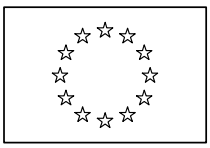


COMMISSION OF THE EUROPEAN COMMUNITIES

Brussels, 30.4.2007
SEC(2007) 487

COMMISSION STAFF WORKING DOCUMENT

Annex to the

COMMUNICATION FROM THE COMMISSION TO THE COUNCIL AND THE EUROPEAN PARLIAMENT

2006 Environment Policy Review

{COM(2007) 195 final}

TABLE OF CONTENTS

INTRODUCTION

This Commission Staff Working Paper is an annex to the 2006 Environment Policy Review,[1] and presents evidence on selected EU environmental policy issues during 2006.

It has been prepared in two parts. Part 1 draws on statistical data relevant to the four priority areas of the 6th Environment Action Programme (EAP), commenting on significant issues and providing background to the Commission's policy work during 2006 and future initiatives. It also provides evidence relevant to discussion of the links between the environment and the economy and progress on implementation.

Part 2 contains the Commission's review of environmental policy actions in the Member States. The actions listed are by no means exhaustive, but rather present a snapshot of actions that took place around 2006 and which are part of the implementation of the 6th Environment Action Programme and the Member States' National Lisbon Reform Programmes, notably with respect to Integrated Guideline 11 on environmental policy measures to ensure the sustainable use of resources.

More comprehensive information on the environment in Europe can be found in the European Environment Agency's *"The European Environment, State and Outlook 2005"* report (SOER).[2] The EEA's report covers a wide range of areas and includes an EU level analysis of main issues, including the four priorities of the 6th EAP, information for the full Core Set of Indicators, country assessments and forecasts. Further information can be retrieved from Eurostat's report *"Measuring progress towards a more sustainable Europe - Sustainable development indicators for the European Union - Data 1990-2005",*[3] which presents environmental issues alongside social and economic indicators, and focuses on inter-linkages.

1 COM(2007) 195 final
2 http://reports.eea.europa.eu/state_of_environment_report_2005_1/en
3 http://ec.europa.eu/eurostat/sustainabledevelopment

PART 1 - STATISTICAL DATA

This part highlights selected key indicators on the environment and environment policy, including the four priority areas of the 6th EAP. The indicators have mainly been chosen from the EU Structural Indicators employed for reporting for the Lisbon process,[4] the EU Sustainable Development Indicators to monitor the EU Sustainable Development Strategy[5] and the EEA's Core Set of Indicators,[6] which provide a comprehensive basis for assessment of progress against environmental policy priorities.

Wherever possible the information provided describes the full circumstance of the environmental issue – covering all links in the causal chain:

– showing the *state* of the environment, illustrating what to preserve or regain,

– highlighting aspects of the *pressures* exerted by society and the economy on the state of the environment,

– informing about underlying social and economic *driving forces* behind the pressures, and

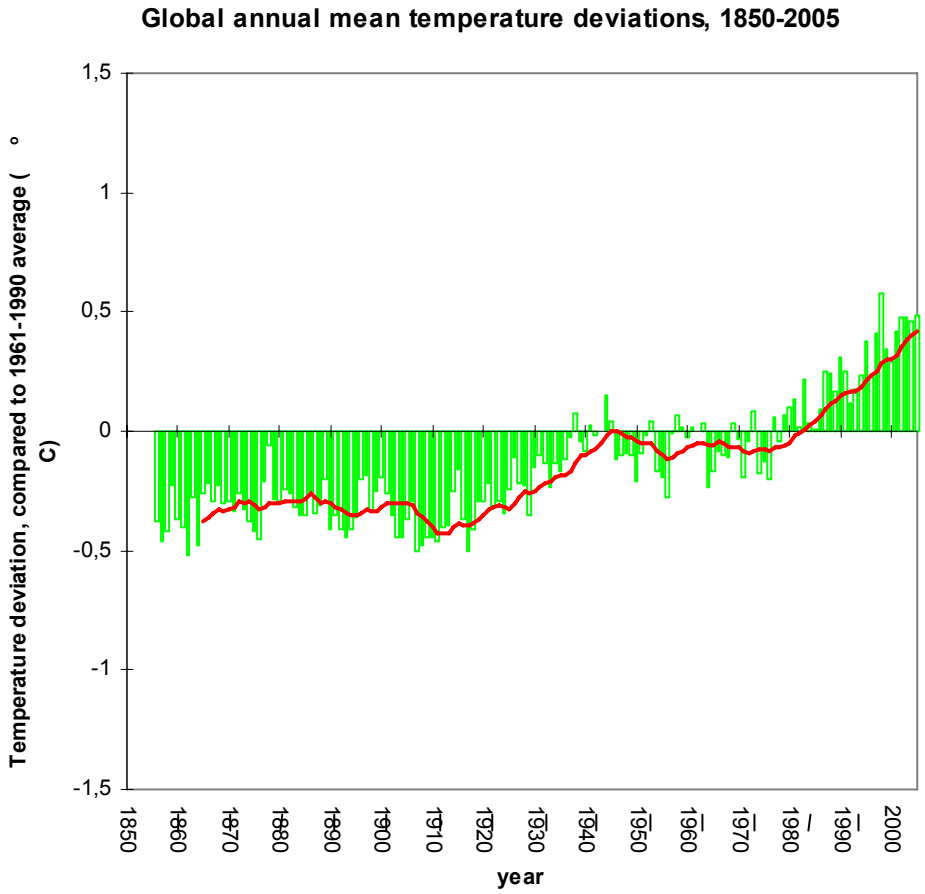
– reporting what action has been taken as a *response* to mitigate these pressures or driving forces.

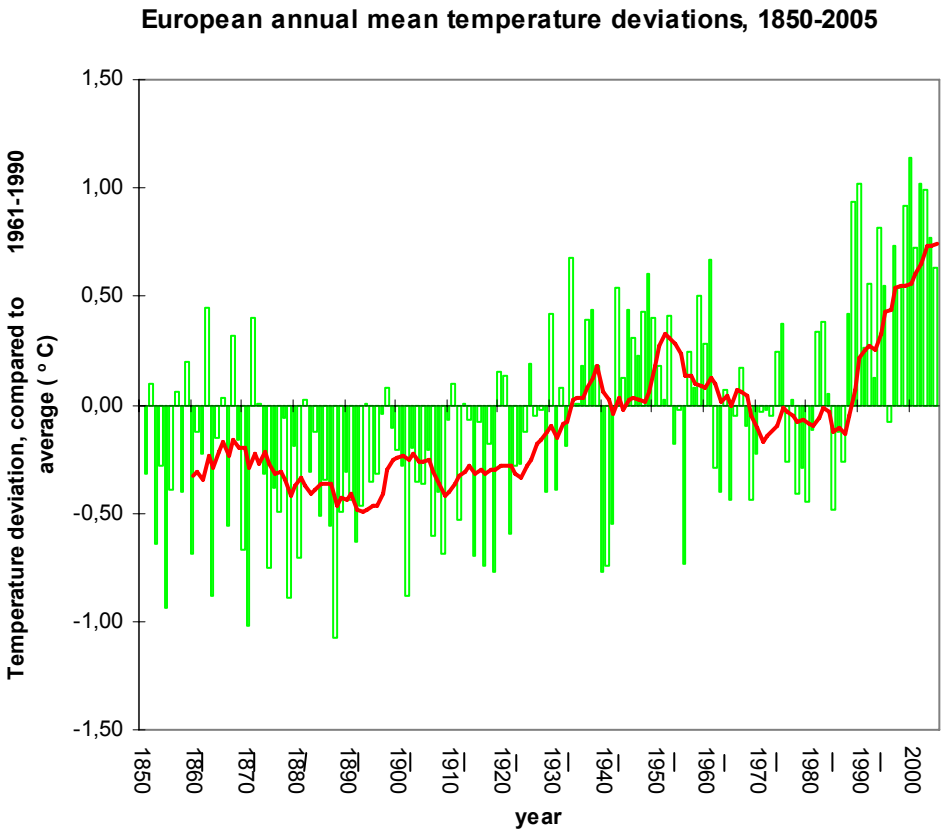
For some indicators, one graph on absolute levels (quantitative amounts) and one graph on average annual change[7] (in percentage) are included so that trends are evident, even if in the area of environment long-term changes are very common.

[4] http://ec.europa.eu/eurostat/structuralindicators
[5] http://ec.europa.eu/eurostat/sustainabledevelopment
[6] http://themes.eea.europa.eu/IMS/CSI
[7] Calculated as average of the annual changes in the three years reported

Climate change

***State indicator*: Global and European annual average temperature** (deviations compared with the 1961-1990 average)





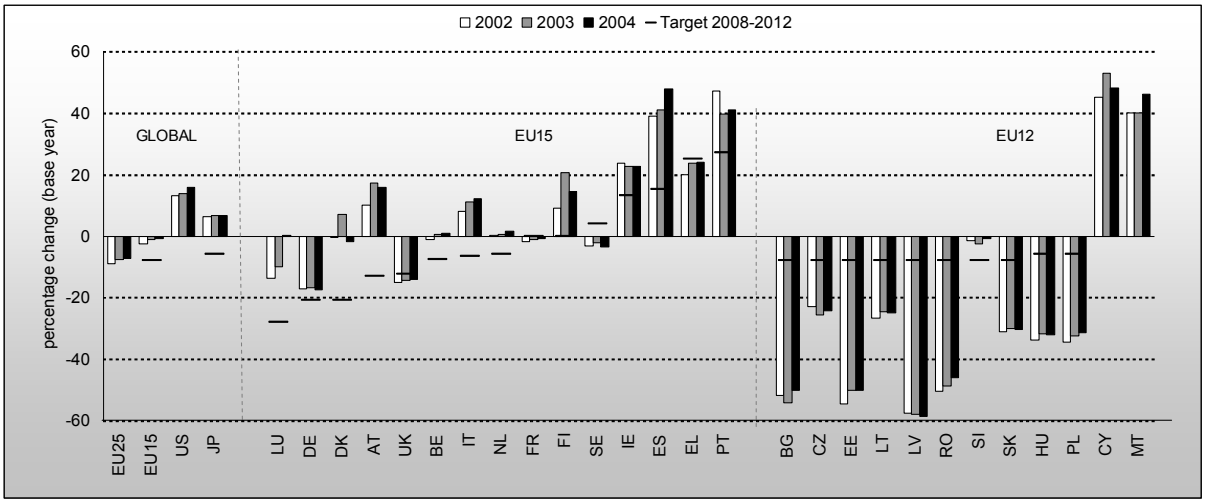
Source: European Environment Agency based on data from the Climate Research Unit, University of East Anglia and from the Royal Netherlands Meteorological Institute (KNMI)

Climate change needs a long-term view. The first graph, which illustrates the combined global land and marine surface temperature, shows an accelerating increase in temperature during the 20th century. The year 2005 was equal second warmest on record, exceeded only by 1998. During the last 100 years, the Earth has warmed by 0.76°C on average, and Europe by about 1.0°C, which scientists attribute to the accumulation of carbon dioxide and other greenhouse gases. The 15 warmest years on record all happened during the last 20 years, 11 of which have occurred since 1995. Scientific analyses also confirms that the second half of the 20th century was the warmest phase during at least the last 1300 years in the Northern hemisphere. The global average temperature is expected to increase between 1.1°C and 6.4°C during the 21st century, depending on the scenario, with a best estimate range from 1.8°C to 4°C for the world and from 4°C to 7°C for Europe. This projected warming would be in addition to the 0.76°C observed temperature increase in the last century.

Autumn 2006 (September-November) was exceptional in large parts of Europe, and more than 3°C warmer than climatologically normal from the north side of the Alps to southern Norway.[8]

[8] World Meteorological Organization, Statement on the Status of the global climate in 2006, December 2006 and Climate Research Unit, University of East Anglia 2007

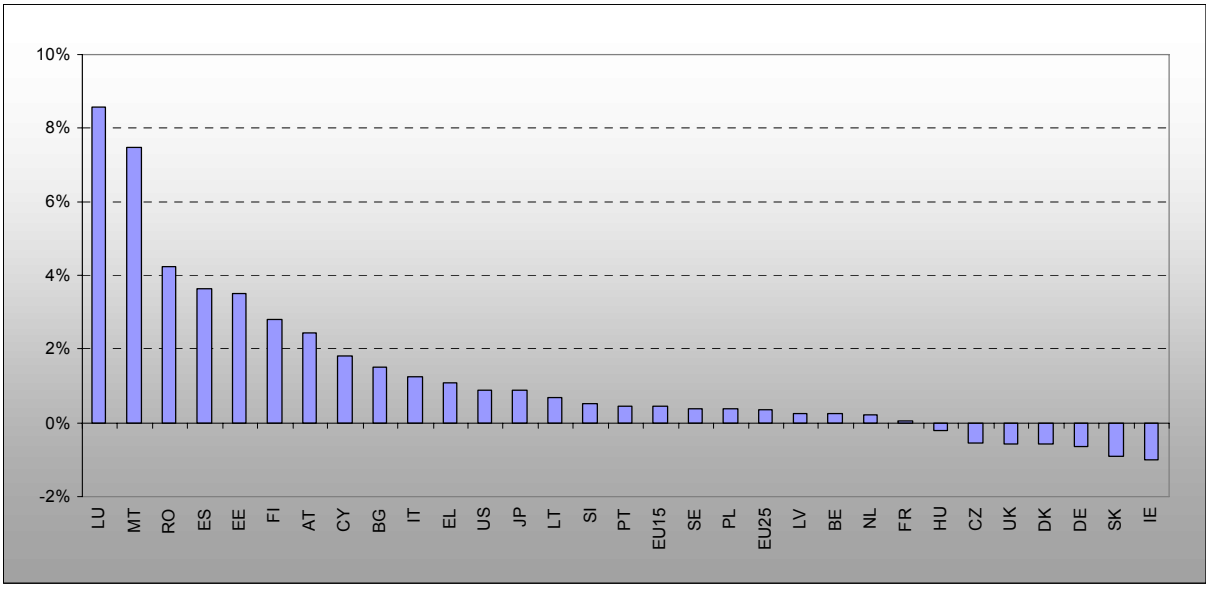
***Pressure indicator*: Total Kyoto greenhouse gas emissions (in CO_2 equivalents) as a percentage change of Kyoto base year emissions, with Kyoto Protocol / Burden-sharing agreement targets**



Data source: European Environment Agency, European Topic Centre on Air and Climate Change

The graph shows greenhouse gas emissions relative to the base years. The Kyoto target is included to show the distance to target. Overall, in 2004 the emission reduction against base year was 0.9 % for the EU-15, so a further emission reduction of 7.1 % is needed to meet the Kyoto target of 8.0% reduction compared to 1990 level.

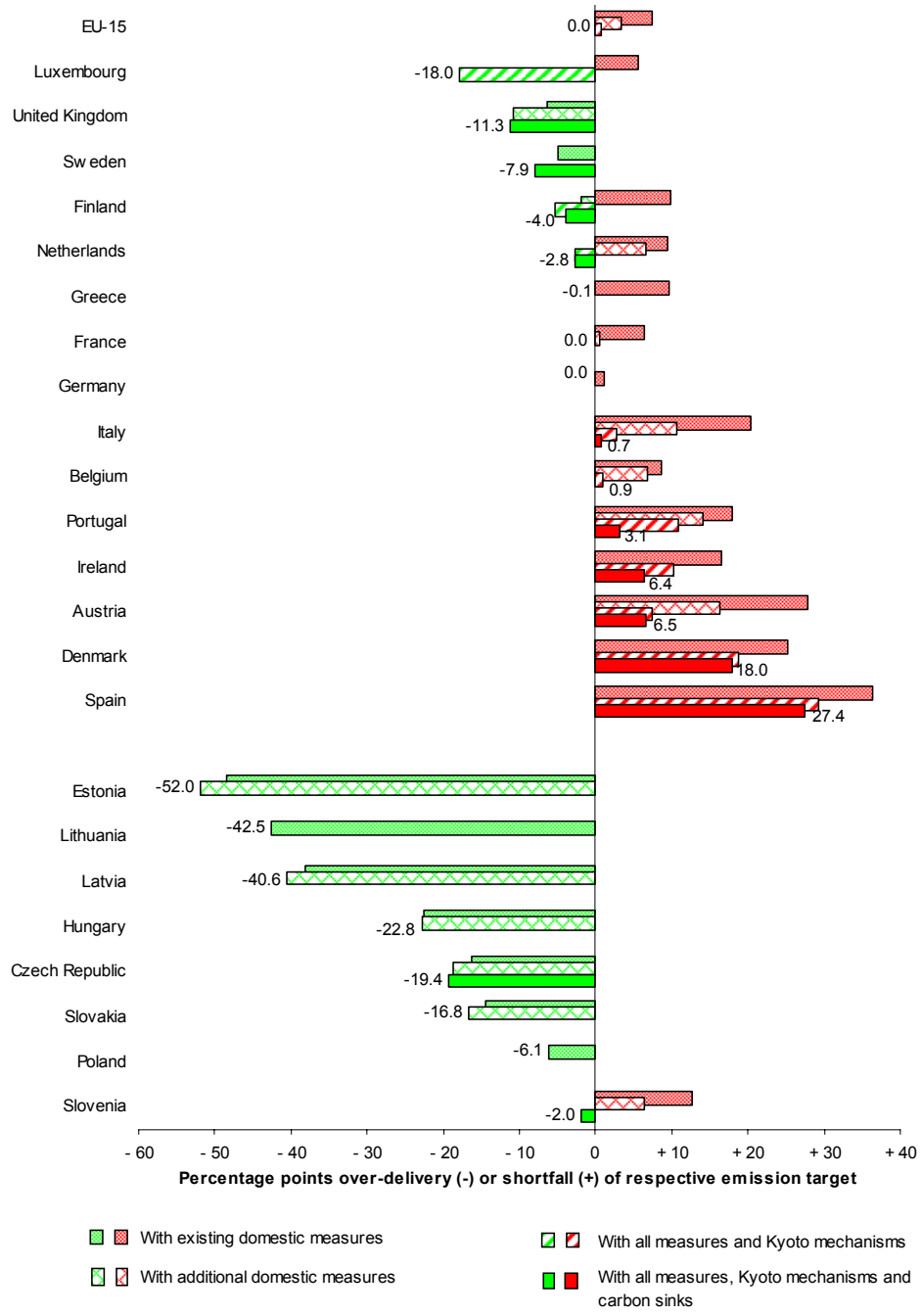
Greenhouse gas emissions: average annual change in the period 2002-2004 (in percent)



Source: DG Environment, based on the EEA data

During the period 2002-2004 emissions increased for the EU-15 and EU-25, and individual increases were observed in most Member States. In particular, greenhouse gas emissions increased on average more than 4% per year in 3 Member States (Luxembourg, Malta and Romania) while they decreased in 7 Member States (Ireland, Slovakia, Germany, Denmark, United Kingdom, Czech Republic and Hungary).

Performance indicator: **Projection for distance-to-target in 2010 (percentage points) for the EU-25, including Kyoto mechanisms, and additional policies and measures**[9]



Source: European Environment Agency

[9] Data from 2004; Data exclude emissions and removals from land-use, land-use change and forestry (LULUCF). For the following Member States the additional effects of the use of Kyoto mechanisms are included: Austria, Belgium, Denmark, Finland, Ireland, Italy, Luxembourg, the Netherlands and Spain. For EU-15 the effect of the use of Kyoto mechanisms is calculated based on information from these nine countries. Projections for Poland cover only CO2 and N2O. Projections for Spain cover only CO2. Projections for Cyprus and Malta are not available, as they do not have their targets under the Kyoto protocol.

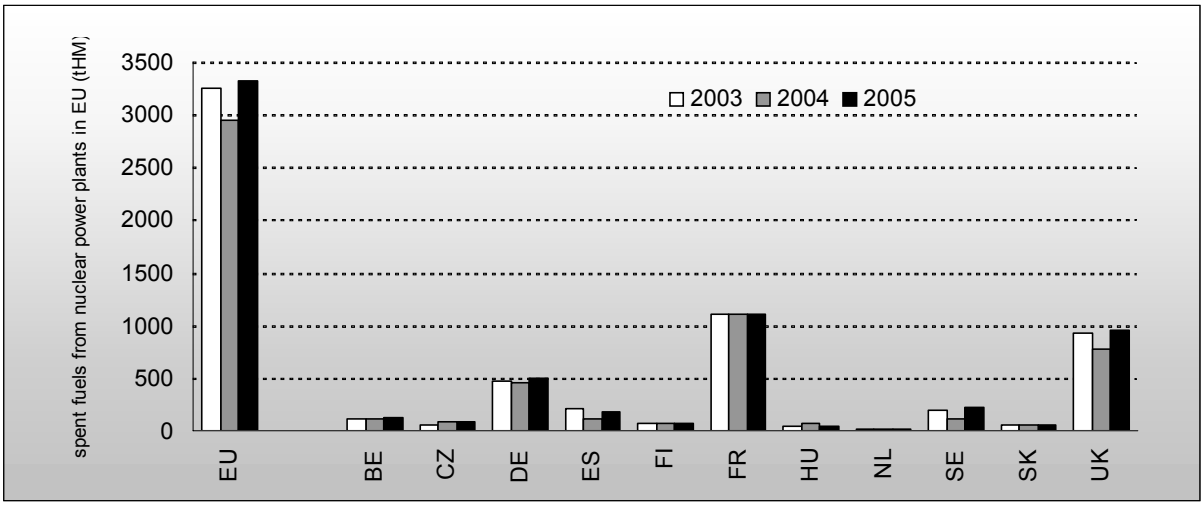
Under the Kyoto Protocol, the European Community (EC) has agreed to reduce its greenhouse gas emissions by 8% by 2008–12, from base year levels. By the burden sharing agreement this joint targets have been distributed to individual Kyoto targets for the EU 15 Member States. Based on the latest (2004) available inventory data, total greenhouse gas emissions in the EU-15, without Land Use, Land Use Change and Forestry (LULUCF), were only 0.9% lower, and with LULUCF 3.0% lower, than the base year.

Based on 2004 emissions trends, two Member States (Sweden and United Kingdom) were on track to achieve their individual targets by using existing domestic policies and measures. Six more Member States expect to over deliver (Finland, Luxembourg and the Netherlands) or meet (France, Germany and Greece) their commitments by additional measures and/or use of Kyoto mechanisms and/or the use of carbon sinks. The remaining seven Member States (Belgium, Denmark, Ireland, Spain, Austria, Italy and Portugal) project that they will miss their targets despite the implementation of additional measures or the use of Kyoto mechanisms or carbon sinks.

All new EU Member States, except Slovenia, were well on track in 2004 to meet their Kyoto targets using existing domestic policies and measures. Slovenia projects that it will meet its Kyoto target with additional policies and measures and by including carbon dioxide removals from land-use change and forestry.

Key additional policies measures reported by Member States are: promoting electricity generation from renewable energy sources, cogeneration policies and energy efficiency policies.

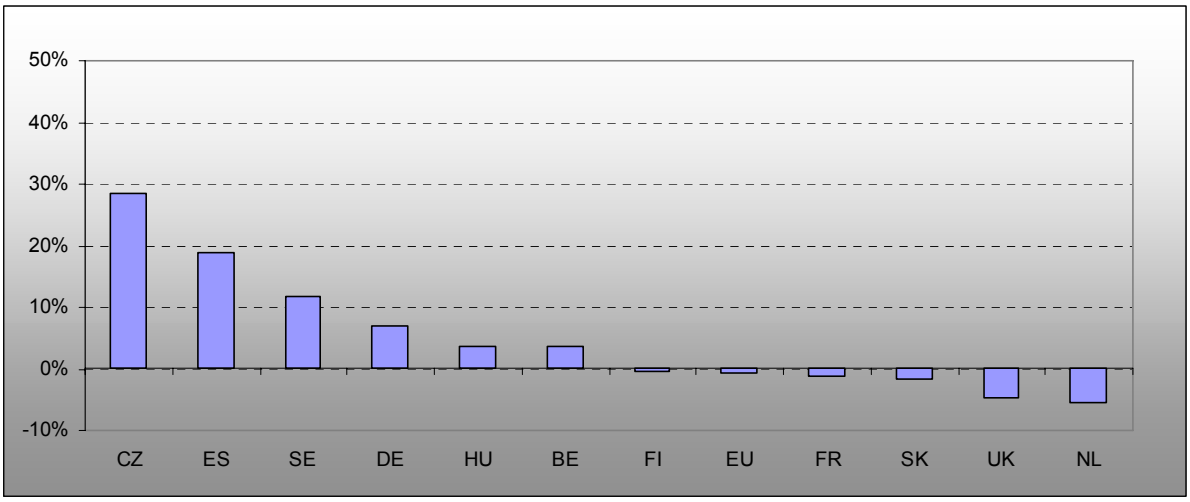
Driving force indicator: **Spent fuel from nuclear power plants**[10]



Data source: OECD (2005) Nuclear Energy Data, Nuclear Energy Agency

Besides fossil fuels and renewable energy, nuclear fission contributes to energy production. Nuclear energy represents one third of the EU's present electricity generation. The related environmental impacts and risks are mainly due to mining, processing and storage of radioactive substances, mostly heavy metals.

