapore. Efforts are continuing on this project, therefore breaks in time series between 2008 and 2009 and differences in trends when compared to previous publications may occur for some products.

Further revisions are expected in future editions, as energy data coverage is further extended by Singapore.

South Africa

Large differences between the Reference and Sectoral Approach estimates are due to losses associated with coal-to-liquid and to a lesser extent gas-to-liquid transformation.

Switzerland

The sectoral breakdown for gas/diesel oil used in residential 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.

Togo

Official energy data were submitted by Togo in 2014 for the years 2009-2012. Breaks in time series between 2008 and 2009, or differences in trends compared to previous publications may occur for this reason. The IEA continues to work with the Ministry of Mines and Energy in Togo to better understand the reasons for the breaks in time series and to reassess the historical data.

Ukraine

To provide a better Reference Approach estimate of CO_2 emissions in 2010, for the purposes of this publication, the IEA Secretariat has adjusted the stock change and statistical difference of natural gas to better match international definitions.

United Kingdom

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

Breaks occur in the international marine bunkers and domestic navigation time series in 2008, after which a different methodology is used for the fuel split. Emissions from international marine bunkers may be underestimated for previous years.

United States

For the 2014 edition of this publication, end-use energy consumption data for the United States show a break in series with historical data due to a change in methodology. The break in series occurs between 2011 and 2012 for oil, and between 2001 and 2002 for electricity and natural gas. The new methodology is based on the last historical year of the most recent Annual Energy Outlook (AEO) publication. Changes occur primarily in reported end-use energy consumption in the industrial sector and its subsectors, including non-manufacturing industries of mining, construction and agriculture. Historical revisions are pending.

Viet Nam

A detailed sectoral breakdown is available starting in 1980.

3. INDICATOR SOURCES AND METHODS

Population

The main source of the 1970 to 2012 population data for the OECD member countries is *National Accounts of OECD Countries, Volume 2014, Issue 1, Main Aggregates*, OECD 2014. Population data for **Australia**, **France** and the **United Kingdom** (1960 to 1969) and **Denmark** (1966 to 1969) were taken directly from the most recent volume of OECD *National Accounts*. For all other countries, data for the period 1960 to 1969 have been estimated using the growth rates from the population series published in the *OECD Factbook 2014*. Growth rates from the population series in the *OECD Factbook 2014* were also the data source for **Chile** (1970 to 1985), **Estonia** (1990 to 1992), **Israel** (1970 to 1994), the **Slovak Republic** (1970 to 1989) and **Slovenia** (1989 to 1994).

The main source of the population data for the OECD non-member countries is *World Development Indicators*, World Bank, Washington D.C., 2014. Population data for **Gibraltar**, **Netherland Antilles,**[7] **Former Soviet Union** (before 1990), **Chinese Taipei, Former Yugoslavia** (before 1990),and for a few countries within the regions **Other Africa**, **Other Non-OECD Americas** and **Other Asia** are based on the CHELEM-CEPII online database, 2014. Population data for **Cyprus**[19] are calculated using the 2012 population growth rate given by Eurostat, 2014.

GDP and GDP PPP

The main source of the 1970 to 2012 GDP series for the OECD member countries is *National Accounts of OECD Countries, Volume 1*, 2014. GDP data for **Australia**, **France**, **Greece** and **Sweden** (1960-1969) and **Denmark** (1966-1969) and the **Netherlands** (1969) come directly from the same source. GDP data for 1960 to 1969 for the other countries 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. Growth rates from these sources were also used to estimate data for the **Czech Republic** (1970-1989), **Hungary** (1970-1990), **Poland** (1970-1989) and the **Slovak Republic** (1970-1991). All data for **Chile** (prior to 1986) and **Estonia** (prior to 1992) are IEA Secretariat estimates based on GDP growth rates from the World Bank. 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 2005 and then converted to US dollars using the yearly average 2005 exchange rates or purchasing power parities (PPPs).[20]

For the OECD member countries, the PPPs selected to convert the GDP from national currencies to US dollars were aggregated using the Èltetö, Köves and Szulc (EKS) Eurostat-OECD method and rebased on the United States. For a more detailed description of the methodology please see *OECD-Eurostat Methodological Manual on Purchasing Power Parities*, 2012 edition, EU/OECD, 2012 and *Measuring the Real Size of the World Economy: The Framework, Methodology and Results of the International Comparison Program (ICP)*, World Bank 2013.

19. Please refer to Chapter 4: *Geographical coverage*.

20. 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.

The main source of the GDP series for the non-OECD member countries is *World Development Indicators*, World Bank, Washington D.C., 2014. GDP figures for **Gibraltar**, **Democratic People's Republic of Korea, Kosovo, Myanmar**, **Netherlands Antilles,**[7] **Former Soviet Union** (before 1990), **Syrian Arab Republic** (after 2007), **Chinese Taipei**, **Former Yugoslavia** (before 1990) and a few countries within the regions[21] **Other Africa**, **Other Non-OECD Americas** and **Other Asia** are based on the CHELEM-CEPII online databases, Bureau van Dijk, Paris, 2014.

The main source of the GDP PPP data for the non-OECD member countries is *World Development Indicators*, The World Bank, Washington, D.C., 2014. However, this source is only available for GDP PPP (constant 2011 USD) from 1980. Therefore, prior to 1980, GDP PPP data have been calculated based on the PPP conversion factor (GDP) to market exchange rate ratio. GDP PPP figures for **Argentina, Cuba, Gibraltar, Jamaica, Democratic People's Republic of Korea, Libya, Myanmar, Netherlands Antilles**[7]**, Former Soviet Union** (before 1990), **Syrian Arab Republic**, **Chinese Taipei, Former Yugoslavia** (before 1990), **Zimbabwe** and a few countries within the regions[10] **Other Africa**, **Other Non-OECD Americas** and **Other Asia** are based on the CHELEM-CEPII online databases, Bureau van Dijk, Paris, 2014.

GDP PPP figures for **Bosnia and Herzegovina** (up to 1993) and **Croatia** (up to 1994) have been estimated based on the growth rates of the CHELEM-CEPII online databases, Bureau van Dijk, Paris, 2014. The GDP PPP data have been converted from GDP using purchasing power parity rates. These data have been scaled to the price levels of 2005.

The GDP PPP reflect the changes to purchasing power parity rates based on the 2011 International Comparison Program (ICP), published in 2014. The ICP has worked for six years to better estimate the value of the PPP 'basket of goods' for all countries for which the World Bank calculates GDP PPP. For many countries this value has significantly changed in comparison to previous ICP exercises. This leads to significant revisions to GDP PPP for many countries compared to previous publications.

CO_2 emissions

The estimates of CO_2 emissions in this publication are based on the *1996 IPCC Guidelines* and represent the total emissions from fuel combustion. Emissions have been calculated using the IPCC Sectoral Approach (which corresponds to IPCC Source/Sink Category 1 A). Reference Approach totals shown in Chapter 6: *Regional 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 and aviation bunkers. See the Country Notes in Chapter 3 for further details.

Electricity output

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

Both **main activity**[22] **producer** and **autoproducer**[23] **plants** have been included where available.

Data include the total amount of electricity in TWh generated by both **electricity plants** and **CHP plants**. Heat production from CHP plants is not included.

CO_2 / TPES

This ratio is expressed in tonnes of CO_2 per terajoule. It has been calculated using the Sectoral Approach CO_2 emissions and total primary energy supply (including biofuels and other non-fossil forms of energy).

21. Due to lack of complete time series, figures for population and for GDP of Other Non-OECD Americas do not include British Virgin Islands, Cayman Islands, Falkland Islands (Malvinas), 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.

22. Main activity producers 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.

23. 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.

CO_2 / GDP

This ratio is expressed in kilogrammes of CO_2 per 2005 US dollar. It has been calculated using the Sectoral Approach CO_2 emissions and is shown with both GDP calculated using exchange rates and GDP calculated using purchasing power parities.

CO_2 / population

This ratio is expressed in tonnes of CO_2 per capita. It has been calculated using the Sectoral approach CO_2 emissions.

Per capita CO_2 emissions by sector

These ratios are expressed in kilogrammes of CO_2 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.

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, Libya, Mauritius, Morocco, Mozambique, Namibia (from 1991), Nigeria, Senegal, South Africa, Sudan[24], 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, Namibia (until 1990), Niger, Reunion, Rwanda, Sao Tome and Principe, Seychelles, Sierra Leone, Somalia, Swaziland, Uganda and Western Sahara (from 1990).

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

Non-OECD Europe and Eurasia includes Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus[25], Former Yugoslav Republic of Macedonia (FYROM), Georgia, Gibraltar, Kazakhstan, Kosovo, Kyrgyzstan, Latvia, Lithuania, Malta, Republic of Moldova, Montenegro, Romania, Russian Federation, Serbia[26], Tajikistan, Turkmenistan, Ukraine, Uzbekistan, Former Soviet Union[27] (prior to 1990) and Former Yugoslavia[14] (prior to 1990).

Non-OECD Americas includes Argentina, Bolivia, Brazil, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Jamaica, Netherlands Antilles[28], Nicaragua, Panama, Paraguay, Peru, Trinidad and Tobago, Uruguay, Venezuela and **Other Non-OECD Americas**.

Other Non-OECD Americas includes Antigua and Barbuda, Aruba, Bahamas, Barbados, Belize, Bermuda, British Virgin Islands, Cayman Islands, Dominica, Falkland Islands (Malvinas), French Guyana, Grenada, Guadeloupe, Guyana, Martinique, Montserrat, Puerto Rico[29] (for natural gas and electricity), St. Kitts and Nevis, Saint Lucia, St. Pierre and Miquelon, St. Vincent and the Grenadines, Suriname, and Turks and Caicos Islands.

China includes the People's Republic of China and Hong Kong, China but excludes Macau, China.

Asia includes Bangladesh, Brunei Darussalam, Cambodia (from 1995), India, Indonesia, DPR of Korea, Malaysia, Mongolia (from 1985), Myanmar, Nepal,

24. As only aggregated data were available until 2011, the data for Sudan also include South Sudan.

25. Note by Turkey: *The information in this document with reference to "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). Until a lasting and equitable solution is found within the context of the United Nations, Turkey shall preserve its position concerning the "Cyprus" issue.*

Note by all the European Union Member States of the OECD and the European Union: *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.*

26. Serbia includes Kosovo from 1990 to 1999 and Montenegro from 1990 to 2004.

27. Prior to 1990, Former Soviet Union includes Estonia and Former Yugoslavia includes Kosovo, Montenegro and Slovenia.

28. The Netherlands Antilles was dissolved on 10 October 2010 resulting in two new constituent countries, Curaçao and Saint Maarten, with the other islands joining the Netherlands. However, due to lack of detailed data, the IEA data and estimates under Netherlands Antilles cover the whole territory of the Netherlands Antilles.

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

Pakistan, Philippines, Singapore, Sri Lanka, Chinese Taipei, Thailand, Viet Nam and **Other Asia**.

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

The **Organisation for Economic Co-Operation and Development (OECD)** includes Australia, Austria, Belgium, Canada, Chile, the Czech Republic, Denmark, Estonia[30], Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel[31], Italy, Japan, Korea, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, the Slovak Republic, Slovenia[30], Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States.

Within the **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 National 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.

The statistical data for **Israel** are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

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 oil data only. Data for other fuels do not include Liechtenstein.

Shipments of coal and oil to the Channel Islands and the Isle of Man from the **United Kingdom** are not classed as exports. Supplies of coal and oil to these islands are, therefore, included as part of UK supply. Exports of natural gas to the Isle of Man are included with the exports to Ireland.

United States includes the 50 states and the District of Columbia. Oil statistics as well as coal trade statistics also include Puerto Rico[32], Guam, the Virgin Islands, American Samoa, Johnston Atoll, Midway Islands, Wake Island and the Northern Mariana Islands.

OECD Americas includes Canada, Chile, Mexico and the United States.

OECD Asia Oceania includes Australia, Israel[31], Japan, Korea and New Zealand.

OECD Europe includes Austria, Belgium, the Czech Republic, Denmark, Estonia[30], Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Poland, Portugal, the Slovak Republic, Slovenia[30], Spain, Sweden, Switzerland, Turkey and the United Kingdom.

The **European Union - 28 (EU-28)** includes Austria, Belgium, Bulgaria, Croatia, Cyprus[33], 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, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Japan, Korea, Luxembourg, the Netherlands, New Zealand, Norway, Poland,

30. Estonia and Slovenia are included in OECD totals starting in 1990. Prior to 1990, data for Estonia are included in Former Soviet Union and data for Slovenia in Former Yugoslavia.

31. The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

32. Natural gas and electricity data for Puerto Rico are included under Other Non-OECD Americas.

33. Note by Turkey: *The information in this document with reference to "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). Until a lasting and equitable solution is found within the context of the United Nations, Turkey shall preserve its position concerning the "Cyprus" issue.*

Note by all the European Union Member States of the OECD and the European Union: *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*.

Portugal, the Slovak Republic, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States.

Annex I Parties includes Australia, Austria, Belarus, Belgium, Bulgaria, Canada, Croatia, the Czech Republic[34], Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Latvia, Liechtenstein (not available in this publication)[35], Lithuania, Luxembourg, Malta, Monaco (included with France), the Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Russian Federation, the Slovak Republic[34], 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 12th 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 were undergoing the process of transition to market economies. At its fifteenth session, the Conference of the Parties decided to amend Annex I to the Convention to include Malta (Decision 3/CP.15). The amendment entered into force on 26 October 2010.

Annex II Parties includes Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, 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.

Annex II North America includes Canada and the United States.

Annex II Europe includes Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

Annex II Asia Oceania includes Australia, Japan and New Zealand.

Economies in Transition (EITs) are those countries in Annex I that were undergoing the process of transition to a market economy. This includes Belarus, Bulgaria, Croatia, the Czech Republic[34], Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Russian Federation, the Slovak Republic[34], Slovenia and Ukraine.

Annex I Kyoto Parties includes Australia, Austria, Belgium, Bulgaria, Croatia, the Czech Republic[34], Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Latvia, Liechtenstein (not available in this publication)[35], Lithuania, Luxembourg, Monaco (included with France), the Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Russian Federation, the Slovak Republic[34], Slovenia, Spain, Sweden, Switzerland, Ukraine and the United Kingdom.

Membership in the Kyoto Protocol is almost identical to that of Annex I, except for Malta and Turkey which did not agree to a target under the Protocol; Belarus, whose commitment to a target under Decision 10/CMP.2 did not enter into force; the United States which has expressed the intention not to ratify the Protocol; and Canada, which in accordance with article 27 (1) of the Kyoto Protocol to the UNFCCC, notified the Secretary-General of the United Nations of its decision to withdraw from the Kyoto Protocol. The action became effective for Canada on 15 December 2012 in accordance with article 27 (2). In this edition, Canada has been removed from the Annex I Kyoto Parties.

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

Africa: Saint Helena.

Asia and Oceania: Christmas Island, Nauru, Niue and Tuvalu.

Non-OECD Americas: Anguilla.

Non-OECD Europe and Eurasia: Andorra, Liechtenstein[35] (except for oil data).

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

35. Oil data for Liechtenstein are included under Switzerland.

5. SUMMARY TABLES

CO_2 emissions: Sectoral Approach

million tonnes of CO_2

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	% change 90-12
World *	**14 084.8**	**15 689.1**	**18 062.4**	**18 644.2**	**20 973.9**	**21 841.1**	**23 755.6**	**27 494.0**	**30 482.1**	**31 344.8**	**31 734.3**	**51.3%**
Annex I Parties	*..*	*..*	*..*	*..*	*13 890.5*	*13 149.4*	*13 735.2*	*14 096.5*	*13 449.9*	*13 337.4*	*13 140.9*	*-5.4%*
Annex II Parties	*8 607.0*	*8 884.3*	*9 544.4*	*9 172.7*	*9 790.9*	*10 187.2*	*10 986.7*	*11 275.7*	*10 566.4*	*10 347.1*	*10 156.0*	*3.7%*
North America	*4 630.9*	*4 738.8*	*5 088.5*	*4 948.0*	*5 296.9*	*5 599.6*	*6 226.7*	*6 322.6*	*5 958.5*	*5 825.1*	*5 607.9*	*5.9%*
Europe	*3 059.8*	*3 092.8*	*3 350.8*	*3 106.0*	*3 154.5*	*3 139.7*	*3 223.1*	*3 339.2*	*3 055.5*	*2 920.0*	*2 906.4*	*-7.9%*
Asia Oceania	*916.4*	*1 052.7*	*1 105.1*	*1 118.7*	*1 339.5*	*1 447.9*	*1 536.9*	*1 613.9*	*1 552.3*	*1 602.1*	*1 641.7*	*22.6%*
Annex I EIT	*..*	*..*	*..*	*..*	*3 970.4*	*2 807.1*	*2 545.8*	*2 601.8*	*2 615.1*	*2 702.1*	*2 680.0*	*-32.5%*
Non-Annex I Parties	*..*	*..*	*..*	*..*	*6 463.9*	*7 981.5*	*9 180.5*	*12 412.4*	*15 921.0*	*16 874.4*	*17 513.5*	*170.9%*
Annex I Kyoto Parties	*..*	*..*	*..*	*..*	*8 339.6*	*7 333.0*	*7 247.4*	*7 493.0*	*7 158.5*	*7 158.5*	*7 157.0*	*-14.2%*
Intl. marine bunkers	**345.2**	**332.5**	**348.4**	**298.5**	**363.2**	**421.9**	**488.1**	**566.1**	**653.5**	**659.4**	**602.2**	**65.8%**
Intl. aviation bunkers	**167.5**	**172.1**	**200.1**	**222.6**	**256.3**	**288.3**	**351.8**	**419.0**	**457.8**	**473.7**	**477.8**	**86.4%**
**Non-OECD Total ** **	**4 202.3**	**5 386.1**	**6 803.4**	**7 679.1**	**9 214.4**	**9 466.2**	**10 300.3**	**13 504.0**	**16 879.6**	**17 885.5**	**18 508.3**	**100.9%**
OECD Total * **	**9 369.8**	**9 798.4**	**10 710.5**	**10 444.0**	**11 139.9**	**11 664.7**	**12 615.4**	**13 005.0**	**12 491.3**	**12 326.3**	**12 146.1**	**9.0%**
Canada	339.6	377.9	426.9	402.2	428.2	460.9	528.6	549.1	531.4	536.7	533.7	24.6%
Chile	20.8	17.0	21.2	19.4	30.8	38.7	52.1	58.2	69.8	76.0	77.8	152.4%
Mexico	97.0	138.7	212.1	251.6	265.3	297.0	349.6	385.8	417.9	432.5	435.8	64.3%
United States	4 291.3	4 360.8	4 661.6	4 545.7	4 868.7	5 138.7	5 698.1	5 773.5	5 427.1	5 288.4	5 074.1	4.2%
OECD Americas	**4 748.7**	**4 894.5**	**5 321.8**	**5 219.0**	**5 592.9**	**5 935.2**	**6 628.3**	**6 766.6**	**6 446.2**	**6 333.6**	**6 121.4**	**9.4%**
Australia	144.1	180.0	208.0	221.0	260.5	286.0	335.4	371.9	387.3	388.3	386.3	48.3%
Israel	14.4	17.1	19.6	24.5	33.5	46.3	55.2	59.9	68.1	67.2	73.3	118.5%
Japan	758.8	856.3	880.7	878.1	1 056.7	1 136.7	1 170.6	1 208.1	1 134.0	1 183.4	1 223.3	15.8%
Korea	52.1	76.8	124.4	153.3	229.3	358.7	437.7	469.1	564.5	589.9	592.9	158.6%
New Zealand	13.4	16.4	16.4	19.6	22.3	25.3	30.9	33.9	31.0	30.4	32.1	44.0%
OECD Asia Oceania	**982.9**	**1 146.5**	**1 249.1**	**1 296.5**	**1 602.4**	**1 852.8**	**2 029.8**	**2 142.9**	**2 184.9**	**2 259.2**	**2 307.9**	**44.0%**
Austria	48.7	50.2	55.7	54.3	56.4	59.3	61.7	74.6	69.4	67.7	64.7	14.8%
Belgium	116.8	115.6	125.7	101.9	107.9	115.2	118.8	113.2	109.6	110.5	104.6	-3.1%
Czech Republic	151.0	152.6	165.8	173.1	148.8	125.0	122.4	120.1	114.3	112.9	107.8	-27.6%
Denmark	55.0	52.5	62.5	60.5	50.6	58.1	50.8	48.4	47.4	42.1	37.1	-26.7%
Estonia	..	..	..	..	35.8	16.0	14.6	16.9	18.5	17.5	16.3	-54.3%
Finland	39.8	44.4	55.2	48.6	54.4	56.0	55.2	55.1	62.4	55.4	49.4	-9.1%
France	431.9	430.6	461.4	360.3	352.8	354.2	378.7	388.2	355.1	328.6	333.9	-5.4%
Germany	978.6	975.5	1 055.6	1 014.6	949.7	867.8	825.0	799.6	769.9	742.2	755.3	-20.5%
Greece	25.2	34.5	45.3	54.6	70.1	75.8	87.4	95.0	84.2	82.8	77.5	10.5%
Hungary	60.3	70.7	83.7	80.8	66.4	57.3	54.2	56.4	48.9	47.4	43.6	-34.4%
Iceland	1.4	1.6	1.7	1.6	1.9	2.0	2.1	2.2	1.9	1.9	1.8	-2.5%
Ireland	21.7	21.2	26.0	26.5	30.6	33.0	41.1	43.9	38.9	34.9	35.5	16.3%
Italy	292.9	319.6	359.8	347.5	397.4	409.4	426.0	460.8	399.2	393.0	374.8	-5.7%
Luxembourg	15.4	12.1	11.9	9.9	10.4	8.0	8.0	11.4	10.6	10.4	10.2	-1.3%
Netherlands	129.6	140.8	166.7	154.0	155.8	170.9	172.1	180.1	187.0	174.9	173.8	11.5%
Norway	23.5	24.1	28.0	27.2	28.3	32.8	33.6	36.4	39.4	37.8	36.2	27.9%
Poland	286.7	338.2	413.1	419.5	342.1	331.1	290.9	292.9	306.4	300.8	293.8	-14.1%
Portugal	14.4	18.1	23.8	24.6	39.4	48.2	59.2	62.8	48.1	47.5	45.9	16.4%
Slovak Republic	39.1	43.8	55.3	54.4	56.7	40.8	37.4	38.1	35.2	33.9	31.9	-43.8%
Slovenia	..	..	..	..	13.3	14.0	14.1	15.6	15.4	15.2	14.6	9.6%
Spain	119.9	156.5	187.7	175.2	205.2	232.7	283.9	339.4	267.9	270.4	266.6	29.9%
Sweden	82.4	79.4	73.4	58.8	52.8	57.6	52.7	50.3	47.2	43.4	40.4	-23.4%
Switzerland	38.9	36.7	39.2	41.4	41.6	41.8	42.5	44.6	43.8	39.9	41.3	-0.8%
Turkey	41.4	59.2	70.9	94.6	126.9	152.7	200.6	216.4	265.9	285.7	302.4	138.3%
United Kingdom	623.5	579.5	571.1	544.5	549.3	516.6	524.3	532.9	473.6	436.5	457.5	-16.7%
OECD Europe * **	**3 638.2**	**3 757.4**	**4 139.6**	**3 928.5**	**3 944.6**	**3 876.7**	**3 957.3**	**4 095.5**	**3 860.2**	**3 733.4**	**3 716.8**	**-5.8%**
European Union - 28	*..*	*..*	*..*	*..*	*4 067.8*	*3 864.4*	*3 852.1*	*3 988.3*	*3 678.9*	*3 547.7*	*3 504.9*	*-13.8%*

* Total world includes non-OECD total, OECD total as well as international marine bunkers and international aviation bunkers.
** Includes Estonia and Slovenia prior to 1990.
*** Excludes Estonia and Slovenia prior to 1990.

CO_2 emissions: Sectoral Approach

million tonnes of CO_2

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	% change 90-12
Non-OECD Total *	**4 202.3**	**5 386.1**	**6 803.4**	**7 679.1**	**9 214.4**	**9 466.2**	**10 300.3**	**13 504.0**	**16 879.6**	**17 885.5**	**18 508.3**	**100.9%**
Albania	3.9	4.5	7.6	7.2	6.2	1.9	3.1	4.0	3.9	4.1	3.8	-38.8%
Armenia	..	..	..	..	20.5	3.4	3.4	4.1	4.0	4.7	5.4	-73.5%
Azerbaijan	..	..	..	..	55.0	33.9	27.9	30.8	23.8	26.8	29.3	-46.8%
Belarus	..	..	..	..	124.8	61.7	58.5	61.8	64.5	65.6	71.1	-43.0%
Bosnia and Herzegovina	..	..	..	..	23.7	3.2	13.5	15.6	20.0	22.8	21.2	-10.3%
Bulgaria	62.8	72.2	83.8	81.1	74.9	53.3	42.4	46.3	44.2	49.1	44.3	-40.9%
Croatia	..	..	..	..	21.5	15.8	17.7	20.7	19.0	18.8	17.2	-20.1%
Cyprus **	1.8	1.7	2.6	2.8	3.9	5.0	6.3	7.0	7.2	6.9	6.5	67.5%
FYR of Macedonia	..	..	..	..	8.5	8.2	8.4	8.8	8.2	9.3	8.7	2.0%
Georgia	..	..	..	..	33.3	8.1	4.6	4.3	4.9	6.3	6.8	-79.5%
Gibraltar	0.1	0.1	0.1	0.1	0.2	0.3	0.4	0.5	0.5	0.5	0.5	202.4%
Kazakhstan	..	..	..	..	236.4	167.5	113.0	157.1	217.3	230.9	225.8	-4.5%
Kosovo ***	..	..	..	..	..	..	5.0	6.5	8.6	8.5	8.0	..
Kyrgyzstan	..	..	..	..	22.5	4.4	4.4	4.9	6.0	7.2	9.5	-57.6%
Latvia	..	..	..	..	18.6	8.9	6.8	7.6	8.1	7.3	7.0	-62.4%
Lithuania	..	..	..	..	33.1	14.2	11.2	13.5	13.3	13.3	13.3	-59.8%
Malta	0.6	0.6	1.0	1.1	2.3	2.4	2.1	2.7	2.5	2.5	2.5	10.4%
Republic of Moldova	..	..	..	..	30.2	11.8	6.5	7.7	7.9	7.9	7.6	-74.8%
Montenegro ***	..	..	..	..	..	..	..	2.0	2.5	2.5	2.3	..
Romania	114.9	140.6	176.1	173.3	167.5	117.5	87.0	94.5	75.4	81.6	79.0	-52.9%
Russian Federation	..	..	..	..	2 178.8	1 558.7	1 496.7	1 511.8	1 580.2	1 653.2	1 659.0	-23.9%
Serbia ***	..	..	..	..	61.4	44.0	42.5	49.2	45.8	49.8	44.1	-28.2%
Tajikistan	..	..	..	..	10.9	2.4	2.2	2.3	2.3	2.4	2.7	-74.9%
Turkmenistan	..	..	..	..	44.5	33.2	36.6	47.8	56.6	61.5	63.8	43.5%
Ukraine	..	..	..	..	687.9	392.8	292.0	305.6	271.7	285.4	281.1	-59.1%
Uzbekistan	..	..	..	..	119.8	101.6	118.0	108.6	100.2	109.2	111.1	-7.3%
Former Soviet Union ****	1 995.8	2 567.9	3 056.0	3 197.5	..	..	..	..	..	..	..	..
Former Yugoslavia ****	63.2	75.2	87.6	121.7	..	..	..	..	..	..	..	..
Non-OECD Europe and Eurasia *	**2 243.2**	**2 862.7**	**3 414.8**	**3 584.8**	**3 986.3**	**2 654.1**	**2 410.0**	**2 525.5**	**2 598.6**	**2 738.2**	**2 731.8**	**-31.5%**
Algeria	8.9	14.0	28.4	43.4	52.7	56.7	63.5	79.4	97.5	103.9	114.3	116.9%
Angola	1.7	2.0	2.7	2.9	4.0	4.0	5.1	6.5	15.7	15.7	16.5	310.3%
Benin	0.3	0.5	0.4	0.5	0.3	0.2	1.4	2.7	4.5	4.7	4.9	+
Botswana	..	..	..	1.5	2.8	3.1	4.0	4.2	4.8	4.5	4.5	61.6%
Cameroon	0.7	1.0	1.7	2.4	2.7	2.5	2.8	2.9	5.0	5.2	5.4	102.6%
Congo	0.6	0.6	0.7	0.8	0.6	0.5	0.5	0.8	1.8	2.1	2.2	252.9%
Dem. Rep. of Congo	2.5	2.6	3.1	3.2	3.0	1.1	0.8	1.3	1.8	2.3	2.4	-18.4%
Côte d'Ivoire	2.4	3.0	3.4	3.0	2.7	3.3	6.3	5.8	6.2	5.8	7.8	188.2%
Egypt	20.6	26.1	42.5	65.7	79.5	84.2	102.5	150.3	184.0	190.5	196.9	147.6%
Eritrea	..	..	..	..	..	0.8	0.6	0.6	0.5	0.5	0.5	..
Ethiopia	1.3	1.2	1.4	1.4	2.2	2.4	3.3	4.6	6.1	7.0	7.9	258.8%
Gabon	0.5	0.8	1.3	1.7	0.9	1.3	1.5	1.7	2.4	2.5	2.5	173.6%
Ghana	1.9	2.3	2.3	2.2	2.7	3.3	5.1	6.5	10.5	11.0	12.8	372.6%
Kenya	3.2	3.5	4.5	4.6	5.5	5.8	7.8	7.5	11.4	11.6	10.6	93.2%
Libya	3.7	9.2	18.6	22.5	27.4	35.1	39.5	45.3	51.1	35.3	44.2	61.6%
Mauritius	0.3	0.4	0.6	0.6	1.2	1.5	2.4	2.9	3.6	3.6	3.7	220.8%
Morocco	6.8	9.9	14.0	16.5	19.6	26.0	29.4	39.5	46.3	50.2	51.8	163.9%
Mozambique	2.9	2.3	2.3	1.5	1.1	1.1	1.3	1.5	2.4	2.8	2.6	139.7%
Namibia	..	..	..	..	..	1.8	1.9	2.3	3.0	3.0	3.2	..
Nigeria	5.9	11.7	26.7	32.4	29.0	33.8	44.0	57.9	56.4	61.8	64.6	122.6%
Senegal	1.2	1.6	2.0	2.1	2.1	2.5	3.6	4.7	5.4	5.8	5.6	165.0%
South Africa	156.7	201.5	208.8	228.8	253.7	274.5	297.1	329.5	376.3	361.5	376.1	48.3%
Sudan	3.3	3.3	3.7	4.2	5.5	4.6	5.8	10.2	15.5	14.6	14.5	162.8%
United Rep. of Tanzania	1.5	1.5	1.6	1.5	1.7	2.5	2.6	5.1	6.2	7.4	8.9	421.2%
Togo	0.3	0.3	0.4	0.3	0.6	0.6	0.9	1.0	2.1	1.9	1.6	184.0%
Tunisia	3.7	4.8	7.8	9.6	12.1	14.2	18.0	20.2	23.1	21.9	23.0	90.7%
Zambia	3.4	4.4	3.4	2.8	2.6	2.0	1.7	2.1	1.7	2.1	2.8	6.0%
Zimbabwe	7.2	7.2	8.0	9.6	16.0	14.8	13.1	10.1	8.7	9.5	10.0	-37.6%
Other Africa	8.5	9.7	13.4	11.0	12.9	14.7	17.5	22.1	28.3	29.4	30.5	136.1%
Africa	**250.2**	**325.5**	**403.5**	**476.7**	**545.0**	**598.9**	**684.0**	**829.0**	**982.3**	**978.0**	**1 032.4**	**89.4%**

* Includes Estonia and Slovenia prior to 1990.

** Please refer to Chapter 4, *Geographical Coverage*.

*** Serbia includes Kosovo from 1990 to 1999 and Montenegro from 1990 to 2004.

**** Prior to 1990, data for individual countries are not available separately; FSU includes Estonia and Former Yugoslavia includes Slovenia.

CO_2 emissions: Sectoral Approach

million tonnes of CO_2

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	% change 90-12
Bangladesh	3.2	4.7	7.2	8.8	13.6	20.3	25.1	35.1	52.5	55.5	59.6	338.9%
Brunei Darussalam	0.4	1.4	2.6	2.9	3.2	4.5	4.4	4.8	7.6	8.3	8.4	158.5%
Cambodia	..	..	..	..	..	1.5	2.0	2.6	3.8	4.0	4.2	..
India	200.8	241.7	283.6	411.4	580.5	772.5	978.1	1 191.1	1 749.3	1 828.8	1 954.0	236.6%
Indonesia	25.1	38.0	68.9	88.0	146.1	214.4	272.8	335.7	392.4	400.3	435.5	198.2%
DPR of Korea	67.5	76.7	105.6	126.4	114.0	74.9	68.6	73.8	64.2	45.2	45.4	-60.2%
Malaysia	12.7	16.1	24.3	34.2	50.4	85.3	117.7	157.5	187.1	192.4	195.9	288.6%
Mongolia	..	..	..	11.6	12.7	10.1	8.8	9.5	12.5	13.0	14.2	12.3%
Myanmar	4.6	4.0	5.2	5.9	4.1	6.9	9.4	10.6	8.0	8.3	11.7	187.6%
Nepal	0.2	0.3	0.5	0.5	0.9	1.7	3.1	3.0	4.1	4.3	4.9	453.5%
Pakistan	16.6	20.9	26.1	39.1	58.6	79.5	99.2	120.5	135.4	136.4	137.4	134.5%
Philippines	23.0	29.0	33.3	28.5	37.9	56.9	67.4	70.6	76.1	76.7	79.5	109.5%
Singapore	6.1	8.5	12.7	17.2	30.3	39.1	44.4	42.7	48.9	50.3	49.7	64.4%
Sri Lanka	2.7	2.6	3.6	3.5	3.6	5.4	10.4	13.3	12.2	14.5	15.9	335.3%
Chinese Taipei	31.0	42.5	72.1	71.7	114.6	158.3	218.7	262.7	270.2	264.1	256.6	123.9%
Thailand	16.2	21.2	33.6	41.9	80.4	140.2	154.7	210.8	236.2	241.7	256.7	219.2%
Viet Nam	16.1	16.7	14.8	17.1	17.2	27.8	44.0	79.8	129.4	134.3	142.9	730.6%
Other Asia	10.5	12.7	16.5	10.1	10.2	9.4	11.3	15.4	22.1	24.3	26.2	155.6%
Asia (excl. China)	**436.8**	**536.9**	**710.6**	**918.8**	**1 278.2**	**1 708.4**	**2 140.2**	**2 639.5**	**3 412.0**	**3 502.2**	**3 698.5**	**189.3%**
People's Rep. of China	815.6	1 068.5	1 425.4	1 724.5	2 244.9	3 021.6	3 310.1	5 403.1	7 252.8	7 954.8	8 205.9	265.5%
Hong Kong, China	9.2	10.8	14.5	22.0	32.9	36.0	40.2	41.2	42.1	45.6	45.0	36.8%
China	**824.7**	**1 079.3**	**1 440.0**	**1 746.5**	**2 277.7**	**3 057.6**	**3 350.3**	**5 444.3**	**7 294.9**	**8 000.4**	**8 250.8**	**262.2%**
Argentina	82.8	85.5	95.6	88.2	99.9	119.8	141.8	152.6	176.3	183.7	188.5	88.8%
Bolivia	2.2	3.2	4.2	4.3	5.2	6.9	7.1	9.4	14.1	15.2	16.3	216.6%
Brazil	90.2	135.7	177.6	164.2	192.4	235.6	303.6	322.7	388.5	408.0	440.2	128.8%
Colombia	26.7	28.3	35.0	39.6	46.2	58.4	59.2	58.1	61.8	67.9	67.4	45.7%
Costa Rica	1.3	1.7	2.2	2.0	2.6	4.4	4.5	5.7	6.5	6.7	6.8	159.8%
Cuba	20.6	23.9	30.2	31.9	33.8	22.4	27.3	25.3	29.9	28.6	28.8	-14.7%
Dominican Republic	3.4	5.2	6.3	6.2	7.4	11.2	16.1	17.3	18.9	19.2	19.8	167.7%
Ecuador	3.5	5.9	10.5	11.7	13.4	17.0	19.3	24.5	32.0	31.7	33.1	147.4%
El Salvador	1.4	2.0	1.7	1.8	2.2	4.6	5.2	6.3	5.8	6.0	6.2	175.4%
Guatemala	2.3	3.0	4.2	3.2	3.2	5.8	8.5	10.5	10.2	10.4	10.5	226.7%
Haiti	0.4	0.4	0.6	0.8	0.9	0.9	1.4	2.0	2.1	2.1	2.1	119.4%
Honduras	1.1	1.3	1.7	1.7	2.2	3.5	4.4	7.1	7.3	7.6	8.2	278.4%
Jamaica	5.5	7.4	6.5	4.6	7.2	8.3	9.7	10.2	6.9	7.3	7.1	-1.2%
Netherlands Antilles	14.4	10.2	8.7	4.6	2.8	2.8	4.5	4.7	4.1	4.7	4.8	73.6%
Nicaragua	1.5	1.8	1.8	1.8	1.8	2.5	3.5	4.0	4.4	4.5	4.3	134.7%
Panama	2.5	3.1	2.9	2.7	2.6	4.1	4.9	6.8	8.9	9.7	9.9	284.8%
Paraguay	0.6	0.7	1.4	1.4	1.9	3.5	3.3	3.4	4.7	4.9	5.1	164.2%
Peru	15.6	18.4	20.5	18.2	19.2	23.7	26.5	28.9	41.8	44.7	45.8	138.6%
Trinidad and Tobago	6.1	5.8	7.9	9.6	11.4	12.3	18.2	31.0	38.4	37.9	37.1	226.2%
Uruguay	5.2	5.5	5.6	3.1	3.7	4.5	5.3	5.3	6.2	7.4	8.4	123.7%
Venezuela	52.1	62.8	92.4	95.2	105.1	118.3	126.7	147.9	182.4	160.6	178.3	69.6%
Other Non-OECD Americas	8.1	10.8	10.2	9.2	12.3	13.2	15.0	16.0	18.8	18.8	19.1	55.5%
Non-OECD Americas	**347.6**	**422.8**	**527.8**	**505.9**	**577.3**	**683.9**	**816.0**	**899.7**	**1 070.0**	**1 087.6**	**1 147.6**	**98.8%**
Bahrain	3.0	5.3	7.4	10.1	12.4	15.4	17.8	22.5	28.1	28.1	28.8	131.5%
Islamic Republic of Iran	41.7	71.5	90.2	146.4	178.7	251.4	315.1	421.6	508.5	525.8	532.2	197.8%
Iraq	10.4	15.5	27.0	36.8	53.4	97.5	70.3	74.9	101.2	108.2	119.0	122.8%
Jordan	1.3	2.1	4.3	7.4	9.2	12.2	14.4	18.0	18.8	19.8	21.7	134.7%
Kuwait	14.0	15.1	26.6	37.1	28.7	36.1	49.1	70.1	80.3	84.7	91.3	217.8%
Lebanon	4.5	5.7	6.6	6.5	5.5	12.8	14.1	14.5	18.3	18.5	21.0	285.3%
Oman	0.3	0.7	2.2	5.7	10.1	14.7	20.1	25.9	57.7	65.7	67.6	566.8%
Qatar	2.2	4.9	7.7	12.2	14.3	18.8	24.0	36.4	60.6	67.1	75.8	430.6%
Saudi Arabia	12.7	22.5	99.1	122.6	151.1	192.6	236.3	299.3	414.9	429.8	458.8	203.7%
Syrian Arab Republic	6.0	9.0	13.1	21.1	28.2	32.8	39.8	54.9	57.5	53.3	40.0	42.2%
United Arab Emirates	2.4	4.9	19.1	35.6	51.9	69.6	85.6	109.1	152.3	158.5	171.0	229.5%
Yemen	1.2	1.7	3.4	4.8	6.4	9.3	13.2	18.6	23.7	19.9	20.0	210.6%
Middle East	**99.8**	**159.0**	**306.7**	**446.4**	**549.9**	**763.2**	**899.7**	**1 165.9**	**1 521.7**	**1 579.2**	**1 647.1**	**199.5%**

CO_2 emissions: Sectoral Approach - Coal

million tonnes of CO_2

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	% change 90-12
World *	**5 195.4**	**5 612.4**	**6 569.6**	**7 384.4**	**8 317.0**	**8 537.0**	**9 074.2**	**11 321.6**	**13 136.3**	**13 751.8**	**13 923.8**	**67.4%**
Annex I Parties	*..*	*..*	*..*	*..*	*5 097.8*	*4 572.4*	*4 690.4*	*4 725.5*	*4 392.5*	*4 302.3*	*4 156.2*	*-18.5%*
Annex II Parties	*2 645.7*	*2 605.0*	*2 962.7*	*3 318.3*	*3 479.0*	*3 391.2*	*3 643.6*	*3 714.2*	*3 358.8*	*3 227.6*	*3 067.6*	*-11.8%*
North America	*1 140.6*	*1 253.8*	*1 481.2*	*1 725.0*	*1 892.1*	*1 995.3*	*2 248.9*	*2 236.4*	*2 031.9*	*1 915.3*	*1 684.6*	*-11.0%*
Europe	*1 233.9*	*1 059.0*	*1 182.8*	*1 223.9*	*1 155.5*	*925.8*	*843.5*	*844.4*	*703.9*	*716.4*	*768.5*	*-33.5%*
Asia Oceania	*271.2*	*292.2*	*298.7*	*369.4*	*431.5*	*470.1*	*551.1*	*633.4*	*623.1*	*595.9*	*614.4*	*42.4%*
Annex I EIT	*..*	*..*	*..*	*..*	*1 560.2*	*1 120.4*	*957.9*	*925.1*	*914.0*	*949.6*	*949.7*	*-39.1%*
Non-Annex I Parties	*..*	*..*	*..*	*..*	*3 219.1*	*3 964.6*	*4 383.8*	*6 596.1*	*8 743.8*	*9 449.5*	*9 767.6*	*203.4%*
Annex I Kyoto Parties	*..*	*..*	*..*	*..*	*3 137.7*	*2 510.8*	*2 348.7*	*2 400.4*	*2 238.7*	*2 259.5*	*2 329.7*	*-25.8%*
Intl. marine bunkers	**0.1**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.0**	**-**	**-**
Intl. aviation bunkers	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Non-OECD Total **	**2 062.2**	**2 478.1**	**2 971.1**	**3 353.5**	**4 175.4**	**4 520.1**	**4 756.5**	**6 918.6**	**8 968.9**	**9 688.5**	**10 019.5**	**140.0%**
OECD Total ***	**3 133.1**	**3 134.3**	**3 598.5**	**4 030.9**	**4 141.5**	**4 016.9**	**4 317.7**	**4 403.0**	**4 167.4**	**4 063.3**	**3 904.3**	**-5.7%**
Canada	61.9	57.4	80.5	99.4	94.7	98.9	123.8	112.7	91.2	84.9	71.9	-24.1%
Chile	5.0	3.5	4.7	4.8	9.6	8.7	11.4	10.0	17.2	20.9	24.1	152.0%
Mexico	5.1	6.6	7.2	11.6	14.6	25.8	26.8	38.1	39.5	41.0	40.7	178.4%
United States	1 078.7	1 196.4	1 400.7	1 625.5	1 797.4	1 896.4	2 125.1	2 123.7	1 940.7	1 830.4	1 612.8	-10.3%
OECD Americas	**1 150.7**	**1 263.9**	**1 493.2**	**1 741.4**	**1 916.2**	**2 029.8**	**2 287.1**	**2 284.4**	**2 088.6**	**1 977.3**	**1 749.5**	**-8.7%**
Australia	73.2	90.3	104.0	116.7	137.5	152.8	185.9	202.5	198.6	190.6	188.2	36.9%
Israel	0.0	0.0	0.0	7.2	9.3	16.1	25.0	30.1	28.7	29.8	33.0	255.9%
Japan	194.1	197.7	190.8	248.8	290.6	313.9	360.9	422.1	419.1	400.1	419.7	44.4%
Korea	21.2	30.6	48.1	80.2	86.3	101.6	173.6	195.0	276.9	297.9	291.2	237.3%
New Zealand	3.9	4.2	3.8	3.9	3.3	3.3	4.3	8.7	5.3	5.2	6.5	96.2%
OECD Asia Oceania	**292.4**	**322.8**	**346.9**	**456.7**	**527.1**	**587.9**	**749.8**	**858.5**	**928.7**	**923.6**	**938.7**	**78.1%**
Austria	15.9	13.5	13.7	16.9	16.1	13.8	14.4	15.9	14.5	15.2	13.9	-13.4%
Belgium	42.2	37.0	40.2	37.8	39.0	33.4	29.2	19.8	13.4	12.5	11.1	-71.6%
Czech Republic	129.2	121.7	129.5	136.1	114.2	89.6	84.5	76.7	73.2	73.9	69.4	-39.2%
Denmark	6.0	8.0	23.8	28.4	23.7	25.3	15.4	14.4	15.3	12.8	10.0	-57.7%
Estonia	..	..	..	..	24.1	11.3	10.5	12.0	14.2	13.3	12.0	-50.2%
Finland	8.4	9.3	19.6	19.8	21.1	23.2	21.0	20.1	27.7	22.9	18.4	-13.1%
France	135.3	104.2	121.2	91.3	73.6	57.5	57.4	53.8	42.4	35.7	40.2	-45.3%
Germany	554.1	494.5	552.2	580.7	504.6	370.1	337.2	326.0	307.2	306.9	317.5	-37.1%
Greece	6.8	11.0	13.4	24.9	33.4	36.4	37.6	37.8	32.9	32.7	33.0	-1.3%
Hungary	34.9	32.9	36.3	34.5	23.8	17.0	15.2	12.2	10.4	10.5	10.2	-57.2%
Iceland	0.0	-	0.1	0.3	0.3	0.2	0.4	0.4	0.4	0.4	0.4	44.3%
Ireland	8.8	7.2	8.0	10.6	14.5	12.3	10.5	10.8	8.0	8.0	9.2	-36.6%
Italy	31.7	30.2	43.0	58.1	55.1	44.9	43.3	62.8	51.8	58.4	60.4	9.7%
Luxembourg	11.3	7.5	7.9	6.3	4.9	2.0	0.4	0.3	0.3	0.2	0.2	-95.7%
Netherlands	14.4	11.5	13.8	23.1	31.8	33.1	29.1	30.3	28.2	27.3	30.4	-4.5%
Norway	3.7	3.9	3.9	4.4	3.4	4.1	4.2	3.0	2.7	2.9	2.8	-17.4%
Poland	252.5	289.7	350.9	359.8	285.6	268.1	216.8	206.6	208.6	203.4	198.7	-30.4%
Portugal	2.4	1.6	1.6	2.9	10.6	13.9	14.7	13.1	6.4	8.7	11.4	7.2%
Slovak Republic	23.5	23.7	32.0	33.3	30.7	21.1	16.0	15.6	14.1	13.9	12.8	-58.2%
Slovenia	..	..	..	..	6.5	5.7	5.5	6.3	5.9	6.0	5.7	-12.6%
Spain	36.8	37.4	47.7	69.1	73.5	71.3	81.5	80.0	31.4	49.9	58.4	-20.5%
Sweden	5.4	6.9	5.4	10.6	10.4	9.4	8.1	9.8	8.9	8.3	7.2	-30.7%
Switzerland	2.0	1.0	1.4	2.0	1.4	0.8	0.6	0.6	0.6	0.6	0.5	-63.2%
Turkey	16.0	20.7	26.8	45.1	57.9	60.7	88.9	86.3	119.7	125.1	138.9	139.9%
United Kingdom	348.4	274.2	266.1	236.8	238.2	174.1	138.6	145.5	111.7	113.1	143.5	-39.8%
OECD Europe ***	**1 690.0**	**1 547.6**	**1 758.5**	**1 832.8**	**1 698.2**	**1 399.3**	**1 280.8**	**1 260.1**	**1 150.1**	**1 162.4**	**1 216.2**	**-28.4%**
European Union - 28	*..*	*..*	*..*	*..*	*1 731.9*	*1 406.5*	*1 243.7*	*1 236.8*	*1 087.7*	*1 104.7*	*1 136.7*	*-34.4%*

* Total world includes non-OECD total, OECD total as well as international marine bunkers and international aviation bunkers.
** Includes Estonia and Slovenia prior to 1990.
*** Excludes Estonia and Slovenia prior to 1990.

CO_2 emissions: Sectoral Approach - Coal

million tonnes of CO_2

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	% change 90-12
Non-OECD Total *	**2 062.2**	**2 478.1**	**2 971.1**	**3 353.5**	**4 175.4**	**4 520.1**	**4 756.5**	**6 918.6**	**8 968.9**	**9 688.5**	**10 019.5**	**140.0%**
Albania	1.2	1.6	2.5	3.7	2.4	0.1	0.1	0.1	0.4	0.6	0.7	-72.4%
Armenia	..	..	..	..	1.0	0.0	-	-	0.0	-	0.0	-99.5%
Azerbaijan	..	..	..	..	0.3	0.0	-	-	-	-	-	-100.0%
Belarus	..	..	..	..	9.4	5.5	3.8	2.5	2.2	2.3	3.0	-68.2%
Bosnia and Herzegovina	..	..	..	..	17.3	1.4	9.9	11.7	15.2	17.9	16.7	-4.0%
Bulgaria	33.2	35.0	37.8	42.2	36.8	29.6	25.4	27.9	28.1	33.2	28.2	-23.3%
Croatia	..	..	..	..	3.3	0.7	1.7	2.7	2.7	2.8	2.5	-25.9%
Cyprus **	-	-	-	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.0	-99.8%
FYR of Macedonia	..	..	..	..	5.5	5.9	5.5	6.1	5.4	6.4	5.8	5.2%
Georgia	..	..	..	..	3.4	0.1	0.0	0.0	0.1	0.3	0.5	-86.6%
Gibraltar	-	-	-	-	-	-	-	-	-	-	-	-
Kazakhstan	..	..	..	..	153.3	111.6	75.6	102.8	134.2	142.1	144.3	-5.9%
Kosovo ***	..	..	..	..	..	..	4.0	5.1	7.0	6.7	6.4	..
Kyrgyzstan	..	..	..	..	10.0	1.3	1.8	2.2	2.8	3.0	4.2	-58.6%
Latvia	..	..	..	..	2.8	1.1	0.5	0.3	0.4	0.4	0.4	-87.0%
Lithuania	..	..	..	..	3.1	1.0	0.4	0.7	0.8	0.9	0.9	-69.9%
Malta	-	-	-	0.5	0.7	0.1	-	-	-	-	-	-100.0%
Republic of Moldova	..	..	..	..	7.8	2.3	0.4	0.3	0.4	0.4	0.4	-94.4%
Montenegro ***	..	..	..	..	..	..	..	1.2	1.7	1.8	1.6	..
Romania	31.2	38.0	48.9	57.6	49.7	40.5	28.7	35.2	29.0	33.9	31.1	-37.5%
Russian Federation	..	..	..	..	687.2	468.1	432.6	403.0	391.9	411.1	425.2	-38.1%
Serbia ***	..	..	..	..	41.3	36.2	35.0	33.3	31.7	35.9	31.2	-24.4%
Tajikistan	..	..	..	..	2.5	0.1	0.0	0.2	0.3	0.4	0.7	-70.3%
Turkmenistan	..	..	..	..	1.2	-	-	-	-	-	-	-100.0%
Ukraine	..	..	..	..	283.0	161.2	116.3	123.4	132.3	144.0	149.6	-47.1%
Uzbekistan	..	..	..	..	13.7	4.4	5.1	4.6	5.4	5.6	5.7	-58.5%
Former Soviet Union ****	875.2	1 028.9	1 141.8	982.9	..	..	..	..	..	..	..	..
Former Yugoslavia ****	35.8	40.5	42.6	72.4	..	..	..	..	..	..	..	..
Non-OECD Europe and Eurasia *	**976.6**	**1 143.9**	**1 273.5**	**1 159.5**	**1 335.9**	**871.1**	**747.2**	**763.3**	**792.1**	**849.6**	**858.9**	**-35.7%**
Algeria	0.4	0.3	0.2	1.0	1.3	1.4	0.7	1.0	0.7	0.6	0.6	-53.4%
Angola	-	-	-	-	-	-	-	-	-	-	-	-
Benin	-	-	-	-	-	-	-	-	-	-	-	-
Botswana	..	..	..	1.0	1.8	2.0	2.3	2.2	2.2	1.8	1.6	-11.9%
Cameroon	-	-	-	-	-	-	-	-	-	-	-	-
Congo	-	-	-	-	-	-	-	-	-	-	-	-
Dem. Rep. of Congo	1.0	0.8	0.8	0.8	0.9	-	-	-	-	-	-	-100.0%
Côte d'Ivoire	-	-	-	-	-	-	-	-	-	-	-	-
Egypt	1.3	2.2	2.1	2.7	2.7	3.0	3.0	3.2	1.6	1.6	1.5	-45.1%
Eritrea	..	..	..	..	..	-	-	-	-	-	-	..
Ethiopia	-	-	-	-	-	-	-	-	0.1	0.4	0.8	x
Gabon	-	-	-	-	-	-	-	-	-	-	-	-
Ghana	-	-	-	-	-	-	-	-	-	-	-	-
Kenya	0.2	0.1	0.0	0.2	0.4	0.4	0.3	0.3	0.6	0.9	0.8	127.2%
Libya	-	-	-	-	-	-	-	-	-	-	-	-
Mauritius	-	-	-	0.1	0.1	0.2	0.6	0.9	1.6	1.5	1.6	+
Morocco	1.2	1.7	1.6	2.7	4.1	6.7	10.3	12.7	10.8	11.6	11.7	184.3%
Mozambique	1.5	1.2	0.7	0.2	0.1	0.1	-	-	0.0	0.1	0.0	-72.4%
Namibia	..	..	..	..	..	0.0	0.0	0.0	0.1	0.0	0.0	..
Nigeria	0.5	0.6	0.4	0.2	0.2	0.0	0.0	0.0	0.1	0.1	0.1	-36.8%
Senegal	-	-	-	-	-	-	-	0.4	0.7	1.0	0.8	x
South Africa	129.2	167.4	173.7	189.2	207.2	225.7	247.6	270.1	301.4	283.2	298.4	44.0%
Sudan	-	-	0.0	-	-	-	-	-	-	-	-	-
United Rep. of Tanzania	-	-	0.0	0.0	0.0	0.1	0.2	0.1	-	0.0	0.2	+
Togo	-	-	-	-	-	-	-	-	-	-	-	-
Tunisia	0.3	0.3	0.3	0.3	0.3	0.3	0.3	-	-	-	-	-100.0%
Zambia	2.0	1.9	1.4	1.1	0.9	0.3	0.3	0.3	0.0	0.0	0.2	-76.0%
Zimbabwe	5.6	5.0	6.1	7.5	13.4	11.2	10.1	8.0	6.9	7.5	7.8	-41.4%
Other Africa	0.1	0.2	1.5	0.6	0.8	0.5	1.8	2.1	2.8	2.9	3.0	258.7%
Africa	**143.2**	**181.8**	**188.8**	**207.8**	**234.2**	**252.0**	**277.3**	**301.4**	**329.6**	**313.1**	**329.3**	**40.6%**

* Includes Estonia and Slovenia prior to 1990.

** Please refer to Chapter 4, *Geographical Coverage*.

*** Serbia includes Kosovo from 1990 to 1999 and Montenegro from 1990 to 2004.

**** Prior to 1990, data for individual countries are not available separately; FSU includes Estonia and Former Yugoslavia includes Slovenia.

CO_2 emissions: Sectoral Approach - Coal

million tonnes of CO_2

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	% change 90-12
Bangladesh	0.4	0.5	0.5	0.2	1.1	1.2	1.3	1.9	3.1	2.8	3.5	220.6%
Brunei Darussalam	-	-	-	-	-	-	-	-	-	-	-	-
Cambodia	..	..	..	..	..	-	-	-	0.0	0.0	0.0	..
India	142.6	176.1	195.4	283.7	395.9	517.3	623.6	786.8	1 187.3	1 249.0	1 359.3	243.3%
Indonesia	0.5	0.5	0.5	4.5	17.6	26.0	51.4	85.8	106.8	106.6	124.4	608.3%
DPR of Korea	64.9	72.5	97.5	119.0	106.1	70.9	65.4	71.0	61.7	42.5	42.9	-59.6%
Malaysia	0.0	0.0	0.2	1.4	5.1	6.5	9.6	26.7	57.4	57.3	61.6	+
Mongolia	..	..	..	9.4	10.2	9.0	7.5	7.8	10.0	9.9	10.7	5.0%
Myanmar	0.6	0.6	0.6	0.6	0.3	0.1	1.3	1.2	1.6	1.6	1.9	616.8%
Nepal	0.0	0.1	0.2	0.0	0.2	0.3	1.0	1.0	1.2	1.4	1.7	922.9%
Pakistan	2.5	2.2	2.6	4.8	7.1	7.8	6.7	14.3	16.0	15.8	14.2	101.1%
Philippines	0.1	0.2	1.5	5.4	4.9	6.7	19.5	22.2	29.2	32.0	33.6	584.7%
Singapore	0.0	0.0	0.0	0.1	0.1	0.1	-	0.0	0.0	0.0	0.0	-65.4%
Sri Lanka	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	1.4	2.0	+
Chinese Taipei	10.0	8.4	14.6	26.0	42.3	63.7	109.6	145.3	154.8	149.5	147.1	247.7%
Thailand	0.5	0.6	1.9	6.5	16.1	29.4	31.4	46.9	64.2	72.1	68.2	324.4%
Viet Nam	5.6	10.0	9.2	11.3	9.0	13.4	17.6	33.3	59.0	62.8	66.5	642.3%
Other Asia	4.4	4.8	7.7	0.9	0.8	0.6	1.3	1.6	4.4	4.9	5.3	537.5%
Asia (excl. China)	**232.1**	**276.5**	**332.4**	**473.9**	**616.7**	**753.0**	**947.3**	**1 246.0**	**1 757.0**	**1 809.7**	**1 943.0**	**215.0%**
People's Rep. of China	693.1	855.2	1 146.3	1 456.5	1 918.5	2 566.4	2 698.7	4 507.8	5 980.4	6 592.8	6 764.4	252.6%
Hong Kong, China	0.1	0.0	0.0	12.4	23.6	23.3	16.5	25.9	24.7	30.0	29.5	24.9%
China	**693.1**	**855.2**	**1 146.3**	**1 468.9**	**1 942.2**	**2 589.6**	**2 715.1**	**4 533.7**	**6 005.1**	**6 622.8**	**6 794.0**	**249.8%**
Argentina	3.2	3.3	3.0	3.4	3.4	4.7	4.5	5.6	5.6	6.4	5.5	60.8%
Bolivia	-	-	-	0.2	-	-	-	-	-	-	-	-
Brazil	5.9	6.7	14.6	25.6	26.7	31.6	45.1	44.4	52.7	55.0	57.7	116.6%
Colombia	5.9	6.5	8.6	9.9	11.9	13.6	11.9	10.2	10.5	12.3	9.5	-20.7%
Costa Rica	0.0	0.0	0.0	0.0	-	-	0.0	0.1	0.3	0.3	0.3	x
Cuba	0.4	0.3	0.4	0.5	0.6	0.3	0.1	0.1	0.1	0.1	0.1	-88.7%
Dominican Republic	-	-	-	0.5	0.0	0.2	0.2	1.7	3.0	3.1	3.3	+
Ecuador	-	-	-	-	-	-	-	-	-	-	-	-
El Salvador	-	-	0.0	-	-	0.0	0.0	0.0	-	-	-	-
Guatemala	-	-	0.1	-	-	-	0.5	1.0	1.2	1.2	1.2	x
Haiti	-	-	-	0.1	0.0	-	-	-	-	-	-	-100.0%
Honduras	-	-	-	-	0.0	0.0	0.3	0.6	0.5	0.6	0.6	+
Jamaica	-	-	-	-	0.1	0.1	0.1	0.1	0.1	0.2	0.2	40.4%
Netherlands Antilles	-	-	-	-	-	-	-	-	-	-	-	-
Nicaragua	-	-	-	-	-	-	-	-	-	-	-	-
Panama	0.0	0.0	-	0.1	0.1	0.1	0.1	1.0	0.3	0.8	1.3	+
Paraguay	-	-	-	-	-	-	-	-	-	-	-	-
Peru	0.5	0.6	0.6	0.7	0.6	1.4	2.4	3.5	3.5	3.3	3.2	449.8%
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	-70.5%
Venezuela	0.6	1.0	0.6	0.7	1.8	0.0	0.5	0.1	0.8	0.8	0.8	-54.6%
Other Non-OECD Americas	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5%
Non-OECD Americas	**16.7**	**18.6**	**28.0**	**41.8**	**45.3**	**52.0**	**65.9**	**68.5**	**78.6**	**84.0**	**83.6**	**84.6%**
Bahrain	-	-	-	-	-	-	-	-	-	-	-	-
Islamic Republic of Iran	0.4	2.1	1.9	1.6	1.2	1.8	3.3	4.6	3.3	3.9	3.6	204.3%
Iraq	-	-	-	-	-	-	-	-	-	-	-	-
Jordan	-	-	-	-	-	-	-	-	-	-	-	-
Kuwait	-	-	-	-	-	-	-	-	-	-	-	-
Lebanon	0.0	0.0	0.0	-	-	0.5	0.5	0.5	0.6	0.6	0.6	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	-	-	-	-	-	-	-	0.6	2.8	4.8	6.5	x
Yemen	-	-	-	-	-	-	-	-	-	-	-	-
Middle East	**0.4**	**2.1**	**2.0**	**1.6**	**1.2**	**2.3**	**3.8**	**5.6**	**6.6**	**9.3**	**10.8**	**812.4%**

CO_2 emissions: Sectoral Approach - Oil

million tonnes of CO_2

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	% change 90-12
World *	**6 829.8**	**7 791.1**	**8 719.3**	**8 088.2**	**8 812.7**	**9 123.1**	**9 899.9**	**10 727.3**	**10 990.4**	**11 103.0**	**11 205.4**	**27.2%**
Annex I Parties	*..*	*..*	*..*	*..*	*5 682.7*	*5 328.6*	*5 485.4*	*5 642.8*	*5 066.8*	*5 027.4*	*4 952.5*	*-12.8%*
Annex II Parties	*4 522.9*	*4 773.7*	*4 914.7*	*4 232.8*	*4 481.2*	*4 620.0*	*4 847.8*	*5 009.7*	*4 433.4*	*4 360.1*	*4 283.5*	*-4.4%*
North America	*2 232.9*	*2 341.6*	*2 427.9*	*2 164.8*	*2 251.2*	*2 265.8*	*2 516.9*	*2 697.9*	*2 419.6*	*2 372.5*	*2 322.3*	*3.2%*
Europe	*1 657.7*	*1 700.3*	*1 750.2*	*1 431.1*	*1 478.0*	*1 561.0*	*1 568.3*	*1 571.6*	*1 382.6*	*1 321.4*	*1 279.1*	*-13.5%*
Asia Oceania	*632.3*	*731.8*	*736.6*	*636.9*	*751.9*	*793.2*	*762.5*	*740.2*	*631.1*	*666.2*	*682.1*	*-9.3%*
Annex I EIT	*..*	*..*	*..*	*..*	*1 137.5*	*627.4*	*552.9*	*553.3*	*558.1*	*590.1*	*590.0*	*-48.1%*
Non-Annex I Parties	*..*	*..*	*..*	*..*	*2 510.5*	*3 084.3*	*3 574.5*	*4 099.5*	*4 812.3*	*4 942.5*	*5 172.9*	*106.1%*
Annex I Kyoto Parties	*..*	*..*	*..*	*..*	*3 279.6*	*2 951.0*	*2 861.3*	*2 844.1*	*2 551.0*	*2 553.6*	*2 521.5*	*-23.1%*
Intl. marine bunkers	**345.1**	**332.5**	**348.4**	**298.5**	**363.2**	**421.9**	**488.1**	**566.1**	**653.5**	**659.4**	**602.2**	**65.8%**
Intl. aviation bunkers	**167.5**	**172.1**	**200.1**	**222.6**	**256.3**	**288.3**	**351.8**	**419.0**	**457.8**	**473.7**	**477.8**	**86.4%**
Non-OECD Total **	**1 564.6**	**2 188.5**	**2 818.4**	**2 886.6**	**3 163.5**	**3 108.0**	**3 488.1**	**4 012.4**	**4 733.6**	**4 895.2**	**5 123.7**	**62.0%**
OECD Total ***	**4 752.7**	**5 098.0**	**5 352.4**	**4 680.4**	**5 029.7**	**5 304.9**	**5 571.9**	**5 729.9**	**5 145.5**	**5 074.7**	**5 001.6**	**-0.6%**
Canada	209.8	233.2	246.7	188.8	209.4	212.2	236.2	265.1	260.9	261.2	266.8	27.4%
Chile	14.5	12.4	15.1	13.0	19.1	27.8	30.4	34.1	42.8	44.2	44.3	131.4%
Mexico	71.7	106.5	161.6	186.5	198.6	215.3	256.1	259.3	254.6	261.0	259.8	30.9%
United States	2 023.0	2 108.4	2 181.2	1 976.0	2 041.8	2 053.5	2 280.8	2 432.8	2 158.7	2 111.2	2 055.5	0.7%
OECD Americas	**2 319.1**	**2 460.5**	**2 604.6**	**2 364.3**	**2 468.9**	**2 508.9**	**2 803.5**	**2 991.4**	**2 717.0**	**2 677.7**	**2 626.5**	**6.4%**
Australia	66.8	80.8	87.3	79.9	89.3	94.6	104.7	114.1	119.5	123.5	128.8	44.3%
Israel	14.2	17.0	19.4	17.3	24.2	30.1	30.1	26.6	29.2	28.0	35.3	46.0%
Japan	556.2	639.4	638.6	547.4	650.7	684.3	642.0	608.2	494.2	525.2	535.8	-17.7%
Korea	30.9	46.2	76.2	73.1	135.3	234.1	219.6	203.8	186.7	182.5	183.6	35.7%
New Zealand	9.3	11.6	10.7	9.6	12.0	14.3	15.8	17.9	17.4	17.5	17.5	46.1%
OECD Asia Oceania	**677.4**	**795.0**	**832.3**	**727.2**	**911.5**	**1 057.4**	**1 012.3**	**970.6**	**847.0**	**876.8**	**901.0**	**-1.1%**
Austria	27.2	29.2	33.0	26.9	27.7	29.8	31.2	37.9	33.1	31.2	30.6	10.8%
Belgium	63.3	60.4	65.0	46.7	48.7	55.4	56.9	57.9	54.0	50.6	48.9	0.4%
Czech Republic	19.9	27.9	30.6	27.9	23.2	20.8	20.1	24.9	22.8	22.1	21.7	-6.2%
Denmark	49.0	44.2	38.5	30.2	22.0	24.4	23.5	21.7	19.8	18.6	17.1	-22.2%
Estonia	..	..	..	..	8.9	3.4	2.7	3.1	3.0	3.0	3.1	-65.5%
Finland	31.4	33.6	33.9	26.9	28.2	26.2	26.0	26.2	25.7	24.5	23.8	-15.6%
France	277.3	293.5	292.8	214.5	220.6	227.7	235.9	236.7	211.6	204.6	202.6	-8.2%
Germany	385.7	392.4	385.9	326.6	322.3	344.2	321.9	293.8	265.3	255.0	256.4	-20.5%
Greece	18.4	23.5	32.0	29.6	36.5	39.1	45.7	51.7	43.8	41.2	36.4	-0.2%
Hungary	18.6	27.2	29.8	27.0	22.7	19.8	17.3	16.8	15.9	15.4	14.3	-37.2%
Iceland	1.4	1.6	1.7	1.4	1.6	1.7	1.7	1.8	1.6	1.5	1.5	-10.2%
Ireland	12.9	14.0	16.2	11.4	12.1	15.7	23.0	25.0	20.0	17.4	17.0	39.8%
Italy	237.3	248.6	267.5	229.6	252.3	261.1	248.0	231.8	185.2	181.6	167.4	-33.6%
Luxembourg	4.1	3.8	3.0	2.9	4.4	4.7	5.9	8.2	7.4	7.6	7.4	67.1%
Netherlands	68.1	56.8	83.5	55.6	52.7	57.8	60.7	65.9	65.4	65.6	64.4	22.2%
Norway	19.8	19.8	22.0	19.8	20.0	20.4	21.0	22.8	24.0	22.9	22.5	12.5%
Poland	21.9	33.5	42.8	39.2	34.5	40.9	51.5	58.0	67.1	66.5	63.0	82.6%
Portugal	12.0	16.5	22.2	21.8	28.8	34.3	39.6	40.4	30.6	27.5	24.4	-15.4%
Slovak Republic	12.6	15.2	18.1	14.3	14.4	7.1	6.8	9.1	9.8	9.7	9.3	-35.4%
Slovenia	..	..	..	..	5.0	6.7	6.7	7.2	7.4	7.4	7.1	41.6%
Spain	82.4	117.3	136.9	101.6	120.9	143.1	166.8	191.4	163.7	152.7	142.2	17.5%
Sweden	77.1	72.5	67.6	47.3	40.2	45.5	41.5	36.6	32.8	30.2	28.4	-29.3%
Switzerland	36.9	34.8	36.0	35.8	34.2	33.5	33.2	34.2	32.7	29.5	30.3	-11.4%
Turkey	25.4	38.5	44.1	49.4	62.5	78.9	82.7	77.1	72.8	74.7	76.5	22.4%
United Kingdom	253.5	238.0	212.7	202.5	204.7	196.4	185.8	187.6	165.9	159.1	157.9	-22.9%
OECD Europe ***	**1 756.2**	**1 842.6**	**1 915.6**	**1 588.9**	**1 649.3**	**1 738.7**	**1 756.1**	**1 767.9**	**1 581.5**	**1 520.2**	**1 474.2**	**-10.6%**
European Union - 28	*..*	*..*	*..*	*..*	*1 656.2*	*1 682.8*	*1 684.9*	*1 706.6*	*1 515.5*	*1 455.6*	*1 407.7*	*-15.0%*

* Total world includes non-OECD total, OECD total as well as international marine bunkers and international aviation bunkers.
** Includes Estonia and Slovenia prior to 1990.
*** Excludes Estonia and Slovenia prior to 1990.

