ANNEX 7

OVERVIEW OF THE EVALUATION OF THE 6TH EAP

This annex provides an overview of the evaluation of the priority areas of the 6th EAP – nature and biodiversity, environment and health, natural resources and waste, climate change, and international issues and the strategic approaches – in terms of their contribution, the achievements and shortfalls of environment policy during the period, and lessons learned.

1. NATURE AND BIODIVERSITY

Contribution: For nature and biodiversity, the 6th EAP instigated the development of the thematic strategies on soil protection and on the protection and conservation of the marine environment. It pointed to the need to build a stronger knowledge base, to improve financing, and to step up current activities. It sought to raise political awareness of nature and biodiversity to a level similar to other environmental issues, in particular climate change, and highlighted the need to increase recognition of the economic value of biodiversity and ecosystem services in the policy process.

Achievements: The Natura 2000 network of protected sites has been extended to cover some 17% of the EU's total land area, while the Thematic Strategy on Soil Protection has highlighted the importance of soil as a key resource and in biodiversity protection. The Thematic Strategy on the Protection and Conservation of the Marine Environment laid the foundations for the protection of marine biodiversity, while nitrate and phosphorus pollution of rivers and lakes has declined. Moreover, building the knowledge base has been a key driving force, e.g. the TEEB initiative (*The Economics of Ecosystems and Biodiversity*)[1] has boosted the ongoing process of putting a monetary value on natural capital and ecosystem services. The EU 2010 Biodiversity baseline will serve as a benchmark and the updated SEBI 2010 (*Streamlining European 2010 Biodiversity Indicators*)[2] will be key to measuring future progress. Finally, a new ten-year strategy to protect biodiversity has recently been adopted.

Shortfalls: The overall target of the 6th EAP to halt biodiversity decline by 2010 was not reached and the general trend of most indicators relevant to biodiversity has been negative, albeit with significant regional variations, e.g. land abandonment, habitat fragmentation resulting from developments in transport infrastructures, urban sprawl, and inappropriate agricultural practices. A substantial proportion of Europe's freshwaters are at risk of not achieving a good status by 2015. Out of more than 10,000 non-native species in the EU, it is estimated that 10-15% have negative impacts on nature and biodiversity. Detailed bio-geographical evaluations of the species and European habitat types listed in the EU Habitats Directive[3] indicate that only 17% of habitat types and species have a "favourable conservation status"[4]. Development of a network of marine protected areas has been slow, designated sites accounting for approximately 6% of species and 10% of habitats to date. Despite having

1 http://www.teebweb.org/
2 http://biodiversity.europa.eu/topics/sebi-indicators
3 Council Directive 92/43/EEC, OJ L 206 , 22.07.1992
4 http://www.eea.europa.eu/publications/eu-2010-biodiversity-baseline/

highlighted the sustainable use of soil as a priority in the 6th EAP, the Council has not been able to make progress on this issue, in particular by adopting the proposed Soil Framework Directive[5]. This has to date limited the ability to reach the 6th EAP objective on *soil management* practices in the EU.

Lessons learned: More progress could have been made towards the goal of halting the decline of biodiversity by 2010 had it been matched by the necessary political attention and financial commitments from both EU and Member States.

2. ENVIRONMENT AND HEALTH

Contribution: The 6th EAP prompted a useful stock-taking exercise of existing commitments and planned actions and brought greater focus to the linkages between environmental factors and human health. It helped to push forward action which otherwise might not have happened, e.g. on the urban environment, or which may have taken longer or been less comprehensive without the impetus of the Programme, e.g. in relation to pesticides. The 2005 Thematic Strategy on Air Pollution set up a comprehensive and holistic methodological framework built on a solid knowledge base which continues to provide the basis for integrated policy on air quality.

Achievements: While protecting human health has been an objective of many environment policies, e.g. on air, water and chemicals, the 2004-2010 Environment and Health Action Plan[6] helped to increase awareness and information on the linkages between environment and health. Comprehensive legislation was adopted in the areas of chemicals, pesticides and water, although long implementation times mean it may take time to have an impact. Levels of SO_2, NO_x and lead in air have declined over the last nine years. In addition, new measures have been taken which were not in the 6th EAP, reflecting changes in policy priorities due to increased risks of water scarcity and forest fires.

Shortfalls: The 6th EAP target that, within one generation, chemicals would be produced and used only in ways that did not lead to a significant negative impact on health and the environment is unlikely to be fully met. In addition, data is still scarce on the concentrations of chemicals in the environment and in humans, and on the effects of exposure to complex cocktails of chemicals. The Thematic Strategy on the Urban Environment does not appear to have had a significant impact with respect to the 6th EAP objective of improving the quality of the urban environment. Particulate matter and ozone remain major concerns, in particular, PM_{10} concentrations in many EU urban areas continue to make a significant contribution to earlier deaths and disability from respiratory diseases, cardiovascular diseases and cancer. An estimated 40% of the EU's population live in urban areas with levels of noise at night above the recommended WHO levels. Access to water of satisfactory quality is insufficient and represents a risk to health in a number of rural areas.