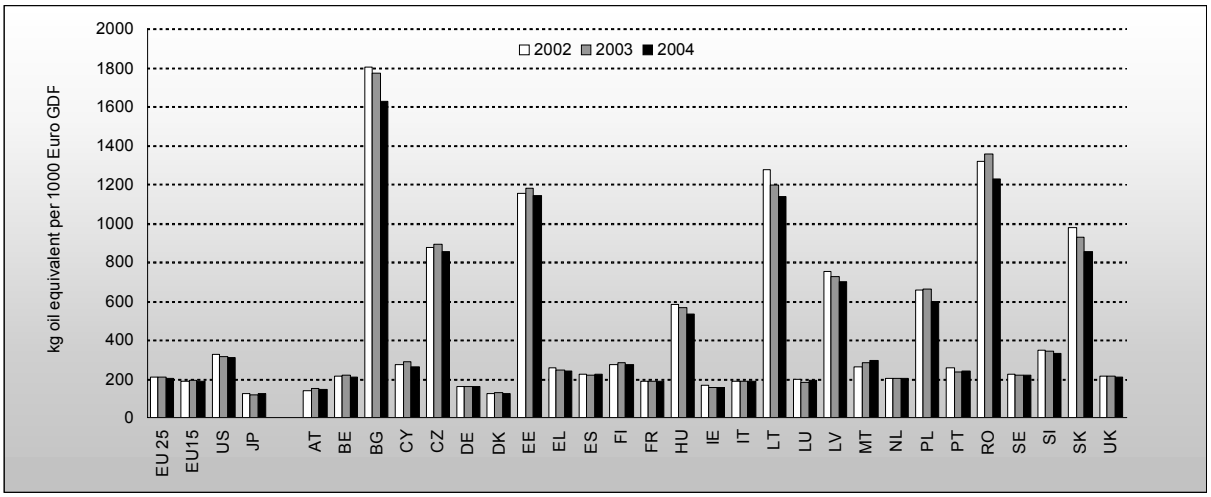
Spent fuel from nuclear power plants: average annual change in the period 2003-2005 (in percent)



During the period 2003-2005, the EU has on average decreased its spent nuclear fuels by approximately 0.5% per year on average. The graph shows that trends among Member States are very different.

[10] The vast majority of highly radioactive waste consists of spent fuel and spent fuel reprocessing wastes. No data on quantities of spent fuel are available for Lithuania, Slovenia, Bulgaria and Romania and limited time series data are available for the Czech Republic and Hungary (no data prior to 1995) and Slovakia (no data prior to 1999). The Member States not listed in the above figure do not have nuclear power plants. Italy phased out commercial nuclear power in 1987.

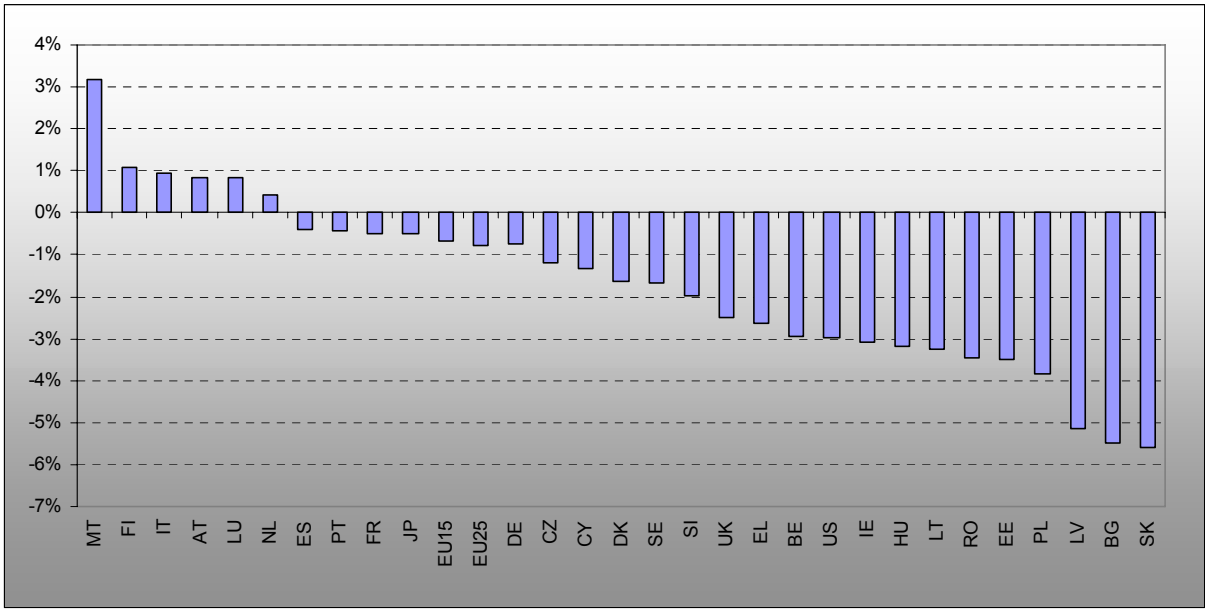
Efficiency indicator: **Energy intensity (tonnes oil equivalent used per €1000 GDP)**



Data source: Eurostat

The amount of energy needed to produce the same economic output differs enormously, within the EU and worldwide, between under 150 and over 1 500 kg oil equivalent per €1000 GDP. Globally, energy intensity is higher in the new Member States than in the old Member States. Increasing energy efficiency is one of the indispensable responses to climate change, especially as many options are profitable in business terms. The EU Action Plan for Energy Efficiency[11] gives the figure of €100 billion for the annual energy saving potential for the EU and aims at 20% of energy savings by 2020 compared to the baseline scenario as forecasted in 2005.

Energy intensity: average annual change in the period 2002-2004 (in percent)

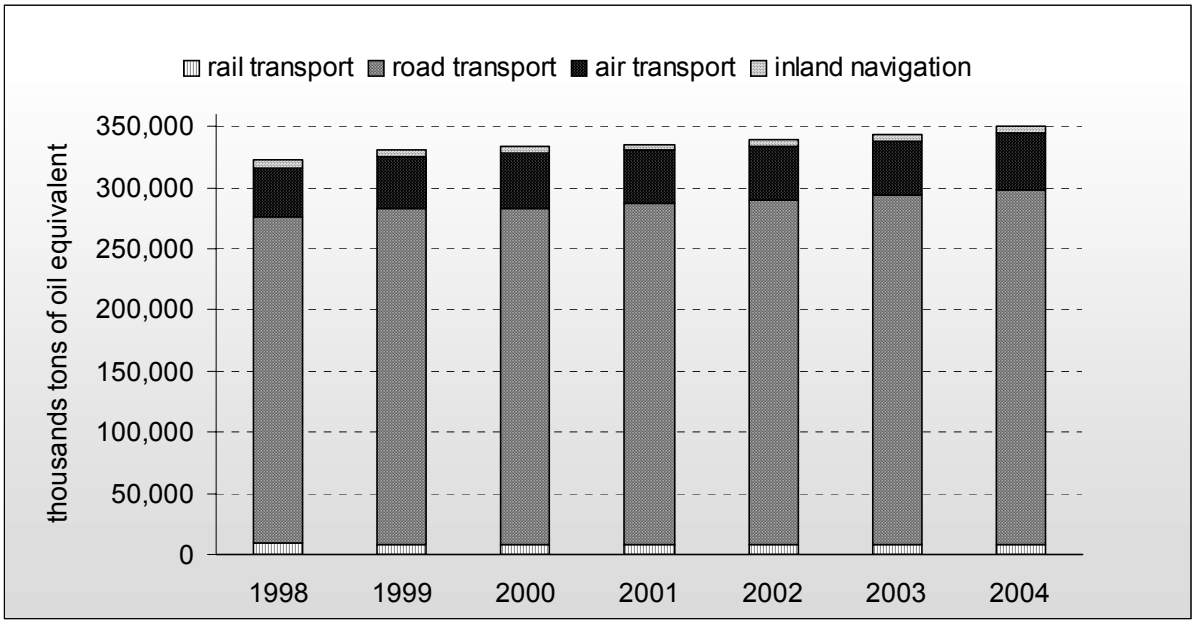


Source: DG Environment, based on Eurostat data

[11] COM (2006) 545

During the period 2002-2004 energy intensity has on average decreased by less than 1% per year in both EU-15 and EU-25. Six Member States have on average increased their energy intensity during the reported years, but most Member States have decreased their energy intensity. Seven new Member States have decreased their energy intensity on average by more than 3% per year.

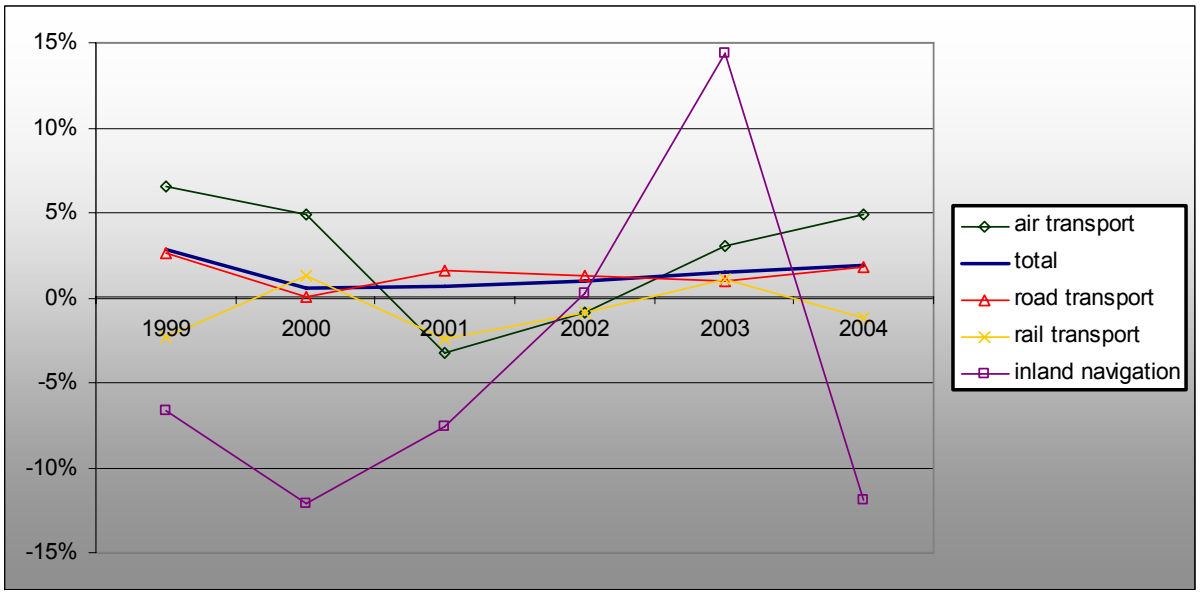
Driving force indicator: **Final energy consumption by transport**



Data source: Eurostat

Energy use for transport is a major contributor to greenhouse gas emissions as the energy comes mainly from fossil fuels. Road transport is the largest energy consumer in the transport sector, followed by aviation. The increase in road transport also offsets reductions in emissions of air pollutants due to technological vehicle development. Final energy consumption in the EU-25 increased by 6.6% between 1998 and 2004. Transport is the largest consumer of final energy, accounting for 30.7% of total in 2004.

Final energy consumption by transport: annual changes in the period 1999-2004 (in percent)



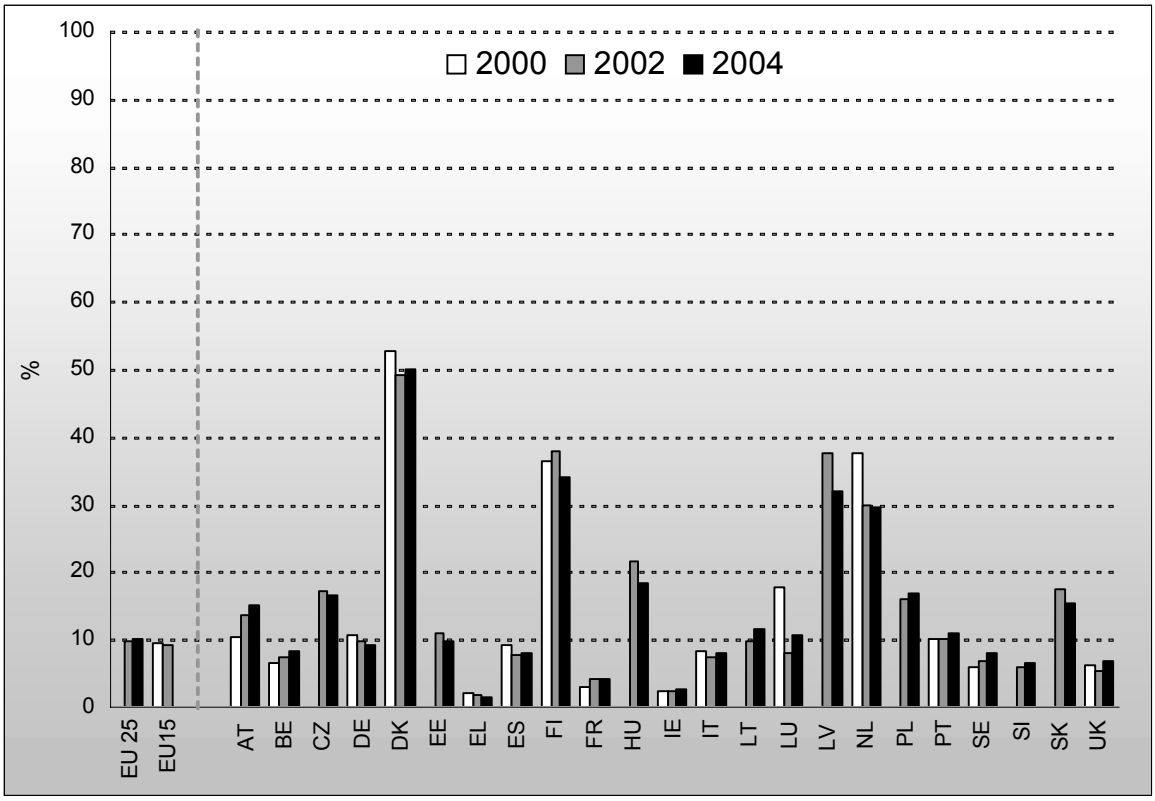
Source: DG Environment, based on Eurostat data

During the last six years reported the energy use for transport grew permanently, due to increased energy use in road and air transport, while energy use in inland navigation decreased in most years.

Final energy consumption by transport increased by 8.5% between 1998 and 2004. In 2004, 82.7% of all final energy consumption by transport came from road transport, which is by far the major contributor to final energy consumption among transport modes; road is the only transport mode which has constantly increased in the recent years. The other mode which significantly contributes to final energy consumption is air transport, with 13.4% in 2004. This share has increased constantly since 1998 (12.5%), apart from 2001 and 2002.

Greenhouse gas emissions from transport accounted for 21% of total EU-15 emissions in 2004 and transport caused the largest increase in greenhouse gas emissions between 1990 and 2004 (+26%). Road transport was by far the biggest transport emission source (93% share).

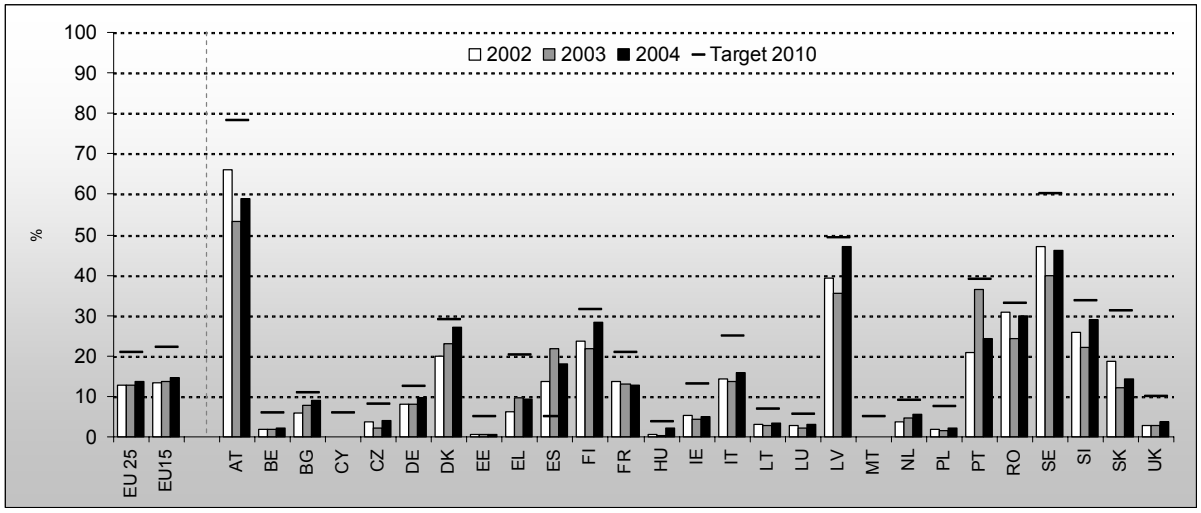
Response indicator: **Combined heat and power generation (% of gross electricity generation)**



Source: Eurostat. Data for Cyprus and Malta are 0.

The combined production of electricity and usable heat can boost efficiency of energy production by a factor two or three. The Member States leading in the use of this technology are Denmark, Finland, Latvia and the Netherlands with shares of 30 % or more for the last year reported, while Greece, France and Ireland have only shares of less than 5%. The annual changes should be interpreted with care as the statistical methodology has evolved over time.

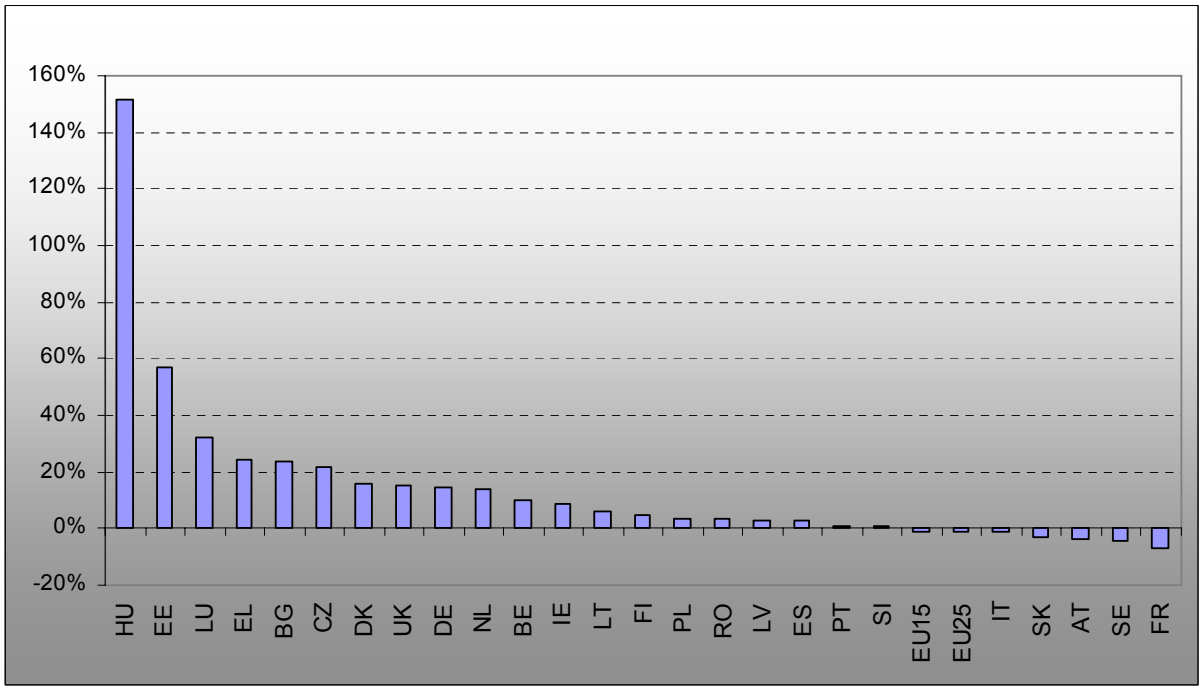
***Response indicator*: Electricity produced from renewable energy sources**



Data source: Eurostat

In 2004, in EU-25 13.7% of electricity is produced from renewable energy sources, showing an increase compared to the previous year. According to Eurostat data, most of this (almost 70%) comes from hydropower, while the rest comes mainly from biomass (about 15%) and wind (about 13%). Certain countries have a greater natural potential for producing renewable energy, in particular Austria and Sweden have an important hydropower potential. The EU target is to produce 21% of all electricity from renewable energy sources by 2010.

Electricity from renewable energy sources: average annual change in the period 2002-2004 (in percent)

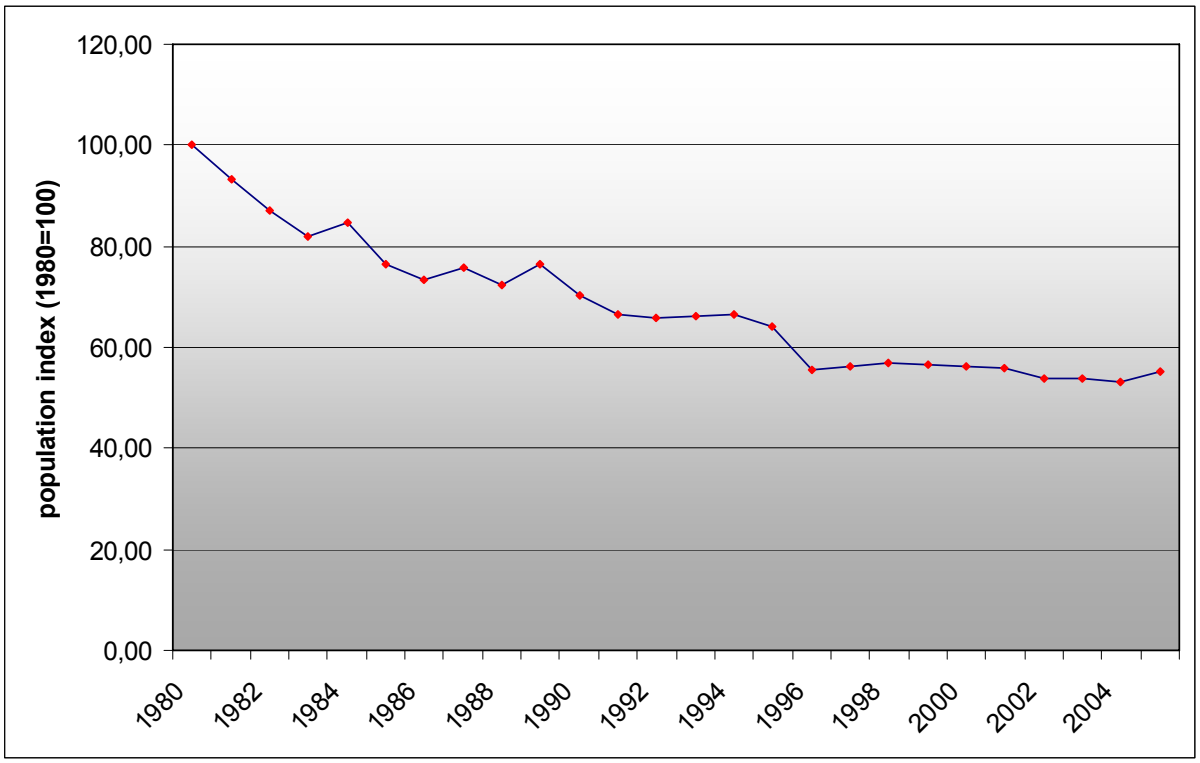


Source: DG Environment, based on Eurostat data

The share of electricity from renewable energy sources for EU slightly decreased in the period 2002-2004 on average. Hungary and Estonia had the higher average yearly growth rate. Most of the Member States on average increased their share of renewables during the reported period; however the opposite occurred in France, Sweden, Austria, Slovakia and Italy, having slight negative changes.

Nature and biodiversity

State indicator: **Population trends of farmland birds in Europe**



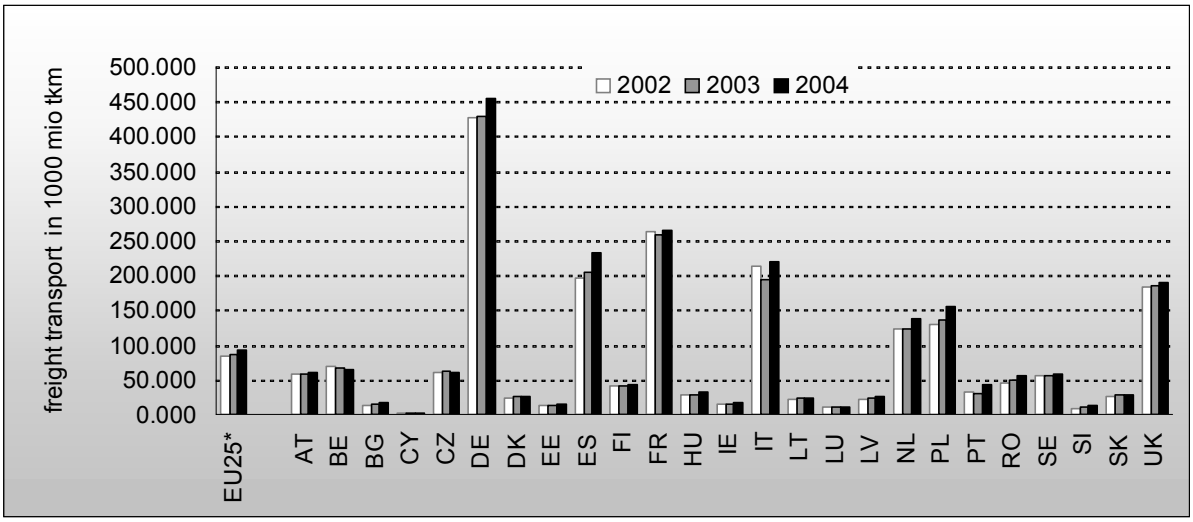
Source: EBCC/RSPB/BirdLife/Statistics Netherlands

Halting the loss of biological diversity by 2010 is an important target for the EU. Birds are considered good proxies for biodiversity and the integrity of ecosystems because they are well known, widespread, mobile, they tend to be at (or near) the top of the food chain, have large ranges and are responsive to environmental changes.

The Common farmland birds index[12] shows a negative trend over the period 1980-2005, indicating that the populations of common farmland birds have become more threatened overall during this time, with the improving status of some species benefiting from conservation action being outweighed by the deteriorating status of many other species.

