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**2005 Environment Policy Review**

{SEC(2006) 218}

## INTRODUCTION

2005 was a year of challenges for environment policy. Taking a broad view, three main sets of events defined the year:

- Major steps have been taken in the fight against climate change. The Kyoto Protocol entered into force and the world's biggest emissions trading scheme for CO<sub>2</sub> began in the EU. The Montreal Climate Change Conference paved the way for post-2012 global action, including ways to engage countries currently outside Kyoto commitments.
- The foundations of the next generation of environment policy were laid with the Commission's adoption by January 2006 of 5 thematic strategies. They frame actions for the next two decades on: Air pollution, Marine environment, Urban environment, Use of resources, and Waste. Work on another 2 – Soil protection and Pesticides – has progressed well, with adoption expected in early 2006. In addition, important progress has been made in the Council and Parliament on Registration, Evaluation and Authorisation of Chemicals (REACH), on course for 2006 adoption.
- The review<sup>1</sup> of the EU Sustainable Development Strategy provided a new framework for addressing long-term economic, social and environmental trends and their synergies. The renewal of the Lisbon strategy for Growth and Jobs and the production of national reform programmes by Member States highlighted the role of environment in growth, competitiveness and employment<sup>2</sup>. All this happened against a backdrop of pressure on natural resources worldwide, increased oil prices and climate-related disasters in Europe, which showed the dependence of our economies and societies on the environment.

This Review describes the most important issues for EU environment policy during 2005. In the first chapter, it examines environment policy's part in the Lisbon strategy for Growth and Jobs. It then summarises the year's main policy developments in the four priority areas of the 6<sup>th</sup> Environment Action Programme, presents newly released evidence, and outlines aspects of 2006 actions<sup>3</sup>.

### 1. ENVIRONMENT POLICY AND THE STRATEGY FOR GROWTH AND JOBS: ECO-INNOVATION AND BETTER REGULATION

#### *Highlights*

#### **Environment Policy is part of the Lisbon partnership for Growth and Jobs**

“*The European Environment, State and Outlook 2005*” prepared by the European Environment Agency<sup>4</sup> reveals that EU environment policy is having some positive impacts, from nature protection to air quality. It also shows that the environmental

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<sup>1</sup> COM(2005) 658 final.

<sup>2</sup> The European Commission's 2006 Annual Progress Report on Growth and Jobs.

<sup>3</sup> Staff Working Paper SEC(2006) xxx includes statistical data and summaries of environmental part of MS national reform programmes.

<sup>4</sup> <http://reports.eea.eu.int/>

challenges currently faced by the EU are rooted in unsustainable consumption and production patterns that remain the main barrier to further improvement. It points out that pollution prevention is cheaper than clean-up and confirms that efficient environmental protection and economic growth can go hand in hand.

When the European Council in March endorsed the Commission proposal for a renewed strategy on Growth and Jobs, Heads of State and Government clearly indicated that it was to be seen in the wider context of the sustainable development requirement and should tap into synergies between the economic, environmental and social dimensions. This was reflected by the adoption of 24 integrated guidelines, which provide guidance to the Commission and Member States in targeting their reform programmes and aim at the promotion of eco-innovation<sup>5</sup> and better environmental regulation.

### **Promotion of Eco-innovation**

Eco-innovation and environmental technologies can spur economic growth and contribute to employment objectives<sup>6</sup>. The EU eco-industries account for about 1/3 of the global market and employ over 2 million people, with an EU trade surplus of over €600 million. The sector has grown by 5% a year since the mid-90s.

The Member States in their national reform programmes have recognised these opportunities. They focused on research and development, the promotion of energy efficiency, and the use of green public procurement and economic instruments such as taxation.

At the Community level, the following actions were taken to promote eco-innovation:

- Implementation of the Community's Environmental Technology Action Plan (ETAP) was speeded up with Member States preparing ETAP Roadmaps
- A Framework Programme for Competitiveness and Innovation (2007-2013)<sup>7</sup> earmarked a fifth of its proposed budget to support eco-innovation. The proposed 7<sup>th</sup> Framework Programme for research and technological development emphasises eco-innovation, as do the new policy guidelines for cohesion 2007-2013.

### **The role and use of Better Regulation in policy**

In 2005 the Commission put Better Regulation high on its agenda as a means to cost effectively achieve policy objectives. EU environmental policy was in the fore of the better regulation agenda, in the design of new policy and in improving the effectiveness of existing policy.

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<sup>5</sup> Guideline 11 also includes reform of environmentally harmful subsidies and climate change measures.

<sup>6</sup> SEC(2005) 1530.