CO_2 emissions: Sectoral Approach - Oil

million tonnes of CO_2

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	% change 90-12
Non-OECD Total *	**1 564.6**	**2 188.5**	**2 818.4**	**2 886.6**	**3 163.5**	**3 108.0**	**3 488.1**	**4 012.4**	**4 733.6**	**4 895.2**	**5 123.7**	**62.0%**
Albania	2.4	2.3	4.4	2.8	3.4	1.7	3.0	3.9	3.4	3.5	3.1	-7.6%
Armenia	..	..	..	..	11.2	0.7	0.8	1.0	1.0	1.0	0.9	-91.8%
Azerbaijan	..	..	..	..	22.6	18.5	17.5	13.1	7.8	9.2	10.0	-55.9%
Belarus	..	..	..	..	87.8	30.6	22.4	20.9	20.9	24.2	29.7	-66.2%
Bosnia and Herzegovina	..	..	..	..	5.4	1.5	3.2	3.2	4.4	4.4	4.1	-24.0%
Bulgaria	29.1	34.9	38.6	28.0	26.1	13.7	10.4	12.0	11.0	10.1	10.6	-59.5%
Croatia	..	..	..	..	13.4	11.0	11.3	12.9	10.6	10.6	9.9	-26.7%
Cyprus **	1.8	1.7	2.6	2.6	3.6	5.0	6.1	6.8	7.1	6.9	6.5	79.1%
FYR of Macedonia	..	..	..	..	3.0	2.3	2.7	2.6	2.6	2.7	2.6	-12.5%
Georgia	..	..	..	..	19.2	5.8	2.3	2.1	2.6	2.8	2.7	-85.7%
Gibraltar	0.1	0.1	0.1	0.1	0.2	0.3	0.4	0.5	0.5	0.5	0.5	202.4%
Kazakhstan	..	..	..	..	58.3	32.5	22.1	25.8	29.5	35.5	32.1	-45.0%
Kosovo ***	..	..	..	..	..	..	1.0	1.4	1.6	1.7	1.6	..
Kyrgyzstan	..	..	..	..	8.9	1.4	1.2	1.5	2.8	3.7	4.7	-47.2%
Latvia	..	..	..	..	10.3	5.5	3.8	4.1	4.1	3.7	3.6	-65.2%
Lithuania	..	..	..	..	19.7	9.0	6.5	7.5	7.1	6.8	7.0	-64.3%
Malta	0.6	0.6	1.0	0.7	1.6	2.2	2.1	2.7	2.5	2.5	2.5	61.0%
Republic of Moldova	..	..	..	..	14.8	3.1	1.2	1.9	2.2	2.3	2.0	-86.2%
Montenegro ***	..	..	..	..	..	..	..	0.8	0.8	0.7	0.7	..
Romania	31.5	40.0	51.6	41.1	50.4	32.4	27.3	28.6	22.6	23.4	24.3	-51.9%
Russian Federation	..	..	..	..	625.4	351.2	332.4	309.9	318.4	350.2	350.0	-44.0%
Serbia ***	..	..	..	..	14.1	4.8	4.1	11.5	9.9	9.6	9.0	-36.1%
Tajikistan	..	..	..	..	5.2	1.2	0.7	0.9	1.6	1.6	1.7	-66.7%
Turkmenistan	..	..	..	..	14.7	7.0	11.1	14.5	16.1	16.9	17.8	21.3%
Ukraine	..	..	..	..	195.5	75.4	33.7	38.2	37.3	37.0	36.4	-81.4%
Uzbekistan	..	..	..	..	30.6	19.8	19.6	14.5	11.0	10.2	9.1	-70.4%
Former Soviet Union ****	688.9	1 018.6	1 210.0	1 193.3	..	..	..	..	..	..	..	..
Former Yugoslavia ****	25.5	31.8	39.2	38.3	..	..	..	..	..	..	..	..
Non-OECD Europe and Eurasia *	**779.9**	**1 130.0**	**1 347.5**	**1 307.0**	**1 245.4**	**636.6**	**546.9**	**542.9**	**539.4**	**581.7**	**583.2**	**-53.2%**
Algeria	6.2	9.1	14.8	20.8	24.0	22.9	25.2	31.5	43.7	46.8	50.9	111.7%
Angola	1.6	1.9	2.5	2.7	3.0	2.9	4.0	5.2	14.3	14.3	15.0	403.6%
Benin	0.3	0.5	0.4	0.5	0.3	0.2	1.4	2.7	4.5	4.7	4.9	+
Botswana	..	..	..	0.5	1.0	1.2	1.7	2.0	2.6	2.8	2.9	194.4%
Cameroon	0.7	1.0	1.7	2.4	2.7	2.5	2.8	2.9	4.5	4.7	4.9	82.9%
Congo	0.6	0.6	0.7	0.8	0.6	0.5	0.5	0.8	1.6	1.8	1.9	204.5%
Dem. Rep. of Congo	1.5	1.8	2.3	2.4	2.1	1.1	0.8	1.3	1.8	2.3	2.4	14.5%
Côte d'Ivoire	2.4	3.0	3.4	3.0	2.7	3.2	3.4	2.9	3.1	2.8	4.5	65.6%
Egypt	19.1	23.8	37.1	55.0	61.9	58.2	67.1	79.6	102.2	101.1	107.2	73.2%
Eritrea	..	..	..	..	..	0.8	0.6	0.6	0.5	0.5	0.5	..
Ethiopia	1.3	1.2	1.4	1.4	2.2	2.4	3.3	4.6	5.9	6.6	7.1	222.0%
Gabon	0.5	0.8	1.3	1.6	0.7	1.1	1.2	1.4	1.7	1.8	1.7	150.9%
Ghana	1.9	2.3	2.3	2.2	2.7	3.3	5.1	6.5	9.7	9.4	12.0	342.3%
Kenya	3.0	3.4	4.4	4.4	5.1	5.4	7.5	7.2	10.7	10.6	9.8	90.9%
Libya	1.6	6.7	13.1	15.5	18.3	26.6	30.8	34.9	38.8	25.4	33.8	84.3%
Mauritius	0.3	0.4	0.6	0.5	1.0	1.4	1.8	2.0	2.0	2.1	2.1	104.2%
Morocco	5.6	8.1	12.3	13.6	15.4	19.2	19.0	25.9	34.1	37.0	37.6	144.0%
Mozambique	1.4	1.1	1.6	1.2	0.9	1.0	1.3	1.5	2.2	2.5	2.4	150.2%
Namibia	..	..	..	..	..	1.7	1.9	2.3	2.9	3.0	3.2	..
Nigeria	5.0	10.1	23.4	25.2	21.9	24.5	29.4	37.6	36.2	33.8	35.8	63.2%
Senegal	1.2	1.6	2.0	2.1	2.1	2.4	3.6	4.3	4.7	4.8	4.7	124.5%
South Africa	27.5	34.1	35.1	39.6	46.4	48.8	49.5	59.3	70.9	74.3	73.7	58.9%
Sudan	3.3	3.3	3.7	4.2	5.5	4.6	5.8	10.2	15.5	14.6	14.5	162.8%
United Rep. of Tanzania	1.5	1.5	1.6	1.5	1.7	2.4	2.4	4.2	4.7	5.7	6.8	301.2%
Togo	0.3	0.3	0.4	0.3	0.6	0.6	0.9	1.0	2.1	1.9	1.6	184.0%
Tunisia	3.4	4.0	6.7	7.1	9.0	9.4	11.3	12.5	11.9	11.0	11.3	26.1%
Zambia	1.5	2.5	1.9	1.7	1.7	1.7	1.4	1.8	1.7	2.1	2.6	46.4%
Zimbabwe	1.6	2.1	1.8	2.0	2.6	3.6	3.0	2.1	1.9	2.0	2.1	-18.6%
Other Africa	8.4	9.5	11.9	10.4	12.1	14.2	15.7	18.5	23.2	24.1	25.2	108.4%
Africa	**101.8**	**134.7**	**188.3**	**222.7**	**248.4**	**267.7**	**302.6**	**367.1**	**459.7**	**454.3**	**483.3**	**94.6%**

* Includes Estonia and Slovenia prior to 1990.

** Please refer to Chapter 4, *Geographical Coverage*.

*** Serbia includes Kosovo from 1990 to 1999 and Montenegro from 1990 to 2004.

**** Prior to 1990, data for individual countries are not available separately; FSU includes Estonia and Former Yugoslavia includes Slovenia.

CO_2 emissions: Sectoral Approach - Oil

million tonnes of CO_2

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	% change 90-12
Bangladesh	2.2	3.3	4.6	4.6	5.2	8.1	9.2	11.0	11.0	14.4	15.4	196.5%
Brunei Darussalam	0.2	0.2	0.5	0.6	0.7	1.1	1.2	1.3	1.7	1.9	2.0	170.1%
Cambodia	..	..	..	..	..	1.5	2.0	2.6	3.7	4.0	4.1	..
India	56.9	63.8	85.6	119.7	163.7	219.8	306.5	336.5	443.5	459.9	489.1	198.7%
Indonesia	24.4	36.4	61.0	70.0	97.9	134.3	166.4	189.2	208.6	216.4	231.4	136.3%
DPR of Korea	2.6	4.2	8.0	7.4	7.9	3.9	3.1	2.8	2.5	2.6	2.5	-68.2%
Malaysia	12.6	16.0	23.9	27.9	37.6	53.2	57.5	64.8	64.3	70.5	68.3	81.9%
Mongolia	..	..	..	2.2	2.4	1.0	1.3	1.7	2.5	3.1	3.5	43.3%
Myanmar	3.9	3.0	3.9	3.5	2.1	4.0	5.4	6.2	3.3	3.5	6.1	195.1%
Nepal	0.2	0.2	0.3	0.5	0.7	1.5	2.1	2.1	2.9	2.9	3.2	347.4%
Pakistan	8.8	11.0	13.2	20.9	30.6	43.7	58.0	49.4	62.2	61.4	64.0	109.0%
Philippines	23.0	28.9	31.8	23.0	33.0	50.1	48.0	41.8	39.8	36.9	38.2	15.8%
Singapore	6.1	8.4	12.6	17.0	29.9	35.4	41.1	28.5	31.0	31.8	29.9	0.3%
Sri Lanka	2.7	2.6	3.6	3.4	3.6	5.4	10.4	13.0	12.0	13.1	13.9	283.4%
Chinese Taipei	19.0	31.3	54.2	43.9	69.0	86.7	95.2	94.5	82.6	78.2	74.9	8.6%
Thailand	15.8	20.6	31.8	28.5	52.7	90.5	82.7	103.4	95.9	99.0	107.4	103.9%
Viet Nam	10.6	6.7	5.6	5.8	8.2	13.9	23.8	35.5	51.4	54.4	57.4	597.9%
Other Asia	5.6	7.4	8.6	8.0	8.8	8.3	9.5	13.2	16.8	18.5	19.9	125.0%
Asia (excl. China)	**194.5**	**244.0**	**349.3**	**386.7**	**554.1**	**762.5**	**923.4**	**997.5**	**1 135.9**	**1 172.6**	**1 231.5**	**122.2%**
People's Rep. of China	115.2	195.9	251.2	246.1	299.5	423.6	568.0	812.4	1 060.5	1 103.2	1 153.7	285.2%
Hong Kong, China	9.0	10.7	14.3	9.3	8.5	11.6	16.7	8.8	9.5	9.2	9.4	11.4%
China	**124.2**	**206.6**	**265.5**	**255.3**	**308.0**	**435.2**	**584.7**	**821.2**	**1 070.0**	**1 112.4**	**1 163.1**	**277.7%**
Argentina	67.3	65.1	70.9	54.4	53.1	61.8	65.6	67.6	81.3	84.3	87.3	64.3%
Bolivia	2.0	2.9	3.6	3.3	3.7	4.6	4.7	5.7	8.0	8.6	9.3	149.9%
Brazil	83.9	127.8	160.9	133.6	158.8	195.2	241.1	240.2	284.0	302.6	322.8	103.3%
Colombia	18.1	18.6	20.7	22.3	26.8	36.4	34.6	33.5	32.9	38.2	39.8	48.7%
Costa Rica	1.3	1.7	2.2	2.0	2.6	4.4	4.4	5.6	6.3	6.4	6.5	149.6%
Cuba	20.1	23.4	29.7	31.2	33.1	22.0	26.1	23.7	27.8	26.6	26.8	-19.0%
Dominican Republic	3.4	5.2	6.3	5.6	7.4	11.0	15.9	15.3	14.4	14.3	14.3	93.9%
Ecuador	3.5	5.9	10.5	11.7	13.4	17.0	19.3	23.9	31.0	30.8	31.9	138.9%
El Salvador	1.4	2.0	1.7	1.8	2.2	4.6	5.2	6.3	5.8	6.0	6.2	175.4%
Guatemala	2.3	3.0	4.2	3.2	3.2	5.8	7.9	9.6	9.1	9.2	9.3	189.7%
Haiti	0.4	0.4	0.6	0.6	0.9	0.9	1.4	2.0	2.1	2.1	2.1	126.2%
Honduras	1.1	1.3	1.7	1.7	2.2	3.5	4.1	6.5	6.8	7.0	7.5	250.2%
Jamaica	5.5	7.4	6.5	4.6	7.1	8.2	9.6	10.0	6.8	7.1	6.9	-1.9%
Netherlands Antilles	14.4	10.2	8.7	4.6	2.8	2.8	4.5	4.7	4.1	4.7	4.8	73.6%
Nicaragua	1.5	1.8	1.8	1.8	1.8	2.5	3.5	4.0	4.4	4.5	4.3	134.7%
Panama	2.5	3.1	2.9	2.6	2.5	4.0	4.8	5.8	8.6	8.9	8.6	246.0%
Paraguay	0.6	0.7	1.4	1.4	1.9	3.5	3.3	3.4	4.7	4.9	5.1	164.2%
Peru	14.4	17.0	18.9	16.2	17.6	21.8	23.0	21.5	25.4	26.3	27.2	54.5%
Trinidad and Tobago	2.7	3.0	2.8	2.5	2.1	2.2	2.7	4.2	4.8	4.6	4.4	110.3%
Uruguay	5.1	5.4	5.5	3.1	3.7	4.5	5.2	5.1	6.0	7.2	8.3	121.8%
Venezuela	30.7	37.5	59.1	56.0	57.0	59.9	64.6	83.8	107.9	99.2	114.4	100.9%
Other Non-OECD Americas	8.0	10.7	10.1	9.1	12.2	13.2	14.3	14.6	17.3	17.3	17.5	43.5%
Non-OECD Americas	**290.4**	**354.3**	**430.7**	**373.3**	**415.9**	**489.8**	**565.7**	**597.1**	**699.6**	**720.9**	**765.1**	**84.0%**
Bahrain	1.2	1.2	1.7	1.8	2.1	2.4	2.5	3.6	4.2	4.1	4.7	124.4%
Islamic Republic of Iran	35.8	61.4	79.7	128.0	140.5	169.6	190.7	223.6	223.9	227.9	236.1	68.0%
Iraq	8.6	12.4	24.6	35.2	49.6	91.4	64.3	71.4	91.4	96.5	107.5	116.5%
Jordan	1.3	2.1	4.3	7.4	9.0	11.7	13.9	14.8	13.4	17.8	20.2	123.8%
Kuwait	4.1	5.2	13.4	27.4	17.2	18.4	30.8	46.7	52.6	52.3	56.6	228.8%
Lebanon	4.5	5.6	6.6	6.5	5.5	12.4	13.6	14.0	17.3	17.8	20.4	273.5%
Oman	0.3	0.7	1.5	3.6	5.2	7.9	8.7	9.9	19.4	22.9	24.6	371.0%
Qatar	0.3	0.7	1.4	1.7	2.1	2.6	3.1	7.0	14.8	12.3	15.9	650.8%
Saudi Arabia	10.0	17.1	77.9	88.5	110.3	141.4	173.3	204.2	296.0	309.5	327.6	196.9%
Syrian Arab Republic	6.0	9.0	13.0	20.8	25.0	28.0	29.4	44.1	40.0	38.5	29.5	18.2%
United Arab Emirates	0.4	1.6	9.5	15.8	18.8	21.1	21.4	28.8	34.3	35.3	36.2	92.8%
Yemen	1.2	1.7	3.4	4.8	6.4	9.3	13.2	18.6	21.7	18.5	18.4	185.9%
Middle East	**73.8**	**118.9**	**237.0**	**341.5**	**391.7**	**516.2**	**564.8**	**686.7**	**829.0**	**853.4**	**897.5**	**129.1%**

CO_2 emissions: Sectoral Approach - Natural gas

million tonnes of CO_2

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	% change 90-12
World *	**2 058.6**	**2 281.6**	**2 768.3**	**3 163.7**	**3 803.0**	**4 106.8**	**4 687.6**	**5 347.8**	**6 214.8**	**6 327.3**	**6 439.8**	**69.3%**
Annex I Parties	*..*	*..*	*..*	*..*	*3 070.2*	*3 178.2*	*3 471.5*	*3 640.7*	*3 881.8*	*3 882.4*	*3 906.1*	*27.2%*
Annex II Parties	*1 438.5*	*1 503.1*	*1 663.5*	*1 616.2*	*1 794.6*	*2 123.1*	*2 426.2*	*2 484.2*	*2 688.5*	*2 657.9*	*2 703.0*	*50.6%*
North America	*1 257.4*	*1 143.4*	*1 179.4*	*1 058.1*	*1 135.1*	*1 309.4*	*1 423.0*	*1 362.3*	*1 477.2*	*1 505.6*	*1 569.3*	*38.3%*
Europe	*168.1*	*331.0*	*414.3*	*446.1*	*505.0*	*631.3*	*783.7*	*886.1*	*918.8*	*820.5*	*796.9*	*57.8%*
Asia Oceania	*12.9*	*28.7*	*69.8*	*112.0*	*154.4*	*182.4*	*219.5*	*235.8*	*292.5*	*331.8*	*336.8*	*118.1%*
Annex I EIT	*..*	*..*	*..*	*..*	*1 269.1*	*1 042.1*	*1 016.4*	*1 103.7*	*1 120.2*	*1 138.8*	*1 116.3*	*-12.0%*
Non-Annex I Parties	*..*	*..*	*..*	*..*	*732.8*	*928.6*	*1 216.1*	*1 707.0*	*2 333.0*	*2 444.8*	*2 533.6*	*245.7%*
Annex I Kyoto Parties	*..*	*..*	*..*	*..*	*1 901.0*	*1 830.2*	*1 987.4*	*2 187.2*	*2 290.3*	*2 252.1*	*2 211.7*	*16.3%*
Intl. marine bunkers	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Intl. aviation bunkers	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Non-OECD Total **	**575.6**	**719.5**	**1 013.9**	**1 439.0**	**1 875.4**	**1 825.5**	**2 040.1**	**2 553.3**	**3 136.7**	**3 256.9**	**3 318.4**	**76.9%**
OECD Total ***	**1 483.1**	**1 562.1**	**1 754.3**	**1 724.7**	**1 927.6**	**2 281.3**	**2 647.6**	**2 794.4**	**3 078.1**	**3 070.4**	**3 121.4**	**61.9%**
Canada	67.9	87.3	99.7	113.9	123.8	149.1	168.1	170.8	178.5	189.8	194.3	57.0%
Chile	1.3	1.1	1.4	1.6	2.1	2.1	10.3	14.0	9.8	10.9	9.4	346.2%
Mexico	20.2	25.6	43.2	53.6	52.1	55.9	66.6	88.3	123.8	130.5	135.2	159.7%
United States	1 189.5	1 056.1	1 079.7	944.2	1 011.3	1 160.2	1 254.9	1 191.5	1 298.6	1 315.8	1 375.0	36.0%
OECD Americas	**1 278.9**	**1 170.1**	**1 224.0**	**1 113.3**	**1 189.3**	**1 367.4**	**1 499.9**	**1 464.7**	**1 610.8**	**1 647.0**	**1 713.9**	**44.1%**
Australia	4.1	8.9	16.7	24.4	32.8	37.7	43.9	54.8	68.7	73.8	68.8	109.8%
Israel	0.2	0.1	0.2	0.1	0.0	0.0	0.0	3.1	10.1	9.4	4.9	+
Japan	8.5	19.2	51.2	81.5	114.6	137.1	164.8	173.7	215.6	250.4	259.8	126.8%
Korea	-	-	-	-	6.4	19.4	39.9	63.8	90.7	97.8	106.0	+
New Zealand	0.2	0.6	1.8	6.1	7.0	7.6	10.8	7.3	8.2	7.6	8.1	15.7%
OECD Asia Oceania	**13.1**	**28.8**	**70.0**	**112.0**	**160.8**	**201.8**	**259.4**	**302.8**	**393.4**	**439.0**	**447.7**	**178.3%**
Austria	5.6	7.5	9.0	10.1	11.8	14.7	15.0	18.8	18.9	17.9	17.1	44.4%
Belgium	11.3	18.2	20.5	16.9	18.9	24.5	30.7	33.3	38.8	34.9	33.4	76.9%
Czech Republic	1.9	3.1	5.6	9.1	11.5	14.5	17.0	17.8	17.4	15.9	15.6	36.3%
Denmark	-	0.0	0.0	1.5	4.2	7.3	10.3	10.4	10.3	8.8	8.1	95.6%
Estonia	..	..	..	..	2.7	1.3	1.5	1.8	1.3	1.2	1.3	-53.3%
Finland	-	1.5	1.7	1.9	5.0	6.6	7.9	8.3	8.3	7.3	6.5	28.0%
France	19.2	33.0	47.4	54.5	56.1	65.8	81.1	92.5	95.6	82.9	85.3	52.2%
Germany	38.8	86.4	114.9	105.3	118.1	147.0	158.4	171.4	179.7	162.7	163.1	38.1%
Greece	-	-	-	0.1	0.2	0.1	3.9	5.4	7.2	8.8	8.1	+
Hungary	6.8	10.7	17.6	19.2	19.8	20.3	21.6	27.0	22.2	21.1	18.7	-5.6%
Iceland	-	-	-	-	-	-	-	-	-	-	-	-
Ireland	-	-	1.7	4.5	4.0	5.0	7.7	8.1	10.8	9.5	9.2	132.8%
Italy	23.9	40.8	49.3	59.8	89.2	102.8	134.0	163.2	157.4	148.0	142.0	59.2%
Luxembourg	0.0	0.8	1.0	0.7	1.0	1.3	1.6	2.7	2.8	2.4	2.5	145.6%
Netherlands	47.0	72.5	69.4	75.3	70.2	78.6	79.7	80.7	90.1	78.5	75.6	7.6%
Norway	-	0.4	2.0	2.8	4.6	8.1	8.0	10.0	11.9	11.2	9.9	115.3%
Poland	11.4	13.5	17.6	18.2	18.5	18.3	20.6	26.2	27.9	28.1	29.2	58.2%
Portugal	-	-	-	-	-	-	4.6	8.6	10.4	10.6	9.1	x
Slovak Republic	2.9	4.9	5.1	6.7	11.7	11.7	13.1	13.2	11.2	10.1	9.6	-17.7%
Slovenia	..	..	..	..	1.8	1.7	1.8	2.1	2.0	1.7	1.7	-7.6%
Spain	0.7	1.8	3.1	4.5	10.5	17.4	34.7	67.2	72.0	66.9	65.2	518.9%
Sweden	-	-	-	0.2	1.2	1.6	1.6	1.7	3.2	2.6	2.4	88.5%
Switzerland	0.0	1.0	1.9	2.9	3.8	5.1	5.6	6.5	7.0	6.2	6.8	80.8%
Turkey	-	-	-	0.1	6.5	13.0	28.9	52.8	73.2	85.7	86.8	+
United Kingdom	21.6	67.2	92.3	105.2	106.0	145.4	199.0	197.2	194.2	161.3	152.5	43.9%
OECD Europe ***	**191.1**	**363.2**	**460.3**	**499.4**	**577.5**	**712.1**	**888.2**	**1 027.0**	**1 073.9**	**984.4**	**959.8**	**66.2%**
European Union - 28	*..*	*..*	*..*	*..*	*662.6*	*749.7*	*894.3*	*1 007.6*	*1 025.0*	*925.2*	*898.1*	*35.6%*

* Total world includes non-OECD total, OECD total as well as international marine bunkers and international aviation bunkers.
** Includes Estonia and Slovenia prior to 1990.
*** Excludes Estonia and Slovenia prior to 1990.

CO_2 emissions: Sectoral Approach - Natural gas

million tonnes of CO_2

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	% change 90-12
Non-OECD Total *	**575.6**	**719.5**	**1 013.9**	**1 439.0**	**1 875.4**	**1 825.5**	**2 040.1**	**2 553.3**	**3 136.7**	**3 256.9**	**3 318.4**	**76.9%**
Albania	0.2	0.6	0.8	0.8	0.5	0.1	0.0	0.0	0.0	0.0	0.0	-93.5%
Armenia	..	..	..	..	8.3	2.7	2.6	3.1	3.0	3.7	4.5	-46.0%
Azerbaijan	..	..	..	..	32.1	15.4	10.4	17.7	16.1	17.6	19.3	-39.8%
Belarus	..	..	..	..	27.5	25.6	32.2	38.3	41.2	38.9	38.3	39.2%
Bosnia and Herzegovina	..	..	..	..	0.9	0.3	0.5	0.7	0.5	0.5	0.5	-47.5%
Bulgaria	0.6	2.3	7.4	10.8	12.0	10.0	6.5	6.1	5.1	5.8	5.4	-54.6%
Croatia	..	..	..	..	4.7	4.1	4.7	5.1	5.7	5.4	4.8	2.1%
Cyprus **	-	-	-	-	-	-	-	-	-	-	-	-
FYR of Macedonia	..	..	..	..	-	-	0.1	0.1	0.2	0.3	0.3	x
Georgia	..	..	..	..	10.6	2.2	2.2	2.2	2.2	3.2	3.6	-66.1%
Gibraltar	-	-	-	-	-	-	-	-	-	-	-	-
Kazakhstan	..	..	..	..	24.8	23.5	15.2	28.5	53.7	53.3	49.4	99.1%
Kosovo ***	..	..	..	..	..	..	-	-	-	-	-	..
Kyrgyzstan	..	..	..	..	3.6	1.7	1.3	1.2	0.5	0.6	0.7	-81.2%
Latvia	..	..	..	..	5.6	2.3	2.5	3.2	3.4	3.0	2.8	-49.6%
Lithuania	..	..	..	..	10.3	4.3	4.3	5.3	5.4	5.6	5.4	-48.0%
Malta	-	-	-	-	-	-	-	-	-	-	-	-
Republic of Moldova	..	..	..	..	7.6	6.4	4.8	5.4	5.3	5.2	5.1	-32.2%
Montenegro ***	..	..	..	..	..	..	..	-	-	-	-	..
Romania	52.1	62.6	75.7	74.6	67.4	43.1	30.6	30.2	23.7	24.2	23.5	-65.1%
Russian Federation	..	..	..	..	866.3	728.8	718.1	783.4	851.7	873.5	864.9	-0.2%
Serbia ***	..	..	..	..	6.0	3.0	3.4	4.3	4.1	4.3	3.9	-35.7%
Tajikistan	..	..	..	..	3.2	1.2	1.5	1.3	0.4	0.4	0.3	-91.5%
Turkmenistan	..	..	..	..	28.6	26.2	25.5	33.3	40.5	44.6	46.0	60.7%
Ukraine	..	..	..	..	209.4	156.1	141.9	144.0	102.1	104.3	95.1	-54.6%
Uzbekistan	..	..	..	..	75.5	77.4	93.4	89.4	83.8	93.4	96.4	27.6%
Former Soviet Union ****	431.8	520.4	704.2	1 021.2	..	..	..	..	..	..	..	..
Former Yugoslavia ****	1.9	2.9	5.8	11.0	..	..	..	..	..	..	..	..
Non-OECD Europe and Eurasia *	**486.6**	**588.8**	**793.9**	**1 118.3**	**1 405.0**	**1 134.3**	**1 101.8**	**1 203.0**	**1 248.5**	**1 287.7**	**1 270.2**	**-9.6%**
Algeria	2.4	4.6	13.4	21.7	27.4	32.4	37.6	46.9	53.0	56.5	62.9	129.2%
Angola	0.1	0.1	0.2	0.2	1.0	1.1	1.1	1.2	1.4	1.4	1.5	40.7%
Benin	-	-	-	-	-	-	-	-	-	-	-	-
Botswana	..	..	..	-	-	-	-	-	-	-	-	-
Cameroon	-	-	-	-	-	-	-	-	0.5	0.5	0.5	x
Congo	0.0	0.0	-	0.0	-	-	-	0.0	0.2	0.3	0.3	x
Dem. Rep. of Congo	-	-	-	-	-	-	-	-	0.0	0.0	0.0	x
Côte d'Ivoire	-	-	-	-	-	0.1	3.0	2.9	3.1	3.1	3.3	x
Egypt	0.2	0.1	3.4	7.9	14.9	22.9	32.4	67.6	80.3	87.7	88.2	490.5%
Eritrea	..	..	..	..	..	-	-	-	-	-	-	..
Ethiopia	-	-	-	-	-	-	-	-	-	-	-	-
Gabon	-	-	0.0	0.1	0.2	0.3	0.2	0.3	0.6	0.7	0.7	249.6%
Ghana	-	-	-	-	-	-	-	-	0.8	1.6	0.8	x
Kenya	-	-	-	-	-	-	-	-	-	-	-	-
Libya	2.1	2.5	5.5	7.0	9.0	8.5	8.8	10.4	12.3	10.0	10.4	15.3%
Mauritius	-	-	-	-	-	-	-	-	-	-	-	-
Morocco	0.1	0.1	0.1	0.2	0.1	0.0	0.1	0.9	1.3	1.7	2.5	+
Mozambique	-	-	-	-	-	0.0	0.0	0.0	0.2	0.2	0.2	x
Namibia	..	..	..	..	..	-	-	-	-	-	-	..
Nigeria	0.4	1.0	2.9	6.9	6.9	9.2	14.6	20.2	20.1	27.9	28.6	316.2%
Senegal	-	-	-	-	0.0	0.1	0.0	0.0	0.0	0.0	0.1	296.5%
South Africa	-	-	-	-	-	-	-	-	4.1	4.0	4.0	x
Sudan	-	-	-	-	-	-	-	-	-	-	-	-
United Rep. of Tanzania	-	-	-	-	-	-	-	0.8	1.5	1.7	1.9	x
Togo	-	-	-	-	-	-	-	-	-	-	-	-
Tunisia	0.0	0.5	0.8	2.2	2.8	4.6	6.4	7.7	11.1	10.9	11.8	319.5%
Zambia	-	-	-	-	-	-	-	-	-	-	-	-
Zimbabwe	-	-	-	-	-	-	-	-	-	-	-	-
Other Africa	-	-	-	-	-	-	0.0	1.5	2.3	2.4	2.3	x
Africa	**5.2**	**9.0**	**26.3**	**46.2**	**62.4**	**79.2**	**104.1**	**160.5**	**192.9**	**210.6**	**219.9**	**252.5%**

* Includes Estonia and Slovenia prior to 1990.

** Please refer to Chapter 4, *Geographical Coverage*.

*** Serbia includes Kosovo from 1990 to 1999 and Montenegro from 1990 to 2004.

**** Prior to 1990, data for individual countries are not available separately; FSU includes Estonia and Former Yugoslavia includes Slovenia.

CO_2 emissions: Sectoral Approach - Natural gas

million tonnes of CO_2

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	% change 90-12
Bangladesh	0.6	0.9	2.1	4.0	7.3	10.9	14.6	22.2	38.3	38.3	40.7	457.9%
Brunei Darussalam	0.2	1.2	2.1	2.3	2.5	3.4	3.2	3.5	5.8	6.4	6.4	155.0%
Cambodia	..	..	..	..	..	-	-	-	-	-	-	..
India	1.3	1.9	2.6	8.0	20.9	35.3	48.0	67.6	117.8	118.9	104.5	400.9%
Indonesia	0.3	1.0	7.3	13.6	30.6	54.1	55.0	60.7	77.0	77.3	79.6	160.4%
DPR of Korea	-	-	-	-	-	-	-	-	-	-	-	-
Malaysia	0.0	0.1	0.2	4.9	7.7	25.7	50.6	66.0	65.4	64.5	65.9	757.4%
Mongolia	..	..	..	-	-	-	-	-	-	-	-	-
Myanmar	0.1	0.3	0.6	1.8	1.7	2.8	2.7	3.2	3.1	3.2	3.6	112.6%
Nepal	-	-	-	-	-	-	-	-	-	-	-	-
Pakistan	5.3	7.7	10.3	13.4	20.9	28.0	34.5	56.9	57.2	59.2	59.2	183.2%
Philippines	-	-	-	-	-	0.0	0.0	6.7	7.1	7.7	7.6	x
Singapore	0.0	0.1	0.1	0.1	0.1	3.1	2.9	13.3	16.6	17.1	18.4	+
Sri Lanka	-	-	-	-	-	-	-	-	-	-	-	-
Chinese Taipei	1.9	2.7	3.3	1.9	3.3	7.8	12.9	20.7	30.4	33.3	31.5	862.7%
Thailand	-	-	-	6.8	11.7	20.4	40.6	60.6	76.1	70.6	81.1	594.9%
Viet Nam	-	-	-	0.1	0.0	0.4	2.6	11.0	19.0	17.1	18.9	+
Other Asia	0.5	0.5	0.2	1.2	0.6	0.5	0.5	0.5	0.9	0.9	1.0	78.0%
Asia (excl. China)	**10.2**	**16.3**	**28.8**	**58.2**	**107.2**	**192.4**	**268.1**	**392.7**	**514.7**	**514.4**	**518.4**	**383.6%**
People's Rep. of China	7.3	17.3	28.0	21.9	26.9	31.6	43.4	82.9	194.7	238.5	266.2	890.7%
Hong Kong, China	0.1	0.1	0.2	0.4	0.8	1.2	7.0	6.5	7.9	6.5	6.0	694.4%
China	**7.4**	**17.4**	**28.1**	**22.3**	**27.6**	**32.8**	**50.5**	**89.4**	**202.7**	**244.9**	**272.2**	**885.3%**
Argentina	12.3	17.1	21.7	30.5	43.4	53.4	71.7	79.4	89.4	93.0	95.8	120.9%
Bolivia	0.1	0.3	0.6	0.8	1.4	2.3	2.4	3.7	6.0	6.6	7.0	387.8%
Brazil	0.5	1.1	2.2	5.0	7.0	8.8	17.4	38.0	51.8	50.3	59.7	756.9%
Colombia	2.6	3.2	5.7	7.3	7.5	8.3	12.8	14.3	18.4	17.4	18.1	140.6%
Costa Rica	-	-	-	-	-	-	-	-	-	-	-	-
Cuba	0.1	0.2	0.1	0.1	0.1	0.2	1.1	1.5	2.0	1.9	2.0	+
Dominican Republic	-	-	-	-	-	-	-	0.4	1.5	1.7	2.2	x
Ecuador	-	-	-	-	-	-	-	0.6	1.0	0.9	1.1	x
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	3.9	12.8	15.1	15.5	+
Trinidad and Tobago	3.4	2.8	5.1	7.1	9.3	10.0	15.5	26.8	33.6	33.3	32.7	252.5%
Uruguay	-	-	-	-	-	-	0.1	0.2	0.1	0.2	0.1	x
Venezuela	20.8	24.3	32.6	38.5	46.3	58.4	61.7	64.0	73.7	60.7	63.0	36.1%
Other Non-OECD Americas	0.0	-	0.0	0.0	0.0	0.0	0.7	1.4	1.5	1.5	1.6	+
Non-OECD Americas	**40.5**	**49.9**	**69.1**	**90.7**	**116.1**	**142.0**	**184.5**	**234.1**	**291.9**	**282.7**	**298.8**	**157.3%**
Bahrain	1.8	4.1	5.7	8.3	10.4	13.0	15.3	18.9	23.9	24.0	24.1	132.9%
Islamic Republic of Iran	5.5	8.1	8.5	16.8	37.0	80.0	121.1	193.5	281.3	294.0	292.5	690.6%
Iraq	1.8	3.1	2.4	1.6	3.8	6.0	6.0	3.5	9.8	11.7	11.5	204.6%
Jordan	-	-	-	-	0.2	0.5	0.5	3.2	5.3	2.0	1.5	548.9%
Kuwait	9.9	9.9	13.2	9.7	11.5	17.7	18.3	23.5	27.7	32.4	34.7	201.3%
Lebanon	-	-	-	-	-	-	-	-	0.5	-	-	-
Oman	-	-	0.7	2.1	4.9	6.7	11.4	16.0	38.4	42.7	43.0	774.9%
Qatar	1.9	4.2	6.3	10.5	12.2	16.2	20.9	29.4	45.7	54.8	59.8	392.2%
Saudi Arabia	2.7	5.4	21.2	34.1	40.7	51.1	63.0	95.1	118.9	120.3	131.2	222.1%
Syrian Arab Republic	-	-	0.1	0.3	3.2	4.8	10.4	10.8	17.5	14.8	10.5	229.5%
United Arab Emirates	2.0	3.3	9.6	19.8	33.1	48.5	64.2	79.7	115.2	118.4	128.2	287.2%
Yemen	-	-	-	-	-	-	-	-	2.0	1.4	1.6	x
Middle East	**25.6**	**38.0**	**67.7**	**103.3**	**157.0**	**244.7**	**331.1**	**473.6**	**686.1**	**716.5**	**738.8**	**370.5%**

CO_2 emissions from international marine bunkers

million tonnes of CO_2

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	% change 90-12
World	**345.21**	**332.48**	**348.40**	**298.46**	**363.21**	**421.93**	**488.07**	**566.10**	**653.49**	**659.40**	**602.20**	**65.8%**
Annex I Parties	*..*	*..*	*..*	*..*	*233.42*	*229.80*	*250.38*	*272.45*	*267.70*	*269.37*	*220.17*	*-5.7%*
Annex II Parties	*202.63*	*216.81*	*234.71*	*171.25*	*223.18*	*226.51*	*245.25*	*263.92*	*254.09*	*252.92*	*206.77*	*-7.4%*
North America	*26.41*	*36.12*	*93.91*	*56.43*	*93.55*	*93.68*	*92.24*	*84.59*	*84.81*	*85.05*	*50.41*	*-46.1%*
Europe	*120.20*	*110.37*	*97.05*	*87.88*	*108.79*	*110.99*	*132.37*	*155.80*	*151.16*	*151.67*	*139.49*	*28.2%*
Asia Oceania	*56.02*	*70.31*	*43.75*	*26.94*	*20.84*	*21.84*	*20.65*	*23.53*	*18.12*	*16.20*	*16.87*	*-19.0%*
Annex I EIT	*..*	*..*	*..*	*..*	*9.78*	*2.58*	*1.80*	*3.14*	*7.82*	*12.11*	*8.83*	*-9.7%*
Non-Annex I Parties	*..*	*..*	*..*	*..*	*129.79*	*192.13*	*237.69*	*293.64*	*385.79*	*390.04*	*382.03*	*194.4%*
Annex I Kyoto Parties	*..*	*..*	*..*	*..*	*139.41*	*135.41*	*154.81*	*182.47*	*177.10*	*179.98*	*165.19*	*18.5%*
Non-OECD Total *	**138.30**	**112.26**	**109.89**	**121.86**	**131.63**	**168.46**	**203.51**	**257.37**	**363.23**	**371.43**	**361.36**	**174.5%**
OECD Total **	**206.91**	**220.22**	**238.51**	**176.59**	**231.58**	**253.47**	**284.55**	**308.73**	**290.26**	**287.97**	**240.85**	**4.0%**
Canada	3.07	2.58	4.71	1.18	2.87	3.17	3.34	2.83	2.17	1.60	1.57	-45.1%
Chile	0.60	0.37	0.27	0.09	0.57	1.12	1.94	3.30	1.28	1.57	0.53	-7.2%
Mexico	0.26	0.38	1.00	1.33	..	2.55	3.83	2.70	2.50	2.85	2.87	..
United States	23.34	33.54	89.20	55.26	90.68	90.51	88.90	81.76	82.63	83.46	48.83	-46.1%
OECD Americas	**27.27**	**36.88**	**95.18**	**57.85**	**94.12**	**97.35**	**98.02**	**90.58**	**88.59**	**89.48**	**53.81**	**-42.8%**
Australia	5.10	5.03	3.68	2.28	2.14	2.79	2.96	2.74	2.25	1.99	2.74	28.4%
Israel	..	..	..	0.35	0.38	0.65	0.58	0.81	1.06	0.97	1.01	165.3%
Japan	49.88	64.20	38.90	23.92	17.66	17.92	16.93	19.80	14.80	13.12	12.93	-26.8%
Korea	1.53	0.17	0.31	1.69	5.27	21.35	30.46	33.24	28.75	27.96	27.22	416.6%
New Zealand	1.04	1.08	1.18	0.74	1.04	1.13	0.76	0.99	1.07	1.09	1.19	14.6%
OECD Asia Oceania	**57.55**	**70.48**	**44.06**	**28.98**	**26.49**	**43.84**	**51.69**	**57.58**	**47.93**	**45.13**	**45.10**	**70.3%**
Austria	-	-	-	-	0.04	0.05	0.06	0.06	0.05	0.05	0.05	33.3%
Belgium	8.06	8.64	7.52	7.30	12.91	12.31	17.02	24.40	24.29	21.59	19.31	49.6%
Czech Republic	-	-	-	-	-	-	-	-	-	-	-	-
Denmark	2.09	1.67	1.32	1.34	3.02	4.96	4.03	2.41	2.16	2.19	1.61	-46.5%
Estonia	..	..	..	..	0.57	0.28	0.33	0.38	0.69	0.59	1.26	122.3%
Finland	0.24	0.30	1.84	1.45	1.78	1.04	2.10	1.59	0.66	0.63	0.38	-78.5%
France	12.71	14.53	12.52	7.52	7.72	6.69	8.83	8.11	7.30	7.84	7.41	-4.0%
Germany	12.93	10.52	11.00	10.85	7.79	6.43	6.85	7.83	8.72	8.57	8.01	2.8%
Greece	1.78	2.70	2.63	3.51	7.97	11.17	11.28	9.02	8.60	8.75	7.16	-10.2%
Hungary	-	-	-	-	-	-	-	-	-	-	-	-
Iceland	..	..	..	0.02	0.10	0.14	0.21	0.20	0.18	0.19	0.18	88.6%
Ireland	0.24	0.20	0.23	0.09	0.06	0.36	0.47	0.32	0.26	0.30	0.30	435.9%
Italy	22.80	17.97	13.08	10.75	8.37	7.59	5.16	7.06	9.43	7.90	7.83	-6.4%
Luxembourg	-	-	-	-	-	-	-	-	-	-	-	-
Netherlands	28.26	32.86	29.39	27.45	34.29	35.59	41.98	53.31	43.72	46.98	42.75	24.7%
Norway	1.90	1.49	0.87	1.03	1.39	2.19	2.56	2.16	1.21	1.18	1.02	-26.7%
Poland	1.63	2.21	2.22	1.63	1.24	0.44	0.90	1.01	0.68	0.53	0.45	-63.6%
Portugal	2.32	2.00	1.34	1.48	1.91	1.52	2.08	1.82	1.46	1.78	1.93	0.9%
Slovak Republic	-	-	-	-	-	-	-	-	-	-	-	-
Slovenia	..	..	..	..	..	..	..	0.07	0.06	0.10	0.16	..
Spain	5.94	3.44	5.07	6.76	11.46	10.00	18.97	25.00	26.53	27.14	26.50	131.3%
Sweden	3.58	3.45	2.66	1.76	2.09	3.30	4.28	6.12	6.19	5.43	5.33	154.8%
Switzerland	..	..	..	..	0.06	0.05	0.03	0.04	0.03	0.02	0.02	-55.6%
Turkey	0.26	0.29	..	0.25	0.37	0.58	1.25	3.31	1.15	0.47	0.58	56.5%
United Kingdom	17.37	10.60	7.57	6.56	7.84	7.62	6.44	6.34	10.36	11.13	9.68	23.4%
OECD Europe **	**122.10**	**112.87**	**99.26**	**89.76**	**110.97**	**112.28**	**134.84**	**160.56**	**153.74**	**153.36**	**141.94**	**27.9%**
European Union - 28	*..*	*..*	*..*	*..*	*111.43*	*111.53*	*134.02*	*159.53*	*157.99*	*157.43*	*146.11*	31.1%

* Includes Estonia and Slovenia prior to 1990.
** Excludes Estonia and Slovenia prior to 1990.

CO_2 emissions from international marine bunkers

million tonnes of CO_2

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	% change 90-12
Non-OECD Total *	**138.30**	**112.26**	**109.89**	**121.86**	**131.63**	**168.46**	**203.51**	**257.37**	**363.23**	**371.43**	**361.36**	**174.5%**
Albania	..	..	..	..	..	..	..	..	..	..	..	..
Armenia	..	..	..	..	-	-	-	-	-	-	-	-
Azerbaijan	..	..	..	..	..	..	..	..	0.23	0.24	0.27	..
Belarus	..	..	..	..	-	-	-	-	-	-	-	-
Bosnia and Herzegovina	..	..	..	..	..	..	..	..	..	..	..	..
Bulgaria	..	..	..	0.71	0.18	0.85	0.20	0.34	0.30	0.24	0.20	10.0%
Croatia	..	..	..	..	0.15	0.10	0.06	0.08	0.02	0.07	..	-100.0%
Cyprus **	0.01	0.06	0.05	0.11	0.18	0.21	0.60	0.90	0.58	0.61	0.61	239.2%
FYR of Macedonia	-	-	-	-	-	-	-	-	-	-	-	-
Georgia	..	..	..	..	..	0.16	..	..	..	..	..	..
Gibraltar	0.55	0.58	0.41	0.88	1.38	2.70	3.22	4.82	7.76	8.27	8.34	505.0%
Kazakhstan	..	..	..	..	..	..	..	..	..	0.06	..	..
Kosovo ***	..	..	..	..	..	..	..	..	..	..	..	..
Kyrgyzstan	..	..	..	..	-	-	-	-	-	-	-	-
Latvia	..	..	..	..	1.48	0.47	0.02	0.81	0.79	0.67	0.75	-49.2%
Lithuania	..	..	..	..	0.30	0.44	0.29	0.45	0.45	0.45	0.38	29.3%
Malta	0.19	0.08	0.09	0.06	0.09	0.14	2.07	2.09	4.64	3.86	3.99	+
Republic of Moldova	..	..	..	..	..	..	..	..	..	..	..	..
Montenegro ***	..	..	..	..	..	..	..	..	..	..	..	..
Romania	..	..	..	..	..	..	..	..	0.05	0.03	0.04	..
Russian Federation	..	..	..	..	5.87	..	..	..	4.79	9.43	5.58	-4.9%
Serbia ***	..	..	..	..	..	..	..	..	..	..	0.01	..
Tajikistan	..	..	..	..	-	-	-	-	-	-	-	-
Turkmenistan	..	..	..	..	..	..	..	..	..	..	..	..
Ukraine	..	..	..	..	..	..	..	..	..	..	..	..
Uzbekistan	..	..	..	..	-	-	-	-	-	-	-	-
Former Soviet Union ****	13.17	14.09	14.09	13.79	..	..	..	..	..	..	..	..
Former Yugoslavia ****	..	..	..	..	..	..	..	..	..	..	..	..
Non-OECD Europe and Eurasia *	**13.92**	**14.81**	**14.64**	**15.53**	**9.62**	**5.06**	**6.45**	**9.50**	**19.60**	**23.94**	**20.18**	**109.7%**
Algeria	0.61	0.77	1.29	1.16	1.36	1.17	0.77	1.17	1.01	0.80	0.82	-39.8%
Angola	0.77	0.48	0.83	0.10	0.02	0.03	..	0.34	0.54	0.49	0.54	+
Benin	..	..	..	..	..	..	..	..	..	..	..	..
Botswana	..	..	..	..	..	..	..	..	..	..	..	..
Cameroon	..	..	0.12	0.03	0.04	0.09	0.06	0.04	0.14	0.14	0.15	260.6%
Congo	..	..	..	..	..	..	..	..	..	..	..	..
Dem. Rep. of Congo	0.40	0.22	0.08	0.09	0.10	0.01	..	..	..	..	..	-100.0%
Côte d'Ivoire	0.06	0.01	1.35	0.73	0.12	0.27	0.29	0.35	0.06	0.04	0.06	-48.9%
Egypt	0.06	1.10	3.24	4.78	5.33	7.85	8.70	8.29	6.98	6.89	5.87	10.1%
Eritrea	..	..	..	..	..	0.42	..	..	..	..	..	..
Ethiopia	0.07	0.02	0.01	0.03	0.03	0.03	..	..	..	..	..	-100.0%
Gabon	0.20	0.14	0.19	0.22	0.08	0.44	0.60	0.60	0.69	0.67	0.65	718.1%
Ghana	0.16	0.14	0.10	..	..	..	0.16	0.12	0.30	0.40	0.52	..
Kenya	1.47	1.05	0.56	0.45	0.55	0.17	0.21	0.00	0.05	0.08	0.04	-92.7%
Libya	0.01	0.01	0.02	0.04	0.25	0.28	0.86	1.15	1.15	0.26	1.10	347.5%
Mauritius	0.05	0.11	0.16	0.22	0.19	0.27	0.69	0.60	0.74	0.89	0.83	340.0%
Morocco	0.24	0.18	0.21	0.04	0.06	0.04	0.05	0.07	0.42	0.42	0.42	568.8%
Mozambique	0.76	0.35	0.27	0.10	0.09	0.01	0.00	0.01	..	..	..	-100.0%
Namibia	..	..	..	..	..	..	..	..	..	..	..	..
Nigeria	0.02	0.11	0.25	0.34	0.58	1.42	1.19	1.27	1.31	1.24	1.26	116.3%
Senegal	2.99	2.09	0.84	0.33	0.11	0.09	0.30	0.36	0.21	0.26	0.22	95.2%
South Africa	10.81	7.15	5.25	3.41	5.95	10.30	8.51	8.52	9.72	10.04	11.15	87.4%
Sudan	..	0.01	0.02	0.02	0.02	0.03	0.03	0.04	0.06	0.07	0.06	171.4%
United Rep. of Tanzania	0.05	0.05	0.12	0.08	0.08	0.07	0.08	0.10	0.14	0.15	0.16	99.8%
Togo	..	..	..	..	..	..	0.01	0.01	0.05	0.04	0.05	..
Tunisia	0.06	0.02	0.02	0.01	0.07	0.06	0.06	0.05	0.04	0.04	0.04	-44.2%
Zambia	-	-	-	-	-	-	-	-	-	-	-	-
Zimbabwe	..	..	..	..	..	..	..	..	..	..	..	..
Other Africa	3.19	1.86	1.56	1.70	1.46	1.09	0.78	0.75	0.77	0.80	0.83	-42.8%
Africa	**21.98**	**15.87**	**16.50**	**13.88**	**16.49**	**24.11**	**23.34**	**23.84**	**24.38**	**23.71**	**24.77**	**50.2%**

* Includes Estonia and Slovenia prior to 1990.

** Please refer to Chapter 4, *Geographical Coverage*.

*** Serbia includes Kosovo from 1990 to 1999 and Montenegro from 1990 to 2004.

**** Prior to 1990, data for individual countries are not available separately; FSU includes Estonia and Former Yugoslavia includes Slovenia.

CO_2 emissions from international marine bunkers

million tonnes of CO_2

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	% change 90-12
Bangladesh	0.06	0.05	0.19	0.07	0.06	0.11	0.14	0.18	0.25	0.26	0.28	351.5%
Brunei Darussalam	..	..	0.00	..	0.11	0.21	0.22	0.27	0.28	0.30	0.20	78.4%
Cambodia	..	..	..	..	..	..	..	..	..	..	..	..
India	0.71	0.57	0.72	0.34	1.36	1.69	2.17	3.06	4.13	4.03	3.92	188.1%
Indonesia	0.70	1.09	0.79	0.68	1.68	1.28	0.36	0.42	0.56	0.59	0.63	-62.5%
DPR of Korea	..	..	..	..	..	..	..	..	..	..	..	..
Malaysia	0.11	0.22	0.18	0.31	0.29	0.53	0.69	0.19	0.19	0.64	0.18	-39.1%
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	0.25	0.55	0.31	0.29	173.6%
Philippines	1.29	0.45	0.59	0.49	0.21	0.35	0.67	0.38	0.58	0.68	0.58	180.1%
Singapore	8.89	10.43	14.96	15.14	33.87	35.28	57.58	78.60	125.94	133.02	131.57	288.5%
Sri Lanka	1.19	1.29	1.10	1.01	1.21	1.09	0.50	0.53	0.65	0.59	0.86	-29.2%
Chinese Taipei	0.39	0.33	0.66	1.62	4.86	7.57	11.02	7.50	5.45	5.00	3.63	-25.4%
Thailand	0.21	0.25	0.50	0.65	1.70	3.02	2.46	5.18	4.42	3.33	2.46	44.4%
Viet Nam	..	..	..	0.07	0.09	0.22	0.46	0.79	1.02	1.08	1.14	+
Other Asia	0.57	0.53	0.46	0.20	0.21	0.30	0.33	0.44	0.40	0.45	0.48	131.1%
Asia (excl. China)	**14.42**	**15.43**	**20.62**	**20.66**	**45.76**	**51.71**	**76.70**	**97.80**	**144.44**	**150.30**	**146.22**	**219.5%**
People's Rep. of China	0.80	1.36	2.23	2.88	4.29	8.86	8.66	15.89	27.62	29.17	28.46	563.0%
Hong Kong, China	1.96	1.69	2.83	3.11	4.52	7.16	10.61	17.79	38.59	28.98	26.27	480.9%
China	**2.76**	**3.05**	**5.06**	**5.99**	**8.82**	**16.03**	**19.28**	**33.69**	**66.21**	**58.15**	**54.73**	**520.8%**
Argentina	0.66	0.28	1.32	2.00	2.22	1.71	1.48	2.19	3.75	4.32	5.41	143.5%
Bolivia	-	-	-	-	-	-	-	-	-	-	-	-
Brazil	1.00	1.17	1.42	1.71	1.72	3.64	9.16	10.92	12.61	13.53	12.03	600.9%
Colombia	0.95	0.49	0.31	0.22	0.33	0.58	0.74	1.14	2.02	2.27	3.90	+
Costa Rica	0.10	..	0.13	0.14	0.24	0.37	0.34	0.35	0.09	0.08	0.02	-89.7%
Cuba	..	..	..	0.12	0.06	0.04	0.05	0.06	0.08	0.09	0.09	54.5%
Dominican Republic	..	..	..	..	..	..	..	..	..	..	..	..
Ecuador	0.28	..	0.34	0.11	0.49	0.99	0.87	2.16	1.74	1.89	1.65	233.9%
El Salvador	..	..	..	..	..	..	..	..	..	..	..	..
Guatemala	0.18	0.27	0.40	0.38	0.43	0.53	0.64	0.74	0.89	0.93	0.96	124.6%
Haiti	..	..	..	..	..	..	..	..	..	..	..	..
Honduras	..	..	..	..	..	..	..	..	0.00	0.00	0.00	..
Jamaica	0.16	0.26	0.10	0.04	0.10	0.12	0.12	0.26	0.27	0.31	0.26	157.2%
Netherlands Antilles	7.71	7.34	7.27	6.13	5.18	5.32	6.28	6.71	7.18	7.27	7.24	39.8%
Nicaragua	..	..	..	..	..	..	..	..	..	..	..	..
Panama	1.71	3.41	3.10	4.03	4.95	6.43	8.06	7.29	9.46	10.45	10.52	112.5%
Paraguay	-	-	-	-	-	-	-	-	-	-	-	-
Peru	0.10	0.12	0.47	0.62	0.12	0.53	0.31	1.00	0.76	0.77	0.73	519.8%
Trinidad and Tobago	5.12	3.54	1.42	0.31	0.11	0.16	1.19	1.47	1.06	1.17	1.42	+
Uruguay	0.27	0.20	0.24	0.33	0.37	1.21	0.92	1.12	1.41	1.17	0.97	162.8%
Venezuela	9.13	4.82	1.99	1.76	2.50	2.30	2.06	2.33	2.74	2.89	3.00	19.9%
Other Non-OECD Americas	3.22	2.19	2.79	1.87	0.86	0.71	0.79	0.64	0.58	0.58	0.59	-31.7%
Non-OECD Americas	**30.57**	**24.09**	**21.31**	**19.77**	**19.67**	**24.60**	**33.01**	**38.39**	**44.67**	**47.72**	**48.77**	**148.0%**
Bahrain	0.56	0.55	0.60	0.47	0.25	0.25	0.25	0.24	0.25	0.24	0.25	2.5%
Islamic Republic of Iran	1.02	1.23	1.22	0.90	1.23	1.84	2.25	2.95	7.31	7.01	5.98	387.1%
Iraq	0.26	0.29	0.37	0.46	0.40	0.02	0.48	0.32	0.43	0.50	0.56	39.2%
Jordan	..	..	..	..	..	0.03	0.13	0.25	0.05	0.03	0.06	..
Kuwait	6.29	6.32	5.60	2.38	0.55	1.82	1.43	2.15	1.68	3.26	3.41	515.5%
Lebanon	0.71	0.03	..	..	..	0.04	0.05	0.06	0.08	0.08	0.08	..
Oman	3.85	2.54	0.71	0.35	0.06	0.08	0.19	0.12	0.68	0.48	0.07	15.0%
Qatar	..	..	..	..	..	..	..	..	..	..	..	..
Saudi Arabia	40.05	25.86	13.62	28.01	5.74	5.96	6.60	7.09	8.10	8.44	8.80	53.4%
Syrian Arab Republic	0.77	1.26	1.97	2.53	2.82	3.43	3.68	3.17	3.43	2.97	1.55	-45.2%
United Arab Emirates	..	..	5.53	9.69	18.99	33.16	29.38	37.44	41.59	44.28	45.64	140.3%
Yemen	1.13	0.91	2.13	1.24	1.24	0.31	0.30	0.36	0.35	0.32	0.30	-76.1%
Middle East	**54.64**	**39.00**	**31.76**	**46.04**	**31.28**	**46.95**	**44.74**	**54.14**	**63.94**	**67.61**	**66.69**	**113.2%**

CO_2 emissions from international aviation bunkers

million tonnes of CO_2

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	% change 90-12
World	**167.48**	**172.12**	**200.12**	**222.64**	**256.34**	**288.30**	**351.82**	**418.96**	**457.80**	**473.67**	**477.79**	**86.4%**
Annex I Parties	*..*	*..*	*..*	*..*	*168.43*	*179.29*	*223.71*	*253.92*	*251.97*	*258.33*	*255.27*	*51.6%*
Annex II Parties	*58.57*	*61.75*	*70.77*	*81.47*	*131.07*	*159.81*	*204.71*	*229.75*	*223.75*	*229.86*	*226.61*	*72.9%*
North America	*16.61*	*17.53*	*21.18*	*21.83*	*41.50*	*48.54*	*60.20*	*70.69*	*68.03*	*67.60*	*66.22*	*59.6%*
Europe	*35.96*	*37.67*	*42.70*	*48.59*	*70.65*	*87.32*	*115.99*	*127.41*	*126.93*	*131.49*	*129.34*	*83.1%*
Asia Oceania	*6.01*	*6.55*	*6.90*	*11.05*	*18.92*	*23.96*	*28.52*	*31.65*	*28.79*	*30.77*	*31.05*	*64.0%*
Annex I EIT	*..*	*..*	*..*	*..*	*36.61*	*18.48*	*17.10*	*20.70*	*24.32*	*24.73*	*25.31*	*-30.9%*
Non-Annex I Parties	*..*	*..*	*..*	*..*	*87.92*	*109.01*	*128.11*	*165.03*	*205.83*	*215.34*	*222.52*	*153.1%*
Annex I Kyoto Parties	*..*	*..*	*..*	*..*	*126.18*	*129.75*	*161.61*	*179.76*	*180.04*	*187.00*	*185.70*	*47.2%*
Non-OECD Total *	**103.84**	**103.94**	**119.54**	**130.53**	**114.55**	**114.01**	**130.20**	**162.97**	**203.12**	**212.97**	**219.69**	**91.8%**
OECD Total **	**63.64**	**68.18**	**80.58**	**92.11**	**141.80**	**174.28**	**221.62**	**255.99**	**254.68**	**260.70**	**258.11**	**82.0%**
Canada	1.25	1.93	1.35	1.22	2.71	2.58	3.08	2.48	3.37	2.88	2.97	9.9%
Chile	0.43	0.35	0.54	0.49	0.57	0.64	1.04	1.05	1.52	1.31	2.11	273.2%
Mexico	1.39	2.40	4.23	4.53	5.23	6.75	8.05	8.52	8.08	8.12	8.60	64.3%
United States	15.35	15.60	19.83	20.61	38.79	45.96	57.11	68.21	64.66	64.72	63.25	63.0%
OECD Americas	**18.43**	**20.27**	**25.95**	**26.85**	**47.29**	**55.93**	**69.29**	**80.26**	**77.63**	**77.03**	**76.93**	**62.7%**
Australia	1.57	1.89	2.40	2.76	4.29	5.75	7.15	8.08	10.09	10.17	9.43	119.7%
Israel	1.79	1.88	2.21	1.99	1.58	2.12	2.38	3.20	2.40	2.57	2.48	56.6%
Japan	3.80	4.32	3.92	7.63	13.31	16.61	19.57	21.37	16.39	18.28	19.17	44.0%
Korea	-	0.36	0.83	1.69	0.84	2.05	1.70	7.25	11.89	11.99	12.00	+
New Zealand	0.64	0.34	0.57	0.66	1.32	1.60	1.79	2.20	2.31	2.33	2.44	85.0%
OECD Asia Oceania	**7.80**	**8.79**	**9.93**	**14.74**	**21.35**	**28.13**	**32.59**	**42.11**	**43.08**	**45.33**	**45.53**	**113.2%**
Austria	0.28	0.24	0.38	0.65	0.86	1.28	1.63	1.89	1.98	2.09	2.01	134.5%
Belgium	1.21	1.05	1.22	1.62	2.82	2.61	4.37	3.80	4.56	4.36	4.01	42.3%
Czech Republic	0.69	0.58	0.85	0.63	0.65	0.56	0.48	0.94	0.92	0.91	0.86	32.9%
Denmark	1.92	1.56	1.59	1.56	1.70	1.84	2.32	2.55	2.40	2.46	2.48	45.4%
Estonia	..	..	..	..	0.10	0.05	0.06	0.14	0.11	0.10	0.11	5.9%
Finland	0.18	0.40	0.46	0.48	0.97	0.86	1.02	1.24	1.59	1.88	1.81	86.2%
France	4.57	5.71	5.62	6.43	9.32	11.44	15.07	16.10	16.32	17.19	16.71	79.3%
Germany	7.57	8.16	8.22	9.46	13.34	15.76	19.50	22.56	23.98	23.14	24.64	84.6%
Greece	1.29	1.31	2.23	2.33	2.34	2.52	2.41	2.30	2.02	2.19	1.95	-16.6%
Hungary	0.15	0.20	0.36	0.44	0.49	0.54	0.69	0.79	0.70	0.71	0.51	4.4%
Iceland	0.22	0.13	0.09	0.18	0.22	0.20	0.39	0.40	0.37	0.41	0.43	97.2%
Ireland	0.96	0.73	0.60	0.57	1.03	1.11	1.73	2.35	2.14	2.00	1.68	62.5%
Italy	3.47	2.44	4.15	4.33	4.50	5.80	8.38	8.88	9.39	9.63	9.19	104.4%
Luxembourg	0.11	0.15	0.19	0.22	0.39	0.56	0.95	1.28	1.28	1.19	1.10	182.0%
Netherlands	2.01	2.26	2.72	3.47	4.29	7.38	9.65	10.67	10.00	10.39	10.01	133.1%
Norway	0.70	0.51	0.67	0.92	1.24	1.09	1.05	1.04	1.28	1.26	1.19	-4.2%
Poland	0.52	0.53	0.67	0.67	0.65	0.80	0.81	0.95	1.51	1.48	1.59	143.7%
Portugal	0.70	0.80	0.88	1.27	1.36	1.55	1.92	2.15	2.60	2.71	2.74	100.7%
Slovak Republic	-	-	-	-	-	0.12	0.08	0.12	0.12	0.13	0.11	x
Slovenia	..	..	..	..	0.08	0.06	0.07	0.07	0.08	0.07	0.07	-11.5%
Spain	1.74	2.77	2.58	2.67	3.32	6.01	8.03	9.18	9.02	10.80	10.67	221.3%
Sweden	0.33	0.33	0.49	0.51	1.07	1.76	2.06	1.87	2.04	2.19	2.09	94.3%
Switzerland	1.63	1.80	2.02	2.41	3.00	3.63	4.57	3.48	4.16	4.47	4.54	51.4%
Turkey	0.09	0.14	0.12	0.18	0.53	0.78	1.54	3.21	3.60	3.45	3.05	473.1%
United Kingdom	7.08	7.32	8.59	9.53	18.86	21.92	30.93	35.65	31.80	33.11	32.10	70.3%
OECD Europe **	**37.41**	**39.12**	**44.70**	**50.51**	**73.15**	**90.22**	**119.73**	**133.62**	**133.97**	**138.34**	**135.65**	**85.4%**
European Union - 28	*..*	*..*	*..*	*..*	*71.25*	*87.43*	*114.21*	*127.95*	*127.27*	*131.49*	*129.11*	81.2%

* Includes Estonia and Slovenia prior to 1990.
** Excludes Estonia and Slovenia prior to 1990.

CO_2 emissions from international aviation bunkers

million tonnes of CO_2

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	% change 90-12
Non-OECD Total *	**103.84**	**103.94**	**119.54**	**130.53**	**114.55**	**114.01**	**130.20**	**162.97**	**203.12**	**212.97**	**219.69**	**91.8%**
Albania	-	-	-	-	-	-	0.12	0.17	0.05	0.06	0.06	x
Armenia	..	..	..	..	0.59	0.10	0.19	0.13	0.13	0.13	0.14	-75.8%
Azerbaijan	..	..	..	..	1.03	0.30	0.30	1.10	1.19	1.29	1.13	9.1%
Belarus	..	..	..	..	-	-	-	-	-	-	-	-
Bosnia and Herzegovina	..	..	..	..	0.08	0.11	0.03	0.02	0.02	0.02	0.02	-80.0%
Bulgaria	0.61	0.61	0.91	1.11	0.71	0.98	0.24	0.56	0.50	0.50	0.48	-31.5%
Croatia	..	..	..	..	0.15	0.17	0.10	0.12	0.16	0.16	0.20	37.5%
Cyprus **	0.15	0.02	0.23	0.44	0.72	0.79	0.82	0.89	0.82	0.89	0.80	11.9%
FYR of Macedonia	..	..	..	..	0.02	0.09	0.09	0.02	0.02	0.01	0.01	-60.0%
Georgia	..	..	..	..	0.60	0.01	0.05	0.11	0.12	0.11	0.11	-81.2%
Gibraltar	0.02	0.02	0.01	0.01	0.02	0.01	0.01	0.02	0.02	0.02	0.02	-14.3%
Kazakhstan	..	..	..	..	2.68	0.78	0.23	0.49	0.62	0.48	0.60	-77.6%
Kosovo ***	..	..	..	..	..	..	-	-	0.04	0.04	0.04	..
Kyrgyzstan	..	..	..	..	0.26	0.19	0.12	0.38	0.82	0.16	0.16	-40.7%
Latvia	..	..	..	..	0.22	0.08	0.08	0.17	0.35	0.35	0.35	62.0%
Lithuania	..	..	..	..	0.40	0.12	0.07	0.14	0.14	0.16	0.19	-53.4%
Malta	0.17	0.18	0.23	0.14	0.21	0.22	0.37	0.26	0.30	0.28	0.30	40.0%
Republic of Moldova	..	..	..	..	0.22	0.03	0.06	0.04	0.04	0.04	0.04	-79.8%
Montenegro ***	..	..	..	..	..	..	..	0.04	0.01	0.03	0.04	..
Romania	0.06	0.05	-	-	0.69	0.54	0.37	0.33	0.43	0.38	0.35	-49.3%
Russian Federation	..	..	..	..	26.37	13.99	13.27	15.27	18.49	19.04	19.57	-25.8%
Serbia ***	..	..	..	..	0.43	0.11	0.09	0.15	0.12	0.14	0.12	-72.9%
Tajikistan	..	..	..	..	0.05	0.02	0.01	0.03	0.09	0.09	0.10	120.0%
Turkmenistan	..	..	..	..	0.75	0.61	0.97	1.34	1.61	1.46	1.26	68.0%
Ukraine	..	..	..	..	6.11	0.47	0.78	1.11	0.82	0.73	0.91	-85.1%
Uzbekistan	..	..	..	..	-	-	-	-	-	-	-	-
Former Soviet Union ****	66.66	62.09	70.62	76.70	..	..	..	..	..	..	..	..
Former Yugoslavia ****	0.64	0.88	1.00	0.99	..	..	..	..	..	..	..	..
Non-OECD Europe and Eurasia *	**68.31**	**63.86**	**73.00**	**79.40**	**42.29**	**19.74**	**18.35**	**22.88**	**26.90**	**26.59**	**27.00**	**-36.1%**
Algeria	0.29	0.66	0.93	1.31	1.09	0.96	1.17	1.16	1.42	1.43	1.60	46.7%
Angola	0.23	0.31	0.25	0.99	1.03	1.17	1.42	0.56	0.63	0.65	0.68	-34.4%
Benin	0.02	0.01	0.03	0.06	0.05	0.07	0.07	0.03	0.47	0.49	0.51	912.5%
Botswana	..	..	..	0.01	0.03	0.02	0.02	0.03	0.05	0.05	0.06	63.6%
Cameroon	0.17	0.10	0.15	0.15	0.15	0.17	0.18	0.20	0.21	0.21	0.22	47.9%
Congo	-	0.05	0.11	0.09	0.08	0.05	0.10	0.14	0.19	0.18	0.19	150.0%
Dem. Rep. of Congo	0.28	0.24	0.37	0.40	0.32	0.35	0.24	0.50	0.46	0.46	0.48	48.4%
Côte d'Ivoire	0.13	0.21	0.26	0.28	0.27	0.26	0.37	0.28	0.18	0.17	0.18	-31.0%
Egypt	0.21	0.27	0.52	0.13	0.45	0.81	1.75	2.28	2.61	2.49	2.63	482.1%
Eritrea	..	..	..	..	..	0.02	0.03	0.03	0.00	0.00	0.00	..
Ethiopia	0.14	0.16	0.20	0.34	0.53	0.17	0.21	0.39	0.86	0.86	0.93	76.3%
Gabon	0.03	0.04	0.07	0.08	0.20	0.19	0.23	0.21	0.18	0.19	0.20	1.2%
Ghana	0.13	0.15	0.12	0.10	0.14	0.18	0.32	0.39	0.36	0.44	0.46	232.3%
Kenya	0.57	0.89	1.10	0.82	0.83	1.37	1.36	1.76	1.70	2.12	2.12	155.1%
Libya	0.27	0.53	0.89	1.05	0.63	0.91	1.33	0.51	0.61	0.16	0.66	4.0%
Mauritius	0.06	0.09	0.14	0.17	0.21	0.21	0.61	0.72	0.72	0.76	0.78	267.2%
Morocco	0.35	0.44	0.78	0.70	0.79	0.73	0.90	1.16	1.77	1.78	1.60	103.2%
Mozambique	0.12	0.05	0.08	0.09	0.13	0.06	0.13	0.14	0.20	0.19	0.21	58.5%
Namibia	..	..	..	..	..	0.10	0.13	0.03	0.12	0.12	0.13	..
Nigeria	0.24	0.70	1.14	1.33	0.95	1.25	0.58	0.70	0.51	0.57	0.55	-42.1%
Senegal	0.30	0.37	0.58	0.43	0.45	0.45	0.75	0.74	0.68	0.64	0.62	36.2%
South Africa	0.53	0.73	0.87	0.93	1.09	1.58	2.79	2.16	2.40	2.53	2.48	126.5%
Sudan	0.34	0.14	0.20	0.21	0.09	0.10	0.33	0.97	0.84	0.97	0.69	631.3%
United Rep. of Tanzania	0.08	0.20	0.17	0.13	0.22	0.19	0.18	0.26	0.33	0.36	0.38	73.2%
Togo	-	-	-	-	0.10	0.12	0.03	0.15	0.22	0.21	0.22	112.1%
Tunisia	0.39	0.38	0.56	0.30	0.57	0.74	0.85	0.65	0.75	0.72	0.86	52.2%
Zambia	0.04	0.14	0.23	0.12	0.19	0.10	0.13	0.16	0.09	0.10	0.15	-22.2%
Zimbabwe	0.08	0.19	0.21	0.33	0.25	0.35	0.36	0.03	0.03	0.03	0.03	-88.6%
Other Africa	0.39	0.63	0.73	0.71	0.78	0.82	1.22	1.41	1.53	1.59	1.66	112.3%
Africa	**5.38**	**7.68**	**10.71**	**11.28**	**11.63**	**13.48**	**17.77**	**17.77**	**20.12**	**20.46**	**21.27**	**82.9%**

* Includes Estonia and Slovenia prior to 1990.

** Please refer to Chapter 4, *Geographical Coverage*.

*** Serbia includes Kosovo from 1990 to 1999 and Montenegro from 1990 to 2004.

**** Prior to 1990, data for individual countries are not available separately; FSU includes Estonia and Former Yugoslavia includes Slovenia.