[12] The Common farmland birds index is based on data from the European Bird Census Council (EBCC, http://www.ebcc.info/), the Pan-European Common Bird Monitoring scheme (PECBM), BirdLife International and Statistics Netherlands. The methodology has recently improved and the index covers 33 species from 18 countries (Austria, Belgium, Czech Republic, Denmark, Estonia, Finland, France Germany, Hungary, Ireland, Italy, Latvia, the Netherlands, Poland, Portugal, Spain,, Sweden, United Kingdom).

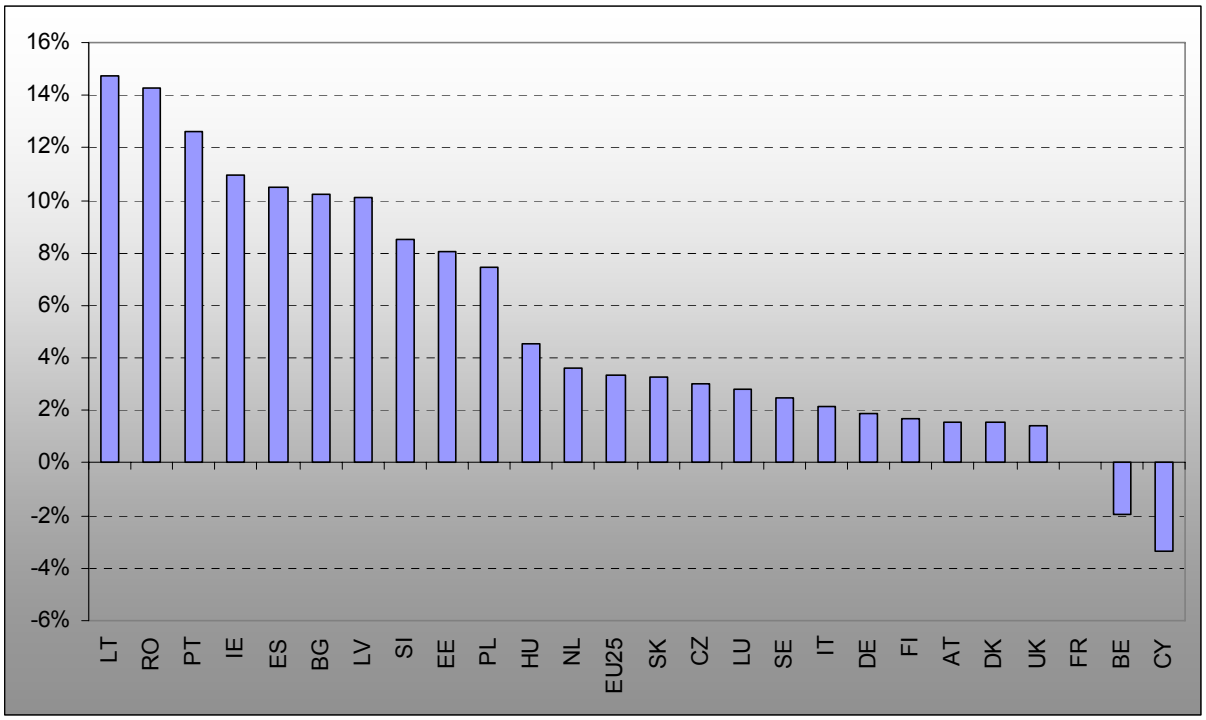
Driving force indicator: **Freight transport (by road, rail and inland waterways) in tkm**



Data source: Eurostat, * The data for Greece were not available; figures for Cyprus are low, while data for Malta were not available

Transport of goods is one important driving force behind the request to increase transport infrastructure. Transport infrastructure in most cases has negative impacts on nature and biodiversity. Freight transport in the EU has continuously increased in the recent years. In 2004 freight transport was highest in Germany, followed by France, Spain and Italy.

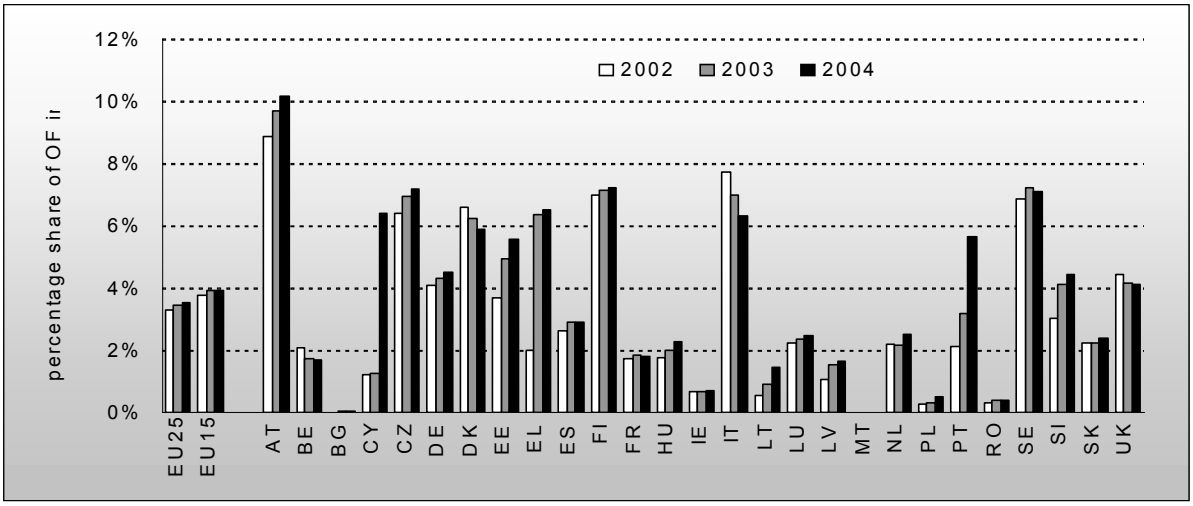
Freight transport: average annual change (in percent) in the period 2002-2004



Source: DG Environment, based on Eurostat data * The data for Greece were estimated, no data for Malta were available

In the period 2002-2004, freight transport has increased on average in most Member States and the EU-25 as a whole, while for Belgium and the Cyprus it reduced on average by at least 2% per year. In France freight transport did not change on average during these years. For Lithuania, Romania, Portugal, Ireland, Spain, Bulgaria and Latvia the yearly average growth rate during 2002-2004 was above 10 %.

Response indicator: **Area occupied by organic farming (hectares)**[13]



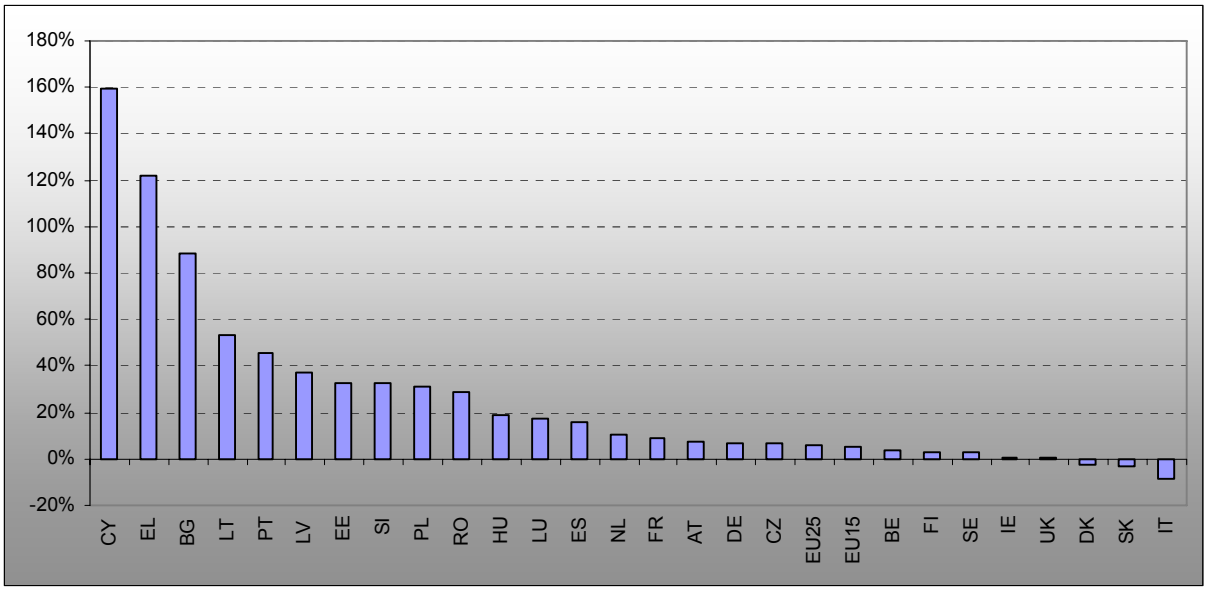
Data source: Eurostat and Institute of Rural Sciences, University of Wales, Aberystwyth

Note: in 2004 Malta had 1 ha of area occupied by organic farming.

Organic farming is a system of farming that has reduced pressures on the environment and has been shown to be beneficial for biodiversity. The area under organic farming is therefore an indirect indicator of farmland biodiversity protection. The area under organic farming in 2004 covered about 5.8 million ha in the EU-25, i.e. 3.5% of total usable agricultural area (UAA). The share of organic farming in usable agricultural area varies considerably between and within Member States. In 2004 Austria, Czech Republic, Finland and Sweden had the highest share of organic farming, being more than twice the EU average.

[13] Farming is only considered to be 'organic' at EU-level if it complies with Council Regulation (EEC) No 2092/91.

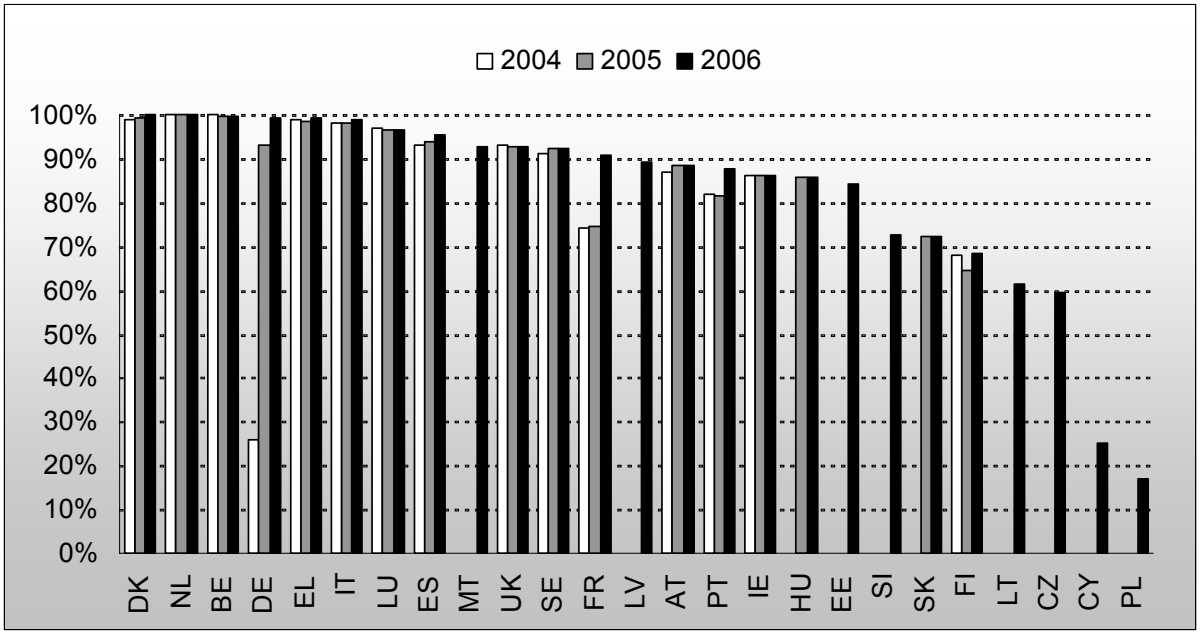
Area occupied by organic farming: average annual change in the period 2002-2004 (in percent)



Source: DG Environment, based on data by Eurostat and Institute of Rural Sciences, University of Wales, Aberystwyth

In the period 2002-2004 the share of organic farming in EU-25 increased on average by almost 6% per year, which is lower than the increases in previous years. Ten Member States had an annual average increase in organic farming of more than 20% in the period 2002-2004, the strongest growth being registered for Greece and Cyprus. For Italy, Slovakia and Denmark the 2002-2004 data indicate a slight reduction of the average percent change of area occupied by organic farming, Italy and Denmark starting from a high percentage share of total agricultural land.

Response indicator: **State of progress by Member State in reaching sufficiency for the Habitats Directive Annex I habitats and Annex II species (%)**



Data source: European Environment Agency, European Topic Centre on Biological Diversity

Note: Some Member States did not provide a formal proposal for designated areas in 2004 and 2005. 2006 data refers to the situation on December 2006.

This indicator explains the state of implementation of Habitats Directive[14], in particular the fulfilment of minimum standards required by Directive.

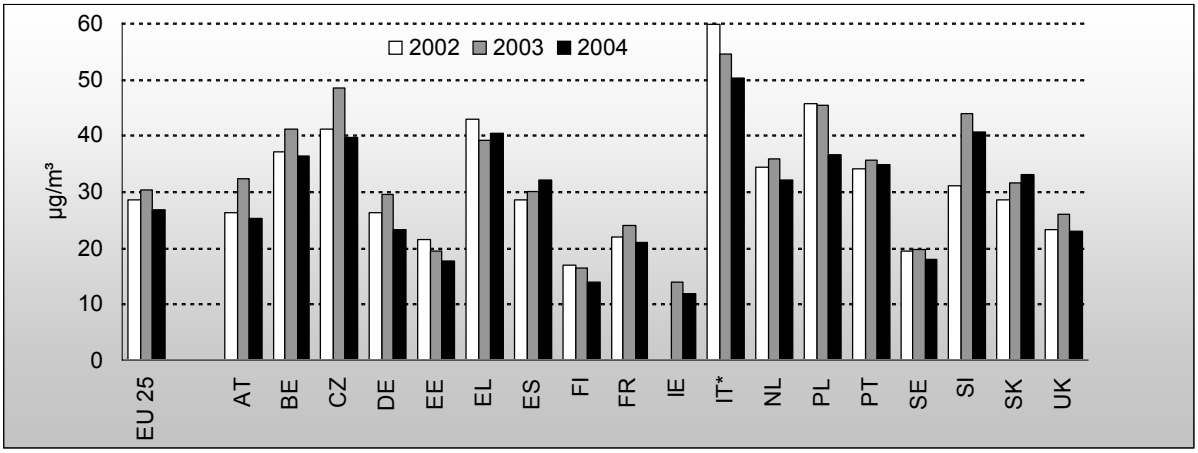
In 2006 Denmark and the Netherlands are fully in compliance with the minimum standards of the Habitats Directive, while other five old Member States are close to fully applying them. All new Member States (except Malta, Latvia, Hungary and Estonia) have reached less than 80% of minimum standards, and Poland is very far from reaching them.

In 2006 the situation improved in most EU countries, in particular in France, Germany, Portugal and Finland, although the latter only recovers from previous loss.

[14] The aim of the Habitats Directive (Directive 92/43/EEC) is the conservation of natural habitats and of wild fauna and flora, through the creation of a Europe-wide network of special conservation areas, Natura 2000.

Environment and health

State indicator: **Urban population exposure to air pollution by particles (µg PM_{10}/m^3)**[15]

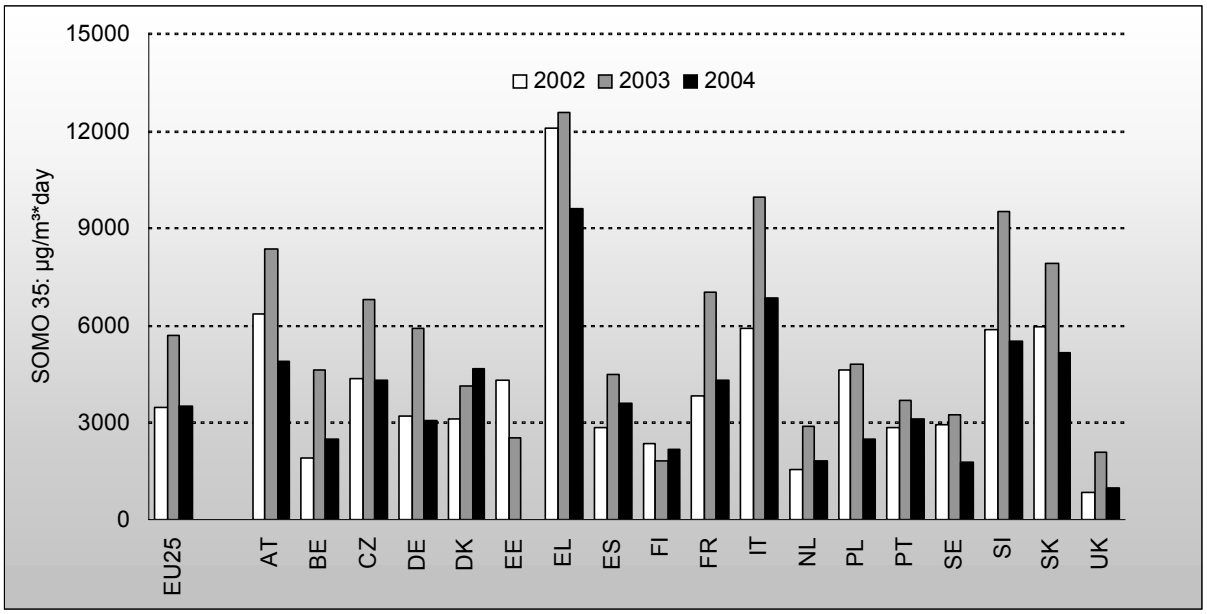


Source: European Commission, DG Environment, Mandatory reporting by Member States under Exchange of Information Decision 1997/101/EC and Directive 2002/3/EC. * IT: information covers very limited percentage of the total population

Chronic exposure of the population to particulate matter has serious health implications. To portray these risks the indicator shows the annual mean of the urban background concentration of PM_{10}. Year to year trends are strongly influenced by meteorology, with conditions in 2003 causing high concentrations of particulate matter in ambient air.

[15] Population weighted annual mean concentration of particulate matter (PM_{10}: particulate matter with a diameter smaller than 10 µm) at urban background locations in agglomerations. To ensure comparability only data from measurement stations operating in all three years is used. This requirement limits the coverage to 18 Member States.

State indicator: **Urban population exposure to air pollution by ozone (SOMO35)**[16]



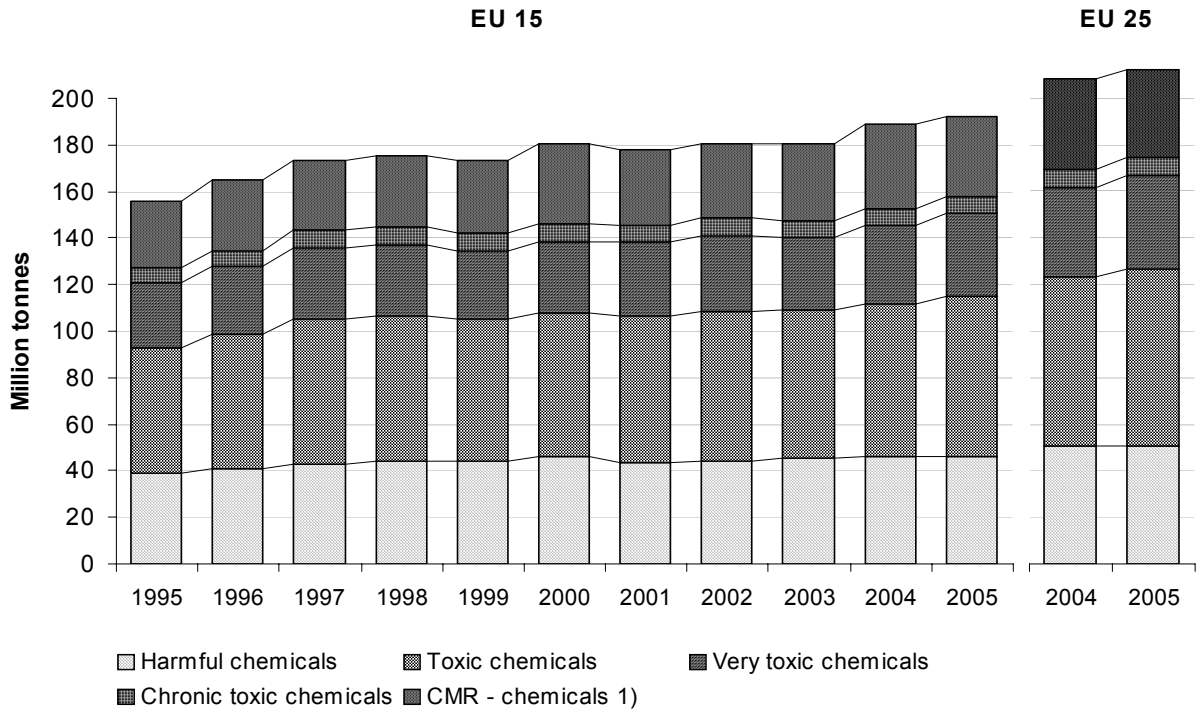
Source: European Commission, DG Environment, Mandatory reporting by Member States under Exchange of Information Decision 1997/101/EC and Directive 2002/3/EC

Increased concentrations of ground-level ozone cause health risks. While in the past the focus was mainly on peak concentrations during the summer, new evidence shows that continuous exposure to lower level concentration also has a significant detrimental impact on human health. The methodology behind the ozone indicator captures the combined risks from low concentrations, with any figure above zero indicating a risk to health. The graph shows large differences between Member States, as ozone concentrations depend on geographic and climatic conditions, local air emissions and transboundary contributions.

Given that the heat wave in 2003 boosted ozone concentrations in most Member States, the data show no significant trend.

[16] Population weighted annual mean concentration of ozone (SOMO35: Sum of Means Over 35 ppb ozone) at urban background locations in agglomerations. To ensure comparability only data from measurement stations operating in all three years is used. This requirement limits the coverage to 17 Member States.

Pressure indicator: **Production of toxic chemicals in EU-15 and EU-25 (million tonnes), by toxicity class**[17]



Source: Eurostat

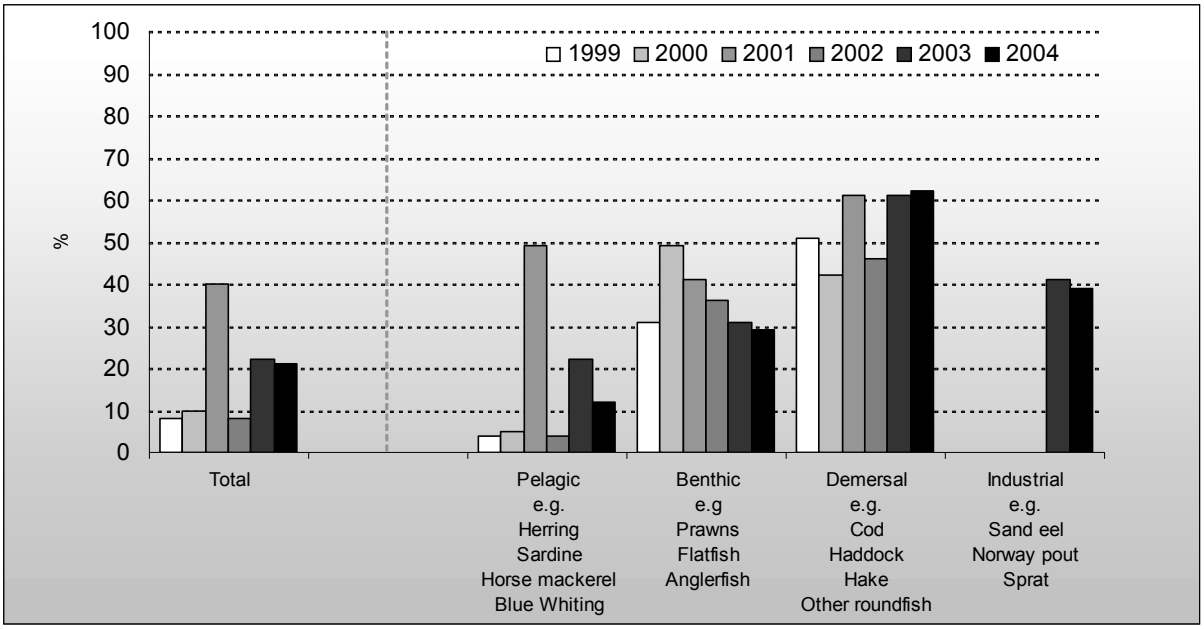
This data set, covering EU-15 and, from 2004 also EU-25, shows increased production of toxic chemicals during the second half of the 1990s. The toxic chemicals covered by this indicator are divided into five toxicity classes. The most dangerous ones are the CMR chemicals (carcinogenic, mutagenic and reprotoxic), followed by chronic toxic chemicals, very toxic chemicals, toxic chemicals and harmful chemicals. The graph shows that between 1995 and 2005 the production of toxic chemicals increased by 23,5%, with a 25% growth of the most dangerous group (Carcinogenic, mutagenic and reprotoxic chemicals: shown as 'CMR-chemicals').

The relatively high growth of CMR chemicals within the group of toxic chemicals represents a worrying trend if continued. The coming years, following the entry into force of REACH, will have to show whether an absolute decoupling of the production of toxic chemicals from the total chemical production will be achieved.

[17] The classes are derived from the Risk Phrases assigned to the individual substances in Annex 6 of the Dangerous Substance Directive (Directive 67/548/EEC as last amended in 2001).

