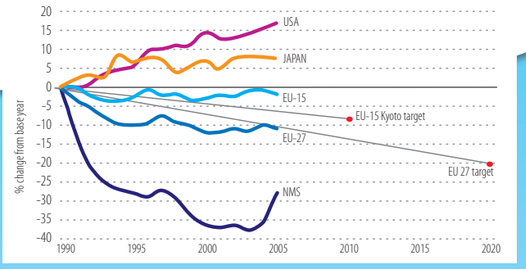
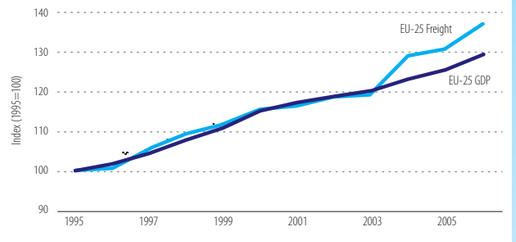
1. Climate change – Greenhouse gas emissions



The EU-15 Kyoto target is an 8% reduction in greenhouse gas emissions compared to base year levels (mostly 1990) by 2008-2012. In 2005, EU-15 emissions decreased by 0.8% compared to 2004, while the EU-15 GDP grew by 1.6%. Compared to base year levels, an overall reduction of 2.0% was achieved. EU-27 emissions saw a similar decrease compared to 2004 levels, and in 2005 were 11% below the base year levels. Projections indicate that the EU is moving closer towards achieving its Kyoto target but additional initiatives need to be adopted and implemented swiftly to ensure success.

The EU committed itself to limiting the global average temperature increase to less than 2°C compared to pre-industrial levels. In 2007 the European Council endorsed the EU's independent commitment to reduce GHG emissions by at least 20% by 2020 compared to 1990 levels even if no international agreement is reached.

2. Transport



Decoupling transport growth from economic growth is one of the objectives of the EU Sustainable Development Strategy. Between 1995 and 2006 freight transport (1) increased by almost 37% in EU-25 while GDP rose by 29%. This was mainly due to an increase of some 46% in road transport. In 2006 road transport in New Member States had more than doubled compared to 1995, while other modes had decreased.

In 2005 greenhouse gas emissions from transport accounted for 21% of total EU-15 emissions. Road transport is by far the biggest source of transport emissions (93%). Transport infrastructure is a major source of landscape fragmentation with negative effects on biodiversity.

(1) This indicator includes transport by road, rail and inland waterways. The increase in the freight transport statistics in 2004 is mainly due to an improved statistical methodology.

DATA SOURCES

Data sources for indicators are:
1, 9 and 10 – European Environment Agency.
2, 3, 4, 6, and 8 – Eurostat and other European Commission Services.
5 – EBCC/RSPB/Birdlife International/Statistics Netherlands.
7 – Eurostat and the Institute of Rural Sciences, University of Wales, Aberystwyth.

ADDITIONAL INFORMATION

More information on these indicators can be found on the Commission's sustainable development indicators database (2) and the European Environment Agency's core set of indicators. (3) Several indicators in this leaflet are taken from there.

More information on the EU's environment policies can be found at:
http://ec.europa.eu./environment/index_en.htm

This publication is available free of charge from the following address:

Information Centre (BU-9 0/11)
Directorate-General Environment
European Commission
B-1049 Brussels

Fax (32-2) 29-96198
E-mail: ENV-PUBS@cec.eu.int
Website: **http://ec.europa.eu/environment/pubs/home.htm**

It is also available on the web site:
http://ec.europa.eu/environment/indicators/pdf/leaflet_env_indic_2008.pdf

(2) http://ec.europa.eu/eurostat/sustainabledevelopment
(3) http://themes.eea.europa.eu/IMS/CSI

Photo credits: European Communities, Getty Images, Inc., Phovoir

Printed in Belgium

PRINTED ON RECYCLED PAPER

KH-81-07-174-EN-D

Publications Office

EU environment-related indicators 2008

Measuring environmental progress

EUROPEAN COMMISSION

environment

INTRODUCTION

A clean and healthy environment is essential if we are to achieve the well-being and prosperity we want for ourselves and for our children.