<sup>7</sup> COM(2005) 121 final.

## Enhancing New Policy Development

Environment policy has pioneered concepts that have now become standard practice in Better Regulation, in particular impact assessment, extensive stakeholder consultation and an integrated approach to policy issues. In 2005 it continued with publication of **4 Thematic Strategies**, defining short and medium term policy objectives based on in-depth analysis.

For example, the **Thematic Strategy on Air Pollution** was developed through 5 years of analysis. It built on an impact assessment by leading experts, 100 stakeholder meetings and a public consultation that drew 11 000 responses. A peer-reviewed, state-of-the-art modelling framework was developed to examine the economic, social and environmental impacts of different potential policies. It examined links between air pollution and other domains: human health, soil acidification, water eutrophication and further action to reduce carbon emissions.

Both the thematic strategies and other environmental policies used **detailed impact analysis** to select the best policy instrument, and included consideration of **market-based alternatives to direct regulation**. Administrative burden and impacts on competitiveness were analysed, allowing synergies to be identified. For instance, studies for the Waste thematic strategy indicated that best-practice waste minimisation could save manufacturers €2.9-4.2bn annually.<sup>8</sup>

Improvements to policy and effective implementation both rely on good **data collection**. To increase access to data, its quality and operability and to reduce administrative costs and data overlaps, the Commission and the EEA have promoted a shared information system.

## Simplification

Meeting existing objectives at less cost is the rationale behind **streamlining (or simplifying) existing legislation**. The Commission has an ongoing programme, part of which used the thematic strategies: the Air Pollution strategy will consolidate five laws on air quality into a shorter one aligning definitions and reviewing reporting requirements. The Waste thematic strategy proposes revision of the Waste Framework Directive, repeal of the Waste Oils Directive and other simplification.

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<sup>8</sup>

*The Benefits of Greener Business: Cambridge Econometrics & AEAT, 4/2003.*

## Effectiveness and Better Implementation

In 2005, the Commission increased its efforts to help Member States implement Community environmental law more easily and effectively through exchange of best practice. Rationalising its handling of infringements, the Commission launched “horizontal cases” (grouping several infringements together) against certain countries to address structural implementation deficits. **Better implementation** will also allow greater environmental results at less cost.

### *Outlook for 2006*

- The Commission will place increasing emphasis on **improving implementation** and enforcement through close co-operation with Member States. The Commission intends to table a **Compliance Assistance Programme for SMEs** to help SMEs overcome any implementation difficulties
- The Commission plans to present a document in which opportunities and methods to develop the use of economic instruments in the EU environment policy will be highlighted
- The Commission envisages simplifying further areas of legislation in the next three years.<sup>9</sup> Simplification is also a key part of wider reviews of policy, e.g. the review of industrial emissions policy begun in 2005

## 2. ACHIEVEMENTS, TRENDS AND OUTLOOK IN THE 6TH EAP PRIORITY AREAS

### 2.1 Climate change

#### *Highlights*

2005 was a landmark year – with the start of emission trading, entry into force of the Kyoto Protocol and the launch of the Second Phase of the European Climate Change Programme (ECCP). It culminated with the Montreal Conference that gave new momentum to global action.

The EU Emissions Trading Scheme (ETS) - the world’s largest - began trading. By placing a price on carbon emissions it will encourage a change in investment behaviour from 11 500 industrial emitters and provide a cost-effective route to cut emissions.

With the Council confirming that future global temperatures should not exceed 2°C above pre-industrial levels, implying greater emission reductions in industrialised countries, the Second Phase ECCP will start defining policy in the household, industrial, commercial and transport sectors as well as adaptation policies. Taking this forward, the Commission recommended that aviation emissions should be included in the EU ETS.<sup>10</sup>

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<sup>9</sup> COM(2005)535 final.

<sup>10</sup> COM(2005) 459 final.

Earlier in the year, the Commission set the tone for the international debate on the post 2012 action through the Communication “*Winning the battle against climate change*”<sup>11</sup>, the priorities being: broadening participation of developed and developing countries currently outside the Kyoto Protocol, including more policy areas, boosting development and deployment of low emission technologies, use of flexible market based instruments and including adaptation policies.

The United Nations Climate Change Conference in Montreal gave new impetus to world climate action. It closed with the adoption of over 40 decisions that will strengthen efforts to fight climate change, including:

- Adoption of the Kyoto Protocol rulebook (Marrakech accords) and a compliance regime, setting up the necessary rules and procedures to allow it to function properly
- Launch of the Joint Implementation mechanism and strengthening of the Clean Development Mechanism (CDM), plus funding for CDM institutions. This will allow EU companies invest in clean technology in developing countries in exchange for emission credits and signals that clean-tech investment will remain worthwhile
- Adoption of a 5-year work programme to adapt to unavoidable effects of climate change
- Agreement with countries outside the Kyoto protocol to discuss long-term actions.