Resource use

State indicator: **Percentage of fish catches from stocks outside safe biological limits**



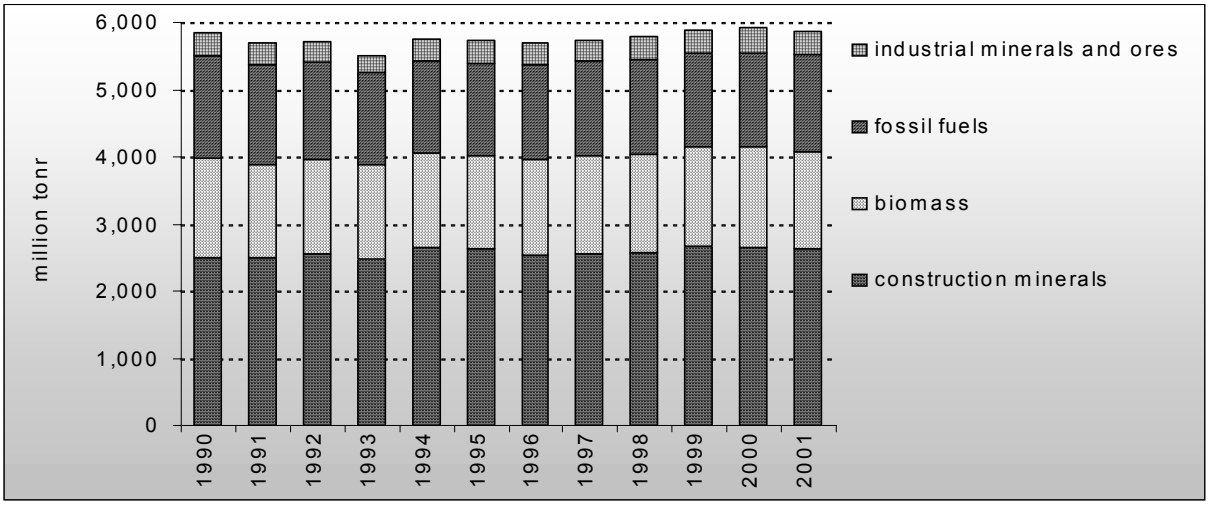
Data source: European Commission, DG Fish, International Council for the Exploration of the Sea, Eurostat

This indicator links biodiversity, ecosystems and sustainable use of natural resources. It shows the percentage of fish landings which originate from fish stocks managed under EU responsibility considered to be over-exploited. Prior to 2000 the overall figure fluctuated around 10 %. In 2004 a total of 21 % of the fish catches came from unsustainably managed sources. While benthic and demersal stocks have been overexploited for several years, the pelagic and industrial stocks came under threat only recently.

In recent years the trend for the total has been largely fluctuating. This is due to the fact that some important pelagic and industrial[18] stocks, which supply large catches, fell below safe biological limits during the most recent years, in particular in 2003. Detailed analysis of the other two categories of fish show that demersal stocks have shown a steady deterioration, while only the situation for benthic stocks seems to have continuously improved, although at a decreasing rate.

[18] Benthic fish live on or in the sea bed. Demersal fish live in close relation to the bottom and depend on it, while pelagic fish spend most of their lives in open water. Products from industrial fish are used for industrial processes, not for human consumption.

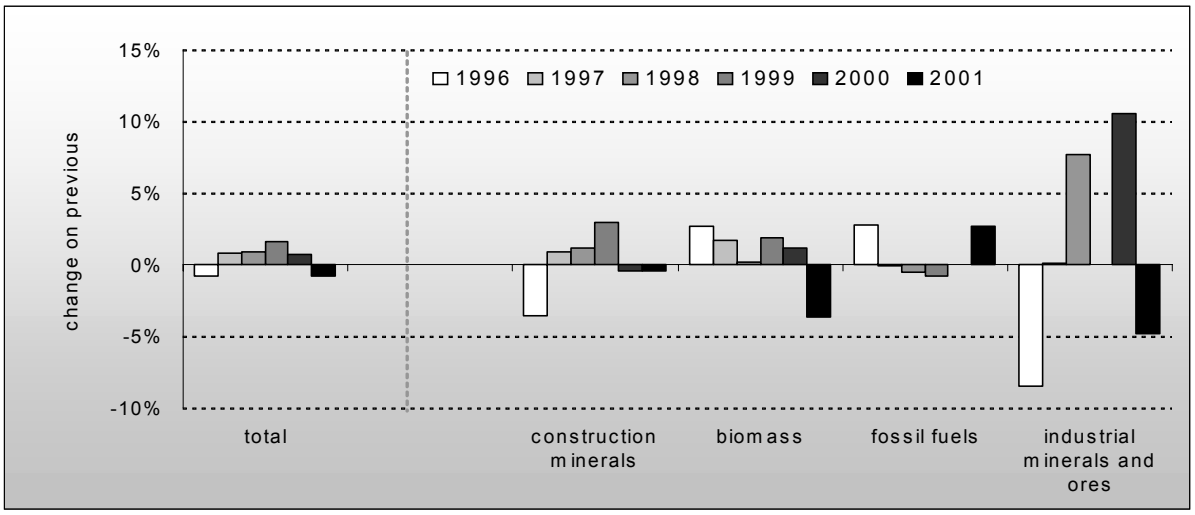
Pressure indicator: **Domestic material consumption (million tonnes) in the EU-15 by material[19]**



Data source: Eurostat

The use of natural resources can exert significant pressures on the environment: the use of materials is one aspect (besides e.g. land and water use). The graph shows the amount of material consumption by type of material. The reduction of material consumption could be a first step to improve resource efficiency. The final policy aim is to reduce the environmental impact due to the use of natural resources while ensuring economic growth, in particular to ensure that the reproduction rate of renewable resources is not diminished through overexploitation.

Domestic material consumption: yearly change in the period 1996-2001 (in percent)

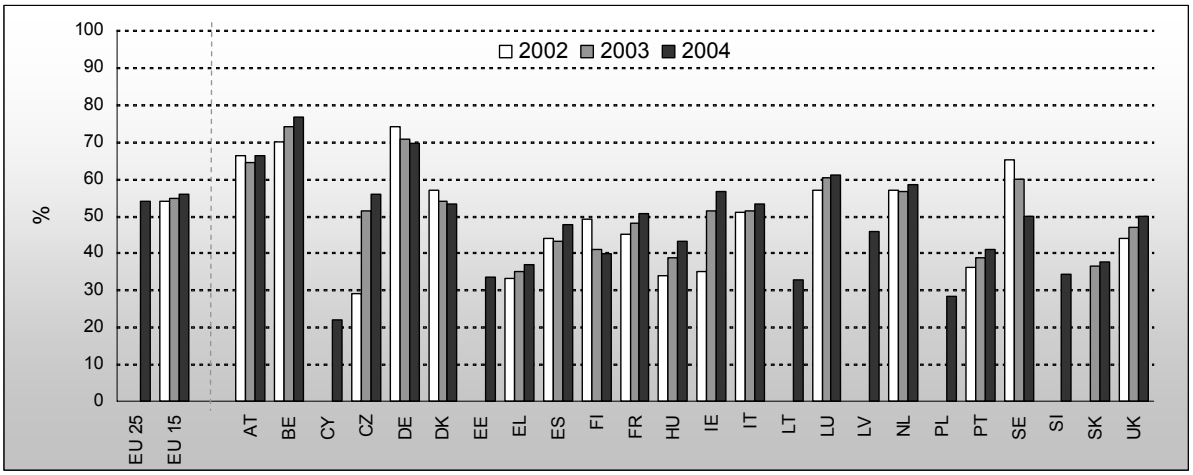


Source: DG Environment, based on Eurostat data

[19] Fossil fuels include coal, crude oil, natural gas and others; biomass comprises food, feed, animals, forestry and non-edible biomass.

Total material use, in particular industrial minerals and ores, has increased during recent years. Environmental technologies are one key tool to reduce the environmental impact of this growing resource use.

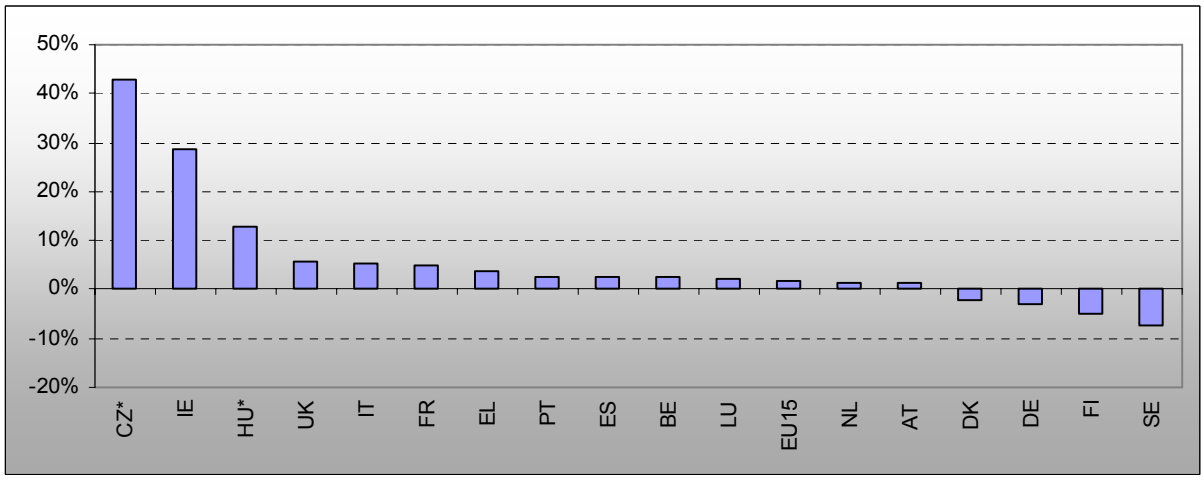
Response indicator: **Recycling rates of packaging waste (percentage)**



Source: European Commission, DG Environment, Mandatory reporting by Member States under Commission Decisions 97/138/EC and 2005/270/EC

Recycling is one important response to the waste of natural resources. It saves material from being lost in landfills or incinerators and by replacing virgin materials, recycling can reduce environmental impacts. Belgium and Germany reach the highest levels of recycling, although with opposite trends: while Belgium is still increasing its recycling rate, Germany's rate is falling. Some Member States achieve only half of the rates of these two top-runners. While the new Member States on average have a lower recycled rate than old Member States, the Czech Republic is out-competing many members of EU-15.

Recycling rates of packaging waste: average annual changes in the period 2002-2004 (in percent)



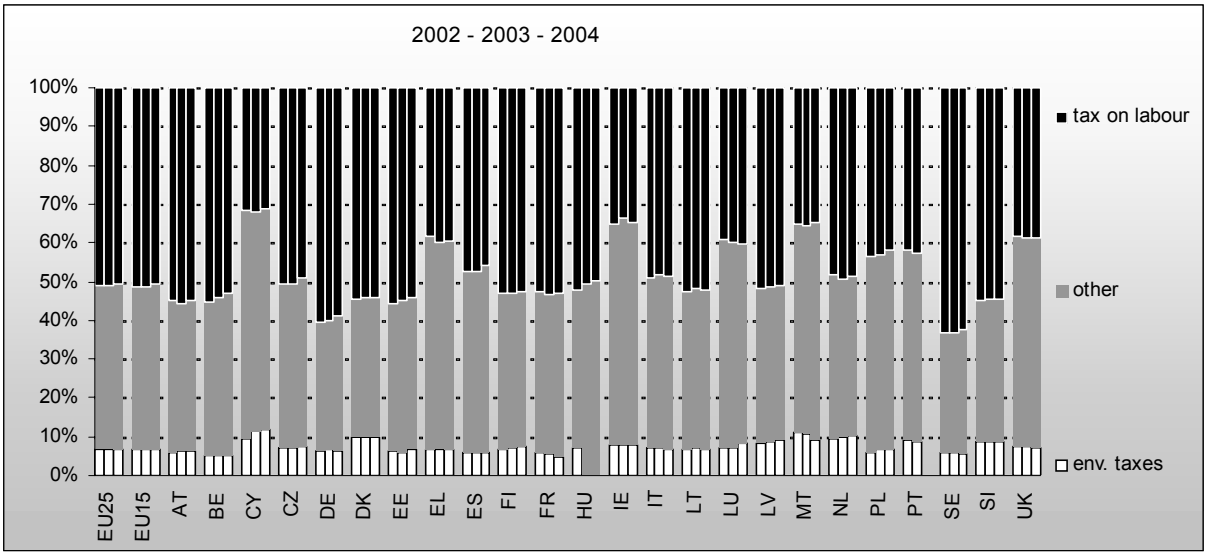
Source: DG Environment. * : Data for CZ and HU refer to average annual change in percentage from 2003 to 2004.

Although on the European scale, there has been a continuous increase in the recycling rate of packaging waste, the situation varies significantly between Member States. During the period 2002-2004 three Member States (Czech Republic, Ireland and Hungary) had an average annual increase in recycling rate of more than 10%: in the Czech Republic this was almost 43%, while it was more than 28% for Ireland. Packaging waste is roughly 5% of total waste

generation. A more comprehensive picture on waste generation and recycling will become available in early 2007, prompted by the Waste Statistics Regulation.

Environment and the economy

Response indicator: **Environmental taxation: share of environmental taxes in total tax revenue compared to taxes on labour (percentage)**

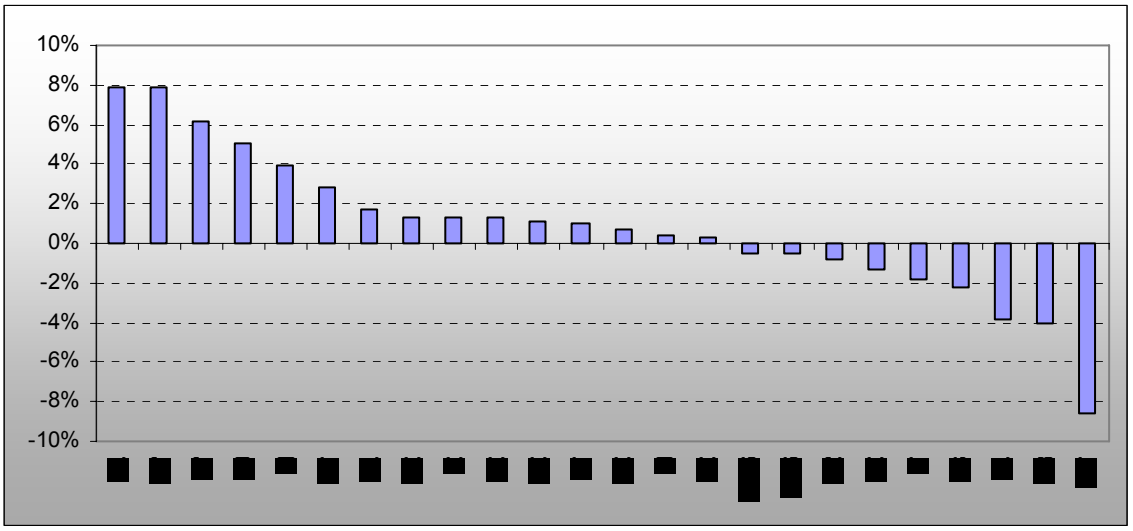


Data source: Eurostat 2006[20]

Environmental taxes are a good example of the use of market-based instruments for environmental policy purposes. The levels at which Member States use this tool vary between less then 6% in France, Belgium and Sweden, but over 10 % in Cyprus and the Netherlands.

[20] Structures of taxation system in the European union 1995-2004, Luxembourg 2006

Share of environmental taxes on total: average annual change in the period 2002-2004 (in percent)

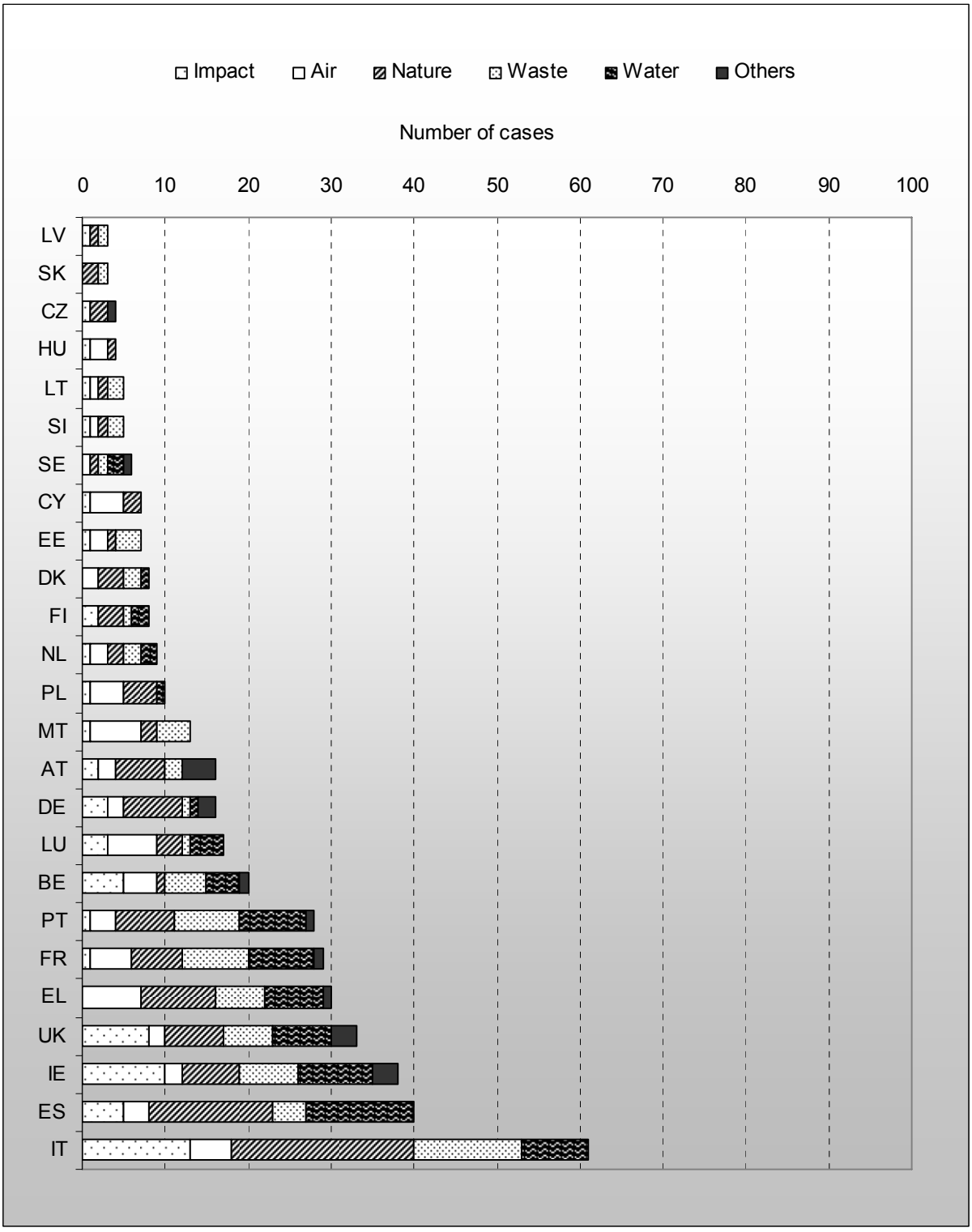


Source: DG Environment, based on Eurostat data

During the period 2002-2004, the average annual change shows a slight decrease (almost -0.5%) in the share of environmental taxes for EU-15 and EU-25. The trends are very different, between Member States. In particular for four Member States (Poland, Cyprus, Latvia and Luxembourg) this share increased by an annual average of more than 5%, while for other countries (Malta, France and Greece) it decreased by more than 3% on average every year.

Implementation

Performance indicator: **Infringements of EU environmental legislation per Member States and by sectors** (as of 31 December 2006)



Source: European Commission, DG Environment (Impact = Environmental Impact Assessment and Strategic Impact Assessment)

Open infringement cases concern lack of transposition and bad transposition of EC environmental Directives as well as non-compliance with obligations derived from EC Directives and Regulations (designations, monitoring, reports, plans, etc). Also, many cases concern bad application of EU environmental law in specific cases. At the end of 2006, 420 infringement cases concerning EU environmental legislation were open. More than a quarter of them concerned Nature protection legislation, other relevant sectors being Waste, Water, Air and Impact Assessment. A relatively high number of cases concern non-implementation of European Court of Justice judgments. The number of infringements is currently lower in new Member States (apart from Poland and Malta) than in old Member States. Italy, Spain and Ireland are the Member States with the highest number of ongoing infringement cases.

PART 2 - COMMISSION SUMMARY OF ENVIRONMENTAL POLICY ACTIONS IN THE MEMBER STATES IN 2006

Where does the information come from?

The information presented below is based on information from various sources:

- Progress Reports 2006 on the implementation of National Reform Programmes for the 2005-2008 as part of the Lisbon Strategy for Growth and Jobs[21]

- Country pilot studies from October 2006 on environmental policy developments in Member States, commissioned by DG Environment

- Member State Roadmaps (2005, 2006) on the Environmental Technologies Action Plan[22]

- National Overview Reports *(draft)* "Strategic Evaluation of Environment and Risk Prevention" from July 2006, commissioned by DG Regional Policy

- Commission staff working document: Seventh Annual Survey on the implementation and enforcement of Community environmental law 2005, SEC(2006) 1143[23]

- Report from the Commission: Progress towards achieving the Kyoto objectives, COM(2006) 658[24]

- Country profiles 2006 on greenhouse gas monitoring and reporting[25]

- Data concerning greenhouse gas emissions from European Environment Agency Report N°9/2006: "Greenhouse gas emission trends and projections in Europe 2006"[26]

- Data relating to the revenue from environmental taxes is based on the document: "Structures of the taxation system in the European Union 1995-2004" (Luxembourg 2006)[27]

- Data concerning energy intensity and the share of electricity from renewable energy sources from Eurostat[28]

How is the information structured?

The structure of the review reflects the four priority areas of the 6th Environment Action Programme as well as some parts of Guideline 11 of the Integrated Guidelines for Growth and Jobs, which concern environmental policy measures. [29]

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21 http://ec.europa.eu/growthandjobs/key/nrp2006_en.htm
22 http://ec.europa.eu/environment/etap/roadmaps.htm
23 http://ec.europa.eu/environment/law/as05.htm
24 http://ec.europa.eu/environment/climat/home_en.htm
25 http://ec.europa.eu/environment/climat/home_en.htm
26 http://reports.eea.europa.eu/eea_report_2006_9/en
27 http://europa.eu.int/comm/eurostat
28 http://europa.eu.int/comm/eurostat
29 http://europa.eu.int/growthandjobs/pdf/integrated_guidelines_en.pdf

How complete is the information?

The summary does not cover all actions a Member State is performing in a given area. The actions listed are by no means exhaustive, but present a snapshot of actions that took place around 2006 and which are part of the implementation of the 6th Environment Action Programme and the Member States' National Lisbon Reform Programmes, notably environmental policy measures to ensure the sustainable use of resources.

1. AUSTRIA

Highlights

Austrian environment policy in the first half of 2006 was to a large extent dominated by activities under the Austrian Presidency of the EU Council. The achievements at European level include the adoption of the renewed EU Sustainable Development Strategy. In spring 2006, the government launched a progress report summarising their own ongoing projects, presenting most recent developments and summarising the results on a comprehensive study on "unsustainable trends", which should help with setting priorities for future action.

Use of market-based instruments

- As of January 2006 tax incentives for using diesel particle filters apply to all cars ("Bonus-Malus-System") and on vehicles without this filter, a tax of up to €300 applies.

Eco-innovation

- In August 2006, the first version of the new Environmental Technologies 'Master Plan' was presented. The Plan has four central goals: to strengthen Austria as a place for investment in the area of environmental technologies; to build up infrastructure for environmental technologies; to increase the use of and to raise awareness of environmental technologies in Austria. The Plan is to be finalised by March 2007.

- One of the measures in the Austrian National Reform Programme is a database on environmental technologies. A draft version of this database has been presented to the Austrian advisory council on environmental technologies and is currently being tested.

Energy

The energy efficiency of the Austrian economy is better than the EU average and improving: the amount of energy needed in 2004 to produce the same economic output – 146 kg oil equivalent per €1000 GDP - was 29 % lower than the EU average of 205 kg.

In 2004, the share of electricity from renewable energy sources is 58.8% - especially from hydropower - which is the highest share in the EU. The Austrian indicative target for 2010 is 78.1 %.

- The government aims to decrease energy intensity by 20% until 2020. Two measures are to be implemented: an energy check of all households by 2010, and a national energy efficiency plan in order to exploit all potential for energy saving and cost reduction. Moreover, the share of environmental technologies is to be further increased.

- In September 2006, the government introduced the goal to raise the share of renewable energy sources from 23% in 2005 to 45% in 2020. The aim is to achieve a reduction of 20 millions tonnes CO_2 emissions, and decrease the share of fossil energy sources by 30%, while creating at least 30 000 jobs. A biomass action plan is a central measure.

Climate change

Under the EU burden-sharing agreement, Austria has a national greenhouse gas emissions reduction target of 13% below the 1990 level. In 2004, emissions decreased by 1.2% but they were still 15.7% above the 1990 level. Austria will need to identify further emission reduction policies and measures in order to meet its reduction target.

- In January 2006, federal and state governments agreed on a programme aimed at reducing the climate impacts of housing. The agreement requires that buildings clearly exceed regulatory standards to qualify for state funding. It also introduces new incentives for the use of renewable heating systems. Spending should be directed more towards emission reductions. The programme is expected to generate 10 000 additional jobs.

- An action within the Austrian Lisbon reform programme was the establishment of the "Innovation & Climate" policy platform initiated by Austrian industry to reposition Austria's energy policy by emphasizing the link between the Lisbon Agenda and climate policy. The platform propagates a "beyond climate" policy attempting to discover issues that can be more easily agreed upon in policy-making (like safety and congestion issues in transport, raising the quality of buildings, increasing local renewable energy supply, etc.).

Nature and biodiversity

- LIFE-Nature projects form an integral part of the measures to protect and improve the conservation status of nature and biodiversity. In 2006, the Commission approved funding for three new projects, including one on the exchange of cross-border experience with Croatia and Hungary. At the end of the year, 16 projects were ongoing.

