



**Drowning in Process? The Implementation of the EU's
6th Environmental Action Programme**

An IEEP Report for the European Environmental Bureau (EEB)

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EXECUTIVE SUMMARY

As the European Commission is in the process of carrying out a mid-term review of the implementation of the 6th Environmental Action Programme (6EAP), we have undertaken this study to contribute to this process and the ensuing policy debate it will hopefully generate. Agreed in 2002, the 6EAP sets out priority objectives to be attained by the EU in the field of environmental policy before 2012. It reflects a joint commitment of the European Parliament, the Council and the Commission and thus provides an important benchmark against which to evaluate the evolution of policy.

This study evaluates the implementation of the 6EAP across all four of its 'key environmental priorities', but does not claim to be a comprehensive assessment covering all areas of environmental policy addressed in the Programme. The key findings with respect to the policy areas examined are summarized in four tables, providing an assessment of whether the main objectives have been achieved, whether there has been progress towards their achievement or no significant progress at all. The overall picture is the following:

Climate change: Overall, the short-term international political objectives of the EU have been achieved and demonstrable progress has been made towards meeting the Kyoto commitments for the period 2008-2012. However, achievement of internal policy objectives with respect to the main source sectors of greenhouse gas emissions in the EU is uneven, with transport clearly standing out as the main source of concern.

Nature and biodiversity: Progress to date is insufficient to achieve the overall objective of halting biodiversity decline by 2010, but serious efforts are being made to protect habitats and species on the ground through implementation of existing legislation. Some progress has also been made in the integration of environmental concerns in the CAP and CFP. However, the measures proposed for the protection of the marine environment are disappointing and are not likely to achieve visible results before 2012. Legislative objectives with respect to GMOs have been met, but whether the measures in place are sufficient for the effective monitoring and control of health and environmental effects is debatable.

Environment and health: New chemicals legislation (REACH), though delayed, will represent significant progress but fall short of the ambitious objectives laid down in the 6EAP. The more limited objectives in the area of water quality have generally been met, except with respect to priority hazardous substances, where action is significantly delayed. However, the measures taken and proposed to improve air quality and urban environmental quality are far from sufficient to achieve the health and environment protection objectives of the 6EAP.

Natural resources and wastes: The Thematic Strategies in these two areas have watered down the 6EAP objectives. The measures proposed to promote more sustainable use of natural resources are clearly insufficient to achieve the initial objective of breaking the link between economic growth and resource consumption. New measures are proposed in the field of waste prevention and management, but priority is given to recycling and recovery rather than reduction of waste production.

This review of the implementation of the 6EAP has shown that the efforts of the institutions to attain the 'priority objectives set out' – to quote the terms of Article 175(3) of the Treaty – are quite deficient in many areas of environmental policy and that the state of implementation of the Programme at mid-term does not indicate that

most of these objectives are likely to be effectively fulfilled before 2012. In some cases, the evolution of the policy debate since the adoption of the 6EAP under the influence of the Lisbon agenda even tends to undermine objectives and principles that were agreed upon only four years ago.

The recent overriding concern for growth and jobs has been used to call into question the very legitimacy of Community regulatory action in many fields, including the environment. The evolution of EC environmental policy during the period of the 6EAP provides ample evidence of the political downgrading of law from its traditional position as the prime form of Community action for the protection of the environment. While political discourse stresses the need to prioritize proper implementation of existing law, the evidence shows that the Commission lacks a coherent strategy and sufficient resources for adequate monitoring and enforcement efforts responding to the needs and concerns of citizens. The stated support for wider use of economic instruments seems to serve as much as a political discourse designed to justify the retreat from classical legislative action as it reflects a genuine political commitment to the further development of indirect, market-based forms of regulation at EU level. As a result, EU environmental policy seems to be retreating increasingly into the realm of soft instruments inspired by the open method of coordination.

These trends with respect to the choice of instruments of EU environmental policy have a number of consequences in terms of the very processes whereby environmental policy is made at EU level, in particular as regards the balance of power between the EU institutions and between the Union and the Member States. The Thematic Strategies, which have become central to the implementation of the 6EAP, have institutional implications to the extent that they avoid the use of the formal legislative procedures laid down in the EC Treaty. Impact assessment, one of the cornerstones of the 'Better regulation' policy introduced at the same time as the adoption of the 6EAP, increases the importance of the pre-legislative processes and creates additional opportunities for stakeholder involvement, but not necessarily a level playing field in political terms. It also involves significant delays in policy implementation. The increased recourse to comitology and standardisation to complete the 'technical details' of legislation has profound implications for the transparency and democratic legitimacy of EU environmental policy.

ACRONYMS AND SYMBOLS

ABS	Access and Benefit Sharing
ACT	Annual circulation tax
CAFE	Clean Air for Europe
CAP	Common Agricultural Policy
CBD	Convention on Biological Diversity
CCCG	Competitiveness Council Commission Group
CEN	European Committee for Standardisation
CFP	Common Fisheries Policy
CIP	Competitiveness and Innovation Framework Programme
CO ₂	Carbon dioxide
COP	Conference of the Parties
DG	Directorate General
DG ENV	Directorate General for Environment
DG TREN	Directorate General for Transport and Energy
EAFRD	European Agricultural Fund for Rural Development
5EAP	Fifth Environmental Action Programme
6EAP	Sixth Environmental Action Programme
EC	European Community
ECCP	European Climate Change Programme
EEA	European Environment Agency
EFSA	European Food Safety Authority
ELV	End-of-life vehicle
EMAS	Eco-Management and Audit Scheme
ETAP	Environmental Technologies Action Plan
ETS	Emissions Trading Scheme
EU	European Union
EUR	Euro
F-gases	Fluorinated gases
FP6	Sixth Framework Programme for research and technological development
FP7	Seventh Framework Programme for research, technological development and demonstration activities
GAEC	Good agricultural and environmental condition
GHG	Greenhouse gas
GMOs	Genetically modified organisms
GM	Genetically modified
GPP	Green Public Procurement
HFC	Hydrofluorocarbons
IA	Impact Assessment
ICZM	Integrated Coastal Zone Management
IEE	Intelligent Energy for Europe
IMPEL	EU Network for the Implementation and Enforcement of Environmental Law
IPP	Integrated Product Policy
IPPC	Integrated Pollution Prevention and Control
IUCN	The World Conservation Union

LIFE	The Financial Instrument for the Environment
MBI	Market-based instrument
MEP	Member of the European Parliament
MOP	Meeting of the Parties
Mt	Million tonnes
MTFR	Maximum Technically Feasible Reduction
NEC	National Emissions Ceiling
NO _x	Nitrogen oxides
N ₂ O	Nitrous oxide
NGOs	Non-governmental organisations
OMC	Open Method of Coordination
PM	Particulate matter
PPP	Polluter Pays Principle
RAINS	Regional Air Pollution Information and Stimulation
RD & D	Research, development and demonstration
REACH	Registration, Evaluation and Authorisation of Chemicals
RES-E	Renewable energy sources for electricity production
SDS	EU Strategy for Sustainable Development
SEBI-2010	Streamlining European 2010 Biodiversity Indicators
SMEs	Small and medium-sized enterprises
SO _x	Sulphur oxides
TAC	Total allowable catch
UK	United Kingdom
US	United States
VOC	Volatile organic compound
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
WEEE	Waste electronic and electrical equipment
WIPO	World Intellectual Property Organisation
WFD	Water Framework Directive
WWF	World Wide Fund for Nature

SYMBOLS IN TABLES

 Objective achieved	 Progress, but objective not fully achieved	 No significant progress
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1 INTRODUCTION

The 6th Environmental Action Programme (6EAP) was formally adopted on 22 July 2002, by a joint decision of the European Parliament and of the Council (Decision 1600/2002/EC, hereafter also referred to as '6EAP Decision') based on Article 175(3) of the Treaty establishing the European Community (EC Treaty). It was in fact the first such Action Programme to be elaborated through a co-decision procedure in accordance with that Treaty provision, which was inserted into the EC Treaty by the Treaty of Maastricht.

While earlier action programmes were in fact Commission documents, which subsequently received some form of political endorsement from the Council through a qualified declaration or resolution, the fact that the 6EAP is the result of a formal inter-institutional co-decision process provided for in the Treaty,ⁱ gives it a particular kind of political importance and legitimacy which its predecessors lacked. It is not merely a Commission programme, but a formal act of the European Parliament and Council based on a Commission proposal, embodying a commitment of all three institutions. It therefore constitutes an important benchmark against which to judge the evolution of EU environmental policy since 2002.

Article 175(3) EC established a legal framework for the institutional practice, which had developed informally since the start of the Community's environmental policy, of periodically elaborating action programmes. It provides that '*general action programmes setting out priority objectives to be attained*' are to be adopted by way of the co-decision procedure, without specifying the *form* in which this is to be done. It then goes on to state that the '*measures necessary for the implementation of these programmes*' shall themselves be adopted in accordance with the legislative procedure laid down in either Article 175(1) or (2). This wording implies that the action programmes as such are not intended to have any immediate effects, but only to set out objectives for whose achievement further measures shall be required.

The exact legal nature and effect of the decision laying down the 6EAP is disputed. Some legal commentators consider this decision to be legally binding,ⁱⁱ whereas others regard it as devoid of legal effect.ⁱⁱⁱ Though the English title of the decision may be misleading, the form and content of the instrument and its title in other official languages indicate that it is not in fact a standard decision within the meaning of Article 249 EC, but a different kind of decision (decision *sui generis*). According to Article 249 EC, 'a decision shall be binding in its entirety upon those to whom it is addressed', but Decision 1600/2002/EC does not contain any clause explicitly identifying its addressees, contrary to normal practice for decisions as referred to in Article 249. Its provisions are generally formulated in an abstract manner, and to the extent that any subject is named, it is 'the Community'. Such provisions are clearly incapable of imposing any legal obligations on Member States, let alone legal entities or individuals within the Member States.

While it might be argued that the 6EAP Decision creates a self-imposed obligation for the Community, acting through its institutions, to attain certain objectives, the legal nature of any such obligation is a moot question, since the objectives actually laid down in the 6EAP are formulated in rather vague terms, which leave the institutions a considerable measure of political discretion in their implementation. To the extent that

any obligation might arguably exist, it would only be actionable as a matter of law by one institution against another or by a Member State against one or several institutions.

This does not mean, however, that the commitments made by the institutions in the 6EAP Decision are without significance. The institutional and legal context in which the 6EAP has been formulated and the way in which it has been formalized create legitimate expectations on the part of EU citizens that the institutions will make genuine efforts to achieve the agreed objectives. Their failure to do so would be a serious political issue, which would need to be addressed through political means. It is from this perspective that we have undertaken an assessment of the implementation of the 6EAP in the present study.

The procedure leading to the adoption of the 6EAP Decision in 2002 was initiated by the submission of the Commission's proposal to the European Parliament and Council in January 2001 (COM(2001) 31) and lasted a year and a half, during which intensive political negotiations were held within both institutions as well as between them in the Conciliation Committee. The Commission's proposal for the 6EAP followed on from a 'global assessment' of the implementation of the 5EAP (COM(1999) 543), which had been requested by Parliament and Council in their 1998 decision on the review of the 5EAP. This assessment, conducted by the Commission services on the basis of extensive consultations, concluded that, during the period of the 5EAP, despite improvements in some areas of environmental policy, 'practical progress towards sustainable development has been rather limited'. Two main causes were identified for the limited success of the 5EAP: its lack of quantifiable targets and monitoring mechanisms, and the fact that 'there was no clear recognition of commitment from Member States and stakeholders and little ownership by other sectors'. The Commission however also stressed that the 'main principles' of the 5EAP 'remain valid' and that the 6EAP should build on it, while strengthening shared responsibility and commitment to implementation and addressing its shortcomings. To this end, the Commission announced that the 6EAP 'would set general objectives that will need to be translated into quantifiable targets to steer the development of both environmental measures and the strategies in the economic sectors.'

In its actual proposal for a 6EAP, the Commission focused on general objectives, and, with a few exceptions, refrained from proposing any quantifiable targets. Some targets (e.g. for waste prevention and noise reduction) are mentioned in the introductory Communication, but omitted from the proposal for a decision. Effectively, this Communication suggests that the target-setting process be deferred until after the adoption of the 6EAP, in 'thematic strategies' to be elaborated later for a range of priority issues. In these strategies, the targets themselves 'will be determined on the basis of sound scientific and economic cost-benefit analysis and on open dialogue and consultation with the various parties concerned.' After considerable debate, this approach was largely endorsed by the Council and the European Parliament in the 6EAP Decision, which contains only a few quantified targets but provides that the Thematic Strategies '*may* include ... relevant qualitative and quantitative environmental targets against which the measures foreseen can be measured and evaluated.' (Art. 4(2) – emphasis added)

Thus, one of the recognized shortcomings of the 5EAP was not remedied in the 6EAP itself, and the Thematic Strategies effectively became the cornerstone of its

implementation strategy for many of the objectives it identified in key priority areas. The role of these Thematic Strategies and their influence on the policy-making process will be further analyzed throughout this report.

2 SCOPE OF THE STUDY

The time and resources available for this study were not sufficient for a comprehensive assessment of implementation covering the full scope of the 6EAP. We have therefore had to select, in consultation with the EEB, a number of specific themes for our assessment and have tried to do so in a way that takes into account the priorities identified by the institutions themselves and reflects a broad cross-section of the programme as a whole.

From the outset, the 6EAP identifies four 'key environmental priorities' to be addressed by the Community: climate change, nature and biodiversity, environment and health and natural resources and wastes (Art. 1(1)). It then enunciates a number of general principles and overall aims for each of these priority areas as well as for the implementation of the programme as a whole (Art. 2) and outlines 'strategic approaches to meeting environmental objectives' which are to be applied across the board (Art. 3). The most operational objectives are to be found in provisions specifying objectives and 'priority areas for action' for each of the four 'key environmental priorities' mentioned above (Art. 5-8), and in a further provision addressing the external dimension of EU environmental policy (Art. 9). Finally, the programme provides for a number of cross-cutting actions to improve the process of environmental policy-making itself. (Art. 10)

As mentioned above, Thematic Strategies were introduced as one of the main tools for implementing the 6EAP. (Art. 4) Overall, the 6EAP provides for Thematic Strategies to be drawn up for seven themes: air pollution, waste recycling and prevention, marine environment, soil protection, sustainable use of pesticides, sustainable use of resources and urban environment. However, not all 'key environmental priorities' are to be addressed by Thematic Strategies. The 6EAP includes many objectives and actions that fall outside the scope of these strategies and for which the programme itself is considered to provide sufficient guidance.

In determining the scope of this study, we have chosen to focus on the objectives and priorities for action listed under the four 'key environmental priorities'. As these four priority areas in fact include several sub-themes, we have had to make a further selection within them. In doing so, we have aimed to cover a broad cross-section of sub-themes within each priority area, including all the themes to be covered by Thematic Strategies, in so far as these strategies have been published at the time of writing.

Though the 6EAP provides that the Thematic Strategies were to be presented to the European Parliament and the Council within three years of its adoption, this deadline has not been met for any of them and the Commission is yet to issue the Strategies called for on soil protection and sustainable use of pesticides. This delay compromises the prospect of actually achieving the objectives of the 6EAP in these areas, all the more so since the programme provides that initiatives to this end should be presented at the latest four years after its adoption, i.e. by the end of July 2006. A more detailed assessment of implementation in these areas seems pointless in the absence of the relevant Thematic Strategies.

Finally, we also decided to concentrate on the implementation of the provisions of the 6EAP relating to the *internal* environmental policy of the EU, without addressing the Union's external action, which could quite legitimately be the subject of a separate study in its own right. Similarly, we confine ourselves to assessing implementation of the 6EAP *at EU level*. While we recognize that the 6EAP also calls for action at the level of the Member States, evaluating national implementation in the Member States was impossible within the scope of this study.

The thematic assessment of implementation in chapter 3 of this study will be followed by two chapters discussing general trends and conclusions that can be drawn from the material in chapter 3 on the evolution of the instruments of EU environmental policy (chapter 4) and the evolution of the policy-making process itself (chapter 5). The relevant provisions of the 6EAP on 'strategic approaches' (Art. 3) and 'environment policy-making' (Art. 10) will be addressed in these final chapters.

3 IMPLEMENTATION OF THE ACTION PROGRAMME ACROSS ITS FOUR 'KEY ENVIRONMENTAL PRIORITIES'

3.1 Climate change

3.1.1 Overall aims and international context

The 6EAP emphasises climate change as 'an outstanding challenge of the next 10 years and beyond' and aims to contribute to the long term objective of stabilising greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous interference with the climate system, as laid down in the UN Framework Convention on Climate Change (UNFCCC). As a first step, the EU is committed to the full implementation of the Kyoto Protocol, which implies fulfilment of the –8 per cent emission reduction target for the EU as a whole for the first commitment period (2008-2012). 'Demonstrable progress' towards this end was to have been achieved by 2005. At the same time, the measures planned under the 6EAP are aimed at 'placing the Community in a credible position to advocate an international agreement on more stringent reduction targets' beyond 2012.

The 6EAP does not provide for the adoption of a Thematic Strategy on climate change. The priority actions in this area are largely based on the European Climate Change Programme (ECCP), which was launched by the Commission in 2000 (COM(2000) 88), independently of the 6EAP. They comprise the establishment of an EU emissions trading scheme (EU ETS) and other measures to reduce greenhouse gas (GHG) emissions from the energy sector, transport, industrial production and other sectors, as well as the use of fiscal measures, voluntary environmental agreements and the promotion of research and technological development.

Standing by the Kyoto Protocol and seeing it to entry into force was one of the central successes one can fairly link directly to the EU's strong support of international climate policy. The Community ratified the Protocol on 30 May 2002. Subsequently, the EU's efforts were important in convincing other Parties to ratify, notably Russia, where the Duma ratified on 22 October 2004, paving the way for entry into force of the Protocol on 16 February 2005. This entry into force enabled the Conference of the Parties serving as the meeting of the Parties to the Protocol (COP/MOP) to hold its first meeting in Montreal the same year to formally adopt the detailed rules for implementation that were agreed upon in the 2001 Marrakech Accords. By the end of 2005, the multilateral climate change regime that took so long to establish had at last become fully operational.

Mainly as a result of the combined efforts of the EU and the Canadian UNFCCC Presidency, a decision was also taken in Montreal to initiate talks on the future development of the climate regime in 2006 in two different settings, one under the Kyoto Protocol on future commitments^{iv} and the other under the Framework Convention on 'long-term cooperative action'^v. This provides the EU with a forum to continue pursuing its climate change agenda at the global level. In the following sections, we shall review EU action on the internal front since the adoption of the 6EAP.