The Commission also published a Biomass Action Plan to speed the development of biomass energy, cut emissions and stimulate rural areas’ economies.

### *New Findings*

The EU will, with measures in the pipeline and the use of Kyoto mechanisms, achieve its Kyoto target and reduce its emissions by 9.4% below base year by 2010<sup>12</sup>. EU-25 greenhouse gases emissions increased by 1.5% from 2002 to 2003 with recent increases in coal burning and household and service sector emissions. The most recent data for EU-15 emissions show a decrease of only 1.7% since 1990.<sup>13</sup>

- 2005 appears to have been the warmest year on record globally<sup>14</sup> causing European terrestrial ecosystems to become net outputters of CO<sub>2</sub><sup>15</sup>
- Temperature changes, extreme weather and land use change are causing the release of greenhouse gases from soils. A 15% decrease in some UK top soil carbon content over the last 25 years with the majority believed to have been

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<sup>11</sup> COM(2005) 35 final.

<sup>12</sup> EEA 2005.

<sup>13</sup> See also: EPICA project, Spahni et. al, Science, 310, 1317, 25/11/2005.

<sup>14</sup> NASA

<sup>15</sup> CARBOEUROPE Integrated Project, Ph. Ciais et al, Nature 03972, 23/06/2005.

released as CO<sub>2</sub> would have negated all decreases in man-made carbon emissions made since 1990<sup>16</sup>

- Atmospheric cooling caused by pollutant particulate matter has hidden the full heating effects of greenhouse gases, but this will reduce as air quality improves<sup>17</sup>
- The Green Paper on Energy Efficiency<sup>18</sup> identified energy savings of 20% by 2020 that reduce the EU estimated energy bill by €60bn each year and cut greenhouse gas emissions and dependence on energy imports
- Venture capital investment in clean energy technology rose 150% between 2000-2004. The renewable energy market could be worth €1.4 trillion by 2020<sup>19</sup>

#### *Outlook for 2006*

- The EU will take an active role in post-Montreal dialogue on long-term action, including a new working group on developed countries' post 2012-commitments and Kyoto Protocol revision
- As provided for in the 2003 Directive, the EU ETS will be reviewed by mid-June. The addition of new sectors and new greenhouse gases will be considered, with a legislative proposal on aviation<sup>20</sup>
- The EU will continue its international efforts to move the Kyoto process forward in a way that includes broader participation by all major emitters, including USA, China and India
- The Commission will present an Energy Efficiency Action Plan to assist in reducing our energy dependency, boost growth, and fight climate change
- The Commission will publish Communications on Clean Coal Technologies, to stimulate technological development, and an EU Strategy for Biofuels proposing policies beyond 2010
- Under ECCP II, the attention to adaptation will increase

## **2.2 Biodiversity and ecosystems**

### *Highlights*

The UN Millennium Ecosystem Assessment (MEA) concluded that “an unprecedented effort would be needed to achieve by 2010 a significant reduction in the rate of biodiversity loss at all levels”.<sup>21</sup> Ecosystems provide ecological services, essential to quality of life and economic prosperity. In March the European Council

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<sup>16</sup> Bellamy et al, 2005. Nature, 437, 245-248.

<sup>17</sup> JRC: Aerosols Climate and Policy EUR 21391 EN.

<sup>18</sup> COM (2005) 265 final.

<sup>19</sup> www.thecarbontrust.co.uk

<sup>20</sup> COM(2005) 531 final.

<sup>21</sup> *Ecosystems and Human Well Being*, Biodiversity Synthesis. MEA, 2005.

stressed the need for policy integration “given the importance of biodiversity for certain economic sectors”.

The Commission integrated biodiversity into the thematic strategies (TS), in particular:

- the **Marine Environment TS** aims to protect the resource base upon which economic and social activities depend
- the **Air Pollution TS** will reduce two of the main pressures on biodiversity – acidification and eutrophication

Completion of the Natura 2000 network progressed substantially. Biodiversity protection was further integrated into the Common Agricultural Policy, notably through the Community strategic guidelines for rural development<sup>22</sup> and adoption of a Rural Development Regulation<sup>23</sup> which provides financing opportunities for beneficial agricultural and forestry activities and Internationally, the EU stepped up integration of biodiversity concerns in its assistance programmes, and worked successfully for multilateral action, notably the Convention on Biodiversity (CBD).