The EU Treaty says: "The Community shall have as its task. . .to promote throughout the Community. . .a high level of protection and improvement of the quality of the environment. . ." (Art.2); "Environmental protection requirements must be integrated into the definition and implementation of. . .Community policies. . .in particular with a view to promoting sustainable development." (Art.6)

Europeans do care about the environment and seven out of ten citizens feel that the state of the environment influences their quality of life. According to two Eurobarometer surveys published in 2007:
- more than seven out of ten European citizens think that environmental protection is an area where the EU can play a vital role along with national Governments;
- 87% of respondents consider climate change to be a concern and 82% think that energy production and consumption has a negative impact on global warming.

Over the past 30 years the European Union and its Member States have adopted a range of environmental measures aimed at improving and protecting our environment. Indicators are a concise way of showing progress – or the lack of it – towards achieving environmental protection goals.

This leaflet presents ten environment-related indicators that highlight trends relevant to the Sixth EU Environment Action Programme's priority areas: Climate Change, Nature and Biodiversity, Environment and Health, and Natural Resources and Waste. They reveal that in most areas there has been little improvement, with only one indicator showing positive progress towards reaching EU targets.

KEY

The indicators highlight trends at EU level by using traffic light colours. The colour of the heading summarises the overall situation. The bullets, which are also colour-coded, highlight the main issues. The assessment for most indicators is based on recent official documents of the Commission.

Red means poor performance, indicating that worrying trends are not being reversed, and/or that targets are unlikely to be met (where targets exist).

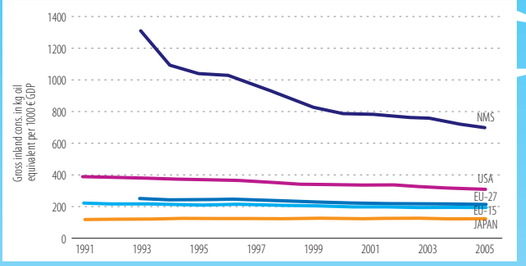
Amber means trends are not clear, or that overall problems remain despite some mixed progress.

Green means good performance, indicating that worrying trends have been reversed or the EU is on track to meet targets, where there are targets.

Depending on data availability, graphs show EU-27 or EU-25 values. Trends for EU-15 and NMS are also shown where appropriate.
- The 'EU-15' are the 15 Member States as of 1 January 1995: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden, and the United Kingdom.
- 'NMS' means the New Member States that joined the EU on 1 May 2004 and 1 January 2007: Bulgaria, Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovak Republic, and Slovenia.
- The 'EU-25' are the 25 Member States as of 1 May 2004.
- The 'EU-27' are the 27 Member States as of 1 January 2007.

(1) The Eurobarometer 68 survey was carried out in Autumn 2007, while the Flash Eurobarometer 206a "Attitudes on issues related to the EU energy policy" was carried out in Winter 2007. Results are available at: **http://ec.europa.eu/public_opinion/index.htm**

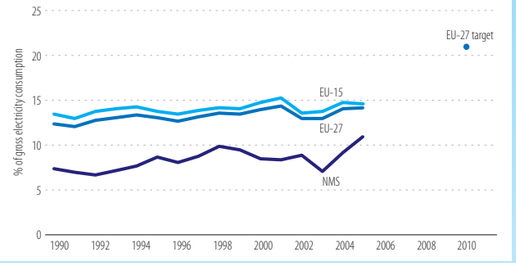
3. Energy intensity



Energy intensity measures the demand for energy per unit of GDP. It has decreased slowly but steadily in the EU in the 1990s. This mainly reflects the decrease in the New Member States. Between 1991 and 2005, of the EU-15, Ireland and Luxembourg show the most significant drop, while there was a significant increase for Portugal. Denmark is the only EU country performing better than Japan in terms of energy intensity.

The EU has a target of reducing energy consumption by 20% compared to the 2020 baseline as forecast in 2005.

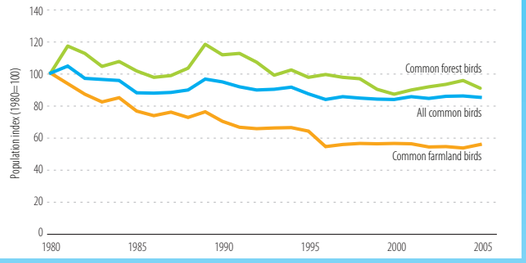
4. Electricity from renewables



The EU's indicative target is to produce 21% of all electricity from renewable sources by 2010. The share of electricity produced from renewables in 2005 was 14%, the same as 2004. It increased by only 2.1% in 15 years. Trends vary among the Member States: in Denmark the share of renewable electricity went up from about 2% in 1990 to 28% in 2005, while Austria and Sweden now produce more than 50% of their electricity from renewable sources. The Energy Policy for Europe set a target of a 20% share of renewables in overall EU energy consumption by 2020, but the EU is currently not on track to reach this objective.