- The Commission decided to send a final warning for not proposing sufficient national nature sites for the Natura 2000 network. The Austrian network of proposed sites is far from complete. Altogether, seventeen habitat types and twelve species are still not sufficiently covered in the proposed list put forward by Austria.

Environment and health

- In March 2006, the parliament approved new rules on particle pollution. Monitoring will be expanded and extended from PM10 to the smaller PM2.5 fraction.

Resource use

- The Austrian Sustainable Development Strategy demands a stabilisation of current levels of resource use and a long-term improvement of resource productivity by a factor of four. A resource productivity action plan was being developed in 2006 as part of the Austrian Climate Strategy.

- In June 2006, the 4th Federal Waste Management Plan was published. It has been developed in the context of the EU Thematic Strategy on Waste and the draft Waste Framework Directive and includes specific strategies for waste prevention and recovery until 2011. Increased eco-efficiency, in particular material productivity, stands at the heart of the strategy and could significantly reduce amounts of generated wastes. It also includes requirements for environmentally sound treatment of several waste flows.

- The strategy for waste prevention and recovery includes measures on reducing pollutants from the use of waste as alternative raw materials or alternative fuels, identification of

products which are primarily responsible for the pollutants found in residual waste, halting the reduction of the market share for reusable packaging in the beverage sector; and replacing products by services.

- By the end of 2006 Austria has surpassed the EU collection target under the WEEE-Directive by about 50%.

2. BELGIUM

Highlights

Environmental problems in Belgium are closely related to its status as one of the most densely populated and highly industrialized countries in Europe, with a very open economy and a key role as a main transport and logistics hub within the EU. In 2006, the various levels of government[30] have taken new measures aimed at promoting energy efficiency and renewables, most of which will help reduce greenhouse gas emissions.

Better regulation

- Better regulation is a policy priority of the Flemish government. An important simplification initiative in 2005 and 2006 in Flanders was the introduction of a single integrated environmental reporting system for industry.

- The Walloon government adopted a regional law on administrative simplification in 2005. Based on this, a number of changes were made to existing regional legislation on environmental impact assessment, environmental permits and waste management.

Use of market-based instruments

Belgium makes rather limited use of environmental taxes: the share of revenue from environmental taxes in total taxation was 5.3% in 2004 (compared to 6.6% at EU-25 level).

- In October 2006, the federal government announced a new 'packaging tax' from 2007 onwards, based on the CO_2 emission of the packaging during its production process. In addition, increased use of tax deductions for energy-saving measures was announced.

Eco-innovation

- In February 2006, the Flemish region launched an Environmental and Energy Technology Innovation Platform which aims to bring together public authorities, business, industry and research organisations with a view to stimulating eco-innovation and the development of green technologies. The promotion of research and innovation in cooperation with industry is also a priority of the *Contrat d'avenir* for the Walloon Region, where enterprises are encouraged to seize market opportunities in clean technologies.

Energy

Energy intensity in Belgium improved by 4% from 2003 to 2004 down to 208 kg oil equivalent per €1000 GDP. Belgian energy intensity is still higher than the EU-15 average (187 kg oil equivalent per €1000) but close to the EU-25 average (205 kg oil equivalent per €1000).

The Belgian indicative target for the share of electricity from renewable energy sources for 2010 is 6%. Between 2000 and 2004, this share increased from 1.5% to 2.1%.

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[30] Belgium has three different regional environmental policies (in Flanders, Wallonia and the Brussels Capital Region) complemented by a federal policy for issues that fall outside regional jurisdiction.

- New legislation on energy performance of buildings entered into force in Flanders in January 2006. The Walloon government adopted regulations on the public service obligations of electricity distributors, including for the promotion of end-use efficiency.

Climate change

Under the EU burden-sharing agreement, Belgium has a national greenhouse gas emissions reduction target of 7.5% below the 1990 level. In 2004, emissions increased slightly (+ 0.2%) and were 0.7% above the 1990 level. Transport was the largest contributor to emission increases, followed by households and services. Additional efforts will be needed for Belgium to achieve its Kyoto commitment.

- At the federal level, the main measure in 2006 was the adoption of a law on biofuels, which establishes fiscal incentives and a tendering procedure for the selection of suppliers.

- In July 2006, the Flemish 2006-2012 climate policy plan was adopted. The Walloon Region, for its part, is in the process of finalising a new comprehensive regional programme for air pollution control, including climate policy measures, for the period 2007-2012. In the Brussels Capital Region, a renewed system of subsidies was introduced for renewables and energy efficiency for households and the tertiary sector.

Nature and biodiversity

- Belgium has completed the establishment of its Natura 2000 network and is entering the phase of formal designation of sites. The Flemish region has established a regional ecological network as a complement to the Natura 2000 network. At the end of 2006, there were 22 ongoing LIFE-Nature projects in Belgium (7 newly financed in 2006).

- A national biodiversity strategy 2006-2016 is being developed to halt the deterioration of biodiversity by 2010 and a public consultation on this was held in March and April 2006. In October, the strategy was adopted.

Environment and health

- Under a regional air pollution control plan revised in 2006, the Brussels Capital Region introduced a scheme allowing inhabitants that give up their car (and turn in the licence plate) a two-year free public transport pass. A similar initiative exists in Flanders.

- In 2006, a subsidy scheme for the installation of soot filters in trucks was introduced in Flanders and work is under way to change in 2008 the motor vehicle taxation for private cars, based on a vehicle "ecoscore" system taking into account air quality and noise.

Resource use

- Belgian regions are in the process of integrating waste and resources policies. Belgium ranks among the top EU Member States in terms of separate collection and recycling of waste and the low share of disposal for landfills.

- The Flemish government introduced a 'water test', which entered into force in November 2006. The procedure is to ensure that the effects of permitting decisions on water management are assessed and measures taken to avoid harmful effects.

3. BULGARIA

Highlights

2006 was an important year for preparing Bulgaria's accession to the European Union on 1 January 2007. Significant progress has been achieved in several policy areas so that Bulgaria is now on track in most areas of the *acquis*. The environmental structures have been strengthened with an ambitious recruitment programme at central level; however this seems not to have been the case in the municipalities which are understaffed regarding the implementation of EU environmental legislation.

Energy

Energy intensity of Bulgaria in 2004 was 1628 kg oil equivalent per €1000 GDP, which is 8 times higher than the EU average. However, it has constantly decreased since 1996, and in 2004 the Bulgarian economy improved its energy efficiency by 8% compared to 2003.

Climate change

Greenhouse gas emissions in Bulgaria declined significantly between the 1988 base year and 2004 (-49%) and for 2010, projections taking into account existing domestic policies and measures show that Bulgaria will over-achieve its Kyoto target (8% reduction compared to 1988). In Bulgaria the emission level per GDP is more than double the EU average, but it has declined from 1995 to 2004, indicating some decoupling between economic growth and resource consumption.

Nature and biodiversity

- Bulgaria plans to finalise its contribution to the Natura 2000 network by the end of 2006 and it has preliminary identified a map of proposed sites. But a major part of these candidate sites lack inventories, which the Bulgarian administration still needs to carry out.

Environment and health

- Progress has been noted concerning the issuing of permits for industrial plants. Resources at the central competent authority seem to be adequate and the procedures for the issuing of permits are clearly defined and established.

- In January 2006, the Law on Protection from Environmental Noise entered into force, in order to transpose EU legislation on environmental noise.

- In June 2006, the Minister of Health and the Minister of Environment and Water adopted an Ordinance on noise indicators in the environment, regulating the level of annoyance during the period of twenty-four hours, the limit values of the noise indicators, and methods of assessing harmful impact.

- Legislation on water management is largely in place and in line with the acquis. The management of water is presently regulated by the newly adopted Water Act of July 2006 which lays down all public obligations, as well as the coordination and division of responsibilities between different ministries.

- Preparations started for the implementation of the future Cohesion and Structural Funds, which will provide an impetus for extending the provision of basic environmental services to the whole population.

Resource use

- The national plan for waste management has been approved and completed for the period until 2007, nevertheless it seems that no review of this plan was done by relevant stakeholders and monitoring of progress in the implementation of the plan was weak. Public participation in the decision making process has also been weak.

- In February 2006, the Ministry for Regional Development and Public Works submitted a proposal for a law on the territorial planning along the Black Sea coast. By limiting the expansion of building, the proposal aims to limit the land used for human activities and preserve the natural resources and environment in this area. The draft legislation was passed by the National Assembly on first reading.

- In order to address outstanding waste management issues, amendments to the Waste Management Act (2003), introducing new quantified targets for recovery and recycling of packaging waste, were adopted. In 2006 a regulation on the treatment and transportation of waste containing toxic polychlorinated biphenyls (PCBs), and requirements for inventory, labelling and decontamination of equipment containing PCBs was adopted.

- In a memorandum signed in May 2006 between the Ministry of Environment and Water and organisations responsible for recycling packaging, the latter assume obligations to extend the system for separate waste collection to cover 3 million citizens by June 2007. In addition, several seminars were organised to explain the requirements of the newly adopted legislation.

- Legislation on the protection of soils is planned to be adopted at the end of 2006.

- In November 2006, Bulgaria and Turkey agreed to rapidly establish a joint early warning system on flood prevention.

4. CYPRUS

Highlights

Cyprus has a big potential for using solar energy. Recent initiatives on renewable energy have resulted in a considerable interest from the private sector and could, therefore, substantially increase the share of energy supplied from this source.

Use of market-based instruments

The share of revenue from environmental taxes in total taxation was 11.4% in 2004, which is the highest share of EU-25.

- The Environment Department is screening all approved subsidy schemes to determine whether they have adverse environmental impacts. The screening will be completed in 2007 and will result in recommendations to the appropriate authorities to establish procedures and a timetable for their possible withdrawal.

- Cyprus is promoting the use of biofuels by imposing zero excise duty. The use of new technologies for producing energy from renewable sources is also supported by a series of subsidy schemes.

Eco-innovation

- Cyprus has developed a Roadmap for environmental technologies (ETAP). It mainly focuses on diffusion of environmental technologies and environmental products rather than their development.

- The Ministry of Commerce, Industry and Tourism is working on establishing a thematic park on Renewable Energy Sources (RES) and Energy Saving (ES) that will exhibit current RES and ES technologies and contain laboratories and lecture rooms.

- An Action Plan to promote Green Public Procurement is to be completed by the end of 2006.

Energy

Cyprus is the best performing of the new EU-10 Member States in terms of energy intensity. It consumed 262 kg of oil equivalent per €1000 GDP for the 2004, which is still above the EU average (204 kg per €1000). Nevertheless, the energy intensity in Cyprus has improved by 9% compared to 2003.

- In the beginning of 2006, Cyprus simplified submission and evaluation procedures under the programme targeted at promoting renewable energy sources and energy conservation, and broadened its scope and increased the subsidies granted.

- A five-year programme for the promotion of energy saving will be implemented as from 2006. It includes measures ranging from energy saving campaigns to energy saving investments in public buildings.

- The share of electricity produced from renewable sources is negligible in Cyprus but the country aims to generate 6% of electricity from renewable energy sources by 2010.

Climate change

Cyprus has no quantified targets as yet. However, as a contracting party to the Kyoto Protocol it is expected to make important reductions in its greenhouse gas emissions. Its emissions constitute only 0.18% of EU-25 total emissions, although per capita emissions amounted to 12 tonnes in 2003 compared to the 11 tonnes EU-25 average.

- Cyprus is implementing a Strategic Plan for the Reduction of Greenhouse Gas Emissions, which includes measures for improving energy efficiency and using of renewable energy sources.

Nature and biodiversity

- Completing the work on Natura 2000 is a priority for biodiversity conservation in Cyprus. While Cyprus has advanced with the transposition of the relevant EU legislation, the country is currently undertaking work on preparing the necessary management plans for its Natura 2000 sites. There are still some remaining gaps in the designation of proposed Natura 2000 sites and Cyprus has committed to intensifying efforts on this issue. At the end of 2006 one LIFE-Nature project was ongoing in Cyprus.

- Cyprus is implementing a project that aims at developing the methodology of Integrated Coastal Zone management, and the application of tools for its implementation.

Environment and health

- The government has established an international research, education and technology initiative for the environment and public health in cooperation with the Harvard School of Public Health. It aims to address key environmental issues in Cyprus and the wider region.

- Cyprus is improving waste water treatment by expanding sewerage networks in all major municipalities. Installation of sewerage networks in rural communities with a population greater than 2000 inhabitants is currently under the tendering procedure.

Resource use

- Currently almost all the municipal waste is being disposed of in landfills. There is a need to close down and rehabilitate existing landfills and build new landfills in conformity with the EU legislation, as well as infrastructure concerning separate collection, energy recovery, recycling, composting, as well as appropriate awareness-raising measures.

- The full implementation of the landfill directive requires up to 100 existing landfill sites to be closed and replaced by waste treatment and disposal centres. It also requires the establishment of a separate collection system for recyclable (packaging) waste and the promotion of composting of biodegradable waste. A major issue is the financing of the required changes which are estimated to cost €60 – 70 million. Cyprus has finalised a management plan for hazardous waste in September 2006. Based on this plan, a construction of a central treatment facility will begin early in 2008.

- In August 2006, the Minister of Agriculture, Natural Resources and Environment approved the application of the company Green Dot Cyprus Public Co for the establishment of a collective system for the management of packaging wastes. The programme started in October 2006 for the commercial and industrial business, and will be extended to houses six months later.

5. CZECH REPUBLIC

Highlights

In April 2006, the Government Council for Sustainable Development published the First Progress Report on the Czech Republic Strategy for Sustainable Development. On the environment, the report states that especially in the early 1990s major improvements were achieved, in recent years, however, these successes have not been repeated.

Better regulation

- In 2006, preparations were ongoing on a new Environmental Act (Code) that will streamline and replace all current environmental laws.

Use of market-based instruments

- The new Minister of Environment declared in September 2006 that preparations for revenue-neutral environmental tax reform will continue with the aim of reducing the tax burden on labour, while increasing the taxation of the individual types of fuel depending on how much they harm human health and the environment.

Eco-innovation

- The Czech Republic developed the Roadmap for implementation of the Environmental Technologies Action Plan (ETAP) in 2005. It describes several environmental and innovation strategies and policies that may have effects in research, development and uptake of environmental technologies.

Energy

Energy intensity amounted to 852 kg of oil equivalent per €1000 GDP in 2004, which is four times higher than the EU average. However, a slight improvement of 40 kg per €1000 was made compared to the previous year.

The Czech Republic's target for the share of electricity from renewable energy sources for 2010 is 8%. In 2004, the share was 4%, which is an improvement compared to the 2.1% share of 2003.

- Priorities for the period 2006-2009 in the National Programme of Rational Use of Energy and the Use of Renewables include the maximisation of energy efficiency and more intensive use of renewables and alternative fuels in transportation.

Climate change

Regarding climate change and the Kyoto Protocol, the Czech Republic has committed to reducing its greenhouse gas emissions for the period 2008-12 by 8% compared to the level in 1990. Greenhouse gas emissions have been fluctuating since 1993; nevertheless the overall trend in the period of 1990 to 2004 has been a decrease of 25.1 % indicating that the Czech Republic is not likely to encounter difficulties in meeting the Kyoto target. In 2004, the country's emissions decreased by 0.3%.

Nature and biodiversity

- There is debate on the Natura 2000 network on the possibilities and limits of developing affected and neighbouring areas, and problems stemming from the requirement to assess plans and investment purposes with regard to their impacts on protected species of fauna and flora are being discussed.

- LIFE-Nature projects form an integral part of the measures to protect and improve the conservation status of nature and biodiversity. A new project approved by the Commission for funding in 2006 aims to restore and preserve eight river habitats. At the end of 2006, the Czech Republic had two ongoing projects.

Environment and health

- Activities within the Environmental Health Monitoring System continued in 2006. The Monitoring System provides information on health and environment for both the national authorities involved in health risk management and the general public interested in active health protection.

Resource use

- There is recent public debate on the preparation of a new Forest Act, focusing on the state of Czech forests and methods for their management. Apart from the Ministries of Agriculture and Environment, more than 200 Czech scientists and experts have been involved in discussions in 2006.

- The key issue related to waste management in the Czech Republic is the predominance of landfilling as a waste management option and low recycling rate. It is estimated that in 2009, 229 out of 352 monitored landfills will not comply with the standards laid down in the Landfill Directive. The non-complying landfills will have to be either closed down and the sites rehabilitated, or upgraded to comply with EU standards.

- Substantial investments are required with regard to packaging waste and waste electronic and electrical waste for which the Czech Republic benefits of transitional periods. However, the Czech Republic attains the highest recovery and recycling levels for packaging waste of all the new Member States – the overall recycling and recovery targets set out for 2008 have already been met in 2004, as well as material specific targets for glass and paper.

- The National Waste Management Plan sets the following targets for the increase of waste recovery and recycling: 55% recycling of all waste produced by the year 2012, 50% recovery of municipal waste by 2010, 20% reduction by 2010 of waste landfilled compared to the 2000 level. The plan specifies that no new incinerators will be built in the country. A decree has also been published on biological treatment waste.

6. DENMARK

Highlights

The government's strategy on eco-efficient technology was presented in June 2006. This strategy is to result in an action plan to be launched in autumn. The plan is to improve environmental protection and at the same time enhance Danish exports of eco-efficient technologies. Government estimates are that exports in this sector are currently worth some €6 billion annually and rapidly growing.

Use of market-based instruments

- Denmark has a relatively high level of environmental taxes, but it currently has a policy that new taxes can be introduced only if other taxes are lowered. In 2006, green tax initiatives included the removal of registration tax on diesel cars with particle filters and a proposal to limit particle emissions from diesel lorries and buses by requiring lorry and bus owners to fit particle filters if they operate in special urban environmental zones.

- The 2006 budget changed energy charges on the production of electricity in order to prevent excess production, improve energy efficiency, and reduce CO_2 emissions.

Eco-innovation

- Environmental technology is one of Denmark's largest business clusters, and includes 420 companies (60 000 employees). In 2006, an analysis identified a number of 'strongholds' for potential to develop new environmental technologies clusters. They include offshore turbines and water purification.

- In May, the government launched an export drive to promote energy and environmental technology, in particularly in China, India, Russia, Brazil and the USA. In June, a report on the promotion of eco-efficient technology was published to launch a dialogue on how to accelerate eco-innovation and improve the marketing of knowledge and expertise.[31] This dialogue is supported by a new website on eco-innovation.

Energy

Denmark is the best performing Member State in terms of energy intensity. In 2004 intensity was 120 kg oil equivalent per €1000 GDP, representing 59% of the EU average.

The Danish target for the share of electricity from renewable energy sources for 2010 is 29%. In 2004, the share was 27%, which is an improvement compared to the 23.2% share of 2003.

- In October the government received broad support from parliament for a Danish contribution to a new Energy Policy for Europe. The contribution contains a range of proposals, including the aim to make the EU the most energy-efficient economy in the world, and adopt binding energy savings also for the transport sector. The EU should also adopt a target of 15% renewable energy share of EU energy by 2015.

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[31] Promoting Eco-efficient Technology – The Road to a Better Environment, 2006

- The government has proposed to establish a new energy technology development and demonstration programme for new, more efficient energy technologies, including on sustainable energy. The programme should be seen as an extension of the government's Energy Strategy 2025 from June 2005.

Climate change

Under the Community burden-sharing agreement, Denmark has one of the highest greenhouse gas emission reductions targets: -21% for the period 2008–2012 compared to the 1990 level. However, Danish emissions in 2004 were only 1.8 % below 1990 level and forecasts indicate that considerable additional efforts will be required to achieve the Kyoto commitments. Implementing the national ETAP is expected to be one of the main contributors to combating climate change.

- In 2006, the Environment Protection Agency published a report on citizens' awareness of and efforts to reduce climate change. The report reveals that citizens are less informed about climate change than about other environmental issues. The reasons behind climate change and its consequences are unclear to many citizens.

Nature and biodiversity

- At the end of 2006, Denmark had nine ongoing LIFE-Nature projects, which form an integral part of the measures to protect and improve the conservation status of nature and biodiversity including Natura 2000 sites. During 2006, the Commission approved funding for two new projects. January saw a new LIFE-Nature project to protect meadow bird habitats, thus implementing the national action plan for threatened meadow birds. The project has an overall budget of €1 428 932 with an EU co-financing of 50% and will last until 2009.

- In April, the government proposed a new Act on the Marine Environment to strengthen action against pollution at sea, including increased fines. Later in the year, a project was launched to restore favourable conservation status for the bolder reef in northern Kattegat. The project is expected to increase knowledge of how to rebuild marine habitats. The budget is approx. €4.6 million with EU co-financing of 50%.

Environment and health

- In 2006, the government launched an inter-ministerial report on the 2003 Environment and Health Strategy and a forward-looking plan for safeguarding public health. Future actions will focus on chemicals, in particular increasing knowledge about chemical substances, but will also include actions on noise, drinking water, and air pollution.

Resource use

- In 2006, the government proposed new regulations to control fish-farming, which is contributing to eutrophication of the marine environment. The proposal includes limits on discharges of nitrogen, phosphorus and organic matter, which could stimulate the development of eco-technology.

7. ESTONIA

Highlights

Key developments in Estonian environment policy in 2006 are energy production from oil shale, nature conservation and ecological tax reform. Other more general aspects concern the development of strategic documents like the Environmental Strategy 2030 and the Estonian National Strategy for Sustainable Development, which includes maintaining the ecological balance among Estonian long-term development goals.

Use of market-based instruments

- According to the first phase of ecological tax reform, pollution fees and charges for resource use have been increased in 2006 and a further annual 10-20% increase in charge rates is envisaged until 2009. The ecological tax reform is directed towards fairer pricing of the use of natural resources and pollution. In 2006, the government of Estonia decided to increase environmental taxes and to reduce income tax by 6%.

Eco-innovation

- Estonia is developing a preparatory study for the Environmental Technologies Action Plan (ETAP). It includes mapping the current situation in development, elaboration and introduction of environmental technologies, and provides a financial estimate of the cost of implementing ETAP. A first version of an ETAP Roadmap has also been completed.

- In 2006 an inter-sector working group was established to initiate the development of a plan for environmentally sound public procurement.

- The state is promoting implementation of environmental management in companies by realising projects that facilitate introduction of EMAS in SMEs and employing pollution charge substitution agreements to individual companies.

Energy

Estonian energy intensity in 2004 was 1140 kg of oil equivalent per €1000 GDP. This was more than five times the EU average for the same year. Nonetheless, Estonia has achieved an increase in energy efficiency of 3% compared to 2003.

Estonia aims to produce 5.1% of its electricity from renewable energy sources by 2010. To increase the use of renewable energy sources, Estonia is preparing a project to establish the Narva Wind Park with support from the Cohesion Fund.

- Estonia is preparing a new energy conservation programme aimed at rationalising energy consumption, improving the efficiency of energy generation and developing an action plan for reducing environmental impacts. The programme will specify actions to ensure the accessibility of energy conservation know-how and increase the awareness of final consumers of sustainable behaviour patterns.

- In order to reduce pollution load and ensure sustainable use of natural resources, Estonia plans for 2007 to take measures to increase the efficiency of the use of non-renewable natural resources (incl. increasing the efficiency of oil shale use) to make energy

production more environmentally friendly and promote sustainable use of mineral construction materials, by initiating and co-financing performance of the respective research activities and implementing the related state aid schemes.

- The Ministry of the Environment launched the drafting of the Oil Shale Development Plan that is a long-term strategy for the use of this primary energy source. While being the main energy source in Estonia, oil shale puts much pressure on the environment in terms of atmospheric pollution and the generation of solid waste.

Climate change

- Estonia's Kyoto target is to reduce greenhouse gas emission by 8% between 2008 and 2012 compared to the 1990 level. In 2004 Estonia's greenhouse gas emissions was 50% less than in 1990; this is due mainly to economic restructuring, but also to policy measures.

Nature and biodiversity

- Estonia has completed the Nature Conservation Development Plan until 2035. This is the first comprehensive policy document covering the nature conservation sector.

- At the end of 2006, Estonia had six ongoing LIFE-Nature projects, which form an integral part of the measures to protect and improve the conservation status of nature and biodiversity. The selection of Natura 2000 areas has started for the organisation of protection of species and habitats under the EU nature conservation Directives.

Environment and health

- To improve water quality, Estonia has developed its water infrastructure mostly through Cohesion Fund projects and the Water Protection Programme of the Environmental Investment Centre. In addition, projects to rehabilitate water bodies and clean up past pollution were implemented in 2005-2006 with support from the European Regional Development Fund. Estonia is preparing water management plans aimed at organising integrated water management and promoting sustainable use of water.

Resource use

- Estonia launched a Development Plan for Promoting the Use of Biomass and Bioenergy 2007–2013. This plan aims at reducing Estonian energy dependence by decreasing the share of fossil fuels and diversifying sources for energy production, as well as extension of domestic supply channels.

- Waste management represents a big challenge for Estonia, not only as regards developing recycling systems and moving away from landfill but also as regards ensuring environmentally sound waste management of the wastes of the oil shale industry. Estonia must meet targets set in the Treaty for disposing of these hazardous wastes in accordance with the provisions of the landfill directive which implies heavy investments.

- In 2006 several legal acts regarding waste management were adopted. These acts further align national legislation with the EU waste legislation and include measures on several waste streams including the promotion of biological treatment of waste. This complements the national waste management plan for the 2006-2012 period.

8. FINLAND

Highlights

Finland's sustainable development strategy was revised and was endorsed by the National Commission on Sustainable Development in June 2006. The strategy is based on a long-term vision of a sustainable Finland and the main themes are the sustainable use and protection of natural capital, citizens' wellbeing and social cohesion, and a sustainable global economy. In July, Finland took over the EU Presidency and led discussions on 'a new generation of environmental policy', emphasising that globalisation highlights the need to use natural resources sparingly, and promote more eco-efficient production and consumption patterns.