#### *New Findings*<sup>24</sup>

- Many European species remain threatened – e.g. 42% of native mammals, 15% of birds, and 52% of freshwater fish<sup>25</sup>
- Lack of attention to the linkages between biodiversity and economic development will put at risk the achievement of the Millennium Development Goals
- The great majority of ecosystem services have been degraded in the last 15 years, such as marine fisheries, timber production or water purification

#### *Outlook for 2006*

- The Commission will table a thematic strategy on Soil Protection
- A Biodiversity Communication will identify key challenges and priorities to 2010 and beyond, including optimising biodiversity benefits under existing policy
- The Natura 2000 network will be completed for the EU-25 and extended to the marine environment
- The 8<sup>th</sup> Conference of the Parties to the CBD in March will work on a global protected area network in marine areas, on further negotiations of an international Access and Benefit Sharing regime, and on better implementation

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<sup>22</sup> COM(2005) 304 final.

<sup>23</sup> OJ L 277, 21.10.2005, p.1.

<sup>24</sup> MEA, unless stated otherwise.

<sup>25</sup> EEA.



- The Commission will launch an EU-wide promotion campaign to increase awareness of the benefits of organic food, under the European Action plan for Organic Food and Farming<sup>26</sup>

## 2.3 Environment and health

### *Highlights*

Environmental pollution imposes great costs on Europe, the majority from impacts on health.

The REACH proposal will provide significant benefits in terms of health and environment, while safeguarding the competitiveness of EU industry. It will replace 40 existing legal acts and create a single system for all chemical substances. Important progress was made on REACH. The proposal passed through first reading in European Parliament and Council reached political agreement.

Two strategies – on air pollution and mercury – identified other environment and health related costs and set out measures to reduce them. There was continued work on the Environment and Health Action Plan.

The **Air pollution** TS<sup>27</sup> found that with no further policy action, the cost of health damage due to air pollution would be €189-609bn a year by 2020. The Commission proposal would reduce these costs by between €42-135bn each year by 2020, preventing 60,000 more premature deaths than are avoided by existing measures.

The Council endorsed a **Mercury strategy**<sup>28</sup> which focused on limiting releases of mercury to the environment and reducing harm to health. The strategy includes a proposal to ban EU mercury exports by 2011 and actions to stop mercury surpluses re-entering the market.

The Commission's policy work focused on development of integrated risk assessment methodologies for environmental health impacts so as to identify if, or where, further action is beneficial. Implementation of the **Environment & Health Action Plan**<sup>29</sup> research actions has focussed on multidisciplinary research projects on impacts of health stressors (e.g. metals).

Illustrating the suitability of market-based instruments, a revised Directive on road charging was agreed at 2nd reading by the European Parliament, allowing road charging of lorries differentiated by their emissions and by time.

A Decision set out, for the first time, noise limits for rail rolling stock to progressively reduce noise from rail transport.

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<sup>26</sup> COM(2004) 415 final.

<sup>27</sup> COM(2005) 446 final.

<sup>28</sup> COM(2005) 20 final.

<sup>29</sup> COM(2004) 416 final.

### *New Findings*

- Air pollution currently reduces the average life expectancy of Europeans by 9 to 24 months. No additional policy action would leave some 1 million km<sup>2</sup> of fresh waters, forests, soils and other habitats damaged by acid rain and eutrophication by 2020
- In the last decade the EU-15 saw significant growth in the production of toxic chemicals, with a trend to more dangerous substances

### *Outlook for 2006*

- The second reading and final adoption of REACH is scheduled, leading to entry into force in 2007
- The Commission will propose legislation revising the National Emission Ceilings Directive, taking forward the Air Pollution TS and setting targets for four key pollutants
- The Urban environment TS will seek to reduce health impacts – particularly by the co-ordination of different urban policies and by dissemination and implementation of successful urban management practices
- An implementation plan for the Environment and Health Information System will be developed. The protocol for Human Biomonitoring will be finalised and tested, leading to better understanding of exposure and better policy responses
- The Commission will propose a thematic strategy on the sustainable use of pesticides to reduce risks to human health and the environment while allowing appropriate crop protection
- The Commission will table legislative proposals to take forward the mercury strategy

## **2.4 Resource use**

### *Highlights*

The EU economy consumes a relatively high level of resources: its material intensity is twice as high as Japan's. This leads to dependency on imports of several resources and creates environmental problems outside the EU. Addressing those issues will help meet the Lisbon objectives and our global responsibilities and commitments.

The thematic strategy on **Sustainable use of natural resources** provides a medium-term framework to define action on reducing the environmental impacts of resource use. This will also allow improving productivity and increasing the competitiveness of EU companies while staying below the over-exploitation threshold of renewable resources.