The share of renewables in electricity production in the New Member States in 2005 was 10.7%, an increase compared to 2004 (9.1%). This was mainly due to large increases in Romania: 35.8% in 2005 compared to 29.9% in 2004.

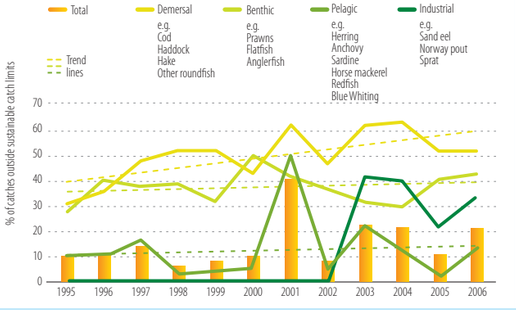
5. Biodiversity — Common Birds



The EU has an objective of halting the loss of biodiversity by 2010. Birds are considered to be highly representative of biodiversity and the integrity of ecosystems. The index for common bird species (1) shows a negative trend over the past 25 years, and the indices for common forest birds and for common farmland birds especially have decreased during the last 12 years. Significant efforts are needed to reverse the trend.

In particular common farmland birds, a good indicator of trends in farmland biodiversity, have become more threatened overall during this time, although there was a slight improvement in 2005. Changes in land use and agricultural practices, which affect nesting or feeding, may explain part of this decline.

6. Fisheries – Catches outside safe limits



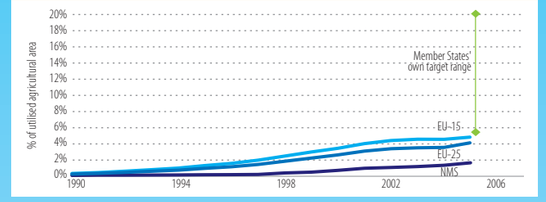
In 2006 21% of total catches were outside safe biological limits, a worsening trend after the improvement in 2005 (10%). Demersal and benthic stocks have deteriorated over the last decade (51% and 42% in 2006).

In 2001 some important pelagic and industrial stocks, which normally sustain large catches, fell outside safe biological limits for the first time, causing the large variation in the indicator for this year.

Key: Demersal fish live close to the bottom of the sea and depend up on it. Benthic fish live on or in the sea bed, while pelagic fish spend most of their lives in open water. Products from industrial fish are used for industrial processes (production of fish meal and fish oil e.g. used in aquaculture), not for direct human consumption. The data covers only the North East Atlantic (North Sea and Baltic Sea, Bay of Biscay and the Iberian Peninsula), and excludes the Mediterranean Sea.

(1) This includes 123 species of common birds, among which 33 species of common farmland birds and 27 species of common forst birds

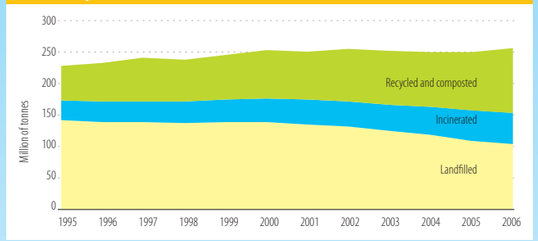
7. Organic farming



Organic farming has positive effects on the environment and is financially supported by the Common Agricultural Policy. In 2005 organic farming was practised on 4.0% of EU farmland, with differences between the EU-15 (4.7%) and the New Member States (1.5%). Austria has the highest share of organic farming, with 11% in 2005, followed by Italy which accounts for nearly 18% of the total organic area in the EU-25.

The area farmed organically has increased greatly since the 1990s, although the annual growth rate has decreased from 31.8% in 1995 to 6.5% in 2005. Most Member States show a continuous increase since 2001, in particular Greece, Latvia and Portugal, with only Denmark registering a decrease. Organic farming still represents a minority of EU agriculture, which is mainly based on conventional practices.