CO_2 emissions from international aviation bunkers

million tonnes of CO_2

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	% change 90-12
Bangladesh	0.06	0.08	0.15	0.22	0.27	0.30	0.38	0.80	0.91	1.06	0.98	262.8%
Brunei Darussalam	0.00	0.06	0.07	0.05	0.11	0.21	0.21	0.25	0.33	0.34	0.25	122.2%
Cambodia	..	..	..	..	..	0.03	0.04	0.05	0.08	0.08	0.09	..
India	1.68	1.98	2.49	3.21	3.71	4.60	4.97	7.28	11.22	12.23	11.65	214.2%
Indonesia	0.16	0.32	0.73	0.65	0.96	1.17	1.21	1.52	2.02	2.15	2.28	136.7%
DPR of Korea	-	-	-	-	-	-	-	-	-	-	-	-
Malaysia	0.42	0.74	0.77	0.86	1.88	3.44	4.67	5.96	7.07	7.58	7.49	299.2%
Mongolia	..	..	..	-	0.01	0.06	0.06	0.06	0.05	0.08	0.11	800.0%
Myanmar	0.03	0.02	0.03	0.03	0.02	0.02	0.05	0.03	0.06	0.06	0.11	466.6%
Nepal	0.01	0.02	0.04	0.06	0.05	0.11	0.17	0.19	0.26	0.28	0.30	500.0%
Pakistan	1.13	1.08	1.69	1.41	1.39	1.70	0.36	0.63	0.48	0.61	0.56	-59.6%
Philippines	0.70	0.82	0.66	1.02	1.01	1.16	1.42	2.12	2.93	3.17	3.21	218.8%
Singapore	0.70	1.32	2.71	3.19	5.63	7.81	11.89	13.45	17.02	18.33	20.30	260.4%
Sri Lanka	-	0.00	0.00	-	-	-	0.32	0.93	0.35	0.96	1.21	x
Chinese Taipei	1.48	1.62	1.66	0.92	1.79	4.09	5.38	6.46	6.25	6.24	6.55	265.5%
Thailand	1.26	2.17	2.39	3.12	5.58	7.51	8.27	10.17	11.15	12.02	12.05	115.7%
Viet Nam	6.88	2.60	-	-	-	0.12	0.30	0.94	2.01	2.13	2.25	x
Other Asia	0.39	0.27	0.33	0.47	0.51	0.33	0.61	0.83	0.90	0.99	1.07	107.2%
Asia (excl. China)	**14.90**	**13.12**	**13.71**	**15.20**	**22.93**	**32.67**	**40.28**	**51.68**	**63.07**	**68.31**	**70.45**	**207.2%**
People's Rep. of China	-	-	0.10	0.84	1.29	2.19	4.17	10.70	16.45	18.40	19.38	+
Hong Kong, China	1.41	1.83	2.24	2.55	5.62	9.22	8.31	14.71	16.19	17.39	17.16	205.3%
China	**1.41**	**1.83**	**2.35**	**3.39**	**6.91**	**11.41**	**12.48**	**25.41**	**32.64**	**35.79**	**36.55**	**428.7%**
Argentina	-	-	-	-	-	1.58	2.83	2.14	1.85	2.12	2.12	x
Bolivia	-	-	-	-	-	-	0.14	0.15	0.14	0.15	0.13	x
Brazil	-	-	0.61	0.74	1.41	2.06	2.00	3.30	5.78	6.36	6.61	367.8%
Colombia	0.59	0.92	1.31	1.31	1.56	2.14	1.89	1.83	2.34	2.52	2.76	77.2%
Costa Rica	-	-	-	-	0.01	0.31	0.36	0.57	0.49	0.51	0.51	+
Cuba	0.27	0.43	0.65	0.89	0.98	0.53	0.64	0.53	0.43	0.46	0.76	-22.8%
Dominican Republic	0.08	0.10	0.17	0.16	0.11	0.17	1.29	1.33	1.22	1.31	1.47	+
Ecuador	0.27	0.14	0.45	0.45	0.39	0.54	0.48	0.96	1.03	1.05	1.01	159.4%
El Salvador	0.03	0.05	0.06	0.11	0.11	0.16	0.22	0.24	0.34	0.35	0.38	233.3%
Guatemala	0.15	0.11	0.13	0.12	0.13	0.14	0.15	0.23	0.20	0.18	0.13	0.1%
Haiti	0.02	0.03	0.05	0.04	0.07	0.07	0.09	0.07	0.06	0.05	0.16	126.1%
Honduras	0.02	0.03	0.06	0.12	0.09	0.07	0.11	0.07	0.15	0.07	0.15	58.6%
Jamaica	0.42	0.33	0.30	0.39	0.46	0.52	0.53	0.60	0.59	0.57	0.56	21.1%
Netherlands Antilles	0.15	0.13	0.16	0.13	0.12	0.20	0.24	0.26	0.27	0.28	0.27	135.1%
Nicaragua	0.05	0.06	0.06	0.04	0.08	0.06	0.08	0.05	0.05	0.06	0.06	-19.1%
Panama	0.43	1.11	0.41	0.26	0.20	0.31	0.54	0.57	1.07	1.20	1.34	564.1%
Paraguay	0.03	0.04	0.06	0.06	0.03	0.03	0.04	0.05	0.07	0.07	0.08	164.3%
Peru	0.51	0.74	0.92	0.71	0.64	1.10	1.06	0.96	1.94	2.38	2.04	216.2%
Trinidad and Tobago	0.21	0.12	0.17	0.22	0.20	0.17	0.33	1.20	0.84	0.95	0.53	172.6%
Uruguay	-	-	-	-	-	-	0.12	0.12	0.23	0.28	0.28	x
Venezuela	0.32	0.32	1.02	0.81	1.02	1.00	0.94	2.03	1.88	0.42	1.93	89.0%
Other Non-OECD Americas	1.00	0.50	0.90	0.86	1.02	1.06	1.79	1.38	1.51	1.51	1.53	50.9%
Non-OECD Americas	**4.58**	**5.15**	**7.48**	**7.42**	**8.64**	**12.24**	**15.87**	**18.64**	**22.48**	**22.88**	**24.83**	**187.2%**
Bahrain	0.43	0.84	1.53	1.21	1.43	1.15	1.12	1.72	1.97	1.83	1.74	21.6%
Islamic Republic of Iran	7.02	7.01	2.15	1.64	1.48	1.97	2.71	2.69	3.80	3.55	3.52	137.4%
Iraq	0.24	0.81	1.05	0.58	0.98	1.26	1.63	1.98	2.87	2.87	1.15	16.8%
Jordan	0.12	0.18	0.57	0.61	0.66	0.75	0.75	0.96	1.08	0.99	1.08	62.8%
Kuwait	0.34	0.34	1.04	0.97	0.51	1.12	1.15	1.82	2.24	2.16	2.53	394.5%
Lebanon	0.28	0.23	0.15	0.32	0.16	0.66	0.40	0.46	0.70	0.71	0.65	314.0%
Oman	0.01	0.15	0.38	0.57	0.93	0.46	0.65	0.69	1.28	1.18	1.27	36.1%
Qatar	-	0.16	0.23	0.24	0.34	0.43	0.57	1.43	3.48	4.59	5.67	+
Saudi Arabia	0.47	1.40	3.45	4.57	4.79	5.69	5.85	5.44	6.46	6.63	6.86	43.1%
Syrian Arab Republic	0.24	0.65	0.72	0.87	0.87	0.62	0.41	0.33	0.09	0.09	0.07	-91.6%
United Arab Emirates	0.02	0.34	0.80	1.80	9.79	10.08	9.87	8.72	13.57	14.14	14.91	52.3%
Yemen	0.09	0.18	0.21	0.46	0.17	0.28	0.38	0.36	0.36	0.20	0.13	-27.2%
Middle East	**9.26**	**12.31**	**12.30**	**13.84**	**22.13**	**24.47**	**25.47**	**26.60**	**37.91**	**38.94**	**39.59**	**78.9%**

CO_2 emissions by sector in 2012 *

million tonnes of CO_2

	Total CO_2 emissions from fuel combustion	Electricity and heat production	Other energy ind. own use **	Manufacturing industries and construction	Transport	*of which: road*	Other sectors	*of which: residential*
World * **	**31 734.3**	**13 346.4**	**1 557.6**	**6 456.8**	**7 187.0**	**5 373.8**	**3 186.6**	**1 819.2**
Annex I Parties	*13 140.9*	*5 479.4*	*677.4*	*1 879.2*	*3 377.1*	*2 898.3*	*1 727.7*	*997.1*
Annex II Parties	*10 156.0*	*3 942.1*	*569.2*	*1 348.2*	*2 925.5*	*2 559.8*	*1 371.0*	*757.8*
North America	*5 607.9*	*2 183.8*	*341.5*	*606.9*	*1 838.6*	*1 556.2*	*637.0*	*340.5*
Europe	*2 906.4*	*985.6*	*153.3*	*446.6*	*768.1*	*721.9*	*552.8*	*350.8*
Asia Oceania	*1 641.7*	*772.7*	*74.4*	*294.7*	*318.8*	*281.8*	*181.2*	*66.5*
Annex I EIT	*2 680.0*	*1 422.1*	*97.2*	*476.2*	*399.1*	*290.9*	*285.2*	*200.5*
Non-Annex I Parties	*17 513.5*	*7 867.0*	*880.2*	*4 577.6*	*2 729.9*	*2 475.5*	*1 458.9*	*822.1*
Annex I Kyoto Parties	*7 157.0*	*3 150.9*	*321.3*	*1 199.0*	*1 474.5*	*1 284.4*	*1 011.4*	*612.8*
Non-OECD Total	**18 508.3**	**8 516.1**	**860.5**	**4 811.2**	**2 766.6**	**2 418.2**	**1 553.9**	**914.3**
OECD Total	**12 146.1**	**4 830.3**	**697.1**	**1 645.6**	**3 340.4**	**2 955.6**	**1 632.7**	**904.9**
Canada	533.7	97.2	58.5	111.5	171.4	143.2	95.1	39.0
Chile	77.8	33.7	2.8	12.9	22.2	20.1	6.2	3.6
Mexico	435.8	133.3	58.0	58.6	153.1	148.9	32.8	18.9
United States	5 074.1	2 086.6	283.0	495.4	1 667.3	1 413.0	541.9	301.6
OECD Americas	**6 121.4**	**2 350.7**	**402.3**	**678.4**	**2 014.0**	**1 725.2**	**676.0**	**363.0**
Australia	386.3	198.8	30.0	48.7	89.7	75.6	19.0	8.4
Israel	73.3	48.3	1.9	1.9	12.9	12.9	8.3	1.7
Japan	1 223.3	566.2	42.7	239.7	215.7	194.0	159.0	57.6
Korea	592.9	304.6	38.6	101.6	88.1	83.0	60.1	33.0
New Zealand	32.1	7.7	1.6	6.3	13.4	12.1	3.2	0.5
OECD Asia Oceania	**2 307.9**	**1 125.6**	**114.8**	**398.1**	**419.8**	**377.7**	**249.6**	**101.1**
Austria	64.7	14.8	7.3	12.4	21.3	20.6	8.9	6.7
Belgium	104.6	19.4	5.9	29.7	24.4	23.7	25.2	14.6
Czech Republic	107.8	59.6	2.3	18.1	16.1	15.5	11.6	7.0
Denmark	37.1	14.7	2.4	3.7	11.3	10.4	5.1	2.6
Estonia	16.3	12.3	0.2	1.0	2.2	2.1	0.7	0.2
Finland	49.4	20.5	3.7	8.6	11.7	10.9	5.0	1.5
France	333.9	46.3	14.1	60.7	123.0	117.8	89.8	50.8
Germany	755.3	334.4	24.6	111.7	147.2	142.1	137.3	92.8
Greece	77.5	41.8	3.6	7.0	16.3	13.9	8.8	6.6
Hungary	43.6	14.5	1.5	5.4	10.7	10.5	11.4	7.2
Iceland	1.8	0.0	-	0.5	0.8	0.8	0.6	0.0
Ireland	35.5	12.5	0.3	3.8	10.3	10.0	8.6	6.0
Italy	374.8	127.3	15.3	53.3	102.0	95.9	76.8	50.4
Luxembourg	10.2	1.1	-	0.9	6.6	6.5	1.6	0.9
Netherlands	173.8	53.5	11.4	40.4	32.5	31.7	35.9	17.7
Norway	36.2	2.3	10.3	7.1	13.2	9.4	3.3	0.4
Poland	293.8	154.6	7.2	33.8	45.6	44.4	52.5	33.1
Portugal	45.9	18.0	1.6	6.6	15.7	14.9	4.0	2.0
Slovak Republic	31.9	8.1	4.5	7.8	6.4	5.8	5.0	2.7
Slovenia	14.6	5.9	0.0	1.7	5.5	5.4	1.6	0.9
Spain	266.6	89.8	19.8	42.9	82.0	69.8	32.1	16.5
Sweden	40.4	7.4	2.7	8.2	20.0	19.3	2.1	0.2
Switzerland	41.3	2.9	0.8	5.4	17.0	16.7	15.2	10.0
Turkey	302.4	113.2	11.0	54.7	52.0	47.1	71.5	38.8
United Kingdom	457.5	178.9	29.4	43.8	112.9	107.5	92.4	71.0
OECD Europe	**3 716.8**	**1 353.9**	**180.0**	**569.1**	**906.7**	**852.8**	**707.1**	**440.7**
European Union - 28	*3 504.9*	*1 314.5*	*166.5*	*527.3*	*861.7*	*814.5*	*634.8*	*402.7*

* This table shows CO_2 emissions for the same sectors which are present throughout this publication. In particular, the emissions from electricity and heat and heat production are shown separately and not reallocated as in the table on pages 57-59.

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

*** World includes international bunkers in the transport sector.

CO_2 emissions by sector in 2012

million tonnes of CO_2

	Total CO_2 emissions from fuel combustion	Electricity and heat production	Other energy ind. own use	Manufacturing industries and construction	Transport	*of which: road*	Other sectors	*of which: residential*
Non-OECD Total	**18 508.3**	**8 516.1**	**860.5**	**4 811.2**	**2 766.6**	**2 418.2**	**1 553.9**	**914.3**
Albania	3.8	-	0.1	1.0	2.2	2.2	0.5	0.2
Armenia	5.4	1.4	-	0.7	1.3	1.3	2.0	1.2
Azerbaijan	29.3	11.7	2.3	2.6	6.4	5.9	6.3	4.8
Belarus	71.1	29.6	3.6	18.6	11.6	10.1	7.8	4.9
Bosnia and Herzegovina	21.2	14.5	0.4	1.8	3.2	3.2	1.5	0.5
Bulgaria	44.3	29.4	1.0	3.8	8.2	7.6	1.9	1.1
Croatia	17.2	4.0	1.7	3.0	5.6	5.2	2.9	1.7
Cyprus *	6.5	3.4	-	0.4	2.0	2.0	0.6	0.4
FYR of Macedonia	8.7	5.5	0.1	1.4	1.4	1.4	0.3	0.1
Georgia	6.8	1.1	0.2	1.3	2.4	2.3	1.7	1.2
Gibraltar	0.5	0.1	-	0.1	0.3	0.3	-	-
Kazakhstan	225.8	85.0	39.8	62.3	14.5	13.2	24.1	12.5
Kosovo	8.0	6.1	-	0.6	1.0	1.0	0.3	0.1
Kyrgyzstan	9.5	1.8	0.0	1.5	3.9	3.9	2.2	0.3
Latvia	7.0	2.0	-	1.1	2.7	2.4	1.2	0.5
Lithuania	13.3	3.0	1.6	3.2	4.3	4.0	1.3	0.7
Malta	2.5	2.0	-	0.0	0.5	0.5	0.1	0.1
Republic of Moldova	7.6	3.5	-	1.0	1.1	1.0	2.0	1.5
Montenegro	2.3	1.6	-	0.1	0.6	0.6	0.0	0.0
Romania	79.0	35.2	4.2	14.4	14.9	13.9	10.3	6.6
Russian Federation	1 659.0	932.1	62.9	293.5	235.2	139.0	135.2	98.6
Serbia	44.1	30.4	0.5	5.0	5.1	4.6	3.2	1.7
Tajikistan	2.7	0.0	-	-	0.3	0.3	2.4	-
Turkmenistan	63.8	18.0	5.3	5.5	6.9	3.5	28.1	-
Ukraine	281.1	131.8	6.3	71.0	30.1	24.8	41.8	35.2
Uzbekistan	111.1	36.5	3.8	19.5	7.8	4.2	43.7	33.4
Non-OECD Europe and Eurasia	**2 731.8**	**1 389.8**	**133.8**	**513.3**	**373.4**	**258.4**	**321.4**	**207.1**
Algeria	114.3	31.5	12.5	13.6	36.6	35.1	20.2	16.7
Angola	16.5	2.2	0.2	2.8	7.2	6.5	4.1	1.3
Benin	4.9	0.1	-	0.2	3.5	3.5	1.2	1.2
Botswana	4.5	0.4	-	1.4	2.2	2.1	0.6	0.1
Cameroon	5.4	1.3	0.4	0.4	2.9	2.8	0.4	0.4
Congo	2.2	0.3	-	0.1	1.6	1.6	0.1	0.1
Dem. Rep. of Congo	2.4	0.0	-	0.2	2.2	2.2	0.0	0.0
Côte d'Ivoire	7.8	3.4	0.2	1.0	2.4	2.1	0.9	0.4
Egypt	196.9	72.9	14.7	36.4	50.4	47.6	22.5	15.4
Eritrea	0.5	0.3	-	0.0	0.2	0.2	0.1	0.0
Ethiopia	7.9	0.0	-	3.2	3.2	3.1	1.4	0.8
Gabon	2.5	1.0	0.0	0.7	0.5	0.5	0.2	0.1
Ghana	12.8	3.0	0.2	1.8	6.7	6.2	1.1	0.6
Kenya	10.6	1.9	0.1	2.7	4.8	4.7	1.1	1.0
Libya	44.2	19.3	1.7	4.5	16.6	16.6	2.1	2.1
Mauritius	3.7	2.2	-	0.3	1.0	0.9	0.2	0.1
Morocco	51.8	19.0	1.3	7.6	14.5	14.5	9.5	3.9
Mozambique	2.6	0.0	0.0	0.5	1.9	1.7	0.2	0.1
Namibia	3.2	0.0	-	0.3	1.7	1.6	1.1	-
Nigeria	64.6	11.6	12.0	7.8	25.2	25.1	8.0	1.5
Senegal	5.6	2.1	0.0	1.1	2.1	2.0	0.3	0.3
South Africa	376.1	233.0	3.4	58.8	48.4	45.1	32.5	15.1
Sudan	14.5	1.9	0.2	2.3	8.6	8.6	1.5	0.6
United Rep. of Tanzania	8.9	2.8	-	0.9	4.8	4.8	0.4	0.3
Togo	1.6	0.0	-	0.2	1.2	1.2	0.2	0.2
Tunisia	23.0	8.3	0.1	5.0	6.3	5.6	3.4	1.7
Zambia	2.8	0.0	0.1	1.5	0.9	0.9	0.2	-
Zimbabwe	10.0	3.3	0.1	1.9	1.4	1.2	3.3	0.1
Other Africa	30.5	8.2	0.8	5.0	13.0	11.6	3.5	1.5
Africa	**1 032.4**	**430.2**	**48.0**	**162.2**	**271.9**	**259.5**	**120.0**	**65.7**

* Please refer to Chapter 4, *Geographical Coverage.*

CO_2 emissions by sector in 2012

million tonnes of CO_2

	Total CO_2 emissions from fuel combustion	Electricity and heat production	Other energy ind. own use	Manufacturing industries and construction	Transport	*of which: road*	Other sectors	*of which: residential*
Bangladesh	59.6	28.2	0.2	12.4	8.6	6.6	10.1	6.2
Brunei Darussalam	8.4	2.8	2.1	2.0	1.3	1.3	0.1	0.1
Cambodia	4.2	0.8	-	0.7	2.2	1.8	0.6	0.6
India	1 954.0	1 044.2	67.2	473.2	216.2	200.9	153.1	80.6
Indonesia	435.5	158.5	24.9	94.0	128.6	113.6	29.4	17.4
DPR of Korea	45.4	7.3	0.0	28.2	1.3	1.3	8.6	0.1
Malaysia	195.9	90.2	17.3	38.0	42.9	42.7	7.5	1.9
Mongolia	14.2	8.6	0.0	1.9	1.9	1.3	1.8	0.9
Myanmar	11.7	2.3	0.7	3.9	3.1	2.2	1.7	0.0
Nepal	4.9	0.0	-	1.7	2.1	2.1	1.1	0.4
Pakistan	137.4	40.1	1.5	39.3	36.9	34.3	19.6	16.1
Philippines	79.5	36.6	1.5	11.3	24.2	21.2	5.8	2.4
Singapore	49.7	22.2	6.0	14.1	6.9	6.3	0.6	0.2
Sri Lanka	15.9	6.5	0.0	1.1	7.2	7.0	1.0	0.4
Chinese Taipei	256.6	144.3	13.9	54.2	34.9	34.1	9.3	4.4
Thailand	256.7	83.4	21.9	69.5	60.9	60.2	21.0	6.3
Viet Nam	142.9	43.1	1.6	50.6	33.8	33.0	13.8	8.1
Other Asia	26.2	7.8	-	6.0	10.1	8.9	2.3	0.7
Asia (excl. China)	**3 698.5**	**1 727.0**	**159.0**	**902.1**	**623.2**	**578.6**	**287.3**	**146.7**
People's Rep. of China	8 205.9	4 104.3	300.6	2 546.1	702.9	563.1	552.0	310.4
Hong Kong, China	45.0	29.4	-	7.7	6.3	6.2	1.6	0.8
China	**8 250.8**	**4 133.7**	**300.6**	**2 553.7**	**709.2**	**569.4**	**553.6**	**311.2**
Argentina	188.5	53.5	17.5	33.9	48.3	43.3	35.2	23.0
Bolivia	16.3	3.3	1.4	1.8	6.3	6.0	3.5	1.3
Brazil	440.2	54.2	27.6	121.4	198.9	179.3	38.1	17.4
Colombia	67.4	7.7	7.6	15.6	27.6	26.4	8.9	3.8
Costa Rica	6.8	0.6	0.0	1.0	4.7	4.7	0.4	0.1
Cuba	28.8	16.5	0.6	8.0	2.0	1.8	1.7	0.6
Dominican Republic	19.8	9.4	0.0	2.3	6.6	5.6	1.5	1.3
Ecuador	33.1	7.2	1.7	4.7	16.0	15.3	3.5	2.7
El Salvador	6.2	1.4	0.0	1.0	3.1	3.1	0.6	0.6
Guatemala	10.5	2.4	0.1	1.7	5.5	5.5	0.8	0.7
Haiti	2.1	0.7	-	0.4	1.0	0.5	0.1	0.1
Honduras	8.2	2.8	-	1.3	3.3	3.3	0.9	0.2
Jamaica	7.1	2.7	-	2.2	1.7	1.3	0.5	0.1
Netherlands Antilles	4.8	0.9	1.2	0.9	1.6	1.6	0.2	0.2
Nicaragua	4.3	1.6	0.1	0.5	1.8	1.8	0.3	0.1
Panama	9.9	2.8	-	2.8	3.7	3.6	0.7	0.5
Paraguay	5.1	-	-	0.3	4.5	4.5	0.3	0.2
Peru	45.8	11.4	3.8	9.7	17.7	15.8	3.2	1.9
Trinidad and Tobago	37.1	6.2	8.1	19.4	3.1	2.8	0.3	0.3
Uruguay	8.4	2.9	0.3	0.8	3.3	3.3	1.1	0.4
Venezuela	178.3	33.6	26.9	58.5	52.3	52.3	6.9	5.2
Other Non-OECD Americas	19.1	9.7	-	0.7	5.9	4.9	2.9	0.9
Non-OECD Americas	**1 147.6**	**231.4**	**96.8**	**289.1**	**418.6**	**386.4**	**111.6**	**61.6**
Bahrain	28.8	18.7	3.8	2.9	3.2	3.1	0.2	0.2
Islamic Rep. of Iran	532.2	144.6	35.2	106.3	121.4	120.3	124.7	95.1
Iraq	119.0	56.0	4.5	10.3	36.7	36.7	11.5	11.5
Jordan	21.7	10.5	0.7	1.3	6.8	6.8	2.3	1.5
Kuwait	91.3	46.7	14.8	16.8	12.4	12.4	0.6	0.6
Lebanon	21.0	11.9	-	1.2	5.3	5.3	2.5	2.5
Oman	67.6	15.1	8.1	31.6	11.0	11.0	1.9	0.3
Qatar	75.8	17.1	30.0	17.8	10.5	10.5	0.3	0.3
Saudi Arabia	458.8	200.6	21.0	113.8	119.3	117.0	4.2	4.2
Syrian Arab Republic	40.0	18.2	0.9	6.0	9.6	9.4	5.4	3.2
United Arab Emirates	171.0	60.3	2.1	79.7	28.3	27.6	0.5	0.5
Yemen	20.0	4.3	1.1	3.1	5.8	5.8	5.7	1.8
Middle East	**1 647.1**	**603.9**	**122.2**	**390.7**	**370.3**	**365.9**	**160.0**	**121.9**

CO_2 emissions with electricity and heat allocated to consuming sectors * in 2012

million tonnes of CO_2

	Total CO_2 emissions from fuel combustion	Other energy ind. own use **	Manufacturing industries and construction	Transport	*of which: road*	Other sectors	*of which: residential*
World * **	**31 734.3**	**2 149.6**	**12 243.3**	**7 341.9**	**5 373.8**	**9 999.6**	**5 264.6**
Annex I Parties	*13 140.9*	*977.6*	*3 534.2*	*3 457.7*	*2 898.3*	*5 171.4*	*2 752.5*
Annex II Parties	*10 156.0*	*694.1*	*2 463.8*	*2 961.9*	*2 559.8*	*4 036.2*	*2 028.8*
North America	*5 607.9*	*412.1*	*1 123.6*	*1 843.0*	*1 556.2*	*2 229.2*	*1 098.8*
Europe	*2 906.4*	*188.3*	*805.3*	*785.2*	*721.9*	*1 127.6*	*632.5*
Asia Oceania	*1 641.7*	*93.7*	*534.9*	*333.7*	*281.8*	*679.4*	*297.5*
Annex I EIT	*2 680.0*	*271.4*	*958.6*	*442.8*	*290.9*	*1 007.2*	*659.7*
Non-Annex I Parties	*17 513.5*	*1 172.0*	*8 709.1*	*2 804.2*	*2 475.5*	*4 828.2*	*2 512.1*
Annex I Kyoto Parties	*7 157.0*	*547.3*	*2 270.7*	*1 549.7*	*1 284.4*	*2 789.3*	*1 575.0*
Non-OECD Total	**18 508.3**	**1 294.1**	**9 094.3**	**2 878.1**	**2 418.2**	**5 241.8**	**2 875.9**
OECD Total	**12 146.1**	**855.4**	**3 149.0**	**3 383.8**	**2 955.6**	**4 757.8**	**2 388.7**
Canada	533.7	63.9	146.6	172.1	143.2	151.1	66.6
Chile	77.8	3.2	35.5	22.5	20.1	16.7	9.0
Mexico	435.8	61.4	132.3	153.8	148.9	88.2	48.7
United States	5 074.1	348.2	977.0	1 670.9	1 413.0	2 078.1	1 032.2
OECD Americas	**6 121.4**	**476.7**	**1 291.4**	**2 019.3**	**1 725.2**	**2 334.1**	**1 156.5**
Australia	386.3	40.7	120.6	93.4	75.6	131.7	64.2
Israel	73.3	2.2	13.4	12.9	12.9	44.8	17.7
Japan	1 223.3	51.3	405.3	226.9	194.0	539.8	230.2
Korea	592.9	45.3	253.7	89.3	83.0	204.6	80.3
New Zealand	32.1	1.8	9.0	13.4	12.1	7.9	3.1
OECD Asia Oceania	**2 307.9**	**141.2**	**802.0**	**435.9**	**377.7**	**928.8**	**395.5**
Austria	64.7	7.5	17.8	21.9	20.6	17.5	11.4
Belgium	104.6	6.8	38.7	24.7	23.7	34.4	18.7
Czech Republic	107.8	6.6	38.6	17.6	15.5	45.0	25.1
Denmark	37.1	2.6	6.0	11.4	10.4	17.1	9.5
Estonia	16.3	0.7	3.4	2.3	2.1	10.0	5.7
Finland	49.4	4.0	17.3	11.8	10.9	16.3	8.0
France	333.9	16.0	71.9	124.2	117.8	121.9	67.3
Germany	755.3	33.0	255.5	153.3	142.1	313.4	181.7
Greece	77.5	4.8	15.9	16.4	13.9	40.4	21.7
Hungary	43.6	2.2	9.3	11.0	10.5	21.1	12.5
Iceland	1.8	0.0	0.5	0.8	0.8	0.6	0.0
Ireland	35.5	0.5	8.5	10.3	10.0	16.3	10.2
Italy	374.8	25.0	105.8	105.7	95.9	138.2	77.5
Luxembourg	10.2	-	1.4	6.6	6.5	2.3	1.1
Netherlands	173.8	15.2	58.6	33.2	31.7	66.8	28.5
Norway	36.2	10.4	7.9	13.3	9.4	4.6	1.1
Poland	293.8	22.8	72.4	47.9	44.4	150.6	89.8
Portugal	45.9	2.6	13.3	15.8	14.9	14.2	6.4
Slovak Republic	31.9	4.9	11.1	6.5	5.8	9.4	5.2
Slovenia	14.6	0.1	4.3	5.5	5.4	4.7	2.6
Spain	266.6	21.7	69.4	83.6	69.8	91.9	44.0
Sweden	40.4	2.8	10.6	20.1	19.3	6.9	3.1
Switzerland	41.3	0.8	6.3	17.1	16.7	17.0	10.9
Turkey	302.4	12.1	111.3	52.5	47.1	126.5	63.3
United Kingdom	457.5	34.5	99.9	115.0	107.5	208.1	131.4
OECD Europe	**3 716.8**	**237.5**	**1 055.6**	**928.7**	**852.8**	**1 494.9**	**836.7**
European Union - 28	*3 504.9*	*228.2*	*981.0*	*884.1*	*814.5*	*1 411.6*	*801.2*

* CO_2 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 54-56.

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

*** World includes international bunkers in the transport sector.

CO_2 emissions with electricity and heat allocated to consuming sectors in 2012

million tonnes of CO_2

	Total CO_2 emissions from fuel combustion	Other energy ind. own use	Manufacturing industries and construction	Transport	*of which: road*	Other sectors	*of which: residential*
Non-OECD Total	**18 508.3**	**1 294.1**	**9 094.3**	**2 878.1**	**2 418.2**	**5 241.8**	**2 875.9**
Albania	3.8	0.1	1.0	2.2	2.2	0.5	0.2
Armenia	5.4	-	1.0	1.3	1.3	3.1	1.7
Azerbaijan	29.3	4.1	4.4	6.7	5.9	14.1	9.2
Belarus	71.1	6.1	28.1	12.0	10.1	24.9	14.7
Bosnia and Herzegovina	21.2	0.8	6.6	3.3	3.2	10.5	6.9
Bulgaria	44.3	3.2	13.8	8.4	7.6	19.0	11.5
Croatia	17.2	1.8	3.8	5.7	5.2	6.0	3.5
Cyprus *	6.5	0.0	0.8	2.0	2.0	3.6	1.7
FYR of Macedonia	8.7	0.2	3.0	1.4	1.4	4.1	2.7
Georgia	6.8	0.2	1.7	2.5	2.3	2.4	1.6
Gibraltar	0.5	-	0.1	0.3	0.3	0.1	-
Kazakhstan	225.8	47.5	103.2	16.3	13.2	58.9	31.2
Kosovo	8.0	0.0	2.3	1.0	1.0	4.7	3.5
Kyrgyzstan	9.5	0.0	1.8	3.9	3.9	3.8	1.3
Latvia	7.0	-	1.4	2.8	2.4	2.8	1.4
Lithuania	13.3	1.8	4.0	4.3	4.0	3.3	2.0
Malta	2.5	-	0.6	0.5	0.5	1.5	0.7
Republic of Moldova	7.6	0.1	2.2	1.1	1.0	4.3	3.0
Montenegro	2.3	-	1.0	0.6	0.6	0.7	0.6
Romania	79.0	7.2	27.1	15.5	13.9	29.1	19.0
Russian Federation	1 659.0	195.4	620.3	269.0	139.0	574.4	391.4
Serbia	44.1	1.2	13.2	5.5	4.6	24.2	17.6
Tajikistan	2.7	0.0	0.0	0.3	0.3	2.4	0.0
Turkmenistan	63.8	7.6	10.0	7.3	3.5	38.9	2.7
Ukraine	281.1	18.8	121.2	34.2	24.8	106.9	75.4
Uzbekistan	111.1	4.5	27.8	8.5	4.2	70.4	37.3
Non-OECD Europe and Eurasia	**2 731.8**	**300.5**	**1 000.3**	**416.5**	**258.4**	**1 014.5**	**640.8**
Algeria	114.3	13.0	25.0	37.2	35.1	39.2	27.9
Angola	16.5	0.2	3.5	7.2	6.5	5.5	2.8
Benin	4.9	-	0.2	3.5	3.5	1.3	1.3
Botswana	4.5	-	1.5	2.2	2.1	0.8	0.2
Cameroon	5.4	0.4	1.1	2.9	2.8	1.0	0.7
Congo	2.2	-	0.3	1.6	1.6	0.3	0.3
Dem. Rep. of Congo	2.4	-	0.2	2.2	2.2	0.0	0.0
Côte d'Ivoire	7.8	0.2	2.0	2.4	2.1	3.3	2.0
Egypt	196.9	14.7	57.1	50.6	47.6	74.4	46.4
Eritrea	0.5	-	0.1	0.2	0.2	0.3	0.2
Ethiopia	7.9	-	3.2	3.2	3.1	1.5	0.8
Gabon	2.5	0.1	1.0	0.5	0.5	0.9	0.6
Ghana	12.8	0.2	3.3	6.7	6.2	2.6	1.7
Kenya	10.6	0.1	3.7	4.8	4.7	2.0	1.5
Libya	44.2	1.7	5.5	16.6	16.6	20.4	5.2
Mauritius	3.7	0.0	1.1	1.0	0.9	1.6	0.8
Morocco	51.8	2.0	15.6	14.7	14.5	19.6	10.0
Mozambique	2.6	0.0	0.5	1.9	1.7	0.2	0.1
Namibia	3.2	-	0.3	1.7	1.6	1.1	-
Nigeria	64.6	12.1	9.6	25.2	25.1	17.7	8.2
Senegal	5.6	0.0	1.7	2.1	2.0	1.9	1.0
South Africa	376.1	16.7	189.5	52.7	45.1	117.1	58.3
Sudan	14.5	0.2	2.6	8.6	8.6	3.1	1.6
United Rep. of Tanzania	8.9	0.0	1.6	4.8	4.8	2.5	1.6
Togo	1.6	-	0.2	1.2	1.2	0.2	0.2
Tunisia	23.0	0.1	7.9	6.4	5.6	8.6	4.2
Zambia	2.8	0.1	1.6	0.9	0.9	0.2	0.0
Zimbabwe	10.0	0.1	3.3	1.4	1.2	5.3	1.3
Other Africa	30.5	0.9	6.8	13.0	11.6	9.9	4.5
Africa	**1 032.4**	**62.9**	**349.8**	**277.3**	**259.5**	**342.5**	**183.2**

* Please refer to Chapter 4, *Geographical Coverage.*

CO_2 emissions with electricity and heat allocated to consuming sectors in 2012

million tonnes of CO_2

	Total CO_2 emissions from fuel combustion	Other energy ind. own use	Manufacturing industries and construction	Transport	*of which: road*	Other sectors	*of which: residential*
Bangladesh	59.6	0.2	27.9	8.6	6.6	22.8	15.8
Brunei Darussalam	8.4	2.4	2.2	1.3	1.3	2.5	1.2
Cambodia	4.2	-	0.8	2.2	1.8	1.2	1.0
India	1 954.0	67.2	934.2	234.8	200.9	717.9	310.0
Indonesia	435.5	24.9	148.9	128.6	113.6	133.1	83.1
DPR of Korea	45.4	0.0	31.8	1.3	1.3	12.2	0.1
Malaysia	195.9	17.3	80.3	43.1	42.7	55.1	20.4
Mongolia	14.2	0.0	4.9	2.0	1.3	7.3	4.1
Myanmar	11.7	0.7	4.6	3.1	2.2	3.3	1.0
Nepal	4.9	-	1.7	2.1	2.1	1.1	0.4
Pakistan	137.4	1.5	50.9	36.9	34.3	48.0	35.0
Philippines	79.5	1.5	23.7	24.3	21.2	30.0	14.6
Singapore	49.7	6.0	22.9	8.1	6.3	12.7	3.5
Sri Lanka	15.9	0.0	3.3	7.2	7.0	5.3	3.0
Chinese Taipei	256.6	16.4	136.0	35.7	34.1	68.5	32.0
Thailand	256.7	21.9	104.0	60.9	60.2	69.8	25.2
Viet Nam	142.9	1.6	75.9	33.8	33.0	31.6	22.0
Other Asia	26.2	-	8.9	10.1	8.9	7.2	2.9
Asia (excl. China)	**3 698.5**	**161.8**	**1 663.0**	**644.1**	**578.6**	**1 229.5**	**575.1**
People's Rep. of China	8 205.9	530.7	5 172.6	743.6	563.1	1 758.9	965.7
Hong Kong, China	45.0	-	9.8	6.3	6.2	28.9	8.6
China	**8 250.8**	**530.7**	**5 182.4**	**749.8**	**569.4**	**1 787.9**	**974.3**
Argentina	188.5	17.5	56.5	48.6	43.3	65.9	40.3
Bolivia	16.3	1.4	2.7	6.3	6.0	5.9	2.5
Brazil	440.2	29.7	144.5	199.2	179.3	66.8	30.3
Colombia	67.4	7.6	18.0	27.6	26.4	14.2	7.0
Costa Rica	6.8	0.0	1.1	4.7	4.7	0.9	0.4
Cuba	28.8	0.6	12.5	2.3	1.8	13.5	8.9
Dominican Republic	19.8	0.0	6.5	6.6	5.6	6.6	3.9
Ecuador	33.1	1.7	7.8	16.0	15.3	7.6	4.8
El Salvador	6.2	0.0	1.6	3.1	3.1	1.4	1.0
Guatemala	10.5	0.1	2.7	5.5	5.5	2.2	1.5
Haiti	2.1	-	0.6	1.0	0.5	0.5	0.3
Honduras	8.2	-	2.0	3.3	3.3	2.9	1.3
Jamaica	7.1	-	3.1	1.7	1.3	2.4	1.0
Netherlands Antilles	4.8	1.2	1.4	1.6	1.6	0.6	0.2
Nicaragua	4.3	0.1	1.1	1.8	1.8	1.3	0.6
Panama	9.9	-	3.0	3.7	3.6	3.2	1.4
Paraguay	5.1	-	0.3	4.5	4.5	0.3	0.2
Peru	45.8	3.8	15.7	17.8	15.8	8.6	4.6
Trinidad and Tobago	37.1	8.1	23.2	3.1	2.8	2.8	2.1
Uruguay	8.4	0.3	1.6	3.3	3.3	3.2	1.6
Venezuela	178.3	27.7	73.2	52.5	52.3	24.9	14.7
Other Non-OECD Americas	19.1	-	5.6	6.0	4.9	7.4	4.2
Non-OECD Americas	**1 147.6**	**99.7**	**384.8**	**419.8**	**386.4**	**243.2**	**132.7**
Bahrain	28.8	3.8	12.9	3.2	3.1	9.0	5.3
Islamic Rep. of Iran	532.2	36.7	157.9	121.7	120.3	215.8	139.1
Iraq	119.0	4.5	20.2	36.7	36.7	57.6	28.0
Jordan	21.7	0.8	3.8	6.8	6.8	10.3	6.1
Kuwait	91.3	21.3	16.8	12.4	12.4	40.7	26.6
Lebanon	21.0	-	4.4	5.3	5.3	11.4	7.1
Oman	67.6	8.1	34.1	11.0	11.0	14.5	7.6
Qatar	75.8	30.0	23.4	10.5	10.5	11.9	5.6
Saudi Arabia	458.8	29.2	139.9	119.3	117.0	170.5	104.7
Syrian Arab Republic	40.0	0.9	12.1	9.6	9.4	17.5	11.5
United Arab Emirates	171.0	2.1	85.4	28.3	27.6	55.2	23.8
Yemen	20.0	1.1	3.2	5.8	5.8	9.9	4.4
Middle East	**1 647.1**	**138.5**	**514.0**	**370.5**	**365.9**	**624.1**	**369.8**

Total primary energy supply

petajoules

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	% change 90-12
World *	**231 440**	**259 119**	**301 894**	**323 797**	**367 612**	**386 688**	**422 003**	**481 776**	**539 712**	**549 683**	**559 818**	**52.3%**
Annex I Parties	*..*	*..*	*..*	*..*	*233 715*	*229 402*	*241 467*	*250 659*	*245 232*	*241 585*	*239 476*	*2.5%*
Annex II Parties	*130 355*	*138 414*	*153 268*	*154 070*	*167 908*	*180 281*	*194 914*	*201 109*	*193 137*	*187 913*	*185 322*	*10.4%*
North America	*72 382*	*76 179*	*83 594*	*82 355*	*88 912*	*96 216*	*105 710*	*108 418*	*103 276*	*102 331*	*100 137*	*12.6%*
Europe	*44 325*	*46 578*	*51 959*	*53 015*	*56 453*	*58 865*	*62 232*	*65 443*	*63 082*	*60 335*	*60 084*	*6.4%*
Asia Oceania	*13 648*	*15 658*	*17 715*	*18 699*	*22 543*	*25 200*	*26 971*	*27 249*	*26 778*	*25 247*	*25 101*	*11.3%*
Annex I EIT	*..*	*..*	*..*	*..*	*63 570*	*46 513*	*43 345*	*45 987*	*47 652*	*48 939*	*49 231*	*-22.6%*
Non-Annex I Parties	*..*	*..*	*..*	*..*	*125 483*	*147 652*	*169 135*	*217 752*	*279 423*	*292 736*	*305 682*	*143.6%*
Annex I Kyoto Parties	*..*	*..*	*..*	*..*	*140 662*	*129 542*	*131 519*	*137 559*	*136 362*	*133 293*	*133 139*	*-5.3%*
Intl. marine bunkers	**4 538**	**4 372**	**4 584**	**3 930**	**4 792**	**5 561**	**6 430**	**7 445**	**8 590**	**8 669**	**7 910**	**65.1%**
Intl. aviation bunkers	**2 368**	**2 432**	**2 828**	**3 146**	**3 622**	**4 073**	**4 971**	**5 919**	**6 468**	**6 692**	**6 751**	**86.4%**
Non-OECD Total **	**83 347**	**100 862**	**124 179**	**144 119**	**169 859**	**173 076**	**189 048**	**237 731**	**298 565**	**312 387**	**325 363**	**91.5%**
OECD Total ***	**141 188**	**151 453**	**170 304**	**172 602**	**189 339**	**203 978**	**221 554**	**230 680**	**226 090**	**221 935**	**219 795**	**16.1%**
Canada	5 918	6 948	8 036	8 080	8 732	9 662	10 530	11 335	10 522	10 592	10 514	20.4%
Chile	364	320	397	401	587	768	1 054	1 187	1 291	1 410	1 558	165.6%
Mexico	1 799	2 476	3 982	4 547	5 129	5 440	6 063	7 063	7 380	7 687	7 888	53.8%
United States	66 464	69 231	75 558	74 275	80 179	86 554	95 180	97 082	92 754	91 739	89 623	11.8%
OECD Americas	**74 546**	**78 974**	**87 973**	**87 304**	**94 627**	**102 424**	**112 827**	**116 668**	**111 947**	**111 428**	**109 583**	**15.8%**
Australia	2 161	2 528	2 914	3 037	3 616	3 881	4 526	4 751	5 128	5 145	5 371	48.5%
Israel	240	294	328	317	480	649	763	774	971	970	1 016	111.7%
Japan	11 201	12 772	14 424	15 194	18 390	20 696	21 730	21 789	20 884	19 341	18 936	3.0%
Korea	711	1 024	1 727	2 225	3 890	6 061	7 878	8 804	10 467	10 905	11 030	183.5%
New Zealand	286	358	376	469	537	623	715	708	766	761	794	47.8%
OECD Asia Oceania	**14 599**	**16 976**	**19 770**	**21 241**	**26 913**	**31 910**	**35 612**	**36 827**	**38 216**	**37 122**	**37 147**	**38.0%**
Austria	788	842	969	967	1 040	1 120	1 195	1 414	1 429	1 388	1 386	33.3%
Belgium	1 660	1 772	1 958	1 847	2 022	2 251	2 452	2 460	2 535	2 484	2 343	15.9%
Czech Republic	1 900	1 829	1 966	2 062	2 074	1 737	1 716	1 881	1 863	1 803	1 786	-13.9%
Denmark	775	732	801	808	727	812	780	792	815	753	726	-0.1%
Estonia	..	..	..	..	409	218	197	218	235	236	231	-43.5%
Finland	761	825	1 030	1 082	1 188	1 211	1 352	1 436	1 529	1 458	1 394	17.3%
France	6 639	6 907	8 029	8 534	9 379	9 925	10 550	11 331	10 934	10 534	10 565	12.6%
Germany	12 772	13 126	14 954	14 955	14 700	14 081	14 084	14 103	13 710	13 018	13 085	-11.0%
Greece	364	492	627	735	898	949	1 134	1 266	1 156	1 120	1 112	23.8%
Hungary	797	959	1 187	1 246	1 205	1 082	1 047	1 153	1 075	1 046	983	-18.5%
Iceland	38	46	63	74	87	94	130	146	225	240	238	172.7%
Ireland	281	278	345	361	415	445	572	601	598	553	555	33.7%
Italy	4 413	4 889	5 478	5 414	6 136	6 662	7 181	7 693	7 138	7 010	6 649	8.4%
Luxembourg	170	158	149	128	142	132	140	183	177	175	171	20.8%
Netherlands	2 130	2 471	2 695	2 539	2 750	2 962	3 066	3 282	3 493	3 241	3 290	19.6%
Norway	557	611	767	836	879	981	1 092	1 121	1 355	1 172	1 222	39.0%
Poland	3 606	4 314	5 301	5 221	4 317	4 165	3 731	3 870	4 213	4 236	4 097	-5.1%
Portugal	263	322	418	459	703	845	1 030	1 108	984	956	896	27.5%
Slovak Republic	597	702	831	868	893	744	743	788	746	726	697	-21.9%
Slovenia	..	..	..	..	239	254	269	305	303	305	293	22.5%
Spain	1 784	2 407	2 834	2 969	3 771	4 220	5 102	5 942	5 343	5 258	5 232	38.7%
Sweden	1 509	1 634	1 695	1 977	1 976	2 107	1 991	2 159	2 131	2 087	2 100	6.3%
Switzerland	686	719	839	924	1 020	1 009	1 047	1 086	1 097	1 062	1 072	5.1%
Turkey	818	1 120	1 317	1 646	2 207	2 578	3 180	3 526	4 408	4 698	4 894	121.7%
United Kingdom	8 737	8 347	8 308	8 407	8 621	9 057	9 335	9 321	8 433	7 826	8 048	-6.6%
OECD Europe ***	**52 044**	**55 503**	**62 561**	**64 058**	**67 799**	**69 644**	**73 115**	**77 186**	**75 926**	**73 385**	**73 065**	**7.8%**
European Union - 28	*..*	*..*	*..*	*..*	*68 858*	*68 849*	*70 868*	*74 819*	*72 043*	*69 487*	*68 814*	*-0.1%*

* Total world includes non-OECD total, OECD total as well as international marine bunkers and international aviation bunkers.
** Includes Estonia and Slovenia prior to 1990.
*** Excludes Estonia and Slovenia prior to 1990.

Total primary energy supply

petajoules

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	% change 90-12
Non-OECD Total *	**83 347**	**100 862**	**124 179**	**144 119**	**169 859**	**173 076**	**189 048**	**237 731**	**298 565**	**312 387**	**325 363**	**91.5%**
Albania	72	83	129	114	112	56	74	91	88	94	87	-22.4%
Armenia	..	..	..	..	323	69	84	105	104	114	124	-61.5%
Azerbaijan	..	..	..	..	949	582	473	562	485	526	573	-39.6%
Belarus	..	..	..	..	1 905	1 036	1 029	1 120	1 151	1 229	1 277	-33.0%
Bosnia and Herzegovina	..	..	..	..	294	63	182	211	270	297	279	-5.0%
Bulgaria	797	973	1 189	1 283	1 182	964	782	833	749	804	768	-35.0%
Croatia	..	..	..	..	378	295	326	373	359	353	331	-12.3%
Cyprus **	25	24	36	39	57	71	89	93	102	99	93	63.1%
FYR of Macedonia	..	..	..	..	104	105	112	119	121	130	124	19.8%
Georgia	..	..	..	..	520	156	120	119	131	148	155	-70.2%
Gibraltar	1	1	2	2	2	4	5	6	7	7	7	200.5%
Kazakhstan	..	..	..	..	3 075	2 187	1 494	2 130	2 894	3 238	3 134	1.9%
Kosovo ***	..	..	..	..	..	..	65	81	104	106	99	..
Kyrgyzstan	..	..	..	..	313	100	97	108	115	139	173	-44.8%
Latvia	..	..	..	..	329	192	160	190	194	178	185	-43.8%
Lithuania	..	..	..	..	673	365	299	370	295	306	309	-54.1%
Malta	9	9	13	14	29	30	28	37	36	35	28	-3.5%
Republic of Moldova	..	..	..	..	414	198	121	146	143	139	137	-66.9%
Montenegro ***	..	..	..	..	..	..	..	45	49	47	44	..
Romania	1 764	2 169	2 731	2 719	2 606	1 951	1 517	1 616	1 467	1 498	1 462	-43.9%
Russian Federation	..	..	..	..	36 810	26 655	25 927	27 286	29 456	30 920	31 677	-13.9%
Serbia ***	..	..	..	..	825	577	575	672	650	678	605	-26.6%
Tajikistan	..	..	..	..	222	93	90	98	91	91	95	-57.3%
Turkmenistan	..	..	..	..	733	573	623	802	949	1 035	1 071	46.0%
Ukraine	..	..	..	..	10 550	6 854	5 602	5 982	5 545	5 299	5 136	-51.3%
Uzbekistan	..	..	..	..	1 941	1 786	2 125	1 966	1 804	1 977	2 022	4.1%
Former Soviet Union ****	32 169	39 351	46 453	52 248	..	..	..	..	..	..	..	..
Former Yugoslavia ****	918	1 068	1 411	1 722	..	..	..	..	..	..	..	..
Non-OECD Europe and Eurasia *	**35 753**	**43 678**	**51 963**	**58 141**	**64 347**	**44 961**	**41 999**	**45 163**	**47 360**	**49 486**	**49 997**	**-22.3%**
Algeria	145	231	469	743	929	1 009	1 130	1 354	1 679	1 752	1 940	108.8%
Angola	161	173	191	209	246	268	314	382	568	579	598	142.8%
Benin	46	52	57	65	70	77	83	105	153	158	164	135.7%
Botswana	..	..	..	36	51	61	75	79	91	90	91	77.6%
Cameroon	113	127	153	187	209	232	264	295	292	284	292	40.3%
Congo	21	23	26	32	32	32	34	45	64	70	72	120.9%
Dem. Rep. of Congo	280	313	354	417	494	537	583	699	832	883	861	74.2%
Côte d'Ivoire	103	124	150	155	182	216	284	403	423	486	528	190.2%
Egypt	327	410	634	1 077	1 353	1 474	1 703	2 577	3 049	3 196	3 275	141.9%
Eritrea	..	..	..	..	..	42	30	32	31	32	33	..
Ethiopia	534	590	641	739	881	1 044	1 210	1 410	1 722	1 818	1 905	116.2%
Gabon	45	54	58	57	49	56	62	72	88	91	93	87.3%
Ghana	125	153	168	182	222	271	319	329	388	401	424	91.5%
Kenya	220	252	307	362	446	507	588	678	829	849	860	92.8%
Libya	66	153	288	418	468	586	666	746	861	568	718	53.5%
Mauritius	15	17	18	19	28	33	42	49	55	55	56	101.2%
Morocco	124	166	226	259	319	391	462	590	709	762	787	146.7%
Mozambique	289	280	281	267	248	263	300	355	414	430	437	76.2%
Namibia	..	..	..	..	..	37	42	52	63	64	68	..
Nigeria	1 389	1 614	2 046	2 390	2 781	3 085	3 602	4 409	5 023	5 314	5 599	101.3%
Senegal	52	58	65	65	71	78	100	117	164	174	173	144.8%
South Africa	1 902	2 260	2 737	3 617	3 808	4 337	4 575	5 373	5 973	5 941	5 862	53.9%
Sudan	294	313	350	396	445	502	557	627	699	699	697	56.7%
United Rep. of Tanzania	317	321	336	367	407	461	564	718	847	883	928	127.7%
Togo	30	33	37	41	53	66	88	99	130	131	131	147.2%
Tunisia	69	91	137	174	207	243	306	348	422	397	414	100.0%
Zambia	151	168	194	211	228	244	262	305	347	361	380	66.6%
Zimbabwe	228	248	272	310	389	412	419	403	381	391	401	3.0%
Other Africa	945	1 033	1 173	1 299	1 758	1 926	2 129	2 379	2 724	2 809	2 896	64.7%
Africa	**7 993**	**9 256**	**11 370**	**14 093**	**16 375**	**18 489**	**20 795**	**25 031**	**29 023**	**29 670**	**30 681**	**87.4%**

* Includes Estonia and Slovenia prior to 1990.

** Please refer to Chapter 4, *Geographical Coverage*.

*** Serbia includes Kosovo from 1990 to 1999 and Montenegro from 1990 to 2004.

**** Prior to 1990, data for individual countries are not available separately; FSU includes Estonia and Former Yugoslavia includes Slovenia.

Total primary energy supply

petajoules

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	% change 90-12
Bangladesh	238	282	352	417	533	666	764	953	1 281	1 327	1 389	160.5%
Brunei Darussalam	7	31	57	75	72	94	100	93	136	162	162	123.7%
Cambodia	..	..	..	..	..	119	143	144	210	223	230	..
India	6 551	7 441	8 589	10 667	13 247	16 071	19 110	22 598	30 251	31 477	32 997	149.1%
Indonesia	1 467	1 722	2 332	2 756	4 129	5 477	6 516	7 527	8 768	8 597	8 942	116.6%
DPR of Korea	813	932	1 271	1 507	1 391	920	826	893	791	586	590	-57.6%
Malaysia	253	306	506	663	928	1 467	2 072	2 787	3 168	3 312	3 401	266.5%
Mongolia	..	..	..	131	143	113	100	110	144	151	165	15.7%
Myanmar	331	351	394	460	447	494	538	620	587	598	639	43.0%
Nepal	153	169	191	213	242	281	339	382	428	442	423	74.5%
Pakistan	713	852	1 037	1 351	1 794	2 242	2 682	3 193	3 534	3 555	3 591	100.1%
Philippines	642	764	938	995	1 202	1 408	1 674	1 627	1 696	1 693	1 782	48.2%
Singapore	114	155	215	283	483	789	782	903	1 064	1 084	1 049	117.4%
Sri Lanka	159	172	190	209	231	251	349	377	406	432	472	104.3%
Chinese Taipei	419	599	1 170	1 391	2 002	2 663	3 554	4 289	4 589	4 510	4 383	118.9%
Thailand	573	726	921	1 036	1 756	2 593	3 026	4 145	4 916	4 988	5 299	201.7%
Viet Nam	554	582	603	668	748	916	1 203	1 736	2 467	2 547	2 715	263.0%
Other Asia	237	272	324	269	289	289	345	398	515	556	590	104.3%
Asia (excl. China)	**13 225**	**15 357**	**19 090**	**23 092**	**29 637**	**36 853**	**44 123**	**52 775**	**64 949**	**66 241**	**68 817**	**132.2%**
People's Rep. of China	16 393	20 257	25 051	28 959	36 454	43 729	48 624	74 344	105 777	115 008	121 178	232.4%
Hong Kong, China	126	152	194	275	362	446	567	538	591	635	613	69.2%
China	**16 519**	**20 409**	**25 245**	**29 234**	**36 816**	**44 175**	**49 191**	**74 882**	**106 368**	**115 643**	**121 791**	**230.8%**
Argentina	1 409	1 505	1 751	1 731	1 929	2 264	2 578	2 804	3 297	3 346	3 359	74.1%
Bolivia	43	62	102	106	109	158	243	266	314	329	356	226.0%
Brazil	2 921	3 815	4 767	5 416	5 870	6 745	7 848	9 016	11 131	11 306	11 795	100.9%
Colombia	580	646	741	837	1 014	1 156	1 081	1 134	1 306	1 308	1 323	30.4%
Costa Rica	34	42	53	53	70	98	120	162	195	195	198	181.8%
Cuba	452	506	627	654	741	466	541	453	482	469	476	-35.7%
Dominican Republic	98	129	144	141	165	215	290	277	298	302	316	91.4%
Ecuador	94	132	209	235	265	330	369	425	561	582	604	127.8%
El Salvador	73	95	105	110	103	141	166	189	177	180	183	77.2%
Guatemala	114	140	159	158	185	223	295	327	427	456	464	151.0%
Haiti	63	72	87	79	65	71	84	143	159	165	170	160.9%
Honduras	58	64	78	84	100	118	125	172	191	200	213	113.3%
Jamaica	84	112	95	72	117	134	160	156	113	120	117	0.8%
Netherlands Antilles	229	161	164	75	61	55	89	88	69	86	86	41.5%
Nicaragua	51	62	64	81	85	95	105	120	124	128	139	64.0%
Panama	69	71	59	65	62	84	108	121	155	170	174	178.5%
Paraguay	57	62	87	95	129	164	161	166	201	204	209	62.6%
Peru	382	434	471	443	408	459	512	571	804	863	909	123.0%
Trinidad and Tobago	110	97	160	213	251	257	412	675	840	826	805	221.1%
Uruguay	101	102	111	84	94	108	129	124	171	185	194	105.5%
Venezuela	819	1 048	1 480	1 654	1 825	2 163	2 365	2 595	3 151	2 955	3 198	75.2%
Other Non-OECD Americas	203	252	242	151	213	210	236	256	292	292	296	39.0%
Non-OECD Americas	**8 046**	**9 608**	**11 759**	**12 535**	**13 861**	**15 713**	**18 018**	**20 238**	**24 456**	**24 668**	**25 584**	**84.6%**
Bahrain	59	89	117	174	219	269	333	434	521	522	528	140.9%
Islamic Republic of Iran	695	1 115	1 594	2 252	2 903	4 238	5 151	7 229	8 688	8 893	9 194	216.7%
Iraq	173	255	404	578	825	1 446	1 086	1 125	1 573	1 672	1 886	128.6%
Jordan	21	32	64	110	137	180	204	280	297	296	319	132.8%
Kuwait	256	271	438	587	381	623	787	1 105	1 348	1 362	1 449	279.9%
Lebanon	77	91	104	98	82	185	206	211	267	266	300	267.2%
Oman	10	10	48	88	177	255	322	465	934	1 069	1 102	523.8%
Qatar	39	85	139	236	273	341	457	698	1 174	1 340	1 588	481.0%
Saudi Arabia	308	367	1 302	1 926	2 429	3 538	4 097	5 131	7 762	7 454	8 384	245.2%
Syrian Arab Republic	100	128	187	328	438	507	660	871	907	837	629	43.6%
United Arab Emirates	42	81	303	574	855	1 159	1 421	1 820	2 586	2 679	2 825	230.3%
Yemen	31	29	53	73	105	143	199	276	350	290	290	175.5%
Middle East	**1 811**	**2 554**	**4 752**	**7 024**	**8 824**	**12 884**	**14 922**	**19 644**	**26 407**	**26 678**	**28 494**	**222.9%**

Total primary energy supply

million tonnes of oil equivalent

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	% change 90-12
World *	**5 527.8**	**6 189.0**	**7 210.6**	**7 733.8**	**8 780.3**	**9 235.9**	**10 079.4**	**11 507.0**	**12 890.8**	**13 128.9**	**13 371.0**	**52.3%**
Annex I Parties	*..*	*..*	*..*	*..*	*5 582.2*	*5 479.2*	*5 767.3*	*5 986.9*	*5 857.3*	*5 770.2*	*5 719.8*	*2.5%*
Annex II Parties	*3 113.5*	*3 306.0*	*3 660.7*	*3 679.9*	*4 010.4*	*4 305.9*	*4 655.4*	*4 803.4*	*4 613.0*	*4 488.2*	*4 426.3*	*10.4%*
North America	*1 728.8*	*1 819.5*	*1 996.6*	*1 967.0*	*2 123.6*	*2 298.1*	*2 524.8*	*2 589.5*	*2 466.7*	*2 444.1*	*2 391.7*	*12.6%*
Europe	*1 058.7*	*1 112.5*	*1 241.0*	*1 266.2*	*1 348.4*	*1 406.0*	*1 486.4*	*1 563.1*	*1 506.7*	*1 441.1*	*1 435.1*	*6.4%*
Asia Oceania	*326.0*	*374.0*	*423.1*	*446.6*	*538.4*	*601.9*	*644.2*	*650.8*	*639.6*	*603.0*	*599.5*	*11.3%*
Annex I EIT	*..*	*..*	*..*	*..*	*1 518.4*	*1 110.9*	*1 035.3*	*1 098.4*	*1 138.2*	*1 168.9*	*1 175.9*	*-22.6%*
Non-Annex I Parties	*..*	*..*	*..*	*..*	*2 997.1*	*3 526.6*	*4 039.7*	*5 200.9*	*6 673.9*	*6 991.9*	*7 301.1*	*143.6%*
Annex I Kyoto Parties	*..*	*..*	*..*	*..*	*3 359.7*	*3 094.1*	*3 141.3*	*3 285.5*	*3 256.9*	*3 183.6*	*3 180.0*	*-5.3%*
Intl. marine bunkers	**108.4**	**104.4**	**109.5**	**93.9**	**114.5**	**132.8**	**153.6**	**177.8**	**205.2**	**207.1**	**188.9**	**65.1%**
Intl. aviation bunkers	**56.5**	**58.1**	**67.5**	**75.1**	**86.5**	**97.3**	**118.7**	**141.4**	**154.5**	**159.8**	**161.2**	**86.4%**
**Non-OECD Total ** **	**1 990.7**	**2 409.0**	**2 966.0**	**3 442.2**	**4 057.0**	**4 133.9**	**4 515.3**	**5 678.1**	**7 131.1**	**7 461.2**	**7 771.2**	**91.5%**
OECD Total * **	**3 372.2**	**3 617.4**	**4 067.6**	**4 122.5**	**4 522.3**	**4 871.9**	**5 291.7**	**5 509.7**	**5 400.1**	**5 300.8**	**5 249.7**	**16.1%**
Canada	141.4	165.9	191.9	193.0	208.6	230.8	251.5	270.7	251.3	253.0	251.1	20.4%
Chile	8.7	7.6	9.5	9.6	14.0	18.3	25.2	28.4	30.8	33.7	37.2	165.6%
Mexico	43.0	59.1	95.1	108.6	122.5	129.9	144.8	168.7	176.3	183.6	188.4	53.8%
United States	1 587.5	1 653.5	1 804.7	1 774.0	1 915.1	2 067.3	2 273.3	2 318.8	2 215.4	2 191.1	2 140.6	11.8%
OECD Americas	**1 780.5**	**1 886.3**	**2 101.2**	**2 085.2**	**2 260.1**	**2 446.4**	**2 694.8**	**2 786.6**	**2 673.8**	**2 661.4**	**2 617.3**	**15.8%**
Australia	51.6	60.4	69.6	72.5	86.4	92.7	108.1	113.5	122.5	122.9	128.3	48.5%
Israel	5.7	7.0	7.8	7.6	11.5	15.5	18.2	18.5	23.2	23.2	24.3	111.7%
Japan	267.5	305.1	344.5	362.9	439.2	494.3	519.0	520.4	498.8	462.0	452.3	3.0%
Korea	17.0	24.5	41.3	53.1	92.9	144.8	188.2	210.3	250.0	260.5	263.4	183.5%
New Zealand	6.8	8.5	9.0	11.2	12.8	14.9	17.1	16.9	18.3	18.2	19.0	47.8%
OECD Asia Oceania	**348.7**	**405.5**	**472.2**	**507.3**	**642.8**	**762.2**	**850.6**	**879.6**	**912.8**	**886.6**	**887.2**	**38.0%**
Austria	18.8	20.1	23.2	23.1	24.8	26.8	28.5	33.8	34.1	33.2	33.1	33.3%
Belgium	39.7	42.3	46.8	44.1	48.3	53.8	58.6	58.7	60.5	59.3	55.9	15.9%
Czech Republic	45.4	43.7	47.0	49.2	49.5	41.5	41.0	44.9	44.5	43.1	42.6	-13.9%
Denmark	18.5	17.5	19.1	19.3	17.4	19.4	18.6	18.9	19.5	18.0	17.3	-0.1%
Estonia	..	..	..	..	9.8	5.2	4.7	5.2	5.6	5.6	5.5	-43.5%
Finland	18.2	19.7	24.6	25.8	28.4	28.9	32.3	34.3	36.5	34.8	33.3	17.3%
France	158.6	165.0	191.8	203.8	224.0	237.1	252.0	270.6	261.2	251.6	252.3	12.6%
Germany	305.0	313.5	357.2	357.2	351.1	336.3	336.4	336.8	327.5	310.9	312.5	-11.0%
Greece	8.7	11.7	15.0	17.6	21.4	22.7	27.1	30.2	27.6	26.7	26.6	23.8%
Hungary	19.0	22.9	28.3	29.8	28.8	25.9	25.0	27.5	25.7	25.0	23.5	-18.5%
Iceland	0.9	1.1	1.5	1.8	2.1	2.3	3.1	3.5	5.4	5.7	5.7	172.7%
Ireland	6.7	6.6	8.2	8.6	9.9	10.6	13.7	14.3	14.3	13.2	13.2	33.7%
Italy	105.4	116.8	130.8	129.3	146.6	159.1	171.5	183.7	170.5	167.4	158.8	8.4%
Luxembourg	4.1	3.8	3.6	3.1	3.4	3.1	3.3	4.4	4.2	4.2	4.1	20.8%
Netherlands	50.9	59.0	64.4	60.6	65.7	70.7	73.2	78.4	83.4	77.4	78.6	19.6%
Norway	13.3	14.6	18.3	20.0	21.0	23.4	26.1	26.8	32.4	28.0	29.2	39.0%
Poland	86.1	103.0	126.6	124.7	103.1	99.5	89.1	92.4	100.6	101.2	97.9	-5.1%
Portugal	6.3	7.7	10.0	11.0	16.8	20.2	24.6	26.5	23.5	22.8	21.4	27.5%
Slovak Republic	14.3	16.8	19.8	20.7	21.3	17.8	17.7	18.8	17.8	17.4	16.6	-21.9%
Slovenia	..	..	..	..	5.7	6.1	6.4	7.3	7.2	7.3	7.0	22.5%
Spain	42.6	57.5	67.7	70.9	90.1	100.8	121.9	141.9	127.6	125.6	125.0	38.7%
Sweden	36.0	39.0	40.5	47.2	47.2	50.3	47.6	51.6	50.9	49.8	50.2	6.3%
Switzerland	16.4	17.2	20.0	22.1	24.4	24.1	25.0	25.9	26.2	25.4	25.6	5.1%
Turkey	19.5	26.8	31.4	39.3	52.7	61.6	76.0	84.2	105.3	112.2	116.9	121.7%
United Kingdom	208.7	199.4	198.4	200.8	205.9	216.3	223.0	222.6	201.4	186.9	192.2	-6.6%
OECD Europe * **	**1 243.0**	**1 325.7**	**1 494.2**	**1 530.0**	**1 619.3**	**1 663.4**	**1 746.3**	**1 843.6**	**1 813.5**	**1 752.8**	**1 745.1**	**7.8%**
European Union - 28	*..*	*..*	*..*	*..*	*1 644.7*	*1 644.4*	*1 692.7*	*1 787.0*	*1 720.7*	*1 659.7*	*1 643.6*	*-0.1%*

* Total world includes non-OECD total, OECD total as well as international marine bunkers and international aviation bunkers.
** Includes Estonia and Slovenia prior to 1990.
*** Excludes Estonia and Slovenia prior to 1990.

Total primary energy supply

million tonnes of oil equivalent

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	% change 90-12
Non-OECD Total *	**1 990.7**	**2 409.0**	**2 966.0**	**3 442.2**	**4 057.0**	**4 133.9**	**4 515.3**	**5 678.1**	**7 131.1**	**7 461.2**	**7 771.2**	**91.5%**
Albania	1.7	2.0	3.1	2.7	2.7	1.3	1.8	2.2	2.1	2.2	2.1	-22.4%
Armenia	..	..	..	..	7.7	1.6	2.0	2.5	2.5	2.7	3.0	-61.5%
Azerbaijan	..	..	..	..	22.7	13.9	11.3	13.4	11.6	12.6	13.7	-39.6%
Belarus	..	..	..	..	45.5	24.7	24.6	26.8	27.5	29.3	30.5	-33.0%
Bosnia and Herzegovina	..	..	..	..	7.0	1.5	4.3	5.0	6.4	7.1	6.7	-5.0%
Bulgaria	19.0	23.2	28.4	30.6	28.2	23.0	18.7	19.9	17.9	19.2	18.3	-35.0%
Croatia	..	..	..	..	9.0	7.1	7.8	8.9	8.6	8.4	7.9	-12.3%
Cyprus **	0.6	0.6	0.9	0.9	1.4	1.7	2.1	2.2	2.4	2.4	2.2	63.1%
FYR of Macedonia	..	..	..	..	2.5	2.5	2.7	2.8	2.9	3.1	3.0	19.8%
Georgia	..	..	..	..	12.4	3.7	2.9	2.8	3.1	3.5	3.7	-70.2%
Gibraltar	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.2	0.2	200.7%
Kazakhstan	..	..	..	..	73.4	52.2	35.7	50.9	69.1	77.3	74.9	1.9%
Kosovo ***	..	..	..	..	..	..	1.5	1.9	2.5	2.5	2.4	..
Kyrgyzstan	..	..	..	..	7.5	2.4	2.3	2.6	2.8	3.3	4.1	-44.8%
Latvia	..	..	..	..	7.9	4.6	3.8	4.5	4.6	4.3	4.4	-43.8%
Lithuania	..	..	..	..	16.1	8.7	7.1	8.8	7.0	7.3	7.4	-54.1%
Malta	0.2	0.2	0.3	0.3	0.7	0.7	0.7	0.9	0.8	0.8	0.7	-3.5%
Republic of Moldova	..	..	..	..	9.9	4.7	2.9	3.5	3.4	3.3	3.3	-66.9%
Montenegro ***	..	..	..	..	..	..	..	1.1	1.2	1.1	1.1	..
Romania	42.1	51.8	65.2	64.9	62.3	46.6	36.2	38.6	35.0	35.8	34.9	-43.9%
Russian Federation	..	..	..	..	879.2	636.6	619.3	651.7	703.5	738.5	756.6	-13.9%
Serbia ***	..	..	..	..	19.7	13.8	13.7	16.1	15.5	16.2	14.5	-26.6%
Tajikistan	..	..	..	..	5.3	2.2	2.1	2.3	2.2	2.2	2.3	-57.3%
Turkmenistan	..	..	..	..	17.5	13.7	14.9	19.2	22.7	24.7	25.6	46.0%
Ukraine	..	..	..	..	252.0	163.7	133.8	142.9	132.4	126.6	122.7	-51.3%
Uzbekistan	..	..	..	..	46.4	42.7	50.8	47.0	43.1	47.2	48.3	4.1%
Former Soviet Union ****	768.3	939.9	1 109.5	1 247.9	..	..	..	..	..	..	..	..
Former Yugoslavia ****	21.9	25.5	33.7	41.1	..	..	..	..	..	..	..	..
Non-OECD Europe and Eurasia *	**853.9**	**1 043.2**	**1 241.1**	**1 388.7**	**1 536.9**	**1 073.9**	**1 003.1**	**1 078.7**	**1 131.2**	**1 182.0**	**1 194.2**	**-22.3%**
Algeria	3.5	5.5	11.2	17.7	22.2	24.1	27.0	32.3	40.1	41.9	46.3	108.8%
Angola	3.9	4.1	4.6	5.0	5.9	6.4	7.5	9.1	13.6	13.8	14.3	142.8%
Benin	1.1	1.2	1.4	1.5	1.7	1.8	2.0	2.5	3.7	3.8	3.9	135.7%
Botswana	..	..	..	0.9	1.2	1.4	1.8	1.9	2.2	2.1	2.2	77.6%
Cameroon	2.7	3.0	3.7	4.5	5.0	5.5	6.3	7.1	7.0	6.8	7.0	40.2%
Congo	0.5	0.6	0.6	0.8	0.8	0.8	0.8	1.1	1.5	1.7	1.7	120.9%
Dem. Rep. of Congo	6.7	7.5	8.5	10.0	11.8	12.8	13.9	16.7	19.9	21.1	20.6	74.2%
Côte d'Ivoire	2.5	3.0	3.6	3.7	4.3	5.2	6.8	9.6	10.1	11.6	12.6	190.2%
Egypt	7.8	9.8	15.1	25.7	32.3	35.2	40.7	61.6	72.8	76.3	78.2	141.9%
Eritrea	..	..	..	..	..	1.0	0.7	0.8	0.7	0.8	0.8	..
Ethiopia	12.8	14.1	15.3	17.7	21.0	24.9	28.9	33.7	41.1	43.4	45.5	116.2%
Gabon	1.1	1.3	1.4	1.4	1.2	1.3	1.5	1.7	2.1	2.2	2.2	87.3%
Ghana	3.0	3.7	4.0	4.4	5.3	6.5	7.6	7.9	9.3	9.6	10.1	91.5%
Kenya	5.3	6.0	7.3	8.6	10.7	12.1	14.1	16.2	19.8	20.3	20.5	92.8%
Libya	1.6	3.7	6.9	10.0	11.2	14.0	15.9	17.8	20.6	13.6	17.1	53.5%
Mauritius	0.4	0.4	0.4	0.4	0.7	0.8	1.0	1.2	1.3	1.3	1.3	101.2%
Morocco	3.0	4.0	5.4	6.2	7.6	9.3	11.0	14.1	16.9	18.2	18.8	146.7%
Mozambique	6.9	6.7	6.7	6.4	5.9	6.3	7.2	8.5	9.9	10.3	10.4	76.2%
Namibia	..	..	..	..	..	0.9	1.0	1.3	1.5	1.5	1.6	..
Nigeria	33.2	38.6	48.9	57.1	66.4	73.7	86.0	105.3	120.0	126.9	133.7	101.3%
Senegal	1.2	1.4	1.6	1.6	1.7	1.9	2.4	2.8	3.9	4.2	4.1	144.8%
South Africa	45.4	54.0	65.4	86.4	91.0	103.6	109.3	128.3	142.7	141.9	140.0	53.9%
Sudan	7.0	7.5	8.4	9.5	10.6	12.0	13.3	15.0	16.7	16.7	16.7	56.7%
United Rep. of Tanzania	7.6	7.7	8.0	8.8	9.7	11.0	13.5	17.2	20.2	21.1	22.2	127.7%
Togo	0.7	0.8	0.9	1.0	1.3	1.6	2.1	2.4	3.1	3.1	3.1	147.2%
Tunisia	1.7	2.2	3.3	4.2	4.9	5.8	7.3	8.3	10.1	9.5	9.9	100.0%
Zambia	3.6	4.0	4.6	5.0	5.4	5.8	6.2	7.3	8.3	8.6	9.1	66.6%
Zimbabwe	5.4	5.9	6.5	7.4	9.3	9.8	10.0	9.6	9.1	9.3	9.6	3.0%
Other Africa	22.6	24.7	28.0	31.0	42.0	46.0	50.9	56.8	65.1	67.1	69.2	64.7%
Africa	**190.9**	**221.1**	**271.6**	**336.6**	**391.1**	**441.6**	**496.7**	**597.9**	**693.2**	**708.7**	**732.8**	**87.4%**

* Includes Estonia and Slovenia prior to 1990.

** Please refer to Chapter 4, *Geographical Coverage*.

*** Serbia includes Kosovo from 1990 to 1999 and Montenegro from 1990 to 2004.

**** Prior to 1990, data for individual countries are not available separately; FSU includes Estonia and Former Yugoslavia includes Slovenia.