Use of market-based instruments

- Finland committed itself in the Lisbon National Reform Programme to reforming the tax structure with a view to promoting sustainable development, but no details on progress were reported in the annual Lisbon progress report of 2006.

Eco-innovation

- The National Roadmap on the implementation of the Environmental Technologies Action Plan (ETAP) was published in April 2006. Finland is working to expand the significance of environmental issues to a growing number of research and development fields. Several programmes in the field of environmental technology and other programmes in which environmental issues have a strong presence are ongoing. Among other things, these themes concern materials flows and recycled materials.

Energy

Energy intensity in Finland has decreased by 3% from 2003 to 2004. Nevertheless, in 2004 it was still much higher than the EU average: 272 kg of oil equivalent per €1000 GDP compared to 205 kg per €1000 respectively.

Finland's target for the share of electricity from renewable energy sources for 2010 is 31.5%. Between 2000 and 2004, the share has fluctuated between 21.8 % and 28.5%.

- In April 2006 the Finnish government set up a working group to implement the requirements of the energy saving Directive and to develop the first programme to improve energy efficiency for the period 2008-2011.

Climate change

Under the Community burden-sharing agreement, Finland is committed to maintaining its greenhouse gas emissions for the period 2008-12 compared to 1990. Finland's emissions are still 14.5 % above the 1990 level but in 2004, they fell by 4.9 %, mainly due to CO_2 reduction from electricity and heat production. Since the Kyoto target will not be reached through domestic actions alone, Finland plans to make use of Kyoto mechanisms and carbon sinks.

- Energy and climate policy in Finland is based on the National Climate Strategy, with the most recent version of the Strategy being approved by the Finnish government in 2006. It includes several measures for energy conservation and renewable energy.

- The Finnish Carbon Procurement Programme (Finnder) was launched in May 2006. The Finnder programme will purchase carbon credits on behalf of Finland from projects that reduce greenhouse gas emissions abroad. The Finnder programme acquires carbon credits through the Kyoto Protocol's project-based mechanisms.

Nature and biodiversity

- The Finnish National Action Plan on biodiversity for the period 1997-2005 is being revised. The results of the evaluation are being used in the ongoing finalisation of a new national action plan for 2006-2016. The aim of this is to stop biodiversity loss by 2010 and to stabilise a positive trend for the years 2010-2016. The new programme also aims to make preparations for serious global threats to the Finnish environment.

- At the end of 2006, Finland had 16 ongoing LIFE-Nature projects, which form an integral part of the measures to protect and improve the conservation status of nature and biodiversity, including Natura 2000 sites. In 2006, the Commission approved funding for 2 new projects to improve conservation at various Natura 2000 sites. Finland submitted a new list of Natura 2000 sites in December 2005. In total, Natura 2000 sites cover approximately 15% of the national area.

Environment and health

- In June 2006, the Environment Ministry adopted the Action Plan for the Protection of the Baltic Sea and Inland Watercourses. The aim of the action plan is to reduce eutrophication of the Baltic Sea and to reduce risks of oil and chemical transport.

Resource use

- In 2006, the Ministry of the Environment started the programme "the New Material Technology in infra building". The aim of the programme is to increase the use of renewable materials and to reduce the natural resources needed and the amount of waste produced by building work.

- The national waste plan is being reviewed. The programme consists of three themes: promotion of material efficiency, strengths and weaknesses of recovering waste and materials in terms of the environment, and the role of the municipalities in future waste management. The targets set in the National Waste Plan are not legally binding, but provide guidelines and recommendations.

- Government Ordinance for revising the Decision on landfills (202/2006) which concerns restrictions on landfilling of biodegradable municipal waste as well as specifying the follow-up of these wastes was coming into force in September 2006.

- The new waste plan will include waste prevention objectives covering material efficiency, the life span of buildings, products and municipal waste generation.

9. FRANCE

Highlights

In 2006, there were major environmental debates about the intended scrapping of the former aircraft carrier *Clémenceau* in India. This situation and the ship's final return to France resulted in a European-wide debate on ship scrapping in Europe.

France managed to complete the designation of Natura 2000 sites and to define opening and closing hunting dates in coherence with relevant EU Directives. This was triggered by confrontation between environmental organisations and traditional farmers on protecting bears and wolves, and the issue of over-fishing of blue-fin tuna in the Mediterranean Sea.

A new water law was adopted introducing additional measures to achieve "good surface water status" by 2015, as required by national legislation from 2004 transposing the EU's Water Framework Directive.

Use of market-based instruments

France makes rather limited use of environmental taxes: the share of revenue from environmental taxes in total taxation was 4.9% in 2004 (compared to 6.6% at EU-25 level), however new initiatives have been taken.

- Among the instruments aimed at halving the sales of the most harmful pesticides and biocides, a tax on products containing carcinogenic, mutagenic and reprotoxic substances was introduced in 2006.

- The newly-adopted Water Law allows local government to levy a tax based on a household's annual water consumption in order to improve water quality and sanitation. It also creates tax credits for rainwater collection systems and a tax on sewage sludge.

- In July 2006, the government fixed tariffs for the next 15-20 years to support electricity production from renewable sources. Tariffs for solar power have been multiplied by two. Tariffs for biogas and offshore wind turbines have also increased.

Eco-innovation

- In 2006, all 66 regional strategic competitiveness poles established the previous year were operational. Five of the poles are environment-related: renewable energy, sustainable development of maritime activities, energy not producing greenhouse gas emissions, management of risks and vulnerable territories.

- In August 2006, the Public Procurement Law was reformed. It now incorporates the Sustainable Development concept extending the selection criteria to include environmental standards (e.g. eco-labels, environmental management schemes).

Energy

The energy efficiency of the French economy in 2004 was better than the EU average. Energy intensity was 186 kg oil equivalent per €1000 GDP and improved by 2% compared to 2003.

- France aims to produce 21% of its electricity from renewable energy sources by 2010, and plans a 50% increase in heat production from renewable sources.

Climate change

Under the Community burden-sharing agreement, France is committed to stabilising greenhouse gas emissions for the period 2008-12 at the 1990 level. In 2004, France has managed to stabilise greenhouse gas emissions compared to 1990 level mainly due to the importance of nuclear electricity production. However, emissions from transport continue to grow.

- France is currently updating its Climate Plan and envisages additional measures in the transport, construction, industry, waste and agriculture sectors.

- Since January 2006, the French circulation tax has been linked to the amount of CO_2 cars emit per kilometre, high-emission vehicles being taxed more highly.

Nature and biodiversity

- The law on protection of national parks creates an agency (National Parks of France) that will be responsible for cooperation among various French national parks and an agency to manage protected marine areas, including Natura 2000 sites.

- In September 2006, the Environment Minister issued three new action plans within the framework of the National Strategy for the Protection of Biodiversity, targeting forest management, overseas territories and research on biodiversity.

- An action plan on wolves aims to maintain the population, to better protect herds threatened by wolves and to set up measures to handle the threat. As part of the plan on the reintroduction and protection of bears, five brown bears were reintroduced in the Pyrenees over the last years, the last one being released in August 2006. However, both plans are strongly opposed by French shepherds.

- LIFE-Nature projects form an integral part of the measures to protect nature and biodiversity including Natura 2000 sites. In 2006, the Commission approved funding for 5 new projects. At the end of the year, France had 27 ongoing projects.

Environment and health

- A new law issued in May 2006 requires a mandatory control of sprays used in agriculture and gives prefects more powers to protect water collection sources.

- In 2006, Air Quality Protection Plans were completed by 26 agglomerations counting more than 250,000 inhabitants.

Resource use

- France aims at stabilising municipal waste generation by 2008. This is the basis for the implementation of a national waste prevention programme that includes a series of measures focussing on specific waste flows and on increasing public awareness on waste prevention notably through ambitious national communication campaigns.

- France also aims at reducing the amounts of municipal waste incinerated or landfilled from 390 kg per capita per year in 2004 to 205 in 2010 and 200 in 2015.

- A decree of March 2006 obliges distributors of unsolicited mail to assist in recycling waste, either by contributing to a fund supporting recycling or paying for advertising that encourages consumers to recycle waste.

10. GERMANY

Highlights

Since the new government took office in late 2005, Germany has reformed its federal system in order to clarify and simplify the division of competences between the Bund and the Länder. The reform entered into force on 1 September 2006. In future the Bund will regulate details of environmental policies, for instance in the nature and water sectors. However, the reform grants the Länder the right to diverge from federal legislation, except concerning general principles of nature conversation, the law of species protection and maritime protection, and laws on water installations and pollutants.

Better regulation

- Germany aims to decrease over-regulation which will especially benefit small and medium-sized firms. A framework law ("Small Companies Act") that is in preparation will simplify planning and authorisation procedures and access to funding programmes.

- A law on simplification of monitoring in waste management has been adopted and will enter into force in February 2007. The new law will *inter alia* introduce electronic systems for monitoring waste management and thus facilitate information and data exchange and reduce costs. It was drafted by the Environment Ministry in co-operation with the Länder and business.

Use of market-based instruments

- The new energy tax act of July 2006 abolished an exemption from energy taxes for biofuels. Instead, the new system imposes mandatory quotas for biofuels and a step-wise introduction of taxes on all biofuels except those used in agriculture and forestry.

- The new federal government is planning to modify both the motor vehicle tax and the lorry toll system to differentiate between vehicles of various emission standards. Also tax relief is considered for retro-fitting diesel vehicles with particle filters, and tax penalties from 2008 onwards for vehicles without such a filter.

Eco-innovation

German firms have the lead in exports of environmental technologies with almost 19% of world trade (2003 figures). With 23% of all environmental protection patents applied for annually at the European Patent Office, Germany is still ahead of the USA (22%) and Japan (19%).

- The new German government emphasises that environmental policy should contribute to the development and global marketing of new technologies, to an increase of energy and resource productivity, and to the creation of new jobs. The initiative providing support to German enterprises exporting renewable energy technologies will be intensified.

- A national innovation programme for hydrogen and fuel cells was presented in May 2006.

Energy

Germany performs relatively well in terms of energy efficiency compared to other EU countries. In 2004, energy intensity was 159 kg of oil equivalent per €1000 GDP, which is 23% less than the EU average.

The German indicative target for the share of electricity from renewable energy sources for 2010 is 12.5%. Between 2000 and 2004, this share increased from 6.8% to 9.7%.

- Germany plans in 2007 to introduce a certification system for energy efficiency of buildings, which would provide useful information for potential house-buyers. Financial support for improving energy efficiency of buildings will be increased to €1.4 billion per year by 2009.

- Projects to support the development of "second generation biofuels" from biomass are currently under preparation. A study about the construction of large-size production plants for such fuels is under way, co-ordinated by the German Energy Agency.

Climate change

Germany has one of the highest greenhouse gas emission reductions targets: -21% for the period 2008–2012 compared to the 1990 level. In 2004, German emissions were 17.5 % below the 1990 level.

- Germany is using Kyoto protocol flexible mechanisms in order to reach its emission reduction objectives and to develop external markets for climate-related technology. In the first half of 2006, Germany concluded Memoranda of Understanding on clean development mechanism projects with the United Arab Emirates, Egypt and Israel.

Nature and biodiversity

- Long discussions between Germany and the Commission on notification of sites for the Natura 2000 network were settled in 2006, when Germany agreed to notify additional protected sites. In total, Natura 2000 sites cover approximately 13% of the national area.

- LIFE-Nature projects form an integral part of the measures to protect nature and biodiversity including Natura 2000 sites. In 2006, the Commission approved funding for 4 new projects. At the end of the year, Germany had 31 ongoing projects.

- Germany is preparing a national strategy on biological diversity.

Environment and health

- The entry into force of the EU Directive on particulate matter and other air pollutants in 2005 triggered widespread debates on necessary measures in Germany, since limit values were exceeded in many cities. In May 2006, the Federal Cabinet adopted a draft ordinance on the labelling of low-emission vehicles. Measures to reduce air pollution pressures from traffic, such as driving restrictions in specific areas, are taken locally and decided upon at *Länder* level. The uniform labelling system would allow the exemption of low-emission vehicles from these driving restrictions.

Resource use

- The aim of the National Sustainability Strategy is to double the energy and resource productivity of the German economy by 2020 compared to 1990.

- The recycling rate of packaging waste is amongst the highest in Europe, and advanced waste management policies have been implemented which include the phasing-out of landfilling for municipal waste in 2005. The next challenge set in German waste policy is the total recycling of municipal waste by 2020.

11. GREECE

Highlights

Environmental quality in general and nature in particular is an important concern for Greece, also because of its importance for the tourism sector. Subsequently, the government is taking action for the sustainable management and the protection of natural resources, the conservation of biodiversity and the maintenance and enhancement of the agricultural landscape. The designation of nature protection areas in the Natura 2000 network was institutionalised, and a campaign was organized aiming at cleaning the coasts and raising public awareness regarding nature and biodiversity conservation. Waste management in Greece still requires significant improvement.

Eco-innovation

- Greece is improving the environmental performance of its industries and other enterprises as reflected in the National Strategic Plan for Development 2007-2013. The Ministry of Development launched two funding schemes to promote environmental management systems in enterprises and especially in SMEs.

- The Greek Environmental Technology Action Plan Roadmap (ETAP) outlines research, establishing technology platforms, public-private partnerships, reviewing state aid guidelines, raising company and consumer awareness as the main priority areas.

Energy

Energy intensity in Greece is higher than the EU average, but has been improving steadily each year since 2001. In 2004, it reached 240 kg of oil equivalent per €1000 GDP, which is 17% higher than the EU average in that year.

- Greece is committed to generating 20.1% electricity from renewable energy sources by 2010. It adopted the Law for the promotion of energy produced by renewable energy sources in June 2006. However, the current share is only 9.5%.

- Greece is promoting more efficient energy consumption in the tertiary sector and by households. The target for 2008 is to reduce energy consumption by 11-12% by increasing the use of solar energy, recycling fuel gases in existing combustion units and co-production as well as through the introduction of natural gas to all State Hospitals.

- In June 2006, the government formed a Council of National Energy Strategy, which contributes to the design of a long-term energy programme for Greece, based on the country’s energy policy and promoting renewable energy sources.

Climate change

The burden-sharing agreement allows Greece to increase greenhouse gas emissions for the period 2008-12 by 25% compared to 1990 levels. In 2004, emissions were 24% above their 1990 level. Greece's burden-sharing target will not be easily met, but indications are that Greece will meet its Kyoto target with additional measures.

- Greece is revising a National Programme for Climate Change. A Bureau of greenhouse gas emissions trading has been established to electronically monitor emissions transactions.

Nature and biodiversity

- In order to comply with the EU Birds and Habitats Directives Greece will have to protect and appropriately manage more than 270 sites identified for the Natura 2000 network. This corresponds to nearly 18% of the country's area. Greece has classified 151 Special Protection Areas covering a total area of 13 703 km^2 while it has designated 239 Sites of Community Importance covering a total area of 27 641 km^2.

- The coastal zone is of particular importance for Greece, but coastal resources are under pressure from tourism development. In March 2006, the Ministry of Environment, Physical Planning and Public Works submitted to the European Commission the National Report on Integrated Coastal Zones Management.

- The Greek government is preparing a National Zoning Plan, which will become the basic instrument for the rational economic and housing development in the country, as well as for protection of the environment. The relevant studies for spatial planning in relation to industry, renewable energy and tourism have recently been completed and public dialogue with relevant ministries, regions, experts and NGOs is currently taking place.

Environment and health

- A series of measures have been adopted to improve a national monitoring network for atmospheric pollution and to increase the control over air pollution sources, in particular from combustion units.

- Wastewater management is a major issue in Greece. Although significant progress has been made in recent years with the collection and treatment of both urban and industrial wastewater, there is still a lot of room for improvement. There are 24 cities in Greece which do not have sufficient capacity for treatment plants. As a result, the European Commission decided in June 2006 to refer Greece to the European Court of Justice.

Resource use

More than 90 % of the urban solid waste is discharged to landfills (in many cases uncontrolled), while only 8% is recycled. The management of hazardous waste still needs to be improved significantly in Greece.

- The government’s planned solution is to eliminate illegal landfills and ensure that the entire territory is covered by a limited number of adequate sanitary landfills coupled with necessary recycling and recovery installations and transfer stations, but these will not be operational before 2008.

- A new inventory of hazardous waste has been prepared and specific legislation has been adopted, but an appropriate hazardous waste plan has not been finalised yet.

12. HUNGARY

Highlights

2006 was an election year in Hungary. The new government aims to renew Hungary's energy policy with special attention to the security of supply, competitiveness and the requirement of sustainability. Hungary is still far below its potential for renewable energy. By improving energy efficiency and increasing the ratio of domestically produced renewable energy resources, it can also lower its dependence on energy imports.

Use of market-based instruments

- The new government is considering changes in car taxation from 2007 to reflect performance rather than weight.

Eco-innovation

- In 2006, the draft of the National Environment Technology Action Plan (ETAP) was completed and government adoption is expected by the end of 2006. ETAP defines measures until 2008 for the development of the environmental protection industry and the development of energy saving technologies.

- A new National Programme for Environmental Research and Development places special emphasis on improving the technical and technological conditions for environmental protection. The following elements are included: development of environmentally sound public utilities; technologies for healthy drinking water supply; environmentally sound technologies integrated into production; material, energy and water saving technologies; and environmental sanitation.

Energy

Energy intensity in Hungary was 534 kg of oil equivalent per €1000 GDP in 2004. This is an improvement by 6% as compared to the previous year. Compared to the EU average of 205 kg per €1000, energy intensity in Hungary remains relatively high but the country is performing better than most other EU-10 Member States.

Hungary's target for the share of electricity from renewable energy sources for 2010 is 3.6%. Between 1994 and 2003, the share of renewable energy was one of the lowest in the EU and stayed between 0.4-0.6% but in 2004, it increased to 2.3 % of total electricity.

Climate change

Hungary has committed to reducing its greenhouse gas emissions for the period 2008-12 by 6% compared to the 1990 level. Currently, Hungary's emissions are 32.0% below its 1990 level.

- In February 2006, the first training courses were held to certify persons testing refrigerators and other cooling appliances for compatibility with the harmonised EU norms.

- In June 2006, the government passed a decision to fully reform the system of gas price compensations from 2007, with tariffs increasing with consumption, but taking into account social considerations.

Nature and biodiversity

- A Ministerial Decree was published in 2006, setting out details of land parcels covered by Natura 2000. It still needs to be accompanied by a government regulation on the detailed rules concerning land use on Natura 2000 sites which is in legislative process.

- LIFE-Nature projects form an integral part of the measures to protect and improve the conservation status of nature and biodiversity, including Natura 2000 sites. In 2006, the Commission approved funding for 4 new projects and at the end of the year there were 14 ongoing projects.

Environment and health

- In spring 2006, the rivers Tisza and Danube caused flooding that led to extensive damage and affected 10,500 residential properties. In July 2006, the government approved subsidies for owners of property damaged by floods or standing water. As part of the general framework for flood prevention, six flood-reducing reservoirs will be built along the upper and middle stretches of the River Tisza by 2007.

Resource use

- The typical manner of municipal waste disposal in Hungary is landfilling (83%). Hungary has a high number of landfills not complying with EU standards; considerable investment is needed in this area.

13. IRELAND

Highlights

In 2006, the Irish government increased its target for electricity consumption generated from renewable sources and introduced a number of measures to increase this share of renewables. Ireland will nevertheless need to identify further emission reduction policies in order to achieve the Kyoto target.

Eco-innovation

- Ireland's Roadmap for the implementation of the Environmental Technology Action Plan (ETAP) was published in April 2006. The Roadmap states that specific consideration should be given to projects that have the potential to tackle surface water eutrophication, meet international commitments on air emissions and improve waste management.

- The Environmental Protection Agency has commissioned a research call targeting research projects that complement ETAP. The call, the first phase of which was launched in 2006, includes projects that will look at the application of environmental technologies in Ireland, examine the barriers that exist and identify future opportunities.

Energy

Ireland performs well in terms of energy efficiency compared to other EU countries. In 2004 energy intensity was 157 kg of oil equivalent per €1000 GDP, which is 76% of the EU average. However, in 2004 energy intensity increased (1%) compared to 2003.

- Ireland's initial target for the share of electricity from renewable energy sources for 2010 was 13.2%, but in 2006 the government announced a revised target of 15%. In the period 1997-2004 the share fluctuated between 3.8%-5.4%. Currently, Ireland is putting in place a feed-in tariff mechanism, which differentiates between different renewable technologies to ensure the use of a broad range of technologies.

- In 2006, several measures were introduced to increase the uptake of biofuels including a 50% reduction in Vehicle Registration Tax for new flexible fuel vehicles. Also Renewable Energy Grants for innovative grant schemes were introduced relating to biofuels, combined heat and power, biomass commercial heaters and domestic renewable energy grants.

- The Irish government in October 2006 launched a Green Paper on Energy Policy, *Towards A Sustainable Energy Future*, which sets out a framework of proposed options and directions for Energy Policy to 2020. It encompasses three key areas of energy policy: security of supply, sustainability of energy supply, and economic competitiveness.

Climate change

During the last decade, Ireland has managed to achieve a relative decoupling of greenhouse gas emissions from economic growth. The country has committed to a maximum increase of its greenhouse gas emissions for the period 2008-12 by 13% compared to the level of 1990. In 2004, emissions were still 22% above this level and there was no improvement compared to 2003. Ireland will need to identify further emission reduction policies and measures.

- A review of the Irish Climate Change Strategy went out to public consultation with the aim of publishing a new Climate Change Strategy by the end of 2006.

- The Greener Homes Scheme, launched in March 2006, provides grant assistance to householders to purchase a renewable energy heating system.

Nature and biodiversity

- There is a need for significant improvement to Ireland's network of Special Protection Areas (SPAs), still one of the smallest in the EU-15. Ireland's contribution to Natura 2000 under the Habitats Directive has also still to be finalised. At the end of 2006, Ireland had 6 ongoing LIFE-Nature projects.

- In 2006, Ireland introduced further controls to combat the widespread problem of overgrazing of sensitive natural habitats by livestock.

- A Biodiversity Forum has been put in place in 2006. A key role for the Forum is the integration of biodiversity into all sectors, including the business sector.

Environment and health

- The most significant threat to air quality in Ireland comes from the transport sector. The Transport 21 programme - launched in November 2005 - will try to tackle the transport challenge and involves an investment of €34 billion from 2006 to 2015, covering roads and public transport infrastructure.

- Ireland continues to invest in upgrading drinking water supplies following its 2002 condemnation by the European Court of Justice over the bacteriological contamination of hundreds of public and private water supplies. While the majority of supplies now appear compliant, dealing with e-coli contamination is a priority.

- Following the 2004 condemnation by the Court for not respecting the Nitrates Directive, Ireland introduced new rules in 2006 on the storage and spreading of animal wastes.

Resource use

- The National Strategy on Biodegradable Municipal Waste was published in April 2006, setting out measures to progressively divert biodegradable municipal waste from landfill in order to be in accordance with the targets in EU Directive on the landfill of waste.

- In July 2006, Ireland launched the Waste Prevention and Demonstration Programme to assist local authorities in implementing integrated waste prevention programmes.

- Following the 2005 condemnation by the Court for widespread poor controls on unauthorised waste disposal, Ireland has been taking steps to improve enforcement of waste rules.

- Ireland achieved strong increases in the recycling rates of a number of waste streams, with municipal waste reaching 35%, construction waste 85% and packaging waste near to 60%, although over 50% of all waste is still being landfilled. A challenge for the future is the

lack of recycling infrastructure in Ireland – in 2006 it was estimated that 75 % of the recycling of Ireland's waste was taking place abroad.

14. ITALY

Highlights

The new Italian government, elected in April 2006, stated in the economic plan for 2007-2011 that environmental protection and sustainability should be at the base of all other policies. Environmental indicators are proposed to be introduced alongside macro-economic indicators to monitor policies. In the next five years the environmental commitment will focus on areas like waste and water management, biodiversity protection, climate change and the marine protection. However, while environment is one of the five priorities in the Italian National Reform Programme, budget allocations for the years 2006-2008 represent only 0.8% of the programme's budget.

Better regulation

- Italy is the country with the highest number of open infringement cases on implementation of EU environmental law. At the end of 2006, there were 61 open infringement procedures against Italy; many cases were on waste, nature and environmental impact assessment.

Eco-innovation

- A National Action plan in the field of Green Public Procurement is expected by March 2007. This will help to achieve the ambitious target to use at least 30 percent of recycled materials by public administrations.

- Italy submitted its Roadmap on the implementation of the Environmental Technologies Action Plan in 2006. Ongoing projects in this field include the development of solar technologies and technologies for the use of hydrogen as an alternative energy source and the diffusion of high efficiency industrial engines. The latter is expected to help curb greenhouse gas emissions.

Energy efficiency

Most of Italy's energy is imported and high use of energy taxes has led to a relatively low energy intensity of the economy. Energy intensity in Italy amounted to 189 kg oil equivalent per €1000 GDP in 2004, which is lower than the EU average and around the average energy intensity rate of old Member States.

- Italy’s target for the share of electricity from renewable energy sources for 2010 is 25%. Between 1995 and 2004, the electricity share from renewables has been fluctuating between 13.7% and 16.9%.

Climate change

Italy has committed to reducing greenhouse gases by 6.5% for the period 2008-12 compared with the 1990 level. In 2004 Italy's emissions increased by 0.9% compared to 2003 and they were 12.1% above the 1990 level. Emissions increased primarily from road transport, electricity and heat production and petrol-refining. The remaining gap of 14.2 Mt CO_2 equiv. between projected emissions and the Kyoto target requires significant efforts in the coming years. Italy must identify and implement more new policies and measures and/or increase it’s investment in flexible Kyoto mechanisms.

- In March 2006, a decree was enforced which sets the obligation to mix at least 1% of bioethanol and bio-diesel with gasoline and diesel. This percentage needs to be increased yearly by 1% until 2010. In addition, the production and selling of bioethanol will be encouraged for a period of six years, starting in 2008.