8. Municipal waste

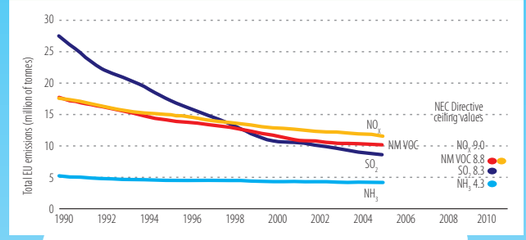


In 2006 the EU-27 produced 255 million tonnes of municipal waste, an increase of 13% compared to 1995. This represented an average of 517 kg of municipal waste per capita, an increase of 9% over 1995. The share of municipal waste sent to landfill decreased from 62% in 1995 to 41% in 2006. While some countries – Germany, the Netherlands, Sweden, Denmark and Belgium – have almost abolished landfilling of municipal waste, others – Czech Republic, Poland and Lithuania – send more than 90% of municipal waste to landfills.

Recycling (2) of municipal waste doubled between 1995 and 2006 to reach 101 million tonnes. Germany and the Netherlands have the highest share of recycling (68% and 64% respectively). Denmark has the highest share of municipal waste incinerated (55%). Energy recovery from incineration is slowly increasing and in 2005 accounted for about 9.8 million tonnes oil equivalent of energy, i.e. 1% of primary energy production (compared to 0.6% in 1995).

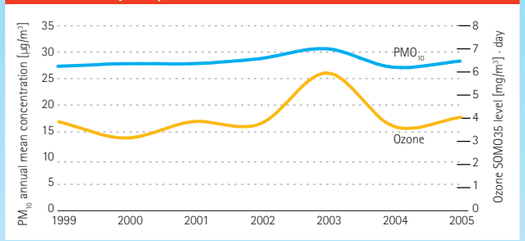
(2) The amount of municipal waste recycled and composted is estimated as the difference between the amount of municipal waste generated and the amount landifilled and incinerated.

9. Air emissions



EU Member States must reduce air emissions of noxious gases to reach the 2010 targets set by the National Emission Ceilings Directive. These noxions gases have harmful effects on human health and contribute to acidification, eutrophication and the formation of ground-level ozone. Compared to 1990 levels, in 2005 the EU-27 had reduced its emissions of sulphur dioxide (SO_2) by 70%, nitrogen oxides (NO_x) by 34%, non-methane volatile organic compounds (NMVOC) by 43%, and ammonia (NH_3) by 20%. The EU as a whole is on track to reach its objectives. However, some individual Member States are expected to exceed their national emission ceiling for NO_x in 2010. (3)

10. Urban air quality



Particulate matter has serious health implications, causing illness and reducing life expectancy in the EU by about 9 months. (4) Data from some large European cities indicate that concentrations of particulate matter (PM_{10}) (5) increased in 2005 and show no sign of decreasing. The peak in 2003 is partly due to unfavourable weather conditions. The situation has improved in many cities however.

Ozone causes respiratory diseases and is linked with premature deaths. It is a major concern for vulnerable groups such as asthmatics, children and the elderly. For ground level ozone, (6) concentrations in 2005 were higher than in 2004 (7). There is no evidence of a clear decrease in ozone levels in recent years. Some annual weather conditions, like the heat wave in 2003, influence air pollution levels and cause variations unrelated to emission changes.

(3) Source: NEC Directive Status report 2006, EEA Technical report 15/2007.
(4) Source: Impact Assessment of the Thematic Strategy on Air Pollution.
(5) Including cities from 18 Member States (AT, BE, CZ, DE, EE, EL, ES, FI, FR, IE, IT, NL, PL, PT, SE, SI, SK, UK).
(6) Including cities from 17 Member States (AT, BE, CZ, DE, DK, EL, ES, FI, FR, IT, NL, PL, PT, SE, SI, SK, UK).
(7) Results are based on "urban background stations" in cities with population over 250.000 inhabitants, using PM_{10} annual mean concentrations and for the ozone indicator Sum Of Means Over 35 ppb ozone (SOMO35) calculated from daily 8-hourly maximum concentrations. Population weighing is applied. Further information may be obtained from: env-airquality@ec.europa.eu.