Total primary energy supply

million tonnes of oil equivalent

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	% change 90-12
Bangladesh	5.7	6.7	8.4	9.9	12.7	15.9	18.2	22.8	30.6	31.7	33.2	160.5%
Brunei Darussalam	0.2	0.7	1.3	1.8	1.7	2.2	2.4	2.2	3.2	3.9	3.9	123.7%
Cambodia	..	..	..	..	..	2.8	3.4	3.4	5.0	5.3	5.5	..
India	156.5	177.7	205.2	254.8	316.4	383.9	456.4	539.7	722.5	751.8	788.1	149.1%
Indonesia	35.0	41.1	55.7	65.8	98.6	130.8	155.6	179.8	209.4	205.3	213.6	116.6%
DPR of Korea	19.4	22.3	30.4	36.0	33.2	22.0	19.7	21.3	18.9	14.0	14.1	-57.6%
Malaysia	6.1	7.3	12.1	15.8	22.2	35.0	49.5	66.6	75.7	79.1	81.2	266.5%
Mongolia	..	..	..	3.1	3.4	2.7	2.4	2.6	3.4	3.6	3.9	15.7%
Myanmar	7.9	8.4	9.4	11.0	10.7	11.8	12.8	14.8	14.0	14.3	15.3	43.0%
Nepal	3.7	4.0	4.6	5.1	5.8	6.7	8.1	9.1	10.2	10.6	10.1	74.5%
Pakistan	17.0	20.3	24.8	32.3	42.9	53.5	64.1	76.3	84.4	84.9	85.8	100.1%
Philippines	15.3	18.3	22.4	23.8	28.7	33.6	40.0	38.9	40.5	40.4	42.6	48.2%
Singapore	2.7	3.7	5.1	6.8	11.5	18.8	18.7	21.6	25.4	25.9	25.1	117.4%
Sri Lanka	3.8	4.1	4.5	5.0	5.5	6.0	8.3	9.0	9.7	10.3	11.3	104.3%
Chinese Taipei	10.0	14.3	27.9	33.2	47.8	63.6	84.9	102.5	109.6	107.7	104.7	118.9%
Thailand	13.7	17.3	22.0	24.7	41.9	61.9	72.3	99.0	117.4	119.1	126.6	201.7%
Viet Nam	13.2	13.9	14.4	16.0	17.9	21.9	28.7	41.5	58.9	60.8	64.9	263.0%
Other Asia	5.7	6.5	7.7	6.4	6.9	6.9	8.2	9.5	12.3	13.3	14.1	104.3%
Asia (excl. China)	**315.9**	**366.8**	**455.9**	**551.5**	**707.9**	**880.2**	**1 053.9**	**1 260.5**	**1 551.3**	**1 582.1**	**1 643.7**	**132.2%**
People's Rep. of China	391.6	483.8	598.3	691.7	870.7	1 044.5	1 161.4	1 775.7	2 526.4	2 746.9	2 894.3	232.4%
Hong Kong, China	3.0	3.6	4.6	6.6	8.6	10.6	13.6	12.8	14.1	15.2	14.6	69.2%
China	**394.6**	**487.5**	**603.0**	**698.2**	**879.3**	**1 055.1**	**1 174.9**	**1 788.5**	**2 540.6**	**2 762.1**	**2 908.9**	**230.8%**
Argentina	33.7	35.9	41.8	41.3	46.1	54.1	61.6	67.0	78.7	79.9	80.2	74.1%
Bolivia	1.0	1.5	2.4	2.5	2.6	3.8	5.8	6.4	7.5	7.8	8.5	226.0%
Brazil	69.8	91.1	113.9	129.4	140.2	161.1	187.4	215.3	265.9	270.0	281.7	100.9%
Colombia	13.9	15.4	17.7	20.0	24.2	27.6	25.8	27.1	31.2	31.3	31.6	30.4%
Costa Rica	0.8	1.0	1.3	1.3	1.7	2.3	2.9	3.9	4.6	4.7	4.7	181.8%
Cuba	10.8	12.1	15.0	15.6	17.7	11.1	12.9	10.8	11.5	11.2	11.4	-35.7%
Dominican Republic	2.3	3.1	3.4	3.4	3.9	5.1	6.9	6.6	7.1	7.2	7.6	91.4%
Ecuador	2.2	3.1	5.0	5.6	6.3	7.9	8.8	10.2	13.4	13.9	14.4	127.8%
El Salvador	1.8	2.3	2.5	2.6	2.5	3.4	4.0	4.5	4.2	4.3	4.4	77.2%
Guatemala	2.7	3.3	3.8	3.8	4.4	5.3	7.0	7.8	10.2	10.9	11.1	151.0%
Haiti	1.5	1.7	2.1	1.9	1.6	1.7	2.0	3.4	3.8	3.9	4.1	160.9%
Honduras	1.4	1.5	1.9	2.0	2.4	2.8	3.0	4.1	4.6	4.8	5.1	113.3%
Jamaica	2.0	2.7	2.3	1.7	2.8	3.2	3.8	3.7	2.7	2.9	2.8	0.8%
Netherlands Antilles	5.5	3.8	3.9	1.8	1.5	1.3	2.1	2.1	1.6	2.1	2.1	41.5%
Nicaragua	1.2	1.5	1.5	1.9	2.0	2.3	2.5	2.9	3.0	3.1	3.3	64.0%
Panama	1.7	1.7	1.4	1.6	1.5	2.0	2.6	2.9	3.7	4.1	4.2	178.5%
Paraguay	1.4	1.5	2.1	2.3	3.1	3.9	3.9	4.0	4.8	4.9	5.0	62.6%
Peru	9.1	10.4	11.3	10.6	9.7	11.0	12.2	13.6	19.2	20.6	21.7	123.0%
Trinidad and Tobago	2.6	2.3	3.8	5.1	6.0	6.1	9.8	16.1	20.1	19.7	19.2	221.1%
Uruguay	2.4	2.4	2.6	2.0	2.3	2.6	3.1	3.0	4.1	4.4	4.6	105.5%
Venezuela	19.6	25.0	35.4	39.5	43.6	51.7	56.5	62.0	75.3	70.6	76.4	75.2%
Other Non-OECD Americas	4.9	6.0	5.8	3.6	5.1	5.0	5.6	6.1	7.0	7.0	7.1	39.0%
Non-OECD Americas	**192.2**	**229.5**	**280.9**	**299.4**	**331.1**	**375.3**	**430.4**	**483.4**	**584.1**	**589.2**	**611.1**	**84.6%**
Bahrain	1.4	2.1	2.8	4.2	5.2	6.4	7.9	10.4	12.5	12.5	12.6	140.9%
Islamic Republic of Iran	16.6	26.6	38.1	53.8	69.3	101.2	123.0	172.7	207.5	212.4	219.6	216.7%
Iraq	4.1	6.1	9.7	13.8	19.7	34.5	25.9	26.9	37.6	39.9	45.0	128.6%
Jordan	0.5	0.8	1.5	2.6	3.3	4.3	4.9	6.7	7.1	7.1	7.6	132.8%
Kuwait	6.1	6.5	10.5	14.0	9.1	14.9	18.8	26.4	32.2	32.5	34.6	279.9%
Lebanon	1.8	2.2	2.5	2.3	2.0	4.4	4.9	5.0	6.4	6.3	7.2	267.2%
Oman	0.2	0.2	1.2	2.1	4.2	6.1	7.7	11.1	22.3	25.5	26.3	523.8%
Qatar	0.9	2.0	3.3	5.6	6.5	8.1	10.9	16.7	28.0	32.0	37.9	481.0%
Saudi Arabia	7.4	8.8	31.1	46.0	58.0	84.5	97.9	122.6	185.4	178.0	200.3	245.2%
Syrian Arab Republic	2.4	3.1	4.5	7.8	10.5	12.1	15.8	20.8	21.7	20.0	15.0	43.6%
United Arab Emirates	1.0	1.9	7.2	13.7	20.4	27.7	33.9	43.5	61.8	64.0	67.5	230.3%
Yemen	0.7	0.7	1.3	1.7	2.5	3.4	4.7	6.6	8.3	6.9	6.9	175.5%
Middle East	**43.2**	**61.0**	**113.5**	**167.8**	**210.8**	**307.7**	**356.4**	**469.2**	**630.7**	**637.2**	**680.6**	**222.9%**

GDP using exchange rates

billion 2005 US dollars

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	% change 90-12
World	**16 254.4**	**18 832.4**	**22 741.3**	**25 801.1**	**30 530.3**	**33 922.0**	**40 184.6**	**46 339.3**	**51 855.3**	**53 327.4**	**54 587.9**	**78.8%**
Annex I Parties	*..*	*..*	*..*	*..*	*25 234.4*	*27 289.5*	*31 879.8*	*35 597.0*	*37 253.7*	*37 894.6*	*38 401.3*	*52.2%*
Annex II Parties	*12 831.5*	*14 487.8*	*17 186.0*	*19 606.0*	*23 323.8*	*25 771.0*	*30 143.2*	*33 371.0*	*34 649.8*	*35 164.5*	*35 617.9*	*52.7%*
North America	*4 900.1*	*5 445.7*	*6 523.7*	*7 656.6*	*9 003.5*	*10 192.4*	*12 585.7*	*14 259.6*	*14 835.7*	*15 118.2*	*15 524.7*	*72.4%*
Europe	*5 965.2*	*6 719.4*	*7 820.5*	*8 475.6*	*9 944.8*	*10 832.2*	*12 512.7*	*13 663.3*	*14 175.4*	*14 394.4*	*14 348.0*	*44.3%*
Asia Oceania	*1 966.2*	*2 322.8*	*2 841.8*	*3 473.8*	*4 375.5*	*4 746.3*	*5 044.8*	*5 448.0*	*5 638.6*	*5 651.9*	*5 745.1*	*31.3%*
Annex I EIT	*..*	*..*	*..*	*..*	*1 637.5*	*1 198.3*	*1 344.4*	*1 737.1*	*2 032.2*	*2 108.6*	*2 148.9*	*31.2%*
Non-Annex I Parties	*..*	*..*	*..*	*..*	*5 295.9*	*6 632.5*	*8 304.8*	*10 742.3*	*14 601.6*	*15 432.8*	*16 186.6*	*205.6%*
Annex I Kyoto Parties	*..*	*..*	*..*	*..*	*15 934.1*	*16 761.3*	*18 880.8*	*20 818.2*	*21 803.3*	*22 109.7*	*22 196.0*	*39.3%*
Non-OECD Total *	**2 640.7**	**3 350.8**	**4 318.6**	**4 765.3**	**5 454.8**	**6 088.6**	**7 430.1**	**9 871.8**	**13 592.4**	**14 384.3**	**15 098.0**	**176.8%**
OECD Total **	**13 613.7**	**15 481.6**	**18 422.7**	**21 035.8**	**25 075.5**	**27 833.4**	**32 754.5**	**36 467.6**	**38 262.9**	**38 943.1**	**39 490.0**	**57.5%**
Canada	417.4	497.0	596.4	678.5	774.6	842.8	1 026.9	1 164.2	1 240.1	1 271.4	1 293.1	66.9%
Chile	29.4	25.2	35.8	37.4	51.8	78.6	98.4	123.1	147.9	156.5	165.2	218.9%
Mexico	257.5	339.4	468.4	515.6	560.2	604.4	788.2	864.8	952.0	988.6	1 027.5	83.4%
United States	4 482.7	4 948.6	5 927.3	6 978.1	8 228.9	9 349.6	11 558.8	13 095.4	13 595.6	13 846.8	14 231.6	72.9%
OECD Americas	**5 187.0**	**5 810.3**	**7 027.9**	**8 209.6**	**9 615.6**	**10 875.4**	**13 472.3**	**15 247.4**	**15 935.6**	**16 263.3**	**16 717.5**	**73.9%**
Australia	261.4	290.2	336.3	388.8	454.8	532.9	643.1	762.4	870.1	901.6	925.0	103.4%
Israel	32.6	42.4	49.0	57.2	70.9	98.1	124.8	139.1	175.8	183.9	190.0	168.2%
Japan	1 656.4	1 975.5	2 448.1	3 018.2	3 851.3	4 132.2	4 308.1	4 571.9	4 648.5	4 627.4	4 694.4	21.9%
Korea	66.7	95.7	142.5	219.5	360.3	526.7	678.3	844.9	1 019.1	1 056.6	1 078.2	199.3%
New Zealand	48.4	57.1	57.5	66.8	69.5	81.2	93.6	113.8	120.0	122.9	125.8	81.0%
OECD Asia Oceania	**2 065.4**	**2 460.9**	**3 033.2**	**3 750.5**	**4 806.7**	**5 371.1**	**5 847.9**	**6 432.0**	**6 833.5**	**6 892.4**	**7 013.3**	**45.9%**
Austria	127.1	146.7	172.4	185.4	215.3	240.3	280.6	305.0	325.6	334.8	337.7	56.9%
Belgium	170.8	196.2	229.3	240.4	279.8	302.9	348.6	377.4	400.4	407.4	406.8	45.4%
Czech Republic	70.0	79.9	88.9	93.4	101.0	97.2	106.4	130.1	148.5	151.2	149.6	48.1%
Denmark	125.9	133.3	152.6	174.4	187.4	210.3	242.1	257.7	256.8	259.6	258.6	38.0%
Estonia	..	..	..	..	10.1	7.1	9.8	13.9	13.9	15.2	15.8	56.2%
Finland	73.3	88.8	103.7	118.8	140.2	136.0	171.9	195.8	204.2	209.9	207.8	48.2%
France	942.1	1 086.9	1 283.6	1 385.9	1 623.8	1 725.6	1 973.0	2 136.6	2 204.4	2 249.1	2 249.4	38.5%
Germany	1 365.1	1 492.0	1 760.6	1 884.1	2 216.3	2 448.7	2 685.2	2 766.3	2 954.4	3 052.8	3 073.9	38.7%
Greece	100.4	119.0	145.9	146.9	156.3	166.2	197.0	240.1	241.0	223.8	208.2	33.3%
Hungary	51.3	65.7	78.3	85.4	87.7	77.8	90.0	110.3	109.1	110.8	108.9	24.2%
Iceland	4.8	5.8	7.8	8.8	10.3	10.4	13.2	16.3	16.4	16.8	17.1	66.1%
Ireland	35.6	43.7	54.6	61.9	78.0	97.8	159.6	202.6	203.3	207.7	208.0	166.9%
Italy	802.3	920.5	1 144.3	1 244.0	1 450.7	1 547.7	1 701.0	1 786.3	1 763.9	1 771.8	1 729.9	19.2%
Luxembourg	9.5	10.7	11.9	13.5	19.3	23.5	31.6	37.6	40.7	41.5	41.4	114.2%
Netherlands	269.5	305.1	351.2	371.3	437.8	490.4	598.0	638.5	683.1	689.5	680.9	55.5%
Norway	98.8	118.5	147.8	174.2	189.6	227.6	272.7	304.1	315.8	320.0	329.3	73.7%
Poland	136.0	173.9	181.4	183.0	180.1	200.6	261.1	303.9	382.6	399.9	407.6	126.3%
Portugal	67.0	77.8	99.8	104.3	137.4	149.6	184.1	191.8	197.2	194.7	188.4	37.1%
Slovak Republic	23.8	27.1	30.2	32.6	34.9	31.9	37.7	47.9	60.2	62.0	63.1	80.6%
Slovenia	..	..	..	..	24.9	24.2	29.9	35.7	39.0	39.2	38.2	53.6%
Spain	401.0	496.4	547.2	586.4	730.7	787.4	963.1	1 130.8	1 179.2	1 179.8	1 160.5	58.8%
Sweden	176.6	198.7	212.4	234.4	263.8	273.0	324.5	370.6	401.6	413.4	417.2	58.1%
Switzerland	238.8	238.9	259.7	279.9	323.5	325.6	360.6	384.8	427.6	435.2	439.8	35.9%
Turkey	115.0	144.4	162.3	205.8	269.7	315.9	386.6	483.0	565.1	614.7	627.8	132.8%
United Kingdom	956.8	1 040.5	1 135.6	1 260.9	1 484.7	1 669.3	2 005.8	2 321.4	2 360.0	2 386.4	2 393.0	61.2%
OECD Europe **	**6 361.2**	**7 210.4**	**8 361.6**	**9 075.7**	**10 653.3**	**11 586.9**	**13 434.2**	**14 788.1**	**15 493.7**	**15 787.4**	**15 759.2**	**47.9%**
European Union - 28	*..*	*..*	*..*	*..*	*10 068.2*	*10 878.4*	*12 582.8*	*13 837.9*	*14 430.9*	*14 668.2*	*14 614.0*	*45.2%*

* Includes Estonia and Slovenia prior to 1990.
** Excludes Estonia and Slovenia prior to 1990.

GDP using exchange rates

billion 2005 US dollars

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	% change 90-12
Non-OECD Total *	**2 640.7**	**3 350.8**	**4 318.6**	**4 765.3**	**5 454.8**	**6 088.6**	**7 430.1**	**9 871.8**	**13 592.4**	**14 384.3**	**15 098.0**	**176.8%**
Albania	3.0	3.8	5.0	5.5	5.6	4.9	6.4	8.4	10.7	11.0	11.2	99.7%
Armenia	..	..	..	..	4.1	2.1	2.8	4.9	5.9	6.2	6.6	63.5%
Azerbaijan	..	..	..	..	11.9	5.0	7.0	13.2	28.3	28.3	29.0	142.3%
Belarus	..	..	..	..	23.7	15.5	21.0	30.2	42.9	45.3	46.0	93.8%
Bosnia and Herzegovina	..	..	..	..	2.3	2.5	8.6	10.9	12.8	13.0	12.9	449.2%
Bulgaria	10.7	14.6	19.7	23.2	25.0	21.9	22.1	28.9	33.0	33.6	33.9	35.6%
Croatia	..	..	..	..	42.1	30.5	36.0	44.8	46.3	45.9	44.9	6.7%
Cyprus **	2.5	3.0	5.3	6.9	9.6	12.0	14.5	17.0	19.2	19.3	18.8	95.2%
FYR of Macedonia	..	..	..	..	6.1	4.8	5.5	6.0	7.1	7.3	7.3	20.6%
Georgia	..	..	..	..	12.0	3.4	4.5	6.4	8.2	8.8	9.3	-22.1%
Gibraltar	0.5	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.1	1.1	53.7%
Kazakhstan	..	..	..	..	50.2	30.9	34.9	57.1	77.2	83.0	87.2	73.5%
Kosovo ***	..	..	..	..	..	..	2.6	3.7	4.8	5.1	5.3	..
Kyrgyzstan	..	..	..	..	3.1	1.6	2.0	2.5	3.1	3.2	3.2	4.6%
Latvia	..	..	..	..	14.4	8.2	10.8	16.0	15.5	16.3	17.1	19.1%
Lithuania	..	..	..	..	24.8	14.4	17.8	26.0	27.3	29.0	30.1	21.4%
Malta	0.9	1.3	2.3	2.5	3.4	4.5	5.7	6.0	6.7	6.8	6.8	100.5%
Republic of Moldova	..	..	..	..	6.0	2.4	2.1	3.0	3.5	3.7	3.7	-38.0%
Montenegro ***	..	..	..	..	..	..	..	2.3	2.8	2.9	2.9	..
Romania	37.8	57.2	82.5	97.1	88.6	79.6	74.7	99.2	114.1	116.7	117.1	32.2%
Russian Federation	..	..	..	..	843.0	523.7	567.4	764.0	909.2	948.3	980.9	16.4%
Serbia ***	..	..	..	..	35.0	17.4	21.4	25.2	27.9	28.3	27.9	-20.5%
Tajikistan	..	..	..	..	3.8	1.4	1.5	2.3	3.2	3.4	3.7	-3.5%
Turkmenistan	..	..	..	..	8.0	5.1	6.3	8.1	13.3	15.2	16.9	110.4%
Ukraine	..	..	..	..	137.0	65.8	59.5	86.1	90.6	95.3	95.5	-30.3%
Uzbekistan	..	..	..	..	11.2	9.1	11.0	14.3	21.5	23.3	25.2	124.4%
Former Soviet Union ****	645.7	807.3	985.1	1 094.8	..	..	..	..	..	..	..	..
Former Yugoslavia ****	64.0	78.5	105.7	107.6	..	..	..	..	..	..	..	..
Non-OECD Europe and Eurasia *	**765.2**	**966.3**	**1 206.0**	**1 338.2**	**1 371.9**	**867.4**	**947.3**	**1 287.7**	**1 536.3**	**1 600.4**	**1 644.5**	**19.9%**
Algeria	25.2	37.7	50.8	64.3	66.8	67.6	78.9	103.2	116.6	119.7	123.6	85.1%
Angola	12.3	12.4	12.5	13.6	16.0	12.7	17.2	28.2	50.4	52.3	55.9	249.7%
Benin	1.3	1.4	1.7	2.1	2.3	2.8	3.6	4.4	5.2	5.4	5.7	149.3%
Botswana	..	..	..	3.0	5.2	6.5	8.3	9.9	12.1	12.9	13.4	159.4%
Cameroon	4.8	6.4	8.7	13.6	12.1	11.0	13.8	16.6	19.2	20.0	20.9	73.3%
Congo	1.6	2.1	2.7	4.4	4.3	4.4	5.0	6.1	7.9	8.1	8.4	94.7%
Dem. Rep. of Congo	9.7	10.3	9.5	10.4	10.4	7.1	5.8	7.2	9.4	10.1	10.8	4.1%
Côte d'Ivoire	7.9	9.9	12.1	12.3	13.0	14.0	16.4	16.4	18.2	17.4	19.0	45.8%
Egypt	15.9	18.2	29.1	40.3	49.5	58.5	75.4	89.7	121.0	123.2	125.9	154.2%
Eritrea	..	..	..	..	..	0.8	1.0	1.1	1.1	1.1	1.2	..
Ethiopia	5.4	5.5	5.6	5.3	6.8	7.1	8.9	12.2	20.4	22.7	24.7	263.1%
Gabon	3.0	6.1	5.6	6.4	6.7	7.8	8.0	8.7	9.7	10.4	11.0	62.4%
Ghana	4.5	4.2	4.5	4.4	5.5	6.8	8.4	10.7	14.8	17.0	18.4	233.5%
Kenya	4.9	6.4	8.7	9.9	13.0	14.1	15.7	18.7	23.5	24.5	25.7	97.2%
Libya	43.0	34.7	54.8	39.1	35.3	34.0	35.9	44.0	53.7	20.9	36.9	4.3%
Mauritius	1.1	1.4	1.8	2.3	3.2	4.1	5.4	6.3	7.8	8.1	8.4	160.9%
Morocco	16.1	19.4	25.3	29.8	37.0	38.7	46.7	59.5	75.5	79.9	83.2	125.1%
Mozambique	2.9	2.4	2.5	1.9	2.5	3.0	4.3	6.6	9.1	9.8	10.5	314.9%
Namibia	..	..	..	..	..	4.8	5.7	7.3	8.9	9.4	9.9	..
Nigeria	44.5	51.1	61.9	53.7	56.4	57.8	67.9	112.2	159.0	166.4	177.6	214.9%
Senegal	3.3	3.8	4.0	4.6	5.1	5.7	6.9	8.7	10.4	10.6	10.9	113.9%
South Africa	110.1	126.3	147.1	157.4	170.9	178.4	204.7	247.1	289.7	299.7	307.3	79.8%
Sudan	6.4	7.9	8.9	9.2	11.3	14.5	19.5	26.5	35.8	34.6	31.1	175.1%
United Rep. of Tanzania	3.9	4.7	5.4	5.6	7.5	8.1	10.1	14.1	19.7	21.0	22.4	200.9%
Togo	1.0	1.1	1.5	1.4	1.6	1.6	2.0	2.1	2.5	2.6	2.7	70.1%
Tunisia	6.2	8.5	11.5	14.1	16.3	19.7	25.9	32.3	40.2	39.4	40.8	149.7%
Zambia	4.2	4.7	4.8	4.9	5.3	4.9	5.7	7.2	9.8	10.5	11.2	111.5%
Zimbabwe	3.7	4.3	4.6	5.7	7.1	7.5	8.4	5.8	5.1	5.6	5.8	-17.9%
Other Africa	31.8	33.9	38.4	39.1	44.6	43.2	55.0	77.1	98.5	102.4	107.3	140.4%
Africa	**374.7**	**424.8**	**523.9**	**558.6**	**615.9**	**647.6**	**770.5**	**989.8**	**1 255.2**	**1 265.6**	**1 330.8**	**116.1%**

* Includes Estonia and Slovenia prior to 1990.

** Please refer to Chapter 4, *Geographical Coverage*.

*** Serbia includes Kosovo from 1990 to 1999 and Montenegro from 1990 to 2004.

**** Prior to 1990, data for individual countries are not available separately; FSU includes Estonia and Former Yugoslavia includes Slovenia.

GDP using exchange rates

billion 2005 US dollars

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	% change 90-12
Bangladesh	17.5	16.4	20.1	24.1	29.0	35.9	46.3	60.3	81.5	86.9	92.4	219.0%
Brunei Darussalam	4.2	5.1	8.3	6.9	6.9	8.1	8.6	9.5	9.9	10.1	10.3	49.2%
Cambodia	..	..	..	..	..	2.8	4.0	6.3	8.7	9.3	10.0	..
India	154.2	175.0	204.0	262.3	350.2	448.7	602.7	834.2	1 243.7	1 326.2	1 389.0	296.6%
Indonesia	40.6	55.2	80.9	106.4	150.1	219.2	226.9	285.9	377.9	402.4	427.5	184.8%
DPR of Korea	7.7	12.0	20.7	33.1	39.4	31.0	27.5	28.6	26.6	27.0	27.4	-30.6%
Malaysia	16.0	21.3	32.1	41.1	57.3	90.1	113.9	143.5	178.7	187.8	198.4	246.2%
Mongolia	..	..	..	1.5	1.8	1.6	1.8	2.5	3.5	4.1	4.6	146.6%
Myanmar	1.9	2.1	2.9	3.7	3.3	4.4	6.5	12.0	20.4	21.6	22.8	596.3%
Nepal	2.1	2.4	2.7	3.4	4.2	5.4	6.9	8.1	10.1	10.4	11.0	159.1%
Pakistan	20.2	23.5	31.7	44.0	58.3	73.1	85.8	109.5	129.5	133.1	138.5	137.5%
Philippines	31.2	39.1	52.5	49.3	62.1	69.1	82.4	103.1	131.1	135.9	145.2	133.8%
Singapore	11.1	15.7	23.6	32.9	49.8	75.1	99.4	125.4	172.1	181.0	183.4	268.0%
Sri Lanka	5.3	6.2	8.0	10.2	12.1	15.7	20.1	24.4	33.3	36.0	38.3	217.0%
Chinese Taipei	30.6	46.5	80.1	109.3	167.0	236.8	305.8	364.8	446.5	464.5	481.1	188.0%
Thailand	22.6	28.5	41.8	54.5	88.9	134.5	137.5	176.4	210.1	210.3	223.9	151.8%
Viet Nam	10.7	10.8	11.4	15.7	19.9	29.5	41.3	57.6	78.3	83.2	87.5	340.0%
Other Asia	14.7	16.4	19.1	20.9	25.1	29.2	31.0	43.1	64.4	71.2	76.6	204.7%
Asia (excl. China)	**390.4**	**476.1**	**639.8**	**819.3**	**1 125.6**	**1 510.1**	**1 848.3**	**2 395.3**	**3 226.1**	**3 400.9**	**3 567.8**	**217.0%**
People's Rep. of China	126.6	157.7	216.3	360.0	525.7	937.4	1 417.0	2 256.9	3 838.0	4 194.9	4 522.1	760.2%
Hong Kong, China	23.7	30.3	52.3	69.1	100.2	129.7	147.6	181.6	220.1	230.8	234.3	133.8%
China	**150.3**	**188.0**	**268.6**	**429.0**	**625.9**	**1 067.1**	**1 564.7**	**2 438.5**	**4 058.1**	**4 425.7**	**4 756.4**	**659.9%**
Argentina	97.9	107.9	123.9	109.0	106.4	146.2	166.0	183.2	253.7	276.2	287.9	170.5%
Bolivia	4.0	5.1	5.6	5.1	5.7	6.9	8.2	9.5	12.0	12.6	13.2	133.4%
Brazil	253.7	371.7	513.4	541.8	598.5	696.1	769.0	882.2	1 096.8	1 126.7	1 136.6	89.9%
Colombia	41.1	51.1	66.3	74.1	94.3	115.5	122.7	146.5	182.9	195.0	203.3	115.5%
Costa Rica	4.7	5.9	7.7	7.7	9.8	12.8	16.3	20.0	25.0	26.1	27.5	179.8%
Cuba	18.3	22.0	25.8	38.9	38.5	26.7	33.4	42.6	55.3	56.1	56.9	47.7%
Dominican Republic	7.0	9.7	12.5	13.8	15.9	20.5	28.6	34.0	47.8	50.0	51.9	227.7%
Ecuador	11.3	16.7	20.7	23.4	26.8	31.0	32.8	41.5	48.8	52.6	55.3	106.2%
El Salvador	8.4	10.1	10.1	8.8	9.7	13.1	15.2	17.1	18.3	18.7	19.1	97.0%
Guatemala	8.7	10.9	14.4	13.6	15.7	19.3	23.4	27.2	32.6	33.9	34.9	123.1%
Haiti	3.2	3.4	4.5	4.3	4.3	3.8	4.3	4.2	4.3	4.5	4.7	8.8%
Honduras	2.7	3.1	4.4	4.8	5.6	6.6	7.7	9.7	11.5	12.0	12.5	123.3%
Jamaica	7.2	7.6	6.5	6.6	8.4	10.2	10.1	11.1	11.1	11.2	11.3	34.5%
Netherlands Antilles	1.1	1.2	1.4	1.5	1.7	1.9	2.3	2.5	2.7	2.7	2.7	57.3%
Nicaragua	4.4	5.5	4.4	4.6	3.9	4.2	5.4	6.3	7.3	7.7	8.1	108.5%
Panama	4.9	5.6	6.7	7.9	7.6	10.0	12.5	15.5	23.1	25.6	28.4	271.2%
Paraguay	1.9	2.5	4.2	4.7	6.3	7.8	7.9	8.7	11.1	11.6	11.5	83.4%
Peru	34.6	42.4	47.4	48.2	43.8	57.2	64.7	79.4	112.2	120.0	127.6	191.3%
Trinidad and Tobago	6.1	6.9	10.1	9.0	8.0	8.6	11.0	16.1	19.0	18.7	19.0	136.5%
Uruguay	9.2	9.9	12.3	10.2	12.3	14.9	17.2	17.4	23.0	24.5	25.5	106.7%
Venezuela	74.8	85.2	96.2	91.8	104.3	123.6	128.3	145.5	174.6	181.8	192.1	84.1%
Other Non-OECD Americas	13.6	14.1	18.9	19.8	25.8	27.2	32.9	37.0	38.5	38.5	38.9	50.7%
Non-OECD Americas	**618.6**	**798.3**	**1 017.4**	**1 049.5**	**1 153.4**	**1 364.3**	**1 519.8**	**1 757.2**	**2 211.5**	**2 306.9**	**2 368.7**	**105.4%**
Bahrain	2.1	3.8	6.2	5.8	7.2	10.1	12.4	16.0	20.9	21.4	22.1	205.2%
Islamic Republic of Iran	67.3	95.5	82.7	100.2	101.5	120.0	146.3	192.0	242.7	250.0	245.2	141.6%
Iraq	94.9	120.6	181.5	116.1	61.9	23.7	48.7	50.0	67.3	73.7	80.5	30.0%
Jordan	2.3	2.2	4.6	5.9	5.6	7.9	9.2	12.6	17.0	17.5	17.9	220.3%
Kuwait	46.0	38.1	40.3	31.8	36.6	49.5	54.4	80.8	85.6	91.0	96.6	164.2%
Lebanon	14.3	14.1	11.9	16.7	9.5	16.9	18.2	21.9	30.0	30.9	31.3	229.4%
Oman	4.1	5.4	7.0	14.2	16.6	22.0	26.0	30.9	41.9	43.8	46.0	178.0%
Qatar	15.9	16.1	18.7	15.8	15.5	17.2	30.3	44.5	101.9	116.3	123.5	696.3%
Saudi Arabia	72.5	151.0	211.0	167.1	197.8	227.8	258.6	328.5	436.0	473.4	497.6	151.6%
Syrian Arab Republic	4.7	8.1	11.1	12.8	13.8	20.3	22.7	28.9	36.6	35.9	28.7	107.8%
United Arab Emirates	15.5	39.9	83.2	77.6	88.3	106.2	139.1	180.6	204.4	212.4	221.7	151.1%
Yemen	1.9	2.7	4.7	6.7	7.9	10.6	13.6	16.8	20.7	18.5	18.6	136.3%
Middle East	**341.5**	**497.3**	**662.8**	**570.7**	**562.2**	**632.2**	**779.6**	**1 003.3**	**1 305.2**	**1 384.7**	**1 429.9**	**154.3%**

GDP using purchasing power parities

billion 2005 US dollars

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	% change 90-12
World	**20 433.8**	**24 222.4**	**29 735.5**	**33 457.8**	**39 510.3**	**44 221.5**	**53 126.3**	**64 076.9**	**77 110.6**	**80 201.7**	**82 900.6**	**109.8%**
Annex I Parties	*..*	*..*	*..*	*..*	*25 711.7*	*27 037.5*	*31 586.0*	*35 651.3*	*37 605.1*	*38 335.1*	*38 879.8*	*51.2%*
Annex II Parties	*11 951.8*	*13 494.2*	*16 015.9*	*18 270.3*	*21 725.2*	*24 035.3*	*28 203.6*	*31 268.9*	*32 474.5*	*32 959.7*	*33 394.5*	*53.7%*
North America	*4 899.4*	*5 444.9*	*6 522.8*	*7 655.6*	*9 002.3*	*10 191.1*	*12 584.1*	*14 257.8*	*14 833.8*	*15 116.2*	*15 522.7*	*72.4%*
Europe	*5 351.8*	*6 042.1*	*7 040.1*	*7 618.4*	*8 953.2*	*9 750.9*	*11 261.2*	*12 297.2*	*12 754.2*	*12 942.5*	*12 889.2*	*44.0%*
Asia Oceania	*1 700.5*	*2 007.2*	*2 453.1*	*2 996.3*	*3 769.7*	*4 093.3*	*4 358.3*	*4 713.9*	*4 886.5*	*4 900.9*	*4 982.6*	*32.2%*
Annex I EIT	*..*	*..*	*..*	*..*	*3 545.5*	*2 485.0*	*2 749.0*	*3 592.6*	*4 207.1*	*4 371.6*	*4 460.2*	*25.8%*
Non-Annex I Parties	*..*	*..*	*..*	*..*	*13 798.6*	*17 184.0*	*21 540.3*	*28 425.7*	*39 505.5*	*41 866.6*	*44 020.8*	*219.0%*
Annex I Kyoto Parties	*..*	*..*	*..*	*..*	*16 195.0*	*16 281.3*	*18 303.4*	*20 510.3*	*21 714.9*	*22 074.8*	*22 189.7*	*37.0%*
Non-OECD Total *	**7 251.7**	**9 171.9**	**11 797.5**	**12 984.6**	**15 122.5**	**17 085.3**	**21 002.4**	**28 162.0**	**39 220.0**	**41 574.0**	**43 698.2**	**189.0%**
OECD Total **	**13 182.2**	**15 050.5**	**17 938.0**	**20 473.2**	**24 387.8**	**27 136.2**	**32 123.9**	**35 915.0**	**37 890.6**	**38 627.7**	**39 202.4**	**60.7%**
Canada	416.7	496.3	595.4	677.5	773.4	841.5	1 025.3	1 162.4	1 238.1	1 269.4	1 291.1	66.9%
Chile	49.4	42.3	60.1	62.8	86.9	131.8	165.1	206.4	248.1	262.5	276.7	218.3%
Mexico	393.7	519.0	716.2	788.4	856.7	924.2	1 205.3	1 322.4	1 455.8	1 511.7	1 571.2	83.4%
United States	4 482.7	4 948.6	5 927.3	6 978.1	8 228.9	9 349.6	11 558.8	13 095.4	13 595.6	13 846.8	14 231.6	72.9%
OECD Americas	**5 342.6**	**6 006.2**	**7 299.0**	**8 506.8**	**9 945.9**	**11 247.1**	**13 954.5**	**15 786.6**	**16 537.6**	**16 890.5**	**17 370.6**	**74.7%**
Australia	246.6	273.7	317.2	366.7	428.9	502.6	606.6	719.1	820.7	850.3	872.4	103.4%
Israel	39.3	51.2	59.1	69.0	85.6	118.4	150.7	167.9	212.3	222.0	229.4	168.1%
Japan	1 409.2	1 680.7	2 082.7	2 567.8	3 276.5	3 515.5	3 665.2	3 889.6	3 954.8	3 936.8	3 993.8	21.9%
Korea	86.6	124.3	184.9	284.9	467.7	683.8	880.5	1 096.7	1 322.9	1 371.6	1 399.7	199.3%
New Zealand	44.7	52.8	53.2	61.8	64.3	75.1	86.6	105.3	111.1	113.7	116.4	81.0%
OECD Asia Oceania	**1 826.4**	**2 182.7**	**2 697.1**	**3 350.2**	**4 323.0**	**4 895.5**	**5 389.6**	**5 978.6**	**6 421.7**	**6 494.5**	**6 611.7**	**52.9%**
Austria	115.3	133.1	156.4	168.2	195.3	218.0	254.6	276.7	295.3	303.7	306.3	56.9%
Belgium	152.7	175.4	205.0	214.9	250.1	270.7	311.6	337.3	357.9	364.2	363.6	45.4%
Czech Republic	117.2	133.7	148.8	156.3	169.1	162.6	178.1	217.7	248.5	253.0	250.4	48.1%
Denmark	87.9	93.0	106.5	121.8	130.8	146.8	169.0	179.9	179.3	181.2	180.6	38.0%
Estonia	..	..	..	..	16.2	11.4	15.8	22.3	22.3	24.4	25.4	56.2%
Finland	60.3	73.0	85.4	97.8	115.4	111.9	141.5	161.1	168.0	172.7	171.0	48.2%
France	820.5	946.5	1 117.9	1 207.0	1 414.2	1 502.8	1 718.3	1 860.7	1 919.8	1 958.7	1 959.0	38.5%
Germany	1 266.2	1 384.0	1 633.2	1 747.7	2 055.8	2 271.4	2 490.8	2 566.0	2 740.5	2 831.8	2 851.3	38.7%
Greece	113.1	134.0	164.3	165.5	176.0	187.2	221.8	270.4	271.4	252.1	234.5	33.3%
Hungary	79.6	102.0	121.5	132.6	136.1	120.8	139.6	171.2	169.3	171.9	169.1	24.2%
Iceland	3.0	3.7	5.0	5.6	6.5	6.6	8.4	10.4	10.4	10.7	10.9	66.1%
Ireland	28.3	34.8	43.5	49.3	62.1	77.8	127.1	161.2	161.8	165.3	165.6	166.9%
Italy	744.4	854.1	1 061.8	1 154.2	1 346.0	1 436.0	1 578.3	1 657.4	1 636.6	1 644.0	1 605.1	19.2%
Luxembourg	8.0	9.0	10.1	11.4	16.3	19.8	26.7	31.8	34.3	35.0	34.9	114.2%
Netherlands	241.8	273.7	315.1	333.2	392.9	440.0	536.5	572.9	612.9	618.7	611.0	55.5%
Norway	71.5	85.8	107.1	126.1	137.3	164.8	197.5	220.2	228.7	231.8	238.5	73.7%
Poland	235.4	301.1	314.0	316.7	311.8	347.2	452.0	526.1	662.3	692.2	705.6	126.3%
Portugal	78.7	91.5	117.3	122.6	161.5	175.7	216.3	225.4	231.7	228.8	221.4	37.1%
Slovak Republic	43.2	49.3	54.9	59.3	63.6	58.0	68.6	87.1	109.5	112.8	114.8	80.6%
Slovenia	..	..	..	..	32.7	31.8	39.3	47.0	51.2	51.6	50.3	53.6%
Spain	421.6	521.9	575.2	616.5	768.1	827.7	1 012.5	1 188.8	1 239.7	1 240.3	1 219.9	58.8%
Sweden	140.7	158.4	169.2	186.7	210.2	217.5	258.6	295.3	320.0	329.4	332.5	58.1%
Switzerland	170.6	170.7	185.6	200.0	231.1	232.7	257.6	274.9	305.5	311.0	314.2	35.9%
Turkey	186.0	233.6	262.5	332.9	436.2	510.9	625.3	781.2	914.1	994.3	1 015.4	132.8%
United Kingdom	827.2	899.6	981.7	1 090.1	1 283.6	1 443.2	1 734.1	2 006.9	2 040.3	2 063.1	2 068.9	61.2%
OECD Europe **	**6 013.2**	**6 861.7**	**7 941.8**	**8 616.2**	**10 118.9**	**10 993.6**	**12 779.9**	**14 149.8**	**14 931.3**	**15 242.7**	**15 220.2**	**50.4%**
European Union - 28	*..*	*..*	*..*	*..*	*9 707.3*	*10 407.0*	*12 034.2*	*13 315.6*	*13 973.6*	*14 207.2*	*14 156.7*	*45.8%*

* Includes Estonia and Slovenia prior to 1990.
** Excludes Estonia and Slovenia prior to 1990.

GDP using purchasing power parities

billion 2005 US dollars

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	% change 90-12
Non-OECD Total *	**7 251.7**	**9 171.9**	**11 797.5**	**12 984.6**	**15 122.5**	**17 085.3**	**21 002.4**	**28 162.0**	**39 220.0**	**41 574.0**	**43 698.2**	**189.0%**
Albania	6.9	8.6	11.3	12.5	12.9	11.3	14.7	19.2	24.5	25.3	25.7	99.7%
Armenia	..	..	..	..	11.8	6.2	8.0	14.2	17.2	18.0	19.3	63.5%
Azerbaijan	..	..	..	..	54.3	22.7	32.0	60.2	128.7	128.8	131.7	142.3%
Belarus	..	..	..	..	73.4	47.9	65.1	93.5	132.9	140.2	142.3	93.8%
Bosnia and Herzegovina	..	..	..	..	5.1	5.5	18.8	24.0	28.0	28.4	28.2	449.2%
Bulgaria	28.1	38.3	51.6	60.9	65.6	57.5	58.1	75.9	86.7	88.2	89.0	35.6%
Croatia	..	..	..	..	64.0	46.3	54.8	68.1	70.3	69.7	68.3	6.7%
Cyprus **	2.8	3.3	5.7	7.5	10.5	13.1	15.8	18.5	20.9	21.0	20.5	95.2%
FYR of Macedonia	..	..	..	..	16.3	12.8	14.8	16.0	19.1	19.7	19.6	20.6%
Georgia	..	..	..	..	34.4	9.7	12.9	18.4	23.6	25.3	26.8	-22.1%
Gibraltar	0.4	0.4	0.4	0.5	0.6	0.6	0.8	0.9	0.9	0.9	0.9	59.7%
Kazakhstan	..	..	..	..	185.5	113.9	128.8	210.9	285.2	306.6	321.9	73.5%
Kosovo ***	..	..	..	..	..	..	6.6	9.4	12.1	12.7	13.2	..
Kyrgyzstan	..	..	..	..	13.6	6.9	9.1	10.9	13.6	14.4	14.2	4.6%
Latvia	..	..	..	..	26.9	15.4	20.2	30.0	29.0	30.5	32.1	19.1%
Lithuania	..	..	..	..	46.2	26.8	33.3	48.5	51.1	54.1	56.1	21.4%
Malta	1.3	1.9	3.3	3.6	4.8	6.3	8.1	8.5	9.4	9.6	9.7	100.5%
Republic of Moldova	..	..	..	..	21.2	8.5	7.6	10.6	12.5	13.3	13.2	-38.0%
Montenegro ***	..	..	..	..	..	..	..	5.2	6.4	6.6	6.6	..
Romania	77.4	117.2	168.9	198.7	181.5	163.0	152.9	203.1	233.6	239.0	239.8	32.2%
Russian Federation	..	..	..	..	1 872.3	1 163.0	1 260.1	1 696.7	2 019.3	2 105.9	2 178.4	16.4%
Serbia ***	..	..	..	..	88.0	43.7	53.8	63.4	70.0	71.2	70.0	-20.5%
Tajikistan	..	..	..	..	17.2	6.5	6.5	10.4	14.3	15.4	16.6	-3.5%
Turkmenistan	..	..	..	..	27.3	17.3	21.5	27.5	45.1	51.7	57.5	110.4%
Ukraine	..	..	..	..	486.0	233.3	211.2	305.5	321.3	338.0	338.6	-30.3%
Uzbekistan	..	..	..	..	55.6	45.1	54.5	70.9	106.6	115.4	124.9	124.4%
Former Soviet Union ****	1 521.5	1 902.2	2 321.1	2 579.6	..	..	..	..	..	..	..	..
Former Yugoslavia ****	114.0	140.0	188.3	191.8	..	..	..	..	..	..	..	..
Non-OECD Europe and Eurasia *	**1 752.4**	**2 211.8**	**2 750.8**	**3 055.1**	**3 375.1**	**2 083.5**	**2 269.9**	**3 120.5**	**3 782.4**	**3 949.8**	**4 064.9**	**20.4%**
Algeria	89.4	133.5	180.2	228.0	236.8	239.8	279.8	366.0	413.6	424.3	438.3	85.1%
Angola	30.1	30.3	30.4	33.2	39.0	30.9	42.0	68.8	122.8	127.6	136.3	249.7%
Benin	3.3	3.6	4.4	5.5	6.1	7.4	9.4	11.5	13.8	14.3	15.1	149.2%
Botswana	..	..	..	5.7	9.9	12.4	16.0	19.1	23.3	24.8	25.8	159.4%
Cameroon	11.3	15.1	20.5	32.1	28.5	25.9	32.6	39.1	45.3	47.2	49.3	73.3%
Congo	4.1	5.5	7.0	11.4	11.2	11.4	12.9	15.7	20.3	21.0	21.8	94.7%
Dem. Rep. of Congo	23.6	25.1	23.3	25.5	25.4	17.4	14.3	17.6	23.1	24.7	26.4	4.1%
Côte d'Ivoire	20.3	25.3	31.0	31.4	33.3	35.8	41.8	41.8	46.6	44.4	48.6	45.8%
Egypt	97.0	111.3	177.6	246.0	302.5	357.5	460.5	547.7	739.2	752.2	768.8	154.2%
Eritrea	..	..	..	..	..	4.4	5.1	5.8	5.5	6.0	6.4	..
Ethiopia	21.6	22.1	22.7	21.4	27.4	28.8	36.0	49.2	82.4	91.6	99.6	263.1%
Gabon	7.1	14.5	13.5	15.2	16.1	18.8	19.0	20.7	23.2	24.8	26.2	62.4%
Ghana	20.3	19.0	19.9	19.5	24.7	30.4	37.6	48.1	66.3	76.2	82.3	233.5%
Kenya	15.6	20.3	27.6	31.3	41.2	44.5	49.5	59.2	74.3	77.6	81.2	97.2%
Libya	79.0	63.8	100.7	71.8	65.0	62.6	66.0	80.9	98.6	38.4	67.8	4.3%
Mauritius	2.3	3.1	4.0	5.0	7.1	9.1	12.0	14.0	17.4	18.1	18.6	160.9%
Morocco	39.3	47.3	61.7	72.6	90.1	94.3	113.7	145.0	184.0	194.6	202.8	125.1%
Mozambique	6.0	5.1	5.2	4.0	5.3	6.2	8.9	13.6	18.9	20.3	21.8	314.9%
Namibia	..	..	..	..	..	8.9	10.6	13.5	16.6	17.5	18.4	..
Nigeria	205.2	235.5	285.5	247.3	260.0	266.5	312.7	517.3	732.8	766.9	818.7	214.9%
Senegal	8.1	9.1	9.6	11.1	12.4	13.8	16.8	21.2	25.2	25.7	26.6	113.9%
South Africa	200.2	229.7	267.5	286.1	310.7	324.3	372.1	449.1	526.6	544.8	558.7	79.8%
Sudan	22.9	28.3	31.8	32.9	40.6	52.1	69.8	95.2	128.5	124.3	111.7	175.1%
United Rep. of Tanzania	11.9	14.2	16.4	17.2	22.7	24.9	30.7	43.1	60.2	64.0	68.4	200.9%
Togo	2.7	3.2	4.0	4.0	4.5	4.5	5.6	5.9	6.9	7.2	7.6	70.1%
Tunisia	15.6	21.2	28.8	35.3	40.8	49.3	64.9	80.7	100.4	98.4	101.9	149.7%
Zambia	14.0	15.7	16.0	16.4	17.7	16.5	19.0	24.0	32.7	35.0	37.5	111.4%
Zimbabwe	2.5	2.9	3.1	3.8	4.8	5.1	5.7	3.9	3.4	3.8	3.9	-17.9%
Other Africa	86.7	91.4	103.2	106.0	120.7	119.1	149.9	205.8	262.4	272.7	285.8	136.7%
Africa	**1 040.2**	**1 196.3**	**1 495.6**	**1 619.6**	**1 804.5**	**1 922.8**	**2 315.1**	**3 023.6**	**3 914.4**	**3 988.5**	**4 176.5**	**131.5%**

* Includes Estonia and Slovenia prior to 1990.

** Please refer to Chapter 4, *Geographical Coverage*.

*** Serbia includes Kosovo from 1990 to 1999 and Montenegro from 1990 to 2004.

**** Prior to 1990, data for individual countries are not available separately; FSU includes Estonia and Former Yugoslavia includes Slovenia.

GDP using purchasing power parities

billion 2005 US dollars

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	% change 90-12
Bangladesh	61.8	57.8	70.9	85.1	102.2	126.7	163.3	212.7	287.5	306.8	326.0	219.0%
Brunei Darussalam	10.6	13.0	21.0	17.5	17.5	20.5	21.8	24.2	25.0	25.6	26.1	49.2%
Cambodia	..	..	..	..	..	10.5	14.9	23.3	32.2	34.5	37.0	..
India	618.0	701.2	817.5	1 051.3	1 403.7	1 798.4	2 415.4	3 343.4	4 984.5	5 315.4	5 567.1	296.6%
Indonesia	185.0	251.9	368.7	484.9	684.2	999.1	1 034.5	1 303.2	1 722.8	1 834.6	1 948.8	184.8%
DPR of Korea	28.7	45.0	77.6	124.2	148.0	116.2	103.2	107.5	99.8	101.3	102.8	-30.6%
Malaysia	45.9	61.2	92.2	118.3	164.8	259.2	327.5	412.8	513.9	540.3	570.7	246.2%
Mongolia	..	..	..	7.0	8.4	7.3	8.4	11.4	15.7	18.4	20.7	146.6%
Myanmar	7.8	8.7	11.9	15.0	13.5	17.9	26.9	49.2	83.9	88.5	93.8	596.4%
Nepal	10.2	11.3	12.7	16.1	20.1	25.9	32.8	38.7	48.1	49.8	52.2	159.1%
Pakistan	101.4	118.1	159.4	221.3	293.3	367.7	431.6	550.7	651.3	669.5	696.4	137.5%
Philippines	111.2	139.6	187.4	175.7	221.4	246.5	293.7	367.5	467.6	484.6	517.6	133.8%
Singapore	20.6	28.9	43.6	60.8	92.0	138.6	183.4	231.5	317.7	334.1	338.5	268.0%
Sri Lanka	22.1	26.0	33.6	42.8	50.7	65.9	84.2	102.3	139.4	150.9	160.6	217.0%
Chinese Taipei	50.9	77.3	133.2	181.7	277.8	393.8	508.5	606.8	742.5	772.5	800.2	188.0%
Thailand	81.5	102.8	150.9	196.7	321.2	485.8	496.8	637.0	758.9	759.5	808.8	151.8%
Viet Nam	47.5	48.0	50.7	69.9	88.3	131.0	183.4	255.9	347.6	369.3	388.7	340.0%
Other Asia	38.7	42.5	49.6	51.8	58.4	65.4	70.2	100.1	153.8	170.8	186.8	219.6%
Asia (excl. China)	**1 441.9**	**1 733.2**	**2 281.0**	**2 920.1**	**3 965.6**	**5 276.3**	**6 400.2**	**8 378.5**	**11 392.4**	**12 026.3**	**12 642.7**	**218.8%**
People's Rep. of China	363.1	452.2	620.3	1 032.4	1 507.5	2 688.2	4 063.8	6 472.3	11 006.6	12 030.2	12 968.6	760.2%
Hong Kong, China	32.4	41.5	71.6	94.5	137.2	177.6	202.2	248.6	301.4	316.0	320.7	133.8%
China	**395.5**	**493.7**	**691.9**	**1 126.9**	**1 644.7**	**2 865.8**	**4 266.0**	**6 720.9**	**11 308.0**	**12 346.2**	**13 289.3**	**708.0%**
Argentina	223.8	246.8	283.4	249.3	243.5	334.4	379.7	419.0	580.4	631.9	658.6	170.5%
Bolivia	16.0	20.2	22.4	20.3	22.7	27.7	32.8	38.2	47.8	50.3	52.9	133.4%
Brazil	565.2	828.2	1 143.8	1 207.2	1 333.5	1 551.1	1 713.4	1 965.6	2 443.7	2 510.5	2 532.4	89.9%
Colombia	100.5	124.9	162.2	181.2	230.7	282.4	299.9	358.2	447.2	476.9	497.0	115.5%
Costa Rica	9.6	12.1	15.6	15.6	20.0	26.2	33.4	40.8	51.1	53.3	56.1	179.9%
Cuba	20.8	24.9	29.3	44.1	43.7	30.3	37.8	48.3	62.6	63.6	64.5	47.7%
Dominican Republic	13.6	18.9	24.4	26.8	30.8	39.8	55.5	66.0	93.0	97.1	100.9	227.7%
Ecuador	28.0	41.3	51.3	57.9	66.3	76.7	81.0	102.7	120.6	130.1	136.7	106.2%
El Salvador	18.3	22.1	22.1	19.2	21.2	28.6	33.3	37.4	40.1	41.0	41.8	97.0%
Guatemala	23.5	29.2	38.6	36.5	42.1	51.9	63.0	73.2	87.6	91.3	94.0	123.1%
Haiti	9.7	10.3	13.6	13.3	13.1	11.5	13.0	12.7	13.2	13.9	14.3	8.8%
Honduras	6.8	7.8	11.0	12.0	14.0	16.7	19.4	24.3	29.0	30.1	31.3	123.3%
Jamaica	12.1	12.9	10.9	11.1	14.2	17.2	16.9	18.6	18.6	18.9	19.1	34.5%
Netherlands Antilles	0.9	1.1	1.2	1.3	1.5	1.7	2.1	2.2	2.4	2.4	2.4	57.2%
Nicaragua	12.5	15.5	12.5	12.9	10.9	11.9	15.2	17.8	20.5	21.6	22.7	108.5%
Panama	9.7	11.1	13.3	15.7	15.2	19.9	24.9	30.8	46.0	51.0	56.5	271.1%
Paraguay	7.1	9.4	15.7	17.6	23.4	29.1	29.7	32.7	41.7	43.5	43.0	83.4%
Peru	84.1	103.0	115.3	117.2	106.5	139.0	157.2	193.0	272.8	291.7	310.1	191.3%
Trinidad and Tobago	11.1	12.6	18.4	16.4	14.7	15.7	20.0	29.4	34.7	34.2	34.7	136.5%
Uruguay	19.5	21.1	26.4	21.8	26.3	31.9	36.8	37.1	49.1	52.3	54.4	106.7%
Venezuela	183.5	209.0	235.9	225.1	255.8	303.1	314.6	356.9	428.1	446.0	471.1	84.1%
Other Non-OECD Americas	16.6	17.3	21.9	22.4	27.9	30.3	36.3	41.2	44.2	45.1	46.2	65.7%
Non-OECD Americas	**1 393.0**	**1 799.6**	**2 289.2**	**2 345.0**	**2 578.0**	**3 077.2**	**3 416.0**	**3 946.0**	**4 974.4**	**5 196.6**	**5 340.5**	**107.2%**
Bahrain	4.4	8.2	13.4	12.5	15.6	21.7	26.8	34.5	45.2	46.2	47.8	205.2%
Islamic Republic of Iran	288.9	410.2	355.4	430.5	436.0	515.3	628.3	824.7	1 042.4	1 073.7	1 053.3	141.6%
Iraq	497.2	632.0	950.6	608.3	324.5	124.2	255.2	261.7	352.4	386.0	421.9	30.0%
Jordan	8.0	7.9	16.4	21.1	19.9	28.1	32.9	44.8	60.7	62.2	63.9	220.3%
Kuwait	116.2	96.1	101.6	80.3	92.3	125.1	137.4	204.0	216.1	229.7	243.9	164.2%
Lebanon	29.8	29.2	24.8	34.7	19.8	35.1	37.7	45.4	62.3	64.2	65.1	229.4%
Oman	11.8	15.4	20.0	40.6	47.3	62.9	74.3	88.3	119.8	125.2	131.4	178.0%
Qatar	31.8	32.2	37.4	31.5	31.0	34.4	60.7	89.1	204.0	232.8	247.2	696.4%
Saudi Arabia	186.7	388.6	543.0	430.1	509.1	586.3	665.6	845.4	1 122.1	1 218.3	1 280.7	151.6%
Syrian Arab Republic	12.6	21.3	29.5	34.0	36.6	53.6	60.0	76.4	96.9	95.0	76.0	107.8%
United Arab Emirates	32.7	84.2	175.6	163.8	186.4	224.4	293.8	381.4	431.8	448.5	468.1	151.1%
Yemen	8.6	12.2	21.3	30.5	36.0	48.5	62.4	76.7	94.8	84.9	85.0	136.3%
Middle East	**1 228.7**	**1 737.4**	**2 289.0**	**1 917.9**	**1 754.5**	**1 859.7**	**2 335.2**	**2 972.4**	**3 848.5**	**4 066.7**	**4 184.3**	**138.5%**

Population

millions

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	% change 90-12
World	**3 760.0**	**4 062.0**	**4 435.1**	**4 837.2**	**5 273.5**	**5 692.8**	**6 093.7**	**6 481.7**	**6 876.1**	**6 956.3**	**7 037.1**	**33.4%**
Annex I Parties	*..*	*..*	*..*	*..*	*1 175.8*	*1 207.2*	*1 231.5*	*1 256.9*	*1 286.4*	*1 291.6*	*1 297.6*	*10.4%*
Annex II Parties	*705.3*	*729.4*	*755.0*	*775.9*	*799.3*	*827.6*	*853.0*	*881.7*	*910.1*	*914.5*	*919.2*	*15.0%*
North America	*229.7*	*239.1*	*252.2*	*264.3*	*277.9*	*295.9*	*313.1*	*328.2*	*343.9*	*346.5*	*349.2*	*25.7%*
Europe	*354.6*	*361.4*	*367.7*	*371.3*	*377.3*	*384.4*	*389.9*	*401.1*	*411.4*	*412.9*	*414.9*	*10.0%*
Asia Oceania	*121.0*	*128.8*	*135.0*	*140.2*	*144.2*	*147.3*	*150.0*	*152.4*	*154.9*	*155.0*	*155.1*	*7.6%*
Annex I EIT	*..*	*..*	*..*	*..*	*321.1*	*319.5*	*313.9*	*306.2*	*302.9*	*302.8*	*303.0*	*-5.6%*
Non-Annex I Parties	*..*	*..*	*..*	*..*	*4 097.6*	*4 485.6*	*4 862.2*	*5 224.8*	*5 589.8*	*5 664.7*	*5 739.5*	*40.1%*
Annex I Kyoto Parties	*..*	*..*	*..*	*..*	*832.3*	*841.0*	*843.8*	*850.0*	*859.6*	*861.3*	*863.6*	*3.8%*
Non-OECD Total *	**2 861.9**	**3 123.3**	**3 450.5**	**3 811.9**	**4 203.6**	**4 578.1**	**4 939.4**	**5 285.7**	**5 636.8**	**5 709.6**	**5 782.8**	**37.6%**
OECD Total **	**898.2**	**938.7**	**984.6**	**1 025.4**	**1 069.8**	**1 114.6**	**1 154.3**	**1 196.0**	**1 239.3**	**1 246.7**	**1 254.3**	**17.2%**
Canada	22.0	23.1	24.5	25.8	27.7	29.3	30.7	32.2	34.1	34.5	34.9	26.0%
Chile	9.7	10.4	11.2	12.1	13.2	14.4	15.4	16.3	17.1	17.2	17.4	32.1%
Mexico	53.4	60.8	70.4	78.8	87.1	94.5	100.9	107.2	114.3	115.7	117.1	34.4%
United States	207.7	216.0	227.7	238.5	250.2	266.6	282.4	296.0	309.8	312.0	314.3	25.6%
OECD Americas	**292.8**	**310.3**	**333.8**	**355.2**	**378.1**	**404.8**	**429.4**	**451.7**	**475.3**	**479.5**	**483.6**	**27.9%**
Australia	13.2	14.0	14.8	15.9	17.2	18.2	19.3	20.5	22.4	22.8	23.1	34.7%
Israel	3.0	3.5	3.9	4.2	4.7	5.5	6.3	7.0	7.6	7.8	7.9	69.6%
Japan	105.0	111.8	117.1	121.0	123.6	125.4	126.8	127.8	128.0	127.8	127.6	3.2%
Korea	32.9	35.3	38.1	40.8	42.9	45.1	47.0	48.1	49.4	49.8	50.0	16.6%
New Zealand	2.9	3.1	3.1	3.3	3.4	3.7	3.9	4.1	4.4	4.4	4.4	31.8%
OECD Asia Oceania	**157.0**	**167.6**	**177.0**	**185.3**	**191.7**	**198.0**	**203.3**	**207.5**	**211.9**	**212.5**	**213.0**	**11.1%**
Austria	7.5	7.6	7.5	7.6	7.7	7.9	8.0	8.2	8.4	8.4	8.4	9.7%
Belgium	9.7	9.8	9.9	9.9	10.0	10.1	10.2	10.5	10.9	11.0	11.1	10.9%
Czech Republic	9.8	10.1	10.3	10.3	10.4	10.3	10.3	10.2	10.5	10.5	10.5	1.4%
Denmark	5.0	5.1	5.1	5.1	5.1	5.2	5.3	5.4	5.5	5.6	5.6	8.8%
Estonia	..	..	..	..	1.6	1.4	1.4	1.3	1.3	1.3	1.3	-15.6%
Finland	4.6	4.7	4.8	4.9	5.0	5.1	5.2	5.2	5.4	5.4	5.4	8.6%
France	52.4	53.9	55.1	56.6	58.1	59.4	60.7	63.0	64.8	65.1	65.4	12.5%
Germany	78.3	78.7	78.3	77.7	79.4	81.7	82.2	82.5	81.8	81.8	81.9	3.2%
Greece	9.0	9.2	9.8	10.1	10.3	10.6	10.9	11.1	11.2	11.1	11.1	7.3%
Hungary	10.4	10.5	10.7	10.6	10.4	10.3	10.2	10.1	10.0	10.0	9.9	-4.3%
Iceland	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	25.9%
Ireland	3.0	3.2	3.4	3.5	3.5	3.6	3.8	4.2	4.6	4.6	4.6	30.9%
Italy	54.1	55.4	56.4	56.6	56.7	56.8	56.9	58.6	60.5	60.7	60.9	7.4%
Luxembourg	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	39.3%
Netherlands	13.2	13.7	14.1	14.5	14.9	15.5	15.9	16.3	16.6	16.7	16.8	12.1%
Norway	3.9	4.0	4.1	4.2	4.2	4.4	4.5	4.6	4.9	5.0	5.0	18.3%
Poland	32.8	34.0	35.6	37.2	38.0	38.3	38.3	38.2	38.5	38.5	38.5	1.3%
Portugal	8.7	9.2	9.9	10.1	10.0	10.0	10.2	10.5	10.6	10.6	10.6	5.8%
Slovak Republic	4.6	4.7	5.0	5.2	5.3	5.4	5.4	5.4	5.4	5.4	5.4	2.0%
Slovenia	..	..	..	..	2.0	2.0	2.0	2.0	2.0	2.1	2.1	3.0%
Spain	34.3	35.7	37.7	38.6	39.0	39.4	40.3	43.4	46.1	46.1	46.2	18.3%
Sweden	8.1	8.2	8.3	8.4	8.6	8.8	8.9	9.0	9.4	9.5	9.5	11.2%
Switzerland	6.3	6.4	6.4	6.5	6.8	7.1	7.2	7.5	7.8	7.9	7.9	16.7%
Turkey	36.2	40.1	44.4	50.3	55.1	59.8	64.3	68.6	73.0	74.0	74.9	35.9%
United Kingdom	55.9	56.2	56.3	56.6	57.2	58.0	58.9	60.2	62.3	62.7	63.7	11.3%
OECD Europe **	**448.4**	**460.9**	**473.8**	**484.9**	**500.0**	**511.9**	**521.7**	**536.8**	**552.2**	**554.7**	**557.6**	**11.5%**
European Union - 28	*..*	*..*	*..*	*..*	*477.6*	*483.3*	*487.4*	*496.1*	*504.7*	*505.7*	*507.4*	6.2%

* Includes Estonia and Slovenia prior to 1990.
** Excludes Estonia and Slovenia prior to 1990.

Population

millions

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	% change 90-12
Non-OECD Total *	**2 861.9**	**3 123.3**	**3 450.5**	**3 811.9**	**4 203.6**	**4 578.1**	**4 939.4**	**5 285.7**	**5 636.8**	**5 709.6**	**5 782.8**	**37.6%**
Albania	2.2	2.4	2.7	3.1	3.4	3.4	3.3	3.2	3.2	3.2	3.2	-8.3%
Armenia	..	..	..	..	3.5	3.2	3.1	3.0	3.0	3.0	3.0	-16.2%
Azerbaijan	..	..	..	..	7.2	7.7	8.0	8.4	9.1	9.2	9.3	29.9%
Belarus	..	..	..	..	10.2	10.2	10.0	9.7	9.5	9.5	9.5	-7.1%
Bosnia and Herzegovina	..	..	..	..	4.5	3.5	3.8	3.9	3.8	3.8	3.8	-15.3%
Bulgaria	8.5	8.7	8.9	9.0	8.7	8.4	8.2	7.7	7.4	7.3	7.3	-16.2%
Croatia	..	..	..	..	4.8	4.7	4.4	4.4	4.4	4.3	4.3	-10.7%
Cyprus **	0.6	0.5	0.5	0.5	0.6	0.6	0.7	0.7	0.8	0.8	0.9	50.4%
FYR of Macedonia	..	..	..	..	2.0	2.0	2.1	2.1	2.1	2.1	2.1	4.8%
Georgia	..	..	..	..	4.8	4.7	4.4	4.4	4.5	4.5	4.5	-6.5%
Gibraltar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.3%
Kazakhstan	..	..	..	..	16.3	15.8	14.9	15.1	16.3	16.6	16.8	2.7%
Kosovo ***	..	..	..	..	..	..	1.7	1.7	1.8	1.8	1.8	..
Kyrgyzstan	..	..	..	..	4.4	4.6	4.9	5.2	5.4	5.5	5.6	27.7%
Latvia	..	..	..	..	2.7	2.5	2.4	2.2	2.1	2.1	2.0	-23.6%
Lithuania	..	..	..	..	3.7	3.6	3.5	3.3	3.1	3.0	3.0	-19.2%
Malta	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	18.4%
Republic of Moldova	..	..	..	..	3.7	3.7	3.6	3.6	3.6	3.6	3.6	-3.7%
Montenegro ***	..	..	..	..	..	..	..	0.6	0.6	0.6	0.6	..
Romania	20.5	21.3	22.2	22.8	23.2	22.7	22.4	21.3	20.2	20.1	20.1	-13.5%
Russian Federation	..	..	..	..	148.3	148.1	146.3	143.2	142.4	143.0	143.5	-3.2%
Serbia ***	..	..	..	..	10.1	10.4	8.1	7.4	7.3	7.3	7.2	-28.2%
Tajikistan	..	..	..	..	5.3	5.8	6.2	6.8	7.6	7.8	8.0	51.2%
Turkmenistan	..	..	..	..	3.7	4.2	4.5	4.7	5.0	5.1	5.2	41.0%
Ukraine	..	..	..	..	51.9	51.5	49.2	47.1	45.9	45.7	45.6	-12.1%
Uzbekistan	..	..	..	..	20.5	22.8	24.7	26.2	28.6	29.3	29.8	45.2%
Former Soviet Union ****	243.9	253.2	264.5	276.4	..	..	..	..	..	..	..	..
Former Yugoslavia ****	20.2	20.9	21.7	22.4	..	..	..	..	..	..	..	..
Non-OECD Europe and Eurasia *	**296.2**	**307.4**	**320.9**	**334.5**	**343.9**	**344.4**	**340.8**	**336.5**	**338.1**	**339.6**	**341.0**	**-0.8%**
Algeria	15.1	16.8	19.5	22.8	26.2	29.3	31.7	34.0	37.1	37.8	38.5	46.7%
Angola	6.0	6.6	7.6	9.1	10.3	12.1	13.9	16.5	19.5	20.2	20.8	101.5%
Benin	3.0	3.3	3.7	4.3	5.0	6.0	6.9	8.2	9.5	9.8	10.1	101.0%
Botswana	..	..	..	1.2	1.4	1.6	1.8	1.9	2.0	2.0	2.0	44.8%
Cameroon	6.9	7.7	8.9	10.4	12.1	13.9	15.9	18.1	20.6	21.2	21.7	79.8%
Congo	1.4	1.6	1.8	2.1	2.4	2.7	3.1	3.5	4.1	4.2	4.3	82.0%
Dem. Rep. of Congo	20.6	22.9	26.4	30.0	34.9	42.0	46.9	54.0	62.2	63.9	65.7	88.2%
Côte d'Ivoire	5.5	6.6	8.3	10.2	12.1	14.2	16.1	17.4	19.0	19.4	19.8	63.8%
Egypt	37.2	40.4	44.9	50.3	56.3	61.2	66.1	71.8	78.1	79.4	80.7	43.3%
Eritrea	..	..	..	..	..	3.4	3.9	4.9	5.7	5.9	6.1	..
Ethiopia	29.2	32.6	35.2	40.8	48.0	57.0	66.0	76.2	87.1	89.4	91.7	90.9%
Gabon	0.6	0.6	0.7	0.8	0.9	1.1	1.2	1.4	1.6	1.6	1.6	72.4%
Ghana	8.8	9.8	10.8	12.7	14.6	16.8	18.8	21.4	24.3	24.8	25.4	73.4%
Kenya	11.7	13.5	16.3	19.7	23.4	27.4	31.3	35.8	40.9	42.0	43.2	84.2%
Libya	2.2	2.5	3.1	3.7	4.3	4.7	5.2	5.6	6.0	6.1	6.2	44.5%
Mauritius	0.8	0.9	1.0	1.0	1.1	1.1	1.2	1.2	1.3	1.3	1.3	21.9%
Morocco	16.3	17.7	19.8	22.3	24.7	26.8	28.7	30.1	31.6	32.1	32.5	31.8%
Mozambique	9.7	10.6	12.1	13.3	13.6	16.0	18.3	21.0	24.0	24.6	25.2	85.8%
Namibia	..	..	..	..	..	1.7	1.9	2.0	2.2	2.2	2.3	..
Nigeria	57.5	63.6	73.7	83.9	95.6	108.4	122.9	139.6	159.7	164.2	168.8	76.6%
Senegal	4.3	4.9	5.6	6.4	7.5	8.7	9.9	11.3	13.0	13.3	13.7	82.7%
South Africa	22.6	24.7	27.6	31.3	35.2	39.1	44.0	47.6	50.9	51.6	52.3	48.5%
Sudan	14.3	16.2	19.1	22.5	25.8	30.0	34.4	39.6	45.6	46.8	48.0	86.4%
United Rep. of Tanzania	14.0	16.0	18.7	21.9	25.5	29.9	34.0	38.8	45.0	46.4	47.8	87.5%
Togo	2.2	2.4	2.7	3.3	3.8	4.3	4.9	5.5	6.3	6.5	6.6	75.4%
Tunisia	5.2	5.6	6.4	7.3	8.2	9.0	9.6	10.0	10.5	10.7	10.8	32.2%
Zambia	4.3	5.0	5.8	6.8	7.8	8.8	10.1	11.5	13.2	13.6	14.1	79.4%
Zimbabwe	5.4	6.2	7.3	8.9	10.5	11.6	12.5	12.7	13.1	13.4	13.7	31.2%
Other Africa	68.9	75.6	87.4	98.1	113.8	125.1	146.0	169.0	196.2	202.1	208.1	82.9%
Africa	**373.7**	**414.3**	**474.4**	**545.1**	**625.0**	**714.0**	**807.3**	**910.7**	**1 030.3**	**1 056.3**	**1 083.1**	**73.3%**

* Includes Estonia and Slovenia prior to 1990.

** Please refer to Chapter 4, *Geographical Coverage*.

*** Serbia includes Kosovo from 1990 to 1999 and Montenegro from 1990 to 2004.

**** Prior to 1990, data for individual countries are not available separately; FSU includes Estonia and Former Yugoslavia includes Slovenia.