Table 1 - Implementation Overview for Climate Change

6 EAP objectives	Main results	Assessment
Ratification and entry into force of the Kyoto Protocol	<ul style="list-style-type: none"> • Ratification by EC and Member States in 2002 • Continued support and advocacy for the Kyoto Protocol at the international level • Entry into force of Kyoto Protocol in 2005 	☺
Demonstrable progress in achieving Kyoto commitments by 2005	<ul style="list-style-type: none"> • Establishment of EU ETS • Improved monitoring of GHG emissions and reduction policies in EU and Member States • EU-15 on course towards meeting Kyoto target but only through anticipated additional national measures and use of Kyoto flexible mechanisms 	☺
Reducing greenhouse gas emissions in the energy sector	<ul style="list-style-type: none"> • Directives to promote use of renewable energy in electricity production and combined heat and power • Biomass Action Plan • Intelligent Energy Europe Programme supporting energy efficiency measures • Inventory of public aid to different energy sources published but no action to phase out environmentally harmful subsidies 	☹
Reducing greenhouse gas emissions in the transport sector	<ul style="list-style-type: none"> • Directive to promote use of biofuels in transport • Proposals for inclusion of aviation in EU ETS but no significant progress at on aviation emissions globally • Proposal for Directive to encourage public procurement of cleaner vehicles • Amended framework Directive on road tolls and charges does not yet allow full internalization of external costs by Member States • Continued growth of transport emissions • Commission fails to deliver Communication on quantified environmental objectives for sustainable transport and abandons SDS decoupling objective 	☹
Reducing greenhouse gas emissions in industry	<ul style="list-style-type: none"> • Establishment of EU ETS • Agreement on legislation on fluorinated gases • IEE Programme to support projects to promote energy efficiency in SMEs • No EU-level environmental agreements on GHG mitigation concluded with industry 	☹
Reducing greenhouse gas emissions in other sectors	<ul style="list-style-type: none"> • A number of CAP reforms leading to reduced GHG emissions • Landfills Directive helping to reduce GHG emissions from waste management • Directive on energy performance in buildings • Directive on energy efficiency and services • Directive providing framework for efficiency standards for energy using products 	☹
Promoting the use of fiscal measures	<ul style="list-style-type: none"> • Community framework for taxation of energy products and electricity restructured but minimum tax levels too low to have significant impact on energy consumption except in a few Member States • Directive on fiscal measures relating car CO₂ emissions to purchase and circulation taxes proposed but unlikely be adopted by Council 	☹

Ensuring climate change as a major theme of EU and national RD & D programmes	<ul style="list-style-type: none"> • Climate change concerns integrated in FP6 and proposals for FP7 • Environmental Technologies Action Plan (ETAP) to promote national RD & D through coordination 	☺
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3.1.2 *Demonstrable progress towards meeting the Kyoto commitments*

Annual assessments of the EU's progress made by the European Environment Agency (EEA) suggest that the EU is currently on track to meet its -8 per cent (-6 per cent for Poland and Hungary) commitment. Action to date has led to a 5.5 per cent drop in EU-25 emissions as of 2003, with an average over the past five years of 2.9 per cent below 1990 levels. Projected reductions with measures already implemented are 9.6 per cent below 1990 levels by 2010 for the EU-25; however the EU-15, which has a combined -8 per cent target, will only reach -2.5 per cent with these measures. Additional measures should help the EU-15 reach a 6.3 per cent reduction domestically, with Kyoto flexible mechanism credit making up for the balance to reach a total cut of 8.8 per cent of 1990 levels.

These projections assume effective implementation of current and additional policies. Further, the net totals reflect over-achievement in some countries balancing out underachievement in others. EEA projections indicate that some Member States may have difficulty reaching their individual burden sharing commitments. At the moment, there are several Member States that are quite seriously falling short: the greatest laggards in absolute terms are Italy, with a gap of 92.7 Mt CO₂ between current levels and the reduction target, and Spain with a gap of 73.3 Mt CO₂. In percentage terms, the gap for Austria is 29.6 per cent, Denmark 27.3 per cent and Spain 25.6 per cent.

Improved monitoring of GHG emissions

The EU's GHG monitoring rules were originally laid down in a 1993 Decision (93/389/EEC). As announced in the 6EAP, a new Monitoring Decision was adopted in 2004 (280/2004/EC), which updated the methodology to reflect ratification of the Kyoto Protocol. A further Decision (2005/166/EC) provides more detailed rules for various articles of the Monitoring Decision that require more explanation. Currently DG Environment is sponsoring research to examine the way Member States do their monitoring and projections of future emissions, with a view to improving the methodologies.

EU policies and measures resulting from the European Climate Change Programme

Under Article 3(2) of the Kyoto Protocol, Parties, including the European Community, had to report on their 'demonstrable progress' to the COP/MOP. In its report (COM(2005) 615), the Commission highlights the ECCP and its headline efforts including the Directives on emissions trading, renewable energy, energy performance of buildings, cogeneration, landfill of waste and the 'Intelligent Energy for Europe' (IEE) Programme. It notes that there are 35 measures already in force or in implementation, and that others are 'in the pipeline'. It further cites the figures quoted above showing the projections indicate the Kyoto targets will be met. The summary judgement of the report is that the EU has made 'good progress,' and that

further progress depends on the 'speed and thoroughness of the implementation by Member States of Community legislation and domestic measures.'

Establishing an EU emissions trading scheme

The EU Emissions Trading Scheme, established by Directive 2003/87/EC, began its official operation on 1 January 2005, with its first period of operation running from 2005 to 2007, and the second scheduled to run in parallel with the first commitment period of the Kyoto Protocol (2008-2012). The EU ETS is a real achievement and is one of the concrete actions putting the EU at the forefront of climate policy, including with a new range of interested parties – financial institutions, traders and of course emitting facilities operators. However, for the purposes of this report it should be noted that the introduction of the ETS results from a legislative initiative taken by the Commission *before* the adoption of the 6EAP.

3.1.3 Reducing energy sector emissions

Inventory and review of inefficient and unsustainable subsidies

In 2002 the Directorate General for Transport and Energy (DG TREN) published a staff working paper entitled 'Inventory of public aid granted to different energy sources.' (SEC(2002)1275) While it does not reference the 6EAP as a motivation for the report, it would seem to fulfil the commitment made in the Programme to produce an inventory. However, the Commission has not so far proposed any further action 'with a view to gradually phasing out' subsidies 'that counteract an efficient and sustainable use of energy', as called for in the 6EAP.

Encouraging renewables, cogeneration and low carbon fossil fuels for power

The 6EAP provides for action to encourage the use of renewable energy sources, 'including use of incentives ... with a view to meeting the indicative target of 12% of total energy use by 2010', as well as for the introduction of incentives to increase the use of combined heat and power (cogeneration) and measures to double its share to 18 per cent of electricity generation in the EU as a whole.

Renewables and low carbon fossil fuel (natural gas primarily) are encouraged in various ways: through the Directive on renewable energy sources for electricity production (RES-E), the Cogeneration Directive, the EU ETS, the Biomass Action Plan, and through direct research, development and demonstration (RD&D) support in the 6th Research Framework Programme (6FP). A review of the implementation of the RES-E Directive in 2004, and an analysis of support measures in 2005, both of which find shortfalls in achievement, are potential indications of willingness to consider tougher measures in future.

Most relevant at the EU level is the IEE Programme, which entered into force on 3 July 2002, succeeding the Energy Framework Programme. Its objectives are threefold: to provide the elements needed for the promotion of energy efficiency and the increased use of renewable energy sources and energy diversification; the development of means and instruments for the Commission and Member States to follow up, monitor and evaluate the impact of these actions; and to promote efficient and intelligent patterns of energy production and consumption through awareness raising, increased investment and encouragement of best practices. The budget for 2003-6 is EUR200 million, and encompasses four programme areas: SAVE (energy

efficiency, notably in buildings and industry), ALTENER (promoting new and renewable energy sources), STEER (energy aspects of transport) and COOPENER (cooperation with developing countries).

No specific action was taken at EU level to 'prevent and reduce methane emissions from energy production and distribution', despite a mandate for such action in the 6EAP. Measures for the promotion of energy efficiency covering different sectors are addressed below in a separate section (see 3.1.5).

3.1.4 Reducing transport sector emissions

The 6EAP provides for a range of actions to tackle rising emissions from various modes of transport.

Emissions from international aviation and shipping

Aviation emissions continue to be a real cause of concern given their sharp rise and exclusion from any control schemes to date. The Commission as well as the Environment Council have called for the inclusion of aviation in the EU ETS. A proposal is expected from the Commission in the course of 2006; whether the sector will be included prior to 2012 is still in doubt. Significant issues remain with respect to the design of the scheme and the implications decisions on allocation methodology and other important aspects will have on results.

With respect to maritime emissions, various options related to nitrogen oxides (NO_x) and sulphur oxides (SO_x) have been explored by the Commission, but nothing specific on GHG emissions has been forthcoming, notwithstanding a specific commitment in the 6EAP to undertake 'specific actions ... if no such action is agreed within the International Maritime Organisation by 2003'.

Encouraging more efficient and cleaner transport

The Passenger Car CO₂ Strategy of 1995 (COM(95) 689) included three strands: the voluntary agreement with the car industry, labelling, and market-based instruments. The first two were already in place before the adoption of the 6EAP; their effectiveness compared to potentials is under question, as is the methodology for further reductions in future. A Directive on fiscal measures relating CO₂ emissions to purchase and circulation taxes has been proposed by the Commission (COM(2005) 261) but will not likely be approved by the Council. A recently proposed Directive on public procurement (COM(2005) 634) may also affect public sector demand for cleaner transport.

Despite a specific invitation to the Commission, in the 6EAP, to publish a 'Communication on quantified environmental objectives for a sustainable transport system', no communication of this kind has been produced.

Reducing motor vehicle emissions

The Euro 5 proposal for new vehicle emission standards (COM(2005) 683) aims to reduce a range of emissions, but nitrous oxide (N₂O) is not affected, despite a specific call for action on this pollutant in the 6EAP. N₂O is a minor vehicle emission, and is not considered in the voluntary agreement. The 6EAP further urges promotion of the

development and use of alternative fuels and low-consumption vehicles. The voluntary agreement with the car industry does this indirectly to some degree. In addition there is the Biofuels Directive, and research on hydrogen and fuel cells under the 6FP.

Promoting full environmental cost pricing in transport

The 'Eurovignette' Directive (99/62/EC) sets out the framework for Member States in terms of road tolls and charges. Member States had wanted this amended to allow them to take external environmental costs in account. The Commission's proposal for amendments tabled in 2003 (COM(2003) 448) did not include such provisions, but as a result of negotiations with Council and Parliament agreement was reached on a compromise package in March 2006, which will require the Commission to undertake a modelling exercise and impact assessment of the internalisation of external costs within two years of the entry into force of the amended Directive.

Decoupling economic growth and demand for transport

The Transport White Paper of 2001 (COM(2001) 370) claims that the policies in it will achieve decoupling. However, if anything the opposite seems true. Transport emissions are up 21 per cent across Europe since 1990 even as other sectors are seeing major declines. Policies such as the further development of Trans-European Networks of transport infrastructure would tend to see continuation of the worsening trend towards more vehicle kilometres driven. Against this background, the Commission's recent decision to drop objectives which had previously been endorsed by the European Council in the 2001 EU Strategy for Sustainable Development (SDS), such as the full internalisation of the social and environmental costs of transport and the decoupling of transport growth and GDP growth, from 'selection' of relevant targets listed in an annex to its recent proposal for the 'review' of the SDS (COM(2005) 658), is a cause for concern.

3.1.5 Promoting energy efficiency

The IEE Programme (noted above under 3.1.3) is the Commission's primary support instrument for energy efficiency measures, mainly through its SAVE sub-programme. In addition there are several new pieces of relevant legislation.

The Energy Performance in Buildings Directive (2002/91/EC) does not set out standards, but requires Member States to apply common methodologies and promulgate legislation that will yield more efficient buildings.

While for several years there have already been standards for performance of energy using products, a new framework 'Ecodesign' Directive (2005/32/EC) pulls them together and extends them. It is meant to harmonize environmental requirements for energy using products (EuP), while ensuring their free circulation, but its impact will depend on the future adoption of implementing measures for specific product groups.

In March 2006 a Directive on energy efficiency and services was finally passed after languishing for almost three years since the Commission's initial proposal (COM(2003) 739). It requires national energy efficiency action plans, with an

indicative target of 9 per cent energy saved below the expected amount in the period 2008-2017.

3.1.6 Other sectors and measures

Reducing use of fluorinated greenhouse gases

Legislation on fluorinated gases (F-gases) has finally been agreed after a long and contentious process, thus fulfilling the mandate contained in the 6EAP. A Regulation will primarily address practices to improve containment in stationary equipment; a separate Directive will ban the main hydrofluorocarbons (HFCs) in car air conditioning. The Regulation is much weaker than it could have been and the benefits may be small. The Directive represents an important and globally influential shift, but the time scale for implementation – until 2017 – is very long.

Promoting eco-efficiency in industry

While the EU ETS is the primary means of affecting industrial GHG emissions, there are other relevant initiatives such as those under the IEE Programme. In addition, the Commission agreed the Environmental Technologies Action Plan (ETAP) in January 2004. (COM(2004)38) It is a non-binding framework for various initiatives in research, stakeholder consultation, and other policy actions all designed to boost innovation in environmental technologies.

The 6EAP further calls for specific action to encourage environmental agreements with industry on GHG emission reductions and to assist small and medium-size enterprises (SMEs) to innovate and improve their performance in this area. Since the agreement with the car manufacturers, which predates the 6EAP, no comparable EU-level environmental agreements on GHG mitigation were concluded with industry. A number of projects to promote energy efficiency in SMEs are being funded under the IEE Programme.

Agriculture

In the 6EAP, the institutions pledged to 'take into account the need to reduce greenhouse gas emissions, alongside with other environmental considerations, in the common agricultural policy' (CAP). During the second phase of the first ECCP (2002-2003), a working group examined the potential contribution of the agricultural sector to GHG mitigation policies, including through improved use and management of agricultural soils as sinks. This group noted that a number of the CAP reforms resulting from Agenda 2000 were expected to lead to reduced GHG emissions and recommended a number of additional measures.

Waste management

Directive 1999/31/EC on the landfill of waste provides for a number of measures which, if fully implemented by the Member States, can contribute to a reduction of GHG emissions from landfills. Thus, for instance, Member States are required to draw up national strategies to reduce the amounts of biodegradable wastes going to landfills. A first review of these strategies, published by the Commission in 2005, concluded: 'It looks like additional efforts will be necessary to achieve the targets.' (COM(2005) 105) The Thematic Strategy on waste prevention and recycling, launched on 21 December 2005 (see 3.4.2), highlights that the Commission intends to focus on improving the implementation of existing waste legislation, including that of the Landfill Directive. It also outlines the need for further action on biowaste to

encourage further diversion from landfill and ensure that the best treatment options are undertaken. One consideration in identifying options will be mitigating climate impacts. The Strategy claims that the 'further diversion of municipal waste from landfill to composting, recycling and energy recovery could produce additional reductions in greenhouse gas emissions ranging from 40 to over 100 Mt CO₂ equivalent per year'.

Fiscal measures, including energy taxation

Directive 2003/96/EC restructuring the Community framework for the taxation of energy products and electricity sets out a framework of rules that Member States must adhere to in relation to setting duties for minimum rates for the various energy products covered. Member States must report to the Commission the levels of duties they have set. However, Member States have the option of requesting further exemptions or reductions to those set out in the Directive. They must inform the Commission, providing relevant information to allow the Commission to examine the request, and decide whether to authorize it.

Efforts to impose any specific carbon- or energy consumption-based taxation scheme to reduce GHG emissions failed to gain any ground for many years and foundered completely with passage of the EU ETS.

Research and development

The FP6, which supports research, runs from 2002 to 2006, with a budget of EUR17.5 billion, including EUR2.33 billion for sustainable development, global change and ecosystems. Its successor FP7 was proposed in April 2005. Initially designed to expend EUR73 billion over 7 years, now corresponding with the length of the Financial Perspective, its budget has been chopped to EUR54 billion. Approximately 4 per cent of the budget is intended for research on non-nuclear energy, and another 4 per cent for environmental research. The energy priorities will be hydrogen and fuel cells, renewable electricity generation, renewable fuel production, renewables for heating and cooling, CO₂ capture and storage technologies for zero emission power generation, clean coal technologies, smart energy networks, energy efficiency and savings and knowledge for energy policy making.

3.2 Nature and biodiversity

3.2.1 Biodiversity

The overall aim of the 6EAP in this field is to reach the objective of halting biodiversity decline by 2010 – an objective which had previously been endorsed at the highest political level by the European Council in its Gothenburg Presidency Conclusions on the EU SDS of June 2001.

EU Biodiversity Strategy and Action Plans

A review of the Community Biodiversity Strategy and Action Plans was carried out from 2002-2004, and the results were presented at the 'Biodiversity and the EU – Sustaining Life, Sustaining Livelihoods' conference that was held under the Irish Presidency in Malahide, Ireland.

On 28 June 2004 the Environment Council adopted conclusions on 'Halting the loss of biodiversity by 2010' (10997/04). Amongst these was a conclusion that urged the Commission

'to submit, as early as possible in 2005, a Report to Council and Parliament on its assessment of the implementation, effectiveness and appropriateness of each of the objectives and targets set in the European Community Biodiversity Strategy and Action Plans taking into account the consultative process now concluded and, notably, the *Message from Malahide*'.

This report will take the form of a Communication on biodiversity, which will set out a 'roadmap' to 2010, and is expected to be released in May 2006.

Although a review of the Strategy and Action Plans has been carried out, it is not apparent that there has been good progress in implementing the Strategy and Action Plans. In fact, the delay with the release of the Commission's Biodiversity Communication may have dissuaded Member States from taking action while they waited for the outcomes of the review of the Strategy and Plans. Work on developing biodiversity indicators is underway, centred on the 'Streamlining European 2010 Biodiversity Indicators' project (SEBI-2010) led by the EEA. Some indicators are now ready for application, but as others are only now being finalised, data collection and monitoring has also been delayed.

The progress made to date is formally consistent with the action prescribed by the 6EAP, but is lacking in concrete outcomes.

Promoting research on biodiversity, genetic resources and ecosystems

Consistent with the commitment in the 6EAP, ecosystems were specifically included in one of the priority thematic areas under FP6 ('Sustainable development, global change, and ecosystems'). Several major research projects related to biodiversity, genetic resources, ecosystems, and interactions with human activities have been (or are being) carried out under FP6.^{vi}

Enhancing sustainable use, sustainable production and sustainable investments

The 6EAP generally calls for measures to enhance sustainable use in relation to biodiversity. Measures contributing to sustainable use of certain components of biodiversity are already taken under specific sectoral policies such as the CAP (see 3.2.2) and the Common Fisheries Policy (CFP) (see 3.2.3). In addition, the Thematic Strategy on sustainable use of natural resources, published by the Commission in December 2005 (see 3.4.1), provides a cross-sectoral policy framework to promote sustainable use of natural resources, including biological resources. The potential contribution of this Strategy to the achievement of 6EAP objectives in relation to biodiversity will depend on the further development and implementation of the measures it proposes.