Nature and biodiversity

- LIFE-Nature projects form an integral part of the measures to protect and improve the conservation status of nature and biodiversity, including Natura 2000 sites. During 2006, the Commission approved funding for four new projects and at the end of the year, Italy had 39 ongoing projects.

- Italy is not fully complying with the Birds Directive. Several infringement procedures are ongoing in relation to regional legislation on hunting.

Environment and health

- The Ministry of Environment, together with the Ministry for Health, in 2006 prepared the National Environment and Health Action Plan which addresses environmental health problems in Italy. Furthermore, in March 2006 the National Commission for atmospheric pollution emergency finalised a report which identified the priority actions to be implemented to improve air quality.

Resource use

- Despite the high percentage of landfilled waste, other systems for waste treatment are being developed like composting and biomass plants, and incinerators with energy recovery devices are increasing. The way waste is treated varies across Italy.

- In 2004 there were more than 4 000 illegal waste offences. Fighting illegal waste activities is one of the environmental priorities of the new government. This requires a step increase in environmental inspections.

15. LATVIA

Highlights

In May 2006, the Ministry of Environment adopted a 2007-2009 Strategy for Action. It builds on a previous strategy and aims at improving budget planning and financing. Increasing public awareness of environmental issues is also a focus of attention.

In November 2006, the Parliament adopted a new Environmental Protection Law. The law's general principles are updated, and new provisions are included that transpose some EU legislation into Latvian law e.g. the Environmental Liability Directive, eco-labelling and EMAS schemes.

Use of market-based instruments

- A new Natural Resources Tax Law came into force as of 1 January 2006, replacing the previous Law of 1995. The new Law provides for a gradual increase in tax rates for water abstraction, waste disposal, air emissions, goods harmful to the environment and packaging, which had not been increased since 1995. The new Law also introduces tax rates for waste electric and electronic equipment (WEEE). In addition, it cancels subsidies for the collection of environmentally harmful products such as used tyres, mineral oils or batteries.

- The Eco-flower labelling system was introduced and the two first enterprises have been certified.

Eco-innovation

- Energy industry (renewable energy sources and energy efficiency) and environmental science are listed among state financing priorities for research in 2006-2009.

- A new Law on Public Procurement extends selection criteria to include environmental standards.

Energy

Energy intensity in Latvia is significantly higher than the EU average. In 2004 it was 696 kg of oil equivalent per €1000 GDP. Nevertheless, it has been decreasing slightly each year since 2001. The decrease in 2004 was 4% compared to 2003.

- In June 2006, the Energy Sector Development Strategy 2007-2013 was adopted, and includes energy efficiency measures especially for households.

- Latvia adopted a Statement on Use of Renewable Energy Resources 2006-2013 in June 2006 to promote them. Latvia's 2010 target is to produce 49.3% of electricity from renewable energy sources. In 2004, this share was already 47.1% which is one of the highest shares in the EU.

- Draft regulations are being prepared for the obligatory purchase by the public energy supplier of electricity produced from renewable energy resources.

Climate change

Latvia is committed to reducing their greenhouse gas emissions for the period 2008-12 by 8% compared to 1990. In 2004, emissions were 59% below their 1990 level.

- In April 2006, an outline plan on Latvian participation in international emissions trading was adopted. It offers options for the management of international emissions trading in Latvia and implementation of UNFCCC and Kyoto Protocol obligations.

- In the first half of 2006, in cooperation with World Bank representatives preliminary research was carried out on creation of a green investments system for implementation of Kyoto flexible mechanisms.

- The Climate Change Mitigation Programme in Latvia for 2005–2010 includes the following priorities: raising energy efficiency, designing ecologically acceptable transport system, and implementing best available and cleaner technologies.

Nature and biodiversity

- During the summer of 2006, agreement was reached on the evaluation procedure for proposed activities impacting on Natura 2000 areas, criteria for establishing compensatory measures for Natura 2000 sites and requirements for long-term monitoring of compensatory measures.

- LIFE-Nature projects form an integral part of the measures to protect and improve the conservation status of nature and biodiversity. During 2006, the Commission approved funding for two new projects, which both focus on Natura 2000 sites. At the end of the year, Latvia had 11 ongoing projects.

- The 2006 Progress Report on Implementation of the Latvian Lisbon Reform Programme reported that several measures of the Rural Development Plan 2004-2006 sub-programme Agro-environment have been implemented, including a measure on "erosion elimination".

Environment and health

- Amendments to the Air Quality Regulations were approved in July 2006 in order to transpose requirements of the EU Directive on arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons.

Resource use

- In July 2006, an EU Cohesion Fund project on the “Construction of a hazardous waste polygon, its auxiliary buildings and communications” was agreed. It aims to develop an environmentally safe national hazardous waste management system. A new hazardous waste polygon will be built in Zebrene (Dobele district) by mid-2008.

16. LITHUANIA

Highlights

In the first half of 2006 policy initiatives were hindered by elections in Lithuania. The new Government's Programme for 2006–2008 includes environment-related goals: improving environmental protection management, strengthening institutions administering EU funds, ensuring openness and publicity in the preparation and implementation of environmental protection projects, and improving investment efficiency for environmental projects.

Use of market-based instruments

- The new government intends to apply economic measures to promote the production and use of less polluting fuels and biofuels.

- A draft Programme has been developed on the Award of Eco-label to Product Groups in the Republic of Lithuania for 2006-2008. This Programme aims at a continuous environmental protection and quality improvement process in different businesses by supporting the manufacture of products which are more environmentally-friendly than other products of the same group.

Eco-innovation

- In order to promote clean production methods based on modern technologies, Lithuania has drafted Guidelines for Implementation of the EU Environmental Protection Technology Development Actions and the National EU Integrated Product Policy Implementation Guidelines.

- Lithuania started to prepare the programme for implementing green procurement. It includes current situation analysis, green procurement implementation cost assessment, and recommendations for its implementation in separate groups of procuring organisations of Lithuania.

Energy

Energy intensity in Lithuania was 1136 kg of oil equivalent per €1000 GDP in 2004. It was 5% lower than in 2003, but this is still very high compared to the EU average of 205 kg per €1000.

- The government approved a National Energy Efficiency Programme for 2006-2010, which will allow Lithuania to cut imported energy resources, despite growth, by 25-30% in 20-25 years.

Climate change

Under the Community burden-sharing agreement, Lithuania is committed to reducing greenhouse gas emissions for the period 2008-12 by 8% compared to 1990. In 2004, emissions increased by 17.9% compared to 2003, but they were still 60% below their 1990 level.

- Lithuania is revising its National Strategy for Implementation of the United Nations Framework Convention on Climate Change to include application of the Joint Implementation Mechanism of the Kyoto Protocol. The first joint implementation projects relating to wider deployment of renewable energy resources have been launched.

Nature and biodiversity

- Finalising the formation of the Natura 2000 conservation area network, Lithuania implemented six measures on the establishment of bird conservation areas and seven measures for the setting up of habitat conservation areas.

- Lithuania has two ongoing LIFE-Nature projects, which form an integral part of the measures to protect and improve the conservation status of nature and biodiversity including Natura 2000 sites.

Environment and health

- In order to improve the ambient air quality assessment and management system Lithuania has drafted a National Programme for the Control (Reduction) of Pollutant Quantities Emitted into Ambient Air. This programme will establish national pollution reduction targets and implementation measures.

- Lithuania plans to modernise the water management sector establishing an efficient system of regional administrative institutions. An evaluation of groundwater resources for drinking water will support completion of the stocktaking of hot-spots of potential geological environmental pollution and the setting of conservation targets for bodies of groundwater.

Resource use

- In the waste management sector there are three main initiatives. Firstly, the improvement of waste collection, sorting and recycling of secondary materials. Secondly, the construction of new landfills, closing down the majority of old landfills and cleaning up affected areas. And thirdly, the creation of an effective hazardous waste management system, including preparation of an asbestos phase-out programme and a plan for its implementation.

- In the forestry sector, policy initiatives include improving the utilisation of public and private forests, securing consistent and integrated quality registration of forest management activities, forests and timber stocks as well as increasing the country's forest coverage.

- To promote the processing of local secondary raw materials and private capital investments in waste management and processing, Lithuania is implementing a Programme for Managing Product or Packaging Waste. In 2006, six agreements were signed on management of packaging and product waste.

17. LUXEMBOURG

Highlights

In 2006, Luxembourg produced an action plan for reducing greenhouse gas emissions. The action plan contains measures targeted at emission reductions in the transport and construction sectors, as well as the renewable energy and electricity generation sectors. Actions planned include fiscal measures, extension of the railway network and developing new legislation with more ambitious energy performance targets.

Use of market-based instruments

- The government has developed draft laws on progressive fuel excise tax increases and reform of road vehicle tax, based on environmental criteria.

- Luxembourg introduced a subsidy scheme to improve energy efficiency and promote the use of renewable energy in residential buildings. The scheme is aimed at residents and will last till the end of 2007. Subsidies are also planned for electricity production from renewable sources, inclusion of biogas in the natural gas network, and co-generation installations.

Energy

Luxemburg performs slightly better than the EU average in terms of energy intensity. In 2004 energy intensity was 194 kg of oil equivalent per €1000 GDP. However, energy intensity increased by 7% in 2004 compared to 2003.

- The government developed draft laws on the organisation of the electricity and natural gas markets in order to transpose several EU Directives.

- Luxembourg has revised legislation on thermal insulation of buildings to introduce more ambitious standards for energy performance of new buildings. Two legislative acts concerning private and public buildings respectively will come into force from 1 January 2007.

Climate change

Under the Community burden-sharing agreement, Luxembourg has the most ambitious target for greenhouse gas emission reductions among the EU countries: -28% for the period 2008–2012 compared to 1990 levels. However, Luxembourg has the highest greenhouse gas emissions per capita in the EU. In 2004, the country's emissions were 0.3% above the 1990 level and they rose by 11.3 % compared to 2003. Road transport is by far the largest contributor to emission increases, mainly due to low fuel prices and related fuel tourism.

- An Action Plan for reducing greenhouse gas emissions was developed in 2006. Measures focus on promoting the use of renewable energy, energy efficiency, decreasing dependence on fossil fuels and supporting use of biofuels.

- A six-month public awareness campaign on climate change and energy efficiency was launched in June 2006. The programme focuses on energy performance of electric household appliances, mobility and home energy efficiency.

Nature and biodiversity

- Luxemburg is drafting a national plan for nature protection that identifies priority measures concerning nature protection for the period 2007-2011. The measures were identified in consultation with the main actors in the nature protection field and the plan should serve as orientation for other sectors concerned.

- In 2006, a Nature Observatory was established. It is composed of government officials, NGOs and independent scientific experts that seek to evaluate the state of nature protection in Luxembourg and guide the implementation of national policies.

- At the end of 2006, Luxembourg had two ongoing LIFE-Nature projects, which form an integral part of the measures to protect and improve the conservation status of nature and biodiversity, including Natura 2000 sites.

Resource use

- The government has launched a recycling stock exchange website. This aims to act as an intermediary between suppliers and users of waste which can be re-used or recycled.

- A new voluntary agreement (2006-2008) has also been signed between the Environment Ministry and Valorlux (owner of the green dot trademark in Luxembourg) to reduce packaging, notably plastic bags. Participants to the agreement are committed to a take up rate of 38% of reusable bags by the end of 2008.

- Some changes have been introduced in the waste law, in relation to the registration of establishments involved in the collection and transport of waste.

18. MALTA

Highlights

After undertaking extensive public consultation, Malta has adopted a National Strategy on Sustainable Development, which defines 20 priority areas in environmental, economic and social domains and describes provisions for implementation and revision.

Use of market-based instruments

- Malta is building capacity to implement environmental economic instruments in Malta by the end of 2006 for better practical application of the "polluter pays" principle.

Eco-innovation

- Malta has drafted an Environment Technologies Action Plan (ETAP) Roadmap, which focuses on research and development activities, verification of technologies, mobilisation of financing, market-based instruments and green public procurement. ETAP will be finalised by the end of 2006.

- Malta has established a working group for developing a Green Public Procurement Action Plan, which will expand selection criteria to include environmental standards.

- In June 2006, the Maltese government launched the Green Office Label certification scheme for ministries and other government institutions that operate their offices according to best environmental practices.

Energy

Energy intensity in Malta is higher than the EU average. In 2004, it amounted to 292 kg of oil equivalent per €1000 GDP and this was a 3% increase compared to 2003.

- In June 2006, a proposal for National Energy Policy was submitted to public consultation. This proposal focuses on energy efficiency, reducing reliance on imported fuels and providing a stable and efficient energy supply.

- The share of energy produced from renewable sources is negligible in Malta. Nevertheless the government supports small-scale renewable energy sources systems through a scheme for households endowed with photovoltaic cells that are generating more energy than they are consuming. Under this scheme excess energy can be channelled to the national electricity grid and sold.

Climate change

- Malta is not subjected to any quantified greenhouse gas reduction targets, so its obligations are limited to reporting of emissions and preparation of periodic national communications. Malta's emissions per capita are relatively low compared to EU averages (7 tonnes compared to the EU average of 11 tonnes in 2000). However, emissions increased by 44% between 1990 and 2003. Despite not having binding targets for emission reductions, Malta has identified measures to tackle climate change, such as capturing methane from waste disposal and promoting biofuels.

Nature and biodiversity

- To safeguard local biodiversity, Malta is preparing a National Biodiversity Strategy that will be accompanied by an Action Plan.

- Malta carries out scientific marine surveys to support the designation of Special Conservation Areas under the Habitats Directive. Furthermore, a zoning proposal for the marine protected area has been completed and a management committee established to develop a management plan.

- LIFE-Nature projects form an integral part of the measures to protect and improve the conservation status of nature and biodiversity including Natura 2000 sites. During 2006, the Commission approved funding for one project, which will focus on the conservation of the largest colony of the Yelkouan Shearwater seabirds. At the end of the year Malta had two ongoing projects.

Environment and health

- Considering that Malta treats only 6.5% of its waste water (2004 data), construction of new waste water treatment plants is a particularly urgent issue. Two such plants are planned in Malta and one in Gozo and they are expected to be in operation in 2007/2008.

- The Maltese National Environmental Health Action Plan is being reviewed. It focuses on children's health and well-being. Tackling air pollution, and reducing exposure to hazardous chemicals, and physical (noise) and biological agents are priority goals.

Resource use

- The Maltese islands have long experienced groundwater shortages, so the government promotes use of non-conventional water sources such as reuse of treated waste water for non-potable purposes.

- Uncontrolled landfills are being replaced by alternative engineered waste treatment plants that include methane recovery facilities. In November 2006, a permit was issued for a civic amenity site on the island of Gozo, where different wastes are collected separately before their transport to the main island for recovery or disposal. The current extension and upgrading of waste treatment and composting plants meet with resistance from local residents who fear negative impacts on health and environment.

- The EU supports the modernisation of waste management in Malta with funds and technical assistance. For example, 4.6 million Euros out of EU structural funds have been granted for improving waste separation in 2004-2006; 8.4 million Euros are being used since 2005 for the rehabilitation of the Maghtab, Qortin and Wied Fuija landfills.

- As the transport sector is the largest greenhouse gas emitter in Malta, the government promotes use of biofuels by exempting them from 1% excise duty.

19. NETHERLANDS

Highlights

In April 2006, the Dutch government presented its 'Future Environment Agenda'. It shows how the business community can be encouraged to accept responsibility for environmental problems and to make better use of the economic opportunities afforded by clean and clever innovations. Better regulation is also a key element.

Better regulation

- In June 2006, the Dutch government agreed on proposals for further simplification of environmental permits, which should lead to a reduction in administrative costs. In 2008, a general environmental permit will integrate all the permits relating to the environment, spatial planning and housing. Pilot projects started in 2006.

Use of market-based instruments

The share of revenue from environmental taxes in total taxation was 10.3% in 2004, which is the 2nd highest share of EU-25.

- In 2005 and 2006 different subsidy schemes were introduced for the purchase of new diesel cars with soot filters and for retrofitting soot filters to diesel cars and trucks.

- In 2006, the aid scheme "Green Funds" was approved by the Commission. Private tax payers receive special tax treatment for participating in funds that invest in "green projects".

Eco-innovation

- The government wants to exploit synergies between innovation and competitiveness, and environmental improvement. Industry will be invited to come up with proposals for 'private greening'.

- The government and all national agencies and public bodies are obliged to apply eco-efficiency as a criterion in all procurement activities from 2010 onwards.

Energy

The Netherlands is close to the EU average in terms of energy efficiency. In 2004, energy intensity was 203 kg of oil equivalent per €1000 GDP.

The Dutch indicative target for the share of electricity from renewable energy sources for 2010 is 9%. Between 2002 and 2004, this share progressively increased from 3.6% to 5.7%.

- In January 2006, an agreement was reached between the government and the owners of the Borssele nuclear power plant that the plant can remain operational until 2033, on condition that it fulfils the high level safety requirements set out in the Dutch legislation. The agreement also includes a commitment by both parties that each of them will invest €250 million in renewable energy.

- In May 2006, the 'Task Force Energy Transition' presented an action plan which describes possible pathways towards a more sustainable energy system in 2050. The Netherlands aims to create a system which guarantees security of supply, is less dependent on oil and gas, and leads to fewer emissions so that the long-term goals for climate and air quality (50% reduction of CO_2 in 2050) can be achieved.

Climate change

Under the Community burden-sharing agreement, the Netherlands is committed to reducing greenhouse gas emissions for the period 2008-12 by 6% compared to 1990. In 2004, emissions increased and were 1.6% above their 1990 level. The Netherlands plans to meet its target by using additional measures, Kyoto mechanisms and carbon sinks.

- The Netherlands is starting to prepare for the possibility that the capture and storage of CO_2 from fossil fuels could become part of the climate and energy policy within ten years. Around two thirds of the Economic Structure Enhancing Funds devoted to sustainable energy will be spent on projects to clean fossil fuels. Industrial companies and electricity production companies will be invited to tender for projects on capture and storage.

Nature and biodiversity

- The Netherlands has completed the establishment of its Natura 2000 network and is entering the phase of formal designation of sites. The country has also established a national ecological network as a complement to the Natura 2000 network. At the end of 2006, the Netherlands had 16 ongoing LIFE-Nature projects.

- A new fund will finance projects on nature recovery and development, reduction of threats (e.g. from shipping accidents) and sustainable development in the Wadden Sea area. The size of the fund will be €800 million over a period of 20 years. By 1 January 2007, the fund will become operational.

Environment and health

- In March 2006, a new air quality bill was presented which includes provisions implying that building projects not expected to lead to a 'significant' deterioration in air quality will not need to be checked against air quality standards anymore.

Resource use

- The Netherlands has an advanced waste management systems characterised by a balance use of the various waste management options and one of the highest recycling and composting wastes of municipal waste in the EU. This is partly the result of a high and regularly increasing landfill tax.

- In 2006, the Netherlands started the transition to a new system for the recycling and recovery of packaging waste based on a producer responsibility. The main novelties are that collection of household packaging waste must now be financed by producers in addition to recycling costs and several producer organisms have been created by industry to fulfil these obligations.

- In February 2006, an agreement was reached between the government, NGOs and businesses on a national standard for sustainable forest management.

- In June 2006, an agreement on street litter was signed between the Environment Ministry, municipalities and industry associations. It was agreed, contrary to earlier plans, not to impose a deposit-refund system on cans, small bottles and other packaging. Instead, the municipalities will increase the enforcement of fines and industry will continue its anti-littering publicity campaigns and invest in less-polluting packaging systems.

20. POLAND

Highlights

In 2006, Poland ratified the Convention on the protection and sustainable development of the Carpathians. The Carpathians are one of Europe's largest mountain ranges and an important reservoir for biodiversity. Later in the year, Polish companies got the possibility of trading their CO_2 emission allowances within the EU Emissions Trading Scheme.

Use of market-based instruments

- Poland faces a massively increased import of second-hand cars which will soon become end-of-life vehicles (approx. 80 000 cars before accession, 817 000 cars in 2006). On 1 December 2006, a law issued by the Ministry of Finance has entered into force introducing a new tax for cars replacing current excise duties. Car owners have to pay the tax on the first registration of a car up to 3.5 tonnes, regardless of its origin and age, with two excise rates depending on the engine capacity. The aim of the tax is to reduce the import of second-hand vehicles to 200 000 cars per year.

- The EcoFund Foundation provides subsidies for implementation of projects in five priority areas: air pollution abatement, climate protection, water protection, sustainable waste management, protecting biological diversity. From September 2005 to September 2006, the total of subsidies granted to these projects amounted to more than 300 million zloty (€78 million). This is a record in the history of the Foundation, being almost three times as high as the amount in 2004.

Eco-innovation

- A Roadmap for implementing the Environmental Technologies Action Plan in Poland was adopted in February 2006. The Roadmap presents existing activities within the scope of environmental technologies and innovation, and establishes a framework for coordination of these activities and promotion of the information flow in this sphere.

- A national action plan on green public procurement for 2007-2009 is currently being drawn up, together with a list for environmental criteria. On 30 August 2006, the Action Plan was presented for preliminary consultation to the institutions involved in its implementation.

- In the last five years, nearly 1 100 organisations in Poland have certified systems compatible with the environmental management standards "ISO 14001". From the beginning of 2005 till August 2006, 110 certificates for systems compliant with ISO 14001 were issued to companies in various sectors of the economy.

Energy

Energy intensity in Poland is almost three times higher than the EU average. In 2004, this ratio was 597 kg of oil equivalent per €1000 GDP. However, there is considerable progress as energy intensity has decreased by 10% as compared to 2003.

In the area of renewable energy, Poland is aiming to reach a 7.5 % share of electricity from renewable energy sources by 2010. Among the renewable energy sources currently used, biomass predominates, particularly wood and wood waste. Poland's 2004 share is 2.1 %.

- In March 2006 the Polish Council of Ministers adopted a Programme for the Power Sector, with three principal objectives including reduction of the adverse impact of the power sector on the environment.

- In August 2006 an agreement was signed between the Minister of the Economy and the Polish association of utility power plants and combined heat and power. The objective of this agreement is to develop a methodology to identify existing barriers to the development of high-efficiency cogeneration in Poland and to set out a long-term strategy.

Climate change

Under the Kyoto Protocol, Poland has committed to reducing its greenhouse gas emissions for the period 2008-12 by 6% compared to the level in 1988. Polish emissions decreased by 16% between 1990 and 2004 (-32% since the base year) mainly due to the decline of energy inefficient heavy industry and the overall restructuring of the economy in the late 1980s and early 1990s. The notable exception was transport (especially road transport) where emissions increased by about 16%. Emissions in 2010 are projected to be significantly above 2004 emission levels but still below the Kyoto target.

- In 2006, Poland's participation in the EU Emission Trading Scheme became fully operational when its emission trading registry came on line. From that moment, also Polish companies were also able to trade CO2 emission allowances.

Nature and Biodiversity

- Respectively 10% and 12% of the territory of the EU is protected or has been proposed for protection under the Birds and Habitats Directive as part of the EU-wide Natura 2000 network of high value nature areas (June 2006). However, the Polish government has not made sufficient proposals – with shares of only 8% and 4% - and is far from reaching minimum standards. Therefore, the Commission launched in July 2006 an infringement procedure against Poland over violations of both Directives.

- LIFE-Nature projects form an integral part of the measures to protect and improve the conservation status of nature and biodiversity including Natura 2000 sites. In 2006, the Commission approved funding for 2 new projects. At the end of the year, Poland had four ongoing projects.

Environment and health

- In May 2006, Poland's parliament passed a total ban on the cultivation of genetically modified crops by prohibiting any genetically modified variety from gaining seed registration. Poland intends to be a country free from production of genetically modified organisms. However, the government allows for imports of clearly marked GMO foodstuffs and to conduct scientific research on such organisms. Genetically modified products may only be permitted in production processes when it is proven that they are entirely safe for the environment and human health.

Resource use

- It is estimated that in 2006 Poland generated approximately 144 million tons of waste. This is projected to reach 171 million tons in 2014. Waste management systems are still not well developed in the country, with a need for heavy investment (around €2.8 billion). Today, landfilling is the predominant management method (over 95% of municipal waste) and about 75% of all landfills do not comply with the Landfill Directive. Only about 1.5% of municipal waste is separately collected and recycled. These needs have been reflected in the National Waste Management Plan prepared by Poland outlining investments and non-investment projects between 2003 and 2014.

21. PORTUGAL

Highlights

Several environmental laws have been introduced in 2006 that deal with the main environmental problems in Portugal. The government has released its project for a National Strategy for Sustainable Development which will constitute the reference for public action and mobilise all actors with 2015 as the time horizon. On land use planning, a proposal of the National programme for Land Use Planning Policy was adopted by the government. This should constitute a framework of strategic reference for measures with significant territorial impact. Further, different policy initiatives for combating forest fires have been taken, e.g. making it obligatory to clear combustible brushwood, introducing more and heavier fines and demarcating forest management zones.

Use of market-based instruments

- The Portuguese government is considering revision of vehicle taxation with internalisation of environmental, social and infrastructure costs.

Energy

Energy intensity in Portugal is higher than the EU average. In 2004 it reached 240 kg of oil equivalent per €1000 GDP, which is 17% higher than the EU average in that year. Energy intensity in Portugal increased by 2% in 2004 compared to 2003.

The share of renewable energies in electricity consumption was 36 % in 2003, coming close to the 2010 indicative target of 39 %. However, in 2004, the share decreased to only 24%. The highly volatile share of renewable energy is due to the dominance of hydropower in Portugal which is weather-dependent. Portugal also has a strong potential for other renewable energy sources, like solar, wind and biomass.

- In October 2005 the Portuguese government adopted the National Strategy for Energy that defines broad policy guidelines and sets out the most relevant measures for the energy area, based on three broad objectives: guaranteeing the safe supply of energy, stimulating competition, and guaranteeing the environmental adequacy of the whole energy process.