Population

millions

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	% change 90-12
Bangladesh	67.6	72.3	82.5	94.3	107.4	119.9	132.4	143.1	151.1	152.9	154.7	44.1%
Brunei Darussalam	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.4	0.4	60.3%
Cambodia	..	..	..	..	..	10.8	12.2	13.4	14.4	14.6	14.9	..
India	567.8	622.2	699.0	781.7	868.9	955.8	1 042.3	1 127.1	1 205.6	1 221.2	1 236.7	42.3%
Indonesia	117.0	129.2	145.5	162.5	178.6	194.1	208.9	224.5	240.7	243.8	246.9	38.2%
DPR of Korea	14.8	16.3	17.4	18.8	20.2	21.8	22.8	23.8	24.5	24.6	24.8	22.6%
Malaysia	11.2	12.3	13.8	15.8	18.2	20.7	23.4	25.8	28.3	28.8	29.2	60.6%
Mongolia	..	..	..	1.9	2.2	2.3	2.4	2.5	2.7	2.8	2.8	28.0%
Myanmar	27.8	30.6	34.5	38.5	42.1	45.3	48.5	50.2	51.9	52.4	52.8	25.3%
Nepal	11.8	12.9	14.4	16.1	18.1	20.6	23.2	25.3	26.8	27.2	27.5	51.7%
Pakistan	60.8	68.2	80.0	94.8	111.1	126.7	143.8	158.0	173.1	176.2	179.2	61.3%
Philippines	36.9	41.3	47.4	54.3	61.9	69.6	77.7	85.8	93.4	95.1	96.7	56.1%
Singapore	2.1	2.3	2.4	2.7	3.0	3.5	4.0	4.3	5.1	5.2	5.3	74.3%
Sri Lanka	12.7	13.5	14.7	15.8	17.0	18.1	19.1	19.6	20.7	20.9	20.3	19.5%
Chinese Taipei	14.9	16.1	17.9	19.3	20.4	21.4	22.3	22.8	23.2	23.2	23.4	14.9%
Thailand	38.0	42.3	47.4	52.0	56.6	59.0	62.3	65.6	66.4	66.6	66.8	18.0%
Viet Nam	43.7	48.0	53.7	58.9	66.0	72.0	77.6	82.4	86.9	87.8	88.8	34.5%
Other Asia	27.7	30.3	31.0	30.0	32.9	31.3	35.7	41.5	46.9	48.0	49.1	49.1%
Asia (excl. China)	**1 055.0**	**1 157.9**	**1 301.7**	**1 457.8**	**1 625.0**	**1 793.1**	**1 959.0**	**2 116.1**	**2 262.2**	**2 291.4**	**2 320.2**	**42.8%**
People's Rep. of China	841.1	916.4	981.2	1 051.0	1 135.2	1 204.9	1 262.6	1 303.7	1 337.7	1 344.1	1 350.7	19.0%
Hong Kong, China	4.0	4.5	5.1	5.5	5.7	6.2	6.7	6.8	7.0	7.1	7.2	25.4%
China	**845.2**	**920.9**	**986.3**	**1 056.5**	**1 140.9**	**1 211.0**	**1 269.3**	**1 310.5**	**1 344.7**	**1 351.2**	**1 357.9**	**19.0%**
Argentina	24.4	26.1	28.1	30.3	32.6	34.8	36.9	38.6	40.4	40.7	41.1	25.9%
Bolivia	4.3	4.8	5.4	6.0	6.8	7.6	8.5	9.4	10.2	10.3	10.5	54.5%
Brazil	98.4	108.2	121.7	136.2	149.6	161.9	174.5	186.1	195.2	196.9	198.7	32.7%
Colombia	21.9	24.0	26.9	30.1	33.3	36.6	39.9	43.2	46.4	47.1	47.7	43.2%
Costa Rica	1.9	2.1	2.3	2.7	3.1	3.5	3.9	4.3	4.7	4.7	4.8	56.1%
Cuba	8.9	9.4	9.8	10.1	10.6	10.9	11.1	11.3	11.3	11.3	11.3	6.3%
Dominican Republic	4.7	5.2	5.8	6.5	7.2	8.0	8.7	9.3	10.0	10.1	10.3	41.8%
Ecuador	6.2	6.9	7.9	9.0	10.1	11.3	12.5	13.8	15.0	15.2	15.5	53.0%
El Salvador	3.8	4.2	4.7	5.0	5.3	5.7	6.0	6.1	6.2	6.3	6.3	17.8%
Guatemala	5.6	6.2	7.0	7.9	8.9	10.0	11.2	12.7	14.3	14.7	15.1	69.7%
Haiti	4.8	5.1	5.7	6.4	7.1	7.8	8.6	9.3	9.9	10.0	10.2	43.1%
Honduras	2.8	3.1	3.6	4.2	4.9	5.6	6.2	6.9	7.6	7.8	7.9	61.8%
Jamaica	1.9	2.0	2.1	2.3	2.4	2.5	2.6	2.6	2.7	2.7	2.7	13.3%
Netherlands Antilles	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	21.2%
Nicaragua	2.5	2.8	3.3	3.7	4.1	4.7	5.1	5.5	5.8	5.9	6.0	44.8%
Panama	1.6	1.8	2.0	2.2	2.5	2.8	3.1	3.4	3.7	3.7	3.8	52.9%
Paraguay	2.5	2.8	3.2	3.7	4.3	4.8	5.4	5.9	6.5	6.6	6.7	57.3%
Peru	13.6	15.2	17.3	19.5	21.8	23.9	26.0	27.7	29.3	29.6	30.0	37.7%
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	9.4%
Uruguay	2.8	2.8	2.9	3.0	3.1	3.2	3.3	3.3	3.4	3.4	3.4	9.2%
Venezuela	11.1	12.7	15.1	17.3	19.7	22.1	24.4	26.7	29.0	29.5	30.0	51.7%
Other Non-OECD Americas	2.6	2.7	2.8	2.9	3.0	3.2	3.4	3.6	3.8	3.8	3.9	28.6%
Non-OECD Americas	**227.3**	**249.3**	**279.0**	**310.6**	**342.0**	**372.4**	**402.7**	**431.2**	**456.9**	**462.1**	**467.2**	**36.6%**
Bahrain	0.2	0.3	0.4	0.4	0.5	0.6	0.7	0.9	1.3	1.3	1.3	165.7%
Islamic Republic of Iran	29.4	32.9	38.9	47.5	56.4	60.5	65.9	70.2	74.5	75.4	76.4	35.6%
Iraq	10.3	11.7	13.7	15.6	17.5	20.4	23.8	27.4	31.0	31.8	32.6	86.0%
Jordan	1.6	1.8	2.2	2.6	3.2	4.2	4.8	5.4	6.0	6.2	6.3	99.3%
Kuwait	0.8	1.1	1.4	1.7	2.1	1.6	1.9	2.3	3.0	3.1	3.3	57.8%
Lebanon	2.4	2.6	2.6	2.7	2.7	3.0	3.2	4.0	4.3	4.4	4.4	63.7%
Oman	0.7	0.9	1.2	1.5	1.8	2.2	2.2	2.5	2.8	3.0	3.3	83.1%
Qatar	0.1	0.2	0.2	0.4	0.5	0.5	0.6	0.8	1.8	1.9	2.1	330.0%
Saudi Arabia	6.1	7.4	9.8	13.3	16.2	18.6	20.1	24.7	27.3	27.8	28.3	74.6%
Syrian Arab Republic	6.6	7.6	9.0	10.7	12.5	14.3	16.4	18.2	21.5	22.0	22.4	79.9%
United Arab Emirates	0.3	0.5	1.0	1.3	1.8	2.3	3.0	4.1	8.4	8.9	9.2	409.7%
Yemen	6.2	6.7	7.9	9.7	11.8	15.0	17.5	20.1	22.8	23.3	23.9	102.3%
Middle East	**64.6**	**73.5**	**88.2**	**107.4**	**126.9**	**143.1**	**160.2**	**180.6**	**204.6**	**209.1**	**213.4**	**68.2%**

CO_2 emissions / TPES

tonnes CO_2 / terajoule

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	% change 90-12
World *	**60.9**	**60.5**	**59.8**	**57.6**	**57.1**	**56.5**	**56.3**	**57.1**	**56.5**	**57.0**	**56.7**	**-0.6%**
Annex I Parties	*..*	*..*	*..*	*..*	*59.4*	*57.3*	*56.9*	*56.2*	*54.8*	*55.2*	*54.9*	*-7.7%*
Annex II Parties	*66.0*	*64.2*	*62.3*	*59.5*	*58.3*	*56.5*	*56.4*	*56.1*	*54.7*	*55.1*	*54.8*	*-6.0%*
North America	*64.0*	*62.2*	*60.9*	*60.1*	*59.6*	*58.2*	*58.9*	*58.3*	*57.7*	*56.9*	*56.0*	*-6.0%*
Europe	*69.0*	*66.4*	*64.5*	*58.6*	*55.9*	*53.3*	*51.8*	*51.0*	*48.4*	*48.4*	*48.4*	*-13.4%*
Asia Oceania	*67.1*	*67.2*	*62.4*	*59.8*	*59.4*	*57.5*	*57.0*	*59.2*	*58.0*	*63.5*	*65.4*	*10.1%*
Annex I EIT	*..*	*..*	*..*	*..*	*62.5*	*60.4*	*58.7*	*56.6*	*54.9*	*55.2*	*54.4*	*-12.8%*
Non-Annex I Parties	*..*	*..*	*..*	*..*	*51.5*	*54.1*	*54.3*	*57.0*	*57.0*	*57.6*	*57.3*	*11.2%*
Annex I Kyoto Parties	*..*	*..*	*..*	*..*	*59.3*	*56.6*	*55.1*	*54.5*	*52.5*	*53.7*	*53.8*	*-9.3%*
Non-OECD Total **	**50.4**	**53.4**	**54.8**	**53.3**	**54.2**	**54.7**	**54.5**	**56.8**	**56.5**	**57.3**	**56.9**	**4.9%**
OECD Total ***	**66.4**	**64.7**	**62.9**	**60.5**	**58.8**	**57.2**	**56.9**	**56.4**	**55.2**	**55.5**	**55.3**	**-6.1%**
Canada	57.4	54.4	53.1	49.8	49.0	47.7	50.2	48.4	50.5	50.7	50.8	3.5%
Chile	57.2	53.1	53.5	48.5	52.5	50.3	49.4	49.0	54.0	53.9	49.9	-5.0%
Mexico	53.9	56.0	53.3	55.3	51.7	54.6	57.7	54.6	56.6	56.3	55.3	6.8%
United States	64.6	63.0	61.7	61.2	60.7	59.4	59.9	59.5	58.5	57.6	56.6	-6.8%
OECD Americas	**63.7**	**62.0**	**60.5**	**59.8**	**59.1**	**57.9**	**58.7**	**58.0**	**57.6**	**56.8**	**55.9**	**-5.5%**
Australia	66.7	71.2	71.4	72.8	72.0	73.7	74.1	78.3	75.5	75.5	71.9	-0.1%
Israel	60.0	58.0	59.9	77.3	69.9	71.3	72.3	77.4	70.1	69.3	72.1	3.2%
Japan	67.7	67.0	61.1	57.8	57.5	54.9	53.9	55.4	54.3	61.2	64.6	12.4%
Korea	73.3	74.9	72.0	68.9	58.9	59.2	55.6	53.3	53.9	54.1	53.8	-8.8%
New Zealand	47.1	45.8	43.7	41.9	41.6	40.6	43.2	47.8	40.5	39.9	40.5	-2.6%
OECD Asia Oceania	**67.3**	**67.5**	**63.2**	**61.0**	**59.5**	**58.1**	**57.0**	**58.2**	**57.2**	**60.9**	**62.1**	**4.4%**
Austria	61.8	59.5	57.4	56.2	54.3	53.0	51.6	52.8	48.6	48.8	46.7	-13.9%
Belgium	70.4	65.2	64.2	55.2	53.4	51.2	48.5	46.0	43.2	44.5	44.6	-16.4%
Czech Republic	79.4	83.4	84.3	84.0	71.7	72.0	71.3	63.9	61.4	62.6	60.4	-15.9%
Denmark	71.0	71.7	78.1	74.9	69.7	71.6	65.1	61.2	58.1	55.9	51.1	-26.6%
Estonia	..	..	..	..	87.3	73.6	74.1	77.3	78.5	74.3	70.7	-19.0%
Finland	52.3	53.8	53.6	44.9	45.8	46.2	40.9	38.4	40.8	38.0	35.4	-22.5%
France	65.1	62.3	57.5	42.2	37.6	35.7	35.9	34.3	32.5	31.2	31.6	-16.0%
Germany	76.6	74.3	70.6	67.8	64.6	61.6	58.6	56.7	56.2	57.0	57.7	-10.7%
Greece	69.2	70.3	72.3	74.3	78.1	79.9	77.1	75.0	72.8	74.0	69.7	-10.8%
Hungary	75.7	73.8	70.5	64.9	55.1	52.9	51.8	48.9	45.5	45.3	44.3	-19.6%
Iceland	37.0	34.7	27.7	21.8	21.6	20.7	16.5	15.0	8.6	7.7	7.7	-64.2%
Ireland	77.2	76.1	75.3	73.3	73.6	74.2	71.9	73.1	65.0	63.1	64.1	-13.0%
Italy	66.4	65.4	65.7	64.2	64.8	61.5	59.3	59.9	55.9	56.1	56.4	-13.0%
Luxembourg	90.7	76.6	80.0	77.4	73.0	61.1	57.3	62.1	59.8	59.7	59.7	-18.3%
Netherlands	60.8	57.0	61.9	60.7	56.7	57.7	56.1	54.9	53.5	54.0	52.8	-6.8%
Norway	42.2	39.4	36.5	32.5	32.2	33.4	30.7	32.4	29.1	32.3	29.6	-8.0%
Poland	79.5	78.4	77.9	80.3	79.3	79.5	78.0	75.7	72.7	71.0	71.7	-9.5%
Portugal	55.0	56.3	56.9	53.7	56.1	57.0	57.5	56.7	48.9	49.7	51.2	-8.7%
Slovak Republic	65.4	62.4	66.6	62.7	63.5	54.9	50.3	48.3	47.2	46.6	45.7	-28.0%
Slovenia	..	..	..	..	55.8	55.2	52.5	51.1	50.8	50.0	49.9	-10.5%
Spain	67.2	65.0	66.2	59.0	54.4	55.1	55.6	57.1	50.1	51.4	50.9	-6.4%
Sweden	54.6	48.6	43.3	29.7	26.7	27.3	26.5	23.3	22.2	20.8	19.2	-28.0%
Switzerland	56.8	51.0	46.8	44.8	40.8	41.5	40.6	41.1	40.0	37.5	38.5	-5.7%
Turkey	50.6	52.9	53.8	57.5	57.5	59.2	63.1	61.4	60.3	60.8	61.8	7.5%
United Kingdom	71.4	69.4	68.7	64.8	63.7	57.0	56.2	57.2	56.2	55.8	56.8	-10.8%
OECD Europe ***	**69.9**	**67.7**	**66.2**	**61.3**	**58.2**	**55.7**	**54.1**	**53.1**	**50.8**	**50.9**	**50.9**	**-12.6%**
European Union - 28	*..*	*..*	*..*	*..*	*59.1*	*56.1*	*54.4*	*53.3*	*51.1*	*51.1*	*50.9*	-13.8%

* The ratio for the world has been calculated to include international marine bunkers and international aviation bunkers.
** Includes Estonia and Slovenia prior to 1990.
*** Excludes Estonia and Slovenia prior to 1990.

CO_2 emissions / TPES

tonnes CO_2 / terajoule

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	% change 90-12
Non-OECD Total *	**50.4**	**53.4**	**54.8**	**53.3**	**54.2**	**54.7**	**54.5**	**56.8**	**56.5**	**57.3**	**56.9**	**4.9%**
Albania	54.0	53.5	59.0	63.2	55.8	33.4	41.3	43.8	44.1	44.1	44.1	-21.1%
Armenia	..	..	..	..	63.4	49.6	40.4	39.2	38.9	41.0	43.6	-31.2%
Azerbaijan	..	..	..	..	58.0	58.2	59.0	54.8	49.1	50.9	51.1	-11.9%
Belarus	..	..	..	..	65.5	59.6	56.8	55.1	56.0	53.4	55.7	-15.0%
Bosnia and Herzegovina	..	..	..	..	80.5	51.7	74.2	74.1	74.3	76.9	76.0	-5.6%
Bulgaria	78.9	74.2	70.5	63.2	63.4	55.2	54.1	55.6	59.0	61.1	57.7	-9.1%
Croatia	..	..	..	..	56.9	53.5	54.2	55.6	53.0	53.1	51.9	-8.9%
Cyprus **	72.2	70.8	71.9	72.3	67.5	70.9	70.1	75.3	70.4	70.1	69.3	2.7%
FYR of Macedonia	..	..	..	..	82.1	78.2	75.3	73.8	68.1	71.3	70.0	-14.8%
Georgia	..	..	..	..	64.0	51.8	38.4	36.4	37.5	42.3	43.9	-31.4%
Gibraltar	72.1	72.4	73.6	72.8	72.5	72.9	72.9	72.9	73.0	73.0	73.0	0.7%
Kazakhstan	..	..	..	..	76.9	76.6	75.6	73.7	75.1	71.3	72.0	-6.3%
Kosovo ***	..	..	..	..	..	..	77.8	80.3	82.0	80.1	80.7	..
Kyrgyzstan	..	..	..	..	71.6	44.3	45.4	45.3	52.3	51.9	55.0	-23.2%
Latvia	..	..	..	..	56.7	46.0	42.5	40.0	41.6	41.2	37.9	-33.1%
Lithuania	..	..	..	..	49.2	38.9	37.5	36.4	45.1	43.4	43.2	-12.3%
Malta	73.5	73.6	73.9	79.6	78.5	79.2	74.4	73.3	69.5	70.7	89.8	14.4%
Republic of Moldova	..	..	..	..	72.9	59.8	53.9	52.4	55.3	56.7	55.5	-23.8%
Montenegro ***	..	..	..	..	..	..	..	43.5	50.4	52.9	51.7	..
Romania	65.1	64.8	64.5	63.7	64.3	60.2	57.4	58.5	51.4	54.5	54.0	-15.9%
Russian Federation	..	..	..	..	59.2	58.5	57.7	55.4	53.6	53.5	52.4	-11.5%
Serbia ***	..	..	..	..	74.4	76.2	74.0	73.1	70.4	73.5	72.8	-2.1%
Tajikistan	..	..	..	..	49.0	26.2	24.1	23.9	25.0	26.2	28.8	-41.2%
Turkmenistan	..	..	..	..	60.6	57.9	58.7	59.6	59.6	59.5	59.6	-1.7%
Ukraine	..	..	..	..	65.2	57.3	52.1	51.1	49.0	53.9	54.7	-16.1%
Uzbekistan	..	..	..	..	61.7	56.9	55.5	55.2	55.5	55.2	55.0	-10.9%
Former Soviet Union ****	62.0	65.3	65.8	61.2	..	..	..	..	..	..	..	..
Former Yugoslavia ****	68.9	70.4	62.1	70.7	..	..	..	..	..	..	..	..
Non-OECD Europe and Eurasia *	**62.7**	**65.5**	**65.7**	**61.7**	**62.0**	**59.0**	**57.4**	**55.9**	**54.9**	**55.3**	**54.6**	**-11.8%**
Algeria	61.5	60.7	60.6	58.5	56.8	56.2	56.2	58.6	58.1	59.3	59.0	3.9%
Angola	10.3	11.6	14.0	13.8	16.3	14.8	16.2	16.9	27.7	27.2	27.5	69.0%
Benin	6.5	8.8	6.9	7.2	3.6	2.8	17.0	25.3	29.5	29.8	30.2	727.6%
Botswana	..	..	..	41.1	54.3	51.9	53.3	53.8	52.7	50.6	49.4	-9.0%
Cameroon	6.4	8.2	10.8	13.0	12.8	10.8	10.5	9.9	17.2	18.3	18.5	44.5%
Congo	27.1	26.3	26.8	23.7	19.1	14.5	14.6	18.2	28.3	29.3	30.4	59.7%
Dem. Rep. of Congo	9.0	8.2	8.8	7.7	6.0	2.1	1.5	1.8	2.2	2.6	2.8	-53.2%
Côte d'Ivoire	23.2	24.3	22.5	19.6	14.9	15.2	22.2	14.4	14.7	12.0	14.8	-0.7%
Egypt	63.2	63.5	67.1	61.0	58.7	57.1	60.2	58.3	60.4	59.6	60.1	2.3%
Eritrea	..	..	..	..	..	18.5	20.6	18.1	15.3	15.9	16.2	..
Ethiopia	2.5	2.0	2.2	1.9	2.5	2.3	2.7	3.2	3.5	3.8	4.2	66.0%
Gabon	10.6	14.0	22.4	29.6	18.2	23.6	23.9	23.9	26.7	27.1	26.6	46.1%
Ghana	15.4	15.3	13.5	11.9	12.2	12.2	15.9	19.8	27.1	27.5	30.2	146.8%
Kenya	14.6	13.8	14.5	12.8	12.3	11.4	13.3	11.1	13.7	13.6	12.4	0.2%
Libya	56.8	59.8	64.3	53.9	58.5	60.0	59.3	60.7	59.3	62.2	61.6	5.3%
Mauritius	17.0	25.0	31.4	32.7	41.2	46.8	56.8	60.1	65.4	65.1	65.7	59.4%
Morocco	55.2	59.9	61.6	63.7	61.6	66.5	63.7	66.9	65.3	65.9	65.9	7.0%
Mozambique	10.0	8.4	8.2	5.6	4.4	4.3	4.4	4.3	5.7	6.5	5.9	36.0%
Namibia	..	..	..	..	..	47.4	46.0	44.5	47.4	46.8	47.0	..
Nigeria	4.3	7.3	13.1	13.5	10.4	11.0	12.2	13.1	11.2	11.6	11.5	10.6%
Senegal	23.3	27.6	31.2	32.3	30.1	31.7	35.4	39.8	33.0	33.0	32.6	8.3%
South Africa	82.4	89.2	76.3	63.2	66.6	63.3	64.9	61.3	63.0	60.9	64.2	-3.7%
Sudan	11.1	10.5	10.6	10.6	12.4	9.1	10.4	16.3	22.1	20.9	20.7	67.7%
United Rep. of Tanzania	4.8	4.7	4.7	4.2	4.2	5.5	4.7	7.1	7.4	8.3	9.6	128.9%
Togo	11.2	9.6	9.8	7.1	10.8	8.8	10.7	9.8	15.8	14.3	12.4	14.9%
Tunisia	53.1	52.7	57.3	55.0	58.3	58.5	58.9	58.0	54.6	55.1	55.6	-4.6%
Zambia	22.7	26.2	17.3	13.3	11.4	8.4	6.5	6.9	5.0	5.8	7.3	-36.4%
Zimbabwe	31.8	29.0	29.3	30.9	41.1	36.0	31.3	25.1	22.9	24.4	24.9	-39.5%
Other Africa	9.0	9.4	11.4	8.5	7.4	7.7	8.2	9.3	10.4	10.4	10.5	43.3%
Africa	**31.3**	**35.2**	**35.5**	**33.8**	**33.3**	**32.4**	**32.9**	**33.1**	**33.8**	**33.0**	**33.7**	**1.1%**

* Includes Estonia and Slovenia prior to 1990.

** Please refer to Chapter 4, *Geographical Coverage*.

*** Serbia includes Kosovo from 1990 to 1999 and Montenegro from 1990 to 2004.

**** Prior to 1990, data for individual countries are not available separately; FSU includes Estonia and Former Yugoslavia includes Slovenia.

CO_2 emissions / TPES

tonnes CO_2 / terajoule

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	% change 90-12
Bangladesh	13.4	16.5	20.5	21.2	25.4	30.4	32.8	36.8	41.0	41.8	42.9	68.5%
Brunei Darussalam	53.7	45.4	46.5	39.3	44.9	47.7	44.4	51.9	55.7	51.0	51.9	15.6%
Cambodia	..	..	..	..	..	12.3	13.7	18.3	17.9	18.0	18.2	..
India	30.6	32.5	33.0	38.6	43.8	48.1	51.2	52.7	57.8	58.1	59.2	35.1%
Indonesia	17.1	22.0	29.5	31.9	35.4	39.1	41.9	44.6	44.8	46.6	48.7	37.7%
DPR of Korea	83.1	82.3	83.0	83.8	82.0	81.3	83.1	82.7	81.2	77.1	77.0	-6.0%
Malaysia	50.1	52.6	48.1	51.5	54.3	58.2	56.8	56.5	59.1	58.1	57.6	6.0%
Mongolia	..	..	..	88.7	88.7	89.1	87.8	86.3	87.1	86.2	86.1	-2.9%
Myanmar	13.8	11.4	13.1	12.7	9.1	13.9	17.4	17.1	13.7	13.8	18.2	101.2%
Nepal	1.2	1.9	2.7	2.6	3.6	6.2	9.0	7.9	9.5	9.8	11.6	217.2%
Pakistan	23.3	24.5	25.2	29.0	32.7	35.5	37.0	37.7	38.3	38.4	38.3	17.2%
Philippines	35.9	38.0	35.5	28.6	31.6	40.4	40.3	43.4	44.9	45.3	44.6	41.3%
Singapore	53.7	54.5	59.1	60.6	62.7	49.6	56.8	47.3	46.0	46.4	47.4	-24.4%
Sri Lanka	17.2	15.2	18.9	16.5	15.8	21.5	29.9	35.2	30.1	33.4	33.6	113.1%
Chinese Taipei	74.0	70.9	61.7	51.6	57.2	59.4	61.5	61.2	58.9	58.5	58.6	2.3%
Thailand	28.3	29.2	36.5	40.4	45.8	54.1	51.1	50.9	48.0	48.5	48.4	5.8%
Viet Nam	29.2	28.7	24.5	25.6	23.0	30.3	36.6	46.0	52.5	52.7	52.6	128.8%
Other Asia	44.2	46.5	51.0	37.6	35.5	32.4	32.8	38.7	42.8	43.8	44.4	25.1%
Asia (excl. China)	**33.0**	**35.0**	**37.2**	**39.8**	**43.1**	**46.4**	**48.5**	**50.0**	**52.5**	**52.9**	**53.7**	**24.6%**
People's Rep. of China	49.7	52.7	56.9	59.5	61.6	69.1	68.1	72.7	68.6	69.2	67.7	10.0%
Hong Kong, China	72.9	71.1	75.0	80.0	90.8	80.8	70.9	76.6	71.3	71.8	73.4	-19.1%
China	**49.9**	**52.9**	**57.0**	**59.7**	**61.9**	**69.2**	**68.1**	**72.7**	**68.6**	**69.2**	**67.7**	**9.5%**
Argentina	58.7	56.8	54.6	51.0	51.8	52.9	55.0	54.4	53.5	54.9	56.1	8.4%
Bolivia	50.9	51.9	41.0	40.6	47.1	43.7	29.4	35.4	44.8	46.4	45.8	-2.9%
Brazil	30.9	35.6	37.3	30.3	32.8	34.9	38.7	35.8	34.9	36.1	37.3	13.9%
Colombia	46.0	43.8	47.2	47.3	45.6	50.5	54.8	51.2	47.3	51.9	50.9	11.7%
Costa Rica	37.3	41.7	41.5	37.7	37.0	44.7	37.0	35.2	33.6	34.3	34.1	-7.8%
Cuba	45.6	47.4	48.1	48.7	45.6	48.1	50.4	55.8	62.1	60.9	60.5	32.6%
Dominican Republic	35.2	40.0	43.6	43.8	44.8	51.9	55.8	62.5	63.6	63.4	62.7	39.9%
Ecuador	37.8	45.0	50.2	49.9	50.5	51.7	52.2	57.6	57.0	54.4	54.8	8.6%
El Salvador	19.4	21.3	16.6	16.0	21.6	32.9	31.4	33.2	33.1	33.6	33.6	55.4%
Guatemala	20.0	21.8	26.6	20.3	17.4	26.1	28.7	32.3	24.0	22.7	22.6	30.2%
Haiti	5.9	5.7	7.0	10.0	14.5	12.8	16.7	13.9	13.1	13.0	12.2	-15.9%
Honduras	19.2	20.4	21.5	19.8	21.6	29.9	35.4	41.1	38.0	38.2	38.4	77.4%
Jamaica	65.5	66.0	68.2	64.3	61.6	62.2	60.6	65.5	61.1	60.5	60.4	-1.9%
Netherlands Antilles	63.0	63.1	53.2	60.9	45.0	51.4	50.3	53.0	60.1	54.7	55.2	22.6%
Nicaragua	28.9	29.7	27.9	22.3	21.7	26.4	33.4	33.7	35.2	35.0	31.0	43.1%
Panama	36.5	44.3	49.6	41.1	41.1	49.2	45.9	56.5	57.5	56.9	56.8	38.2%
Paraguay	10.0	11.3	15.6	15.0	14.9	21.0	20.2	20.7	23.3	24.0	24.2	62.4%
Peru	40.7	42.5	43.6	41.2	47.1	51.6	51.8	50.5	51.9	51.8	50.4	7.0%
Trinidad and Tobago	55.7	60.0	49.5	45.1	45.4	47.7	44.2	45.9	45.7	45.9	46.1	1.6%
Uruguay	51.6	53.3	50.2	37.3	39.8	42.0	40.7	42.8	36.0	39.9	43.3	8.8%
Venezuela	63.5	59.9	62.4	57.5	57.6	54.7	53.6	57.0	57.9	54.4	55.8	-3.2%
Other Non-OECD Americas	39.8	42.8	42.2	61.0	57.7	63.0	63.7	62.7	64.6	64.4	64.5	11.9%
Non-OECD Americas	**43.2**	**44.0**	**44.9**	**40.4**	**41.6**	**43.5**	**45.3**	**44.5**	**43.8**	**44.1**	**44.9**	**7.7%**
Bahrain	51.1	59.5	63.0	57.9	56.8	57.2	53.6	51.8	53.8	53.7	54.6	-3.9%
Islamic Republic of Iran	59.9	64.1	56.6	65.0	61.6	59.3	61.2	58.3	58.5	59.1	57.9	-6.0%
Iraq	59.9	60.8	66.8	63.7	64.7	67.4	64.7	66.6	64.3	64.7	63.1	-2.5%
Jordan	64.9	67.5	67.1	67.7	67.4	67.7	70.5	64.5	63.1	66.9	68.0	0.8%
Kuwait	54.8	55.6	60.7	63.2	75.3	58.0	62.4	63.4	59.6	62.2	63.0	-16.4%
Lebanon	58.6	62.4	63.6	67.1	66.7	69.6	68.7	68.6	68.6	69.5	70.0	4.9%
Oman	26.6	71.5	46.3	64.3	57.4	57.4	62.3	55.7	61.8	61.4	61.4	6.9%
Qatar	57.5	57.3	55.4	51.8	52.3	55.2	52.4	52.2	51.6	50.1	47.7	-8.7%
Saudi Arabia	41.3	61.3	76.1	63.7	62.2	54.4	57.7	58.3	53.4	57.7	54.7	-12.0%
Syrian Arab Republic	60.5	70.6	70.3	64.3	64.3	64.7	60.3	63.1	63.4	63.7	63.7	-0.9%
United Arab Emirates	57.8	60.2	63.1	62.0	60.7	60.1	60.2	59.9	58.9	59.2	60.5	-0.2%
Yemen	38.7	60.0	64.6	66.1	61.1	65.3	66.5	67.6	67.7	68.5	68.9	12.8%
Middle East	**55.1**	**62.2**	**64.5**	**63.6**	**62.3**	**59.2**	**60.3**	**59.4**	**57.6**	**59.2**	**57.8**	**-7.2%**

CO_2 emissions / GDP using exchange rates

kilogrammes CO_2 / US dollar using 2005 prices

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	% change 90-12
World *	**0.87**	**0.83**	**0.79**	**0.72**	**0.69**	**0.64**	**0.59**	**0.59**	**0.59**	**0.59**	**0.58**	**-15.4%**
Annex I Parties	*..*	*..*	*..*	*..*	*0.55*	*0.48*	*0.43*	*0.40*	*0.36*	*0.35*	*0.34*	*-37.8%*
Annex II Parties	*0.67*	*0.61*	*0.56*	*0.47*	*0.42*	*0.40*	*0.36*	*0.34*	*0.30*	*0.29*	*0.29*	*-32.1%*
North America	*0.95*	*0.87*	*0.78*	*0.65*	*0.59*	*0.55*	*0.49*	*0.44*	*0.40*	*0.39*	*0.36*	*-38.6%*
Europe	*0.51*	*0.46*	*0.43*	*0.37*	*0.32*	*0.29*	*0.26*	*0.24*	*0.22*	*0.20*	*0.20*	*-36.1%*
Asia Oceania	*0.47*	*0.45*	*0.39*	*0.32*	*0.31*	*0.31*	*0.30*	*0.30*	*0.28*	*0.28*	*0.29*	*-6.6%*
Annex I EIT	*..*	*..*	*..*	*..*	*2.42*	*2.34*	*1.89*	*1.50*	*1.29*	*1.28*	*1.25*	*-48.6%*
Non-Annex I Parties	*..*	*..*	*..*	*..*	*1.22*	*1.20*	*1.11*	*1.16*	*1.09*	*1.09*	*1.08*	*-11.3%*
Annex I Kyoto Parties	*..*	*..*	*..*	*..*	*0.52*	*0.44*	*0.38*	*0.36*	*0.33*	*0.32*	*0.32*	*-38.4%*
Non-OECD Total **	**1.59**	**1.61**	**1.58**	**1.61**	**1.69**	**1.55**	**1.39**	**1.37**	**1.24**	**1.24**	**1.23**	**-27.4%**
OECD Total ***	**0.69**	**0.63**	**0.58**	**0.50**	**0.44**	**0.42**	**0.39**	**0.36**	**0.33**	**0.32**	**0.31**	**-30.8%**
Canada	0.81	0.76	0.72	0.59	0.55	0.55	0.51	0.47	0.43	0.42	0.41	-25.3%
Chile	0.71	0.67	0.59	0.52	0.59	0.49	0.53	0.47	0.47	0.49	0.47	-20.8%
Mexico	0.38	0.41	0.45	0.49	0.47	0.49	0.44	0.45	0.44	0.44	0.42	-10.4%
United States	0.96	0.88	0.79	0.65	0.59	0.55	0.49	0.44	0.40	0.38	0.36	-39.7%
OECD Americas	**0.92**	**0.84**	**0.76**	**0.64**	**0.58**	**0.55**	**0.49**	**0.44**	**0.40**	**0.39**	**0.37**	**-37.0%**
Australia	0.55	0.62	0.62	0.57	0.57	0.54	0.52	0.49	0.45	0.43	0.42	-27.1%
Israel	0.44	0.40	0.40	0.43	0.47	0.47	0.44	0.43	0.39	0.37	0.39	-18.5%
Japan	0.46	0.43	0.36	0.29	0.27	0.28	0.27	0.26	0.24	0.26	0.26	-5.0%
Korea	0.78	0.80	0.87	0.70	0.64	0.68	0.65	0.56	0.55	0.56	0.55	-13.6%
New Zealand	0.28	0.29	0.29	0.29	0.32	0.31	0.33	0.30	0.26	0.25	0.26	-20.4%
OECD Asia Oceania	**0.48**	**0.47**	**0.41**	**0.35**	**0.33**	**0.35**	**0.35**	**0.33**	**0.32**	**0.33**	**0.33**	**-1.3%**
Austria	0.38	0.34	0.32	0.29	0.26	0.25	0.22	0.24	0.21	0.20	0.19	-26.8%
Belgium	0.68	0.59	0.55	0.42	0.39	0.38	0.34	0.30	0.27	0.27	0.26	-33.4%
Czech Republic	2.16	1.91	1.86	1.85	1.47	1.29	1.15	0.92	0.77	0.75	0.72	-51.1%
Denmark	0.44	0.39	0.41	0.35	0.27	0.28	0.21	0.19	0.18	0.16	0.14	-46.9%
Estonia	..	..	..	..	3.53	2.25	1.49	1.21	1.33	1.15	1.03	-70.7%
Finland	0.54	0.50	0.53	0.41	0.39	0.41	0.32	0.28	0.31	0.26	0.24	-38.7%
France	0.46	0.40	0.36	0.26	0.22	0.21	0.19	0.18	0.16	0.15	0.15	-31.7%
Germany	0.72	0.65	0.60	0.54	0.43	0.35	0.31	0.29	0.26	0.24	0.25	-42.7%
Greece	0.25	0.29	0.31	0.37	0.45	0.46	0.44	0.40	0.35	0.37	0.37	-17.1%
Hungary	1.18	1.08	1.07	0.95	0.76	0.74	0.60	0.51	0.45	0.43	0.40	-47.2%
Iceland	0.29	0.28	0.22	0.18	0.18	0.19	0.16	0.13	0.12	0.11	0.11	-41.3%
Ireland	0.61	0.48	0.48	0.43	0.39	0.34	0.26	0.22	0.19	0.17	0.17	-56.4%
Italy	0.37	0.35	0.31	0.28	0.27	0.26	0.25	0.26	0.23	0.22	0.22	-20.9%
Luxembourg	1.63	1.14	1.00	0.74	0.54	0.34	0.25	0.30	0.26	0.25	0.25	-53.9%
Netherlands	0.48	0.46	0.47	0.41	0.36	0.35	0.29	0.28	0.27	0.25	0.26	-28.3%
Norway	0.24	0.20	0.19	0.16	0.15	0.14	0.12	0.12	0.12	0.12	0.11	-26.3%
Poland	2.11	1.94	2.28	2.29	1.90	1.65	1.11	0.96	0.80	0.75	0.72	-62.1%
Portugal	0.22	0.23	0.24	0.24	0.29	0.32	0.32	0.33	0.24	0.24	0.24	-15.1%
Slovak Republic	1.64	1.62	1.83	1.67	1.62	1.28	0.99	0.80	0.59	0.55	0.51	-68.9%
Slovenia	..	..	..	..	0.54	0.58	0.47	0.44	0.40	0.39	0.38	-28.7%
Spain	0.30	0.32	0.34	0.30	0.28	0.30	0.29	0.30	0.23	0.23	0.23	-18.2%
Sweden	0.47	0.40	0.35	0.25	0.20	0.21	0.16	0.14	0.12	0.11	0.10	-51.6%
Switzerland	0.16	0.15	0.15	0.15	0.13	0.13	0.12	0.12	0.10	0.09	0.09	-27.1%
Turkey	0.36	0.41	0.44	0.46	0.47	0.48	0.52	0.45	0.47	0.46	0.48	2.4%
United Kingdom	0.65	0.56	0.50	0.43	0.37	0.31	0.26	0.23	0.20	0.18	0.19	-48.3%
OECD Europe ***	**0.57**	**0.52**	**0.50**	**0.43**	**0.37**	**0.33**	**0.29**	**0.28**	**0.25**	**0.24**	**0.24**	**-36.3%**
European Union - 28	*..*	*..*	*..*	*..*	*0.40*	*0.36*	*0.31*	*0.29*	*0.25*	*0.24*	*0.24*	-40.6%

* The ratio for the world has been calculated to include international marine bunkers and international aviation bunkers.
** Includes Estonia and Slovenia prior to 1990.
*** Excludes Estonia and Slovenia prior to 1990.

CO_2 emissions / GDP using exchange rates

kilogrammes CO_2 / US dollar using 2005 prices

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	% change 90-12
Non-OECD Total *	**1.59**	**1.61**	**1.58**	**1.61**	**1.69**	**1.55**	**1.39**	**1.37**	**1.24**	**1.24**	**1.23**	**-27.4%**
Albania	1.30	1.19	1.53	1.31	1.11	0.38	0.47	0.47	0.36	0.37	0.34	-69.3%
Armenia	..	..	..	..	5.04	1.59	1.24	0.84	0.68	0.75	0.82	-83.8%
Azerbaijan	..	..	..	..	4.60	6.78	3.96	2.33	0.84	0.95	1.01	-78.0%
Belarus	..	..	..	..	5.26	3.98	2.78	2.05	1.50	1.45	1.55	-70.6%
Bosnia and Herzegovina	..	..	..	..	10.09	1.28	1.57	1.43	1.57	1.76	1.65	-83.7%
Bulgaria	5.88	4.95	4.26	3.50	3.00	2.44	1.92	1.60	1.34	1.46	1.31	-56.4%
Croatia	..	..	..	..	0.51	0.52	0.49	0.46	0.41	0.41	0.38	-25.1%
Cyprus **	0.70	0.56	0.49	0.40	0.40	0.42	0.43	0.41	0.37	0.36	0.34	-14.2%
FYR of Macedonia	..	..	..	..	1.40	1.71	1.52	1.47	1.15	1.26	1.19	-15.4%
Georgia	..	..	..	..	2.77	2.38	1.02	0.68	0.59	0.71	0.73	-73.7%
Gibraltar	0.22	0.20	0.21	0.19	0.25	0.41	0.43	0.45	0.51	0.49	0.48	96.7%
Kazakhstan	..	..	..	..	4.71	5.43	3.24	2.75	2.81	2.78	2.59	-45.0%
Kosovo ***	..	..	..	..	..	..	1.90	1.75	1.78	1.67	1.52	..
Kyrgyzstan	..	..	..	..	7.32	2.85	2.16	1.98	1.97	2.22	2.96	-59.5%
Latvia	..	..	..	..	1.30	1.08	0.63	0.47	0.52	0.45	0.41	-68.4%
Lithuania	..	..	..	..	1.34	0.99	0.63	0.52	0.49	0.46	0.44	-66.9%
Malta	0.70	0.48	0.42	0.45	0.67	0.53	0.37	0.45	0.37	0.36	0.37	-44.9%
Republic of Moldova	..	..	..	..	5.06	4.94	3.06	2.57	2.25	2.12	2.06	-59.3%
Montenegro ***	..	..	..	..	..	..	..	0.87	0.89	0.86	0.80	..
Romania	3.04	2.46	2.13	1.79	1.89	1.48	1.17	0.95	0.66	0.70	0.67	-64.3%
Russian Federation	..	..	..	..	2.58	2.98	2.64	1.98	1.74	1.74	1.69	-34.6%
Serbia ***	..	..	..	..	1.75	2.53	1.98	1.95	1.64	1.76	1.58	-9.7%
Tajikistan	..	..	..	..	2.86	1.69	1.50	1.01	0.72	0.70	0.75	-74.0%
Turkmenistan	..	..	..	..	5.53	6.53	5.78	5.90	4.26	4.04	3.77	-31.8%
Ukraine	..	..	..	..	5.02	5.97	4.90	3.55	3.00	3.00	2.94	-41.4%
Uzbekistan	..	..	..	..	10.68	11.16	10.73	7.59	4.66	4.69	4.41	-58.7%
Former Soviet Union ****	3.09	3.18	3.10	2.92	..	..	..	..	..	..	..	..
Former Yugoslavia ****	0.99	0.96	0.83	1.13	..	..	..	..	..	..	..	..
Non-OECD Europe and Eurasia *	**2.93**	**2.96**	**2.83**	**2.68**	**2.91**	**3.06**	**2.54**	**1.96**	**1.69**	**1.71**	**1.66**	**-42.8%**
Algeria	0.35	0.37	0.56	0.68	0.79	0.84	0.81	0.77	0.84	0.87	0.93	17.1%
Angola	0.13	0.16	0.22	0.21	0.25	0.31	0.29	0.23	0.31	0.30	0.29	17.3%
Benin	0.24	0.34	0.23	0.23	0.11	0.08	0.40	0.61	0.86	0.87	0.87	682.6%
Botswana	..	..	..	0.50	0.54	0.49	0.48	0.43	0.40	0.35	0.33	-37.7%
Cameroon	0.15	0.16	0.19	0.18	0.22	0.23	0.20	0.18	0.26	0.26	0.26	16.9%
Congo	0.37	0.28	0.26	0.17	0.14	0.11	0.10	0.14	0.23	0.25	0.26	81.2%
Dem. Rep. of Congo	0.26	0.25	0.33	0.31	0.29	0.16	0.15	0.18	0.19	0.23	0.22	-21.6%
Côte d'Ivoire	0.30	0.30	0.28	0.25	0.21	0.23	0.39	0.35	0.34	0.34	0.41	97.7%
Egypt	1.30	1.43	1.46	1.63	1.61	1.44	1.36	1.68	1.52	1.55	1.56	-2.6%
Eritrea	..	..	..	..	..	0.93	0.63	0.53	0.45	0.44	0.44	..
Ethiopia	0.25	0.22	0.25	0.27	0.33	0.33	0.37	0.37	0.30	0.31	0.32	-1.2%
Gabon	0.16	0.12	0.23	0.26	0.13	0.17	0.19	0.20	0.24	0.24	0.23	68.4%
Ghana	0.43	0.55	0.51	0.50	0.49	0.49	0.60	0.61	0.71	0.65	0.70	41.7%
Kenya	0.65	0.54	0.51	0.47	0.42	0.41	0.50	0.40	0.48	0.47	0.41	-2.0%
Libya	0.09	0.26	0.34	0.58	0.77	1.03	1.10	1.03	0.95	1.69	1.20	54.9%
Mauritius	0.25	0.30	0.32	0.27	0.36	0.38	0.44	0.46	0.46	0.44	0.44	22.9%
Morocco	0.42	0.51	0.55	0.55	0.53	0.67	0.63	0.66	0.61	0.63	0.62	17.2%
Mozambique	1.00	0.96	0.93	0.76	0.43	0.38	0.31	0.23	0.26	0.29	0.25	-42.2%
Namibia	..	..	..	..	..	0.37	0.34	0.32	0.34	0.32	0.32	..
Nigeria	0.13	0.23	0.43	0.60	0.51	0.58	0.65	0.52	0.35	0.37	0.36	-29.3%
Senegal	0.36	0.43	0.51	0.46	0.42	0.44	0.51	0.53	0.52	0.54	0.51	23.9%
South Africa	1.42	1.59	1.42	1.45	1.48	1.54	1.45	1.33	1.30	1.21	1.22	-17.5%
Sudan	0.51	0.42	0.42	0.46	0.49	0.31	0.30	0.39	0.43	0.42	0.46	-4.5%
United Rep. of Tanzania	0.39	0.32	0.29	0.27	0.23	0.31	0.26	0.36	0.32	0.35	0.40	73.2%
Togo	0.36	0.27	0.25	0.21	0.35	0.36	0.47	0.46	0.83	0.73	0.59	67.0%
Tunisia	0.59	0.57	0.68	0.68	0.74	0.72	0.69	0.63	0.57	0.56	0.57	-23.6%
Zambia	0.82	0.94	0.70	0.57	0.49	0.41	0.30	0.29	0.18	0.20	0.25	-49.9%
Zimbabwe	1.96	1.68	1.73	1.69	2.25	1.97	1.55	1.76	1.72	1.71	1.71	-24.0%
Other Africa	0.27	0.29	0.35	0.28	0.29	0.34	0.32	0.29	0.29	0.29	0.28	-1.8%
Africa	**0.67**	**0.77**	**0.77**	**0.85**	**0.88**	**0.92**	**0.89**	**0.84**	**0.78**	**0.77**	**0.78**	**-12.3%**

* Includes Estonia and Slovenia prior to 1990.

** Please refer to Chapter 4, *Geographical Coverage*.

*** Serbia includes Kosovo from 1990 to 1999 and Montenegro from 1990 to 2004.

**** Prior to 1990, data for individual countries are not available separately; FSU includes Estonia and Former Yugoslavia includes Slovenia.

CO_2 emissions / GDP using exchange rates

kilogrammes CO_2 / US dollar using 2005 prices

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	% change 90-12
Bangladesh	0.18	0.28	0.36	0.37	0.47	0.56	0.54	0.58	0.64	0.64	0.64	37.6%
Brunei Darussalam	0.10	0.28	0.32	0.43	0.47	0.56	0.51	0.51	0.77	0.82	0.82	73.3%
Cambodia	..	..	..	..	..	0.52	0.49	0.42	0.43	0.43	0.42	..
India	1.30	1.38	1.39	1.57	1.66	1.72	1.62	1.43	1.41	1.38	1.41	-15.1%
Indonesia	0.62	0.69	0.85	0.83	0.97	0.98	1.20	1.17	1.04	0.99	1.02	4.7%
DPR of Korea	8.82	6.40	5.10	3.82	2.89	2.42	2.49	2.58	2.42	1.67	1.66	-42.6%
Malaysia	0.80	0.76	0.76	0.83	0.88	0.95	1.03	1.10	1.05	1.02	0.99	12.2%
Mongolia	..	..	..	7.53	6.85	6.24	4.78	3.76	3.63	3.20	3.12	-54.4%
Myanmar	2.39	1.88	1.79	1.61	1.23	1.57	1.43	0.88	0.39	0.38	0.51	-58.7%
Nepal	0.09	0.13	0.19	0.16	0.21	0.32	0.44	0.37	0.40	0.42	0.45	113.6%
Pakistan	0.82	0.89	0.82	0.89	1.00	1.09	1.16	1.10	1.05	1.02	0.99	-1.2%
Philippines	0.74	0.74	0.63	0.58	0.61	0.82	0.82	0.68	0.58	0.56	0.55	-10.4%
Singapore	0.55	0.54	0.54	0.52	0.61	0.52	0.45	0.34	0.28	0.28	0.27	-55.3%
Sri Lanka	0.52	0.42	0.45	0.34	0.30	0.34	0.52	0.54	0.37	0.40	0.41	37.3%
Chinese Taipei	1.01	0.91	0.90	0.66	0.69	0.67	0.72	0.72	0.61	0.57	0.53	-22.2%
Thailand	0.72	0.74	0.81	0.77	0.90	1.04	1.13	1.20	1.12	1.15	1.15	26.8%
Viet Nam	1.51	1.55	1.30	1.09	0.86	0.94	1.07	1.38	1.65	1.62	1.63	88.8%
Other Asia	0.71	0.77	0.87	0.48	0.41	0.32	0.36	0.36	0.34	0.34	0.34	-16.1%
Asia (excl. China)	**1.12**	**1.13**	**1.11**	**1.12**	**1.14**	**1.13**	**1.16**	**1.10**	**1.06**	**1.03**	**1.04**	**-8.7%**
People's Rep. of China	6.44	6.78	6.59	4.79	4.27	3.22	2.34	2.39	1.89	1.90	1.81	-57.5%
Hong Kong, China	0.39	0.36	0.28	0.32	0.33	0.28	0.27	0.23	0.19	0.20	0.19	-41.5%
China	**5.49**	**5.74**	**5.36**	**4.07**	**3.64**	**2.87**	**2.14**	**2.23**	**1.80**	**1.81**	**1.73**	**-52.3%**
Argentina	0.85	0.79	0.77	0.81	0.94	0.82	0.85	0.83	0.69	0.67	0.65	-30.2%
Bolivia	0.54	0.64	0.75	0.84	0.91	0.99	0.87	0.99	1.18	1.21	1.23	35.6%
Brazil	0.36	0.37	0.35	0.30	0.32	0.34	0.39	0.37	0.35	0.36	0.39	20.5%
Colombia	0.65	0.55	0.53	0.53	0.49	0.51	0.48	0.40	0.34	0.35	0.33	-32.4%
Costa Rica	0.27	0.29	0.28	0.26	0.26	0.34	0.27	0.29	0.26	0.26	0.25	-7.2%
Cuba	1.12	1.09	1.17	0.82	0.88	0.84	0.82	0.59	0.54	0.51	0.51	-42.3%
Dominican Republic	0.49	0.53	0.50	0.45	0.47	0.55	0.57	0.51	0.40	0.38	0.38	-18.3%
Ecuador	0.31	0.35	0.51	0.50	0.50	0.55	0.59	0.59	0.66	0.60	0.60	20.0%
El Salvador	0.17	0.20	0.17	0.20	0.23	0.35	0.34	0.37	0.32	0.32	0.32	39.8%
Guatemala	0.26	0.28	0.29	0.24	0.20	0.30	0.36	0.39	0.31	0.31	0.30	46.5%
Haiti	0.12	0.12	0.14	0.18	0.22	0.24	0.33	0.48	0.48	0.47	0.44	101.5%
Honduras	0.41	0.42	0.38	0.35	0.39	0.53	0.58	0.73	0.63	0.64	0.66	69.4%
Jamaica	0.77	0.97	1.00	0.70	0.85	0.82	0.97	0.92	0.62	0.65	0.63	-26.5%
Netherlands Antilles	13.67	8.49	6.36	3.13	1.60	1.47	1.90	1.87	1.55	1.74	1.77	10.4%
Nicaragua	0.33	0.33	0.40	0.39	0.47	0.59	0.65	0.64	0.60	0.58	0.53	12.6%
Panama	0.52	0.56	0.44	0.34	0.34	0.41	0.39	0.44	0.39	0.38	0.35	3.7%
Paraguay	0.30	0.28	0.32	0.30	0.31	0.44	0.41	0.39	0.42	0.42	0.44	44.0%
Peru	0.45	0.44	0.43	0.38	0.44	0.41	0.41	0.36	0.37	0.37	0.36	-18.1%
Trinidad and Tobago	1.01	0.85	0.79	1.07	1.42	1.43	1.66	1.92	2.02	2.03	1.96	38.0%
Uruguay	0.57	0.55	0.45	0.31	0.30	0.30	0.31	0.31	0.27	0.30	0.33	8.2%
Venezuela	0.70	0.74	0.96	1.04	1.01	0.96	0.99	1.02	1.04	0.88	0.93	-7.9%
Other Non-OECD Americas	0.60	0.77	0.54	0.46	0.48	0.49	0.46	0.43	0.49	0.49	0.49	3.2%
Non-OECD Americas	**0.56**	**0.53**	**0.52**	**0.48**	**0.50**	**0.50**	**0.54**	**0.51**	**0.48**	**0.47**	**0.48**	**-3.2%**
Bahrain	1.47	1.40	1.19	1.74	1.72	1.53	1.43	1.41	1.34	1.31	1.30	-24.1%
Islamic Republic of Iran	0.62	0.75	1.09	1.46	1.76	2.10	2.15	2.20	2.10	2.10	2.17	23.3%
Iraq	0.11	0.13	0.15	0.32	0.86	4.11	1.44	1.50	1.50	1.47	1.48	71.3%
Jordan	0.59	0.96	0.93	1.25	1.65	1.54	1.55	1.43	1.10	1.13	1.21	-26.7%
Kuwait	0.31	0.40	0.66	1.17	0.79	0.73	0.90	0.87	0.94	0.93	0.94	20.3%
Lebanon	0.32	0.40	0.55	0.39	0.57	0.76	0.78	0.66	0.61	0.60	0.67	17.0%
Oman	0.06	0.13	0.32	0.40	0.61	0.67	0.77	0.84	1.38	1.50	1.47	139.9%
Qatar	0.14	0.30	0.41	0.78	0.92	1.09	0.79	0.82	0.59	0.58	0.61	-33.4%
Saudi Arabia	0.18	0.15	0.47	0.73	0.76	0.85	0.91	0.91	0.95	0.91	0.92	20.7%
Syrian Arab Republic	1.27	1.12	1.18	1.64	2.04	1.62	1.75	1.90	1.57	1.49	1.40	-31.6%
United Arab Emirates	0.16	0.12	0.23	0.46	0.59	0.66	0.62	0.60	0.74	0.75	0.77	31.2%
Yemen	0.63	0.65	0.74	0.72	0.82	0.88	0.97	1.11	1.14	1.07	1.08	31.5%
Middle East	**0.29**	**0.32**	**0.46**	**0.78**	**0.98**	**1.21**	**1.15**	**1.16**	**1.17**	**1.14**	**1.15**	**17.8%**

CO_2 emissions / GDP using purchasing power parities

kilogrammes CO_2 / US dollar using 2005 prices

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	% change 90-12
World *	**0.69**	**0.65**	**0.61**	**0.56**	**0.53**	**0.49**	**0.45**	**0.43**	**0.40**	**0.39**	**0.38**	**-27.9%**
Annex I Parties	*..*	*..*	*..*	*..*	*0.54*	*0.49*	*0.43*	*0.40*	*0.36*	*0.35*	*0.34*	*-37.4%*
Annex II Parties	*0.72*	*0.66*	*0.60*	*0.50*	*0.45*	*0.42*	*0.39*	*0.36*	*0.33*	*0.31*	*0.30*	*-32.5%*
North America	*0.95*	*0.87*	*0.78*	*0.65*	*0.59*	*0.55*	*0.49*	*0.44*	*0.40*	*0.39*	*0.36*	*-38.6%*
Europe	*0.57*	*0.51*	*0.48*	*0.41*	*0.35*	*0.32*	*0.29*	*0.27*	*0.24*	*0.23*	*0.23*	*-36.0%*
Asia Oceania	*0.54*	*0.52*	*0.45*	*0.37*	*0.36*	*0.35*	*0.35*	*0.34*	*0.32*	*0.33*	*0.33*	*-7.3%*
Annex I EIT	*..*	*..*	*..*	*..*	*1.12*	*1.13*	*0.93*	*0.72*	*0.62*	*0.62*	*0.60*	*-46.3%*
Non-Annex I Parties	*..*	*..*	*..*	*..*	*0.47*	*0.46*	*0.43*	*0.44*	*0.40*	*0.40*	*0.40*	*-15.1%*
Annex I Kyoto Parties	*..*	*..*	*..*	*..*	*0.52*	*0.45*	*0.40*	*0.37*	*0.33*	*0.32*	*0.32*	*-37.4%*
Non-OECD Total **	**0.58**	**0.59**	**0.58**	**0.59**	**0.61**	**0.55**	**0.49**	**0.48**	**0.43**	**0.43**	**0.42**	**-30.5%**
OECD Total ***	**0.71**	**0.65**	**0.60**	**0.51**	**0.46**	**0.43**	**0.39**	**0.36**	**0.33**	**0.32**	**0.31**	**-32.2%**
Canada	0.81	0.76	0.72	0.59	0.55	0.55	0.52	0.47	0.43	0.42	0.41	-25.3%
Chile	0.42	0.40	0.35	0.31	0.35	0.29	0.32	0.28	0.28	0.29	0.28	-20.7%
Mexico	0.25	0.27	0.30	0.32	0.31	0.32	0.29	0.29	0.29	0.29	0.28	-10.4%
United States	0.96	0.88	0.79	0.65	0.59	0.55	0.49	0.44	0.40	0.38	0.36	-39.7%
OECD Americas	**0.89**	**0.81**	**0.73**	**0.61**	**0.56**	**0.53**	**0.48**	**0.43**	**0.39**	**0.38**	**0.35**	**-37.3%**
Australia	0.58	0.66	0.66	0.60	0.61	0.57	0.55	0.52	0.47	0.46	0.44	-27.1%
Israel	0.37	0.33	0.33	0.36	0.39	0.39	0.37	0.36	0.32	0.30	0.32	-18.5%
Japan	0.54	0.51	0.42	0.34	0.32	0.32	0.32	0.31	0.29	0.30	0.31	-5.0%
Korea	0.60	0.62	0.67	0.54	0.49	0.52	0.50	0.43	0.43	0.43	0.42	-13.6%
New Zealand	0.30	0.31	0.31	0.32	0.35	0.34	0.36	0.32	0.28	0.27	0.28	-20.4%
OECD Asia Oceania	**0.54**	**0.53**	**0.46**	**0.39**	**0.37**	**0.38**	**0.38**	**0.36**	**0.34**	**0.35**	**0.35**	**-5.8%**
Austria	0.42	0.38	0.36	0.32	0.29	0.27	0.24	0.27	0.24	0.22	0.21	-26.8%
Belgium	0.77	0.66	0.61	0.47	0.43	0.43	0.38	0.34	0.31	0.30	0.29	-33.4%
Czech Republic	1.29	1.14	1.11	1.11	0.88	0.77	0.69	0.55	0.46	0.45	0.43	-51.1%
Denmark	0.63	0.56	0.59	0.50	0.39	0.40	0.30	0.27	0.26	0.23	0.21	-46.9%
Estonia	..	..	..	..	2.20	1.41	0.93	0.76	0.83	0.72	0.64	-70.7%
Finland	0.66	0.61	0.65	0.50	0.47	0.50	0.39	0.34	0.37	0.32	0.29	-38.7%
France	0.53	0.45	0.41	0.30	0.25	0.24	0.22	0.21	0.19	0.17	0.17	-31.7%
Germany	0.77	0.70	0.65	0.58	0.46	0.38	0.33	0.31	0.28	0.26	0.26	-42.6%
Greece	0.22	0.26	0.28	0.33	0.40	0.41	0.39	0.35	0.31	0.33	0.33	-17.1%
Hungary	0.76	0.69	0.69	0.61	0.49	0.47	0.39	0.33	0.29	0.28	0.26	-47.2%
Iceland	0.46	0.44	0.35	0.29	0.29	0.30	0.26	0.21	0.19	0.17	0.17	-41.3%
Ireland	0.77	0.61	0.60	0.54	0.49	0.42	0.32	0.27	0.24	0.21	0.21	-56.4%
Italy	0.39	0.37	0.34	0.30	0.30	0.29	0.27	0.28	0.24	0.24	0.23	-20.9%
Luxembourg	1.93	1.35	1.19	0.87	0.64	0.41	0.30	0.36	0.31	0.30	0.29	-53.9%
Netherlands	0.54	0.51	0.53	0.46	0.40	0.39	0.32	0.31	0.31	0.28	0.28	-28.3%
Norway	0.33	0.28	0.26	0.22	0.21	0.20	0.17	0.17	0.17	0.16	0.15	-26.4%
Poland	1.22	1.12	1.32	1.32	1.10	0.95	0.64	0.56	0.46	0.43	0.42	-62.1%
Portugal	0.18	0.20	0.20	0.20	0.24	0.27	0.27	0.28	0.21	0.21	0.21	-15.1%
Slovak Republic	0.90	0.89	1.01	0.92	0.89	0.70	0.55	0.44	0.32	0.30	0.28	-68.9%
Slovenia	..	..	..	..	0.41	0.44	0.36	0.33	0.30	0.30	0.29	-28.6%
Spain	0.28	0.30	0.33	0.28	0.27	0.28	0.28	0.29	0.22	0.22	0.22	-18.2%
Sweden	0.59	0.50	0.43	0.31	0.25	0.26	0.20	0.17	0.15	0.13	0.12	-51.6%
Switzerland	0.23	0.22	0.21	0.21	0.18	0.18	0.16	0.16	0.14	0.13	0.13	-27.0%
Turkey	0.22	0.25	0.27	0.28	0.29	0.30	0.32	0.28	0.29	0.29	0.30	2.4%
United Kingdom	0.75	0.64	0.58	0.50	0.43	0.36	0.30	0.27	0.23	0.21	0.22	-48.3%
OECD Europe ***	**0.61**	**0.55**	**0.52**	**0.46**	**0.39**	**0.35**	**0.31**	**0.29**	**0.26**	**0.24**	**0.24**	**-37.4%**
European Union - 28	*..*	*..*	*..*	*..*	*0.42*	*0.37*	*0.32*	*0.30*	*0.26*	*0.25*	*0.25*	-40.9%

* The ratio for the world has been calculated to include international marine bunkers and international aviation bunkers.
** Includes Estonia and Slovenia prior to 1990.
*** Excludes Estonia and Slovenia prior to 1990.

CO_2 emissions / GDP using purchasing power parities

kilogrammes CO_2 / US dollar using 2005 prices

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	% change 90-12
Non-OECD Total *	**0.58**	**0.59**	**0.58**	**0.59**	**0.61**	**0.55**	**0.49**	**0.48**	**0.43**	**0.43**	**0.42**	**-30.5%**
Albania	0.57	0.52	0.67	0.57	0.49	0.16	0.21	0.21	0.16	0.16	0.15	-69.3%
Armenia	..	..	..	..	1.73	0.55	0.43	0.29	0.24	0.26	0.28	-83.8%
Azerbaijan	..	..	..	..	1.01	1.49	0.87	0.51	0.19	0.21	0.22	-78.0%
Belarus	..	..	..	..	1.70	1.29	0.90	0.66	0.49	0.47	0.50	-70.6%
Bosnia and Herzegovina	..	..	..	..	4.61	0.58	0.72	0.65	0.72	0.80	0.75	-83.7%
Bulgaria	2.24	1.88	1.62	1.33	1.14	0.93	0.73	0.61	0.51	0.56	0.50	-56.4%
Croatia	..	..	..	..	0.34	0.34	0.32	0.30	0.27	0.27	0.25	-25.1%
Cyprus **	0.64	0.51	0.45	0.37	0.37	0.38	0.40	0.38	0.34	0.33	0.32	-14.2%
FYR of Macedonia	..	..	..	..	0.52	0.64	0.57	0.55	0.43	0.47	0.44	-15.4%
Georgia	..	..	..	..	0.97	0.83	0.36	0.24	0.21	0.25	0.25	-73.7%
Gibraltar	0.26	0.24	0.26	0.24	0.30	0.51	0.50	0.52	0.58	0.56	0.57	89.4%
Kazakhstan	..	..	..	..	1.27	1.47	0.88	0.74	0.76	0.75	0.70	-45.0%
Kosovo ***	..	..	..	..	..	..	0.76	0.70	0.71	0.67	0.61	..
Kyrgyzstan	..	..	..	..	1.65	0.64	0.49	0.45	0.45	0.50	0.67	-59.5%
Latvia	..	..	..	..	0.69	0.58	0.34	0.25	0.28	0.24	0.22	-68.4%
Lithuania	..	..	..	..	0.72	0.53	0.34	0.28	0.26	0.25	0.24	-66.9%
Malta	0.49	0.34	0.30	0.32	0.47	0.37	0.26	0.32	0.26	0.26	0.26	-44.9%
Republic of Moldova	..	..	..	..	1.42	1.39	0.86	0.72	0.63	0.59	0.58	-59.3%
Montenegro ***	..	..	..	..	..	..	..	0.38	0.39	0.38	0.35	..
Romania	1.48	1.20	1.04	0.87	0.92	0.72	0.57	0.47	0.32	0.34	0.33	-64.3%
Russian Federation	..	..	..	..	1.16	1.34	1.19	0.89	0.78	0.79	0.76	-34.6%
Serbia ***	..	..	..	..	0.70	1.01	0.79	0.78	0.65	0.70	0.63	-9.6%
Tajikistan	..	..	..	..	0.63	0.37	0.33	0.22	0.16	0.16	0.17	-74.0%
Turkmenistan	..	..	..	..	1.63	1.92	1.70	1.74	1.26	1.19	1.11	-31.8%
Ukraine	..	..	..	..	1.42	1.68	1.38	1.00	0.85	0.84	0.83	-41.4%
Uzbekistan	..	..	..	..	2.15	2.25	2.17	1.53	0.94	0.95	0.89	-58.7%
Former Soviet Union ****	1.31	1.35	1.32	1.24	..	..	..	..	..	..	..	..
Former Yugoslavia ****	0.55	0.54	0.47	0.63	..	..	..	..	..	..	..	..
Non-OECD Europe and Eurasia *	**1.28**	**1.29**	**1.24**	**1.17**	**1.18**	**1.27**	**1.06**	**0.81**	**0.69**	**0.69**	**0.67**	**-43.1%**
Algeria	0.10	0.11	0.16	0.19	0.22	0.24	0.23	0.22	0.24	0.24	0.26	17.2%
Angola	0.06	0.07	0.09	0.09	0.10	0.13	0.12	0.09	0.13	0.12	0.12	17.3%
Benin	0.09	0.13	0.09	0.09	0.04	0.03	0.15	0.23	0.33	0.33	0.33	681.9%
Botswana	..	..	..	0.26	0.28	0.25	0.25	0.22	0.21	0.18	0.17	-37.7%
Cameroon	0.06	0.07	0.08	0.08	0.09	0.10	0.09	0.07	0.11	0.11	0.11	16.9%
Congo	0.14	0.11	0.10	0.07	0.06	0.04	0.04	0.05	0.09	0.10	0.10	81.4%
Dem. Rep. of Congo	0.11	0.10	0.13	0.13	0.12	0.07	0.06	0.07	0.08	0.09	0.09	-21.6%
Côte d'Ivoire	0.12	0.12	0.11	0.10	0.08	0.09	0.15	0.14	0.13	0.13	0.16	97.5%
Egypt	0.21	0.23	0.24	0.27	0.26	0.24	0.22	0.27	0.25	0.25	0.26	-2.6%
Eritrea	..	..	..	..	..	0.18	0.12	0.10	0.09	0.08	0.08	..
Ethiopia	0.06	0.05	0.06	0.07	0.08	0.08	0.09	0.09	0.07	0.08	0.08	-1.2%
Gabon	0.07	0.05	0.10	0.11	0.06	0.07	0.08	0.08	0.10	0.10	0.09	68.5%
Ghana	0.10	0.12	0.11	0.11	0.11	0.11	0.14	0.14	0.16	0.14	0.16	41.7%
Kenya	0.21	0.17	0.16	0.15	0.13	0.13	0.16	0.13	0.15	0.15	0.13	-2.0%
Libya	0.05	0.14	0.18	0.31	0.42	0.56	0.60	0.56	0.52	0.92	0.65	54.9%
Mauritius	0.11	0.13	0.14	0.12	0.16	0.17	0.20	0.21	0.21	0.20	0.20	23.0%
Morocco	0.17	0.21	0.23	0.23	0.22	0.28	0.26	0.27	0.25	0.26	0.26	17.2%
Mozambique	0.48	0.46	0.45	0.37	0.21	0.18	0.15	0.11	0.12	0.14	0.12	-42.2%
Namibia	..	..	..	..	..	0.20	0.18	0.17	0.18	0.17	0.17	..
Nigeria	0.03	0.05	0.09	0.13	0.11	0.13	0.14	0.11	0.08	0.08	0.08	-29.2%
Senegal	0.15	0.18	0.21	0.19	0.17	0.18	0.21	0.22	0.22	0.22	0.21	23.9%
South Africa	0.78	0.88	0.78	0.80	0.82	0.85	0.80	0.73	0.71	0.66	0.67	-17.5%
Sudan	0.14	0.12	0.12	0.13	0.14	0.09	0.08	0.11	0.12	0.12	0.13	-4.5%
United Rep. of Tanzania	0.13	0.11	0.10	0.09	0.08	0.10	0.09	0.12	0.10	0.12	0.13	73.3%
Togo	0.13	0.10	0.09	0.07	0.13	0.13	0.17	0.17	0.30	0.26	0.21	66.9%
Tunisia	0.24	0.23	0.27	0.27	0.30	0.29	0.28	0.25	0.23	0.22	0.23	-23.6%
Zambia	0.25	0.28	0.21	0.17	0.15	0.12	0.09	0.09	0.05	0.06	0.07	-49.9%
Zimbabwe	2.90	2.48	2.55	2.50	3.33	2.91	2.29	2.60	2.54	2.53	2.53	-24.0%
Other Africa	0.10	0.11	0.13	0.10	0.11	0.12	0.12	0.11	0.11	0.11	0.11	-0.3%
Africa	**0.24**	**0.27**	**0.27**	**0.29**	**0.30**	**0.31**	**0.30**	**0.27**	**0.25**	**0.25**	**0.25**	**-18.1%**

* Includes Estonia and Slovenia prior to 1990.

** Please refer to Chapter 4, *Geographical Coverage*.

*** Serbia includes Kosovo from 1990 to 1999 and Montenegro from 1990 to 2004.

**** Prior to 1990, data for individual countries are not available separately; FSU includes Estonia and Former Yugoslavia includes Slovenia.