Assessment, research and cooperation on threatened species

In July 2004, BirdLife International produced a report for the Commission reviewing implementation of the first 23 international Species Action Plans, as adopted in 1996 (under the Birds Directive).^{vii} The report found that significant progress was made in implementation of 18 of the 23 species action plans, and that the EU financial instrument LIFE-Nature had contributed to the conservation of all 23 species. It was

the main driving force in the conservation of the eight Portuguese and Spanish island endemics, and played a very significant role in the implementation of 14 plans in Spain and Greece. LIFE-Nature has also made significant contributions to supporting conservation work related to threatened species other than birds, and this has included projects featuring cooperation between Member States. LIFE-Nature support for threatened species projects has encouraged research and cooperation consistent with the 6EAP commitment. However, aside from the BirdLife report, there have not been coherent assessments of the status of threatened species in Europe as required by the commitment.

A working group of Member States formed under the Habitats Committee, met eight times from June 2002 to February 2005 to discuss certain concepts and definitions used in Articles 12 and 16 of the Habitat Directive, which have caused implementation problems in Member States. The lack of guidance on these provisions has led to some confusion in the Member States, but the Commission is addressing this and, as a result of the working group's work, draft guidance has been made available to Member States.

Fair and equitable sharing of benefits arising from the use of genetic resources

The EU supported completion of negotiations on the 2002 Bonn Guidelines on Access to Genetic Resources and the Fair and Equitable Sharing of the Benefits Arising out of their Utilisation under the Convention on Biological Diversity (CBD). The Commission is undertaking a number of measures aimed at raising users' awareness of their obligations under the CBD, including: the creation of a European network of Access and Benefit Sharing (ABS) focal points; the establishment of a specific section on ABS on the EC Biodiversity Clearing House Mechanism, and the setting up of a register of stakeholders' groups on this clearing house. These activities are being undertaken by the EU ABS network project, a joint initiative between DG Environment and the World Conservation Union (IUCN), and as a follow up to a 2003 Commission Communication (COM(2003) 821) on implementation of the Bonn Guidelines by the EC.

In December 2004, the EC and its Member States tabled a proposal in the World Intellectual Property Organisation (WIPO) on the issue of 'disclosure of origin' of genetic resources and related traditional knowledge in patent applications. Should such a proposal be agreed in WIPO, it would contribute to ensuring that benefit-sharing takes place by increasing transparency in the patent system.

Prevention and control of invasive alien species

The only concrete action that has been taken to date in this area is the publication of a proposal for a Regulation on the use of non-native and locally absent species in aquaculture (COM(2006)154). In addition, the Commission let a contract in December 2005 to review the current European legal and policy framework with regard to invasive alien species. It is possible that the results of this review will lead to a proposal for new policy instruments.

Natura 2000 network and other protected areas

The 6EAP commits the institutions to 'implementing the necessary technical and financial instruments and measures required' for the 'full implementation' of the Natura 2000 network. Although site lists have now been approved for five

biogeographical regions, covering many of the old EU-15 Member States, the network has not yet been completely established. The Mediterranean site list is still to be approved, and the network needs to be extended to the ten Member States that joined the EU in 2004.

Research by the World Wide Fund for Nature (WWF) in 2005^{viii} showed significant differences between the new Member States, ranging from 35 per cent of national territory proposed for designation as Natura 2000 areas in Slovenia to some 2.1 per cent proposed in Lithuania. Lack of site proposals in Cyprus and Poland were also of concern, and marine sites are currently underrepresented in the network.

No overall assessment has been made of the adequacy of Member State measures for site protection and management, although this has been raised as a concern by NGOs. With site designation now largely complete, the issue of ensuring adequate site management will now be the focus of Commission activity in relation to Natura 2000.

In addition to the countries that joined in 2004, the current candidate countries (Romania, Bulgaria, Croatia, Turkey) are also beginning plans to implement Natura 2000. These are most advanced in Romania and Bulgaria where site lists are expected to be submitted to the Commission by 1 January 2007.

Adequate co-financing for Natura 2000 will require substantially larger Community financial resources than have been available to date for nature protection. Securing such funding through a single dedicated fund was considered politically unrealistic. The Commission therefore chose another approach for co-financing of Natura 2000, favouring an integrated funding option as from 2007 (COM (2004) 431). NGOs and other groups, although not in principle against the integration option, have had concerns about the likely success and the practical implementation of this option. This integrated financial instrument for the environment (LIFE+), the successor to LIFE III, is yet to be finalised, but it is certain that the budget available for the proposed nature and biodiversity 'strand' will not be sufficient for co-financing Natura 2000 on its own.

The funding for the other financial programmes which will also support Natura 2000 in the 2007-2013 funding period (EAFRD, ERDF, EFF) has also been severely cut. This will make the competition between priorities within these funds very severe, and could worsen the chances of money being allocated to Natura 2000 from these budgets. Whether or not funds are allocated to Natura 2000 will be the choice of Member States when selecting their priority areas for spending of Community funds.

In summary, though progress has been made both in old and new Member States and in Candidate Countries, the commitments made in the 6EAP in relation to Natura 2000 have not yet been met.

Table 2 – Implementation Overview for Nature and Biodiversity

6 EAP objectives	Main results	Assessment
Halting biodiversity decline by 2010, including prevention and mitigation of impacts of invasive alien species and genotypes	<ul style="list-style-type: none"> Progress made to date is formally consistent with the action prescribed by the 6EAP, but lacking in concrete outcomes 	☹
Ensuring implementation and promoting monitoring and assessment of EU biodiversity strategy and action plans	<ul style="list-style-type: none"> Review of EU Strategy and Action Plans carried out, but sufficient progress in implementation not apparent Ongoing work on developing biodiversity indicators 	☹
Promoting research on biodiversity, genetic resources, ecosystems and interactions with human activities	<ul style="list-style-type: none"> Research projects related to biodiversity, genetic resources, ecosystems and interactions with human activities carried out under FP6 	☺
Developing measures to enhance sustainable use, production and investments in relation to biodiversity	<ul style="list-style-type: none"> Some measures under specific sectoral policies such as CAP and CFP 	☹
Encouraging coherent assessment, further research and cooperation on threatened species	<ul style="list-style-type: none"> Significant progress in implementation of threatened species action plans for birds LIFE-Nature has contributed to conservation of 23 most threatened bird species No coherent assessment of status of threatened species 	☹
Promoting at the global level a fair and equitable sharing of benefits arising from the use of genetic resources	<ul style="list-style-type: none"> EU proposal in WIPO on 'disclosure of origin' of genetic resources and related traditional knowledge in patent applications Measures aimed at raising users' awareness of obligations under CBD in EU 	☺
Developing measures aimed at the prevention and control of invasive alien species and genotypes	<ul style="list-style-type: none"> Proposal for a Regulation on use of non-native and locally absent species in aquaculture Research on additional measures commissioned 	☹
Establishing Natura 2000 network and implementing technical and financial instruments and measures for its full implementation and for the protection, outside Natura 2000 areas, of protected species	<ul style="list-style-type: none"> Natura 2000 network not yet been completely established in EU-15 No overall assessment of adequacy of Member State measures for site protection and management performed Ongoing implementation of EU LIFE-Nature fund but insufficient resources for adequate co-financing for Natura 2000 Ongoing efforts to facilitate and coordinate implementation of Habitat Directive 	☹
Fostering integration of environmental concerns in agriculture and encourage sustainable rural development	<ul style="list-style-type: none"> Increased use of decoupling and cross compliance as a result of CAP reform European Agricultural Fund for Rural Development established in 2005 Organic Farming Action Plan 	☹

Preserving, restoring and sustainably using the marine environment, coasts and wetlands	<ul style="list-style-type: none"> • New 'basic' Regulation of Common Fisheries Policy includes a number of important environmental provisions • Agreement to phase out subsidies for vessel construction • Ongoing work on implementing the Natura 2000 network in the marine environment • Recommendation on ICZM in Europe adopted in 2002 • Thematic Strategy on Protection and Conservation of Marine Environment and accompanying Proposal for Marine Strategy Directive 	☹
Enabling effective monitoring and control of health and environmental effects of GMOs	<ul style="list-style-type: none"> • Renewed legislative framework for GMOs • Rules on traceability and labelling of GMOs adopted • Establishment of European Food Safety Authority • Ratification of Cartagena Protocol on Biosafety in 2002 and adoption of EC implementing Regulation in 2003 	☺

3.2.2 Sustainable agriculture and rural development

The objectives relating to sustainable agriculture in the 6EAP are set in the context of those relating to nature and biodiversity. The 6EAP states that the integration of biodiversity considerations in agricultural policies should be promoted and sustainable rural development and multifunctional and sustainable agriculture should be encouraged.

The reform of the CAP in 2003 (Regulation 1782/2003/EC) and the adoption of the European Agricultural Fund for Rural Development (EAFRD) in 2005 (Regulation 1698/2005/EC) are two concrete policy outputs that reflect the needs raised by the 6EAP. The changes brought about by the reformed CAP came into effect from 1 January 2005, and measures introduced through the EAFRD will apply to the programming period 2007-2013. There have been separate developments in relation to organic farming with the publication of the European Action Plan for Organic Farming in 2004 (COM(2004) 415), followed by proposals for revised rules on organic farming and labelling in December 2005 (COM(2005) 671).

The Reformed CAP

Two key components of the CAP, decoupling and cross compliance, appear to be designed to help achieve some of the objectives listed in the 6EAP.

Decoupling means that the direct payment now received by the farmer is unrelated to the level of production. The incentive to maximise the value of direct payments by increasing production has been removed, with farmers now expected to be more sensitive to market requirements. Decoupling is regarded as a tool to encourage less intensive agricultural production, for example by lowering pesticide and fertiliser inputs, and could therefore promote more extensive production methods. However, few Member States have opted to implement full decoupling, meaning that many direct payments remain connected to production. This weakens the potential of decoupling as a tool to promote sustainable agriculture and meet the objectives of the 6EAP.

Cross compliance means that farmers must comply with a range of standards in order not to risk losing part of, or all of their direct payment. These standards are derived

from 18 existing EU Regulations and Directives relating to the environment, animal welfare and food safety, and a number of new standards relating to 'good agricultural and environmental condition' (GAEC). For GAEC, Member States need to apply standards relating to soil and the minimum level of habitat maintenance.

Cross compliance reinforces the implementation of some key pieces of EU environmental legislation including the Birds Directive, the Habitats Directive and the Nitrates Directive. However, cross compliance is not an entirely satisfactory tool for meeting the objectives of the 6EAP. Research has shown^{ix} that Member State implementation is extremely variable, particularly in respect to GAEC and the standards that have been adopted for the Birds and Habitats Directives (as standards rely on the extent to which these Directives have been transposed nationally). Other research has identified a less than satisfactory level of integration between agricultural policy and EU environmental objectives. For example, recent work by the EEA has demonstrated that policy responses need to be better targeted at areas of environmental concern, particularly in respect to biodiversity and nutrient management, and that Member States need to fully utilise the policy instruments presented to them by the EU.^x

The European Agricultural Fund for Rural Development

The EAFRD follows on from the current Rural Development Regulation (1257/1999/EC), and as such there is some similarity between the measures in both Regulations. However, the EAFRD offers an amended approach to rural development, by encouraging integrated rural development across three separate axes plus a fourth horizontal axis. Each axis offers different measures to deal with the social and economic needs of rural communities, as well as the environment. Environmentally responsible farming can continue to be encouraged through agri-environment schemes and Natura 2000 payments, both of which can offer substantial protection for biodiversity. Also forestry measures are now eligible under this new instrument. The maintenance of traditional farming practices (which are important for biodiversity that has developed in tandem with evolving agricultural practices) can also be promoted through payments to farmers in mountainous areas, or with other natural handicaps. The 'Leader' approach also continues through EAFRD, where the focus on bottom-up, community led initiatives can promote sustainable endogenous development. However, the effectiveness of the policy will depend on Member State implementation, with national rural development plans to be designed by the end of summer 2006.

The decision on the Financial Perspective for 2007-2013 has resulted in Pillar II spending on rural development, at EUR69.75 billion, being slashed by more than one fifth compared with the Commission's original proposal. This could lead to increased competition for funds between the different measures, with those for the environment possibly losing out to Axis 1 or Axis 3 measures.

Encouraging organic farming

There are no measures explicitly aimed at organic farming in EAFRD, although organic farming could possibly be encouraged through measures aimed at food quality schemes, producer groups and specialised agri-environment schemes. This is in line with the Organic Farming Action Plan, which focuses the development of the sector through existing rural development measures and the market rather than through

direct product subsidisation. The importance given to the implementation of the Plan will largely depend on the direction of Member State policy. Indeed, the emphasis placed on organic farming since 2002 seems relatively weak as the share of the sector currently represents just 3.6 per cent of the EU's utilised agricultural area.

Achievement of 6EAP objectives

All the policy outputs listed are working towards meeting the agreed objectives. However, as a policy tool, the reformed CAP has a number of inherent weaknesses, explored below. In addition, the implementation of EAFRD is at a relatively early stage as Member States are in the process of designing national plans. For both the CAP and EAFRD Regulations, Member States have a certain amount of flexibility in terms of national implementation. In the context of cross compliance, evidence has shown that environmental standards are likely to be variable across the EU-25. Therefore although the 6EAP objectives are some way from being fully met, progress is being made in the right direction. A question remains as to whether the policy tools have the potential to completely meet the requirements of the 6EAP.

It has been argued by environmental stakeholders^{xi} that the 2003 CAP reform has not sufficiently shifted European agriculture to a more sustainable future. One long-standing argument is that a greater proportion of funds currently allocated to direct payments to farmers should be transferred to the EAFRD, so that farmers receive payments for the production of public goods. This could be achieved by increasing the rate of modulation beyond the obligatory minimum of 5 per cent. Others have argued that cross compliance should be further strengthened by bringing in additional Regulations or Directives, or by extending the remit of GAEC. At present, the Commission is expected to present a review of the system of cross compliance by the end of 2007. A more substantial review of the CAP is not anticipated before 2008-2009.

The spirit of EAFRD and organic farming policy appears to match that of the 6EAP; however implementation is at an early stage and likely to be variable across Member States and, furthermore, is likely to be frustrated by serious financial limits. Therefore it is difficult to assess whether the 6EAP objectives will be met through existing policy tools before the Programme expires in 2012.

3.2.3 Marine environment

The 6EAP aims to promote sustainable use of the seas and conservation of marine ecosystems through a range of measures, including action within the scope of the CFP, a Thematic Strategy for the protection and conservation of the marine environment, and the promotion of integrated management of coastal zones and the protection of marine areas.

Environmental integration into the CFP

A new 'basic' Regulation of the CFP was adopted in December 2002 (Regulation 2371/2002/EC). This included a number of important environmental provisions ie to minimise the impact of fishing on marine ecosystems, the progressive implementation of the ecosystem based approach, implementation of the precautionary approach and the taking of measures to protect non-target species.

It was also agreed to phase out the use of subsidies for vessels construction and modernisation. Provisions for long term stock recovery and management plans were put in place, and powers granted to the Commission and Member States to take short-term emergency measures. At the close of 2005 three recovery plans had been adopted.

In May 2002, as part of the CFP reform process, the Commission adopted a Community Action Plan to integrate environmental protection requirements into the CFP (COM(2002)186), setting out 20 targets with timetables.

The new CFP represents a marked improvement in the policy framework for fisheries management. Management actions can be taken more quickly and more specifically for environmental purposes. The phasing out of subsidies is also a significant improvement. (see 4.3.2) There are some examples of the new provisions being implemented since 2002, including the closing of areas to bottom trawling and the adoption of recovery plans. However, the fleet reduction elements of the reform package are weak, not requiring Member States to reduce fleet capacity over time.

The 6EAP objective of '*promoting* greater integration of environmental considerations in the CFP' (emphasis added) could in the broad sense be considered to have been met. However, if one is to consider the purpose of this commitment, then it has arguably not been sufficiently met. In practice there has not been the significant shift in the approach to managing European fisheries that is required to meet the 6EAP target of halting the loss of biodiversity by 2010. If anything, the approach from the Commission has softened with a move towards managing fishing effort and away from fishing capacity, a key driver of overfishing. Furthermore, there is no sense of a change in the culture within the Council, with the annual setting of total allowable catch (TAC) levels still being the subject of intense political horse trading, and there still being a gulf between the resulting catch levels and those advised by scientists for many key stocks.

Marine Thematic Strategy

A preparatory Communication 'Towards a Marine Strategy' was published by the Commission in October 2002. (COM(2002)539) This was followed on 24 October 2005 by the adoption by the Commission of the Thematic Strategy on the protection and conservation of the marine environment. (COM(2005)504) The main component of this Strategy is a proposal for a Framework Directive – a Marine Strategy Directive (COM(2005)505) – with the aim to achieve 'good environmental status' in the marine environment by 2021, at the latest.

The overall objective of the Thematic Strategy is

'to protect and restore Europe's oceans and seas and ensure that human activities are carried out in a sustainable manner so that current and future generations enjoy and benefit from biologically diverse and dynamic oceans and seas that are safe, clean, healthy and productive'.

The development of a Marine Thematic Strategy is consistent with the commitment made in the 6EAP. The proposal of a legal instrument, the Marine Framework Directive, arguably even goes beyond that commitment. However, the proposed

Directive fails to deliver what would be needed to achieve the overall objective. An earlier draft would have established criteria to identify good environmental status and required Member States to work together to produce strategies for each marine region (Baltic Sea; North East Atlantic; and Mediterranean Sea). The proposal as it stands leaves the detail of what is good environmental status to be worked out by the Commission in consultation with a committee of Member State experts and there is no obligation for transboundary cooperation. There is no consideration of the implications of future EU enlargement within the strategy or the proposed Directive and no requirement for the Commission to respond to fishing when identified by Member States as having an impact on the environment. As the proposed Directive has not yet been through the Council or Parliament it could be further strengthened or weakened.

Integrated coastal zone management

In May 2002 a Recommendation on the implementation of integrated coastal zone management (ICZM) in Europe was adopted by the Council and the Parliament (Recommendation 2002/413/EC). This recommends a strategic approach and principles that Member States should follow in undertaking national ICZM stocktaking and national ICZM strategies. Member States were supposed to report to the Commission on their experience in implementation of the Recommendation by the end of February 2006. Based on this, the Commission should review the Recommendation by 30 December 2006 and submit to the European Parliament and the Council an evaluation report. If appropriate, this should be accompanied by a proposal for further Community action.

The EU has been promoting ICZM as committed. However this has been done in the form of a Recommendation, adopted prior to the 6EAP, rather than a binding legislative instrument. This is one of the softest instruments that could have been chosen, suggesting a lack of perceived urgency behind implementing this commitment. As it is non-binding, it remains to be seen to what extent the Recommendation is implemented by Member States. For the same reason, it remains to be seen whether Member State report on the Recommendation on time, if at all, given that they often submit reports late even when legally bound to do so.

Marine protected areas

Subsequent to the 6EAP, the Community Action Plan to integrate environmental protection requirements into the CFP (COM(2002)186) set the specific target 'Natura 2000 sites at sea and associated management measures to be completed before end of 2004.'