There are also a number of gaps in legislation - not exclusively environmental - for example in relation to indoor air (given that European citizens spend an estimated 90% of their time indoors), and on emissions from domestic and commercial appliances. In addition, national emission ceilings have yet to be revised and excess atmospheric nitrogen deposition is still an issue across the EU.

Lessons learned: More attention is needed to support implementation at both national and regional levels. Research findings and information on the impacts of environmental quality on

[5] COM(2006)232
[6] COM(2004)416

health should be better integrated into the broader policy objective of improving public health. The urban environment needs to be better reflected in policy development, given that nearly 75% of the EU population reside in urban areas.

3. NATURAL RESOURCES AND WASTE

Contribution: The 6th EAP strengthened the link between waste policy and resource policy, and helped to reinforce waste management and move towards policy based on sustainable consumption and production. The Thematic Strategy on the Sustainable Use of Natural Resources inspired further research, led to the creation of new forums[7] and formed the nucleus of the current work on resource efficiency. The Thematic Strategy on Waste Prevention and Recycling provided a common strategic framework for EU legislation on waste.

Achievements: Resource use is no longer increasing at the same rate as economic growth. The SCP-SIP Action Plan set out an integrated series of measures to green European manufactured products, among them the creation of a multi-stakeholder platform - the Retail Forum - designed to influence more sustainable consumption. Recently adopted measures such as the Eco-design Directive[8], the revised Ecolabel Regulation and the Green Public Procurement initiative are designed to have positive impacts on resource use in the future.

Waste legislation has also been significantly modernised and simplified in order to better meet the overarching objectives set in the 6th EAP. Waste management legislation has been made more comprehensive by incorporating life-cycle analysis, by establishing re-use, recycling, and recovery targets and by reducing the hazardousness of certain wastes. The amount of potentially harmful substances in electronics placed on the EU market has already been substantially reduced as a result of the Directive on Restrictions on the Hazardous Use of Substances[9].

Shortfalls: In absolute terms resource use is still increasing which is not compatible with the goal of respecting the carrying capacity of the environment in the longer term. Substantial differences in resource productivity among Member States persist. There is also an increasing reliance on imports which now account for 20% of all resources consumed and for which the impact is largely unknown.

In contrast to the 6th EAP objective of reducing the overall volume of waste generated in the EU, it appears that waste generation has at best stabilised, and is perhaps increasing. Although the Waste Framework Directive places greater emphasis on waste prevention than previously, the absence of a sufficiently robust knowledge base and different circumstances at national level did not permit more tangible measures or target-setting.

Lessons learned: Food and drink, private transport and housing are considered to account for 70% to 80% of the EU environmental impact on consumption[10]. Moreover, it is estimated that over 80% of all product-related environmental impacts are determined during the design phase of a product. More focus is needed on these sectors and on eco-design in order to tackle the environmental impacts of human activities and behaviour. The implementation of waste legislation continues to present a challenge, especially as trade in waste is increasing.

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7 The ESTAT Data Centre on Natural Resources and the UNEP International Resource Panel

8 Directive 2009/125/EC, OJ L285/10, 31.10.2009

9 Directive 2002/95/EC, OJ L37/19, 13.2.2003

10 http://ec.europa.eu/environment/ipp/pdf/eipro_report.pdf

4. CLIMATE CHANGE

Contribution: Although the 6th EAP helped in the climate change area, mostly through priority-setting and by mobilising broader institutional support, other external drivers were more forceful, e.g. international developments, public awareness, the Stern review on the economics of climate change and the costs of inaction, the IPCC Fourth Assessment Report which provided a sound scientific basis for climate action, geopolitical concerns regarding fossil fuel dependency, energy prices and energy security, and increasing evidence of the effects of climate change across the globe and their associated costs, due notably to more numerous extreme weather events in many parts of the world.

Achievements: Although ambitions in relation to action by the international community were not achieved, the objectives and ambitions of the 6th EAP in relation to targets and progress at EU level were exceeded. The 2007 Climate and Energy Package set 2020 targets for greenhouse gas emissions reduction, share of renewable energy and energy efficiency. The 2005 EU Emissions Trading Scheme [11] put a price on carbon, and the Nitrates and Landfill Directives[12] succeeded in reducing greenhouse gas (GHG) emissions. Adaptation emerged as a new area of policy-making. The Carbon Capture and Storage Directive[13] was adopted, although not included in the 6th EAP. Overall, binding quantifiable targets, such as the Kyoto Protocol target of reducing emissions by 8% by 2012, will be exceeded.