CO_2 emissions / GDP using purchasing power parities

kilogrammes CO_2 / US dollar using 2005 prices

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	% change 90-12
Bangladesh	0.05	0.08	0.10	0.10	0.13	0.16	0.15	0.17	0.18	0.18	0.18	37.6%
Brunei Darussalam	0.04	0.11	0.13	0.17	0.19	0.22	0.20	0.20	0.30	0.32	0.32	73.3%
Cambodia	..	..	..	..	..	0.14	0.13	0.11	0.12	0.12	0.11	..
India	0.32	0.34	0.35	0.39	0.41	0.43	0.40	0.36	0.35	0.34	0.35	-15.1%
Indonesia	0.14	0.15	0.19	0.18	0.21	0.21	0.26	0.26	0.23	0.22	0.22	4.7%
DPR of Korea	2.35	1.70	1.36	1.02	0.77	0.64	0.66	0.69	0.64	0.45	0.44	-42.6%
Malaysia	0.28	0.26	0.26	0.29	0.31	0.33	0.36	0.38	0.36	0.36	0.34	12.2%
Mongolia	..	..	..	1.66	1.51	1.38	1.05	0.83	0.80	0.71	0.69	-54.4%
Myanmar	0.58	0.46	0.44	0.39	0.30	0.38	0.35	0.22	0.10	0.09	0.12	-58.7%
Nepal	0.02	0.03	0.04	0.03	0.04	0.07	0.09	0.08	0.08	0.09	0.09	113.7%
Pakistan	0.16	0.18	0.16	0.18	0.20	0.22	0.23	0.22	0.21	0.20	0.20	-1.2%
Philippines	0.21	0.21	0.18	0.16	0.17	0.23	0.23	0.19	0.16	0.16	0.15	-10.4%
Singapore	0.30	0.29	0.29	0.28	0.33	0.28	0.24	0.18	0.15	0.15	0.15	-55.3%
Sri Lanka	0.12	0.10	0.11	0.08	0.07	0.08	0.12	0.13	0.09	0.10	0.10	37.4%
Chinese Taipei	0.61	0.55	0.54	0.39	0.41	0.40	0.43	0.43	0.36	0.34	0.32	-22.3%
Thailand	0.20	0.21	0.22	0.21	0.25	0.29	0.31	0.33	0.31	0.32	0.32	26.8%
Viet Nam	0.34	0.35	0.29	0.25	0.19	0.21	0.24	0.31	0.37	0.36	0.37	88.8%
Other Asia	0.27	0.30	0.33	0.20	0.18	0.14	0.16	0.15	0.14	0.14	0.14	-20.0%
Asia (excl. China)	**0.30**	**0.31**	**0.31**	**0.31**	**0.32**	**0.32**	**0.33**	**0.32**	**0.30**	**0.29**	**0.29**	**-9.2%**
People's Rep. of China	2.25	2.36	2.30	1.67	1.49	1.12	0.81	0.83	0.66	0.66	0.63	-57.5%
Hong Kong, China	0.28	0.26	0.20	0.23	0.24	0.20	0.20	0.17	0.14	0.14	0.14	-41.4%
China	**2.09**	**2.19**	**2.08**	**1.55**	**1.38**	**1.07**	**0.79**	**0.81**	**0.65**	**0.65**	**0.62**	**-55.2%**
Argentina	0.37	0.35	0.34	0.35	0.41	0.36	0.37	0.36	0.30	0.29	0.29	-30.2%
Bolivia	0.14	0.16	0.19	0.21	0.23	0.25	0.22	0.25	0.29	0.30	0.31	35.7%
Brazil	0.16	0.16	0.16	0.14	0.14	0.15	0.18	0.16	0.16	0.16	0.17	20.4%
Colombia	0.27	0.23	0.22	0.22	0.20	0.21	0.20	0.16	0.14	0.14	0.14	-32.4%
Costa Rica	0.13	0.14	0.14	0.13	0.13	0.17	0.13	0.14	0.13	0.13	0.12	-7.2%
Cuba	0.99	0.96	1.03	0.72	0.77	0.74	0.72	0.52	0.48	0.45	0.45	-42.3%
Dominican Republic	0.25	0.27	0.26	0.23	0.24	0.28	0.29	0.26	0.20	0.20	0.20	-18.3%
Ecuador	0.13	0.14	0.20	0.20	0.20	0.22	0.24	0.24	0.27	0.24	0.24	20.0%
El Salvador	0.08	0.09	0.08	0.09	0.11	0.16	0.16	0.17	0.15	0.15	0.15	39.9%
Guatemala	0.10	0.10	0.11	0.09	0.08	0.11	0.13	0.14	0.12	0.11	0.11	46.5%
Haiti	0.04	0.04	0.05	0.06	0.07	0.08	0.11	0.16	0.16	0.15	0.15	101.5%
Honduras	0.16	0.17	0.15	0.14	0.15	0.21	0.23	0.29	0.25	0.25	0.26	69.5%
Jamaica	0.46	0.58	0.60	0.42	0.51	0.48	0.57	0.55	0.37	0.38	0.37	-26.5%
Netherlands Antilles	15.24	9.47	7.09	3.49	1.79	1.64	2.12	2.08	1.72	1.94	1.97	10.4%
Nicaragua	0.12	0.12	0.14	0.14	0.17	0.21	0.23	0.23	0.21	0.21	0.19	12.6%
Panama	0.26	0.28	0.22	0.17	0.17	0.21	0.20	0.22	0.19	0.19	0.18	3.7%
Paraguay	0.08	0.07	0.09	0.08	0.08	0.12	0.11	0.11	0.11	0.11	0.12	44.1%
Peru	0.19	0.18	0.18	0.16	0.18	0.17	0.17	0.15	0.15	0.15	0.15	-18.1%
Trinidad and Tobago	0.55	0.46	0.43	0.58	0.78	0.78	0.91	1.05	1.11	1.11	1.07	38.0%
Uruguay	0.27	0.26	0.21	0.14	0.14	0.14	0.14	0.14	0.13	0.14	0.15	8.2%
Venezuela	0.28	0.30	0.39	0.42	0.41	0.39	0.40	0.41	0.43	0.36	0.38	-7.9%
Other Non-OECD Americas	0.49	0.62	0.47	0.41	0.44	0.44	0.41	0.39	0.43	0.42	0.41	-6.1%
Non-OECD Americas	**0.25**	**0.23**	**0.23**	**0.22**	**0.22**	**0.22**	**0.24**	**0.23**	**0.22**	**0.21**	**0.21**	**-4.0%**
Bahrain	0.68	0.65	0.55	0.81	0.80	0.71	0.66	0.65	0.62	0.61	0.60	-24.1%
Islamic Republic of Iran	0.14	0.17	0.25	0.34	0.41	0.49	0.50	0.51	0.49	0.49	0.51	23.3%
Iraq	0.02	0.02	0.03	0.06	0.16	0.78	0.28	0.29	0.29	0.28	0.28	71.3%
Jordan	0.17	0.27	0.26	0.35	0.46	0.43	0.44	0.40	0.31	0.32	0.34	-26.7%
Kuwait	0.12	0.16	0.26	0.46	0.31	0.29	0.36	0.34	0.37	0.37	0.37	20.3%
Lebanon	0.15	0.19	0.27	0.19	0.28	0.37	0.37	0.32	0.29	0.29	0.32	17.0%
Oman	0.02	0.05	0.11	0.14	0.21	0.23	0.27	0.29	0.48	0.52	0.51	139.9%
Qatar	0.07	0.15	0.21	0.39	0.46	0.55	0.39	0.41	0.30	0.29	0.31	-33.4%
Saudi Arabia	0.07	0.06	0.18	0.29	0.30	0.33	0.36	0.35	0.37	0.35	0.36	20.7%
Syrian Arab Republic	0.48	0.42	0.45	0.62	0.77	0.61	0.66	0.72	0.59	0.56	0.53	-31.6%
United Arab Emirates	0.07	0.06	0.11	0.22	0.28	0.31	0.29	0.29	0.35	0.35	0.37	31.2%
Yemen	0.14	0.14	0.16	0.16	0.18	0.19	0.21	0.24	0.25	0.23	0.24	31.4%
Middle East	**0.08**	**0.09**	**0.13**	**0.23**	**0.31**	**0.41**	**0.39**	**0.39**	**0.40**	**0.39**	**0.39**	**25.6%**

CO_2 emissions / population

tonnes CO_2 / capita

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	% change 90-12
World *	**3.75**	**3.86**	**4.07**	**3.85**	**3.98**	**3.84**	**3.90**	**4.24**	**4.43**	**4.51**	**4.51**	**13.4%**
Annex I Parties	*..*	*..*	*..*	*..*	*11.81*	*10.89*	*11.15*	*11.22*	*10.46*	*10.33*	*10.13*	*-14.3%*
Annex II Parties	*12.20*	*12.18*	*12.64*	*11.82*	*12.25*	*12.31*	*12.88*	*12.79*	*11.61*	*11.32*	*11.05*	*-9.8%*
North America	*20.16*	*19.82*	*20.17*	*18.72*	*19.06*	*18.92*	*19.89*	*19.26*	*17.33*	*16.81*	*16.06*	*-15.7%*
Europe	*8.63*	*8.56*	*9.11*	*8.37*	*8.36*	*8.17*	*8.27*	*8.33*	*7.43*	*7.07*	*7.00*	*-16.2%*
Asia Oceania	*7.57*	*8.17*	*8.19*	*7.98*	*9.29*	*9.83*	*10.25*	*10.59*	*10.02*	*10.34*	*10.58*	*13.9%*
Annex I EIT	*..*	*..*	*..*	*..*	*12.37*	*8.79*	*8.11*	*8.50*	*8.63*	*8.92*	*8.84*	*-28.5%*
Non-Annex I Parties	*..*	*..*	*..*	*..*	*1.58*	*1.78*	*1.89*	*2.38*	*2.85*	*2.98*	*3.05*	*93.4%*
Annex I Kyoto Parties	*..*	*..*	*..*	*..*	*10.02*	*8.72*	*8.59*	*8.81*	*8.33*	*8.31*	*8.29*	*-17.3%*
Non-OECD Total **	**1.47**	**1.72**	**1.97**	**2.01**	**2.19**	**2.07**	**2.09**	**2.55**	**2.99**	**3.13**	**3.20**	**46.0%**
OECD Total ***	**10.43**	**10.44**	**10.88**	**10.19**	**10.41**	**10.47**	**10.93**	**10.87**	**10.08**	**9.89**	**9.68**	**-7.0%**
Canada	15.46	16.33	17.41	15.56	15.46	15.73	17.23	17.03	15.57	15.56	15.30	-1.0%
Chile	2.14	1.63	1.90	1.61	2.34	2.69	3.38	3.58	4.08	4.41	4.47	91.2%
Mexico	1.82	2.28	3.01	3.19	3.05	3.14	3.46	3.60	3.66	3.74	3.72	22.2%
United States	20.66	20.19	20.47	19.06	19.46	19.28	20.18	19.51	17.52	16.95	16.15	-17.0%
OECD Americas	**16.22**	**15.77**	**15.94**	**14.69**	**14.79**	**14.66**	**15.44**	**14.98**	**13.56**	**13.21**	**12.66**	**-14.4%**
Australia	10.92	12.89	14.05	13.90	15.17	15.72	17.40	18.11	17.27	17.06	16.70	10.1%
Israel	4.73	4.94	5.06	5.79	7.20	8.34	8.76	8.61	8.93	8.66	9.27	28.8%
Japan	7.23	7.66	7.52	7.25	8.55	9.06	9.23	9.46	8.86	9.26	9.59	12.2%
Korea	1.58	2.18	3.26	3.76	5.35	7.95	9.31	9.75	11.42	11.85	11.86	121.7%
New Zealand	4.70	5.31	5.23	6.00	6.62	6.85	7.99	8.17	7.08	6.88	7.23	9.3%
OECD Asia Oceania	**6.26**	**6.84**	**7.06**	**7.00**	**8.36**	**9.36**	**9.99**	**10.33**	**10.31**	**10.63**	**10.83**	**29.6%**
Austria	6.49	6.62	7.37	7.18	7.35	7.47	7.70	9.07	8.30	8.07	7.68	4.6%
Belgium	12.09	11.82	12.75	10.34	10.83	11.37	11.60	10.81	10.07	10.06	9.46	-12.7%
Czech Republic	15.35	15.17	16.06	16.75	14.36	12.10	11.92	11.74	10.87	10.75	10.25	-28.6%
Denmark	11.09	10.37	12.21	11.83	9.85	11.12	9.51	8.93	8.54	7.55	6.64	-32.6%
Estonia	..	..	..	..	22.53	11.07	10.66	12.52	13.79	13.06	12.20	-45.9%
Finland	8.62	9.42	11.54	9.91	10.90	10.96	10.67	10.51	11.64	10.28	9.13	-16.3%
France	8.24	7.99	8.37	6.37	6.07	5.97	6.24	6.17	5.48	5.05	5.10	-15.9%
Germany	12.49	12.40	13.48	13.06	11.97	10.63	10.04	9.70	9.42	9.08	9.22	-22.9%
Greece	2.80	3.75	4.62	5.41	6.78	7.13	8.01	8.57	7.55	7.45	6.99	3.0%
Hungary	5.82	6.72	7.82	7.64	6.41	5.55	5.31	5.59	4.89	4.75	4.39	-31.5%
Iceland	6.79	7.37	7.62	6.71	7.39	7.32	7.64	7.40	6.08	5.81	5.73	-22.6%
Ireland	7.29	6.66	7.64	7.47	8.72	9.17	10.81	10.56	8.53	7.63	7.74	-11.1%
Italy	5.42	5.76	6.38	6.14	7.01	7.20	7.48	7.86	6.60	6.47	6.15	-12.2%
Luxembourg	45.11	33.69	32.75	27.03	27.12	19.63	18.31	24.43	20.78	20.09	19.21	-29.1%
Netherlands	9.82	10.31	11.78	10.63	10.43	11.06	10.81	11.04	11.26	10.48	10.37	-0.5%
Norway	6.02	6.01	6.85	6.54	6.67	7.53	7.47	7.87	8.06	7.63	7.21	8.1%
Poland	8.74	9.94	11.61	11.28	9.00	8.65	7.60	7.68	7.95	7.81	7.62	-15.3%
Portugal	1.66	1.97	2.41	2.44	3.94	4.81	5.79	5.95	4.52	4.48	4.34	10.0%
Slovak Republic	8.57	9.25	11.11	10.54	10.71	7.61	6.92	7.07	6.49	6.27	5.90	-44.9%
Slovenia	..	..	..	..	6.68	7.06	7.08	7.79	7.51	7.43	7.11	6.5%
Spain	3.49	4.39	4.98	4.54	5.26	5.91	7.05	7.82	5.81	5.86	5.77	9.8%
Sweden	10.18	9.69	8.84	7.04	6.17	6.53	5.94	5.58	5.03	4.60	4.25	-31.2%
Switzerland	6.14	5.73	6.14	6.34	6.12	5.91	5.89	5.95	5.63	5.07	5.20	-15.0%
Turkey	1.14	1.48	1.60	1.88	2.30	2.55	3.12	3.16	3.64	3.86	4.04	75.3%
United Kingdom	11.15	10.31	10.14	9.63	9.60	8.90	8.90	8.85	7.61	6.96	7.18	-25.2%
OECD Europe ***	**8.11**	**8.15**	**8.74**	**8.10**	**7.89**	**7.57**	**7.59**	**7.63**	**6.99**	**6.73**	**6.67**	**-15.5%**
European Union - 28	*..*	*..*	*..*	*..*	*8.52*	*8.00*	*7.90*	*8.04*	*7.29*	*7.02*	*6.91*	-18.9%

* The ratio for the world has been calculated to include international marine bunkers and international aviation bunkers.
** Includes Estonia and Slovenia prior to 1990.
*** Excludes Estonia and Slovenia prior to 1990.

CO_2 emissions / population

tonnes CO_2 / capita

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	% change 90-12
Non-OECD Total *	**1.47**	**1.72**	**1.97**	**2.01**	**2.19**	**2.07**	**2.09**	**2.55**	**2.99**	**3.13**	**3.20**	**46.0%**
Albania	1.77	1.83	2.78	2.34	1.81	0.55	0.92	1.24	1.24	1.31	1.21	-33.2%
Armenia	..	..	..	..	5.77	1.06	1.11	1.37	1.36	1.57	1.83	-68.4%
Azerbaijan	..	..	..	..	7.68	4.41	3.46	3.67	2.63	2.92	3.15	-59.0%
Belarus	..	..	..	..	12.25	6.05	5.84	6.39	6.79	6.92	7.51	-38.6%
Bosnia and Herzegovina	..	..	..	..	5.22	0.92	3.52	4.03	5.21	5.94	5.54	6.0%
Bulgaria	7.36	8.28	9.46	9.05	8.60	6.34	5.18	5.98	5.98	6.69	6.06	-29.5%
Croatia	..	..	..	..	4.50	3.38	3.99	4.67	4.30	4.39	4.03	-10.5%
Cyprus **	2.88	3.31	5.14	5.17	6.73	7.80	9.09	9.54	8.79	8.27	7.50	11.4%
FYR of Macedonia	..	..	..	..	4.24	4.16	4.10	4.20	3.91	4.41	4.13	-2.6%
Georgia	..	..	..	..	6.93	1.71	1.04	0.99	1.10	1.40	1.52	-78.1%
Gibraltar	3.78	3.76	4.14	4.17	6.24	11.04	13.46	14.97	17.16	16.76	16.52	164.6%
Kazakhstan	..	..	..	..	14.46	10.59	7.59	10.37	13.32	13.95	13.45	-7.0%
Kosovo ***	..	..	..	..	..	..	2.96	3.83	4.82	4.73	4.43	..
Kyrgyzstan	..	..	..	..	5.11	0.97	0.90	0.95	1.11	1.31	1.70	-66.8%
Latvia	..	..	..	..	7.00	3.56	2.88	3.38	3.86	3.56	3.45	-50.8%
Lithuania	..	..	..	..	8.95	3.91	3.20	4.06	4.30	4.39	4.46	-50.2%
Malta	2.14	2.12	3.11	3.42	6.46	6.36	5.53	6.70	5.95	5.94	6.02	-6.7%
Republic of Moldova	..	..	..	..	8.17	3.21	1.79	2.14	2.21	2.21	2.14	-73.8%
Montenegro ***	..	..	..	..	..	..	..	3.17	4.01	4.02	3.70	..
Romania	5.61	6.60	7.92	7.62	7.22	5.18	3.88	4.43	3.73	4.05	3.93	-45.5%
Russian Federation	..	..	..	..	14.69	10.52	10.23	10.56	11.10	11.56	11.56	-21.3%
Serbia ***	..	..	..	..	6.10	4.24	5.23	6.61	6.28	6.86	6.10	0.0%
Tajikistan	..	..	..	..	2.06	0.42	0.35	0.34	0.30	0.31	0.34	-83.4%
Turkmenistan	..	..	..	..	12.12	7.92	8.12	10.07	11.22	12.05	12.34	1.8%
Ukraine	..	..	..	..	13.26	7.63	5.94	6.49	5.92	6.24	6.16	-53.5%
Uzbekistan	..	..	..	..	5.84	4.46	4.79	4.15	3.51	3.72	3.73	-36.1%
Former Soviet Union ****	8.18	10.14	11.55	11.57	..	..	..	..	..	..	..	..
Former Yugoslavia ****	3.12	3.60	4.04	5.44	..	..	..	..	..	..	..	..
Non-OECD Europe and Eurasia *	**7.57**	**9.31**	**10.64**	**10.72**	**11.59**	**7.71**	**7.07**	**7.51**	**7.69**	**8.06**	**8.01**	**-30.9%**
Algeria	0.59	0.83	1.46	1.90	2.01	1.93	2.00	2.34	2.63	2.75	2.97	47.9%
Angola	0.27	0.30	0.35	0.32	0.39	0.33	0.36	0.39	0.80	0.78	0.79	103.7%
Benin	0.10	0.14	0.11	0.11	0.05	0.04	0.20	0.32	0.47	0.48	0.49	871.2%
Botswana	..	..	..	1.25	2.00	1.99	2.27	2.25	2.44	2.29	2.23	11.6%
Cameroon	0.10	0.13	0.18	0.23	0.22	0.18	0.17	0.16	0.24	0.25	0.25	12.7%
Congo	0.42	0.39	0.39	0.36	0.26	0.17	0.16	0.23	0.44	0.49	0.50	93.9%
Dem. Rep. of Congo	0.12	0.11	0.12	0.11	0.08	0.03	0.02	0.02	0.03	0.04	0.04	-56.6%
Côte d'Ivoire	0.43	0.46	0.41	0.30	0.22	0.23	0.39	0.33	0.33	0.30	0.39	76.0%
Egypt	0.56	0.65	0.95	1.31	1.41	1.38	1.55	2.09	2.36	2.40	2.44	72.8%
Eritrea	..	..	..	..	..	0.23	0.16	0.12	0.08	0.09	0.09	..
Ethiopia	0.05	0.04	0.04	0.03	0.05	0.04	0.05	0.06	0.07	0.08	0.09	87.8%
Gabon	0.79	1.17	1.77	2.04	0.95	1.23	1.20	1.25	1.52	1.55	1.51	58.7%
Ghana	0.22	0.24	0.21	0.17	0.19	0.20	0.27	0.30	0.43	0.44	0.50	172.6%
Kenya	0.28	0.26	0.27	0.24	0.23	0.21	0.25	0.21	0.28	0.27	0.25	4.9%
Libya	1.73	3.63	6.03	6.02	6.42	7.40	7.63	8.09	8.45	5.78	7.18	11.9%
Mauritius	0.31	0.47	0.59	0.59	1.09	1.37	2.02	2.35	2.82	2.80	2.86	163.1%
Morocco	0.42	0.56	0.70	0.74	0.80	0.97	1.02	1.31	1.46	1.57	1.59	100.3%
Mozambique	0.30	0.22	0.19	0.11	0.08	0.07	0.07	0.07	0.10	0.11	0.10	29.1%
Namibia	..	..	..	..	..	1.07	1.01	1.15	1.37	1.36	1.41	..
Nigeria	0.10	0.18	0.36	0.39	0.30	0.31	0.36	0.41	0.35	0.38	0.38	26.1%
Senegal	0.28	0.33	0.37	0.33	0.28	0.28	0.36	0.41	0.42	0.43	0.41	45.1%
South Africa	6.93	8.15	7.57	7.31	7.21	7.02	6.75	6.92	7.39	7.01	7.20	-0.2%
Sudan	0.23	0.20	0.19	0.19	0.21	0.15	0.17	0.26	0.34	0.31	0.30	41.0%
United Rep. of Tanzania	0.11	0.09	0.08	0.07	0.07	0.08	0.08	0.13	0.14	0.16	0.19	178.2%
Togo	0.16	0.13	0.13	0.09	0.15	0.13	0.19	0.18	0.33	0.29	0.24	61.9%
Tunisia	0.71	0.85	1.23	1.32	1.48	1.59	1.88	2.01	2.19	2.05	2.14	44.3%
Zambia	0.79	0.89	0.57	0.41	0.33	0.23	0.17	0.18	0.13	0.15	0.20	-40.9%
Zimbabwe	1.34	1.17	1.09	1.08	1.53	1.28	1.05	0.80	0.67	0.71	0.73	-52.5%
Other Africa	0.12	0.13	0.15	0.11	0.11	0.12	0.12	0.13	0.14	0.15	0.15	29.0%
Africa	**0.67**	**0.79**	**0.85**	**0.87**	**0.87**	**0.84**	**0.85**	**0.91**	**0.95**	**0.93**	**0.95**	**9.3%**

* Includes Estonia and Slovenia prior to 1990.

** Please refer to Chapter 4, *Geographical Coverage*.

*** Serbia includes Kosovo from 1990 to 1999 and Montenegro from 1990 to 2004.

**** Prior to 1990, data for individual countries are not available separately; FSU includes Estonia and Former Yugoslavia includes Slovenia.

CO_2 emissions / population

tonnes CO_2 / capita

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	% change 90-12
Bangladesh	0.05	0.06	0.09	0.09	0.13	0.17	0.19	0.25	0.35	0.36	0.39	204.8%
Brunei Darussalam	2.93	8.74	13.62	13.16	12.64	15.23	13.34	13.10	18.86	20.32	20.38	61.2%
Cambodia	..	..	..	..	..	0.14	0.16	0.20	0.26	0.28	0.28	..
India	0.35	0.39	0.41	0.53	0.67	0.81	0.94	1.06	1.45	1.50	1.58	136.5%
Indonesia	0.21	0.29	0.47	0.54	0.82	1.10	1.31	1.50	1.63	1.64	1.76	115.8%
DPR of Korea	4.56	4.72	6.08	6.73	5.65	3.44	3.00	3.10	2.62	1.83	1.83	-67.5%
Malaysia	1.14	1.31	1.76	2.17	2.77	4.12	5.03	6.09	6.62	6.69	6.70	142.0%
Mongolia	..	..	..	6.04	5.79	4.37	3.68	3.75	4.62	4.71	5.08	-12.3%
Myanmar	0.16	0.13	0.15	0.15	0.10	0.15	0.19	0.21	0.15	0.16	0.22	129.4%
Nepal	0.02	0.02	0.04	0.03	0.05	0.08	0.13	0.12	0.15	0.16	0.18	265.0%
Pakistan	0.27	0.31	0.33	0.41	0.53	0.63	0.69	0.76	0.78	0.77	0.77	45.4%
Philippines	0.63	0.70	0.70	0.52	0.61	0.82	0.87	0.82	0.81	0.81	0.82	34.2%
Singapore	2.91	3.74	5.26	6.27	9.93	11.09	11.02	10.01	9.64	9.71	9.36	-5.7%
Sri Lanka	0.22	0.19	0.24	0.22	0.21	0.30	0.55	0.68	0.59	0.69	0.78	264.3%
Chinese Taipei	2.07	2.63	4.04	3.71	5.62	7.41	9.82	11.54	11.67	11.37	10.95	95.0%
Thailand	0.43	0.50	0.71	0.80	1.42	2.38	2.48	3.22	3.56	3.63	3.84	170.4%
Viet Nam	0.37	0.35	0.28	0.29	0.26	0.39	0.57	0.97	1.49	1.53	1.61	517.7%
Other Asia	0.38	0.42	0.53	0.34	0.31	0.30	0.32	0.37	0.47	0.51	0.53	71.5%
Asia (excl. China)	**0.41**	**0.46**	**0.55**	**0.63**	**0.79**	**0.95**	**1.09**	**1.25**	**1.51**	**1.53**	**1.59**	**102.6%**
People's Rep. of China	0.97	1.17	1.45	1.64	1.98	2.51	2.62	4.14	5.42	5.92	6.08	207.2%
Hong Kong, China	2.27	2.42	2.87	4.04	5.76	5.85	6.04	6.04	6.00	6.45	6.29	9.1%
China	**0.98**	**1.17**	**1.46**	**1.65**	**2.00**	**2.52**	**2.64**	**4.15**	**5.42**	**5.92**	**6.08**	**204.4%**
Argentina	3.40	3.28	3.40	2.91	3.06	3.44	3.84	3.95	4.37	4.51	4.59	49.9%
Bolivia	0.50	0.68	0.78	0.71	0.76	0.90	0.84	1.01	1.38	1.48	1.55	105.0%
Brazil	0.92	1.25	1.46	1.21	1.29	1.46	1.74	1.73	1.99	2.07	2.22	72.4%
Colombia	1.22	1.18	1.30	1.32	1.39	1.60	1.48	1.34	1.33	1.44	1.41	1.7%
Costa Rica	0.67	0.85	0.93	0.74	0.84	1.26	1.13	1.32	1.40	1.41	1.41	66.5%
Cuba	2.32	2.54	3.07	3.16	3.19	2.05	2.45	2.24	2.65	2.53	2.56	-19.8%
Dominican Republic	0.74	1.00	1.08	0.95	1.02	1.40	1.86	1.86	1.89	1.89	1.93	88.7%
Ecuador	0.57	0.85	1.33	1.31	1.32	1.50	1.54	1.78	2.13	2.08	2.14	61.7%
El Salvador	0.37	0.48	0.38	0.35	0.42	0.81	0.87	1.03	0.94	0.96	0.98	133.7%
Guatemala	0.41	0.49	0.60	0.41	0.36	0.58	0.76	0.83	0.71	0.71	0.70	92.6%
Haiti	0.08	0.08	0.11	0.12	0.13	0.12	0.16	0.21	0.21	0.21	0.20	53.4%
Honduras	0.40	0.42	0.46	0.39	0.44	0.63	0.71	1.03	0.95	0.98	1.03	133.8%
Jamaica	2.91	3.68	3.05	2.01	3.00	3.36	3.75	3.85	2.56	2.69	2.62	-12.8%
Netherlands Antilles	89.64	60.06	50.55	24.88	14.55	14.19	21.20	21.23	18.06	20.62	20.85	43.3%
Nicaragua	0.60	0.66	0.55	0.49	0.44	0.54	0.69	0.74	0.75	0.76	0.72	62.1%
Panama	1.61	1.79	1.47	1.20	1.03	1.49	1.62	2.03	2.43	2.58	2.60	151.7%
Paraguay	0.23	0.25	0.42	0.38	0.45	0.72	0.61	0.58	0.73	0.75	0.76	67.9%
Peru	1.15	1.22	1.19	0.93	0.88	0.99	1.02	1.04	1.43	1.51	1.53	73.2%
Trinidad and Tobago	6.43	5.77	7.31	8.20	9.30	9.78	14.36	23.87	28.92	28.45	27.74	198.2%
Uruguay	1.85	1.93	1.90	1.04	1.21	1.40	1.59	1.59	1.83	2.18	2.47	104.9%
Venezuela	4.69	4.93	6.12	5.49	5.32	5.35	5.19	5.54	6.28	5.45	5.95	11.8%
Other Non-OECD Americas	3.08	4.00	3.64	3.18	4.08	4.13	4.43	4.45	4.95	4.91	4.93	20.9%
Non-OECD Americas	**1.53**	**1.70**	**1.89**	**1.63**	**1.69**	**1.84**	**2.03**	**2.09**	**2.34**	**2.35**	**2.46**	**45.5%**
Bahrain	13.63	19.89	20.54	24.05	25.09	27.28	26.67	25.55	22.41	21.70	21.86	-12.9%
Islamic Republic of Iran	1.42	2.18	2.32	3.08	3.17	4.16	4.78	6.01	6.83	6.97	6.96	119.6%
Iraq	1.01	1.33	1.98	2.36	3.05	4.79	2.95	2.74	3.27	3.41	3.65	19.8%
Jordan	0.85	1.18	1.96	2.81	2.92	2.91	2.99	3.33	3.10	3.20	3.43	17.8%
Kuwait	17.38	14.36	19.38	21.44	13.94	22.77	25.77	30.54	26.84	27.12	28.08	101.4%
Lebanon	1.93	2.19	2.53	2.45	2.02	4.24	4.36	3.63	4.22	4.22	4.75	135.3%
Oman	0.34	0.81	1.93	3.79	5.60	6.80	9.17	10.28	20.60	21.71	20.41	264.2%
Qatar	18.72	29.87	34.29	33.01	29.94	37.57	40.35	44.33	34.61	35.09	36.95	23.4%
Saudi Arabia	2.10	3.05	10.06	9.24	9.32	10.37	11.73	12.12	15.22	15.48	16.22	74.0%
Syrian Arab Republic	0.91	1.19	1.47	1.98	2.26	2.29	2.43	3.02	2.67	2.43	1.79	-20.9%
United Arab Emirates	9.00	9.17	18.83	26.42	28.73	29.68	28.28	26.29	18.04	17.76	18.57	-35.4%
Yemen	0.19	0.26	0.44	0.50	0.55	0.62	0.75	0.93	1.04	0.85	0.84	53.5%
Middle East	**1.55**	**2.16**	**3.48**	**4.16**	**4.34**	**5.33**	**5.62**	**6.46**	**7.44**	**7.55**	**7.72**	**78.0%**

Per capita emissions by sector in 2012 *

kilogrammes CO_2 / capita

	Total CO_2 emissions from fuel combustion	Electricity and heat production	Other energy ind. own use **	Manufacturing industries and construction	Transport	*of which: road*	Other sectors	*of which: residential*
World * **	**4 510**	**1 897**	**221**	**918**	**1 021**	**764**	**453**	**259**
Annex I Parties	*10 127*	*4 223*	*522*	*1 448*	*2 603*	*2 234*	*1 331*	*768*
Annex II Parties	*11 048*	*4 289*	*619*	*1 467*	*3 183*	*2 785*	*1 491*	*824*
North America	*16 061*	*6 254*	*978*	*1 738*	*5 266*	*4 457*	*1 824*	*975*
Europe	*7 004*	*2 375*	*369*	*1 076*	*1 851*	*1 740*	*1 332*	*845*
Asia Oceania	*10 583*	*4 981*	*479*	*1 900*	*2 055*	*1 816*	*1 168*	*428*
Annex I EIT	*8 844*	*4 693*	*321*	*1 572*	*1 317*	*960*	*941*	*661*
Non-Annex I Parties	*3 051*	*1 371*	*153*	*798*	*476*	*431*	*254*	*143*
Annex I Kyoto Parties	*8 287*	*3 648*	*372*	*1 388*	*1 707*	*1 487*	*1 171*	*710*
Non-OECD Total	**3 201**	**1 473**	**149**	**832**	**478**	**418**	**269**	**158**
OECD Total	**9 684**	**3 851**	**556**	**1 312**	**2 663**	**2 356**	**1 302**	**721**
Canada	15 302	2 786	1 678	3 197	4 913	4 106	2 728	1 117
Chile	4 469	1 936	160	742	1 276	1 155	356	204
Mexico	3 723	1 138	495	500	1 308	1 272	280	162
United States	16 145	6 639	900	1 576	5 305	4 496	1 724	960
OECD Americas	**12 658**	**4 861**	**832**	**1 403**	**4 164**	**3 567**	**1 398**	**751**
Australia	16 701	8 597	1 298	2 106	3 878	3 269	822	362
Israel	9 267	6 113	235	237	1 629	1 629	1 054	215
Japan	9 591	4 439	335	1 879	1 691	1 521	1 246	451
Korea	11 858	6 091	771	2 032	1 761	1 661	1 202	659
New Zealand	7 233	1 727	370	1 409	3 016	2 724	711	124
OECD Asia Oceania	**10 833**	**5 284**	**539**	**1 869**	**1 970**	**1 773**	**1 172**	**475**
Austria	7 682	1 758	864	1 469	2 531	2 447	1 060	795
Belgium	9 459	1 753	533	2 686	2 204	2 142	2 283	1 320
Czech Republic	10 255	5 672	223	1 718	1 535	1 474	1 108	667
Denmark	6 642	2 634	421	655	2 026	1 854	906	460
Estonia	12 199	9 180	121	710	1 673	1 592	514	145
Finland	9 127	3 781	688	1 588	2 152	2 005	917	285
France	5 103	708	215	928	1 879	1 801	1 372	776
Germany	9 220	4 082	301	1 364	1 797	1 735	1 676	1 133
Greece	6 987	3 769	324	630	1 466	1 251	797	595
Hungary	4 390	1 464	155	541	1 082	1 060	1 149	725
Iceland	5 726	10	-	1 502	2 464	2 369	1 749	19
Ireland	7 745	2 724	75	826	2 235	2 181	1 884	1 309
Italy	6 153	2 090	252	875	1 674	1 575	1 262	828
Luxembourg	19 213	2 104	-	1 755	12 342	12 302	3 012	1 727
Netherlands	10 373	3 192	682	2 414	1 940	1 892	2 144	1 058
Norway	7 210	462	2 045	1 410	2 639	1 877	654	71
Poland	7 623	4 013	186	878	1 183	1 152	1 363	859
Portugal	4 338	1 698	153	625	1 485	1 409	377	191
Slovak Republic	5 898	1 507	834	1 444	1 185	1 081	928	507
Slovenia	7 111	2 867	2	819	2 664	2 644	759	454
Spain	5 775	1 944	429	929	1 777	1 513	696	358
Sweden	4 246	781	281	862	2 104	2 025	217	25
Switzerland	5 202	363	104	675	2 145	2 101	1 915	1 260
Turkey	4 037	1 511	147	731	694	629	954	518
United Kingdom	7 181	2 809	462	688	1 772	1 687	1 450	1 115
OECD Europe	**6 666**	**2 428**	**323**	**1 021**	**1 626**	**1 529**	**1 268**	**790**
European Union - 28	*6 908*	*2 591*	*328*	*1 039*	*1 698*	*1 605*	*1 251*	*794*

* This table shows per capita emissions for the same sectors which are present throughout this publication. In particular, the emissions from electricity and and heat production are shown separately and not reallocated to end use sectors.

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

*** World includes international bunkers in the transport sector.

Per capita emissions by sector in 2012

kilogrammes CO_2 / capita

	Total CO_2 emissions from fuel combustion	Electricity and heat production	Other energy ind. own use	Manufacturing industries and construction	Transport	*of which: road*	Other sectors	*of which: residential*
Non-OECD Total	**3 201**	**1 473**	**149**	**832**	**478**	**418**	**269**	**158**
Albania	1 210	-	31	320	705	684	154	66
Armenia	1 827	480	-	228	435	435	684	389
Azerbaijan	3 149	1 258	250	276	688	632	677	521
Belarus	7 515	3 123	383	1 962	1 223	1 069	823	516
Bosnia and Herzegovina	5 536	3 776	92	459	823	823	384	130
Bulgaria	6 063	4 021	141	524	1 118	1 039	259	150
Croatia	4 029	935	404	692	1 314	1 226	684	402
Cyprus *	7 496	3 974	-	519	2 308	2 307	694	466
FYR of Macedonia	4 128	2 617	25	669	656	646	162	51
Georgia	1 516	253	42	295	541	521	386	264
Gibraltar	16 518	4 117	-	2 045	10 356	10 356	-	-
Kazakhstan	13 447	5 065	2 369	3 711	866	788	1 436	744
Kosovo	4 427	3 386	-	322	551	550	167	65
Kyrgyzstan	1 697	328	2	272	695	695	400	47
Latvia	3 446	966	-	545	1 343	1 198	592	225
Lithuania	4 460	992	548	1 062	1 428	1 327	430	247
Malta	6 021	4 763	-	15	1 093	1 093	151	151
Republic of Moldova	2 140	997	-	286	298	282	558	419
Montenegro	3 703	2 498	-	152	1 012	980	40	26
Romania	3 934	1 755	210	717	740	695	512	327
Russian Federation	11 559	6 494	439	2 045	1 639	969	942	687
Serbia	6 103	4 203	65	695	699	638	440	232
Tajikistan	342	6	-	-	38	38	298	-
Turkmenistan	12 338	3 488	1 019	1 060	1 341	676	5 429	-
Ukraine	6 165	2 890	139	1 558	661	543	916	772
Uzbekistan	3 733	1 225	126	654	261	140	1 466	1 120
Non-OECD Europe and Eurasia	**8 011**	**4 076**	**392**	**1 505**	**1 095**	**758**	**942**	**607**
Algeria	2 971	819	324	354	950	911	525	433
Angola	790	105	9	132	348	310	196	64
Benin	492	12	-	15	345	344	121	120
Botswana	2 232	184	-	676	1 086	1 067	285	39
Cameroon	250	61	20	18	133	127	18	17
Congo	503	71	-	26	376	365	30	30
Dem. Rep. of Congo	37	-	-	2	34	34	-	-
Côte d'Ivoire	395	173	9	51	118	105	43	18
Egypt	2 439	904	182	450	624	590	278	190
Eritrea	88	50	-	3	27	27	9	8
Ethiopia	86	-	-	35	35	33	16	8
Gabon	1 511	587	26	458	292	292	148	80
Ghana	505	118	7	72	266	246	42	26
Kenya	246	43	3	63	111	109	27	23
Libya	7 181	3 139	273	735	2 696	2 694	339	339
Mauritius	2 859	1 723	-	253	748	699	135	103
Morocco	1 594	586	39	234	445	445	291	121
Mozambique	103	1	1	20	75	69	6	3
Namibia	1 409	20	-	134	768	722	487	-
Nigeria	382	69	71	46	149	149	48	9
Senegal	411	151	3	81	152	145	24	21
South Africa	7 195	4 457	65	1 125	927	863	621	289
Sudan	301	40	4	48	180	179	30	13
United Rep. of Tanzania	186	59	-	19	101	101	8	6
Togo	243	3	-	23	188	188	30	30
Tunisia	2 138	766	12	463	586	521	311	155
Zambia	196	2	4	109	64	61	16	-
Zimbabwe	727	242	5	142	99	90	240	7
Other Africa	147	39	4	24	62	56	17	7
Africa	**953**	**397**	**44**	**150**	**251**	**240**	**111**	**61**

* Please refer to Chapter 4, *Geographical Coverage.*

Per capita emissions by sector in 2012

kilogrammes CO_2 / capita

	Total CO_2 emissions from fuel combustion	Electricity and heat production	Other energy ind. own use	Manufacturing industries and construction	Transport	*of which: road*	Other sectors	*of which: residential*
Bangladesh	385	182	1	80	56	43	65	40
Brunei Darussalam	20 379	6 893	5 153	4 865	3 229	3 226	239	239
Cambodia	281	51	-	45	145	119	39	39
India	1 580	844	54	383	175	162	124	65
Indonesia	1 764	642	101	381	521	460	119	70
DPR of Korea	1 834	294	2	1 139	53	53	347	5
Malaysia	6 699	3 085	591	1 299	1 469	1 459	255	64
Mongolia	5 084	3 060	12	695	672	469	646	320
Myanmar	221	44	13	73	58	42	33	-
Nepal	178	-	-	61	78	78	38	15
Pakistan	767	224	9	219	206	192	109	90
Philippines	822	379	15	116	251	219	60	25
Singapore	9 365	4 173	1 134	2 652	1 301	1 186	105	35
Sri Lanka	780	317	2	55	355	345	51	21
Chinese Taipei	10 950	6 157	594	2 315	1 489	1 453	395	187
Thailand	3 843	1 249	328	1 040	911	901	315	94
Viet Nam	1 609	486	18	570	381	371	155	91
Other Asia	533	159	-	123	205	181	46	15
Asia (excl. China)	**1 594**	**744**	**69**	**389**	**269**	**249**	**124**	**63**
People's Rep. of China	6 075	3 039	223	1 885	520	417	409	230
Hong Kong, China	6 288	4 113	-	1 074	874	872	227	112
China	**6 076**	**3 044**	**221**	**1 881**	**522**	**419**	**408**	**229**
Argentina	4 588	1 303	426	825	1 176	1 054	857	561
Bolivia	1 555	311	132	176	598	573	338	121
Brazil	2 216	273	139	611	1 001	903	192	87
Colombia	1 412	160	159	328	578	553	187	80
Costa Rica	1 406	115	7	213	980	977	91	30
Cuba	2 557	1 467	53	710	174	157	152	53
Dominican Republic	1 928	917	3	221	644	544	143	123
Ecuador	2 136	462	108	305	1 035	990	227	176
El Salvador	977	222	6	164	492	492	93	89
Guatemala	695	159	7	116	364	364	50	49
Haiti	204	67	-	36	94	47	7	7
Honduras	1 028	348	-	161	410	410	110	24
Jamaica	2 620	1 015	-	806	618	479	180	53
Netherlands Antilles	20 847	4 114	5 138	3 859	6 807	6 807	929	929
Nicaragua	718	274	10	89	294	293	51	20
Panama	2 599	737	-	724	961	959	177	130
Paraguay	756	-	-	39	678	671	40	31
Peru	1 528	380	126	324	592	526	106	63
Trinidad and Tobago	27 743	4 620	6 049	14 525	2 304	2 071	244	228
Uruguay	2 470	854	99	239	962	958	316	127
Venezuela	5 952	1 121	898	1 953	1 747	1 747	232	173
Other Non-OECD Americas	4 931	2 496	-	181	1 513	1 253	740	220
Non-OECD Americas	**2 456**	**495**	**207**	**619**	**896**	**827**	**239**	**132**
Bahrain	21 857	14 184	2 897	2 210	2 391	2 322	176	176
Islamic Rep. of Iran	6 963	1 892	460	1 390	1 589	1 574	1 632	1 244
Iraq	3 652	1 718	137	316	1 127	1 127	354	354
Jordan	3 435	1 670	115	203	1 076	1 070	372	245
Kuwait	28 081	14 362	4 561	5 172	3 814	3 814	172	172
Lebanon	4 752	2 699	-	282	1 195	1 195	575	575
Oman	20 408	4 545	2 436	9 531	3 332	3 332	564	102
Qatar	36 950	8 361	14 606	8 693	5 133	5 133	157	157
Saudi Arabia	16 219	7 090	742	4 021	4 217	4 136	148	148
Syrian Arab Republic	1 788	811	41	266	427	419	243	143
United Arab Emirates	18 571	6 548	229	8 661	3 074	2 994	59	59
Yemen	837	179	46	129	242	242	241	75
Middle East	**7 718**	**2 830**	**572**	**1 831**	**1 735**	**1 714**	**750**	**571**

Electricity output *

terawatt hours

	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012	% change 90-12
World	**11 825.4**	**13 243.6**	**15 426.1**	**18 282.0**	**18 991.0**	**19 829.9**	**20 221.4**	**20 164.7**	**21 470.2**	**22 166.1**	**22 668.1**	**91.7%**
Annex I Parties	*8 939.6*	*9 359.6*	*10 346.6*	*11 073.7*	*11 174.7*	*11 359.5*	*11 379.3*	*10 901.1*	*11 367.3*	*11 281.8*	*11 254.3*	*25.9%*
Annex II Parties	*7 030.2*	*7 786.9*	*8 723.2*	*9 276.7*	*9 303.4*	*9 447.7*	*9 438.5*	*9 057.2*	*9 425.7*	*9 294.0*	*9 248.6*	*31.6%*
North America	*3 684.9*	*4 118.4*	*4 631.5*	*4 893.8*	*4 885.6*	*4 955.4*	*4 978.3*	*4 777.5*	*4 957.1*	*4 964.5*	*4 905.1*	*33.1%*
Europe	*2 323.3*	*2 499.4*	*2 793.6*	*3 021.7*	*3 046.7*	*3 080.1*	*3 097.8*	*2 944.2*	*3 063.0*	*2 989.7*	*3 024.2*	*30.2%*
Asia Oceania	*1 022.1*	*1 169.2*	*1 298.1*	*1 361.2*	*1 371.1*	*1 412.2*	*1 362.4*	*1 335.5*	*1 405.6*	*1 339.8*	*1 319.3*	*29.1%*
Annex I EIT	*1 850.7*	*1 484.8*	*1 496.6*	*1 632.8*	*1 692.8*	*1 717.9*	*1 740.1*	*1 646.9*	*1 728.3*	*1 756.3*	*1 763.9*	*-4.7%*
Non-Annex I Parties	*2 885.8*	*3 884.0*	*5 079.5*	*7 208.2*	*7 816.3*	*8 470.5*	*8 842.1*	*9 263.6*	*10 102.8*	*10 884.3*	*11 413.8*	*295.5%*
Annex I Kyoto Parties	*5 156.6*	*5 128.5*	*5 562.2*	*5 984.8*	*6 078.7*	*6 178.4*	*6 165.2*	*5 896.2*	*6 162.0*	*6 053.5*	*6 076.6*	*17.8%*
Non-OECD Total	**4 196.9**	**4 698.9**	**5 698.4**	**7 780.8**	**8 417.3**	**9 053.6**	**9 428.3**	**9 764.4**	**10 610.0**	**11 358.4**	**11 883.4**	**183.1%**
OECD Total	**7 628.5**	**8 544.7**	**9 727.8**	**10 501.2**	**10 573.8**	**10 776.4**	**10 793.1**	**10 400.3**	**10 860.2**	**10 807.7**	**10 784.7**	**41.4%**
Canada	482.0	560.0	605.6	624.9	610.6	631.5	635.3	612.1	602.7	637.9	634.3	31.6%
Chile	18.4	28.0	40.1	52.5	55.3	58.5	59.7	60.7	60.4	65.7	69.8	279.7%
Mexico	115.8	152.2	204.2	243.8	249.5	257.3	261.9	261.0	271.1	295.8	293.9	153.7%
United States	3 202.8	3 558.4	4 025.9	4 268.9	4 275.0	4 323.9	4 343.0	4 165.4	4 354.4	4 326.6	4 270.8	33.3%
OECD Americas	**3 819.1**	**4 298.7**	**4 875.7**	**5 190.1**	**5 190.5**	**5 271.2**	**5 299.9**	**5 099.3**	**5 288.6**	**5 326.1**	**5 268.7**	**38.0%**
Australia	154.3	172.8	209.9	228.3	232.7	243.0	243.1	248.7	252.1	252.6	248.9	61.3%
Israel	20.9	30.4	42.7	48.6	50.6	53.8	57.0	55.0	58.6	59.7	63.0	201.6%
Japan	835.5	960.3	1 049.0	1 089.9	1 094.8	1 125.5	1 075.5	1 043.4	1 108.7	1 042.7	1 026.1	22.8%
Korea	105.4	181.1	288.5	387.9	402.3	425.9	443.9	451.7	496.7	520.1	530.9	403.9%
New Zealand	32.3	36.1	39.2	43.0	43.6	43.7	43.8	43.5	44.9	44.5	44.3	37.3%
OECD Asia Oceania	**1 148.3**	**1 380.7**	**1 629.3**	**1 797.7**	**1 823.9**	**1 891.9**	**1 863.3**	**1 842.2**	**1 960.9**	**1 919.5**	**1 913.3**	**66.6%**
Austria	49.3	55.2	59.9	64.1	62.1	62.6	64.5	66.3	67.9	62.3	68.7	39.4%
Belgium	70.3	73.5	82.8	85.7	84.3	87.5	83.6	89.8	93.8	89.0	81.8	16.3%
Czech Republic	62.3	60.6	72.9	81.9	83.7	87.8	83.2	81.7	85.3	86.9	86.8	39.5%
Denmark	26.0	36.8	36.1	36.2	45.6	39.3	36.6	36.4	38.9	35.2	30.7	18.3%
Estonia	17.2	8.7	8.5	10.2	9.7	12.2	10.6	8.8	13.0	12.9	12.0	-30.3%
Finland	54.4	64.0	70.0	70.6	82.3	81.2	77.4	72.1	80.7	73.5	70.4	29.5%
France	417.2	491.2	536.0	571.4	569.1	564.1	569.2	530.5	564.4	555.3	559.4	34.1%
Germany	547.1	532.0	571.7	615.2	632.1	633.0	633.9	589.6	626.1	606.8	623.2	13.9%
Greece	34.8	41.3	53.4	59.4	60.2	62.7	62.9	61.1	57.4	59.2	60.8	74.8%
Hungary	28.4	34.0	35.2	35.8	35.9	40.0	40.0	35.9	37.4	36.0	34.6	21.6%
Iceland	4.5	5.0	7.7	8.7	9.9	12.0	16.5	16.8	17.1	17.2	17.5	289.1%
Ireland	14.2	17.6	23.7	25.6	27.1	27.8	29.9	28.0	28.4	27.5	27.4	92.4%
Italy	213.1	237.4	270.0	296.8	307.7	308.2	313.5	288.3	298.8	300.7	297.3	39.5%
Luxembourg	0.6	0.5	0.4	3.3	3.5	3.2	2.7	3.2	3.2	2.6	2.8	341.2%
Netherlands	71.9	80.9	89.6	100.2	98.4	105.2	107.6	113.5	118.1	113.0	102.5	42.5%
Norway	121.6	122.2	142.5	137.2	121.2	136.1	141.2	131.0	123.2	126.4	146.8	20.7%
Poland	134.4	137.0	143.2	155.4	160.8	158.8	154.7	151.1	157.1	163.1	161.7	20.3%
Portugal	28.4	33.2	43.4	46.2	48.6	46.9	45.5	49.5	53.7	51.9	45.6	60.7%
Slovak Republic	25.5	26.4	30.8	31.4	31.3	27.9	28.8	25.9	27.5	28.3	28.3	11.1%
Slovenia	12.4	12.9	13.6	15.1	15.1	15.0	16.4	16.4	16.2	15.9	15.5	24.9%
Spain	151.2	165.6	220.9	289.4	295.6	301.8	311.0	291.9	298.3	291.5	293.9	94.4%
Sweden	146.0	148.3	145.2	158.4	143.3	148.8	149.9	136.6	148.5	150.3	166.4	14.0%
Switzerland	55.0	62.2	66.1	57.8	62.1	66.4	67.0	66.7	66.1	62.9	68.2	23.9%
Turkey	57.5	86.2	124.9	162.0	176.3	191.6	198.4	194.8	211.2	229.4	239.5	316.2%
United Kingdom	317.8	332.5	374.4	395.4	393.4	393.0	384.8	373.1	378.6	364.5	360.9	13.6%
OECD Europe	**2 661.1**	**2 865.3**	**3 222.8**	**3 513.4**	**3 559.4**	**3 613.2**	**3 629.9**	**3 458.8**	**3 610.7**	**3 562.1**	**3 602.7**	**35.4%**
European Union - 28	*2 575.7*	*2 721.1*	*3 005.3*	*3 289.4*	*3 334.2*	*3 349.2*	*3 354.5*	*3 189.9*	*3 332.8*	*3 266.5*	*3 264.1*	*26.7%*

* Includes electricity from both electricity-only and combined heat and power plants, and from both main activity producer and autoproducer plants.

Electricity output

terawatt hours

	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012	% change 90-12
Non-OECD Total	**4 196.9**	**4 698.9**	**5 698.4**	**7 780.8**	**8 417.3**	**9 053.6**	**9 428.3**	**9 764.4**	**10 610.0**	**11 358.4**	**11 883.4**	**183.1%**
Albania	3.2	4.4	4.7	5.4	5.5	2.9	3.8	5.2	7.6	4.2	4.7	47.7%
Armenia	10.4	5.6	6.0	6.3	5.9	5.9	5.8	5.7	6.5	7.4	8.0	-22.4%
Azerbaijan	23.2	17.0	18.7	22.9	24.5	21.8	21.6	18.9	18.7	20.3	23.0	-0.7%
Belarus	39.5	24.9	26.1	31.0	31.8	31.8	35.0	30.4	34.9	32.2	30.8	-22.1%
Bosnia and Herzegovina	14.6	4.4	10.4	12.6	13.3	11.8	14.8	15.7	17.1	15.3	14.1	-3.8%
Bulgaria	42.1	41.8	40.6	44.0	45.5	42.9	44.6	42.4	46.0	50.0	46.6	10.5%
Croatia	8.7	8.9	10.7	12.4	12.3	12.1	12.2	12.7	14.0	10.7	10.4	19.6%
Cyprus *	2.0	2.5	3.4	4.4	4.7	4.9	5.1	5.2	5.3	4.9	4.7	139.0%
FYR of Macedonia	5.8	6.1	6.8	6.9	7.0	6.5	6.3	6.8	7.3	6.8	6.3	8.8%
Georgia	13.7	8.2	7.4	7.3	7.3	8.3	8.5	8.6	10.1	10.2	9.7	-29.4%
Gibraltar	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	122.8%
Kazakhstan	87.4	66.7	51.3	67.8	71.7	76.6	80.3	78.7	82.6	86.6	91.2	4.4%
Kosovo **	..	..	3.0	4.5	4.4	4.8	5.2	5.0	5.2	5.8	5.9	..
Kyrgyzstan	15.7	14.3	14.9	14.9	14.5	14.8	11.8	11.1	12.1	15.2	15.2	-3.6%
Latvia	6.6	4.0	4.1	4.9	4.9	4.8	5.3	5.6	6.6	6.1	6.2	-7.2%
Lithuania	28.4	13.5	11.1	14.4	12.1	13.5	13.3	14.6	5.0	4.2	4.5	-84.1%
Malta	1.1	1.6	1.9	2.2	2.3	2.3	2.3	2.2	2.1	2.2	2.3	108.2%
Republic of Moldova	16.2	7.6	5.6	6.0	6.1	5.9	6.0	6.2	6.1	5.8	5.8	-64.2%
Montenegro **	..	..	..	2.9	3.0	2.1	2.8	2.8	4.0	2.7	2.8	..
Romania	64.3	59.3	51.9	59.4	62.7	61.7	65.0	57.7	60.6	62.0	58.8	-8.6%
Russian Federation	1 082.2	859.0	876.5	951.2	993.9	1 013.4	1 038.4	990.0	1 036.1	1 053.0	1 069.3	-1.2%
Serbia **	40.9	34.5	34.1	36.5	36.5	36.6	36.8	37.7	37.4	38.0	36.2	-11.7%
Tajikistan	18.1	14.8	14.2	17.1	16.9	17.5	16.1	16.1	16.4	16.2	17.0	-6.5%
Turkmenistan	14.6	9.8	9.8	12.8	13.7	14.9	15.0	16.0	16.7	17.2	17.8	21.5%
Ukraine	298.6	193.8	171.3	185.9	193.2	196.1	192.6	173.6	188.6	194.9	198.4	-33.6%
Uzbekistan	56.3	47.5	46.9	49.2	50.9	49.0	49.4	50.0	51.7	52.4	52.5	-6.8%
Non-OECD Europe and Eurasia	**1 893.8**	**1 450.2**	**1 431.7**	**1 582.9**	**1 644.7**	**1 663.0**	**1 698.3**	**1 618.9**	**1 699.0**	**1 724.5**	**1 742.3**	**-8.0%**
Algeria	16.1	19.7	25.4	33.9	35.2	37.2	40.2	38.5	45.7	51.2	57.4	256.4%
Angola	0.8	1.0	1.4	2.8	3.3	3.2	4.2	4.7	5.4	5.7	5.6	567.4%
Benin	0.0	0.0	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.2	676.2%
Botswana	0.9	1.0	0.9	0.9	1.0	0.8	0.7	0.6	0.5	0.4	0.3	-72.4%
Cameroon	2.7	2.8	3.5	4.0	5.1	5.2	5.7	5.8	5.9	6.1	6.3	133.7%
Congo	0.5	0.4	0.3	0.4	0.5	0.4	0.5	0.5	0.8	1.3	1.3	172.2%
Dem. Rep. of Congo	5.7	6.2	6.0	7.4	7.5	7.9	7.5	7.8	7.9	7.9	8.0	41.0%
Côte d'Ivoire	2.0	2.9	4.8	5.7	5.7	5.6	5.8	5.9	6.0	6.1	7.0	253.8%
Egypt	42.3	52.0	78.1	108.7	115.4	125.1	131.0	139.0	146.8	157.4	164.4	289.0%
Eritrea	..	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	..
Ethiopia	1.2	1.5	1.7	2.8	3.3	3.5	3.8	4.0	5.0	6.3	6.7	457.4%
Gabon	1.0	1.1	1.3	1.6	1.7	1.7	1.8	1.9	2.0	2.1	2.2	124.6%
Ghana	5.7	6.1	7.2	6.8	8.4	7.0	8.3	9.0	10.2	11.2	12.0	110.2%
Kenya	3.2	4.1	4.2	6.0	6.5	6.7	6.8	6.9	7.5	7.8	8.3	156.3%
Libya	10.2	11.4	15.5	22.7	24.8	26.2	30.7	31.0	32.8	27.6	34.0	234.2%
Mauritius	0.8	1.2	1.8	2.3	2.4	2.5	2.6	2.6	2.7	2.7	2.8	258.6%
Morocco	9.6	12.1	12.9	19.3	19.9	19.9	20.6	21.1	23.7	25.0	27.3	183.9%
Mozambique	0.5	0.4	9.7	13.3	14.7	16.1	15.1	17.0	16.7	16.8	15.2	+
Namibia	..	1.2	1.4	1.7	1.6	1.6	1.6	1.5	1.3	1.4	1.6	..
Nigeria	13.5	15.9	14.7	23.5	23.1	23.0	21.1	19.8	26.1	27.0	28.7	113.2%
Senegal	0.9	1.1	1.6	2.5	2.4	2.7	2.8	2.9	3.1	3.2	3.5	265.1%
South Africa	165.4	185.4	207.8	242.1	250.9	260.5	255.5	246.8	256.6	259.6	255.1	54.2%
Sudan	1.5	1.9	2.6	3.8	4.5	5.0	5.5	6.5	7.5	8.5	9.4	522.8%
United Rep. of Tanzania	1.6	1.9	2.5	3.6	3.4	4.2	4.4	4.7	5.2	5.2	5.8	256.0%
Togo	0.2	0.3	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.1	-29.7%
Tunisia	5.8	7.7	10.6	12.7	13.1	13.7	14.4	15.3	16.7	16.5	18.0	209.5%
Zambia	8.0	7.9	7.8	8.9	9.9	9.8	9.7	10.4	11.3	11.5	11.9	47.9%
Zimbabwe	9.4	7.8	7.0	9.4	8.0	7.6	7.6	7.3	8.6	9.1	9.1	-2.9%
Other Africa	6.7	7.9	10.4	13.1	13.2	14.1	14.9	15.5	16.1	16.7	17.5	161.7%
Africa	**316.1**	**363.1**	**441.6**	**560.3**	**586.0**	**612.1**	**623.4**	**627.5**	**672.6**	**695.0**	**719.8**	**127.7%**

* Please refer to Chapter 4, *Geographical Coverage.*
** Serbia includes Kosovo from 1990 to 1999 and Montenegro from 1990 to 2004.

Electricity output

terawatt hours

	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012	% change 90-12
Bangladesh	7.7	10.8	15.8	26.4	29.5	31.0	34.3	37.2	41.8	44.2	49.0	534.2%
Brunei Darussalam	1.2	2.0	2.5	3.3	3.3	3.4	3.4	3.6	3.8	3.7	3.9	235.3%
Cambodia	..	0.2	0.4	1.0	1.2	1.5	1.5	1.3	1.0	1.1	1.4	..
India	292.7	423.7	569.7	715.7	773.8	823.6	848.4	917.3	979.4	1 074.5	1 127.6	285.2%
Indonesia	32.7	59.2	93.3	127.7	133.8	143.5	150.4	156.8	169.8	183.4	195.9	499.7%
DPR of Korea	27.7	23.0	19.4	22.9	22.4	21.5	23.2	21.1	21.7	19.2	19.2	-30.6%
Malaysia	23.0	45.5	69.3	82.7	89.8	97.5	97.8	116.0	124.8	129.3	134.4	483.9%
Mongolia	3.3	2.6	2.9	3.4	3.5	3.7	4.0	4.0	4.3	4.5	4.8	43.8%
Myanmar	2.5	4.1	5.1	6.0	6.2	6.4	6.6	7.0	7.5	9.9	10.7	333.1%
Nepal	0.9	1.2	1.7	2.5	2.7	2.8	2.8	3.1	3.2	3.5	3.6	304.6%
Pakistan	37.7	57.0	68.1	93.6	98.2	95.7	91.6	95.4	94.4	95.1	96.1	155.2%
Philippines	26.3	33.6	45.3	56.6	56.8	59.6	60.8	61.9	67.7	69.2	72.9	177.0%
Singapore	15.7	22.2	31.7	38.2	39.4	41.1	41.7	41.8	45.4	46.0	46.9	198.6%
Sri Lanka	3.2	4.8	7.0	9.3	9.5	9.9	10.0	10.0	10.8	11.7	11.9	277.8%
Chinese Taipei	88.4	129.1	180.6	223.5	231.6	239.2	234.8	226.4	243.9	249.1	247.4	179.9%
Thailand	44.2	80.1	96.0	132.2	138.7	143.4	147.4	148.4	159.5	156.0	166.6	277.2%
Viet Nam	8.7	14.6	26.6	53.7	60.5	67.0	73.4	83.2	94.9	105.1	122.8	+
Other Asia	8.4	9.0	13.8	16.7	18.4	20.3	20.6	20.8	20.9	23.1	24.8	194.7%
Asia (excl. China)	**624.3**	**922.5**	**1 249.1**	**1 615.4**	**1 719.5**	**1 811.1**	**1 852.8**	**1 955.3**	**2 094.9**	**2 228.5**	**2 340.2**	**274.9%**
People's Rep. of China	621.2	1 007.8	1 356.2	2 502.5	2 869.8	3 287.5	3 482.0	3 742.0	4 197.3	4 704.9	4 984.8	702.4%
Hong Kong, China	28.9	27.9	31.3	38.5	38.6	39.0	38.0	38.7	38.4	39.1	38.8	34.2%
China	**650.1**	**1 035.7**	**1 387.6**	**2 540.9**	**2 908.4**	**3 326.5**	**3 520.0**	**3 780.7**	**4 235.7**	**4 744.0**	**5 023.6**	**672.7%**
Argentina	50.7	67.0	88.9	105.5	106.9	107.4	121.6	121.9	125.3	129.6	134.8	165.6%
Bolivia	2.3	3.0	3.9	4.9	5.3	5.7	5.8	6.1	6.9	7.2	7.7	231.4%
Brazil	222.8	275.6	348.9	403.0	419.3	445.1	463.1	466.1	515.7	531.8	552.5	147.9%
Colombia	36.4	42.7	43.1	50.3	53.8	55.2	55.9	57.1	59.4	61.0	62.3	71.5%
Costa Rica	3.5	4.9	6.9	8.3	8.7	9.1	9.5	9.3	9.6	9.8	10.2	193.4%
Cuba	15.0	12.5	15.0	15.3	16.5	17.6	17.7	17.7	17.4	17.8	18.4	22.7%
Dominican Republic	3.7	5.5	8.5	12.7	13.9	14.3	14.7	14.4	15.3	15.9	17.0	358.8%
Ecuador	6.3	8.4	10.6	12.7	14.1	16.4	18.8	18.6	19.6	20.6	22.8	259.9%
El Salvador	2.2	3.3	3.4	4.8	5.7	5.8	6.0	5.8	6.0	5.8	5.9	164.5%
Guatemala	2.2	3.5	6.0	8.0	8.2	8.8	8.7	9.0	8.9	9.2	9.4	330.6%
Haiti	0.6	0.5	0.5	0.6	0.6	0.5	0.5	0.7	0.6	0.9	1.2	92.6%
Honduras	2.3	2.7	3.7	5.6	6.0	6.3	6.5	6.6	6.8	7.2	7.6	227.4%
Jamaica	2.5	5.8	6.6	7.4	7.5	6.0	4.2	4.4	4.3	4.4	4.3	74.0%
Netherlands Antilles	0.8	1.0	1.1	1.2	1.2	1.3	1.2	1.3	1.3	1.3	1.3	68.7%
Nicaragua	1.5	1.9	2.4	3.1	3.1	3.2	3.4	3.5	3.7	3.8	4.0	176.7%
Panama	2.7	3.5	4.9	5.8	6.0	6.5	6.4	7.0	7.4	7.9	8.6	223.4%
Paraguay	27.2	42.2	53.5	51.2	53.8	53.7	55.5	55.0	54.1	57.6	60.2	121.6%
Peru	13.8	16.1	19.9	25.5	27.4	29.9	32.4	32.9	35.9	39.2	39.9	189.0%
Trinidad and Tobago	3.6	4.3	5.5	7.1	7.2	7.7	7.7	7.8	8.5	8.8	9.1	155.3%
Uruguay	7.4	6.3	7.6	7.7	5.6	9.4	8.8	8.9	11.0	10.3	10.6	42.4%
Venezuela	59.3	73.4	85.3	105.5	110.4	114.6	119.3	119.6	118.4	122.1	126.5	113.3%
Other Non-OECD Americas	22.2	27.7	32.5	37.7	38.1	38.4	37.0	37.1	37.7	37.7	38.2	72.2%
Non-OECD Americas	**489.0**	**612.0**	**758.8**	**883.9**	**919.2**	**962.8**	**1 004.9**	**1 010.9**	**1 073.7**	**1 109.8**	**1 152.5**	**135.7%**
Bahrain	8.0	11.6	13.9	19.4	21.0	21.7	22.8	22.6	23.4	23.8	24.8	210.2%
Islamic Republic of Iran	59.1	85.0	121.4	178.1	192.7	204.0	214.5	221.4	233.0	240.1	254.3	330.2%
Iraq	24.0	29.7	31.9	30.4	33.8	33.2	36.8	45.6	50.2	54.2	61.7	157.1%
Jordan	3.6	5.6	7.4	9.7	11.1	13.0	13.8	14.3	14.8	14.6	16.6	356.2%
Kuwait	18.5	23.7	32.3	43.7	47.6	48.8	51.7	53.2	57.0	57.5	62.7	239.1%
Lebanon	1.5	5.3	9.8	12.4	11.6	12.1	13.4	13.8	15.7	16.4	14.8	888.4%
Oman	4.5	6.5	9.1	12.7	13.7	14.6	16.0	18.4	19.8	21.9	25.0	455.8%
Qatar	4.8	6.0	9.1	14.4	17.1	19.5	21.6	24.2	28.1	30.7	34.8	622.0%
Saudi Arabia	69.2	97.8	126.2	176.1	181.4	190.5	204.2	217.1	240.1	250.1	271.7	292.6%
Syrian Arab Republic	11.6	16.6	25.2	34.9	37.3	38.6	41.0	43.3	46.4	42.0	31.2	168.6%
United Arab Emirates	17.1	25.0	39.9	60.7	66.8	76.1	86.3	90.6	97.7	99.1	100.9	490.9%
Yemen	1.7	2.4	3.4	4.8	5.4	6.0	6.5	6.7	7.8	6.2	6.6	295.6%
Middle East	**223.6**	**315.3**	**429.6**	**597.3**	**639.5**	**678.1**	**728.8**	**771.1**	**834.0**	**856.6**	**905.0**	**304.8%**

CO_2 emissions and drivers (Kaya decomposition) *

reference year for indices = 1990 unless otherwise specified

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	avg. ch. ref-12**
World * **												
CO_2 emissions	67	75	86	89	100	104	113	131	145	149	151	1.9%
Population	71	77	84	92	100	108	116	123	130	132	133	1.3%
GDP per population (GDP per capita)	73	80	89	92	100	104	116	132	150	154	157	2.1%
Energy intensity (TPES/GDP)	122	115	109	104	100	94	85	81	75	74	73	-1.4%
Carbon intensity: ESCII (CO_2/TPES)	107	106	105	101	100	99	99	100	99	100	99	-0.0%
Annex I Parties												
CO_2 emissions	..	..	..	..	100	95	99	101	97	96	95	-0.3%
Population	..	..	..	..	100	103	105	107	109	110	110	0.4%
GDP per population (GDP per capita)	..	..	..	..	100	102	117	130	134	136	137	1.4%
Energy intensity (TPES/GDP)	..	..	..	..	100	93	84	77	72	69	68	-1.8%
Carbon intensity: ESCII (CO_2/TPES)	..	..	..	..	100	96	96	95	92	93	92	-0.4%
Annex II Parties												
CO_2 emissions	88	91	97	94	100	104	112	115	108	106	104	0.2%
Population	88	91	94	97	100	104	107	110	114	114	115	0.6%
GDP per population (GDP per capita)	62	68	78	87	100	107	122	130	131	133	134	1.3%
Energy intensity (TPES/GDP)	141	133	124	109	100	97	89	83	77	74	72	-1.5%
Carbon intensity: ESCII (CO_2/TPES)	113	110	107	102	100	97	97	96	94	94	94	-0.3%
Annex II North America												
CO_2 emissions	87	89	96	93	100	106	118	119	112	110	106	0.3%
Population	83	86	91	95	100	106	113	118	124	125	126	1.0%
GDP per population (GDP per capita)	66	70	80	89	100	106	124	134	133	135	137	1.4%
Energy intensity (TPES/GDP)	150	142	130	109	100	96	85	77	70	69	65	-1.9%
Carbon intensity: ESCII (CO_2/TPES)	107	104	102	101	100	98	99	98	97	96	94	-0.3%
Annex II Europe												
CO_2 emissions	97	98	106	98	100	100	102	106	97	93	92	-0.4%
Population	94	96	97	98	100	102	103	106	109	109	110	0.4%
GDP per population (GDP per capita)	64	70	81	86	100	107	122	129	131	132	131	1.2%
Energy intensity (TPES/GDP)	131	122	117	110	100	96	88	84	78	74	74	-1.4%
Carbon intensity: ESCII (CO_2/TPES)	124	119	115	105	100	95	93	91	87	87	87	-0.7%
Annex II Asia Oceania												
CO_2 emissions	68	79	83	84	100	108	115	120	116	120	123	0.9%
Population	84	89	94	97	100	102	104	106	107	108	108	0.3%
GDP per population (GDP per capita)	54	60	69	82	100	106	111	118	121	121	123	0.9%
Energy intensity (TPES/GDP)	134	130	121	104	100	103	103	97	92	86	84	-0.8%
Carbon intensity: ESCII (CO_2/TPES)	113	113	105	101	100	97	96	100	98	107	110	0.4%
Annex I EIT												
CO_2 emissions	..	..	..	..	100	71	64	66	66	68	67	-1.8%
Population	..	..	..	..	100	99	98	95	94	94	94	-0.3%
GDP per population (GDP per capita)	..	..	..	..	100	70	79	106	126	131	133	1.3%
Energy intensity (TPES/GDP)	..	..	..	..	100	104	88	71	63	62	62	-2.2%
Carbon intensity: ESCII (CO_2/TPES)	..	..	..	..	100	97	94	91	88	88	87	-0.6%
Non-Annex I Parties												
CO_2 emissions	..	..	..	..	100	123	142	192	246	261	271	4.6%
Population	..	..	..	..	100	109	119	128	136	138	140	1.5%
GDP per population (GDP per capita)	..	..	..	..	100	114	132	162	210	219	228	3.8%
Energy intensity (TPES/GDP)	..	..	..	..	100	94	86	84	78	77	76	-1.2%
Carbon intensity: ESCII (CO_2/TPES)	..	..	..	..	100	105	105	111	111	112	111	0.5%
Annex I Kyoto Parties												
CO_2 emissions	..	..	..	..	100	88	87	90	86	86	86	-0.7%
Population	..	..	..	..	100	101	101	102	103	103	104	0.2%
GDP per population (GDP per capita)	..	..	..	..	100	99	111	124	130	132	132	1.3%
Energy intensity (TPES/GDP)	..	..	..	..	100	92	83	77	72	70	69	-1.7%
Carbon intensity: ESCII (CO_2/TPES)	..	..	..	..	100	95	93	92	89	91	91	-0.4%

* Please see Chapter 3 for methodological notes.

** Average annual percentage change between the reference year and 2012. The reference year is 1990 unless otherwise specified.

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

CO_2 emissions and drivers (Kaya decomposition) *

reference year for indices = 1990 unless otherwise specified

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	avg. ch. ref-12**
Non-OECD Total												
CO_2 emissions	46	58	74	83	100	103	112	147	183	194	201	3.2%
Population	68	74	82	91	100	109	118	126	134	136	138	1.5%
GDP per population (GDP per capita)	70	82	95	95	100	104	118	148	193	202	210	3.4%
Energy intensity (TPES/GDP)	102	98	94	99	100	90	80	75	68	67	66	-1.9%
Carbon intensity: ESCII (CO_2/TPES)	93	98	101	98	100	101	100	105	104	106	105	0.2%
OECD Total												
CO_2 emissions	84	88	96	94	100	105	113	117	112	111	109	0.4%
Population	84	88	92	96	100	104	108	112	116	117	117	0.7%
GDP per population (GDP per capita)	64	70	80	88	100	107	122	132	134	136	137	1.4%
Energy intensity (TPES/GDP)	138	130	122	109	100	97	89	83	77	74	72	-1.5%
Carbon intensity: ESCII (CO_2/TPES)	113	110	107	103	100	97	97	96	94	94	94	-0.3%
Canada												
CO_2 emissions	79	88	100	94	100	108	123	128	124	125	125	1.0%
Population	79	84	89	93	100	106	111	116	123	125	126	1.1%
GDP per population (GDP per capita)	68	77	87	94	100	103	120	129	130	132	133	1.3%
Energy intensity (TPES/GDP)	126	124	120	106	100	102	91	86	75	74	72	-1.5%
Carbon intensity: ESCII (CO_2/TPES)	117	111	108	102	100	97	102	99	103	103	104	0.2%
Chile												
CO_2 emissions	68	55	69	63	100	125	169	189	226	247	252	4.3%
Population	74	79	85	92	100	109	117	123	130	131	132	1.3%
GDP per population (GDP per capita)	77	62	82	79	100	139	163	192	220	231	241	4.1%
Energy intensity (TPES/GDP)	109	112	98	95	100	86	95	85	77	80	83	-0.8%
Carbon intensity: ESCII (CO_2/TPES)	109	101	102	92	100	96	94	93	103	103	95	-0.2%
Mexico												
CO_2 emissions	37	52	80	95	100	112	132	145	158	163	164	2.3%
Population	61	70	81	90	100	109	116	123	131	133	134	1.4%
GDP per population (GDP per capita)	75	87	103	102	100	99	121	125	129	133	136	1.4%
Energy intensity (TPES/GDP)	76	80	93	96	100	98	84	89	85	85	84	-0.8%
Carbon intensity: ESCII (CO_2/TPES)	104	108	103	107	100	106	111	106	109	109	107	0.3%
United States												
CO_2 emissions	88	90	96	93	100	106	117	119	111	109	104	0.2%
Population	83	86	91	95	100	107	113	118	124	125	126	1.0%
GDP per population (GDP per capita)	66	70	79	89	100	107	124	135	133	135	138	1.5%
Energy intensity (TPES/GDP)	152	144	131	109	100	95	85	76	70	68	65	-2.0%
Carbon intensity: ESCII (CO_2/TPES)	106	104	102	101	100	98	99	98	96	95	93	-0.3%
OECD Americas												
CO_2 emissions	85	88	95	93	100	106	119	121	115	113	109	0.4%
Population	77	82	88	94	100	107	114	119	126	127	128	1.1%
GDP per population (GDP per capita)	69	74	83	91	100	106	124	133	132	134	137	1.4%
Energy intensity (TPES/GDP)	147	138	127	108	100	96	85	78	71	69	66	-1.9%
Carbon intensity: ESCII (CO_2/TPES)	108	105	102	101	100	98	99	98	97	96	95	-0.3%
Australia												
CO_2 emissions	55	69	80	85	100	110	129	143	149	149	148	1.8%
Population	77	81	86	93	100	106	112	120	131	133	135	1.4%
GDP per population (GDP per capita)	75	78	86	92	100	111	126	140	146	150	151	1.9%
Energy intensity (TPES/GDP)	104	110	109	98	100	92	88	78	74	72	73	-1.4%
Carbon intensity: ESCII (CO_2/TPES)	93	99	99	101	100	102	103	109	105	105	100	-0.0%
Israel												
CO_2 emissions	43	51	58	73	100	138	165	178	203	200	218	3.6%
Population	65	74	83	91	100	119	135	149	164	167	170	2.4%
GDP per population (GDP per capita)	70	81	83	89	100	116	130	132	152	156	158	2.1%
Energy intensity (TPES/GDP)	109	102	99	82	100	98	90	82	82	78	79	-1.1%
Carbon intensity: ESCII (CO_2/TPES)	86	83	86	111	100	102	103	111	100	99	103	0.1%

* Please see Chapter 3 for methodological notes.