It is difficult to monitor progress in implementing the Natura 2000 network in the marine environment because lack of implementation only becomes evident at an advanced legal stage, eg through infringement proceedings. The ECJ found against the UK its non-application of the whole of the Habitats Directive outside the UK's territorial waters in October 2005.^{xii} Data on site designation contains so many limitations that drawing meaningful conclusions on the extent of area designation becomes impossible. Nonetheless, designation of marine sites is evidently slow. This is reflected in the shifting of the 2004 deadline eg in the subsequent targets set in the Malahide Message 1.1 ('take the necessary steps to complete the Natura 2000 network on land by 2005, *the marine sites by 2008*' - emphasis added) and a draft Commission

Communication on 'Halting the Loss of Biodiversity by 2010 - and Beyond' submitted to the Biodiversity Expert Group in November 2005:

'Accelerate efforts to finalise the Natura 2000 network including: adoption of the lists (for terrestrial, freshwater and coastal sites by 2006, for marine sites by 2008); designation of all sites and adoption of effective management measures (for terrestrial, freshwater and coastal sites by 2010, *for marine sites by 2012*)'. (emphasis added)

There is an increasing trend of using area closures under the CFP. These are often used as part of stock recovery measures, restricting certain gear types, sometimes for certain periods (eg the Southern hake and Norway lobster stocks recovery plan, Regulation 2166/2005/EC of 20 December 2005). Such area closures are typically used as a tool to restrict fishing effort for stock recovery purposes, rather than broader environment and biodiversity objectives. They are also criticised for being a poor effort restriction tool, and that the focus should be on fishing capacity reduction rather than effort reduction. Their increasing use is therefore not necessarily an indicator of greater protection of the environment as they do not typically represent complete and permanent area protection, and they arguably detract from the overall management requirements. In the limited cases where areas have been closed to fishing, the closures are rarely complete and only apply to certain gears and/or seasons.

One clear case of CFP protection measures for a Habitats Directive designated habitat is the adoption of a bottom-trawling ban in the 'Darwin Mounds' area (Regulation 1475/2003/EC) to protect deepwater coral reefs.

3.2.4 Genetically modified organisms

Risk assessment, identification, labelling and traceability

In relation to genetically modified organisms (GMOs), the 6EAP states that the EC should develop 'the provisions and methods for risk assessment, identification, labelling and traceability of GMOs in order to enable effective monitoring and controls of health and environmental effects'. Directive 2001/18/EC, which concerns the placing of the market and the experimental release of GMOs, was in place at the time of the release of the 6EAP and is still one of the cornerstones of EC GMO legislation. During the course of the 6EAP it has been complemented and amended by a number of additional provisions, which altogether form a substantially renewed legislative framework for GMOs.

The rules on traceability and labelling of GMOs have been developed through Regulation 1830/2003/EC, which puts in place measures foreseen under Directive 2001/18/EC and introduces a debated threshold of 0.9 per cent GMO content for labelling. In December 2005, the Commission published a related proposal on organic farming, under which products can only be labelled organic if they contain no more than 0.9 per cent GMO material. Regulation 1829/2003/EC, which entered into force in November 2003, lays down Community rules for the authorization, supervision and labelling of genetically modified food and feed. The Commission has also put in place a public register of authorised genetically modified (GM) food and feed.

The European Food Safety Authority (EFSA) was set up in 2002, in accordance with Regulation 178/2002/EC, to provide independent scientific advice on all matters

linked to food and feed safety, including carrying out risk assessments of GMOs that have been notified for authorisation.

Detailed legislation related to all the aspects of monitoring and control mentioned in the 6EAP has been put in place. However, whether these actually constitute appropriate measures for enabling the 'effective monitoring and controls of health and environmental effects' is subject to debate. The procedures for authorization of GMOs under Directive 2001/18 and Regulation 1829/2003/EC have drawn considerable criticism from not only from environmental groups, but also from other stakeholders and Member States. The members of the Council are deeply divided on the issue of GMOs and time after another fail to reach a qualified majority in GMO authorization votes. Since mid-2004 the Commission has nevertheless made full use of its powers under the comitology procedure to grant authorization for the placing on the market of eight GMOs.

The reliability and transparency of the safety assessments carried out by the EFSA, on which the Commission has generally based its decisions, have been questioned. Moreover, the fact that several Member States have introduced national safeguard clauses (ie bans on certain GMOs) and provisions on coexistence of GM crops with non-GM crops also signals a lack of confidence in the established regulatory system.

Transboundary movement

The second paragraph on GMOs of the 6EAP states that the EC should aim for 'swift ratification and implementation of the Cartagena Protocol on Biosafety'. The Protocol was concluded by the EC through Council Decision 2002/628/EC and entered into force in 2003. In 2003, the EC adopted Regulation 1946/2003/EC as the EU's main implementation tool for the Protocol. This Regulation covers the key issues identified in the Protocol and its objectives correspond exactly to the requirements of the Protocol (Article 1). Nevertheless, it is not yet clear whether the Regulation ensures an adequate level of protection. In 2005, GM maize was accidentally imported from the United States to the EU and the European Commission consequently admitted that methods for detecting unauthorised products entering the EU were not in place. Only authorised or banned products could be detected at the border, allowing all other products to pass into the EU.

3.3 Environment and health

3.3.1 Chemicals

The 6EAP sets ambitious objectives for the EU's chemicals policy. The aims and priority actions agreed to in the 6EAP broadly reflect the proposals formulated by the Commission in its White Paper of February 2001 outlining a strategy for the future of EU chemicals policy (COM(2001) 88), and endorsed by the Council in its conclusions of June 2001. The stated overall objective is to aim to achieve by 2020 that chemicals are only produced and used in ways that do not lead to a significant negative impact on human health and the environment. To this end, current knowledge gaps need to be overcome and hazardous chemicals should be systematically substituted by safer alternatives. The specific priority actions called for in the 6EAP match the main

outlines of the new regulatory system proposed in the White Paper under the name 'Registration, Evaluation and Authorisation of Chemicals' (REACH): placing the responsibility for generating knowledge about chemicals on industry, developing a coherent risk assessment and management system for both existing and new substances based on a tiered approach, subjecting the use of substances of very high concern to authorization in order to substitute dangerous chemicals by safer chemicals or safer alternative technologies, while further developing criteria for identifying such substances, and ensuring wider public access to information.

REACH

At the time of adoption of the 6EAP, the Commission was still in the process of preparing its concrete legislative proposals for the introduction of REACH. The 6EAP laid down a target date: the 'main measures that are necessary in view of the identified objectives' were to be 'developed speedily so that they can come into force before the mid-term review' of the 6EAP. Despite the intensive legislative activity since 2002, this deadline has been missed. Moreover, it now seems unlikely that the REACH system, in its final form, will achieve the objectives laid down in the 6EAP.

The legislative procedure, which was expected to start soon after the adoption of the 6EAP, was considerably delayed due to the internal decision-making process within the Commission, subject to conflicting pressures from various interest groups and Member States, and the formal stakeholder consultation and impact assessment procedures. The Commission only managed to transmit its proposal for the REACH Regulation to the European Parliament and the Council by the end of 2003. (COM(2003) 644) At the time of writing, the first stage of the co-decision procedure has barely been completed, and the second reading in Parliament is not scheduled until October 2006. Consequently, REACH will not enter into force before 2007. While the final outcome of the legislative process is as yet uncertain, the original intentions of the Commission's White Paper and the 6EAP are clearly being watered down, judging from the text of the common position on which the Council reached agreement in December 2005.

Industry responsibility for generation of chemical safety data and risk assessment
REACH will place increased responsibility on manufacturers, importers and downstream users of chemicals for generating knowledge about their hazardous properties and risks of their use, but, in the course of the legislative process, many exceptions to this basic principle were introduced, which considerably limit the scope of industry's duty of care. In particular, the data requirements for substances produced in volumes below 10 tonnes and for substances incorporated in products were strictly limited, as were the obligations of downstream users. In many cases, producers and importers will in fact be required to provide less information about new substances than they currently are under existing chemicals legislation.

The new REACH system will, in principle, eliminate the current different treatment of new and existing substances in terms of testing, risk assessment and risk management. However, due to the long 'phase-in' periods provided for existing substances, the benefits of the new, tiered approach will be considerably delayed. Comprehensive testing and risk assessment of many of those substances will not in fact start before fifteen years after the entry into force of the REACH Regulation. The new system still places an important administrative and procedural burden on public authorities to

actually compel industry to discharge its responsibilities and, due to resource constraints and the need for prioritisation, there would still be a very long way to go before appropriate risk management measures are actually taken for many 'phase-in' substances.

Authorisation procedure and substitution principle

Criteria for the identification of substances of very high concern, including endocrine disruptors, whose use will be subject to authorisation, were agreed, but these fix a very high threshold, requiring 'scientific evidence of probable serious effects to humans or the environment' for endocrine disruptors and certain other substances. This requirement is arguably inconsistent with the precautionary principle, which is said to 'underpin' the REACH system. More importantly, however, the authorisation requirement for all substances of very high concern will not become operational automatically, but only after a formal decision will have been taken to list the individual substances concerned in an annex to the Regulation. This is likely to be a very slow and cumbersome decision-making process. The aim of the authorisation procedure is described as

'assuring that the risks from substances of very high concern are properly controlled and that these substances are *eventually* replaced by suitable alternative substances or technologies where these are economically and technically viable.' (emphasis added)

However, the principle of substitution laid down in the 6EAP is compromised by provisions in the Commission's proposal, endorsed by the Council in its common position, which will require an authorisation for use to be granted in cases in which the risk is considered to be 'adequately controlled', even if safer alternatives are in fact available. The European Parliament, for its part, considers these provisions to be too lax and proposes to limit the possibility of authorisation to cases in which 'suitable alternative substances or technologies do not exist' and 'it is demonstrated that the social and economic advantages outweigh the risks to human health or the environment which arise from the use of the substance.'

Public access to information

Finally, the 6EAP objective of ensuring wider public access to information on chemicals was also compromised by provisions limiting the categories of 'non-confidential information' that will be freely accessible, specifying a long list of confidential information (including production volumes and company names) and extending the possibilities for industry to claim that certain data should be treated as confidential.

To sum up, the REACH system will clearly not be able to meet the ambitious chemical safety objective which the 6EAP aimed to achieve by 2020. In view of the many loopholes and complex procedures, there is no way all chemicals produced and used in the EU can be subjected to adequate assessment and, where necessary, risk management measures before this target date.

3.3.2 Water quality

Concrete measures for water management were less addressed in the 6EAP than many other areas because the Community had just adopted the wide-ranging Water

Framework Directive (2000/60/EC), which theoretically would deliver ecological benefits to waters across the EU. Importantly, the deadline for delivering these objectives was beyond the timeframe of the 6EAP itself. Thus the 6EAP post-dates a major Community initiative and its endpoint pre-dates the conclusion to that initiative. As a result the 6EAP makes few concrete commitments with respect to water management.

Implementing the Water Framework Directive

The basic objective of the 6EAP of 'ensuring a high level of protection of surface and groundwater, preventing pollution and promoting sustainable water use', reflects the objectives of the Water Framework Directive (WFD) and is, therefore, intended to be delivered through the Directive's implementation.

The work undertaken to examine in detail the many different issues addressed by the Directive through the Common Implementation Strategy is significant and has demonstrated commitment. This has resulted in publication of a series of guidance documents. The characterisation of river basin districts, the environmental pressures and impacts and economics of water uses (Article 5 Reports), which were required by 2004 has been undertaken by almost all Member States in time. The reports show that around 50% of surface and groundwater water bodies are at risk of not achieving a high level of protection and sustainable use, due to pressures from agriculture, households, navigation, hydropower and flood control. Hydromorphological impacts play an important role in failing to achieve the objectives and this suggests that the Member States will have to adopt new approaches and measures to address those impacts which result mainly from infrastructure like navigation, hydropower and flood control. Those sectors are mostly not or insufficiently addressed in the economic analysis of water uses and the level of cost recovery of services, including the environmental and resource costs, as required by the Directive. This might suggest possible future problems in developing cost-efficient combination of measures as well as ensuring robust financing of restoration measures.

The 6EAP also calls for the concepts of the Water Framework Directive to be integrated into other EU policies. This objective does not have a single, clearly identifiable outcome. It is clear that some integration has occurred. For example, the proposed Directive on the assessment and management of floods (COM(2006)15), which builds on administrative arrangements and synchronised deadlines, and the proposed Directive to implement the Marine Thematic Strategy (see 3.2.3) clearly draw on the Water Framework Directive, as does the new Bathing Water Directive. Work under the Common Implementation Strategy has also examined closer policy links with the CAP and linking, for example, Pillar II payments with WFD objectives.

Developing measures relating to priority substances

Work on priority substances was identified during the adoption process of the Water Framework Directive and a Decision on the list of priority substances (Decision 2455/2001/EC) pre-dates the 6EAP. Since that time, work under the Common Implementation Strategy has examined the issues in detail. However, to date no concrete proposals have been made either for quality objectives relating to priority substances or for emission controls. The Commission has missed the deadline set by the WFD for submitting proposals with respect to the substances included in the initial list adopted in 2001. This required the Commission to submit proposals for emission

controls and environmental quality standards within two years of substances being included on the list.

Revising the Bathing Water Directive

This proposal also was under development before adoption of the 6EAP. The revised Bathing Water Directive was published on 15 February 2006 (2006/7/EC).

Other measures

DG ENV's 'scoreboard' on the 6EAP^{xiii} also lists the proposal for a new Groundwater Directive (COM(2003) 550) as a concrete measure. This is clearly assisting in delivering 6EAP objectives and it is curious that it was not originally listed as an objective, given that the need for such a proposal was recognised in 2000. The other items additionally listed (Decision on an inter-calibration network and report on implementation of the Urban Waste Water Treatment Directive) are useful, but not major concrete delivery measures for the 6EAP.

The limited objectives of the 6EAP in the area of water have generally been met, except with respect to priority substances, where action to implement the Water Framework Directive is significantly delayed. Actual delivery of substantive objectives for water quality is only achievable through the WFD as it is implemented over the coming years, where some early signs of implementation deficits are becoming visible through the Article 5 Reports.

3.3.3 Air quality

The objective of the 6EAP in relation to air quality was to achieve 'levels of air quality that do not give rise to significant negative impacts on and risks to human health and the environment with a view to achieving the long-term objective of not exceeding critical loads and levels'. The aim was to build on the already substantial amount of work undertaken on air quality, e.g. the acidification and ozone strategies, to finally arrive at a point where air pollution causes no environmental or health damage. The 6EAP identified a number of priority actions to improve air quality, including the development of a Thematic Strategy. It stated that this should review and update air quality standards and national emissions ceilings, adopt appropriate measures concerning ground level ozone and particulates, and further develop Community instruments for reducing emissions from relevant sources. In addition, the development and implementation of measures relating to transport, energy and industry should be compatible with and contribute to the improvement of air quality.

Prior to the publication of the Thematic Strategy on air pollution, the Commission brought forward a number of proposals to reduce emissions to air, which have subsequently become Directives, including:

- Directive 2004/26/EC on emissions from engines to be installed in non-road mobile machinery, which included emission limit values for inland waterway vessels and railway locomotives.
- Directive 2004/42/EC on limiting emissions of volatile organic compounds from paints and varnishes.
- Directive 2005/33/EC on the sulphur content of marine fuels.

Table 3 - Implementation Overview for Environment and Health

6 EAP Objectives	Main results	Assessment
Achieve by 2020 that chemicals are only produced without significant negative impact on human health and the environment	<ul style="list-style-type: none"> • Council common position on proposed REACH Regulation • Unlikely that REACH system in final form will achieve 6EAP objectives 	☹
Placing the responsibility for generating knowledge about chemicals on industry	<ul style="list-style-type: none"> • REACH to increase responsibility of manufacturers, importers and downstream users of chemicals for generating knowledge but too many exceptions to this basic principle 	☹
Developing a coherent risk assessment and management system for both existing and new substances based on a tiered approach	<ul style="list-style-type: none"> • REACH will, in principle, eliminate different treatment of new and existing substances in terms of testing, risk assessment and risk management • Long 'phase-in' periods before appropriate risk management measures can actually be taken for many existing substances 	☹
Subjecting the use of substances of very high concern to authorization in order to substitute dangerous chemicals by safer chemicals or alternative technologies	<ul style="list-style-type: none"> • Authorisation requirement to be introduced for substances of very high concern but long delay to be expected in its operationalisation • Principle of substitution likely to be compromised by requirement for granting of authorisation in cases 'adequately controlled' risk, even if safer alternatives are in fact available 	☹
Ensuring wider public access to information	<ul style="list-style-type: none"> • REACH to contain provisions on public access to information • Freely accessible information limited by extensive protection of industrial secrecy 	☹
Ensuring that main measures to implement above objectives can come into force before mid-2005	<ul style="list-style-type: none"> • REACH system will not enter into force before 2007 • Further delays in implementation to be expected once Regulation is finally adopted 	☹
Ensuring full implementation of the Water Framework Directive aiming at a good ecological, chemical and quantitative water status	<ul style="list-style-type: none"> • Water Framework Directive being implemented by Member States through the characterisation of river basin districts, the environmental pressures and impacts and economics of water uses • Limited 6EAP objectives in the area of water have generally been met 	☹
Developing measures aimed at cessation of discharges, emissions and losses of priority hazardous substances	<ul style="list-style-type: none"> • No concrete proposals for quality objectives relating to priority substances or for emission controls despite WFD deadline 	☹
Ensuring a high level of protection of bathing water, including revising the Bathing Water Directive	<ul style="list-style-type: none"> • Revised Bathing Water Directive adopted 	☺

Achieving levels of air quality not creating significant negative impacts on human health and the environment	<ul style="list-style-type: none"> • Thematic Strategy developed with proposal for new Directive on ambient air quality and cleaner air for Europe • Thematic Strategy sets low level of ambition for future measures while recognising that not even implementation of Maximum Technically Feasible Reduction scenario would enable 6EAP objective to be met 	☹
Adopting appropriate measures concerning ground-level ozone and particulates	<ul style="list-style-type: none"> • Thematic Strategy on Air Pollution provides for review of Directive on national emission ceilings to introduce further targets beyond the year 2010 • New target values for particulates proposed 	☺
Further developing specific Community instruments for reducing emissions of air pollutants	<ul style="list-style-type: none"> • Directive on emissions from engines in non-road mobile machinery • Directive on limiting emissions of volatile organic compounds from paints and varnishes • Directive on the sulphur content of marine fuels • Additional measures for other sources under consideration 	☺
To contribute to a better quality of life through an integrated approach concentrating on urban areas	<ul style="list-style-type: none"> • Thematic Strategy on the Urban Environment proposed without binding measures • Cooperation Framework providing support to networks of local authorities to promote best practices not renewed 	☹

Thematic Strategy on air pollution

The Thematic Strategy on air pollution (COM(2005)446), which was published in September 2005, sets out a number of proposals that are being, or will be considered, by the Commission. The Strategy commits the Commission to a review of the NEC Directive (2001/81/EC) to introduce further national emission ceilings beyond the year 2010, which should roughly correspond to the ambition level set out in the Strategy. Other possible legislation includes:

- A proposal for stricter emission standards (Euro 5) for light-duty vehicles (cars and vans), which was published in December 2005, with stricter standards for heavier vehicles to follow.
- The expansion of the coverage of the IPPC Directive to cover smaller industrial installations.
- Harmonised technical standards for domestic combustion appliances and their fuels, while smaller residential and commercial buildings could be included in an extended energy efficiency Directive.
- Further measures to reduce VOC emissions at petrol stations.
- Tighter NO_x emission standards for ships, which could be introduced within the EU if international action is not forthcoming.
- Reduction of the nitrogen content of animal feedstuffs and controls on the excessive use of nitrogen fertiliser.