Shortfalls: Quantifiable targets, such as the renewable energy target of 12% of total energy use by 2010[14], were more aspirational in nature and were more difficult to achieve. In addition, the increases in GHG emissions in the transport sector continue to be closely linked to economic growth. Emissions from hydro-fluorocarbons also increased between 1990 and 2008 but remain unregulated internationally.

Lessons learned: The 6EAP contributed to increased public interest in the issue. However, what proved to be more important was the ability to make a clear cost and benefits case for action, as well as political commitment at EU Heads of State level to key policy objectives.

5. INTERNATIONAL ISSUES

Contribution: The 6th EAP reiterated EU commitments (a) to integrate environmental considerations into all EU external relations and (b) to the external dimension of the EU Sustainable Development Strategy.

Achievements: The EU's international commitments under the Convention on Biological Diversity and the 2010 Nagoya agreement on biodiversity targets recently helped to push forward action on biodiversity at the international level, and some other Multilateral Environmental Agreements, such as the PIC Rotterdam Convention [15] and the POPs Stockholm Convention[16], have had notable success. The EU has also actively promoted coordination between climate change and biodiversity at international level. Sustainable development chapters have been included in free trade agreements and lower barriers to trade in environmental goods and services have been pursued. Last but not least, the EU has had a

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11 Directive 2004/101/EC amending Directive 2003/87/EC, OJ L 338, 13.11.2004, p. 18–23

12 Council Directive 91/676/EEC, OJ L 375 , 31/12/1991 and Council Directive 1999/31/EEC, OJ L 182 , 16/07/1999

13 Directive 2009/31/EC, OJ L140/114, 5.6.2009

14 Directive 2001/77EC OJ L 283, 27.10.2001

15 Convention on the Prior Informed Consent (PIC) Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, Council Decision on conclusion OJ L 063, 6.3.2003

16 Convention on Persistent Organic Pollutants (POPs), Council Decision on conclusion, 14.10.2004

strong global impact via its environmental legislation, as countries exporting to the EU have had to adopt EU product standards.

Shortfalls: Despite the EU's efforts to strengthen multi-lateral cooperation and demonstrate its commitment to international conventions and agreements, little progress was made towards improved global environmental governance. Although environmental concerns were promoted in the EU's trade relations policies, they could have been better integrated into core issues such as access to markets in trade agreements. Integrating the environmental dimension into development aid was too dependent on the priority attributed to it by beneficiary countries.

Lessons learned: Environmental challenges, which are increasingly global, require a more cohesive and focused effort within the EU so that it can play its role more effectively in shaping international policy and continuing to strive for better global environmental governance. An agreed vision setting out key objectives should be the starting point for future EU action to tackle global and regional environmental problems. This would help to mobilise limited financial resources in the optimum way. The EU's growing external footprint[17] must be considered along with the effectiveness of the environmental dimension in aid policies. More could and should be done to raise awareness of the economic costs and benefits of environmental issues, and the costs of inaction. The EU should also promote the "green economy" at global level, integrating environmental, social and economic aspects such as poverty alleviation.

6. STRATEGIC APPROACHES AND INSTRUMENTS

In addition to the priority areas above, the 6th EAP refers to a range of policy-making approaches and instruments including coherence and integration, finance and implementation and enforcement. These are assessed below.

Contribution: The 6th EAP complemented the Lisbon Strategy [18] and the Sustainable Development Strategy[19] and focused in particular on integrating environmental concerns in all policy areas, notably through the Thematic Strategies. It highlighted the need for mainstreaming environmental expenditure and financing the Natura 2000 network. Sixteen percent of the Union's multi-annual budget for 2007–2013[20], which covers the second half of the 6th EAP, is nominally allocated to supporting environmental objectives including the dedicated LIFE programme[21].

The 6th EAP strongly encouraged and promoted principles and instruments for better policy-making, in particular integrated impact assessments and increased use of market-based instruments. It also highlighted the importance of solid scientific foundations for policy making.

Achievements: The 6th EAP aimed for coherence throughout the EU environment policy cycle itself, addressing objectives, instruments, implementation and - though difficult to measure - outcomes. The Thematic Strategies in particular contributed significantly to coherence within the Programme's priority areas, either by closing important gaps such as for the marine and

17 A comparison between human demand and the Earth's ecological capacity to regenerate, e.g. the water footprint measures the total amount of water used to produce good s and services consumed.
18 COM (2005) 24
19 COM (2005) 97
20 COM (2004) 487
21 OJ L 149 9.6.2007

urban environments, soil and resources, or by addressing smaller, more specific lacunae in existing measures, e.g. air, pesticides, waste prevention and recycling.