** Average annual percentage change between the reference year and 2012. The reference year is 1990 unless otherwise specified.

CO_2 emissions and drivers (Kaya decomposition) *

reference year for indices = 1990 unless otherwise specified

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	avg. ch. ref-12**
Japan												
CO_2 emissions	72	81	83	83	100	108	111	114	107	112	116	0.7%
Population	85	90	95	98	100	101	103	103	104	103	103	0.1%
GDP per population (GDP per capita)	51	57	67	80	100	106	109	115	117	116	118	0.8%
Energy intensity (TPES/GDP)	142	135	123	105	100	105	106	100	94	88	84	-0.8%
Carbon intensity: ESCII (CO_2/TPES)	118	117	106	101	100	96	94	96	94	106	112	0.5%
Korea												
CO_2 emissions	23	33	54	67	100	156	191	205	246	257	259	4.4%
Population	77	82	89	95	100	105	110	112	115	116	117	0.7%
GDP per population (GDP per capita)	24	32	44	64	100	139	172	209	245	253	257	4.4%
Energy intensity (TPES/GDP)	99	99	112	94	100	107	108	97	95	96	95	-0.2%
Carbon intensity: ESCII (CO_2/TPES)	124	127	122	117	100	100	94	90	91	92	91	-0.4%
New Zealand												
CO_2 emissions	60	73	74	88	100	113	138	152	139	136	144	1.7%
Population	85	92	93	97	100	109	115	123	130	131	132	1.3%
GDP per population (GDP per capita)	82	90	89	99	100	107	117	133	133	135	137	1.5%
Energy intensity (TPES/GDP)	76	81	85	91	100	99	99	81	83	80	82	-0.9%
Carbon intensity: ESCII (CO_2/TPES)	113	110	105	101	100	98	104	115	97	96	97	-0.1%
OECD Asia Oceania												
CO_2 emissions	61	72	78	81	100	116	127	134	136	141	144	1.7%
Population	82	87	92	97	100	103	106	108	111	111	111	0.5%
GDP per population (GDP per capita)	52	58	68	80	100	110	118	128	134	135	138	1.5%
Energy intensity (TPES/GDP)	128	125	118	102	100	105	106	99	96	92	90	-0.5%
Carbon intensity: ESCII (CO_2/TPES)	113	113	106	103	100	98	96	98	96	102	104	0.2%
Austria												
CO_2 emissions	86	89	99	96	100	105	109	132	123	120	115	0.6%
Population	98	99	98	99	100	104	104	107	109	109	110	0.4%
GDP per population (GDP per capita)	60	69	81	87	100	108	125	132	139	142	143	1.6%
Energy intensity (TPES/GDP)	128	119	116	108	100	97	88	96	91	86	85	-0.7%
Carbon intensity: ESCII (CO_2/TPES)	114	110	106	103	100	98	95	97	90	90	86	-0.7%
Belgium												
CO_2 emissions	108	107	116	94	100	107	110	105	102	102	97	-0.1%
Population	97	98	99	99	100	102	103	105	109	110	111	0.5%
GDP per population (GDP per capita)	63	71	83	87	100	106	121	128	131	132	131	1.2%
Energy intensity (TPES/GDP)	135	125	118	106	100	103	97	90	88	84	80	-1.0%
Carbon intensity: ESCII (CO_2/TPES)	132	122	120	103	100	96	91	86	81	83	84	-0.8%
Czech Republic												
CO_2 emissions	101	103	111	116	100	84	82	81	77	76	72	-1.5%
Population	95	97	100	100	100	100	99	99	101	101	101	0.1%
GDP per population (GDP per capita)	73	81	88	93	100	96	106	130	145	148	146	1.7%
Energy intensity (TPES/GDP)	132	112	108	108	100	87	79	70	61	58	58	-2.4%
Carbon intensity: ESCII (CO_2/TPES)	111	116	118	117	100	100	99	89	86	87	84	-0.8%
Denmark												
CO_2 emissions	109	104	124	120	100	115	100	96	94	83	73	-1.4%
Population	97	98	100	99	100	102	104	105	108	108	109	0.4%
GDP per population (GDP per capita)	70	72	82	94	100	110	124	130	127	128	127	1.1%
Energy intensity (TPES/GDP)	159	141	135	119	100	100	83	79	82	75	72	-1.5%
Carbon intensity: ESCII (CO_2/TPES)	102	103	112	108	100	103	93	88	83	80	73	-1.4%
Estonia												
CO_2 emissions	..	..	..	..	100	45	41	47	52	49	46	-3.5%
Population	..	..	..	..	100	91	86	85	84	84	84	-0.8%
GDP per population (GDP per capita)	..	..	..	..	100	77	112	162	162	178	185	2.8%
Energy intensity (TPES/GDP)	..	..	..	..	100	76	50	39	42	38	36	-4.5%
Carbon intensity: ESCII (CO_2/TPES)	..	..	..	..	100	84	85	89	90	85	81	-1.0%

* Please see Chapter 3 for methodological notes.

** Average annual percentage change between the reference year and 2012. The reference year is 1990 unless otherwise specified.

CO_2 emissions and drivers (Kaya decomposition) *

reference year for indices = 1990 unless otherwise specified

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	avg. ch. ref-12**
Finland												
CO_2 emissions	73	82	102	89	100	103	102	101	115	102	91	-0.4%
Population	92	94	96	98	100	102	104	105	108	108	109	0.4%
GDP per population (GDP per capita)	56	67	77	86	100	95	118	133	135	139	136	1.4%
Energy intensity (TPES/GDP)	123	110	117	107	100	105	93	87	88	82	79	-1.1%
Carbon intensity: ESCII (CO_2/TPES)	114	118	117	98	100	101	89	84	89	83	77	-1.2%
France												
CO_2 emissions	122	122	131	102	100	100	107	110	101	93	95	-0.3%
Population	90	93	95	97	100	102	104	108	111	112	113	0.5%
GDP per population (GDP per capita)	64	72	83	88	100	104	116	122	122	124	123	0.9%
Energy intensity (TPES/GDP)	122	110	108	107	100	100	93	92	86	81	81	-0.9%
Carbon intensity: ESCII (CO_2/TPES)	173	166	153	112	100	95	95	91	86	83	84	-0.8%
Germany												
CO_2 emissions	103	103	111	107	100	91	87	84	81	78	80	-1.0%
Population	99	99	99	98	100	103	104	104	103	103	103	0.1%
GDP per population (GDP per capita)	62	68	81	87	100	107	117	120	129	134	134	1.4%
Energy intensity (TPES/GDP)	141	133	128	120	100	87	79	77	70	64	64	-2.0%
Carbon intensity: ESCII (CO_2/TPES)	119	115	109	105	100	95	91	88	87	88	89	-0.5%
Greece												
CO_2 emissions	36	49	65	78	100	108	125	136	120	118	111	0.5%
Population	87	89	95	98	100	103	106	107	108	108	107	0.3%
GDP per population (GDP per capita)	74	86	98	96	100	103	119	143	143	133	124	1.0%
Energy intensity (TPES/GDP)	63	72	75	87	100	99	100	92	84	87	93	-0.3%
Carbon intensity: ESCII (CO_2/TPES)	89	90	93	95	100	102	99	96	93	95	89	-0.5%
Hungary * **												
CO_2 emissions	75	88	104	101	83	72	68	70	61	59	54	-2.3%
Population	98	100	102	100	98	98	97	96	95	95	94	-0.2%
GDP per population (GDP per capita)	60	75	88	97	102	91	106	132	131	134	132	1.1%
Energy intensity (TPES/GDP)	108	102	105	101	96	97	81	73	69	66	63	-1.8%
Carbon intensity: ESCII (CO_2/TPES)	119	116	111	102	87	83	81	77	71	71	70	-1.4%
Iceland												
CO_2 emissions	74	85	92	86	100	104	114	116	103	98	97	-0.1%
Population	81	85	89	95	100	105	110	116	125	125	126	1.1%
GDP per population (GDP per capita)	58	66	85	91	100	97	117	137	128	131	132	1.3%
Energy intensity (TPES/GDP)	93	94	94	99	100	106	115	105	161	168	164	2.3%
Carbon intensity: ESCII (CO_2/TPES)	172	161	129	101	100	96	77	70	40	36	36	-4.6%
Ireland												
CO_2 emissions	71	69	85	87	100	108	135	144	127	114	116	0.7%
Population	85	91	97	101	100	103	109	119	130	131	131	1.2%
GDP per population (GDP per capita)	54	62	72	79	100	122	189	219	201	204	204	3.3%
Energy intensity (TPES/GDP)	149	120	119	110	100	86	67	56	55	50	50	-3.1%
Carbon intensity: ESCII (CO_2/TPES)	105	103	102	99	100	101	98	99	88	86	87	-0.6%
Italy												
CO_2 emissions	74	80	91	87	100	103	107	116	100	99	94	-0.3%
Population	95	98	99	100	100	100	100	103	107	107	107	0.3%
GDP per population (GDP per capita)	58	65	79	86	100	106	117	119	114	114	111	0.5%
Energy intensity (TPES/GDP)	130	126	113	103	100	102	100	102	96	94	91	-0.4%
Carbon intensity: ESCII (CO_2/TPES)	103	101	101	99	100	95	92	92	86	87	87	-0.6%
Luxembourg												
CO_2 emissions	149	117	115	96	100	78	77	110	102	101	99	-0.1%
Population	90	94	95	96	100	107	114	122	133	136	139	1.5%
GDP per population (GDP per capita)	55	59	65	73	100	113	143	160	158	158	154	2.0%
Energy intensity (TPES/GDP)	244	202	170	130	100	77	60	66	59	57	56	-2.6%
Carbon intensity: ESCII (CO_2/TPES)	124	105	110	106	100	84	78	85	82	82	82	-0.9%

* Please see Chapter 3 for methodological notes.

** Average annual percentage change between the reference year and 2012. The reference year is 1990 unless otherwise specified.

*** The reference year for Hungary corresponds to its base year under the Convention (the average of 1985-1987).

CO_2 emissions and drivers (Kaya decomposition) *

reference year for indices = 1990 unless otherwise specified

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	avg. ch. ref-12**
Netherlands												
CO_2 emissions	83	90	107	99	100	110	110	116	120	112	111	0.5%
Population	88	91	95	97	100	103	107	109	111	112	112	0.5%
GDP per population (GDP per capita)	70	76	85	88	100	108	128	134	140	141	139	1.5%
Energy intensity (TPES/GDP)	126	129	122	109	100	96	82	82	81	75	77	-1.2%
Carbon intensity: ESCII (CO_2/TPES)	107	101	109	107	100	102	99	97	94	95	93	-0.3%
Norway												
CO_2 emissions	83	85	99	96	100	116	119	129	139	134	128	1.1%
Population	92	94	96	98	100	103	106	109	115	117	118	0.8%
GDP per population (GDP per capita)	57	66	81	94	100	117	136	147	145	145	147	1.8%
Energy intensity (TPES/GDP)	121	111	112	103	100	93	86	79	93	79	80	-1.0%
Carbon intensity: ESCII (CO_2/TPES)	131	123	113	101	100	104	95	101	90	100	92	-0.4%
Poland * **												
CO_2 emissions	67	79	96	98	80	77	68	68	71	70	68	-1.6%
Population	87	90	94	98	100	101	101	101	102	102	102	0.1%
GDP per population (GDP per capita)	78	96	96	92	89	98	128	150	187	195	199	2.9%
Energy intensity (TPES/GDP)	96	90	106	104	87	76	52	46	40	39	37	-4.1%
Carbon intensity: ESCII (CO_2/TPES)	102	101	100	104	102	102	100	98	94	91	92	-0.3%
Portugal												
CO_2 emissions	37	46	60	62	100	122	150	159	122	121	116	0.7%
Population	87	92	99	101	100	100	102	106	106	106	106	0.3%
GDP per population (GDP per capita)	56	62	74	75	100	108	131	132	135	133	130	1.2%
Energy intensity (TPES/GDP)	77	81	82	86	100	111	109	113	98	96	93	-0.3%
Carbon intensity: ESCII (CO_2/TPES)	98	100	101	96	100	102	102	101	87	89	91	-0.4%
Slovak Republic												
CO_2 emissions	69	77	98	96	100	72	66	67	62	60	56	-2.6%
Population	86	89	94	97	100	101	102	102	102	102	102	0.1%
GDP per population (GDP per capita)	79	87	92	96	100	90	106	135	168	174	177	2.6%
Energy intensity (TPES/GDP)	98	101	108	104	100	91	77	64	49	46	43	-3.7%
Carbon intensity: ESCII (CO_2/TPES)	103	98	105	99	100	86	79	76	74	73	72	-1.5%
Slovenia **												
CO_2 emissions	..	..	..	..	93	97	98	108	107	106	101	0.1%
Population	..	..	..	..	101	100	100	101	103	104	104	0.1%
GDP per population (GDP per capita)	..	..	..	..	112	109	135	161	171	172	167	2.0%
Energy intensity (TPES/GDP)	..	..	..	..	86	94	81	77	70	70	69	-1.4%
Carbon intensity: ESCII (CO_2/TPES)	..	..	..	..	95	94	89	87	86	85	85	-0.6%
Spain												
CO_2 emissions	58	76	91	85	100	113	138	165	131	132	130	1.2%
Population	88	91	97	99	100	101	103	111	118	118	118	0.8%
GDP per population (GDP per capita)	62	74	78	81	100	107	128	139	137	137	134	1.3%
Energy intensity (TPES/GDP)	86	94	100	98	100	104	103	102	88	86	87	-0.6%
Carbon intensity: ESCII (CO_2/TPES)	124	119	122	108	100	101	102	105	92	95	94	-0.3%
Sweden												
CO_2 emissions	156	150	139	111	100	109	100	95	89	82	77	-1.2%
Population	95	96	97	98	100	103	104	106	110	110	111	0.5%
GDP per population (GDP per capita)	71	79	83	91	100	100	119	133	139	142	142	1.6%
Energy intensity (TPES/GDP)	114	110	107	113	100	103	82	78	71	67	67	-1.8%
Carbon intensity: ESCII (CO_2/TPES)	204	182	162	111	100	102	99	87	83	78	72	-1.5%
Switzerland												
CO_2 emissions	94	88	94	100	100	101	102	107	105	96	99	-0.0%
Population	93	94	94	96	100	104	106	110	115	116	117	0.7%
GDP per population (GDP per capita)	79	78	85	90	100	97	105	108	115	116	117	0.7%
Energy intensity (TPES/GDP)	91	96	102	105	100	98	92	90	81	77	77	-1.2%
Carbon intensity: ESCII (CO_2/TPES)	139	125	115	110	100	102	99	101	98	92	94	-0.3%

* Please see Chapter 3 for methodological notes.

** Average annual percentage change between the reference year and 2012. The reference year is 1990 unless otherwise specified.

*** The reference year for Poland corresponds to its base year under the Convention (1988).

**** The reference year for Slovenia corresponds to its base year under the Convention (1986).

CO_2 emissions and drivers (Kaya decomposition) *

reference year for indices = 1990 unless otherwise specified

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	avg. ch. ref-12**
Turkey												
CO_2 emissions	33	47	56	75	100	120	158	170	209	225	238	4.0%
Population	66	73	81	91	100	108	117	124	132	134	136	1.4%
GDP per population (GDP per capita)	65	74	75	84	100	108	123	144	158	170	171	2.5%
Energy intensity (TPES/GDP)	87	95	99	98	100	100	101	89	95	93	95	-0.2%
Carbon intensity: ESCII (CO_2/TPES)	88	92	94	100	100	103	110	107	105	106	107	0.3%
United Kingdom												
CO_2 emissions	114	106	104	99	100	94	95	97	86	79	83	-0.8%
Population	98	98	98	99	100	101	103	105	109	110	111	0.5%
GDP per population (GDP per capita)	66	71	78	86	100	111	131	149	146	147	145	1.7%
Energy intensity (TPES/GDP)	157	138	126	115	100	93	80	69	62	56	58	-2.5%
Carbon intensity: ESCII (CO_2/TPES)	112	109	108	102	100	90	88	90	88	88	89	-0.5%
OECD Europe												
CO_2 emissions	92	95	105	100	100	98	100	104	98	95	94	-0.3%
Population	90	92	95	97	100	102	104	107	110	111	112	0.5%
GDP per population (GDP per capita)	66	74	83	88	100	106	121	130	134	136	135	1.4%
Energy intensity (TPES/GDP)	129	121	118	111	100	95	85	81	76	72	72	-1.5%
Carbon intensity: ESCII (CO_2/TPES)	120	116	114	105	100	96	93	91	87	87	87	-0.6%
European Union - 28												
CO_2 emissions	..	..	..	..	100	95	95	98	90	87	86	-0.7%
Population	..	..	..	..	100	101	102	104	106	106	106	0.3%
GDP per population (GDP per capita)	..	..	..	..	100	106	121	132	136	138	137	1.5%
Energy intensity (TPES/GDP)	..	..	..	..	100	93	83	79	73	69	69	-1.7%
Carbon intensity: ESCII (CO_2/TPES)	..	..	..	..	100	95	92	90	86	86	86	-0.7%
Albania												
CO_2 emissions	62	71	122	115	100	30	49	64	62	66	61	-2.2%
Population	64	70	79	89	100	97	96	93	91	92	92	-0.4%
GDP per population (GDP per capita)	84	95	111	109	100	90	120	161	209	215	218	3.6%
Energy intensity (TPES/GDP)	121	111	130	104	100	57	58	54	41	43	39	-4.2%
Carbon intensity: ESCII (CO_2/TPES)	97	96	106	113	100	60	74	78	79	79	79	-1.1%
Armenia												
CO_2 emissions	..	..	..	..	100	17	17	20	20	23	27	-5.9%
Population	..	..	..	..	100	91	87	85	84	84	84	-0.8%
GDP per population (GDP per capita)	..	..	..	..	100	58	78	142	174	182	195	3.1%
Energy intensity (TPES/GDP)	..	..	..	..	100	40	39	27	22	23	24	-6.4%
Carbon intensity: ESCII (CO_2/TPES)	..	..	..	..	100	78	64	62	61	65	69	-1.7%
Azerbaijan												
CO_2 emissions	..	..	..	..	100	62	51	56	43	49	53	-2.8%
Population	..	..	..	..	100	107	112	117	126	128	130	1.2%
GDP per population (GDP per capita)	..	..	..	..	100	39	52	95	187	185	187	2.9%
Energy intensity (TPES/GDP)	..	..	..	..	100	147	85	53	22	23	25	-6.1%
Carbon intensity: ESCII (CO_2/TPES)	..	..	..	..	100	100	102	95	85	88	88	-0.6%
Belarus												
CO_2 emissions	..	..	..	..	100	49	47	50	52	53	57	-2.5%
Population	..	..	..	..	100	100	98	95	93	93	93	-0.3%
GDP per population (GDP per capita)	..	..	..	..	100	65	90	134	194	205	209	3.4%
Energy intensity (TPES/GDP)	..	..	..	..	100	83	61	46	33	34	35	-4.7%
Carbon intensity: ESCII (CO_2/TPES)	..	..	..	..	100	91	87	84	85	81	85	-0.7%
Bosnia and Herzegovina												
CO_2 emissions	..	..	..	..	100	14	57	66	85	96	90	-0.5%
Population	..	..	..	..	100	78	85	86	85	85	85	-0.8%
GDP per population (GDP per capita)	..	..	..	..	100	139	433	545	643	652	649	8.9%
Energy intensity (TPES/GDP)	..	..	..	..	100	20	17	15	17	18	17	-7.7%
Carbon intensity: ESCII (CO_2/TPES)	..	..	..	..	100	64	92	92	92	96	94	-0.3%

* Please see Chapter 3 for methodological notes.

** Average annual percentage change between the reference year and 2012. The reference year is 1990 unless otherwise specified.

CO_2 emissions and drivers (Kaya decomposition) *

reference year for indices = 1990 unless otherwise specified

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	avg. ch. ref-12**
Bulgaria * **												
CO_2 emissions	77	88	102	99	91	65	52	56	54	60	54	-2.5%
Population	95	97	99	100	97	94	91	86	82	82	81	-0.9%
GDP per population (GDP per capita)	40	53	70	82	91	82	86	118	141	145	147	1.6%
Energy intensity (TPES/GDP)	161	145	131	120	102	95	77	62	49	52	49	-2.9%
Carbon intensity: ESCII (CO_2/TPES)	126	119	113	101	101	88	87	89	94	98	92	-0.3%
Croatia												
CO_2 emissions	..	..	..	..	100	73	82	96	88	87	80	-1.0%
Population	..	..	..	..	100	98	93	93	92	90	89	-0.5%
GDP per population (GDP per capita)	..	..	..	..	100	74	92	115	119	122	120	0.8%
Energy intensity (TPES/GDP)	..	..	..	..	100	108	101	93	86	86	82	-0.9%
Carbon intensity: ESCII (CO_2/TPES)	..	..	..	..	100	94	95	98	93	93	91	-0.4%
Cyprus **												
CO_2 emissions	46	43	67	72	100	130	163	181	187	180	168	2.4%
Population	108	88	88	94	100	113	120	128	143	147	150	1.9%
GDP per population (GDP per capita)	24	35	62	76	100	111	125	138	139	136	130	1.2%
Energy intensity (TPES/GDP)	164	133	116	94	100	100	104	92	90	87	84	-0.8%
Carbon intensity: ESCII (CO_2/TPES)	107	105	106	107	100	105	104	112	104	104	103	0.1%
FYR of Macedonia												
CO_2 emissions	..	..	..	..	100	96	99	103	97	109	102	0.1%
Population	..	..	..	..	100	98	102	104	105	105	105	0.2%
GDP per population (GDP per capita)	..	..	..	..	100	81	89	95	112	116	115	0.6%
Energy intensity (TPES/GDP)	..	..	..	..	100	128	118	116	99	104	99	-0.0%
Carbon intensity: ESCII (CO_2/TPES)	..	..	..	..	100	95	92	90	83	87	85	-0.7%
Georgia												
CO_2 emissions	..	..	..	..	100	24	14	13	15	19	20	-7.0%
Population	..	..	..	..	100	99	92	91	93	93	94	-0.3%
GDP per population (GDP per capita)	..	..	..	..	100	29	41	59	74	79	83	-0.8%
Energy intensity (TPES/GDP)	..	..	..	..	100	106	62	43	37	39	38	-4.3%
Carbon intensity: ESCII (CO_2/TPES)	..	..	..	..	100	81	60	57	59	66	69	-1.7%
Gibraltar												
CO_2 emissions	56	56	66	67	100	183	223	265	304	297	302	5.2%
Population	93	93	100	100	100	104	104	111	111	111	114	0.6%
GDP per population (GDP per capita)	69	75	76	85	100	105	129	139	142	143	140	1.5%
Energy intensity (TPES/GDP)	88	80	86	79	100	168	167	172	192	186	188	2.9%
Carbon intensity: ESCII (CO_2/TPES)	99	100	102	100	100	100	101	101	101	101	101	0.0%
Kazakhstan												
CO_2 emissions	..	..	..	..	100	71	48	66	92	98	96	-0.2%
Population	..	..	..	..	100	97	91	93	100	101	103	0.1%
GDP per population (GDP per capita)	..	..	..	..	100	63	76	123	154	163	169	2.4%
Energy intensity (TPES/GDP)	..	..	..	..	100	116	70	61	61	64	59	-2.4%
Carbon intensity: ESCII (CO_2/TPES)	..	..	..	..	100	100	98	96	98	93	94	-0.3%
Kosovo ***												
CO_2 emissions	..	..	..	..	..	..	100	130	170	169	159	3.9%
Population	..	..	..	..	..	..	100	100	104	105	106	0.5%
GDP per population (GDP per capita)	..	..	..	..	..	..	100	141	175	182	187	5.4%
Energy intensity (TPES/GDP)	..	..	..	..	..	..	100	89	89	85	77	-2.1%
Carbon intensity: ESCII (CO_2/TPES)	..	..	..	..	..	..	100	103	105	103	104	0.3%
Kyrgyzstan												
CO_2 emissions	..	..	..	..	100	20	20	22	27	32	42	-3.8%
Population	..	..	..	..	100	104	112	118	124	126	128	1.1%
GDP per population (GDP per capita)	..	..	..	..	100	49	60	68	80	84	82	-0.9%
Energy intensity (TPES/GDP)	..	..	..	..	100	63	47	43	37	42	53	-2.9%
Carbon intensity: ESCII (CO_2/TPES)	..	..	..	..	100	62	63	63	73	73	77	-1.2%

* Please see Chapter 3 for methodological notes.

** Average annual percentage change between the reference year and 2012. The reference year is 1990 unless otherwise specified.

*** The reference year for Bulgaria corresponds to its base year under the Convention (1988).

**** Please refer to Chapter 4, *Geographical Coverage*.

***** Serbia includes Kosovo from 1990 to 1999 and Montenegro from 1990 to 2004. The reference year for Kosovo is the first year of available data (2000).

CO_2 emissions and drivers (Kaya decomposition) *

reference year for indices = 1990 unless otherwise specified

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	avg. ch. ref-12**
Latvia												
CO_2 emissions	..	..	..	..	100	47	37	41	43	39	38	-4.3%
Population	..	..	..	..	100	93	89	84	79	77	76	-1.2%
GDP per population (GDP per capita)	..	..	..	..	100	61	85	133	137	147	156	2.0%
Energy intensity (TPES/GDP)	..	..	..	..	100	103	65	52	55	48	47	-3.4%
Carbon intensity: ESCII (CO_2/TPES)	..	..	..	..	100	81	75	70	73	73	67	-1.8%
Lithuania												
CO_2 emissions	..	..	..	..	100	43	34	41	40	40	40	-4.1%
Population	..	..	..	..	100	98	95	90	84	82	81	-1.0%
GDP per population (GDP per capita)	..	..	..	..	100	59	76	117	132	143	150	1.9%
Energy intensity (TPES/GDP)	..	..	..	..	100	94	62	53	40	39	38	-4.3%
Carbon intensity: ESCII (CO_2/TPES)	..	..	..	..	100	79	76	74	92	88	88	-0.6%
Malta												
CO_2 emissions	28	28	43	50	100	103	92	118	108	108	110	0.5%
Population	86	86	90	95	100	105	108	114	117	118	118	0.8%
GDP per population (GDP per capita)	32	46	76	78	100	125	156	154	166	169	169	2.4%
Energy intensity (TPES/GDP)	111	76	67	67	100	78	58	72	63	60	48	-3.3%
Carbon intensity: ESCII (CO_2/TPES)	94	94	94	101	100	101	95	93	88	90	114	0.6%
Republic of Moldova												
CO_2 emissions	..	..	..	..	100	39	22	25	26	26	25	-6.1%
Population	..	..	..	..	100	99	98	97	96	96	96	-0.2%
GDP per population (GDP per capita)	..	..	..	..	100	40	36	52	61	65	64	-2.0%
Energy intensity (TPES/GDP)	..	..	..	..	100	119	82	71	59	54	53	-2.8%
Carbon intensity: ESCII (CO_2/TPES)	..	..	..	..	100	82	74	72	76	78	76	-1.2%
Montenegro * **												
CO_2 emissions	..	..	..	..	..	..	..	100	127	128	118	2.4%
Population	..	..	..	..	..	..	..	100	101	101	101	0.1%
GDP per population (GDP per capita)	..	..	..	..	..	..	..	100	123	127	127	3.4%
Energy intensity (TPES/GDP)	..	..	..	..	..	..	..	100	88	82	78	-3.5%
Carbon intensity: ESCII (CO_2/TPES)	..	..	..	..	..	..	..	100	116	122	119	2.5%
Romania **												
CO_2 emissions	61	75	94	92	89	63	46	50	40	43	42	-3.7%
Population	88	92	96	98	100	98	97	92	87	87	87	-0.6%
GDP per population (GDP per capita)	46	66	91	105	94	87	82	115	139	143	144	1.6%
Energy intensity (TPES/GDP)	151	123	107	91	95	79	66	53	42	42	40	-3.9%
Carbon intensity: ESCII (CO_2/TPES)	100	100	99	98	99	93	88	90	79	84	83	-0.8%
Russian Federation												
CO_2 emissions	..	..	..	..	100	72	69	69	73	76	76	-1.2%
Population	..	..	..	..	100	100	99	97	96	96	97	-0.1%
GDP per population (GDP per capita)	..	..	..	..	100	62	68	94	112	117	120	0.8%
Energy intensity (TPES/GDP)	..	..	..	..	100	117	105	82	74	75	74	-1.4%
Carbon intensity: ESCII (CO_2/TPES)	..	..	..	..	100	99	98	94	91	90	88	-0.6%
Serbia * **												
CO_2 emissions	..	..	..	..	100	72	69	80	75	81	72	-1.5%
Population	..	..	..	..	100	103	81	74	72	72	72	-1.5%
GDP per population (GDP per capita)	..	..	..	..	100	48	76	97	110	112	111	0.5%
Energy intensity (TPES/GDP)	..	..	..	..	100	141	114	113	99	102	92	-0.4%
Carbon intensity: ESCII (CO_2/TPES)	..	..	..	..	100	102	99	98	95	99	98	-0.1%
Tajikistan												
CO_2 emissions	..	..	..	..	100	22	20	21	21	22	25	-6.1%
Population	..	..	..	..	100	109	117	128	144	148	151	1.9%
GDP per population (GDP per capita)	..	..	..	..	100	35	33	47	58	61	64	-2.0%
Energy intensity (TPES/GDP)	..	..	..	..	100	110	106	73	49	46	44	-3.6%
Carbon intensity: ESCII (CO_2/TPES)	..	..	..	..	100	53	49	49	51	53	59	-2.4%

* Please see Chapter 3 for methodological notes.

** Average annual percentage change between the reference year and 2012. The reference year is 1990 unless otherwise specified.

*** Serbia includes Kosovo from 1990 to 1999 & Montenegro from 1990 to 2004. The reference year for Montenegro is the first year of available data (2005).

**** The reference year for Romania corresponds to its base year under the Convention (1989).

CO_2 emissions and drivers (Kaya decomposition) *

reference year for indices = 1990 unless otherwise specified

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	avg. ch. ref-12**
Turkmenistan												
CO_2 emissions	..	..	..	..	100	75	82	108	127	138	144	1.7%
Population	..	..	..	..	100	114	123	129	137	139	141	1.6%
GDP per population (GDP per capita)	..	..	..	..	100	55	64	78	120	136	149	1.8%
Energy intensity (TPES/GDP)	..	..	..	..	100	124	108	109	78	74	69	-1.6%
Carbon intensity: ESCII (CO_2/TPES)	..	..	..	..	100	95	97	98	98	98	98	-0.1%
Ukraine												
CO_2 emissions	..	..	..	..	100	57	42	44	39	41	41	-4.0%
Population	..	..	..	..	100	99	95	91	88	88	88	-0.6%
GDP per population (GDP per capita)	..	..	..	..	100	48	46	69	75	79	79	-1.0%
Energy intensity (TPES/GDP)	..	..	..	..	100	135	122	90	80	72	70	-1.6%
Carbon intensity: ESCII (CO_2/TPES)	..	..	..	..	100	88	80	78	75	83	84	-0.8%
Uzbekistan												
CO_2 emissions	..	..	..	..	100	85	98	91	84	91	93	-0.3%
Population	..	..	..	..	100	111	120	128	139	143	145	1.7%
GDP per population (GDP per capita)	..	..	..	..	100	73	82	100	138	145	155	2.0%
Energy intensity (TPES/GDP)	..	..	..	..	100	113	112	79	49	49	46	-3.4%
Carbon intensity: ESCII (CO_2/TPES)	..	..	..	..	100	92	90	89	90	89	89	-0.5%
Non-OECD Europe and Eurasia												
CO_2 emissions	56	72	86	90	100	67	60	63	65	69	69	-1.7%
Population	86	89	93	97	100	100	99	98	98	99	99	-0.0%
GDP per population (GDP per capita)	60	73	87	93	100	62	68	94	114	119	121	0.9%
Energy intensity (TPES/GDP)	107	104	99	100	100	113	97	76	66	66	65	-2.0%
Carbon intensity: ESCII (CO_2/TPES)	101	106	106	100	100	95	93	90	89	89	88	-0.6%
Algeria												
CO_2 emissions	17	27	54	82	100	108	120	151	185	197	217	3.6%
Population	58	64	74	87	100	112	121	129	141	144	147	1.8%
GDP per population (GDP per capita)	66	88	103	111	100	91	98	119	124	125	126	1.1%
Energy intensity (TPES/GDP)	41	44	66	83	100	107	103	94	104	105	113	0.5%
Carbon intensity: ESCII (CO_2/TPES)	108	107	107	103	100	99	99	103	102	104	104	0.2%
Angola												
CO_2 emissions	41	50	67	72	100	99	127	161	392	392	410	6.6%
Population	59	64	74	88	100	117	135	160	189	195	201	3.2%
GDP per population (GDP per capita)	132	121	106	97	100	68	80	110	167	168	174	2.5%
Energy intensity (TPES/GDP)	85	90	99	99	100	137	118	88	73	72	69	-1.6%
Carbon intensity: ESCII (CO_2/TPES)	63	71	86	85	100	91	99	104	170	167	169	2.4%
Benin												
CO_2 emissions	119	180	154	184	100	86	556	1044	1775	1851	1950	14.5%
Population	59	65	74	86	100	120	139	164	190	196	201	3.2%
GDP per population (GDP per capita)	92	91	98	106	100	103	112	116	120	121	124	1.0%
Energy intensity (TPES/GDP)	121	126	112	102	100	90	77	79	96	96	95	-0.3%
Carbon intensity: ESCII (CO_2/TPES)	179	241	189	199	100	78	466	694	807	816	828	10.1%
Botswana												
CO_2 emissions	..	..	..	53	100	114	144	153	174	164	162	2.2%
Population	..	..	..	86	100	114	127	136	142	144	145	1.7%
GDP per population (GDP per capita)	..	..	..	67	100	109	127	142	165	173	179	2.7%
Energy intensity (TPES/GDP)	..	..	..	123	100	95	91	80	76	71	68	-1.7%
Carbon intensity: ESCII (CO_2/TPES)	..	..	..	76	100	96	98	99	97	93	91	-0.4%
Cameroon												
CO_2 emissions	27	39	62	91	100	93	104	110	188	194	203	3.3%
Population	58	64	74	86	100	115	132	150	171	175	180	2.7%
GDP per population (GDP per capita)	69	82	97	131	100	79	87	91	93	95	96	-0.2%
Energy intensity (TPES/GDP)	136	115	102	79	100	122	111	103	88	82	81	-1.0%
Carbon intensity: ESCII (CO_2/TPES)	50	64	84	101	100	84	82	77	135	142	144	1.7%

* Please see Chapter 3 for methodological notes.

** Average annual percentage change between the reference year and 2012. The reference year is 1990 unless otherwise specified.

CO_2 emissions and drivers (Kaya decomposition) *

reference year for indices = 1990 unless otherwise specified

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	avg. ch. ref-12**
Congo												
CO_2 emissions	93	98	112	122	100	76	80	134	292	333	353	5.9%
Population	58	65	75	87	100	114	131	149	173	177	182	2.8%
GDP per population (GDP per capita)	63	76	83	116	100	90	88	95	105	106	107	0.3%
Energy intensity (TPES/GDP)	181	144	128	97	100	98	91	100	108	115	113	0.6%
Carbon intensity: ESCII (CO_2/TPES)	142	138	141	124	100	76	76	96	149	154	160	2.2%
Dem. Rep. of Congo												
CO_2 emissions	85	87	105	109	100	39	29	43	62	78	82	-0.9%
Population	59	66	75	86	100	120	134	155	178	183	188	2.9%
GDP per population (GDP per capita)	158	151	121	117	100	57	42	45	51	53	55	-2.7%
Energy intensity (TPES/GDP)	61	64	78	84	100	159	210	204	185	184	167	2.4%
Carbon intensity: ESCII (CO_2/TPES)	151	137	146	129	100	36	24	30	37	43	47	-3.4%
Côte d'Ivoire												
CO_2 emissions	88	111	124	112	100	120	233	214	228	215	288	4.9%
Population	45	55	68	84	100	117	133	144	157	160	164	2.3%
GDP per population (GDP per capita)	135	139	137	113	100	92	94	87	89	83	89	-0.5%
Energy intensity (TPES/GDP)	93	90	88	90	100	110	124	176	166	201	199	3.2%
Carbon intensity: ESCII (CO_2/TPES)	155	163	151	131	100	102	149	96	98	80	99	-0.0%
Egypt												
CO_2 emissions	26	33	54	83	100	106	129	189	231	240	248	4.2%
Population	66	72	80	89	100	109	117	127	139	141	143	1.6%
GDP per population (GDP per capita)	49	51	74	91	100	109	130	142	176	176	177	2.6%
Energy intensity (TPES/GDP)	75	82	80	98	100	92	83	105	92	95	95	-0.2%
Carbon intensity: ESCII (CO_2/TPES)	108	108	114	104	100	97	102	99	103	101	102	0.1%
Eritrea * **												
CO_2 emissions	..	..	..	..	..	178	141	133	110	118	125	1.1%
Population	..	..	..	..	..	102	118	146	172	178	184	3.1%
GDP per population (GDP per capita)	..	..	..	..	..	138	139	128	104	110	113	0.6%
Energy intensity (TPES/GDP)	..	..	..	..	..	80	49	47	47	45	43	-4.1%
Carbon intensity: ESCII (CO_2/TPES)	..	..	..	..	..	157	175	153	129	135	137	1.6%
Ethiopia * **												
CO_2 emissions	60	54	63	64	100	108	147	206	275	317	359	6.0%
Population	61	68	73	85	100	119	137	159	181	186	191	3.0%
GDP per population (GDP per capita)	129	119	113	92	100	89	95	113	166	179	190	3.0%
Energy intensity (TPES/GDP)	77	83	88	108	100	113	105	89	65	62	60	-2.3%
Carbon intensity: ESCII (CO_2/TPES)	99	80	86	77	100	91	107	129	141	153	166	2.3%
Gabon												
CO_2 emissions	53	84	143	187	100	147	164	192	262	274	274	4.7%
Population	63	68	77	87	100	114	129	146	164	168	172	2.5%
GDP per population (GDP per capita)	70	132	109	108	100	102	91	88	87	91	94	-0.3%
Energy intensity (TPES/GDP)	205	122	139	122	100	98	106	114	125	120	115	0.6%
Carbon intensity: ESCII (CO_2/TPES)	58	77	123	163	100	130	131	131	147	149	146	1.7%
Ghana												
CO_2 emissions	71	87	84	80	100	122	187	240	388	407	473	7.3%
Population	60	67	74	87	100	115	129	146	166	170	173	2.5%
GDP per population (GDP per capita)	136	115	109	91	100	108	118	133	162	182	192	3.0%
Energy intensity (TPES/GDP)	69	90	94	104	100	99	95	76	65	59	57	-2.5%
Carbon intensity: ESCII (CO_2/TPES)	126	125	110	97	100	100	130	162	222	225	247	4.2%
Kenya												
CO_2 emissions	58	63	81	84	100	105	142	137	207	210	193	3.0%
Population	50	58	69	84	100	117	133	153	174	179	184	2.8%
GDP per population (GDP per capita)	76	86	97	91	100	93	90	94	104	105	107	0.3%
Energy intensity (TPES/GDP)	130	114	103	107	100	105	110	106	103	101	98	-0.1%
Carbon intensity: ESCII (CO_2/TPES)	118	112	117	104	100	92	107	90	111	110	100	0.0%

* Please see Chapter 3 for methodological notes.

** Average annual percentage change between the reference year and 2012. The reference year is 1990 unless otherwise specified.

*** Data for Ethiopia include Eritrea until 1991. The reference year for Eritrea is the first year of available data (1992).

CO_2 emissions and drivers (Kaya decomposition) *

reference year for indices = 1990 unless otherwise specified

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	avg. ch. ref-12**
Libya												
CO_2 emissions	14	34	68	82	100	128	144	166	187	129	162	2.2%
Population	51	59	72	88	100	111	122	131	142	143	144	1.7%
GDP per population (GDP per capita)	240	165	214	126	100	86	84	95	107	41	72	-1.5%
Energy intensity (TPES/GDP)	12	33	40	81	100	130	140	128	121	205	147	1.8%
Carbon intensity: ESCII (CO_2/TPES)	97	102	110	92	100	103	101	104	101	106	105	0.2%
Mauritius												
CO_2 emissions	22	36	49	53	100	133	209	254	314	313	321	5.4%
Population	79	84	91	96	100	106	112	117	121	121	122	0.9%
GDP per population (GDP per capita)	41	52	61	73	100	120	150	166	201	208	214	3.5%
Energy intensity (TPES/GDP)	166	137	116	95	100	92	90	89	81	78	77	-1.2%
Carbon intensity: ESCII (CO_2/TPES)	41	61	76	79	100	114	138	146	159	158	159	2.1%
Morocco												
CO_2 emissions	35	51	71	84	100	132	150	201	236	256	264	4.5%
Population	66	72	80	90	100	109	116	122	128	130	132	1.3%
GDP per population (GDP per capita)	66	73	85	89	100	96	109	132	159	166	171	2.5%
Energy intensity (TPES/GDP)	89	99	104	101	100	117	115	115	109	111	110	0.4%
Carbon intensity: ESCII (CO_2/TPES)	90	97	100	103	100	108	104	109	106	107	107	0.3%
Mozambique												
CO_2 emissions	267	216	214	137	100	106	122	140	217	258	240	4.1%
Population	71	78	89	98	100	118	135	155	177	181	186	2.9%
GDP per population (GDP per capita)	160	123	110	78	100	101	126	168	204	213	223	3.7%
Energy intensity (TPES/GDP)	102	117	115	140	100	89	71	55	46	45	42	-3.8%
Carbon intensity: ESCII (CO_2/TPES)	229	192	188	128	100	100	100	97	130	149	136	1.4%
Namibia * **												
CO_2 emissions	..	..	..	..	..	158	172	208	267	269	284	5.1%
Population	..	..	..	..	..	113	129	138	149	151	154	2.1%
GDP per population (GDP per capita)	..	..	..	..	..	104	108	128	146	152	157	2.2%
Energy intensity (TPES/GDP)	..	..	..	..	..	122	115	113	111	107	107	0.3%
Carbon intensity: ESCII (CO_2/TPES)	..	..	..	..	..	111	107	104	111	109	110	0.4%
Nigeria												
CO_2 emissions	20	40	92	112	100	117	152	200	194	213	223	3.7%
Population	60	66	77	88	100	113	129	146	167	172	177	2.6%
GDP per population (GDP per capita)	131	136	142	108	100	90	94	136	169	172	178	2.7%
Energy intensity (TPES/GDP)	63	64	67	90	100	108	108	80	64	65	64	-2.0%
Carbon intensity: ESCII (CO_2/TPES)	41	70	125	130	100	105	117	126	108	112	111	0.5%
Senegal												
CO_2 emissions	57	75	96	99	100	116	167	219	255	270	265	4.5%
Population	58	65	74	86	100	116	131	150	172	177	183	2.8%
GDP per population (GDP per capita)	113	113	105	104	100	96	103	113	118	117	117	0.7%
Energy intensity (TPES/GDP)	113	112	119	104	100	100	105	97	115	119	114	0.6%
Carbon intensity: ESCII (CO_2/TPES)	77	92	104	107	100	105	118	132	110	110	108	0.4%
South Africa												
CO_2 emissions	62	79	82	90	100	108	117	130	148	143	148	1.8%
Population	64	70	78	89	100	111	125	135	145	147	149	1.8%
GDP per population (GDP per capita)	100	105	110	104	100	94	96	107	117	120	121	0.9%
Energy intensity (TPES/GDP)	78	80	84	103	100	109	100	98	93	89	86	-0.7%
Carbon intensity: ESCII (CO_2/TPES)	124	134	115	95	100	95	97	92	95	91	96	-0.2%
Sudan												
CO_2 emissions	59	60	67	76	100	83	105	186	281	265	263	4.5%
Population	55	63	74	87	100	116	133	154	177	182	186	2.9%
GDP per population (GDP per capita)	102	111	105	93	100	110	129	152	179	168	148	1.8%
Energy intensity (TPES/GDP)	117	101	101	110	100	88	73	60	50	51	57	-2.5%
Carbon intensity: ESCII (CO_2/TPES)	90	85	85	86	100	73	84	132	179	169	168	2.4%
United Rep. of Tanzania												
CO_2 emissions	89	88	93	89	100	148	154	298	365	432	521	7.8%
Population	55	63	73	86	100	117	133	152	176	182	187	2.9%
GDP per population (GDP per capita)	95	100	99	88	100	93	101	125	150	155	161	2.2%
Energy intensity (TPES/GDP)	148	126	114	119	100	104	102	93	79	77	76	-1.3%
Carbon intensity: ESCII (CO_2/TPES)	115	112	113	99	100	130	112	169	176	199	229	3.8%

* Please see Chapter 3 for methodological notes.

** Average annual percentage change between the reference year and 2012. The reference year is 1990 unless otherwise specified.

*** The reference year for Namibia is the first year of available data (1991).

CO_2 emissions and drivers (Kaya decomposition) *

reference year for indices = 1990 unless otherwise specified

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	avg. ch. ref-12**
Togo												
CO_2 emissions	60	55	64	52	100	101	166	172	362	331	284	4.9%
Population	58	64	72	86	100	113	128	146	166	171	175	2.6%
GDP per population (GDP per capita)	103	112	125	103	100	89	97	90	92	94	97	-0.1%
Energy intensity (TPES/GDP)	97	86	78	88	100	124	135	143	160	154	145	1.7%
Carbon intensity: ESCII (CO_2/TPES)	104	90	91	66	100	81	99	91	147	133	115	0.6%
Tunisia												
CO_2 emissions	30	40	65	79	100	118	149	167	191	181	191	3.0%
Population	64	69	78	89	100	110	117	123	129	131	132	1.3%
GDP per population (GDP per capita)	60	75	90	97	100	110	135	161	190	184	189	2.9%
Energy intensity (TPES/GDP)	87	85	94	97	100	97	93	85	83	80	80	-1.0%
Carbon intensity: ESCII (CO_2/TPES)	91	90	98	94	100	100	101	99	94	94	95	-0.2%
Zambia												
CO_2 emissions	132	169	129	108	100	79	65	80	67	81	106	0.3%
Population	55	63	75	87	100	113	129	146	168	174	179	2.7%
GDP per population (GDP per capita)	142	140	121	106	100	83	83	92	110	113	118	0.7%
Energy intensity (TPES/GDP)	84	83	94	100	100	115	107	99	82	80	79	-1.1%
Carbon intensity: ESCII (CO_2/TPES)	199	230	152	117	100	74	57	60	44	51	64	-2.0%
Zimbabwe												
CO_2 emissions	45	45	50	60	100	93	82	63	55	60	62	-2.1%
Population	51	59	70	85	100	111	120	121	125	128	131	1.2%
GDP per population (GDP per capita)	101	102	93	94	100	95	100	67	57	61	63	-2.1%
Energy intensity (TPES/GDP)	113	105	107	100	100	100	90	128	137	128	126	1.0%
Carbon intensity: ESCII (CO_2/TPES)	77	71	71	75	100	88	76	61	56	59	61	-2.3%
Other Africa												
CO_2 emissions	66	75	103	85	100	114	135	171	218	227	236	4.0%
Population	61	66	77	86	100	110	128	149	172	178	183	2.8%
GDP per population (GDP per capita)	119	114	111	102	100	90	97	115	126	127	129	1.2%
Energy intensity (TPES/GDP)	75	78	78	84	100	111	98	79	71	71	70	-1.6%
Carbon intensity: ESCII (CO_2/TPES)	122	127	155	115	100	104	112	127	141	142	143	1.6%
Africa												
CO_2 emissions	46	60	74	87	100	110	126	152	180	179	189	2.9%
Population	60	66	76	87	100	114	129	146	165	169	173	2.5%
GDP per population (GDP per capita)	96	100	109	103	100	93	99	115	132	131	134	1.3%
Energy intensity (TPES/GDP)	85	85	84	96	100	106	99	91	82	82	81	-1.0%
Carbon intensity: ESCII (CO_2/TPES)	94	106	107	102	100	97	99	100	102	99	101	0.1%
Bangladesh												
CO_2 emissions	23	34	53	65	100	149	185	259	387	409	439	7.0%
Population	63	67	77	88	100	112	123	133	141	142	144	1.7%
GDP per population (GDP per capita)	96	84	90	95	100	111	130	156	200	211	221	3.7%
Energy intensity (TPES/GDP)	74	93	95	94	100	101	90	86	85	83	82	-0.9%
Carbon intensity: ESCII (CO_2/TPES)	53	65	80	83	100	120	129	145	161	164	169	2.4%
Brunei Darussalam												
CO_2 emissions	12	43	81	90	100	138	136	148	233	255	258	4.4%
Population	53	63	75	87	100	115	129	143	156	158	160	2.2%
GDP per population (GDP per capita)	114	118	160	115	100	102	97	97	92	92	93	-0.3%
Energy intensity (TPES/GDP)	17	58	65	104	100	111	111	93	131	154	150	1.9%
Carbon intensity: ESCII (CO_2/TPES)	120	101	104	88	100	106	99	116	124	114	116	0.7%
Cambodia * **												
CO_2 emissions	..	..	..	..	..	100	134	180	256	275	285	6.3%
Population	..	..	..	..	..	100	114	124	133	136	138	1.9%
GDP per population (GDP per capita)	..	..	..	..	..	100	125	179	230	243	256	5.7%
Energy intensity (TPES/GDP)	..	..	..	..	..	100	85	54	58	57	55	-3.5%
Carbon intensity: ESCII (CO_2/TPES)	..	..	..	..	..	100	111	149	145	146	147	2.3%

* Please see Chapter 3 for methodological notes.

** Average annual percentage change between the reference year and 2012. The reference year is 1990 unless otherwise specified.

*** The reference year for Cambodia is the first year of available data (1995).

CO_2 emissions and drivers (Kaya decomposition) *

reference year for indices = 1990 unless otherwise specified

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	avg. ch. ref-12**
India												
CO_2 emissions	35	42	49	71	100	133	169	205	301	315	337	5.7%
Population	65	72	80	90	100	110	120	130	139	141	142	1.6%
GDP per population (GDP per capita)	67	70	72	83	100	116	143	184	256	269	279	4.8%
Energy intensity (TPES/GDP)	112	112	111	108	100	95	84	72	64	63	63	-2.1%
Carbon intensity: ESCII (CO_2/TPES)	70	74	75	88	100	110	117	120	132	133	135	1.4%
Indonesia												
CO_2 emissions	17	26	47	60	100	147	187	230	269	274	298	5.1%
Population	65	72	81	91	100	109	117	126	135	136	138	1.5%
GDP per population (GDP per capita)	41	51	66	78	100	134	129	152	187	196	206	3.3%
Energy intensity (TPES/GDP)	131	113	105	94	100	91	104	96	84	78	76	-1.2%
Carbon intensity: ESCII (CO_2/TPES)	48	62	83	90	100	111	118	126	127	132	138	1.5%
DPR of Korea												
CO_2 emissions	59	67	93	111	100	66	60	65	56	40	40	-4.1%
Population	73	81	86	93	100	108	113	118	121	122	123	0.9%
GDP per population (GDP per capita)	26	38	61	90	100	73	62	62	56	56	57	-2.6%
Energy intensity (TPES/GDP)	301	220	174	129	100	84	85	88	84	62	61	-2.2%
Carbon intensity: ESCII (CO_2/TPES)	101	100	101	102	100	99	101	101	99	94	94	-0.3%
Malaysia												
CO_2 emissions	25	32	48	68	100	169	234	312	371	382	389	6.4%
Population	61	68	76	87	100	114	129	142	155	158	161	2.2%
GDP per population (GDP per capita)	45	55	74	83	100	138	154	176	201	208	216	3.6%
Energy intensity (TPES/GDP)	98	89	97	100	100	101	112	120	109	109	106	0.3%
Carbon intensity: ESCII (CO_2/TPES)	92	97	88	95	100	107	105	104	109	107	106	0.3%
Mongolia												
CO_2 emissions	..	..	..	92	100	79	70	75	99	103	112	0.5%
Population	..	..	..	88	100	105	110	116	124	126	128	1.1%
GDP per population (GDP per capita)	..	..	..	95	100	83	91	118	150	174	193	3.0%
Energy intensity (TPES/GDP)	..	..	..	110	100	91	70	56	54	48	47	-3.4%
Carbon intensity: ESCII (CO_2/TPES)	..	..	..	100	100	100	99	97	98	97	97	-0.1%
Myanmar												
CO_2 emissions	113	99	128	145	100	169	231	261	198	204	288	4.9%
Population	66	73	82	92	100	108	115	119	123	124	125	1.0%
GDP per population (GDP per capita)	88	89	108	122	100	123	173	307	505	529	556	8.1%
Energy intensity (TPES/GDP)	127	121	100	92	100	83	60	38	21	20	21	-6.9%
Carbon intensity: ESCII (CO_2/TPES)	152	126	145	141	100	153	192	188	151	152	201	3.2%
Nepal												
CO_2 emissions	21	36	58	62	100	197	346	343	460	491	553	8.1%
Population	65	71	79	89	100	114	128	140	148	150	152	1.9%
GDP per population (GDP per capita)	78	79	79	90	100	113	127	138	161	165	171	2.5%
Energy intensity (TPES/GDP)	125	124	125	110	100	90	86	82	74	74	67	-1.8%
Carbon intensity: ESCII (CO_2/TPES)	34	51	74	70	100	170	247	217	261	269	317	5.4%
Pakistan												
CO_2 emissions	28	36	45	67	100	136	169	206	231	233	235	4.0%
Population	55	61	72	85	100	114	129	142	156	159	161	2.2%
GDP per population (GDP per capita)	63	66	76	88	100	110	114	132	142	144	147	1.8%
Energy intensity (TPES/GDP)	115	118	106	100	100	100	102	95	89	87	84	-0.8%
Carbon intensity: ESCII (CO_2/TPES)	71	75	77	89	100	109	113	116	117	117	117	0.7%
Philippines												
CO_2 emissions	61	77	88	75	100	150	178	186	201	202	209	3.4%
Population	59	67	77	88	100	112	125	139	151	153	156	2.0%
GDP per population (GDP per capita)	84	95	111	90	100	99	106	120	140	143	150	1.9%
Energy intensity (TPES/GDP)	106	101	92	104	100	105	105	82	67	64	63	-2.0%
Carbon intensity: ESCII (CO_2/TPES)	114	120	112	91	100	128	128	138	142	143	141	1.6%
Singapore												
CO_2 emissions	20	28	42	57	100	129	147	141	162	166	164	2.3%
Population	69	74	79	90	100	116	132	140	167	170	174	2.6%
GDP per population (GDP per capita)	32	42	60	74	100	130	151	180	207	214	211	3.5%
Energy intensity (TPES/GDP)	106	102	94	89	100	108	81	74	64	62	59	-2.4%
Carbon intensity: ESCII (CO_2/TPES)	86	87	94	97	100	79	91	75	73	74	76	-1.3%

* Please see Chapter 3 for methodological notes.

** Average annual percentage change between the reference year and 2012. The reference year is 1990 unless otherwise specified.

CO_2 emissions and drivers (Kaya decomposition) *

reference year for indices = 1990 unless otherwise specified

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	avg. ch. ref-12**
Sri Lanka												
CO_2 emissions	75	72	99	95	100	148	286	364	336	397	435	6.9%
Population	75	79	87	93	100	107	112	115	121	123	119	0.8%
GDP per population (GDP per capita)	59	65	77	91	100	122	148	175	227	243	265	4.5%
Energy intensity (TPES/GDP)	158	145	124	107	100	84	91	81	64	63	64	-2.0%
Carbon intensity: ESCII (CO_2/TPES)	109	96	120	105	100	136	189	223	191	212	213	3.5%
Chinese Taipei												
CO_2 emissions	27	37	63	63	100	138	191	229	236	230	224	3.7%
Population	73	79	88	95	100	105	109	112	114	114	115	0.6%
GDP per population (GDP per capita)	25	35	55	69	100	135	168	196	235	244	251	4.3%
Energy intensity (TPES/GDP)	114	108	122	106	100	94	97	98	86	81	76	-1.2%
Carbon intensity: ESCII (CO_2/TPES)	129	124	108	90	100	104	108	107	103	102	102	0.1%
Thailand												
CO_2 emissions	20	26	42	52	100	174	192	262	294	301	319	5.4%
Population	67	75	84	92	100	104	110	116	117	118	118	0.8%
GDP per population (GDP per capita)	38	43	56	67	100	145	140	171	201	201	213	3.5%
Energy intensity (TPES/GDP)	129	129	112	96	100	98	111	119	118	120	120	0.8%
Carbon intensity: ESCII (CO_2/TPES)	62	64	80	88	100	118	112	111	105	106	106	0.3%
Viet Nam												
CO_2 emissions	94	97	86	100	100	162	256	464	753	781	831	10.1%
Population	66	73	81	89	100	109	118	125	132	133	134	1.4%
GDP per population (GDP per capita)	81	75	71	89	100	136	177	232	299	314	327	5.5%
Energy intensity (TPES/GDP)	138	143	140	113	100	83	77	80	84	81	82	-0.9%
Carbon intensity: ESCII (CO_2/TPES)	127	125	107	111	100	132	159	200	228	229	229	3.8%
Other Asia												
CO_2 emissions	102	124	161	99	100	91	110	150	215	238	256	4.4%
Population	84	92	94	91	100	95	108	126	142	146	149	1.8%
GDP per population (GDP per capita)	79	79	90	97	100	118	111	136	185	201	214	3.5%
Energy intensity (TPES/GDP)	124	130	132	105	100	89	100	81	68	66	64	-2.0%
Carbon intensity: ESCII (CO_2/TPES)	125	131	144	106	100	91	92	109	121	123	125	1.0%
Asia (excl. China)												
CO_2 emissions	34	42	56	72	100	134	167	206	267	274	289	4.9%
Population	65	71	80	90	100	110	121	130	139	141	143	1.6%
GDP per population (GDP per capita)	56	61	72	82	100	121	134	162	206	215	223	3.7%
Energy intensity (TPES/GDP)	123	119	112	106	100	93	92	84	76	74	73	-1.4%
Carbon intensity: ESCII (CO_2/TPES)	77	81	86	92	100	107	112	116	122	123	125	1.0%
People's Rep. of China												
CO_2 emissions	36	48	63	77	100	135	147	241	323	354	366	6.1%
Population	74	81	86	93	100	106	111	115	118	118	119	0.8%
GDP per population (GDP per capita)	33	37	48	74	100	168	242	374	620	674	723	9.4%
Energy intensity (TPES/GDP)	187	185	167	116	100	67	49	48	40	40	39	-4.2%
Carbon intensity: ESCII (CO_2/TPES)	81	86	92	97	100	112	111	118	111	112	110	0.4%
Hong Kong, China												
CO_2 emissions	28	33	44	67	100	110	122	125	128	139	137	1.4%
Population	71	78	89	96	100	108	117	119	123	124	125	1.0%
GDP per population (GDP per capita)	33	39	59	72	100	120	126	152	178	186	186	2.9%
Energy intensity (TPES/GDP)	147	139	103	110	100	95	106	82	74	76	72	-1.5%
Carbon intensity: ESCII (CO_2/TPES)	80	78	83	88	100	89	78	84	79	79	81	-1.0%
China (incl. Hong Kong, China)												
CO_2 emissions	36	47	63	77	100	134	147	239	320	351	362	6.0%
Population	74	81	86	93	100	106	111	115	118	118	119	0.8%
GDP per population (GDP per capita)	32	37	49	74	100	164	233	356	583	634	679	9.1%
Energy intensity (TPES/GDP)	187	185	163	116	100	69	52	50	42	42	41	-4.0%
Carbon intensity: ESCII (CO_2/TPES)	81	85	92	97	100	112	110	118	111	112	109	0.4%

* Please see Chapter 3 for methodological notes.

** Average annual percentage change between the reference year and 2012. The reference year is 1990 unless otherwise specified.

CO_2 emissions and drivers (Kaya decomposition) *

reference year for indices = 1990 unless otherwise specified

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	avg. ch. ref-12**
Argentina												
CO_2 emissions	83	86	96	88	100	120	142	153	177	184	189	2.9%
Population	75	80	86	93	100	107	113	118	124	125	126	1.1%
GDP per population (GDP per capita)	123	127	135	110	100	129	138	145	193	208	215	3.5%
Energy intensity (TPES/GDP)	79	77	78	88	100	85	86	84	72	67	64	-2.0%
Carbon intensity: ESCII (CO_2/TPES)	113	110	105	98	100	102	106	105	103	106	108	0.4%
Bolivia												
CO_2 emissions	42	62	81	83	100	134	138	183	273	296	317	5.4%
Population	64	70	79	89	100	112	125	138	150	152	154	2.0%
GDP per population (GDP per capita)	111	127	125	101	100	109	116	122	141	146	151	1.9%
Energy intensity (TPES/GDP)	55	64	95	108	100	118	153	144	136	135	140	1.5%
Carbon intensity: ESCII (CO_2/TPES)	108	110	87	86	100	93	62	75	95	98	97	-0.1%
Brazil												
CO_2 emissions	47	71	92	85	100	122	158	168	202	212	229	3.8%
Population	66	72	81	91	100	108	117	124	130	132	133	1.3%
GDP per population (GDP per capita)	64	86	105	99	100	108	110	119	140	143	143	1.6%
Energy intensity (TPES/GDP)	117	105	95	102	100	99	104	104	103	102	106	0.3%
Carbon intensity: ESCII (CO_2/TPES)	94	109	114	93	100	107	118	109	107	110	114	0.6%
Colombia												
CO_2 emissions	58	61	76	86	100	126	128	126	134	147	146	1.7%
Population	66	72	81	90	100	110	120	130	139	141	143	1.6%
GDP per population (GDP per capita)	66	75	87	87	100	112	109	120	139	146	150	1.9%
Energy intensity (TPES/GDP)	131	118	104	105	100	93	82	72	66	62	61	-2.3%
Carbon intensity: ESCII (CO_2/TPES)	101	96	104	104	100	111	120	112	104	114	112	0.5%
Costa Rica												
CO_2 emissions	48	67	84	77	100	169	171	219	251	257	260	4.4%
Population	61	67	76	88	100	113	128	140	152	154	156	2.0%
GDP per population (GDP per capita)	79	91	102	89	100	116	130	145	168	173	179	2.7%
Energy intensity (TPES/GDP)	100	98	96	96	100	107	103	113	109	104	101	0.0%
Carbon intensity: ESCII (CO_2/TPES)	101	113	112	102	100	121	100	95	91	93	92	-0.4%
Cuba												
CO_2 emissions	61	71	89	94	100	66	81	75	89	85	85	-0.7%
Population	84	89	93	95	100	103	105	107	106	106	106	0.3%
GDP per population (GDP per capita)	57	64	72	106	100	67	82	104	135	137	139	1.5%
Energy intensity (TPES/GDP)	128	120	126	87	100	91	84	55	45	44	44	-3.7%
Carbon intensity: ESCII (CO_2/TPES)	100	104	105	107	100	105	111	122	136	133	133	1.3%
Dominican Republic												
CO_2 emissions	47	70	85	83	100	151	218	234	256	259	268	4.6%
Population	64	71	80	90	100	110	120	129	138	140	142	1.6%
GDP per population (GDP per capita)	69	86	98	97	100	117	151	166	218	225	231	3.9%
Energy intensity (TPES/GDP)	135	127	110	98	100	101	97	78	60	58	58	-2.4%
Carbon intensity: ESCII (CO_2/TPES)	79	89	97	98	100	116	124	139	142	141	140	1.5%
Ecuador												
CO_2 emissions	26	44	79	88	100	127	144	183	239	237	247	4.2%
Population	61	68	78	89	100	112	124	136	148	151	153	2.0%
GDP per population (GDP per capita)	69	91	99	99	100	104	99	114	123	130	135	1.4%
Energy intensity (TPES/GDP)	84	80	102	102	100	107	114	104	116	112	110	0.5%
Carbon intensity: ESCII (CO_2/TPES)	75	89	99	99	100	102	103	114	113	108	109	0.4%
El Salvador												
CO_2 emissions	64	90	78	79	100	207	233	281	262	270	275	4.7%
Population	72	79	87	94	100	108	112	114	116	117	118	0.7%
GDP per population (GDP per capita)	120	131	119	96	100	125	141	155	162	165	167	2.4%
Energy intensity (TPES/GDP)	82	88	98	118	100	101	102	104	90	90	90	-0.5%
Carbon intensity: ESCII (CO_2/TPES)	90	98	77	74	100	152	145	154	153	155	155	2.0%

* Please see Chapter 3 for methodological notes.

** Average annual percentage change between the reference year and 2012. The reference year is 1990 unless otherwise specified.

CO_2 emissions and drivers (Kaya decomposition) *

reference year for indices = 1990 unless otherwise specified

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	avg. ch. ref-12**
Guatemala												
CO_2 emissions	71	95	132	100	100	181	264	329	319	323	327	5.5%
Population	63	70	79	89	100	112	126	143	161	165	170	2.4%
GDP per population (GDP per capita)	89	100	116	97	100	110	119	122	129	131	132	1.3%
Energy intensity (TPES/GDP)	111	109	94	99	100	98	107	102	111	114	113	0.5%
Carbon intensity: ESCII (CO_2/TPES)	115	125	153	117	100	150	165	186	138	131	130	1.2%
Haiti												
CO_2 emissions	40	43	65	83	100	96	149	210	221	226	219	3.6%
Population	67	72	80	90	100	110	121	130	139	141	143	1.6%
GDP per population (GDP per capita)	109	109	129	113	100	80	82	74	72	75	76	-1.2%
Energy intensity (TPES/GDP)	131	140	129	119	100	124	130	226	243	238	240	4.1%
Carbon intensity: ESCII (CO_2/TPES)	41	39	49	69	100	88	116	96	91	90	84	-0.8%
Honduras												
CO_2 emissions	52	61	78	77	100	164	206	328	337	354	378	6.2%
Population	56	63	74	86	100	114	127	141	155	159	162	2.2%
GDP per population (GDP per capita)	86	88	106	99	100	104	109	123	133	136	138	1.5%
Energy intensity (TPES/GDP)	121	116	100	98	100	100	91	100	93	93	96	-0.2%
Carbon intensity: ESCII (CO_2/TPES)	89	94	99	91	100	138	164	190	176	177	177	2.6%
Jamaica												
CO_2 emissions	77	103	91	65	100	116	135	142	96	101	99	-0.1%
Population	79	84	89	97	100	104	108	111	113	113	113	0.6%
GDP per population (GDP per capita)	107	108	86	81	100	117	110	119	116	118	119	0.8%
Energy intensity (TPES/GDP)	85	106	107	79	100	95	115	102	74	77	75	-1.3%
Carbon intensity: ESCII (CO_2/TPES)	106	107	111	104	100	101	98	106	99	98	98	-0.1%
Netherlands Antilles												
CO_2 emissions	525	369	318	166	100	103	162	170	150	172	174	2.5%
Population	85	89	92	97	100	105	111	116	121	121	121	0.9%
GDP per population (GDP per capita)	72	78	88	88	100	106	123	125	129	130	130	1.2%
Energy intensity (TPES/GDP)	610	378	336	144	100	80	106	99	72	89	90	-0.5%
Carbon intensity: ESCII (CO_2/TPES)	140	140	118	135	100	114	112	118	133	122	123	0.9%
Nicaragua												
CO_2 emissions	80	100	98	98	100	137	192	220	238	245	235	4.0%
Population	60	68	79	90	100	113	123	132	141	143	145	1.7%
GDP per population (GDP per capita)	191	210	146	132	100	97	113	124	134	139	144	1.7%
Energy intensity (TPES/GDP)	53	51	66	81	100	102	89	87	78	77	79	-1.1%
Carbon intensity: ESCII (CO_2/TPES)	133	137	129	103	100	122	154	155	162	161	143	1.6%
Panama												
CO_2 emissions	99	122	114	105	100	160	192	266	348	376	385	6.3%
Population	63	71	80	90	100	111	123	135	148	150	153	1.9%
GDP per population (GDP per capita)	101	104	109	115	100	118	133	149	205	223	243	4.1%
Energy intensity (TPES/GDP)	174	155	109	101	100	103	105	96	82	81	75	-1.3%
Carbon intensity: ESCII (CO_2/TPES)	89	108	120	100	100	120	112	137	140	138	138	1.5%
Paraguay												
CO_2 emissions	30	36	71	74	100	181	170	180	245	256	264	4.5%
Population	60	66	75	87	100	113	126	139	152	155	157	2.1%
GDP per population (GDP per capita)	50	60	89	86	100	110	101	100	117	120	117	0.7%
Energy intensity (TPES/GDP)	148	120	101	98	100	103	99	92	88	85	89	-0.5%
Carbon intensity: ESCII (CO_2/TPES)	67	76	105	100	100	141	136	139	157	162	162	2.2%
Peru												
CO_2 emissions	81	96	107	95	100	124	138	150	217	233	239	4.0%
Population	62	70	80	90	100	110	119	127	134	136	138	1.5%
GDP per population (GDP per capita)	127	139	136	123	100	119	124	142	191	201	212	3.5%
Energy intensity (TPES/GDP)	119	110	107	99	100	86	85	77	77	77	77	-1.2%
Carbon intensity: ESCII (CO_2/TPES)	86	90	93	87	100	110	110	107	110	110	107	0.3%

* Please see Chapter 3 for methodological notes.

** Average annual percentage change between the reference year and 2012. The reference year is 1990 unless otherwise specified.

CO_2 emissions and drivers (Kaya decomposition) *

reference year for indices = 1990 unless otherwise specified

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	avg. ch. ref-12**
Trinidad and Tobago												
CO_2 emissions	54	51	70	84	100	108	160	272	338	334	326	5.5%
Population	78	83	89	96	100	103	104	106	109	109	109	0.4%
GDP per population (GDP per capita)	97	104	141	117	100	104	132	189	218	214	216	3.6%
Energy intensity (TPES/GDP)	58	45	51	76	100	96	120	134	142	141	136	1.4%
Carbon intensity: ESCII (CO_2/TPES)	123	132	109	99	100	105	97	101	101	101	102	0.1%
Uruguay												
CO_2 emissions	139	146	148	83	100	121	140	141	165	197	224	3.7%
Population	91	91	94	97	100	104	107	107	108	109	109	0.4%
GDP per population (GDP per capita)	82	88	107	85	100	117	131	132	172	183	189	2.9%
Energy intensity (TPES/GDP)	144	135	117	107	100	94	98	93	97	99	99	-0.0%
Carbon intensity: ESCII (CO_2/TPES)	130	134	126	94	100	106	102	107	91	100	109	0.4%
Venezuela												
CO_2 emissions	50	60	88	91	100	113	121	141	174	153	170	2.4%
Population	56	65	76	88	100	112	124	135	147	149	152	1.9%
GDP per population (GDP per capita)	128	127	121	100	100	106	99	103	114	117	121	0.9%
Energy intensity (TPES/GDP)	63	70	88	103	100	100	105	102	103	93	95	-0.2%
Carbon intensity: ESCII (CO_2/TPES)	110	104	108	100	100	95	93	99	101	94	97	-0.1%
Other Non-OECD Americas												
CO_2 emissions	66	88	83	75	100	108	122	131	153	153	156	2.0%
Population	87	90	93	96	100	106	113	120	126	127	129	1.2%
GDP per population (GDP per capita)	68	69	85	83	100	102	116	124	126	127	129	1.2%
Energy intensity (TPES/GDP)	160	190	144	88	100	91	85	81	86	85	84	-0.8%
Carbon intensity: ESCII (CO_2/TPES)	69	74	73	106	100	109	110	109	112	112	112	0.5%
Non-OECD Americas												
CO_2 emissions	60	73	91	88	100	118	141	156	185	188	199	3.2%
Population	66	73	82	91	100	109	118	126	134	135	137	1.4%
GDP per population (GDP per capita)	81	96	109	100	100	110	113	121	144	149	152	1.9%
Energy intensity (TPES/GDP)	107	99	96	99	100	95	98	95	91	88	89	-0.5%
Carbon intensity: ESCII (CO_2/TPES)	104	106	108	97	100	104	109	107	105	106	108	0.3%
Bahrain												
CO_2 emissions	24	43	59	81	100	124	143	181	225	225	232	3.9%
Population	45	54	73	84	100	114	135	177	252	261	266	4.5%
GDP per population (GDP per capita)	64	98	118	94	100	122	127	124	115	113	115	0.6%
Energy intensity (TPES/GDP)	95	78	63	100	100	88	89	90	82	81	79	-1.1%
Carbon intensity: ESCII (CO_2/TPES)	90	105	111	102	100	101	94	91	95	95	96	-0.2%
Islamic Republic of Iran												
CO_2 emissions	23	40	50	82	100	141	176	236	285	294	298	5.1%
Population	52	58	69	84	100	107	117	124	132	134	136	1.4%
GDP per population (GDP per capita)	127	161	118	117	100	110	123	152	181	184	178	2.7%
Energy intensity (TPES/GDP)	36	41	67	79	100	124	123	132	125	124	131	1.2%
Carbon intensity: ESCII (CO_2/TPES)	97	104	92	106	100	96	99	95	95	96	94	-0.3%
Iraq												
CO_2 emissions	19	29	51	69	100	182	132	140	189	202	223	3.7%
Population	59	67	78	89	100	116	136	156	177	181	186	2.9%
GDP per population (GDP per capita)	262	292	376	211	100	33	58	52	61	66	70	-1.6%
Energy intensity (TPES/GDP)	14	16	17	37	100	458	167	169	176	170	176	2.6%
Carbon intensity: ESCII (CO_2/TPES)	93	94	103	98	100	104	100	103	99	100	97	-0.1%
Jordan												
CO_2 emissions	14	23	46	80	100	132	155	195	203	214	235	4.0%
Population	50	57	69	83	100	132	151	171	191	195	199	3.2%
GDP per population (GDP per capita)	81	69	119	127	100	107	109	132	159	160	161	2.2%
Energy intensity (TPES/GDP)	37	58	57	75	100	93	90	91	71	69	73	-1.4%
Carbon intensity: ESCII (CO_2/TPES)	96	100	99	100	100	100	105	96	94	99	101	0.0%

* Please see Chapter 3 for methodological notes.