These are in addition to existing measures in the field of energy and transport, for example, which are already being taken forward. Finally, the Strategy sets out the Commission's proposals to 'modernise' monitoring and reporting by setting up a

system of electronic reporting based on a shared information system, in collaboration with the EEA.

While the Thematic Strategy acknowledges that existing policy measures are not sufficient to meet the objective of the 6EAP with respect to air quality, the Impact Assessment (SEC(2005)1133) concludes that not even the implementation of the Maximum Technically Feasible Reduction (MTFR) scenario would enable the objective to be met. This latter scenario takes no consideration of the cost of measures, but includes all the measures that the Strategy claims are currently technically feasible. The Strategy makes no attempt to identify how the long-term objectives could be achieved in 2020, which appears to be setting its sights low from the start. Additionally, the computer model underlying the strategy has been criticised by some for its limitations.

To support the IA three scenarios, in addition to the MTFR, were modelled, all of which yielded at least 50% of the emission reductions between the baseline and the MTFR. This range was chosen, as analysis had shown that control costs started to increase significantly when reductions of around 75% between the baseline and the MTFR were achieved. As a result of an assessment of the costs and monetised benefits with respect to human health of these three scenarios, the approach yielding the emissions reductions set out in the Strategy was chosen. Ecosystem benefits such as less eutrophication and acidification were not monetised – due to lack of robust valuation data – and not included into the final summary tables comparing costs and benefits of further air pollution reduction.

Of the three additional scenarios modelled, the approach in the Strategy lies between the two weaker (in terms of emissions reductions achieved) scenarios. The Impact Assessment argues that this choice ‘delivers the lowest levels of air pollution that can be justified in terms of benefits and costs whilst attempting to prevent undue risk for the population’. Hence, the Strategy falls short of the objectives of the 6EAP, although it argues that it takes account of costs and benefits.

Additionally, the link between the scenario chosen and the measures proposed is not explicit. In other words, it is not clear from the IA which measures have to be introduced to achieve the results of each scenario – an indication is given, but explicit links are not made. Such links are not even explicit in the relevant background report, although apparently the measures needed can be extracted from the internet implementation of the model underlying the IA, RAINS.^{xiv} Hence, while the Strategy does propose some priorities for future action as called for by the 6EAP, it is not possible to judge, either from the IA or the background report, whether the policy measures proposed will yield the required emission reductions.

Ambient air quality standards

Indicative ‘target values’ for ground-level ozone were adopted shortly before the adoption of the 6EAP (Directive 2002/3/EC). Since the 6EAP, further target values relating to arsenic, cadmium, nickel and polycyclic aromatic hydrocarbons in ambient air have been enacted (Directive 2004/107/EC). With the adoption of this directive all the pollutants set out in the air quality framework directive 1996/62/EC have been addressed now.

The first proposed legislation resulting from the 'Clean Air for Europe' (CAFÉ) process was published alongside the Thematic Strategy. The main focus of this proposal is the consolidation of existing ambient air quality legislation (ie Directives 1996/62/EC (Air Quality Framework Directive), 1999/30/EC, 2000/69/EC and 2002/3/EC and Decision 97/101/EC, respectively) into a single Directive – the fourth air quality daughter Directive 2004/107/EC will be merged at a later date. The proposal does have some new elements, especially with respect to particulates, as it introduces new standards for these fine particles. Standards for the finer dust fraction do not exist in Europe so far, even though they have been in place in other countries such as the United States since 1997.

It proposes two components to regulate PM_{2.5}: a 'concentration cap' of 25µg/m³ to be attained in 2010, and sets an indicative reduction target of minus 20% pollution concentration between 2010 and 2020. The new target on PM_{2.5} is based on recent scientific evidence, which has suggested that the smaller particles are more dangerous for human health and highlighted that current PM_{2.5} concentrations cause substantial health damage in Europe. To take account of this change of emphasis, the indicative limit value for PM₁₀ for 2010 should be repealed according to the proposal. The Commission has also produced guidance on sampling and measuring PM_{2.5} (Decision 2003/37/EC).

The proposed new air quality Directive also includes the possibility for time limited derogations from the existing and future limit values in specific urban areas. This clause would apply both to areas with exceedances of limit values for SO₂, CO, PM₁₀ and lead which entered into force in 2005 as well as to areas which have compliance problems with any of the limit values to enter into force in 2010. These are NO₂, benzene and the new concentration cap for PM_{2.5}.

These exemptions shall be granted, provided that plans and appropriate measures are put in place to ensure compliance within five years. This is to accommodate the difficulties that a number of Member States are currently experiencing in meeting the limit values in some areas. The proposal also includes an article allowing for exceedances due to natural sources to be excluded from to be effectively exempt from the coverage of the proposed Directive. However, there is potential ambiguity in this, as there is no definition of what a 'natural source' is, and hence there are concerns that Member States might abuse this clause to exempt more areas than is arguably justified.

Contrary to the objectives laid down for the Thematic Strategy by the 6EAP, the Strategy does not propose to update the air quality standards currently set out in the various daughter Directives – apart from the action in relation to PM_{2.5} described above. On the contrary, the proposal to allow Member States additional time to meet some limit values, as long as they have compliance plans in place, which comes under the guise of 'strengthening implementation', is arguably a weakening of the existing targets. The Impact Assessment states that the decision was made not to update the current limit values – apart from those relating to PM_{2.5} and PM₁₀, as noted above – on the basis of 'advice received from the scientific community'.

3.3.4 *Urban environment*

The aims of the Thematic Strategy on the urban environment, as set out in the 6EAP, are to 'promote an integrated horizontal approach across Community policies and improve the quality of urban environment, taking into account progress made in implementing the cooperation framework' (an existing EU funding mechanism). The matters to be addressed cover, inter alia, the promotion of Local Agenda 21, 'the need to tackle rising volumes of traffic and to bring about a significant decoupling of transport growth and GDP growth' and the consideration of urban environment indicators.

Thematic Strategy on the Urban Environment

In 2004 the Commission released its Communication 'Towards a Thematic Strategy on the Urban Environment'. (COM(2004)60) It consisted of four priority themes to fulfil the mandate set out in the 6 EAP. These priority themes were sustainable urban management, sustainable urban transport, sustainable construction and sustainable urban design.

Proposed actions included a requirement for an environmental management plan (Eco-Management and Audit Scheme (EMAS), ISO 14001) and sustainable urban transport plan (actions on lower transport emissions, alternative fuel strategy, identification of indicators etc.) for each capital city and every other city and town over 100,000 inhabitants. The aims for sustainable construction were less specific, with encouragements to implement national sustainable construction programmes, reduce construction waste and improve energy efficiency. Sustainable urban design aims to ensure that land use planning systems achieve sustainable urban settlement patterns, encourage reuse of brownfield land and set minimum residential land use densities to limit urban sprawl.

In addition to these priority themes the report proposes the identification of key indicators to monitor the effects of the Thematic Strategy and the setting of targets.

The Thematic Strategy on the urban environment was released on 11 January 2006. (COM(2005) 718) The aim of the strategy is 'to contribute to improve the quality of the urban environment, making cities more attractive and healthier places to live, work and invest in, and reduce the adverse environmental impact of cities on the wider environment'. The measures proposed in the Strategy are less ambitious than those included in the preparatory Communication: guidance on integrated environmental management, guidance on sustainable urban transport plans, support for EU wide exchange of best practices, Commission internet portal for local authorities, training, drawing on other Community support programmes.

There have been several changes in the direction of the Thematic Strategy on the urban environment since the 6 EAP. In the end, all proposals for mandatory measures have been dropped. The Commission argued that it would be inappropriate to impose management and transport plans as a mandatory measure in the absence of a 'clear objective standard' to reach for the quality of the urban environment.

The Cooperation Framework

Decision 1411/2001/EC established the Cooperation Framework to provide financial and technical support to networks of local authorities. The objective of the framework was to encourage the conception, exchange and implementation of good practice in relation to the implementation at local level of EU environmental legislation, sustainable urban development and Local Agenda 21. These aims were quite similar to those of the 6EAP in the field of the urban environment.

In order to make the Cooperation Framework funds available, calls for proposals have been issued on a yearly basis from 2001 to 2004. The calls for proposal for the first year were closely linked to the aims of the decision but changed after that to reflect the future goals of the Communication 'Towards an Urban Thematic Strategy on the urban environment' as well as supporting working groups or stakeholder platforms for its development. The combination of the Cooperation Framework and these goals provided a well-working structure for implementing the aims of the 6EAP. The non-renewal of the Cooperation Framework after 2004, combined with the lower level of ambition of the final Thematic Strategy, is therefore a step backwards in achieving the goals of the 6EAP.

3.4 Natural resources and wastes

3.4.1 Sustainable use of natural resources

The overall aim of the 6EAP in this field is to achieve 'better resource efficiency and resource ... management to bring about more sustainable production and consumption patterns' and, more specifically, to 'break the linkages between economic growth and resource use' and to aim to 'ensure that the consumption of resources and their associated impacts do not exceed the carrying capacity of the environment.' In order to achieve these objectives, the 6EAP provides for the development of a Thematic Strategy on the sustainable use and management of natural resources including a range of actions. Since all priority actions in the field of natural resources are listed in the 6EAP as falling within the scope of this Thematic Strategy, our analysis focuses on this document.

The Natural Resources Thematic Strategy

The Thematic Strategy on the sustainable use of natural resources was published on 21 December 2005 (COM(2005)670), alongside the closely related Strategy on the prevention and recycling of waste (see 3.4.2). It sets out a long-term vision – 25 years – to reduce the negative environmental impacts associated with the use of natural resources in a growing economy (ie decoupling), and to improve resource efficiency. The specific actions it proposes are designed to improve understanding and knowledge of European resource use and its negative environmental impact; to monitor and report progress; to encourage both economic sectors and Member States to develop related plans and programmes; and to raise awareness among stakeholders and citizens.

The main EU-level actions proposed, as outlined in an Annex (SEC(2005) 1684) to the main Communication (COM (2005) 670), include:

- Development, by 2008, of a data set and indicators (both resource-specific and overall) to allow targets to be set that would clearly serve the purpose of reducing environmental impacts in a growing economy in the next 5-10 years.
- Establishment of a European Data Centre on natural resources, to be operational 12 months after the Strategy's adoption. This will bring together all the available information in order to monitor and analyse it and to provide policy-relevant information to decision-makers.
- Establishment of a High Level Forum composed of senior officials responsible for the development of natural resource policy in Member States, representatives from the Commission and, as appropriate other stakeholder groups. The Forum is to be set up 'soon after the strategy's adoption'.
- Establishment of an International Panel on the sustainable use of natural resources in cooperation with United Nations Environment Programme (UNEP) (no target date set).

In addition to these specific new initiatives, the Commission also proposes to incorporate natural resource concerns into other EU policy processes, such as Impact Assessment, the FP7 and sectoral initiatives under the EU Strategy for Jobs and Growth.

In terms of governance, the Thematic Strategy clearly envisages roles not only for the EU, but also for the Member States. The Member States, the Commission says, have certain policy tools at their disposal, such as economic instruments, that are difficult to introduce at the European level; have responsibility for education and training curricula; and are better placed to pursue consumer policies aimed at changing behaviour. Suggested actions for Member States include the development of national measures and programmes on the sustainable use of natural resources to achieve the strategy's objectives, focusing on resource use which has the more significant environmental impacts, the development of mechanisms to monitor progress, and, where possible, the development of targets. Based on these national programmes, the Commission intends to identify measures taken in Member States that could be usefully applied EU wide, with the help of the High Level Forum. The Commission will also consult Member States on the use of market-based instruments for managing natural resources, and the identification of barriers to their use at the EU level.

Is the Thematic Strategy consistent with the objectives laid down in the 6EAP?

The 6EAP commitment to deliver a Strategy was achieved, albeit four months later than scheduled. Many observers have been disappointed with the outcome, however, given the level of ambition which was set at the start of the process. The 6EAP called for the 'development and implementation of a broad range of instruments including research, technology transfer, market-based and economic instruments, programmes of best practice and indicators of resource efficiency.' The Strategy that was published clearly fails to meet this objective. It merely provides a framework for further attempts to meet it in the future, through institutional mechanisms such as the High Level Forum, data centre and international panel.

The Strategy has also been criticised for failing to take the opportunity to set out a more ambitious approach to decoupling. While it does state that the objective is to 'reduce the negative environmental impacts generated by the use of natural resources

in a growing economy', it does not say whether the goal is for relative or absolute decoupling, and nor are any targets set. Further, it does not commit to reducing resource consumption, except to state that for renewable resources this means staying below the threshold of overexploitation. This direction was set fairly early on in the development of the Strategy, and has been the subject of ongoing debate. After the release of the '*Towards*' Communication, for example, a leading expert from the Wuppertal Institute expressed concern about its lack of focus on resource consumption. By focusing on the problems already apparent, he said, the Strategy would be too reactive, continuing the current policy practice of dealing with problems when they arise, instead of adopting a precautionary approach.

Goals and targets are a clear gap in the Strategy, and the initial plan to set quantitative targets for 'resource efficiency and the diminished use of resources' has not been followed. Though the Commission has defended this due to a lack of quality data, how long can this excuse be made? Even if perfect information is not available at present, evidence of the trends of unsustainable resource use are clear, as are the impacts. It is worth recalling Article 2(1) of the 6EAP, which stated that the precautionary principle should be used. Further, by not setting clear goals and targets now, even if only indicative or lower in ambition at this stage, it sends the wrong signal that this is something they are prepared to wait for. As has been the experience with targets in general (eg the 2010 biodiversity target), what is needed is a clear roadmap with milestones along the way to an ultimate goal. Delaying on action will only increase the overall challenge.

More research than action

Many of the other actions called for by the 6EAP have only been addressed by research commissioned during the development of the Strategy, as follows:

- 'An estimate of materials and waste streams in the Community, including imports and exports, for example by using material flow analysis' - Research was carried out by the Wuppertal Institute (the 'Zero Study') on material flows in the EU, including imports and exports. Eurostat also published a report on 'Material Use in the European Union 1980-2000'.
- 'Review the efficiency of policy measures and the impact of subsidies relating to natural resources and waste' – A research study was commissioned to review policies, objectives and targets regarding natural resource and waste; identify existing or likely impacts of these policy measures; and identify and examine the impact of existing taxes and subsidies in Member States and accession countries on natural resources and wastes.
- Decoupling – A study on the Dynamic View on Resources aimed to assess the feasibility of decoupling resource use from economic growth by reviewing the framework of resource regulation, economic structure and environmental impact related to two example resources. A further study reviewed policy on decoupling and the development of resource productivity indicators.

Overall, it is unclear whether the initiatives announced in the Thematic Strategy will result in any real changes to how natural resources are used in the EU, and the negative environmental impacts associated with this resource use, at least in the short-medium term. The way in which the initiatives are operationalised will be important,

for example the membership and remit of the High Level Forum, and whether and how actions are taken at the Member State level.

3.4.2 Waste prevention and management

Under Article 8 of the 6EAP there are three key sets of action relating to waste, in addition to the linked efforts on natural resource use: (i) developing and implementing measures on waste prevention and management; (ii) developing a thematic strategy on waste recycling; and (iii) developing and revising legislation on various types of wastes and related matters (the subjects listed include sewage sludge, construction and demolition waste, biodegradable wastes, packaging, batteries, shipment of wastes, clarification of the distinction between waste and non waste and recovery and disposal etc.).

The Waste Thematic Strategy

Except for a few isolated legislative initiatives that will be considered below, the bulk of policy activity has been integrated into efforts under the waste Thematic Strategy, whose formal remit was expanded following the adoption of the 6EAP to encompass both recycling and waste prevention. After much delay the Thematic Strategy on waste prevention and recycling was published, alongside that on natural resource use, in December 2005 – heralded as making the EU a ‘recycling society’. Accompanying the strategy itself was a proposal for an amendment to the Waste Framework Directive (75/442/EEC). This proposal will now have to go through co-decision, and is likely to be further amended in the course of the process. There is a close link between the Strategy and the proposed amendments to the Waste Framework Directive, the former providing a broader policy framework, and the latter intended to put into action many measures outlined.

The Strategy underlines the life cycle approach condoned in the natural resources Thematic Strategy and highlights the importance of reinvigorating the initiatives on eco-design. Key points of interest raised by the strategy include:

- the shift towards a materials based approach in waste policy, away from the mechanisms focused on particular types of end product such as under the Waste Electronic and Electrical Equipment Directive (WEEE) Directive;
- a new focus on waste prevention, although it should be noted action on this is envisaged to be the responsibility of Member States, under the guise of proposed Member State waste prevention programmes;
- proposed amendments to the definition of waste in terms of when waste ceases to be waste – it is proposed that waste stream based environmental criteria be developed and defined for problematic streams, the criteria would be established on a fit for use basis – and a change to the definition of recovery versus disposal with recovery now to be focused on the concept of substitution of resources in the economy;
- an efficiency threshold is proposed for incinerators to define whether incineration of municipal solid waste is to be classified as recovery or disposal;
- a new approach of EU minimum quality standards for recycling is also suggested, designed to stimulate demand for recycled material, beyond this, however, no new measures on recycling have been proposed, with the Commission suggesting a

- break in the development of legislation until 2010 to allow the implementation of existing measures;
- the extension of the IPPC Directive to selected waste management activities;
 - although action on biowaste is highlighted as of importance under the 6EAP, however, rather than proposing a Directive (as originally anticipated), the Commission intends to develop compost quality criteria and guidelines on the application of life cycle thinking to biowaste, and to invite Member States to rethink national strategies in light of this; and
 - finally, under the proposals, the Waste Oils and Hazardous Waste Directives would be amalgamated into the Waste Framework Directive, a measure presented as a simplification initiative under the Commission's 'Better regulation' agenda.

Is the Thematic Strategy consistent with the objectives laid down in the 6EAP?

As a snapshot to assess aims versus action one can contrast the measures proposed in the waste Thematic Strategy to those outlined in the 6EAP (ie those actions specified under Article 8(ii) of the 6EAP relating directly to the requirement for a Thematic Strategy on recycling – as it was envisaged at the time of the 6EAP's writing).