- In 2006, legislation was published on energy efficiency in buildings and will be applied in phases, starting in 2007, according to buildings type and size.

- On renewable energies, public call for tenders began in order to increase the installed capacity in wind energy conversion to 5 100 MW. A new public call for tenders was issued and legislation was approved in order to intensify the unexploited hydro potential and the remaining renewable energies: biomass, biogas, solar, and ocean.

Climate change

Portugal is committed to an increase in its greenhouse gas emissions of no more 27% for the period 2008-2012 compared to the level of 1990. However, the emissions in 2004 were 42 % higher than the 1990 level. Portugal projects that its emissions will be higher than allowed under the EU burden-sharing agreement. Portugal will have to identify further emission reduction policies in order to achieve its Kyoto commitments.

- The National Plan on Climate Change was approved in July 2006. It updates the 2004 version and contains a set of measures for sectors like energy, agriculture, forestry and waste.

Nature and biodiversity

- Portugal has experienced severe forest fires in recent years. In 2006, the government approved a National Forest Strategy on forest management and developed a plan for combating forest fires. The measures included more and heavier fines, and improved communication flows between the relevant ministries.

- LIFE-Nature projects form an integral part of the measures to protect and improve the conservation status of nature and biodiversity. During 2006, the Commission approved funding for four new projects. One of these projects aims to restore and preserve key areas of habitats of a Nature 2000 site suitable for the very endangered Iberian lynx. At the end of the year, Portugal had 17 ongoing projects.

Environment and health

- A new law on water issues was approved at the end of 2005, in order to transpose the EU Water Framework Directive and provide the basis for sustainable management of water resources.

- A national plan for environment and health was under preparation in 2006.

Resource use

The final disposal of municipal waste was divided in 2004 as follows: 66 % landfill, 20 % incineration, 7 % composting and 7 % recycling. Despite progress, these numbers are still far from the established goals of 26 % composting and 26 % recycling in 2005.

- An intervention plan for urban solid waste has been set up end of 2005.

- A Framework Directive on soil protection to avoid sealing is going to be implemented in 2006. A regulation for the decontamination of soil is also expected.

22. ROMANIA

Highlights

Prior to accession of Romania to the EU on 1 January 2007, significant progress has been made in several areas, including environment. Efforts have continued to establish functional administrative structures and progress has been made towards the implementation of the environmental *acquis* which is now fully transposed. In particular, further efforts have been undertaken to clarify the responsibilities of administrative structures for ensuring implementation. Moreover, the 2006 budgets of both the Ministry of Environment and the National Environment Guard were increased.

Establishing environmental infrastructure is a key element for enhancing economic development in Romania. Providing basic environment infrastructure in the regions is a pre-requisite for business development and more and better jobs creation.

Eco-innovation

- According to the draft National Lisbon Reform Programme, currently under public consultation, an Action Plan for the promotion of environmental technologies will be developed.

Energy

Energy intensity in Romania is six times higher than the EU average. In 2004 it reached 1227 kg of oil equivalent per €1000 GDP. Nevertheless, this was a 9% improvement compared to the 2003 level.

- Increased attention is being paid to biofuels and renewable energy sources. Romania is currently producing 3 million tonnes of biofuel each year and increasing production facilities. A new Fiscal Code, approved by the government in June 2006, eliminates taxes on biofuels (bioethanol and biodiesel) and on electricity from renewable sources, in order to help increase the use of the two.

Climate change

In 2004, Romania was on track to meet its Kyoto target (8% reduction compared to the base year 1989) and for 2010, projections taking into account domestic policies and measures show that Romania will over-achieve its Kyoto targets.

- Due to the particularly bad series of floods in 2005 and 2006, adaptation is an important part of Romania's climate change policy. A National Action Plan for Adaptation including all aspects on impact, vulnerability and adaptation will be developed in 2007.

- Romania is working on implementing legislation and the deployment of technical infrastructure necessary for the EU Emissions Trading Scheme.

Nature and biodiversity

- Establishing the list of Natura 2000 sites has been a major challenge for Romania. A web-based interface to the Natura 2000 database was developed, in order to allow for

comments, public consultation, data analysis, validation and site selection and has been available to the public since 15 March 2006. A comprehensive public consultation process organised by the local and regional Environmental Protection Agencies concerning the future Natura 2000 network sites took place between September and December 2006.

- LIFE-Nature projects form an integral part of the measures to protect and improve the conservation status of nature and biodiversity including Natura 2000 sites. In 2006, the Commission approved funding for two new projects related to restoration and nature management on islands. At the end of the year, Romania had 15 ongoing projects.

Environment and health

- During 2006 Romania has managed to speed up its efforts in implementing the requirements of the IPPC Directive. Almost 100% of the application for permits have been received, an national information campaign on IPPC took place, as well as a series of training activities for public authorities.

- The implementation of the Water Framework Directive is ongoing, as is work on the Directive on urban waste water treatment. In respect of the latter, the first version of a Strategy regarding projects for waste water infrastructure for residential areas with over 2 000 population equivalent was elaborated and forwarded to the Commission. A major challenge for Romania is linked to the challenges of building environment infrastructure, especially in the water sector. A strategy has been developed, and a large part of the available Cohesion fund resources is intended to be allocated to establishing water infrastructure, but large amounts of co-financing is needed from inter-alia national sources.

- A new law, Law 112/2006, amended the existing Water Law by dealing with prevention and defence against floods, strengthening water management inspection capacity, and introducing penalties for non-compliance with the provisions.

Resource use

- The remaining parts of the EU waste legislation have been transposed by Romania in 2006 preparing for accession and implementation structures have been reinforced.

- A law for the full transposition of the EU Waste Directive was endorsed by the government and is awaiting approval from the Parliament. Regional Waste Management Plans are being finalised by the Regional Environmental Protection Agencies.

- In June 2006, the Directive on restriction of the use of certain hazardous substances in electrical and electronic equipment was transposed. To implement the Directive on end-of-life vehicles, a new government decision was approved to include the new provisions of the EU legislation. The implementation of the Waste Framework Directive and the Hazardous Waste Directive has been further promoted by the finalisation and approval of eight Regional Plans for Waste Management, corresponding to the 8 developing regions of Romania. These plans cover aspects like compliance with national and Community waste policy, in particular the attainment of the proposed targets, establishment of sufficient capacities and investment requests.

23. SLOVAKIA

Highlights

During 2006, discussions continued concerning the revitalization of nature in the Tatra region of Slovakia. Storm damage in this region at the end of 2004 sparked a debate on bad management practices and the need for changes to the management of Slovak national parks, their surroundings and nature conservation generally. A new coalition government was elected in June 2006. It committed itself to new zoning laws in the High Tatras region, where construction can currently take place in even the most protected areas.

Better regulation

- On 1 February 2006, the Environmental Impact Assessment Act entered into force after delays in adoption of more than one year.

Eco-innovation

- Endeavours to secure an effective relationship between industry and environment are supported by the Act on environmental certification and registration of organisations under the EMAS scheme. This Act entered into force in January 2006. It regulates environmental auditing.

Energy

The energy intensity of Slovakia was 854 kg of oil equivalent per €1000 GDP in 2004, which is more than four times the EU average. However, this ratio has improved consistently since 2001; the decrease in 2004 compared to 2003 was 8%.

In 2004, the share of electricity from renewable energy sources was 14.3%, which is higher than in 2003 (12%) but significantly lower than in the period 2000-2002 (17.6%). Slovakia does not seem to be on track to meet its 2010 national indicative target of 31%. At present, the main production from renewable electricity comes from hydro power stations. In the future, utilisation of biomass may become more important.

- In June 2006, the Ministry of Economy drafted a proposal for a Strategy of More Intensive Use of Renewable Sources of Energy. This provides for a financial mechanism to support the use of solar energy and biomass in households.

Climate change

Slovakia is committed to reducing aggregate emissions of greenhouse gas emissions in the 2008–2012 period by 8 % compared with the base year of 1990. Slovakia's current emissions are 30% lower than the year 1990, but have been relatively stable since 1994. This shows that Slovakia has potential to go far beyond Kyoto targets.

Nature and biodiversity

- In January 2006, the Framework Convention on the Protection and Sustainable Development of the Carpathians came into force. A framework implementation

programme is being prepared and ways are being sought of connecting it to the implementation programme of the European Landscape Convention.

- After two years of negotiations between different ministries, a resolution was adopted stating that the Minister of the Environment needs to reach agreement on the amount and methods to compensate landowners for restrictions to their property rights when proposing new areas to be protected. However, there is a problem with allocation of the resources for the compensation payments in the state budget and at the same time a lack of commitment to draw from EU funds for 2007-2013. Consequently, a significant delay has occurred in the designation of Special Protection Areas (Birds Directive).

- LIFE-Nature projects form an integral part of the measures to protect and improve the conservation status of nature and biodiversity. In 2006, the Commission approved funding for two new projects. The first will focus on endangered breeding and migrating birds in the wetlands of two Natura 2000 sites and the second on conservations of habitats in a military training area. At the end of the year, Slovakia had eight ongoing projects.

Environment and health

- In January 2006, the previous Slovak government adopted an Action Plan for the Environment and Public Health.

- The Slovakian Government adopted a new Water Management Policy in 2006. The policy reflects commitments to 2015, the end of the transition period for implementation of the Urban Waste Water Directive and the Water Framework Directive.

Resource use

- In February 2006, the government approved the Waste Management Programme 2006-2010, which serves as a basic conceptual and planning document in decision-making and in drafting regional waste management programmes.

- The level of waste in Slovakia collected separately is low but increasing. Only 6% of household waste is being recycled. The majority of the waste is landfilled. Many landfills in Slovakia do not comply with EU legislation.

24. SLOVENIA

Highlights

The government approved an action plan for implementing an electronic toll collection system, which would enable the collection of fees calculated according to the number of kilometres covered, and without the need for vehicles to stop. Preparation also started of a Coastal and Marine Environmental Management Plan in the course of Slovenia's two-year presidency of the UNEP Mediterranean Action Plan[32].

Eco-innovation

- Slovenia has not produced an ETAP Roadmap. However, the Resolution on the 2006-2010 National Research and Development Programme lists sustainable industry technologies among Slovenia's priorities.

Use of market-based instruments

- The government adopted a decision on tax per unit of soil pollution in 2006, which will apply from 1 January 2006 until 31 December 2006. A similar decision was taken to introduce a tax per unit of water pollution in 2006.

- In March 2006, the government also adopted amendments to the Regulation on Environmental Tax on Waste Disposal; and Regulations on Environmental Taxes on Waste Electrical and Electronic Equipment; on Used Tyres; and on Waste Packaging.

Energy

Slovenian energy intensity is higher that the EU average. In 2004 it amounted to 329 kg of oil equivalent per €1000 GDP compared to an EU average of 205 kg. However this ratio has been improving steadily each year since 2001.

- The percentage of Slovenia's sustainable energy will increase in the following years. A special sustainable energy and hydrogen economy project worth €3.9 billion has been included in a 'Resolution on national development projects'. One part of these funds will be allocated to research, and another to implementation.

Climate change

Slovenia is the only country out of the EU-10 that intends to use Kyoto mechanisms as an investor country, i.e. invest in greenhouse gas emission reduction projects in developing and transformation economies. Slovenian greenhouse gas emissions were in 2004 only 0.8% below base year levels and they increased by 2% compared to 2003 but the country - projects that it will meet its Kyoto target (-8% compared to 1990 level) with additional policies and measures and carbon sinks.

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[32] This is a regional cooperative effort involving 21 countries bordering the Mediterranean Sea, as well as the European Union.

- A review of the 2003 Action Plan for reducing greenhouse gas emissions is planned for 2006. In October 2006 the government started a public debate on the amended Operational Programme under the Structural Funds for decreasing emissions of greenhouse gases.

Nature and biodiversity

- LIFE-Nature projects form an integral part of the measures to protect and improve the conservation status of nature and biodiversity. In 2006, the Commission approved funding for two new projects. The first project will focus on the conservation of wetlands at two Natura 2000 sites and the second on long-term conservation of lake habitats and associated species. At the end of the year, Slovenia had eight ongoing projects.

- The 7.25 ha area of Lake Cerknica and its environment was declared a Ramsar site in January 2006.

- The government ratified a 2005 Agreement on cooperation in capturing and moving brown bears from Slovenia to France. The Agreement regulates the capture of four female bears and one male bear, to be transferred to the Pyrenees where the brown bear population is on the brink of extinction. This action is part of a large-scale project on reinforcement of the brown bear population in the Pyrenees.

Environment and health

- A contract on the rehabilitation of the Pesnica Tar Site has been signed between the government and companies. Rehabilitation includes elimination of 17 500 tonnes of tar and 7 000 tonnes of contaminated soil by solidifying tar at the site and transporting the solidified tar abroad for incineration. Rehabilitation is planned to take two years.

- The government adopted a regulation on asbestos emission and industrial wastewater drainage by plants that use asbestos.

Resource use

- An action programme was adopted on the treatment of waste electrical and electronic equipment for the period 2006-2008. The programme is designed to comply with obligations resulting from harmonisation of Slovenian legislation with EU legislation, and the implementation of targets mentioned in the Resolution on the National Environmental Protection Action Programme. It concerns electrical and electronic equipment such as household appliances, entertainment devices, electrical tools, and electrical equipment for sports and leisure, and holds producers, importers and consumers responsible for appropriate treatment of these products once they become waste.

25. SPAIN

Highlights

Spain pioneers grid-connected solar-tower thermal power. Solar-tower technology is created when the sun's radiation is used to heat a large body of air, which then rises as a hot mass through large turbines to generate electricity. Solar electricity will shortly start feeding into Spain's grid from a central-tower plant in Andalucía. It will be Europe's first commercial plant of its kind.

Better regulation

- Spain is the country with the 2nd highest number of open infringement cases on implementation of EU environmental law. At the end of 2006, there were 40 open infringement procedures in this respect; most were related to water and nature.

- In spring 2006, laws on NGOs were passed. These regulate the provision of state subsidies for environmental NGOs to cover their operational costs. The initiative's aim is to support channels for the distribution of environmental information and to reinforce public participation. NGOs have to apply for this subsidy, which is granted through an open, competitive process.

- An amendment to the law on environmental impact assessment was passed in April 2006. The amendment extends the obligation to perform environmental impact assessment – previously applicable only to specific projects – to plans and programmes. The law transposes the relevant EU legislation into national legislation.

- In July 2006, a law on access to information, public participation and access to justice in environmental matters was adopted. It is based on the Aarhus Convention, and incorporates the relevant EU Directives.

Use of market-based instruments

- At the end of 2005, the government announced a tax shift away from labour and company profits with the intention of bringing Spanish green tax levels up to the EU average, while stimulating the economy. Legislation to reduce income and corporation tax was to be put in place in early 2006. However, no progress was reported in autumn 2006 in the Spanish Implementation Report of the Lisbon Reform Programme.

Eco-innovation

- For 2006, €3 million have been allocated for a programme to finance environmental research, development and innovation projects focusing on innovative municipal pilot projects with a high technology content to help prevent pollution at local level and improve sustainability in both urban and rural environments.

Energy

In 2004, energy intensity in Spain reached 223 kg of oil equivalent per €1000 GDP, which is 7% higher than the EU average for that year. Energy intensity in Spain has been relatively stable since 2001.

Spain is the second largest producer of electricity from wind in the world. Between 2000 and 2004, the share of electricity from all renewable energy sources fluctuated between 15.7% and 21.7%, which is above the EU average. Spain's target for this share for 2010 is 29.4%.

- On nuclear energy, the government in June 2006 decided on a progressive reduction of the share of nuclear energy in power generation without compromising security of supply.

Climate change

Spain is the fifth largest emitter in the EU-25 accounting for about 9% of total EU-25 greenhouse gas emissions. Spain increased emissions by 48% between 1990 and 2004. This was largely due to emission increases from road transport, electricity and heat production, and manufacturing industries. Spain is one of the seven Member States that do not expect to reach their targets even if they deploy all planned measures. They will have to identify further emission reduction policies and measures.

- In 2006, Spain presented a National Plan for Adaptation to Climate Change. The Plan identifies measures, activities and guidelines of work to be developed for the evaluation of impacts, vulnerability and adaptation to be carried out in the development of the National Adaptation Programme.

- Spain is working together with the Latin American Plan for Adaptation to Climate Change in an example of north-south co-operation and has shown initiative within Europe by designing and publishing its national adaptation plan.

Nature and biodiversity

- LIFE-Nature projects form an integral part of the measures to protect and improve the conservation status of nature and biodiversity including Natura 2000 sites. In 2006, the Commission approved funding for four new projects, including a project that targets the recovery of the endemic giant lizard of La Gomera in the Canary Islands. At the end of the year, Spain had 47 ongoing projects.

- In June 2006, a plan to protect the Ebro Delta was adopted with the objective to maintain the specific ecological conditions of this delta.

Resource use

- Illegal and uncontrolled dumping is an urgent and widespread problem in Spain and is linked to numerous infringement cases. Tackling this problem requires measures for implementing the Landfill Directive, ensuring full coverage of all households by collection systems and investment into new environmentally sound waste recycling, recovery and disposal facilities. The national waste management plan is being revised in 2006 *inter alia* to update the targets it contains. Also in 2006, Spain adopted new laws on the management of tyres and of waste oils based on producer responsibility that include targets for their recovery, recycling and regeneration linked to the national waste management plan.

- Following a particularly dry year in 2005, 2006 broke Spanish records for minimum water reservoir capacity; at the beginning of September reservoir levels fell to 40.6% of capacity, a 147-year record low, threatening domestic water supplies, preventing inter-basin water

transfers, and impacting a range of industries (agriculture, tourism, energy) and ecosystems.

26. SWEDEN

Highlights

In 2006, Sweden adopted several policy initiatives including an action plan for the marine environment, bans on some hazardous substances, environmental technology and energy support programmes. Elections in September 2006 resulted in a new coalition government which will continue to pursue the target set by the previous government to break dependence on fossil fuels by 2020.

Use of market-based instruments

The share of revenue from environmental taxes in total taxation was 5.7% in 2004 (compared to 6.6% at EU-25 level).

- The new government plans to cancel the Swedish strategy for shifting the tax burden towards green taxes as started in 2001 by the former government. However, it will develop new instruments both inside and outside the tax policy.

Eco-innovation

- Environmental technologies are the fastest growing Swedish export industry, with a growth rate of about 15% in 2006. A national Roadmap for implementing ETAP was published in April 2006. The Swedish Agency for Innovation Systems and The Swedish Research Council for Environment, Agricultural Sciences and Spatial Planning have been asked to develop a strategy for environmental technology research.

- The Environmental Protection Agency developed a proposal for a national action plan for green public procurement.

Energy

Energy intensity of Sweden in 2004 was 218 kg oil equivalent per €1000 GDP. This is slightly worse than the EU-25 average (205 kg) for the same amount of economic output. Compared with 2003, energy intensity in 2004 remained stable.

In 2004, the share of electricity from renewable energy sources is 46.1% - especially from hydropower - which is one of the highest shares in the EU. The Swedish indicative target for 2010 is 60 %.

- Sweden is working towards a target to completely phase out fossil fuels by 2020. Guidelines for a long-term energy policy were adopted by the Swedish parliament in June 2006. The guidelines include energy-related research and development, and demonstration and commercialisation of energy technologies. Moreover, in June 2006, the parliament decided on an extension to 2030 of the country's three-year-old renewable electricity certificates system, originally scheduled to run until 2010.

- In June 2006, the parliament adopted a proposal on wind power. Measures include tax relief for wind power stations and support for further expansion of wind power. In the same month, permission was also given to construct 138 wind turbines in the south of the Baltic Sea. This will double the country’s production of electricity from wind power.

- In July 2006, the parliament agreed to a national programme for energy efficiency and energy-efficient buildings and construction. This includes a new target of reducing energy use in commercial buildings and houses by 20% by 2020 and by 50% by 2050 as compared to 1995 levels. In the same month, a Regulation in support of solar energy in commercial buildings also entered into force, to enable up to 30% subsidisation of the costs of installation of solar panels, and aimed at speeding up the introduction of solar power and complementing existing support for solar energy in residential buildings.

Climate change

Sweden has committed to a maximum increase of its greenhouse gas emissions for the period 2008-12 by 4% compared to the level of 1990. In 2004, emissions were 3.6% below its 1990 level and Sweden is expected to exceed its commitment. The country has one of the lowest greenhouse gas emissions per capita of the whole EU.

- In spring 2006, the previous government published a communication on the further elaboration of the 2004 Swedish Sustainable Development Strategy. National measures include the national energy efficiency programme and the appointment of a Commission on climate and vulnerability, which is due to present proposals in October 2007.

- The National Policy on Global Co-operation bill was published in spring 2006. It envisages that a future international climate regime post-2012 should continue to be based on the basic principles of the UNFCCC. At the national level, it calls for evaluation of the potential of different sectors to contribute to the fulfilment of climate-related objectives, and for the introduction of sectoral objectives for 2015.

Nature and biodiversity

- In April 2006, the previous government presented a plan for the co-existence of people and predators; to protect predators and the people living and working close to predators. The plan includes preventive measures, local administration, and a national information campaign.

- LIFE-Nature projects form an integral part of the measures to protect and improve the conservation status of nature and biodiversity. In 2006, the Commission approved funding for a new project. At the end of the year Sweden had nine ongoing projects.

Environment and health

- In April 2006, the Environmental Protection Agency presented an Action Plan for the marine environment as part of the Strategy for the Marine Environment launched in 2005. The Action Plan comprises 30 actions which would complement existing work to protect and improve the marine environment.

- In June 2006, the chemicals inspectorate was asked to further develop and increase supervision of the substitution principle. The aim is to stimulate Swedish companies to continue to phase out dangerous substances. An interim report is expected by March 2007 and a final report by March 2008.

Resource use

- A new programme for rural development 2007-2017 was agreed by the previous government in July 2006. The strategy includes: promoting entrepreneurship, jobs and growth, including supporting innovation; promoting community involvement; and an integrated approach to sustainable rural development.

27. UNITED KINGDOM

Highlights

The Stern Review Report on the Economics of Climate Change was published by the UK government in October 2006. The review shows how the economic benefits of strong early action easily outweigh costs and that tackling climate change is a pro-growth strategy, since failing to act would cost at least 5% - and possible as much as 20% - of the world's output. In contrast, the cost of action to halt and reverse climate change would cost just 1%.

Better regulation

- In November 2005 the UK published a simplification plan aimed at reducing the administrative burden of its environmental regulations by at least 25% by 2009. Simplification initiatives by the Environment Department have focused mainly on developing more cost-effective approaches to achieving the same environmental outcomes.

- The UK is considered to be one of the leading countries in relation to impact assessment of new policy initiatives (Regulatory Impact Assessment – RIA) but a 2006 report from the National Audit Office found that most RIAs it analysed did not cover sustainable development concerns well and made a number of suggestions for improvements.

Use of market-based instruments

- The 2006 budget included changes in a number of environment-related taxes and subsidies, including increasing the climate change levy on industry in line with inflation; reforms to vehicle excise duty to reflect their carbon emissions; and subsidies for micro-generation technologies and household insulation.

Eco-innovation

- The UK national Roadmap for implementation of the EU Environmental Technologies Action Plan of December 2005 provides an overview of environmental technology activities in the UK. It sets out a 'market-driven', facilitative approach, involving working with business, and raising awareness through the provision of information. Proposals for a Sustainable Procurement National Action Plan were published in June 2006.

- In January 2006, the government launched the Energy Research Partnership to give strategic direction to UK energy research and technological development. The Partnership is committed to raising substantial sums from private industry to develop a new National Institute for Energy Technologies. Private sector investment will be matched by public science and technology investment.

Energy

The UK performs close to the EU average in terms of energy efficiency. In 2004 energy intensity was 207 kg of oil equivalent per €1000 GDP. This was a 2% improvement compared to the 2003 level of energy intensity (212 kg per €1000).

- The UK aims for renewables to supply 10% of electricity in 2010, with a target of doubling this by 2020. Between 2003 and 2004 the percentage of electricity generated from

renewable sources increased from 2.8 % to 3.7 %. Generation from wind power more than doubled, but remains at a rather low level.

- In July 2006, the government published the Energy Review which considers a number of proposals on energy saving and CO_2 emissions, on renewables, and on nuclear power.

Climate change

The current level of greenhouse gas emissions is 14.1% lower than in 1990, and the UK was one of the most successful Member States in decoupling emission levels and energy demand, mainly due to the fuel switch from coal to gas in power production. In recent years however, there has been a slight increase in greenhouse gas emissions.

- More effort will be needed to reach its own domestic target of reducing CO_2 emissions by 20% by 2010 from 1990 levels. In March 2006, the revised UK climate change programme was published, setting out a number of additional measures.

Nature and biodiversity

- LIFE-Nature projects form an integral part of measures to protect and improve the conservation status of nature and biodiversity. In 2006, the Commission approved funding for a new project, which aims to restore areas at two Natura 2000 sites in Wales. At the end of the year, the United Kingdom had 17 ongoing projects.

Environment and health

- In order to reduce air pollution and congestion, the Mayor of London in 2006 increased the congestion charge from €7.5 to €12-€15 (depending how quickly it is paid) and has proposed increasing the charge for large vehicles. The area in London over which it applies will be greatly increased in early 2007.

Resource use

Landfill remains the main disposal route, although this share is decreasing – the amount of waste going to landfill has fallen by 9% since 2001. Recycling and composting of household waste has increased significantly over the last years, with an increase in recycling to 27% by the end of 2005. However the UK is facing challenges in terms of developing the necessary waste management plants to reach the landfill diversion targets.

- In February 2006, the government launched a major review of the UK's 2000 Waste Strategy. The intention is to put a much greater focus on waste prevention; extending a recycling and re-use culture beyond households to include workplaces, shopping and leisure; and securing a step-change in investment in waste treatment. A greater use of economic instruments, including variable household waste charging, is being considered.

- The UK aims to become the European leader in sustainable public procurement by 2009.