** Average annual percentage change between the reference year and 2012. The reference year is 1990 unless otherwise specified.

CO_2 emissions and drivers (Kaya decomposition) *

reference year for indices = 1990 unless otherwise specified

	1971	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	avg. ch. ref-12**
Kuwait												
CO_2 emissions	49	52	93	129	100	126	171	244	280	295	318	5.4%
Population	39	51	67	84	100	77	93	111	145	152	158	2.1%
GDP per population (GDP per capita)	321	204	165	104	100	176	161	198	161	164	167	2.4%
Energy intensity (TPES/GDP)	53	68	104	177	100	120	139	131	151	143	144	1.7%
Carbon intensity: ESCII (CO_2/TPES)	73	74	81	84	100	77	83	84	79	83	84	-0.8%
Lebanon												
CO_2 emissions	83	104	121	120	100	235	259	265	336	339	385	6.3%
Population	87	95	96	99	100	112	120	148	161	162	164	2.3%
GDP per population (GDP per capita)	173	155	130	177	100	158	159	156	196	200	201	3.2%
Energy intensity (TPES/GDP)	63	75	101	68	100	127	132	112	104	100	111	0.5%
Carbon intensity: ESCII (CO_2/TPES)	88	93	95	101	100	104	103	103	103	104	105	0.2%
Oman												
CO_2 emissions	3	7	22	56	100	145	198	256	569	648	667	9.0%
Population	41	49	64	83	100	119	121	139	155	167	183	2.8%
GDP per population (GDP per capita)	60	67	66	104	100	112	130	134	164	158	152	1.9%
Energy intensity (TPES/GDP)	22	17	64	58	100	109	116	141	209	229	224	3.7%
Carbon intensity: ESCII (CO_2/TPES)	46	124	81	112	100	100	109	97	108	107	107	0.3%
Qatar												
CO_2 emissions	16	34	54	86	100	132	168	255	424	470	531	7.9%
Population	25	34	47	78	100	105	125	172	367	401	430	6.9%
GDP per population (GDP per capita)	410	302	257	131	100	106	157	167	179	187	185	2.8%
Energy intensity (TPES/GDP)	14	30	42	85	100	113	86	89	65	65	73	-1.4%
Carbon intensity: ESCII (CO_2/TPES)	110	110	106	99	100	106	100	100	99	96	91	-0.4%
Saudi Arabia												
CO_2 emissions	8	15	66	81	100	127	156	198	275	284	304	5.2%
Population	37	46	61	82	100	115	124	152	168	171	175	2.6%
GDP per population (GDP per capita)	98	168	176	103	100	101	105	109	131	140	144	1.7%
Energy intensity (TPES/GDP)	35	20	50	94	100	126	129	127	145	128	137	1.4%
Carbon intensity: ESCII (CO_2/TPES)	66	98	122	102	100	87	93	94	86	93	88	-0.6%
Syrian Arab Republic												
CO_2 emissions	21	32	47	75	100	116	141	195	204	189	142	1.6%
Population	53	61	72	86	100	115	131	146	173	176	180	2.7%
GDP per population (GDP per capita)	65	96	112	109	100	127	125	143	153	147	116	0.7%
Energy intensity (TPES/GDP)	66	50	53	80	100	79	92	95	78	74	69	-1.7%
Carbon intensity: ESCII (CO_2/TPES)	94	110	109	100	100	101	94	98	99	99	99	-0.0%
United Arab Emirates												
CO_2 emissions	5	9	37	69	100	134	165	210	293	305	330	5.6%
Population	15	30	56	75	100	130	168	230	467	494	510	7.7%
GDP per population (GDP per capita)	117	153	168	118	100	93	94	89	50	49	49	-3.2%
Energy intensity (TPES/GDP)	28	21	38	76	100	113	105	104	131	130	132	1.3%
Carbon intensity: ESCII (CO_2/TPES)	95	99	104	102	100	99	99	99	97	97	100	-0.0%
Yemen												
CO_2 emissions	19	27	54	75	100	145	205	290	368	309	311	5.3%
Population	53	57	67	82	100	127	149	171	193	198	202	3.3%
GDP per population (GDP per capita)	46	60	88	104	100	106	117	125	137	119	117	0.7%
Energy intensity (TPES/GDP)	122	81	85	82	100	101	109	123	126	117	117	0.7%
Carbon intensity: ESCII (CO_2/TPES)	63	98	106	108	100	107	109	111	111	112	113	0.5%
Middle East												
CO_2 emissions	18	29	56	81	100	139	164	212	277	287	300	5.1%
Population	51	58	69	85	100	113	126	142	161	165	168	2.4%
GDP per population (GDP per capita)	138	171	188	129	100	94	105	119	136	141	142	1.6%
Energy intensity (TPES/GDP)	29	29	41	73	100	138	127	131	136	130	135	1.4%
Carbon intensity: ESCII (CO_2/TPES)	88	100	104	102	100	95	97	95	92	95	93	-0.3%

* Please see Chapter 3 for methodological notes.

** Average annual percentage change between the reference year and 2012. The reference year is 1990 unless otherwise specified.

6. REGIONAL TOTALS

World

Figure 1. CO_2 emissions by fuel

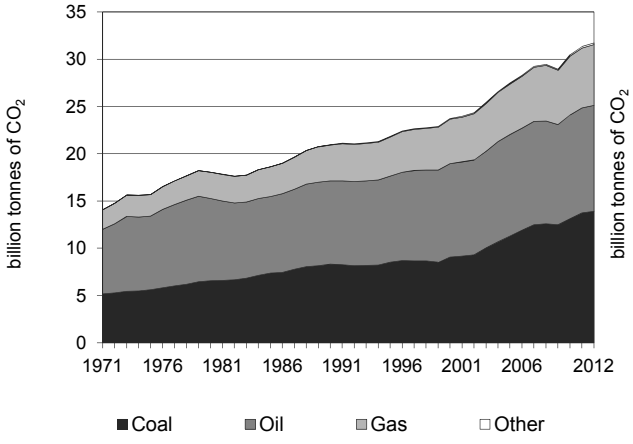


Figure 2. CO_2 emissions by sector

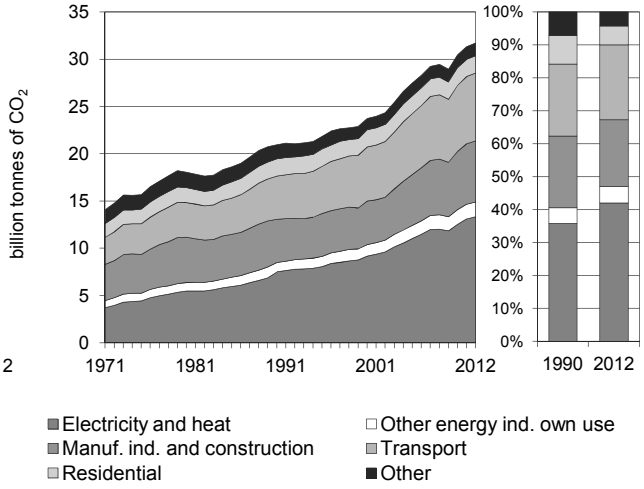


Figure 3. Reference vs Sectoral Approach

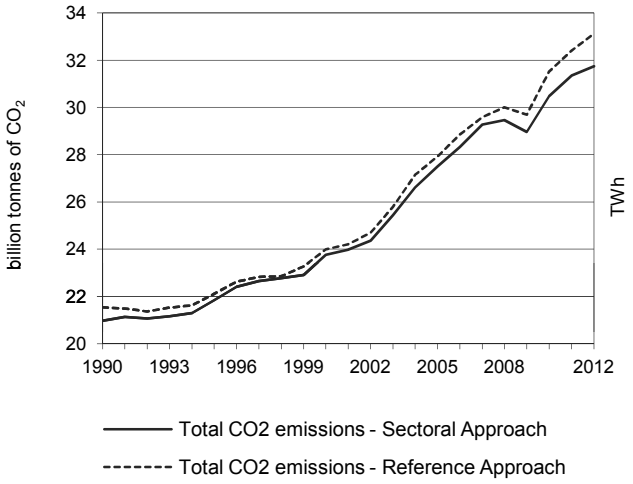


Figure 4. Electricity generation by fuel

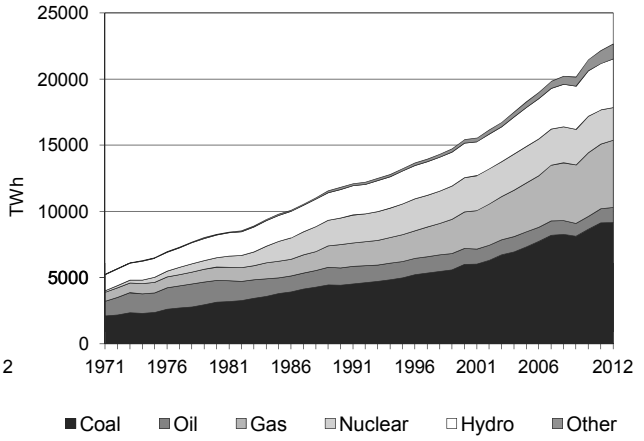


Figure 5. Changes in selected indicators *

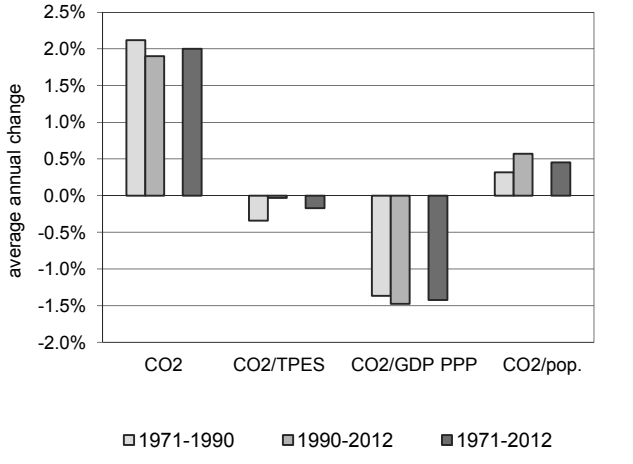
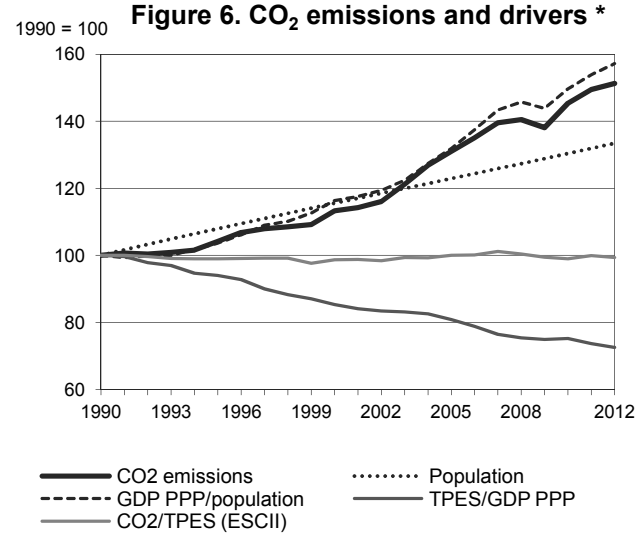


Figure 6. CO_2 emissions and drivers *



* Based on GDP in 2005 USD, using purchasing power parities.

World

Key indicators

	1990	1995	2000	2005	2010	2011	2012	% change 90-12
CO_2 Sectoral Approach ($MtCO_2$)	20 973.9	21 841.1	23 755.6	27 494.0	30 482.1	31 344.8	31 734.3	51.3%
TPES (PJ)	367 612	386 688	422 003	481 776	539 712	549 683	559 818	52.3%
GDP (billion 2005 USD)	30 530.3	33 922.0	40 184.6	46 339.3	51 855.3	53 327.4	54 587.9	78.8%
GDP PPP (billion 2005 USD)	39 510.3	44 221.5	53 126.3	64 076.9	77 110.6	80 201.7	82 900.6	109.8%
Population (millions)	5 273.5	5 692.8	6 093.7	6 481.7	6 876.1	6 956.3	7 037.1	33.4%
CO_2 / TPES (tCO_2 per TJ)	57.1	56.5	56.3	57.1	56.5	57.0	56.7	-0.6%
CO_2 / GDP ($kgCO_2$ per 2005 USD)	0.69	0.64	0.59	0.59	0.59	0.59	0.58	-15.4%
CO_2 / GDP PPP ($kgCO_2$ per 2005 USD)	0.53	0.49	0.45	0.43	0.40	0.39	0.38	-27.9%
CO_2 / population (tCO_2 per capita)	3.98	3.84	3.90	4.24	4.43	4.51	4.51	13.4%
CO_2 emissions and drivers - Kaya decomposition (1990=100) *								
CO_2 emissions index	100	104	113	131	145	149	151	51.3%
Population index	100	108	116	123	130	132	133	33.4%
GDP PPP per population index	100	104	116	132	150	154	157	57.2%
Energy intensity index - TPES / GDP PPP	100	94	85	81	75	74	73	-27.4%
Carbon intensity index - CO_2 / TPES	100	99	99	100	99	100	99	-0.6%

* Please see Chapter 3 for methodological notes. Based on GDP in 2005 USD, using purchasing power parities.

2012 CO_2 emissions by sector

million tonnes of CO_2	Coal	Oil	Natural gas	Other **	Total	% change 90-12
Sectoral Approach ***	**13 923.8**	**11 205.4**	**6 439.8**	**165.4**	**31 734.3**	**51.3%**
Main activity producer elec. and heat	9 031.0	765.3	2 287.5	45.1	12 128.9	83.3%
Unallocated autoproducers	515.5	176.3	452.0	73.7	1 217.5	36.2%
Other energy industry own use	310.8	596.6	649.1	1.0	1 557.6	56.1%
Manufacturing industries and construction	3 516.0	1 444.5	1 455.6	40.6	6 456.8	41.5%
Transport ***	12.7	6 963.0	211.2	-	7 187.0	56.9%
of which: road	*-*	*5 296.0*	*77.8*	*-*	*5 373.8*	64.1%
Other	537.7	1 259.6	1 384.3	5.0	3 186.6	-4.1%
of which: residential	*295.6*	*581.7*	*941.9*	*0.0*	*1 819.2*	0.5%
Reference Approach ***	**15 103.3**	**11 348.0**	**6 504.6**	**165.9**	**33 121.8**	**53.7%**
Diff. due to losses and/or transformation	399.0	103.7	82.3	0.0	585.0	
Statistical differences	780.6	39.0	- 17.5	0.4	802.5	
Memo: international marine bunkers	*-*	*602.2*	*-*	*-*	*602.2*	*65.8%*
Memo: international aviation bunkers	*-*	*477.8*	*-*	*-*	*477.8*	*86.4%*

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

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

Key sources for CO_2 emissions from fuel combustion in 2012

IPCC source category	CO_2 emissions ($MtCO_2$)	% change 90-12	Level assessment (%) ****	Cumulative total (%)
Main activity prod. elec. and heat - coal	9 031.0	98.5%	19.4	19.4
Road - oil	5 296.0	61.9%	11.4	30.9
Manufacturing industries - coal	3 516.0	58.4%	7.6	38.4
Main activity prod. elec. and heat - gas	2 287.5	121.9%	4.9	43.4
Other transport - oil	1 667.0	47.8%	3.6	46.9
Manufacturing industries - gas	1 455.6	48.1%	3.1	50.1
Manufacturing industries - oil	1 444.5	6.7%	3.1	53.2
Residential - gas	941.9	46.9%	2.0	55.2
Main activity prod. elec. and heat - oil	765.3	-25.6%	1.6	56.9
Memo: total CO_2 from fuel combustion	*31 734.3*	*51.3%*	*68.3*	*68.3*

**** Percent calculated using the total GHG estimate excluding CO_2 emissions/removals from land use change and forestry.

Annex I Parties

Figure 1. CO_2 emissions by fuel

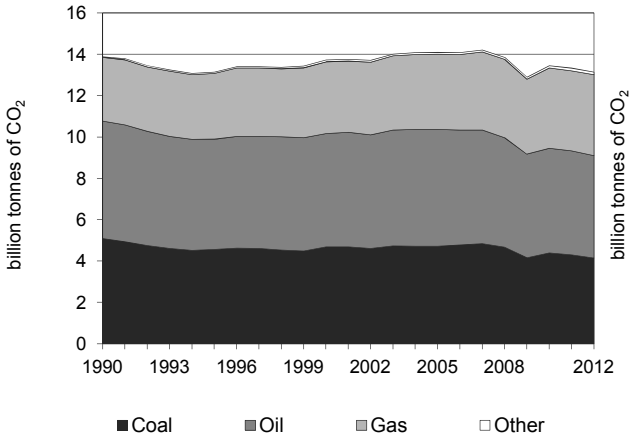


Figure 2. CO_2 emissions by sector

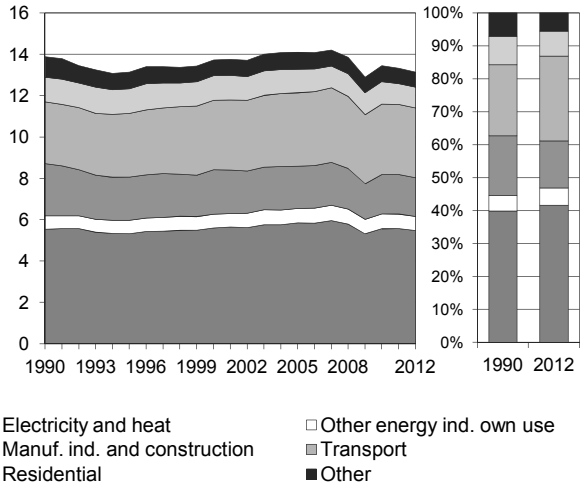


Figure 3. Reference vs Sectoral Approach

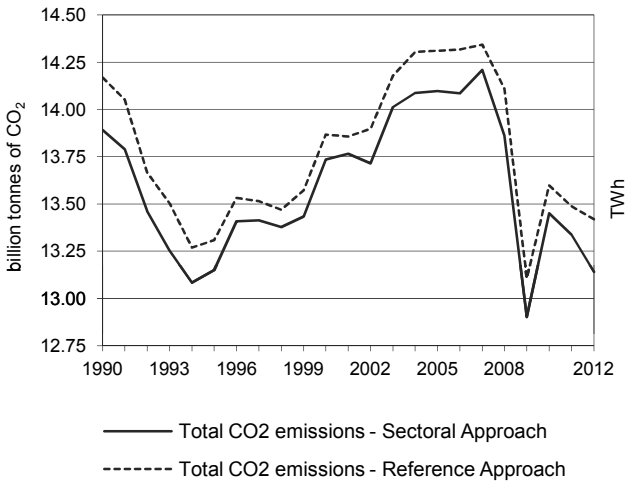


Figure 4. Electricity generation by fuel

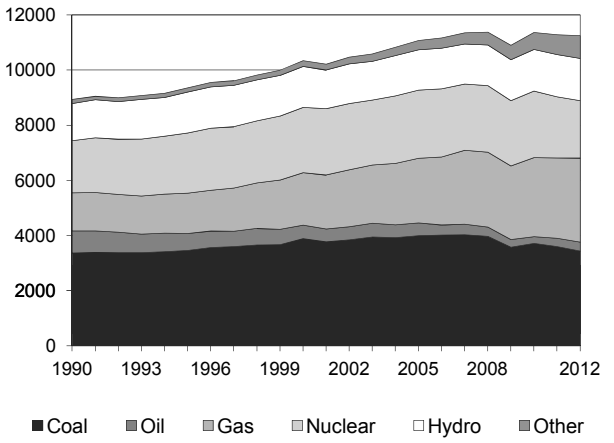


Figure 5. Changes in selected indicators *

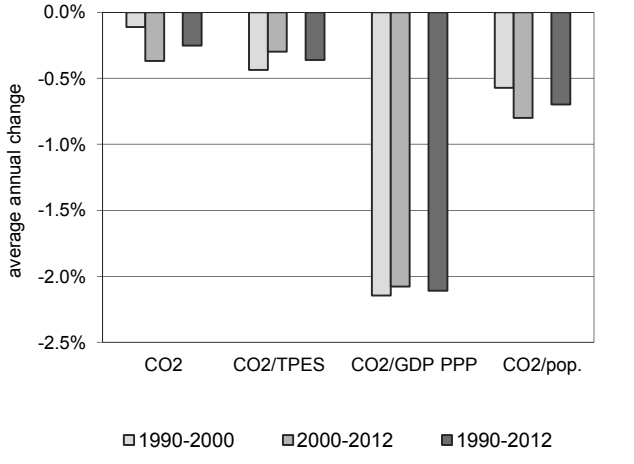
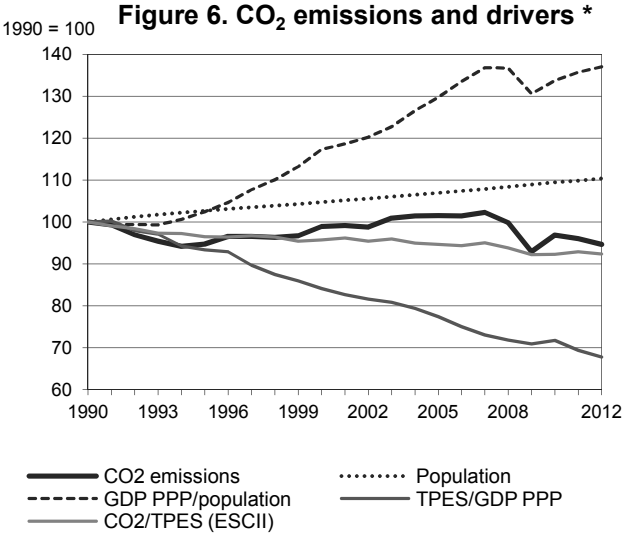


Figure 6. CO_2 emissions and drivers *



* Based on GDP in 2005 USD, using purchasing power parities.

Annex I Parties

Key indicators

	1990	1995	2000	2005	2010	2011	2012	% change 90-12
CO_2 Sectoral Approach ($MtCO_2$)	13 890.5	13 149.4	13 735.2	14 096.5	13 449.9	13 337.4	13 140.9	-5.4%
TPES (PJ)	233 715	229 402	241 467	250 659	245 232	241 585	239 476	2.5%
GDP (billion 2005 USD)	25 234.4	27 289.5	31 879.8	35 597.0	37 253.7	37 894.6	38 401.3	52.2%
GDP PPP (billion 2005 USD)	25 711.7	27 037.5	31 586.0	35 651.3	37 605.1	38 335.1	38 879.8	51.2%
Population (millions)	1 175.8	1 207.2	1 231.5	1 256.9	1 286.4	1 291.6	1 297.6	10.4%
CO_2 / TPES (tCO_2 per TJ)	59.4	57.3	56.9	56.2	54.8	55.2	54.9	-7.7%
CO_2 / GDP ($kgCO_2$ per 2005 USD)	0.55	0.48	0.43	0.40	0.36	0.35	0.34	-37.8%
CO_2 / GDP PPP ($kgCO_2$ per 2005 USD)	0.54	0.49	0.43	0.40	0.36	0.35	0.34	-37.4%
CO_2 / population (tCO_2 per capita)	11.81	10.89	11.15	11.22	10.46	10.33	10.13	-14.3%
CO_2 emissions and drivers - Kaya decomposition (1990=100) *								
CO_2 emissions index	100	95	99	101	97	96	95	-5.4%
Population index	100	103	105	107	109	110	110	10.4%
GDP PPP per population index	100	102	117	130	134	136	137	37.0%
Energy intensity index - TPES / GDP PPP	100	93	84	77	72	69	68	-32.2%
Carbon intensity index - CO_2 / TPES	100	96	96	95	92	93	92	-7.7%

* Please see Chapter 3 for methodological notes. Based on GDP in 2005 USD, using purchasing power parities.

2012 CO_2 emissions by sector

million tonnes of CO_2	Coal	Oil	Natural gas	Other **	Total	% change 90-12
Sectoral Approach	**4 156.2**	**4 952.5**	**3 906.1**	**126.1**	**13 140.9**	**-5.4%**
Main activity producer elec. and heat	3 201.4	189.4	1 377.7	43.6	4 812.2	0.7%
Unallocated autoproducers	215.4	72.9	334.4	44.4	667.2	-13.1%
Other energy industry own use	73.1	321.5	281.8	1.0	677.4	4.0%
Manufacturing industries and construction	556.2	534.7	754.3	34.1	1 879.2	-25.5%
Transport	0.7	3 252.4	124.0	-	3 377.1	12.9%
of which: road	*-*	*2 892.9*	*5.4*	*-*	*2 898.3*	19.0%
Other	109.4	581.5	1 033.9	2.9	1 727.7	-20.8%
of which: residential	*65.8*	*260.6*	*670.6*	*0.0*	*997.1*	-16.4%
Reference Approach	**4 355.3**	**5 012.7**	**3 922.7**	**126.6**	**13 417.3**	**-5.3%**
Diff. due to losses and/or transformation	85.4	61.9	28.3	0.0	175.7	
Statistical differences	113.7	- 1.7	- 11.7	0.5	100.8	
Memo: international marine bunkers	-	*220.2*	-	-	*220.2*	*-5.7%*
Memo: international aviation bunkers	-	*255.3*	-	-	*255.3*	*51.6%*

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

Key sources for CO_2 emissions from fuel combustion in 2012

IPCC source category	CO_2 emissions ($MtCO_2$)	% change 90-12	Level assessment (%) ***	Cumulative total (%)
Main activity prod. elec. and heat - coal	3 201.4	-4.0%	18.6	18.6
Road - oil	2 892.9	18.9%	16.8	35.4
Main activity prod. elec. and heat - gas	1 377.7	70.2%	8.0	43.4
Manufacturing industries - gas	754.3	-1.8%	4.4	47.7
Residential - gas	670.6	11.8%	3.9	51.6
Manufacturing industries - coal	556.2	-40.7%	3.2	54.9
Manufacturing industries - oil	534.7	-34.1%	3.1	58.0
Non-specified other - gas	363.2	26.0%	2.1	60.1
Other transport - oil	359.5	-16.9%	2.1	62.2
Memo: total CO_2 from fuel combustion	*13 140.9*	*-5.4%*	*76.3*	*76.3*

*** Percent calculated using the total GHG estimate excluding CO_2 emissions/removals from land use change and forestry.

Annex II Parties

Figure 1. CO_2 emissions by fuel

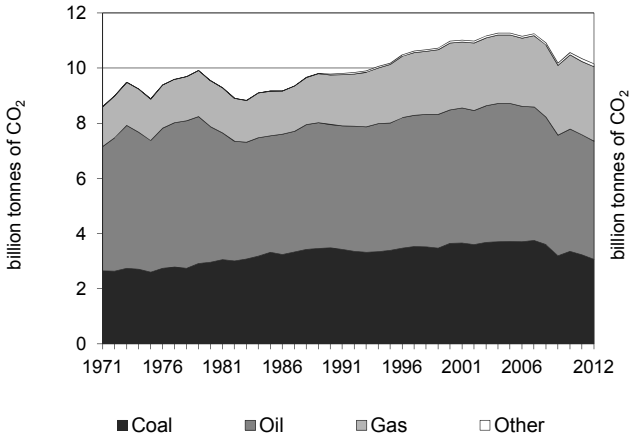


Figure 2. CO_2 emissions by sector

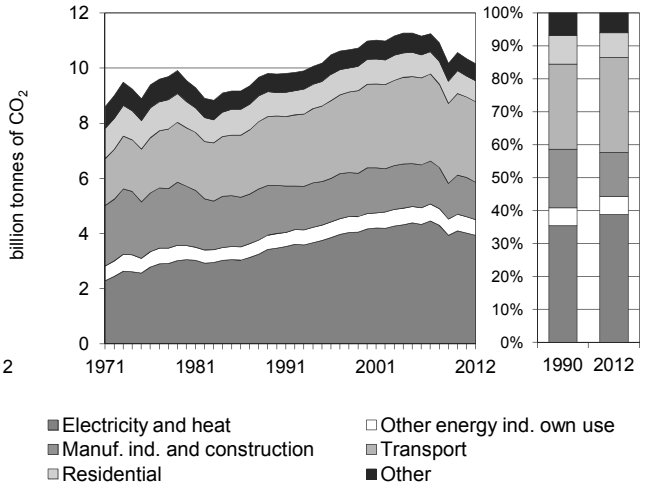


Figure 3. Reference vs Sectoral Approach

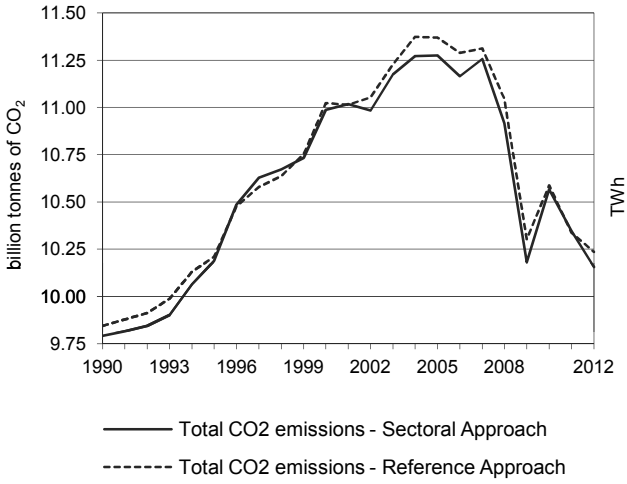


Figure 4. Electricity generation by fuel

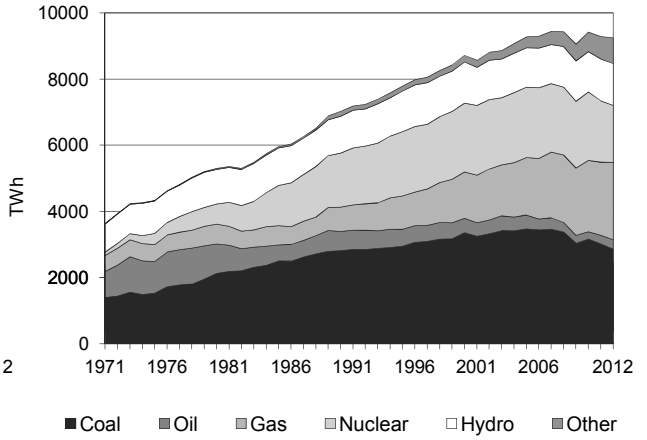


Figure 5. Changes in selected indicators *

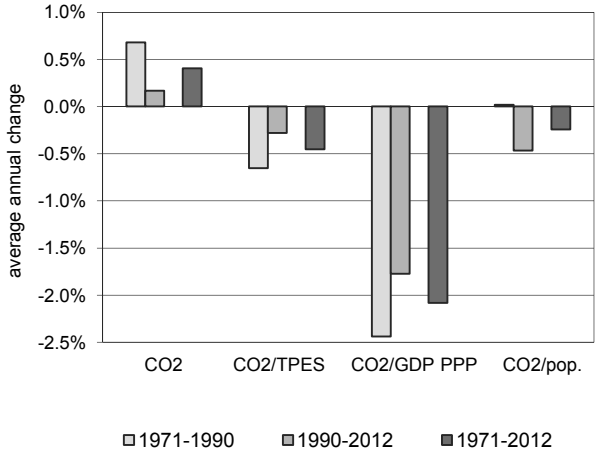
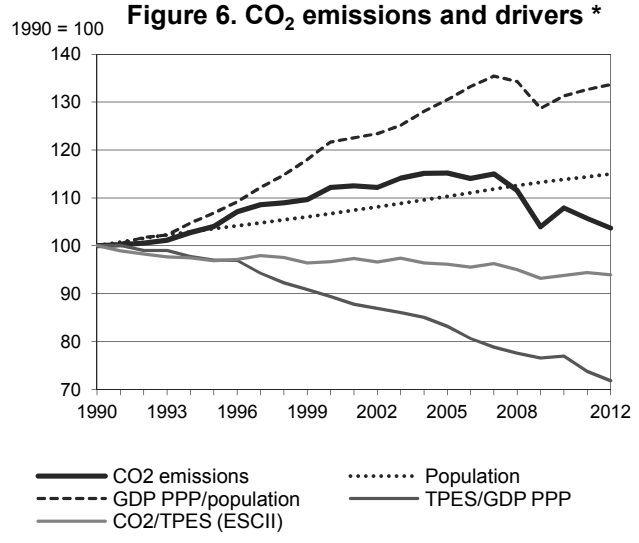


Figure 6. CO_2 emissions and drivers *



* Based on GDP in 2005 USD, using purchasing power parities.

Annex II Parties

Key indicators

	1990	1995	2000	2005	2010	2011	2012	% change 90-12
CO_2 Sectoral Approach ($MtCO_2$)	9 790.9	10 187.2	10 986.7	11 275.7	10 566.4	10 347.1	10 156.0	3.7%
TPES (PJ)	167 908	180 281	194 914	201 109	193 137	187 913	185 322	10.4%
GDP (billion 2005 USD)	23 323.8	25 771.0	30 143.2	33 371.0	34 649.8	35 164.5	35 617.9	52.7%
GDP PPP (billion 2005 USD)	21 725.2	24 035.3	28 203.6	31 268.9	32 474.5	32 959.7	33 394.5	53.7%
Population (millions)	799.3	827.6	853.0	881.7	910.1	914.5	919.2	15.0%
CO_2 / TPES (tCO_2 per TJ)	58.3	56.5	56.4	56.1	54.7	55.1	54.8	-6.0%
CO_2 / GDP ($kgCO_2$ per 2005 USD)	0.42	0.40	0.36	0.34	0.30	0.29	0.29	-32.1%
CO_2 / GDP PPP ($kgCO_2$ per 2005 USD)	0.45	0.42	0.39	0.36	0.33	0.31	0.30	-32.5%
CO_2 / population (tCO_2 per capita)	12.25	12.31	12.88	12.79	11.61	11.32	11.05	-9.8%
CO_2 emissions and drivers - Kaya decomposition (1990=100) *								
CO_2 emissions index	100	104	112	115	108	106	104	3.7%
Population index	100	104	107	110	114	114	115	15.0%
GDP PPP per population index	100	107	122	130	131	133	134	33.7%
Energy intensity index - TPES / GDP PPP	100	97	89	83	77	74	72	-28.2%
Carbon intensity index - CO_2 / TPES	100	97	97	96	94	94	94	-6.0%

* Please see Chapter 3 for methodological notes. Based on GDP in 2005 USD, using purchasing power parities.

2012 CO_2 emissions by sector

million tonnes of CO_2	Coal	Oil	Natural gas	Other **	Total	% change 90-12
Sectoral Approach	**3 067.6**	**4 283.5**	**2 703.0**	**101.9**	**10 156.0**	**3.7%**
Main activity producer elec. and heat	2 559.2	156.6	900.4	43.3	3 659.5	15.1%
Unallocated autoproducers	103.5	40.3	111.0	27.8	282.6	-3.5%
Other energy industry own use	54.2	266.7	248.2	0.1	569.2	7.5%
Manufacturing industries and construction	333.6	441.3	544.7	28.6	1 348.2	-22.7%
Transport	0.6	2 872.0	53.0	-	2 925.5	15.9%
of which: road	*-*	*2 555.0*	*4.9*	*-*	*2 559.8*	20.0%
Other	16.5	506.6	845.7	2.2	1 371.0	-9.8%
of which: residential	*8.6*	*236.5*	*512.7*	*0.0*	*757.8*	-10.1%
Reference Approach	**3 153.8**	**4 281.0**	**2 698.7**	**102.0**	**10 235.6**	**4.0%**
Diff. due to losses and/or transformation	34.9	1.1	8.0	0.0	44.0	
Statistical differences	51.4	- 3.6	- 12.3	0.0	35.5	
Memo: international marine bunkers	-	*206.8*	-	-	*206.8*	*-7.4%*
Memo: international aviation bunkers	-	*226.6*	-	-	*226.6*	*72.9%*

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

Key sources for CO_2 emissions from fuel combustion in 2012

IPCC source category	CO_2 emissions ($MtCO_2$)	% change 90-12	Level assessment (%) ***	Cumulative total (%)
Main activity prod. elec. and heat - coal	2 559.2	1.5%	19.9	19.9
Road - oil	2 555.0	19.8%	19.9	39.8
Main activity prod. elec. and heat - gas	900.4	197.8%	7.0	46.8
Manufacturing industries - gas	544.7	4.0%	4.2	51.1
Residential - gas	512.7	15.1%	4.0	55.1
Manufacturing industries - oil	441.3	-26.1%	3.4	58.5
Manufacturing industries - coal	333.6	-46.1%	2.6	61.1
Non-specified other - gas	333.0	34.0%	2.6	63.7
Other transport - oil	317.0	-8.9%	2.5	66.2
Memo: total CO_2 from fuel combustion	*10 156.0*	*3.7%*	*79.1*	*79.1*

*** Percent calculated using the total GHG estimate excluding CO_2 emissions/removals from land use change and forestry.

Economies in Transition

Figure 1. CO_2 emissions by fuel

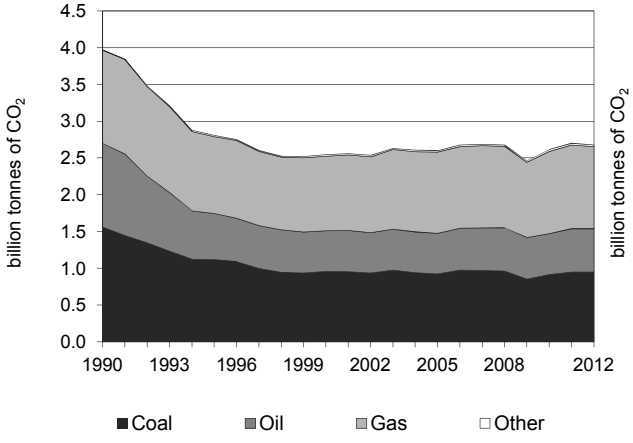


Figure 2. CO_2 emissions by sector

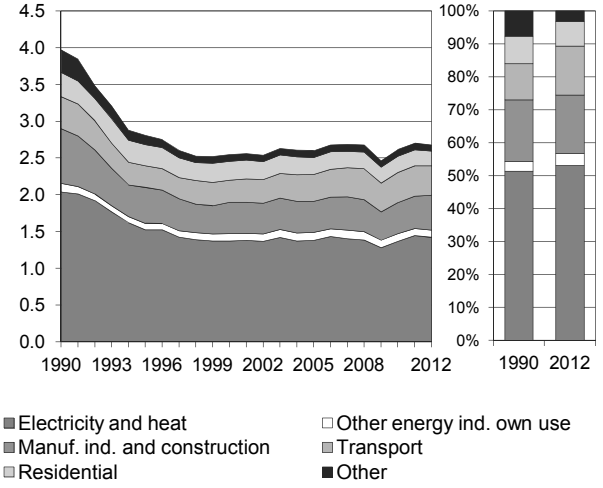


Figure 3. Reference vs Sectoral Approach

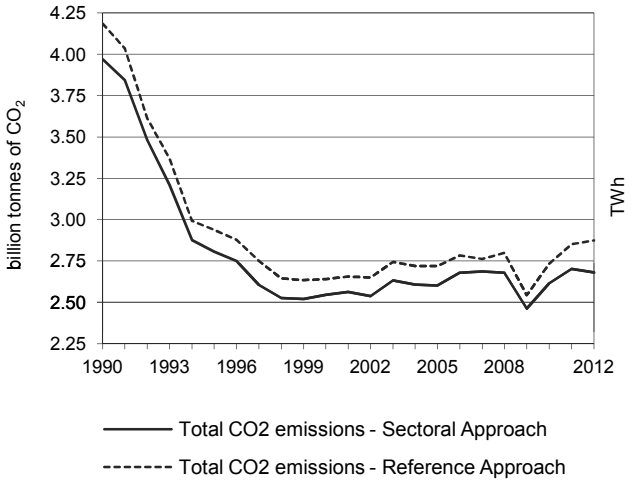


Figure 4. Electricity generation by fuel

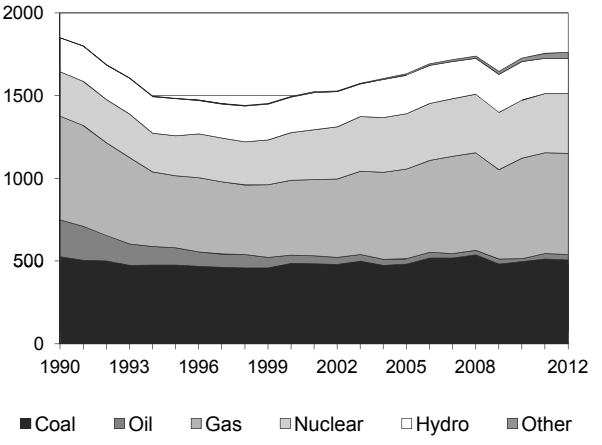


Figure 5. Changes in selected indicators *

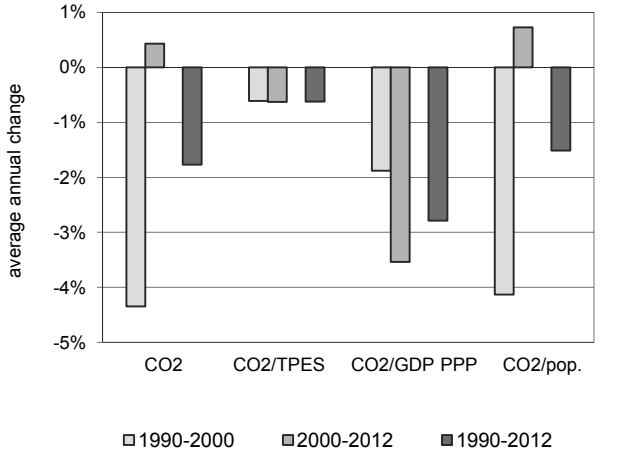
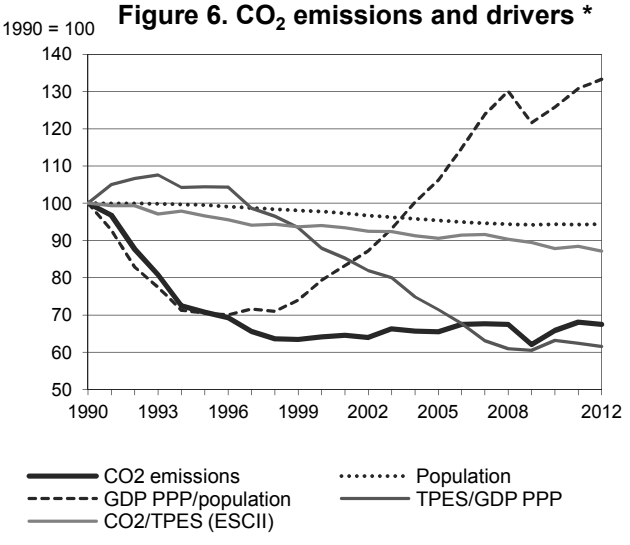


Figure 6. CO_2 emissions and drivers *



* Based on GDP in 2005 USD, using purchasing power parities.

Economies in Transition

Key indicators

	1990	1995	2000	2005	2010	2011	2012	% change 90-12
CO_2 Sectoral Approach ($MtCO_2$)	3 970.4	2 807.1	2 545.8	2 601.8	2 615.1	2 702.1	2 680.0	-32.5%
TPES (PJ)	63 570	46 513	43 345	45 987	47 652	48 939	49 231	-22.6%
GDP (billion 2005 USD)	1 637.5	1 198.3	1 344.4	1 737.1	2 032.2	2 108.6	2 148.9	31.2%
GDP PPP (billion 2005 USD)	3 545.5	2 485.0	2 749.0	3 592.6	4 207.1	4 371.6	4 460.2	25.8%
Population (millions)	321.1	319.5	313.9	306.2	302.9	302.8	303.0	-5.6%
CO_2 / TPES (tCO_2 per TJ)	62.5	60.4	58.7	56.6	54.9	55.2	54.4	-12.8%
CO_2 / GDP ($kgCO_2$ per 2005 USD)	2.42	2.34	1.89	1.50	1.29	1.28	1.25	-48.6%
CO_2 / GDP PPP ($kgCO_2$ per 2005 USD)	1.12	1.13	0.93	0.72	0.62	0.62	0.60	-46.3%
CO_2 / population (tCO_2 per capita)	12.37	8.79	8.11	8.50	8.63	8.92	8.84	-28.5%
CO_2 emissions and drivers - Kaya decomposition (1990=100) *								
CO_2 emissions index	100	71	64	66	66	68	67	-32.5%
Population index	100	99	98	95	94	94	94	-5.6%
GDP PPP per population index	100	70	79	106	126	131	133	33.3%
Energy intensity index - TPES / GDP PPP	100	104	88	71	63	62	62	-38.4%
Carbon intensity index - CO_2 / TPES	100	97	94	91	88	88	87	-12.8%

* Please see Chapter 3 for methodological notes. Based on GDP in 2005 USD, using purchasing power parities.

2012 CO_2 emissions by sector

million tonnes of CO_2	Coal	Oil	Natural gas	Other **	Total	% change 90-12
Sectoral Approach	**949.7**	**590.0**	**1 116.3**	**24.0**	**2 680.0**	**-32.5%**
Main activity producer elec. and heat	579.1	30.1	439.7	0.3	1 049.2	-33.2%
Unallocated autoproducers	105.2	32.1	219.1	16.5	372.9	-20.5%
Other energy industry own use	13.7	51.7	30.9	0.9	97.2	-16.1%
Manufacturing industries and construction	194.4	86.0	190.4	5.5	476.2	-36.0%
Transport	0.1	328.4	70.6	-	399.1	-8.6%
of which: road	*-*	*290.5*	*0.4*	*-*	*290.9*	5.2%
Other	57.3	61.6	165.6	0.7	285.2	-55.0%
of which: residential	*37.8*	*21.7*	*140.9*	*-*	*200.5*	-39.1%
Reference Approach	**1 062.4**	**650.1**	**1 137.2**	**24.4**	**2 874.0**	**-31.3%**
Diff. due to losses and/or transformation	49.0	62.1	20.3	-	131.4	
Statistical differences	63.6	- 2.0	0.6	0.4	62.6	
Memo: international marine bunkers	*-*	*8.8*	*-*	*-*	*8.8*	*-9.7%*
Memo: international aviation bunkers	*-*	*25.3*	*-*	*-*	*25.3*	*-30.9%*

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

Key sources for CO_2 emissions from fuel combustion in 2012

IPCC source category	CO_2 emissions ($MtCO_2$)	% change 90-12	Level assessment (%) ***	Cumulative total (%)
Main activity prod. elec. and heat - coal	579.1	-26.9%	14.7	14.7
Main activity prod. elec. and heat - gas	439.7	-12.4%	11.1	25.8
Road - oil	290.5	6.1%	7.4	33.2
Unallocated autoproducers - gas	219.1	-0.8%	5.6	38.7
Manufacturing industries - coal	194.4	-34.8%	4.9	43.7
Manufacturing industries - gas	190.4	-21.6%	4.8	48.5
Residential - gas	140.9	-8.6%	3.6	52.1
Unallocated autoproducers - coal	105.2	-35.9%	2.7	54.7
Manufacturing industries - oil	86.0	-57.1%	2.2	56.9
Memo: total CO_2 from fuel combustion	*2 680.0*	*-32.5%*	*67.9*	*67.9*

*** Percent calculated using the total GHG estimate excluding CO_2 emissions/removals from land use change and forestry.

Non-Annex I Parties

Figure 1. CO_2 emissions by fuel

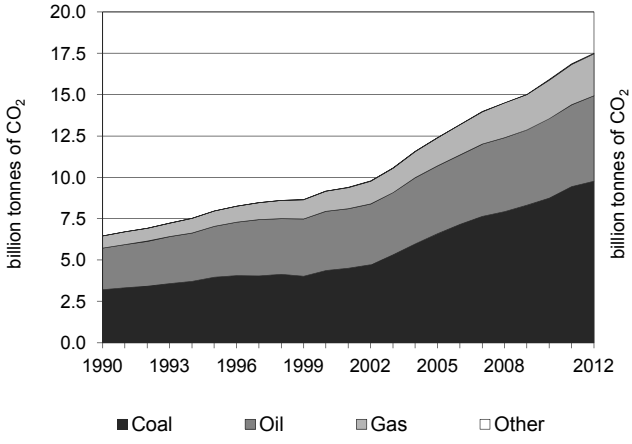


Figure 2. CO_2 emissions by sector

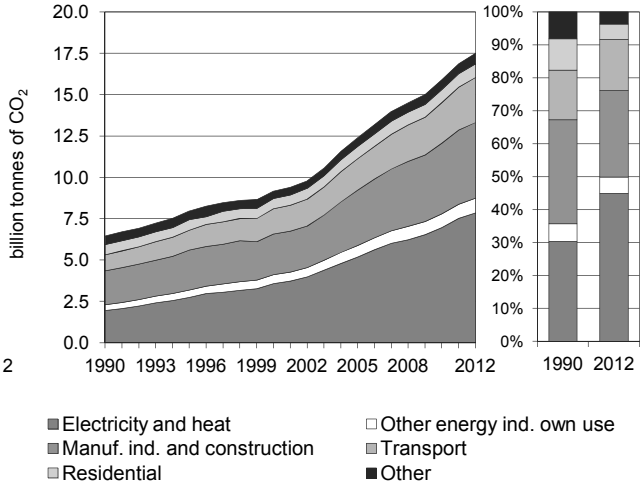


Figure 3. Reference vs Sectoral Approach

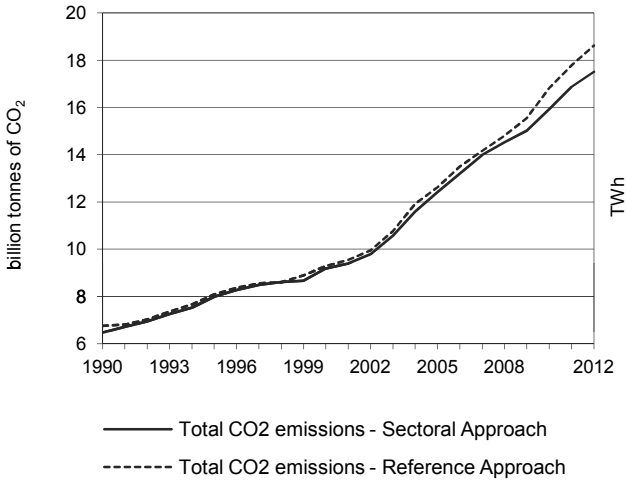


Figure 4. Electricity generation by fuel

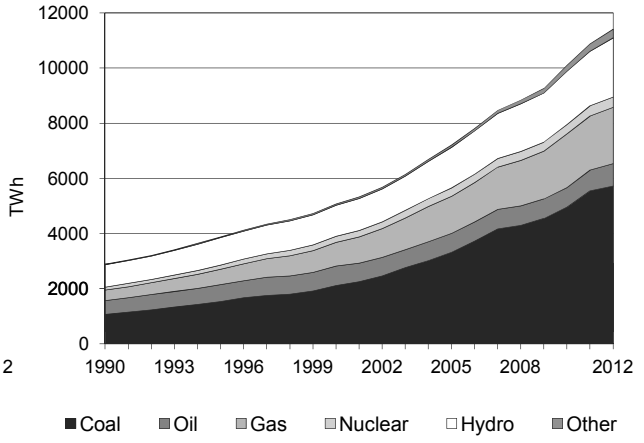


Figure 5. Changes in selected indicators *

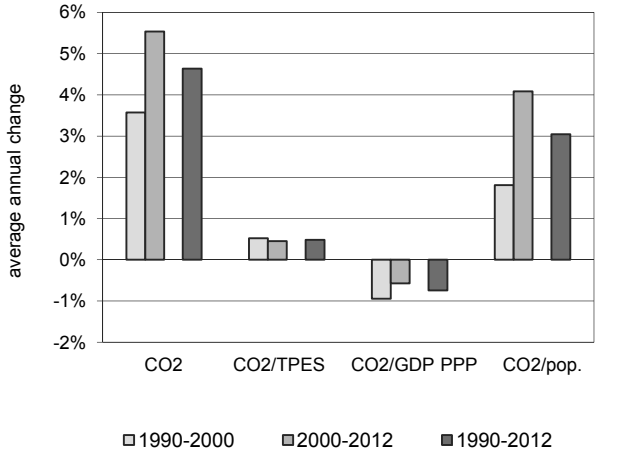
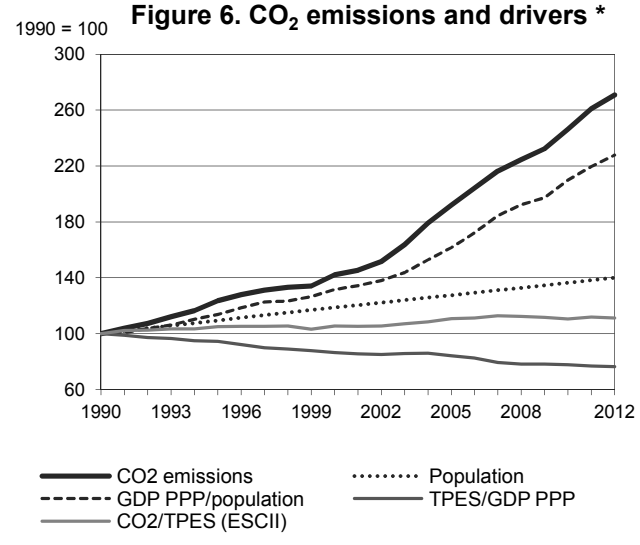


Figure 6. CO_2 emissions and drivers *



* Based on GDP in 2005 USD, using purchasing power parities.

Non-Annex I Parties

Key indicators

	1990	1995	2000	2005	2010	2011	2012	% change 90-12
CO_2 Sectoral Approach ($MtCO_2$)	6 463.9	7 981.5	9 180.5	12 412.4	15 921.0	16 874.4	17 513.5	170.9%
TPES (PJ)	125 483	147 652	169 135	217 752	279 423	292 736	305 682	143.6%
GDP (billion 2005 USD)	5 295.9	6 632.5	8 304.8	10 742.3	14 601.6	15 432.8	16 186.6	205.6%
GDP PPP (billion 2005 USD)	13 798.6	17 184.0	21 540.3	28 425.7	39 505.5	41 866.6	44 020.8	219.0%
Population (millions)	4 097.6	4 485.6	4 862.2	5 224.8	5 589.8	5 664.7	5 739.5	40.1%
CO_2 / TPES (tCO_2 per TJ)	51.5	54.1	54.3	57.0	57.0	57.6	57.3	11.2%
CO_2 / GDP ($kgCO_2$ per 2005 USD)	1.22	1.20	1.11	1.16	1.09	1.09	1.08	-11.3%
CO_2 / GDP PPP ($kgCO_2$ per 2005 USD)	0.47	0.46	0.43	0.44	0.40	0.40	0.40	-15.1%
CO_2 / population (tCO_2 per capita)	1.58	1.78	1.89	2.38	2.85	2.98	3.05	93.4%
CO_2 emissions and drivers - Kaya decomposition (1990=100) *								
CO_2 emissions index	100	123	142	192	246	261	271	170.9%
Population index	100	109	119	128	136	138	140	40.1%
GDP PPP per population index	100	114	132	162	210	219	228	127.8%
Energy intensity index - TPES / GDP PPP	100	94	86	84	78	77	76	-23.6%
Carbon intensity index - CO_2 / TPES	100	105	105	111	111	112	111	11.2%

* Please see Chapter 3 for methodological notes. Based on GDP in 2005 USD, using purchasing power parities.

2012 CO_2 emissions by sector

million tonnes of CO_2	Coal	Oil	Natural gas	Other **	Total	% change 90-12
Sectoral Approach	**9 767.6**	**5 172.9**	**2 533.6**	**39.3**	**17 513.5**	**170.9%**
Main activity producer elec. and heat	5 829.6	575.9	909.7	1.4	7 316.7	298.2%
Unallocated autoproducers	300.1	103.4	117.6	29.2	550.3	337.0%
Other energy industry own use	237.7	275.1	367.4	-	880.2	153.9%
Manufacturing industries and construction	2 959.9	909.8	701.3	6.5	4 577.6	124.3%
Transport	12.0	2 630.6	87.2	-	2 729.9	181.4%
of which: road	*-*	*2 403.1*	*72.4*	*-*	*2 475.5*	195.1%
Other	428.3	678.0	350.4	2.1	1 458.9	27.7%
of which: residential	*229.8*	*321.1*	*271.2*	*-*	*822.1*	33.1%
Reference Approach	**10 748.1**	**5 255.3**	**2 581.9**	**39.2**	**18 624.5**	**175.6%**
Diff. due to losses and/or transformation	313.6	41.7	53.9	-	409.3	
Statistical differences	666.9	40.7	- 5.7	- 0.1	701.7	
Memo: international marine bunkers	-	*382.0*	-	-	*382.0*	*194.4%*
Memo: international aviation bunkers	-	*222.5*	-	-	*222.5*	*153.1%*

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

Key sources for CO_2 emissions from fuel combustion in 2012

IPCC source category	CO_2 emissions ($MtCO_2$)	% change 90-12	Level assessment (%) ***	Cumulative total (%)
Main activity prod. elec. and heat - coal	5 829.6	379.7%	20.7	20.7
Manufacturing industries - coal	2 959.9	130.7%	10.5	31.3
Road - oil	2 403.1	186.7%	8.5	39.8
Manufacturing industries - oil	909.8	67.6%	3.2	43.0
Main activity prod. elec. and heat - gas	909.7	310.4%	3.2	46.3
Manufacturing industries - gas	701.3	226.9%	2.5	48.8
Main activity prod. elec. and heat - oil	575.9	43.8%	2.0	50.8
Other energy industry own use - gas	367.4	201.7%	1.3	52.1
Non-specified other - oil	357.0	38.9%	1.3	53.4
Memo: total CO_2 from fuel combustion	*17 513.5*	*170.9%*	*62.3*	*62.3*

*** Percent calculated using the total GHG estimate excluding CO_2 emissions/removals from land use change and forestry.

Annex I Kyoto Parties

Figure 1. CO_2 emissions by fuel

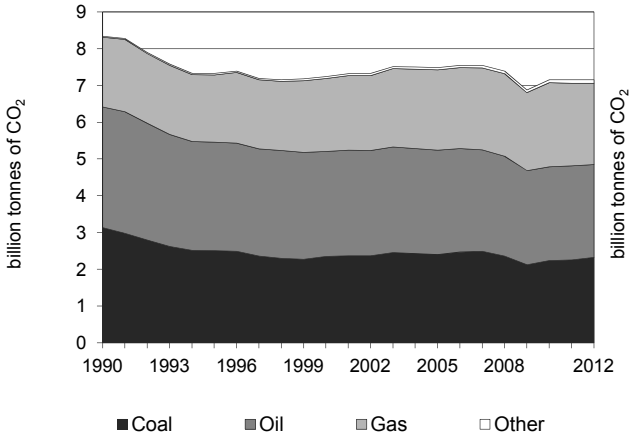


Figure 2. CO_2 emissions by sector

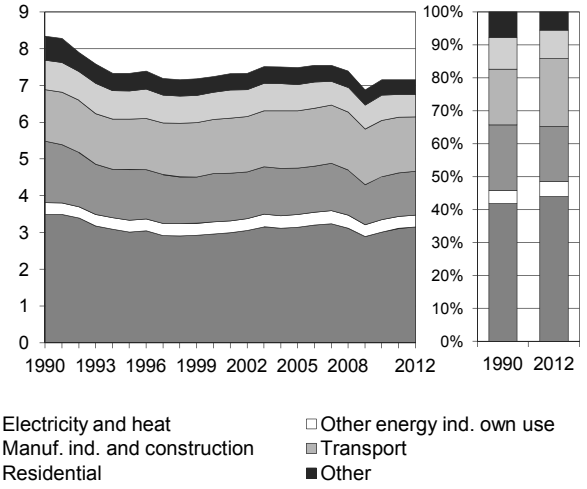


Figure 3. Reference vs Sectoral Approach

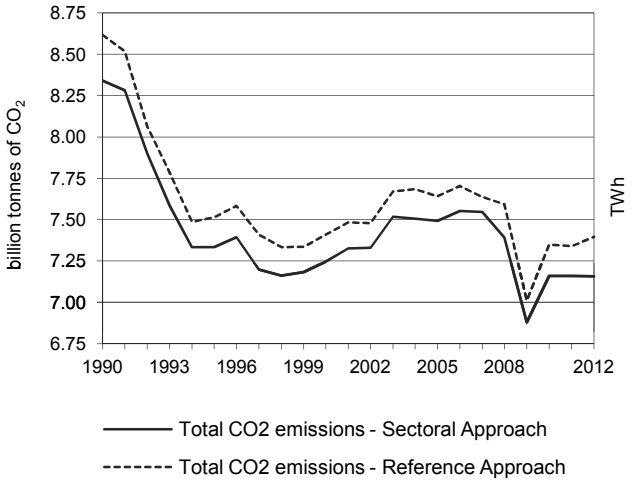


Figure 4. Electricity generation by fuel

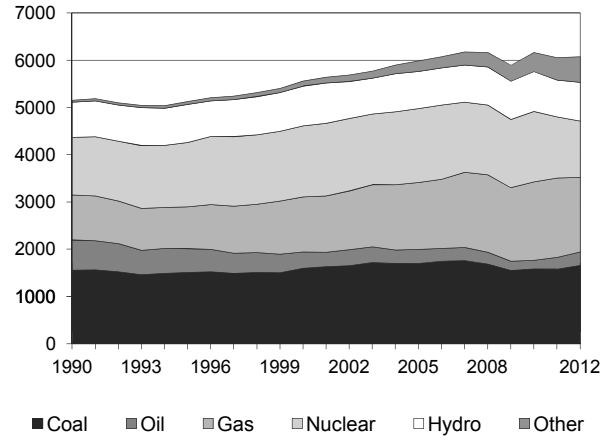


Figure 5. Changes in selected indicators *

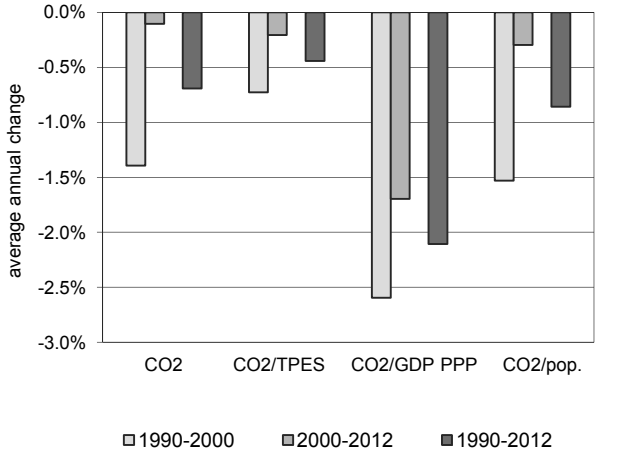
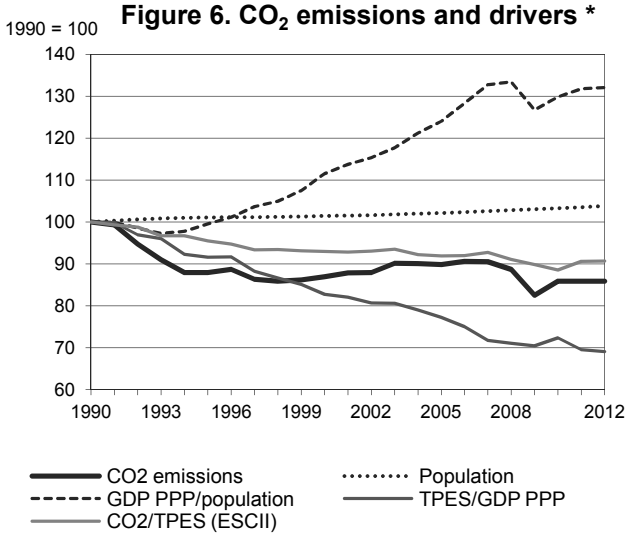


Figure 6. CO_2 emissions and drivers *



* Based on GDP in 2005 USD, using purchasing power parities.

Annex I Kyoto Parties

Key indicators

	1990	1995	2000	2005	2010	2011	2012	% change 90-12
CO_2 Sectoral Approach ($MtCO_2$)	8 339.6	7 333.0	7 247.4	7 493.0	7 158.5	7 158.5	7 157.0	-14.2%
TPES (PJ)	140 662	129 542	131 519	137 559	136 362	133 293	133 139	-5.3%
GDP (billion 2005 USD)	15 934.1	16 761.3	18 880.8	20 818.2	21 803.3	22 109.7	22 196.0	39.3%
GDP PPP (billion 2005 USD)	16 195.0	16 281.3	18 303.4	20 510.3	21 714.9	22 074.8	22 189.7	37.0%
Population (millions)	832.3	841.0	843.8	850.0	859.6	861.3	863.6	3.8%
CO_2 / TPES (tCO_2 per TJ)	59.3	56.6	55.1	54.5	52.5	53.7	53.8	-9.3%
CO_2 / GDP ($kgCO_2$ per 2005 USD)	0.52	0.44	0.38	0.36	0.33	0.32	0.32	-38.4%
CO_2 / GDP PPP ($kgCO_2$ per 2005 USD)	0.52	0.45	0.40	0.37	0.33	0.32	0.32	-37.4%
CO_2 / population (tCO_2 per capita)	10.02	8.72	8.59	8.81	8.33	8.31	8.29	-17.3%
CO_2 emissions and drivers - Kaya decomposition (1990=100) *								
CO_2 emissions index	100	88	87	90	86	86	86	-14.2%
Population index	100	101	101	102	103	103	104	3.8%
GDP PPP per population index	100	99	111	124	130	132	132	32.0%
Energy intensity index - TPES / GDP PPP	100	92	83	77	72	70	69	-30.9%
Carbon intensity index - CO_2 / TPES	100	95	93	92	89	91	91	-9.3%

* Please see Chapter 3 for methodological notes. Based on GDP in 2005 USD, using purchasing power parities.

2012 CO_2 emissions by sector

million tonnes of CO_2	Coal	Oil	Natural gas	Other **	Total	% change 90-12
Sectoral Approach	**2 329.7**	**2 521.5**	**2 211.7**	**94.2**	**7 157.0**	**-14.2%**
Main activity producer elec. and heat	1 591.7	163.5	798.0	28.0	2 581.3	-9.2%
Unallocated autoproducers	190.0	62.7	279.9	37.0	569.6	-12.5%
Other energy industry own use	57.2	177.8	85.2	1.0	321.3	-1.1%
Manufacturing industries and construction	421.0	347.3	404.4	26.3	1 199.0	-28.0%
Transport	0.7	1 398.0	75.8	-	1 474.5	4.8%
of which: road	*-*	*1 280.9*	*3.5*	*-*	*1 284.4*	10.0%
Other	69.0	372.2	568.3	1.8	1 011.4	-30.2%
of which: residential	*45.4*	*174.5*	*392.8*	*0.0*	*612.8*	-23.5%
Reference Approach	**2 475.7**	**2 601.9**	**2 223.5**	**94.7**	**7 395.8**	**-14.2%**
Diff. due to losses and/or transformation	67.6	71.9	21.9	0.0	161.4	
Statistical differences	78.4	8.6	- 10.1	0.5	77.4	
Memo: international marine bunkers	-	*165.2*	-	-	*165.2*	*18.5%*
Memo: international aviation bunkers	-	*185.7*	-	-	*185.7*	*47.2%*

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

Key sources for CO_2 emissions from fuel combustion in 2012

IPCC source category	CO_2 emissions ($MtCO_2$)	% change 90-12	Level assessment (%) ***	Cumulative total (%)
Main activity prod. elec. and heat - coal	1 591.7	-6.4%	15.4	15.4
Road - oil	1 280.9	10.0%	12.4	27.8
Main activity prod. elec. and heat - gas	798.0	26.2%	7.7	35.6
Manufacturing industries - coal	421.0	-39.4%	4.1	39.7
Manufacturing industries - gas	404.4	-7.7%	3.9	43.6
Residential - gas	392.8	18.5%	3.8	47.4
Manufacturing industries - oil	347.3	-34.1%	3.4	50.8
Unallocated autoproducers - gas	279.9	17.2%	2.7	53.5
Non-specified other - oil	197.7	-41.4%	1.9	55.4
Memo: total CO_2 from fuel combustion	*7 157.0*	*-14.2%*	*69.4*	*69.4*

*** Percent calculated using the total GHG estimate excluding CO_2 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 29 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, Russia and the OPEC countries.

The Energy Data Centre, 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_2 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 start at 3 163 euros per month. 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:

Office of Management and Administration
International Energy Agency
9 rue de la Fédération
75739 Paris Cedex 15, France

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*

Ten Annual Publications

Energy Statistics of OECD Countries, 2014 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, biofuels/waste and products derived from these primary fuels, as well as for electricity and heat. Complete data are available for 2011 and 2012 and supply estimates are available for the most recent year (i.e. 2013). 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 2014 - Price €120

Energy Balances of OECD Countries, 2014 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, natural gas, nuclear, hydro, geothermal/solar, biofuels/waste, 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 2011 and 2012 and supply estimates are available for the most recent year (i.e. 2013). 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 2014 - Price €120

Energy Statistics of Non-OECD Countries, 2014 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 2011 and 2012. For a description of the content, please see *Energy Statistics of OECD Countries* above.

Published August 2014 - Price €120

Energy Balances of Non-OECD Countries, 2014 Edition

A companion volume to the publication *Energy Statistics of Non-OECD Countries*, this publication presents energy balances in thousand 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 2011 and 2012. For a description of the content, please see *Energy Balances of OECD Countries* above.

Published August 2014 - Price €120

Coal Information 2014

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 2014 - Price €165

Electricity Information 2014

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.

Published August 2014 - Price €150

Natural Gas Information 2014

A detailed reference work on gas supply and demand, covering not only 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, as well as a breakdown of gas consumption by end-user. Import and export data are reported by source and destination.

Published August 2014 - Price €165

Oil Information 2014

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 OECD regions. Trade data are reported extensively by origin and destination.

Published August 2014 - Price €165

Renewables Information 2014

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.

Published August 2014 - Price €110

CO_2 Emissions from Fuel Combustion, 2014 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_2 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_2 from 1971 to 2012 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 2014 - Price €165

Two Quarterlies

Oil, Gas, Coal and Electricity, Quarterly Statistics

This publication provides up-to-date, detailed quarterly statistics on oil, coal, natural gas and electricity for 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. The gas trade data from 1st quarter 2011 onwards corresponds to physical flows (entries/exits). 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 crude oil import prices by crude stream, industry prices and consumer prices. The end-user prices for OECD member countries cover main petroleum products, gas, coal and electricity. Every issue includes full notes on sources and methods and a description of price mechanisms in each country. Time series availability varies with each data series.

Published Quarterly - Price €120, annual subscription €380

Electronic Editions

CD-ROMs and Online Data Services

To complement its publications, the Energy Data Centre produces CD-ROMs containing the complete databases which are used for preparing the statistics publications. State-of-the-art software allows you to access and manipulate all these data in a very user-friendly manner and includes graphic facilities. These databases are also available on the internet from our online data service.

Annual CD-ROMS / Online Databases

- Energy Statistics of OECD Countries, 1960-2013 — Price: €550 (single user)
- Energy Balances of OECD Countries, 1960-2013 — Price: €550 (single user)
- Energy Statistics of Non-OECD Countries, 1971-2012 — Price: €550 (single user)
- Energy Balances of Non-OECD Countries, 1971-2012 — Price: €550 (single user)
- *Combined subscription of the above four series* — *Price: €1 400 (single user)*

- Coal Information 2014 — Price: €550 (single user)
- Electricity Information 2014 — Price: €550 (single user)
- Natural Gas Information 2014 — Price: €550 (single user)
- Oil Information 2014 — Price: €550 (single user)
- Renewables Information 2014 — Price: €400 (single user)
- CO_2 Emissions from Fuel Combustion 2014 — Price: €550 (single user)

Quarterly CD-ROMs / Online Databases

- Energy Prices and Taxes — Price: (four quarters) €900 (single user)

A description of these services is available on our website: ***http://data.iea.org***

Other Online Services

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)
- *Complete Service* — *Price: €9 000 (single user)*

A description of this service is available on our website: ***www.iea.org/statistics/mods***

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 import origins and export destinations;
- LNG trade detail available from January 2002,
- From 2011 onwards, transit volumes are included and trade data corresponds to entries/exits.

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

- Monthly Gas Data Service: Natural Gas Balances & Trade
  Historical plus 12 monthly updates Price: €800 (single user)

For more information consult: ***www.iea.org/statistics/mgds***

Moreover, the IEA statistics website contains a wealth of free statistics covering oil, natural gas, coal, electricity, renewables, energy-related CO_2 emissions and more for over 140 countries and historic data for the last 20 years. It also contains Sankey flows to enable users to explore visually how a country's energy balance shifts over up to 40 years, starting with production and continuing through transformation to see important changes in supply mix or share of consumption. The website also includes selected databases for demonstration.

The IEA statistics website can be accessed at *www.iea.org/statistics/*

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