The 6EAP calls for 'measures aimed at ensuring source separation, the collection and recycling of priority waste streams.' While there have been efforts to clarify the definition of waste and also proposed initiatives in relation to recycling standards designed to increase the market for recycled goods, the impact of these measures and their likely effectiveness are currently highly contentious and it is unclear exactly what the timetable for action will be. The Strategy fails to address separation and collection aspects.

Another stated objective of the 6EAP is the further development of measures in the area of producer responsibility. The Thematic Strategy merely makes reference to more sustainable product design and eco-labelling. However, little emphasis is placed on producer responsibility within the Strategy and no specific further action is envisaged in this area.

Finally, the 6EAP established an objective of 'development and transfer of environmentally sound waste recycling and treatment technology'. There are a few references to Member States including waste technologies within their national contributions to ETAP. It could also be argued that the generation of recycling standards may contribute to the increased use of environmentally sound technology. This impact, however, will strongly depend on the ambition of the standards set, how the industry responds to such standards and exactly what products are covered by such standards – at present the ambition seems limited. Finally, the Strategy also includes a reference to the development of guidelines on minimum environmental standards for permits of installations that are not covered by the IPPC Directive and on best available techniques for the mixing of hazardous waste by 2007, both of which are intended to result in more environmentally sound recycling and treatment technology.

When considering whether or not the policy objectives of the 6EAP have been met, it is still difficult to come to a satisfactory conclusion. Limited progress has been made in relation to some of the specific waste dossiers mentioned in the 6EAP eg batteries and waste shipment legislation. Legislative proposals to revise existing legislation in

Table 4 – Implementation Overview for Natural Resources and Wastes

6EAP objectives	Main results	Assessment
Aiming to ensure that use of resources does not exceed carrying capacity of the environment and decouple economic growth from resource use	<ul style="list-style-type: none"> Thematic Strategy on Natural Resources is unclear on decoupling (relative or absolute goal) Unclear whether the initiatives announced in the Thematic Strategy will result in any real changes in natural resource use and associated negative environmental impacts 	☹
Establishing goals and targets for resource efficiency and the diminished use of resources	<ul style="list-style-type: none"> Initial intention to set quantitative targets for resource efficiency and resource use was abandoned No commitment to reducing resource consumption, except to staying below the threshold of overexploitation for renewable resources 	☹
Developing and implementing broad range of instruments including research, technology transfer, economic instruments, best practices and resource efficiency indicators	<ul style="list-style-type: none"> Thematic Strategy on Natural Resources clearly fails to meet this objective; merely provides a framework for further attempts to meet it in the future Development of data set and indicators to allow targets to be set not to be completed before 2008 OMC-type initiative for exchange of best practices through High Level Forum of Member State officials 	☹
Achieving significant reduction in volume of wastes (especially hazardous wastes) generated and going to disposal through waste prevention, recovery and recycling initiatives	<ul style="list-style-type: none"> Remit of Thematic Strategy on Waste expanded following adoption of 6EAP to encompass not only recycling but also prevention Thematic Strategy shifts main responsibility for prevention initiatives to Member States (national waste prevention programmes to be developed) Proposed change of definition of recovery (as opposed to disposal) focusing on substitution of resources in the economy 	☺
Developing quantitative and qualitative reduction targets covering all relevant waste	<ul style="list-style-type: none"> Proposal for amendment of Waste Framework Directive would require Member States to develop prevention programmes including targets and objectives 	☺
Encouraging ecologically sound and sustainable product design	<ul style="list-style-type: none"> Integrated Product Policy promoted but without significant results so far Eco-design Directive for energy using products 	☺
Formulating operational measures to encourage waste prevention, including product-related measures	<ul style="list-style-type: none"> No operational prevention measures proposed at EU level Product-related measures proposed or adopted prior to 6EAP being implemented but no further binding measures contemplated 	☹
Developing measures aimed at ensuring source separation, collection and promoting further recycling of priority waste streams including further development of producer responsibility	<ul style="list-style-type: none"> EU minimum quality standards for recycling suggested with a view to stimulating demand for recycled material New recycling and recovery targets under Packaging Waste Directive No additional measures in field of recycling and producer responsibility proposed 	☺
Developing or revising legislation on wastes	<ul style="list-style-type: none"> Proposal for amendment of Waste Framework Directive New Directive on the management of waste from extractive industries Revised Directive on batteries and accumulators 	☺

these areas were made by the Commission and the co-decision process on these proposals is nearing completion. Moreover, the Packaging Waste Directive (94/62/EC) was amended in 2004 (to include new targets for recovery and recycling, including extended grace periods for new Member States). A major amendment to the Waste Framework Directive was proposed alongside the Thematic Strategy. However, the legislative process by which this proposal will be approved is only just commencing. The fact that changes can and will be made by the European Parliament and Council makes it difficult to assess any impact.

A key area for action, intended to be addressed in accordance with the 6EAP, is the prevention of waste. While the European Commission has been praised for its inclusion of this fundamental issue into the remit of the Waste Thematic Strategy, the requirements for action in this area remain unclear and poorly defined. Mechanisms outlined within the strategy for addressing prevention focus on the 'clarification' of Member State 'obligations to develop publicly available waste prevention programmes' with an amendment being proposed to the Waste Framework Directive to enable this. The detail of such action remains unclear and fundamentally the level of ambition, both in terms of requirements and enforcement of such requirements, remains vague. The explanatory memorandum accompanying the proposed amendment to the waste framework Directive states that the waste prevention programmes will 'increase the focus of policy makers...on prevention thereby triggering an increase in waste prevention policy'. The text of the Directive as it stands only requires Member States to develop the prevention programmes, develop targets and objectives within them, consider the use of a list of potential measures included within its annex and regularly evaluate the programmes. There are no binding targets or requirements, beyond the existence of the plans. In addition the Commission states in the strategy that it will promote 'the use of the IPPC Directive, IPP and other tools to encourage the spread of best practice'.

Coupled to the uncertainty outlined above, in specific areas, obvious gaps in the Commission's legislative programme on waste remain, with for example sewage sludge and biowaste failing to be addressed (though a revision of the sewage sludge Directive has been announced for 2007). The Thematic Strategy does mention both, however, but action is only contemplated – as it has been for years already – and there is little information about timescales.

In conclusion, in terms of policy action, there are many ideas proposed in the Thematic Strategy that are of interest and could take debate forward. As it stands, however, many proposals are just ideas with no systematic way of being taken forward, there is little sense of ambition in relation to such action and efforts are often anticipated well into the future.

The Thematic Strategy as a policy shift

The Thematic Strategy heralds several significant shifts in terms of EU policy making in the waste field. Key amongst these is the move away from hard law to the use of criteria and standards. It is proposed that these would be developed through the use of comitology, by drawing on the work of the European standardisation body CEN 'or other similar sources'. (COM(2005) 666, p14) Not only, therefore, does the Strategy foresee a shift in the type of measures emerging but also a shift in terms of those

making the decisions, away from the European Parliament and Council and towards more ad hoc groups of experts designated by the Member States and (as far as standardisation is concerned) the private sector.

In the waste arena, despite much posturing and rhetoric, the Thematic Strategy has been a disappointment to many who feel it does not progress policy in this area effectively. Proposals under it, such as those on setting standards, the increased use of comitology and changes in relation to recovery versus disposal in particular regarding incineration, have received much criticism. As has the process of developing the strategy: stakeholders did not feel engaged with this process, feeling that there was not enough time to comment on suggestions or to get their opinions heard. In addition there has been criticism of the impact assessment associated with both the Thematic Strategy and Waste Framework Directive amendments, in that it does not cover all the areas deemed necessary.

4 THE INSTRUMENTS OF EU ENVIRONMENTAL POLICY

The debate about the most effective and efficient instruments of environmental policy is as old as environmental policy itself. At the EU level, this debate has been reinforced, since the Treaty of Maastricht, by a broader and parallel debate on European governance and subsidiarity on the one hand, and, particularly since the launch of the Lisbon agenda, economic competitiveness and 'better regulation' on the other. The principle of subsidiarity, as interpreted in the political discourse of the institutions, has been taken to imply restrictions in terms of both the necessity and form of Community action. The recent overriding concern for growth and jobs has been used to call into question the very legitimacy of Community regulatory action in many fields, including the environment. The evolution of EC environmental policy during the period of the 6EAP provides ample evidence of the political downgrading of law from its traditional position as the prime form of Community action for the protection of the environment. While political discourse stresses the need to prioritize proper implementation of existing law, the evidence shows that the Commission lacks a coherent strategy and sufficient resources for adequate monitoring and enforcement efforts responding to the needs and concerns of citizens. The stated support for wider use of economic instruments in the 6EAP seems to serve as much as a political discourse designed to justify the retreat from classical legislative action as it reflects a genuine political commitment to the further development of indirect, market-based forms of regulation at EU level, while national measures in this field are often impeded or discouraged by the prevailing interpretation of internal market rules. As a result, EU environmental policy seems to be retreating increasingly into the realm of soft instruments inspired by the open method of coordination (OMC) pioneered in the field of social and economic policy.

4.1 A diminished role for legislation

4.1.1 *To legislate or not to legislate?*

Like its predecessor, the 6EAP is characterized by an ambivalent attitude towards legislation as a key instrument of EU environmental policy. According to its preamble, 'legislation remains central to meeting environmental challenges', but 'other options for achieving environmental objectives should also be considered.' Article 1 of the 6EAP Decision further provides that 'appropriate initiatives (...) with the aim of meeting the objectives [of the 6EAP] shall consist of *a range of measures including legislation* and the strategic approaches outlined in Article 3.' (emphasis added) Article 3, in turn, refers to legislation as one of the so-called 'strategic approaches', as it provides that the aims and objectives of the Programme shall be pursued, *inter alia*, through 'development of new Community legislation and amendment of existing legislation, where appropriate'.

It should be pointed out that, from the outset, the Commission was very reluctant to include any explicit references to new legislation in the 6EAP. Its proposal for what eventually became Article 3 of the 6EAP Decision only mentioned more effective implementation of *existing* legislation among the 'strategic approaches'. A separate provision on development of new legislation was actually added by the Council, with

the support of the European Parliament. But another provision makes it clear that legislation is by no means to be considered as the preferred option:

'The Programme shall ensure that environmental objectives ... are met by *the most effective and appropriate means available* ... Full consideration shall be given to ... *all available options and instruments.*' (Art. 2(3) – emphasis added)

The vague formulation of most of the substantive objectives of the 6EAP and the introduction of the Thematic Strategies as a second-order, more specific programming instrument under the overall umbrella of the 6EAP and a means of 'consider[ing] the range of options and instruments required for dealing with a series of complex issues that require a broad and multi-dimensional approach' (Decision 1600/2002/EC, Recital 16) seem designed to preserve the Commission's right of initiative, to avoid committing the other institutions to any particular policy option from the outset and to leave ample room for further stakeholder consultation and impact assessment. This is of course consistent with the Union's overall 'Better regulation' agenda.^{xv}

The decline of law as the prime instrument of EU environmental policy was already apparent in the 5EAP, published in 1992, which, in contrast with its predecessors, was no longer conceived primarily as a legislative agenda, but sought to 'broaden the range of instruments' of the Community's environmental policy and introduced the concept of 'shared responsibility' of EU institutions, Member States and stakeholders.^{xvi} However, the decline in legislative activity in the environmental policy field has become particularly marked since the 6EAP and even more so since the beginning of the current Commission's term of office. The Commission's most recent annual work programme only announces three legislative proposals in the environmental field in 2006.

4.1.2 The changing nature of legislation

Apart from the declining number of legislative measures, there are also some noticeable trends with respect to the purpose and types of legislative acts that have been adopted or proposed since 2002 and the legislative techniques used:

- Increasing recourse to 'framework' Directives, a trend initiated before the 6EAP by the Water Framework Directive. The term 'framework Directive' does not in fact refer to a clearly defined category of legislative act. In fact, it has been used in the past to denote different legislative techniques. It sometimes refers to a Directive ('framework' or 'mother' Directive) laying down general objectives and provisions with respect to a relatively broad subject matter, to be complemented at a later stage by additional Directives ('daughter' Directives) that are more narrow in scope and establish more specific or additional provisions with respect to part of the 'framework' Directive's subject matter. In this case, the 'implementing' legislation is adopted through the same standard legislative procedure as the 'framework' instrument. More recently, however, the term 'framework' Directive has typically been used to denote a Directive laying down general objectives, principles and primarily procedural provisions with respect to its subject matter, either without the intent of further specifying the obligations of

Member States through subsequent Directives (thus effectively leaving them almost unlimited discretion in terms of substantive environmental results to be achieved), or with a broad delegation of powers to the Commission for the adoption of binding implementing provisions through a 'comitology' procedure (thus bypassing the normal legislative procedure with the involvement of both the Council and the European Parliament). The recent proposal for a new Waste Framework Directive (COM(2005) 667) is an example of the latter type, whereas the proposed Marine Strategy Directive (COM(2005) 505) contains mostly features of the former type.

- Many recent legislative initiatives stem primarily from the Commission's policy objective of 'simplification' of the regulatory environment, rather than from the intention to achieve substantive advances in EU environmental policy. While consolidation of several related items of legislation into a single legislative instrument, at the same time removing redundant, overlapping or obsolete provisions, can make EU law more transparent and easier to apply, such legislative initiatives under the guise of simplification are prone to being used incidentally as a vehicle for 'stealth deregulation' to roll back the existing level of protection in subtle but significant ways. For instance, the proposal for a new air quality framework Directive accompanying the thematic strategy on air pollution (COM(2005)447) refers to simplification as its main rationale. But it also contains new provisions that would allow Member States to derogate from existing ambient air quality standards in certain areas. (see 3.3.3)
- Some recent legislation serves primarily as a framework to delegate normative responsibilities to private actors, with further implementing legislation being contemplated only as a second-best, backup option. The recent Eco-design Directive (2005/32/EC) is a case in point. Eco-design requirements for specific energy-using products will be laid down by delegated legislation only if objectives cannot be achieved through voluntary environmental agreements with industry. The Directive also provides a basis for recognizing standards developed by European standardization bodies, in accordance with the so-called 'New Approach'.

4.2 Implementation and enforcement of existing legislation

According to the preamble of the 6EAP, 'full and correct implementation of the existing legislation is a priority'. Accordingly, one of the 'strategic approaches' of the Programme listed in Article 3 of the 6EAP Decision is 'encouraging more effective implementation and enforcement of Community legislation on the environment'. This is to be achieved, inter alia, by 'increased measures to improve respect for Community rules on the protection of the environment and addressing infringements of environmental legislation'. Such measures are, first and foremost, the responsibility of the Member States, but, where they fail in their duty to ensure adequate transposition, implementation and enforcement of EU environmental legislation, the powers of the Commission under the Treaty to monitor national implementation and to initiate infringement proceedings against delinquent Member States come into play. The Commission regularly reports to the European Parliament on the exercise of its

monitoring and enforcement powers, both through a general Annual Report covering all aspects of Community law,^{xvii} as well as, since a number of years, an 'Annual Survey' providing more detailed information on environmental law specifically.^{xviii}

4.2.1 The declining number of environmental complaints: an indicator?

It is interesting to contrast two statements made by the Commission in these reports. In its report for 2002, published in 2003, the Commission noted:

'The last five years have seen a growing difficulty in the timely and correct implementation as well as proper practical application of EC environmental legislation. This is reflected in the growing number of complaints received and infringement cases opened by the Commission every year.' (COM (2003) 669, p33).

The most recent published report, addressing the situation in 2004, states:

'In the area of the environment, implementation of Community legislation by the Member States has improved in recent years. This is borne out by the substantial reduction in the number of new complaints registered by the Commission in 2004 (336 as compared with 555 in 2002).' (COM (2005) 570, p6).

While there have indeed been a falling number of complaints, is it justified to infer from this statistical fact, as the Commission appears to be doing, that there has been an almost miraculous reversal of the situation in terms of implementation of environmental law in two years' time? Have any 'increased measures' to promote implementation and address infringements been taken, as called for by the 6EAP?

From the outset, it should be pointed out that complaints are only one of several ways in which the Commission detects potential infringements of Community law. It also routinely launches infringement proceedings when Member States fail to notify measures taken to transpose Directives or when its own investigations reveal that national legislation is not in conformity with Community law (eg as a result of 'conformity checks' carried out in accordance with the 6EAP goal of 'a more systematic review of the application of environmental legislation across the Member States'). In the environmental field, these two modes of detection together accounted for some 42 per cent of new cases opened in 2004 (the remainder resulting from complaints). Though the Commission's policy in the area of implementation monitoring and enforcement cannot be reduced to its handling of individual complaints only, our discussion in this section will focus on this question, which is most directly of concern to the general public. As the Commission itself put it, 'what matters most to individual citizens is that the law is effectively applied to their own particular circumstances'.^{xix}

According to published data, the number of new complaints registered by the Commission in environmental matters peaked in 2001 (587 complaints), declined slowly until 2003 and significantly in 2004 ((SEC (2004) 1638); (COM (2004) 839, p39); (COM (2005) 570, p6)). However, the number of complaints relating to the environment is still the highest of any area of EU policy (29 per cent of the total number of complaints, albeit compared to 38 per cent in 2002). According to one commentator, the numbers of complaints received may not be a very reliable indicator

of actual implementation in the Member States, as these numbers 'reflect the campaigning tactics of national environmental organisations, national views of the environmental credentials of the Commission and a host of other factors as well as any comparative objective picture of compliance.'^{xx} Does the declining number of environmental complaints reflect an improved implementation record or rather rising public scepticism about the legitimacy of European institutions in general and the effectiveness of the Commission's role as 'guardian of the Treaty' in particular?

4.2.2 Commission policy with respect to the handling of complaints

In the past, the Commission has encouraged citizens to raise complaints about infringements of EC environmental law. It continues to stress that such complaints 'constitute a vital means of detecting infringements of Community law', which 'helps to make the principle of a Community based on the rule of law a tangible reality for Europe's citizens and economic operators.' At the same time, however, it also emphasizes the limited resources available to the Commission services to handle individual complaints and the 'practical difficulties' in doing so, and admits that it 'therefore concentrates on problems of communication and conformity' of national transposition measures rather than individual cases of bad application of EC environmental law.

In practice, it appears from the published data that, while environmental cases account for the largest share of complaints registered by the Commission, the proportion of such cases that eventually lead to a reasoned opinion being issued against a Member State, let alone to proceedings before the ECJ, is smaller than in many other areas of Community law. In 2004, only 11.6 per cent of pending environmental cases (whether detected as a result of complaints or of the Commission services' own monitoring activities) were referred to Court. While the environment ranked first in terms of the number of complaints, it only ranked tenth in terms of the proportion of cases brought to the ECJ, behind many other sectors. Thus, the Commission's actual practice in the field of environmental law enforcement sends a mixed signal to citizens.