With regard to integration, the 6th EAP helped to guide the ongoing process of environmental integration in reforms of the CAP, CFP and CP. Forestry actions were also pursued, culminating in the 2010 Green Paper on forest protection and information.

To improve the implementation of environmental legislation the Commission deployed efforts ranging from greater emphasis on *prevention* of breaches to more strategic enforcement activities, such as focusing on fundamental or systemic infringements. The Environmental Liability Directive encourages the provision of financial security to remedy environmental damage.

More substantial funding was made available from Cohesion Policy funds[22] for various investments into the environment such as sustainable energy, biodiversity and nature protection or waste and water infrastructure, and from agricultural funds for better environmental performance. The 6th and 7th RTD Framework Programmes[23] also increasingly addressed sustainable development and the environment. The LIFE programme, despite its limited size, has had a visible impact on supporting implementation of the 6th EAP and has enabled targeted efforts in support of environment policy. The Environmental Compliance Assistance Programme (ECAP) offers specific help to small and medium-sized enterprises. Internationally, the Commission dedicated funds from a development aid instrument[24] for the 2007–2013 period, and from geographic cooperation programmes. Some progress, albeit limited, was also made on removing Environmentally Harmful Subsidies during reviews of the CFP and in the transport sector and more recently in the coal sector.

Different sets of indicators have been developed over time to strengthen the knowledge base. The five-yearly SOER Reports from the EEA have provided essential stock-taking while the Commission's Annual Environment Policy Reviews[25] also give regular information. In addition, the implementation of INSPIRE[26] and the further development of SEIS will improve environment information systems in coming years.

Shortfalls: Although it was also flagged at the end of the 5th EAP, and despite some progress, more needs to be done to improve coherence between the different strands of EU policy. Over-exploitation of the marine environment and in particular fisheries remains a problem. Transport continues to impose a significant environmental burden and environmental pressures from unsustainable consumption and production continue to grow.

Member States could still considerably improve their implementation record. The 6th EAP provided predictability on forthcoming initiatives in order for Member States and those involved in implementing legislation to be better prepared. However, this did not seem to happen: environmental infringement procedures still account for approximately one fifth of all open cases for non-communication, non-conformity or bad application of EU legislation. Implementation has been particularly problematic in the nature conservation, waste and water areas which accounted for approximately two-thirds of EU environmental infringement cases in 2010.

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22 In the 2007-13 programming period approximately one-third (€ 105 billion) of the total Cohesion Policy funds will be directly or indirectly invested into the environment

23 Decisions 1513/2002/EC and 1982/2006/EC

24 CEC (2007) Thematic Strategy for the Environment and Sustainable Management of Natural Resources (ENRTP)

25 COM (2009) 304

26 OJ L 108 25.4.2007

The political debate on the 6th EAP in co-decision took place in the aftermath of the financial framework debate. This had already established the broad lines of the mainstream budget for the first half of the programme until 2006, which was not optimal. The effective translation of development aid and geographic cooperation programme funds into environmental programmes/projects in beneficiary countries has yet to be assessed.

Despite recent positive developments, environmental information, in particular official data and statistics, is still incomplete and not always available on time. Measures to phase out environmentally harmful subsidies did not proceed as far as had been initially hoped for and the potential to orient taxation to promote better sustainability has not been exploited. While market-based instruments have been exploited in some sectors, notably through the greenhouse gas emission trading system, their full potential remains to be tapped.

Lessons learned: The changing nature of environmental challenges requires better coherence from policy formulation to delivery, including at Member State level, both between priority areas, e.g. climate change and air policy, and in other environmentally important sectors. Trade-offs implicit in policy development could have been made more visible, e.g. the effects of bio-energy production, or the negative impacts of renewable hydropower on many water bodies.

Poor implementation of environmental legislation undermines the achievement of objectives and the credibility of environment policy, and does not help to secure the commitment of other sectors to better performance. Commission experience points to weaknesses in the EU-wide environmental governance structure, and inadequacies in the information-related provisions of environmental legislation and other EU legislation, in monitoring and in inspections.

Maximising the effectiveness of financing from programmes whose primary objective is not environmental protection requires constant scrutiny. Given the pressure on public budgets, the possibility to mobilise private sector capital needs to be addressed adequately and sufficiently early in EU environment policy development. Moreover, those policies with a clear added value in creating a green economy and that can be delivered in the short/medium term should be prioritised, e.g. Green Public Procurement. Further steps towards reform of environmental harmful subsidies are also needed.

A more extensive environmental knowledge base is required together with a better understanding of the drivers and barriers to improvements and implementation of legislation.

Efforts to support eco-innovation in Europe should be reinforced to address barriers to market uptake of promising research results.