The thematic strategy on **Prevention and recycling of waste** aims to move Europe closer to a recycling society, seeking to avoid waste and to use waste as a resource. While preserving the hierarchy of options for waste management, it proposes to revise the Waste Framework Directive to introduce life-cycle thinking and to oblige Member States to develop waste prevention programmes. Setting recycling standards will improve the functioning of a growing internal market, currently worth €95bn.

On the demand side, the EU is actively promoting **Green Public Procurement (GPP)**. A handbook published in all EU languages contains practical advice for public authorities on GPP including the purchase of new environmental technologies. The Commission adopted a Directive requiring public bodies to spend a quarter of their annual procurement of heavy vehicles on environmentally friendly vehicles<sup>30</sup>

A European Platform on **Life Cycle Assessment (LCA)** was launched in the autumn, aiming at supporting business and policy making in Europe.

Internationally, the new EU Development Policy includes environment and sustainable management of natural resources as an action theme for co-operation activities and calls for systematic use of Strategic Environmental Assessment<sup>31</sup>. International Community actions aimed at attaining Millennium Development Goals have been set out in the Coherence Communication.<sup>32</sup>

#### *New findings*

- The EU has made substantial progress on improving the efficiency of materials and energy use, yet significant scope still remains for further improvements. This is notably the case in the 10 new member states through e.g. technology transfer.<sup>33</sup>
- Resource extraction in Europe has decreased, while imports of some resources have increased with higher environmental pressures in other regions of the world<sup>34</sup>.
- Europe's Ecological Footprint is more than twice the size of Europe. Europeans now use 4.9 'average' hectares per person, with only 1.8 available. Yearly growth of the EU-25's footprint since 1990 has been 3%.<sup>35</sup>
- 7 Member States – Austria, Denmark, Finland, Germany, Netherlands, Sweden and the UK - make significant use of GPP.

#### *Outlook 2006*

- The Commission will draw up an action plan to promote sustainable production and consumption, including global initiatives, building on instruments such as resource and waste policies, integrated product policy, environmental management schemes and innovation policies.

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<sup>30</sup> COM(2005) 634 final.

<sup>31</sup> COM(2005) 311 final.

<sup>32</sup> COM(2005) 134 final.

<sup>33</sup> SOE, EEA, 2005.

<sup>34</sup> EEA 2005.

<sup>35</sup> The Global Footprint Network and WWF's Report "Europe 2005: The Ecological Footprint".

- Amendments to the EMAS and Eco-label regulations will be proposed to maximise environmental benefits and workability. Work on identifying the products with the greatest potential for environmental improvement will continue, aiming for results in 2007.
- The Commission will finalise the manual for integrating environment into international development cooperation.

## CONCLUSIONS

This year's review highlights the strong links between the economy and the environment. Exploiting the synergies between the two is essential to maximise both well-being and economic growth. EU citizens are very conscious of this – they consider that protecting the environment is as important as promoting economic growth.<sup>36</sup> This is reflected in the actions promoted by the Sustainable Development Strategy and under the Lisbon agenda. The Commission has shaped environmental policy measures to spur economic growth and employment, reducing trade-offs and promoting win-win solutions. As environment policy is a shared responsibility, Member States need to engage on a similar path.

A major effort towards this is the adoption and preparation of Thematic Strategies. Completing the set of strategies and starting their implementation will be a priority in 2006.

Following the success of Montreal, post-2012 action on climate change will require strong determination both to reduce emissions and to engage in the international process. Winning the battle calls for broader participation by countries and sectors, the development of low-carbon technologies, and the continued and expanded use of market-based instruments.

Preserving biodiversity is one of the most pressing challenges. Both policy integration and awareness need to be further enhanced. Biodiversity will therefore be the core theme of Green Week in 2006 and the biodiversity communication will propose an ambitious roadmap for progress.

Boosting policy implementation will cut the unnecessary costs to society from inaction on environmental issues and cut distortion of the internal market from different treatment of companies across the EU. This will be accompanied by continuing efforts to adapt legislation and policy to face new challenges with maximum efficiency.

Obvious pressures on natural resources in 2005 reflect the EU's unsustainable production and consumption patterns. Despite some progress, the pace of change is not quick enough. These resource pressures are global, as are climate change and biodiversity loss. As in 2005, the EU must show the way domestically and through support of international partners.

European citizens care about the environment and think that this is an area in which the EU does and should bring added value at home, within its immediate neighbours and globally. Showing that environmental protection can go hand in hand with economic growth and social inclusion is thus an excellent way of generating more enthusiasm for the European project.