The Commission in fact admits that it is 'particularly common' for environmental cases to be settled before the final stage of proceedings and explains that this is due to the fact that

'a large number of situations to which the Commission's attention is drawn by complaints ... turn out not to be infringement situations as there is no legal basis in Community law or the allegation by the complainants ... is unfounded in fact or in law.'^{xxi}

It should be recalled here that the Court of Justice has consistently held that the Commission's decision whether or not to initiate and pursue infringement proceedings against a Member State is fully discretionary. However, in response to criticisms from the European Ombudsman about the lack of transparency of such decisions, the Commission in 2002 published internal procedural guidelines concerning relations with complainants in the handling of complaints (COM(2002)141), followed by a Communication on 'Better monitoring of the application of Community law' (COM(2002)725), in which it first specified the 'priority criteria' it would apply in the exercise of its discretion.

These criteria, unfortunately, seem to exclude most cases of environmental non-compliance reported by citizens from priority attention: only 'damage to the environment with implications for human health' and 'cases of systematic incorrect application detected by a series of separate complaints by individuals' with respect to the same piece of legislation, or cases of failure to transpose or incorrect transposition which affect a large segment of the public, would fall within the criteria. These general criteria are not fully consistent with earlier statements of enforcement policy, for example in DG Environment's 'Annual Survey' for 2000-2001 (SEC(2002)1041), according to which individual complaints relating to instances of incorrect application of Community environmental law 'which highlight questions of principle or general interest or administrative practices that contravene the directives' would also be pursued. Has this policy now effectively been superseded by the new, general 'priority criteria' which imply a higher threshold?

As the Annual Survey does not contain any statistics on the Commission's handling of individual complaints about bad application, it is impossible to tell whether there have been any changes in relevant practice in the environmental field since 2002. It is striking, however, that there has recently been a significant increase in the overall number of infringement cases closed by the Commission before the reasoned opinion stage (a 20 % increase from 2003 to 2004), but since only aggregate statistical data are published in the Annual Report, we cannot determine whether environmental cases were particularly affected by this development.

On several occasions, the Commission has pointed out that, as a result of enlargement, the workload on its services to monitor the implementation of Community law in all Member States and take enforcement action as required would increase substantially. The mere time and effort required to scrutinise the conformity of 25 different national transposition measures in 20 languages needs little explanation. In its Communication of 2002 on Better Monitoring, the Commission recognized that more resources would have to be devoted to this task. (COM(2002)725) However, there is no evidence that significant additional resources have been made available for this purpose in DG Environment since enlargement. On the contrary, the number of staff in the Infringements Unit of the DG has not increased since 2002 despite enlargement, and, relative to DG Environment's overall staffing level, the proportion of human resources devoted to this crucial task has even *declined* since the adoption of the 6EAP.^{xxii} Without additional resources, it is doubtful that the objectives of the 6EAP can be achieved and rather more likely that the quality of monitoring and enforcement will decline.

The criteria and resources for dealing with registered complaints are one cause of concern; another are recent allegations that, in the environmental sector, certain complaints by individuals are no longer registered by Commission services,^{xxiii} in conflict with official Commission policy as stated in the 2002 Communication to the European Parliament and the Ombudsman. Non-registration of complaints is mentioned as an issue in a report adopted unanimously by the European Parliament's Committee on Legal Affairs, which also refers to ongoing investigations by the Ombudsman on the matter.^{xxiv}

4.2.3 Other aspects of implementation and enforcement policy

The above discussion has focused on centralized supervision and enforcement of Community environmental law by the Commission, making use of its powers under the Treaty. However, even with increased resources and more transparent procedures, there is no way this mode of enforcement can ever be sufficient to effectively address all non-compliance issues and respond to the legitimate concerns of EU citizens. As the Commission rightly stresses, decentralized enforcement of environmental law in the Member States themselves is equally important, and so are the deficiencies at the national level: 'The relatively high number of complaints received by the Commission reflects the non-existence and/or the relative lack of efficiency of complaint mechanisms in Member States.' (COM (2003) 667, p 35).

The Commission deserves credit for having submitted a proposal for a Directive on access to justice in environmental matters (COM(2003)624) as part of its package of measures for the implementation of the Aarhus Convention, notwithstanding the lack of a clear mandate for such a proposal in the 6EAP. This proposal goes some way towards addressing the issue of improving access to justice in the Member States, but is unlikely to be adopted by the Council any time soon, despite the European Parliament's support.

Other measures provided for by the 6EAP to improve implementation and enforcement of EC environmental law at Member State level are the promotion of improved standards of permitting, inspection, monitoring and enforcement and improved exchange of information on best practice in this field. A Recommendation of the European Parliament and of the Council providing for minimum criteria for environmental inspections in the Member States (2001/331/EC) was adopted prior to the 6EAP and its implementation is being promoted through the work of the European Network for the Implementation and Enforcement of Environmental Law (IMPEL). It is not possible to assess the effectiveness of these measures within the scope of this study.^{xxv}

4.3 Market-based instruments: few EU-wide initiatives and disparate progress in the Member States

One of the 'strategic approaches' of the 6EAP, especially for the promotion of sustainable production and consumption patterns, is 'to internalise the negative as well as the positive impacts on the environment through the use of a blend of instruments, *including market based and economic instruments*' (Art. 3(4) – emphasis added)

More specifically, the 6EAP calls for:

- encouraging reforms of subsidies harmful to the environment;
- promoting and implementing the use of tradable environmental permits where feasible;
- promoting and encouraging the use of fiscal measures such as environmental related taxes and incentives at the appropriate national or community level.

These provisions each manifest commitment to the application of the polluter pays principle (PPP) that is laid down in the EC Treaty.

There has been some progress in each of these areas since the 6EAP's adoption, though with much less progress in the field of subsidy reform than in the use of tradable permits and fiscal measures. The biggest step forward has been with tradable permits with the introduction of the EU ETS (see 3.1.2). There have also been important developments at Community and national level as regards other economic instruments, though with far greater developments at national level given the constraints on Community action inherent in the unanimity voting regime for tax issues. More, however, could arguably have been done at Community level to encourage the uptake of fiscal instruments. For example, a promised Commission Communication on the subject was delayed several times and recently dropped in favour of a new Green Paper that is still to appear. As regards reforming harmful subsidies this is an even slower process with fewer results beyond rhetorical support. Details of Community level and national level progress are noted below.

4.3.1 Overview of market-based instruments

Market-based instruments (MBIs) are used increasingly widely across Europe and with a widening scope, covering a broader range of environmental challenges and using an increasing range of instruments – environmental taxes, charges, fees, fines, levies, deposit refund schemes, emissions trading, certificate trading, quota trading, (harmful) subsidy reform, pro-environmental subsidies and liability and compensation.^{xxvi}

Historically these instruments have been developed nationally, with no EU wide instrument initiated at the EU level, though with a number of instruments applied across the EU without formal coordination (eg transport fuel taxes). While the bulk of the initiatives remain national in conception, design and implementation, there are now a range of EU wide economic instruments and initiatives – notably the EU ETS. Increasingly national practices are (potentially) influenced by European institutions – as in the case of the Community framework for the taxation of energy products and electricity (see 4.3.2), which set minimum tax levels for fuels, and the Water Framework Directive, which requires that the concept of full cost recovery is supported in water pricing. In some cases there can be requirements – eg for a move towards full cost recovery within the WFD – and in others simply 'encouragement' – as regards moving towards CO₂ signalling in passenger cars taxation in the 2002 Commission communication on this subject (COM (2002) 431). In yet other cases, practice in one country borrows from that in another and 'soft harmonisation' occurs. Some key points are noted in turn below.

4.3.2 EU wide initiatives and instruments

The EU ETS is the most visible new EU wide initiative and instrument. This is the first supranational emissions trading scheme to have emerged anywhere in the world. It also moves the EU from being an observer of innovative instruments application in

the US to itself being in the vanguard. (see 3.1.2) Other noteworthy recent EU measures are discussed below.

Community framework for the taxation of energy products and electricity

This is not a new tax but a framework of rules to restructure and harmonise national tax systems. The rules established by Directive 2003/96/EC – that apply from 2004 onwards though with some transition measures for new Member States^{xxvii} – set minimum rates of duty for transport fuels. Several Member States are required to introduce new taxes levied on coal, natural gas and electricity because these taxes have not historically existed and some of them have to increase the existing ones levied on mineral oil products. The consequences for the individual Member States are quite different; some Member States are not obliged to introduce or increase any energy taxes compared to others, which are required to do so. Generally speaking, the impact on the new Member States is significant.

It could be argued that this Directive represents an achievement in harmonising environmental and fiscal policies. However, it is important to note that some Member States' tax rates on mineral oils, for example, are significantly above the minimum rates, while those of other countries are around the minimum rate. Hence, large differences in tax rates still exist, so the practical impact of the directive on harmonising rates has been to ensure that countries cannot reduce taxes below a minimum level.

The 'Eurovignette' Directive

Political agreement on an amendment to Directive 1999/62/EC on the charging of heavy goods vehicles for the use of certain infrastructures was reached in March 2006. It will now allow road user charging to take into account not just costs of infrastructure but also congestion and environmental issues (according to vehicle emissions category) for vehicles above 12 tonnes and above 3.5 tonnes from 2012. Member States will be free to choose how to implement the system and what levels to impose. However, there is no obligation to have charges.

Environmental Liability Directive

Legislation on environmental liability is one of the 6EAP's 'strategic approaches'. (Art. 3(8)) The adoption of Directive 2004/35/EC – which combines compensation payments and requirements for primary and complementary remediation measures – is a major development. The Directive is a step towards integrating environmental costs in production costs and in the prices of goods and services across Europe. The first article of the Directive invokes the PPP as its basis, but its provisions fall short of a full implementation of the principle.

Water pricing policies under the Water Framework Directive

By 2010, Member States shall have introduced pricing policies that support the environmental objectives and distribute costs according to PPP. Differentiation by user groups is allowed. This is expected to help to move towards full recovery of costs of water services, by the users, including environmental and resource costs. One could expect increasing prices in many countries, removal of implicit subsidies and putting in place of various incentives to reduce water use.

Extended producer responsibility under EC waste legislation

There are a series of directives where the costs of collection, treatment and disposal is being integrated into the price of products via extending producer responsibilities to these life-cycle stages. This internalisation of costs is a way towards 'getting the prices right', addressing implicit (harmful) subsidies. The End-of-Life Vehicles Directive (2000/53/EC) is an example predating the 6EAP. The WEEE Directive (2002/96/EC), another important example, was adopted after the 6EAP, based on a legislative initiative taken in 2000.

Reform of environmentally harmful subsidies

At the Community level efforts here have focused on reforming the CAP and the CFP.

There have been progressive attempts to 'green' the CAP budget, to replace production subsidies with income support, and to shift the emphasis towards rural development.^{xxviii} Following the 2003 reform of the CAP, those in receipt of EU funds have had to meet a series of environmental and animal-welfare standards in order to qualify for a subsidy payment from 2005. (see 3.2.2)

Reform of the EU fisheries subsidies regime began in the early 1990s as the amount of aid for construction and modernization was reduced, with corresponding increases in money available to withdraw vessels altogether, or move them to other (non-European) fishing grounds. Further significant fisheries subsidy reforms followed in 1999, as part of the EU's Agenda 2000 process. A stronger environmental element was included in the relevant EU regulations that determine the framework for aid (Regulations 1260/1999/EC and 1263/1999/EC). This resulted in improved opportunities to deploy funds in the interest of sustainable development. However, in practice, much of the aid is still designed to increase supplies of fish, improve the private economic performances of vessels and strengthen competitiveness on the global market. In spite of the fact that fisheries subsidies can generally be considered to be environmentally harmful, the existing subsidy framework has also been used for environmentally beneficial purposes, although these are the exception rather than the rule.^{xxix}

Initiatives to review the Commission's state aid guidelines as well as to review environmentally-harmful subsidies at the Member State level are also part of the 'priority actions' of ETAP, launched by the Commission in January 2004 (COM (2004) 38) to foster the market for clean technologies. As regards subsidies, ETAP is trying to help guide, facilitate and/or coordinate national actions to encourage progress^{xxx}.

Market-based instruments to encourage purchase of vehicles with lower emissions

The 2002 Communication on taxation on passenger cars underlined the benefit of restructuring the registration tax^{xxxi}, and the annual circulation tax (ACT) bases to include a CO₂ element, and this was subsequently developed in a proposal for a Directive on passenger car related taxes (COM(2005) 261), though this is unlikely to be adopted in the short term given opposition to Community action in the field of taxation.

Another recent Commission initiative, focusing on the greening of public procurement and applying to heavy vehicles, is the draft Directive on the promotion of clean road transport vehicles (COM (2005) 634).

Integrated Guidelines for Growth and Jobs

Not only the Commission, but also the Council and even the European Council continue to pledge their support for the principles encouraging the use of MBIs, eg 'getting prices right' and 'internalising externalities', and to make general calls for increased use of economic instruments by the Member States. The most recent noteworthy example are the 'Integrated Guidelines for Growth and Jobs (2005-2008)' adopted by the Council in July 2005 pursuant to Article 99(2) of the EC Treaty^{xxxii} which state that 'the use of market-based instruments, so that prices better reflect environmental damage and social costs, plays a key role' in the context of the EU's ambitions to combat inter alia climate change and biodiversity loss.^{xxxiii} These economic policy guidelines also again recommend the reform of environmentally harmful subsidies.

4.3.3 National initiatives and EU influence on national initiatives

In some areas there are national initiatives where other countries follow suit, but arguably with little or no EU involvement:

- Charging on the basis of distance travelled for commercial vehicles, already applied in Switzerland and Austria, is now also under implementation in Germany.
- Waste taxes (eg landfill charges) – increasing numbers of countries are applying these.
- The use of a congestion charge in London for all vehicles is being studied closely and will be copied by others.
- Plastic bag taxes in Ireland have proven so successful that they are also being copied – with Malta adopting the scheme in late 2004.
- Environmental tax reform / ecological fiscal reform – the experience of the early leaders – Finland, Sweden, and the Netherlands – has paved the way for initiatives in other countries, notably Germany and the United Kingdom.

As mentioned above, there are other areas where there are national initiatives, learning from other national initiatives, but which were also encouraged directly or indirectly by the EU. The integration of CO₂ elements in vehicle taxes is a key example of this. Not only do the UK, and most recently also France and Cyprus have such systems, but the Netherlands has a formal proposal in place, and 7 other countries (Austria, Belgium, Germany, Ireland, Luxembourg, Portugal and Sweden) are studying the option.^{xxxiv} Similarly, the RES-E Directive with its 'indicative' targets for electricity production from renewables (see 3.1.3) has encouraged the development of such instruments as renewable energy certificates and price support schemes across the EU.

A range of countries have now adopted public procurement targets for vehicles that incorporate environmental concerns. For example Belgium requires that 50% of new purchase or lease vehicles should have CO₂ emissions less than 145g/km for diesel and 160g/km for petrol cars. In France all passenger and light commercial vehicles purchased by central authorities have to have CO₂ emissions less than 140g/km.^{xxxv}

Again these are national policies but the EU commitment to encouraging green public procurement (through such initiatives as ETAP and IPP) supports them.

Within the realm of MBIs, most measures will be taken at a national level, with the tradable permits (EU-ETS now^{xxxvi}) being the exception rather than the rule. There are increasing efforts to set European frameworks within which national systems can fit and efforts to encourage 'soft harmonisation'. The ambitions of the 6EAP in this area are still far from realised, but real progress is being made in some areas (greening of public procurement), and disappointing progress in other areas (subsidy reform). There remains significant scope for further initiatives and progress.

4.4 Soft instruments on the rise

As discussed above, the 6EAP calls for full consideration of all available policy instruments to achieve its objectives. Apart from legislation and market-based instruments, the 'strategic approaches' of the Programme contain references to a variety of soft instruments and loosely defined policy approaches. The objective of sustainable production and consumption, for example, is to be pursued by such measures as 'promoting an integrated product policy approach', 'promoting the integration of environmental protection requirements in standardisation activities' and 'encouraging the uptake of eco-labels and other forms of environmental information and labelling'. The greening of public procurement policy is to be advanced through 'guidelines on best practice', and environmental integration in the financial sector through 'guidelines for the incorporation of data on environmental cost in company annual financial reports, and the exchange of best policy practices between Member States'. Another non-legislative policy tool advocated by the 6EAP is 'encouraging voluntary commitments or agreements to achieve clear environmental objectives'.

The adoption of the 6EAP virtually coincided with that of the Commission's Action plan on 'Simplifying and improving the regulatory environment' (COM(2002) 278), which stressed

'that appropriate use can be made of alternatives to legislation without undermining the provisions of the Treaty or prerogatives of the legislator. There are several tools which, in specific circumstances, can be used to achieve the objectives of the Treaty while simplifying lawmaking activities and legislation itself (co-regulation, self-regulation, voluntary sectoral agreements, open coordination method, financial interventions, information campaign).'

The 'strategic approaches' of the 6EAP thus appear to be generally consistent with the overall thrust of EU policy, as subsequently formalized through the Interinstitutional Agreement on 'better law-making' concluded between the Commission, the Council and the European Parliament in December 2003.

Co-regulation, self-regulation and voluntary environmental agreements are closely related instruments. Self-regulation, as defined by the Interinstitutional Agreement, includes environmental agreements which economic actors and organised groups 'adopt amongst themselves and for themselves' on a voluntary basis. The use of self-regulation does not involve a Community legislative act, nor even necessarily any involvement of EU institutions. However, the Commission may wish to encourage

self-regulation through some form of formal acknowledgement of these voluntary initiatives. When environmental agreements are used to achieve objectives defined by a Community legislative act, they are regarded as a form of co-regulation, not self-regulation.

Based on the general principles laid down in the above-mentioned Action Plan on Simplification, the Commission issued a specific Communication on 'Environmental Agreements at Community Level' a few weeks before the adoption of the 6EAP (COM(2002) 412), in which it confirmed its support for the use of this instrument, while at the same time specifying a number of requirements that Community-level environmental agreements would have to meet in order to qualify for recognition by the Commission as a form of self-regulation or formally to be used as a form of co-regulation. This Communication also listed a number of areas in which the use of VEAs might be considered during the term of office of the previous Commission (PVC, IPP, waste management, climate change, and in particular CO₂ from light commercial vehicles). But, as a matter of fact, none of these envisaged environmental agreements materialized since 2002.

Instead, DG Enterprise has acknowledged a 'unilateral industry self-commitment concerning biodegradable and compostable polymer products', and DG TREN two recent agreements on, respectively, stand-by energy losses of televisions and videocassette recorders, and the energy efficiency of domestic refrigerators and washing machines. In parallel with these unilateral industry commitments, the use of VEAs as an implementation tool at the national level is formally allowed by the WEEE Directive, which was adopted at the end of 2002. The use of voluntary agreements and 'other self-regulation measures' is encouraged by the recent framework Directive on eco-design of energy-using products (2005/32/EC), since this legislative instrument effectively provides that the Commission shall refrain from taking mandatory implementing measures where its policy objectives can be 'achieved more quickly or at lesser expense' through such self-regulation initiatives. This Directive exemplifies the confusion on the role and function of voluntary agreements in EU policy since the Community legislator in this case legitimized their use in a context that cannot be regarded as co-regulation.

Integrated product policy (IPP) is a good example of a policy resting almost entirely on soft instruments. This 'new' policy has been under development since the late 1990s, but was formally launched by a Commission Communication issued in June 2003. (COM(2003) 302) As this Communication put it: 'Within IPP, the tendency is clearly to work with voluntary approaches, although mandatory measures might also be required.' In fact, the only 'mandatory' measure taken within the framework of IPP so far is the above-mentioned Eco-design Directive, which so far has not established any mandatory requirements for any of the products within its scope, but encourages stakeholders to come forward with self-regulation and standardisation initiatives as an alternative to regulatory eco-design obligations. In addition, IPP relies on existing EU-level voluntary instruments such as the EU eco-labelling scheme and EMAS, and invites Member States to draw up national action plans for the greening of public procurement (by the end of 2006), to 'encourage' the use of fiscal measures to favour greener products at the national level, and to take national initiatives to increase consumer awareness. Though the term is not explicitly used in the IPP Communication, the policy approach used here by the Commission is akin to the open

method of coordination (OMC), one of the soft instruments mentioned in the Simplification Communication. Finally, IPP also involves two voluntary pilot projects 'to demonstrate the potential benefits of IPP in a practical way', which the Commission has undertaken in cooperation with stakeholders (one on mobile phones and another on teak garden chairs). Three years after the publication of the IPP Communication, the concrete policy outcomes are extremely limited.^{xxxvii}

Other examples of OMC-type initiatives in the field of environmental policy include the Environmental Technologies Action Plan (ETAP) and the IMPEL Network for the implementation and enforcement of environmental law (see 4.2.3). Some of the measures envisaged in the recent Thematic Strategies under the 6EAP also have OMC features, eg the High Level Forum and European Data Centre under the Thematic Strategy on the sustainable use of natural resources (see 3.4.1), and the support for EU wide exchange of best practices and guidance on sustainable urban transport plans under the Thematic Strategy on the urban environment (see 3.3.4). A recent IEEP study on the implementation of OMC for environmental policy concluded that the experience with OMC is mixed. On the positive side, this approach allows Member States to commit themselves to address issues which they would probably have refused to address through the legislative Community method. On the other hand, Member States do not approach OMC with the same level of commitment as they would mandatory measures, and OMC-type initiatives have not proved to be effective at encouraging action where Member States have no real interest in action.^{xxxviii}

According to the 6EAP, Thematic Strategies 'should include an identification of *the proposals that are required* to reach the objectives set out in the Programme and *the procedures foreseen* for their adoption.' (Art. 4(1)) In other words, these Strategies were originally envisaged not as an end in themselves, but as a mere framework for the selection, development and subsequent adoption of a set of discrete measures. In the case of those Thematic Strategies that do not include proposals for any legislative measures, but instead focus on formulating recommendations for national action and soft forms of cooperation at EU level, it seems that there is now a tendency to view these Strategies as proper policy instruments in their own right, hence as policy outcomes rather than as a basis for further, more specific proposals. This has implications for the policymaking process, which will be considered in the following chapter.

5 THE EVOLUTION OF THE POLICY-MAKING PROCESS

The trends with respect to the choice of instruments of EU environmental policy, as analyzed in chapter 5, have a number of consequences in terms of the very processes whereby environmental policy is made at EU level, in particular as regards the balance of power between the EU institutions and between the Union and the Member States. The Thematic Strategies, which have become central to the implementation of the 6EAP, have institutional implications to the extent that they avoid the use of the formal legislative procedures laid down in the EC Treaty. Impact assessment (IA), one of the cornerstones of the 'Better regulation' policy introduced at the same time as the adoption of the 6EAP, increases the importance of the pre-legislative processes and creates additional opportunities for stakeholder involvement, but not necessarily a level playing field in political terms. It also involves significant delays in policy implementation. The increased recourse to committee procedures ('comitology') and standardisation to complete the 'technical details' of legislation has profound implications for the transparency and democratic legitimacy of EU environmental policy. At the same time, paradoxically, the institutions are officially committed to a policy of enhanced transparency, openness and public participation, which in the environmental field has a strong legal foundation since the EC became a contracting party to the Aarhus Convention in 2005. These institutional and political issues will be examined in this concluding chapter.

5.1 Thematic Strategies

A major innovation of the 6EAP is the development of seven Thematic Strategies. These are focused respectively on air quality; soils; pesticides; the marine environment; the urban environment; waste and recycling; and the management of natural resources. The Thematic Strategies are *the* major vehicle for implementing the 6EAP, and represent a radically new approach to policy development. Since they are focused on cross-cutting environmental issues and problems, rather than sectors (as in the 5EAP), they have had to address difficult issues of horizontal integration (between sectors) and vertical integration (between levels of government). Accordingly, they have been developed through a network of working groups involving a range of Commission Directorates-General (DGs) and Member State experts as well as stakeholders, albeit to a varying degree. This sharing of responsibility for developing the EU's environment policy has now set a precedent, while the search for consensus has required a significant dilution of ambition.

This extensive consultation is one of the reasons they were late in being agreed. According to the 6EAP Decision, they should have been finalised by July 2005, but by March 2006, only five had appeared. As noted in chapter 2, the Thematic Strategies on pesticides and soils are still awaited. Since Thematic Strategies are not themselves legislative instruments, both the Council and the Parliament will merely deliver opinions on the proposals elaborated by the Commission, rather than participate in a formal co-decision procedure. When this political process will have been concluded, in the second half of 2006, almost half the period of the 6EAP will have expired – with no concrete measures yet being taken.

One reason for the delay has been the concern of Commission President Barroso and Vice President Verheugen that the Thematic Strategies – particularly CAFÉ – would increase industrial costs and damage the EU's global competitiveness. As a result, in late July 2005, Environment Commissioner Dimas was obliged to defend the strategies – in effect the entire future of the EU's environment policy – in front of his Commissioner colleagues.

In the event, the publication of most of the strategies was allowed to go ahead. However, the combination of the EU's prevailing 'better regulation' and competitiveness agenda with the extensive involvement of other Commission DGs in their development has meant that the level of environmental ambition in most of the strategies is low. The EU's future environment policy has been driven in the general direction of 'less and looser'.

For example, the impact assessment accompanying CAFÉ shows that the proposed measures in the Thematic Strategy on air pollution (see 3.3.3) would cost EUR7.1 billion per year, although the health benefits amount to nearly six times as much at EUR42 billion. Increased costs of more ambitious measures therefore would clearly be outweighed by the wider benefits, yet competitiveness concerns elsewhere in the Commission have reduced the strategy's level of ambition.

Similarly, the marine, soils and natural resources strategies leave the detailed definition of specific objectives and measures, and the quantification of their impacts, to the Member States. This is despite Article 4(2) of the 6EAP Decision, which refers to the inclusion of 'relevant qualitative and quantitative targets and timetables against which measures foreseen can be measured and evaluated'. For its part, the urban strategy includes no binding implementing measures at all, and any EU action will be taken through voluntary measures such as the OMC.

Commissioner Dimas has defended the proposed use of non-legislative policy instruments in taking forward many of the measures in the Thematic Strategies. However, the Commission's own review of the Lisbon Strategy has noted that the most developed example of OMC – in relation to the co-ordination of economic and employment policies – has in many respects failed to deliver. Moreover, while the use of taxation and charges can be an effective policy instrument, the requirement for unanimous voting in the Council on these issues means that it will be the Member States separately, rather than the EU, that will take action in this area, probably in an uncoordinated fashion and possibly with a lack of ambition. Possibilities for using the enhanced cooperation procedures of the Treaty might usefully be explored in this area in order to break this impasse.

The involvement of other Commission DGs in the EU's environment policy has not been confined to the development of the Thematic Strategies: their implementation also will be second-guessed by a number of Commissioner, and High Level Groups. For example, the Competitiveness Council Commissioners Group (CCCG), chaired by Vice-President and Commissioner for Enterprise and Industry, Günter Verheugen, has a mandate to ensure coherence of the Commission's position on issues related to competitiveness, and maintains a watching brief on the impact on competitiveness of all legislative proposals. Vice-President Verheugen has commented that 'the balance of benefits and costs must be carefully weighed up, and I am determined to set a high

threshold in the competitiveness test that all important proposals must clear if they are to go forward’.

The implementation of the Marine Thematic Strategy is likely to be scrutinised closely by the Maritime Task Force Group. Chaired by the Fisheries Commissioner Borg, it includes six other Commissioners: Günter Verheugen; Jacques Barrot (Transport); Stavros Dimas (Environment); Danuta Hübner (Regional Policy); Janez Potocnik (Research); and Andris Piebalgs (Energy). The work of the Task Force is aimed at

‘identifying the potential for beneficial synergies between sea-related sectoral policies as well as to examine how these could help improve competitiveness, encourage growth and boost employment in an economic, socially and environmentally sustainable manner’.

Meanwhile, the High-Level Group on Competitiveness, Environment and Energy, newly established by Commission Decision 2006/77/EC, can be expected to take a close interest particularly in the implementation of the air, waste and natural resources strategies. With a membership dominated by industrial stakeholders its wide-ranging brief is

‘To contribute to examining the links between industrial, energy and environmental policies and ensuring the coherence of individual initiatives, whilst improving both sustainability and competitiveness; and contribute, through the balanced participation of relevant stakeholders, to creating a stable and predictable regulatory framework where competitiveness, energy and the environment go hand in hand, notably building upon input from research in this field.’

5.2 Impact Assessment

A range of measures to improve EU environmental policy-making were proposed in Article 10 of the 6EAP Decision. It called, in particular, for improvements through ‘*ex ante* evaluation of the possible impacts, in particular the environmental impacts, of new policies - including the alternative of no action - and of the proposals for legislation, and publication of the results’.

This commitment mirrored the conclusions of the Gothenburg European Council in June 2001, which stated that that all major EU policy proposals should include a sustainability impact assessment.

In June 2002, the Commission launched an ambitious new system of integrated impact assessment, which was intended to ensure an equal and balanced consideration, involving wide stakeholder consultation, of all significant economic, environmental and social impacts of major Commission proposals. The new system brought together and replaced a number of separate Commission assessment systems – including *ex ante* environmental appraisals undertaken in the framework of the so-called ‘Green Star’ system. For this reason, environmentalists were particularly concerned that the new integrated IA system should give at least as much consideration to environmental as to economic and social impacts.

Some 120 IAs have been completed since 2002. The results have been disappointing, and indeed, recent studies have indicated that the quality of IAs actually worsened in 2005.^{xxxix} The principal problems include:

- Lack of resources, with inadequate staff, training and central quality control;
- Longer-term environmental benefits have been ignored, or at best overshadowed by a focus on short-term costs to industry;
- Stakeholder consultation has been dominated by industrial representatives, who are better resourced and have far greater access to data than environmental NGOs (although this data may not always be reliable, as was demonstrated by the 35 additional studies undertaken by industry on the costs of the REACH proposal);
- Even when IAs are balanced and thorough (as in the case of the Air Quality Thematic Strategy), their influence on the final policy decision is unclear.

But the biggest weakness of the Commission's IA system is that it has been overtaken by the EU's Lisbon agenda, with its overriding emphasis on boosting growth and jobs. Following the review of the Lisbon strategy in March 2005, revised IA Guidelines were issued by the Commission, which increased the number of competitiveness-related impacts that were to be considered. A standard methodology for assessing the administrative costs on business and the public sector has also now been added to the Guidelines. At the same time, the Commission has clarified the 'principle of proportionate analysis', to make more manageable the big increase in the number of full IAs that now need to be undertaken. This gives Commission desk officers considerable discretion in deciding the scope of the IA – and against the background of a strengthened competitiveness agenda, there is an even greater temptation to sideline the difficult assessment of environmental costs and benefits. However, unless the principle of *integrated* impact assessments is respected, the Commission's IA system is in danger of losing credibility and being boycotted by environmental agencies and NGOs.

5.3 The invisible policy-making process: comitology and standardisation

'Comitology' is the system for delegating implementing powers to the Commission in conjunction with committees of national representatives (at the level of officials), enabling decisions to be made without going through the EU's full legislative process. In 2004, there were almost 250 of these committees, 35 of them dealing with environmental legislation.

Despite their name, 'implementing' decisions made in these committees can have far-reaching implications, yet there are limits on the Council's ability to block the Commission's proposed measures. (The balance of power between the Commission and national representatives varies depending on whether the committee is an advisory, regulatory or management committee). Moreover, the comitology system offers only a limited role for the European Parliament, despite the extension during the 1990s of the European Parliament's powers through the co-decision procedure. Under the 1999 Comitology Decision (1999/468/EC), Parliament receives information about the work of the committees and within one month can ask for a measure to be re-examined if it feels it exceeds the scope of delegated powers. However, MEPs have

no right to object to the *substance* of the decision, and anyway they have used their right to call back a measure very infrequently. Moreover, the Commission has more than once failed to notify important draft implementing measures to the European Parliament, thus effectively depriving it of its limited right of scrutiny, and has ignored Parliament resolutions requesting it to re-examine proposed measures.

In April 2005, the European Parliament passed a resolution in which it found that the Commission had 'exceeded the implementing powers provided for' in the RoHS Directive (2002/95/EC) by proposing to adopt a decision allowing exemptions from the Directive's restrictions on the use of certain hazardous substances in electrical and electronic equipment under a comitology procedure. According to this resolution, 'Parliament received the draft decision by virtue of its right of scrutiny pursuant to Decision 1999/468/EC only on 28 January 2005 and only upon request' and 'by that date, Parliament had received almost none of the documents that it should have received in relation to the meetings of the [relevant] committee ... in the course of 2004'.^{xl} In addition, it found that 'subsequent scrutiny of other comitology files has revealed that the Commission's non-compliance with Decision 1999/468/EC ... in terms of the procedural provisions is not an isolated case.' A few months later, Parliament adopted another resolution on the same draft decision, following its referral to the Council by the Commission, which had failed to obtain the approval of the competent committee. The resolution confirmed Parliament's view that the proposal exceeded the Commission's implementing powers on the grounds that it 'frustrates one of the objectives of [the] Directive'.^{xli} In the end, as the Council was divided on the proposal, the Commission made full use of its powers and proceeded to adopt the contested decision on 13 October 2005.^{xlii} The European Parliament is now challenging this decision before the ECJ.^{xliii}

Against this background, the Commission's desire to further expand the scope of its implementing powers will be viewed with concern in many quarters. In one of its Communications on 'better regulation' (COM (2001) 726), the Commission has stated:

'With a view to making more use of less detailed directives, the Commission should, in appropriate cases, be given more executive powers. At the same time, there should be a review of the existing comitology procedures and of the arrangements whereby the legislator vets executive instruments.'

Soon after the 6EAP was agreed, the Commission tabled proposals in December 2002 for reforming the comitology system (COM (2002) 719)^{xliiv}. Essentially, it proposed to abolish management committees and replace them with the equivalent of advisory committees. This would reduce considerably the power of the Member States on the committees, leaving the Commission with the final say. At the same time, regulatory committees would be used where detailed implementation rules (similar to secondary legislation) are being decided in the framework of primary legislation agreed by the co-decision procedure - but in the final analysis the Commission could overrule the opinion of the regulatory committee. In view of its co-legislative powers, the European Parliament would however be given a stronger opportunity to object.

Because the stalled EU Constitutional Treaty also included proposals for a complete overhaul of the system of EU primary and secondary legislation, little progress has

been made with this proposal, and the Council has still not completed its first reading. But the need to reform the comitology system has become ever more urgent as the Commission increasingly makes proposals for looser, framework legislation, leaving key, politically sensitive, decisions to be decided within committees.

For example, the Commission's original proposal for reforming the LIFE programme - LIFE+ (COM(2004) 621) - was couched in very general terms. Most important decisions, including determining multi-annual and annual programmes, and the rates of EU support, would have been left for decision in the LIFE+ Committee. Some recent proposals for Directives associated with Thematic Strategies also include provisions that would expand the regulatory powers delegated to the Commission compared with those under the corresponding legislation currently in force.

A further objection to the current comitology system is that it sidesteps attempts to integrate environmental considerations into other EU policy decisions, as required by Article 6 of the Treaty. For example, under the Commission's integrated impact assessment system introduced in 2002, among the categories of initiatives exempt from IA are 'technical and detailed implementing measures' – of the kind agreed through comitology. Moreover, there is no scope for the representation on committees of more than one Commission DG, even though many of their decisions will have important cross-sectoral implications.

For example, under the proposed Competitiveness and Innovation Framework Programme (CIP) for boosting innovative technologies, three sub-committees would make key decisions about priorities and the level of spending. These would be chaired by DG Enterprise, even though a considerable proportion of the Enterprise and Innovation sub-programme would be focused on eco-technologies. DG Environment (and national environment officials) would be excluded, even though under the new 2007-2013 Financial Perspective there has been an explicit move to mainstream environment through all relevant EU financial instruments. There is now a strong case for widening the membership of comitology committees to reflect their broader responsibilities. Indeed, the mechanisms used by DG Environment for developing the 6EAP Thematic Strategies would suggest the participation of stakeholders in the work of these committees.

Another legislative technique favoured by the Commission and the Council is to limit Directives fixing environmental conditions for the placing on the market of certain products to so-called 'essential requirements', while giving European standardisation bodies a mandate to elaborate detailed technical requirements in the form of standards – the 'New Approach' to harmonization which was pioneered in the field of product safety in the late 1980s. Though theoretically non-binding as a matter of law, these standards have very strong normative power since compliance with them confers on products a presumption of conformity with the essential requirements laid down in the corresponding Directive and guarantees their free movement throughout the internal market.

The first application of the New Approach in the field of environmental policy, in the Packaging Waste Directive, adopted under the 5EAP, caused considerable controversy, as the essential requirements established by the Directive itself were rather vague and CEN interpreted its mandate very broadly, venturing into areas that

could hardly be described as technical. More recent mandates for standardisation can be found in the WEEE and Eco-design Directives. In the latter case, the Commission actually requested the standardisation community to start elaborating eco-design standards for energy-using products even before any product-specific essential requirements had been laid down by the Community legislator. Decision-making procedures in standardisation bodies at the national and EU level are heavily dominated by the private sector, despite laudable efforts on the part of the Commission to promote increased participation of other stakeholders such as environmental and consumers' NGOs. Yet the Commission and the Council have both expressed support for increased recourse to standardisation as an instrument of EU environmental policy, for instance in the field of IPP. This raises concerns about the democratic legitimacy of such effective delegation of normative power to private bodies.

5.4 Public participation

In the current debate on European governance and institutions, plenty of attention has been devoted to the need for increased transparency, openness and public participation as a condition of enhanced democratic legitimacy and public support for European integration. A considerable amount of legislative work has been accomplished in recent years, at the international, EU as well as national level, in order to grant citizens rights of access to information, participation in decision-making processes at all levels of governance, and access to review procedures in environmental matters. This movement was initiated long before the 6EAP by Directive 90/313/EEC on the freedom of access to environmental information. It was strengthened and extended to the pan-European level through the 1998 Aarhus Convention, an international treaty which has been ratified, at the time of writing, by 38 European countries (including all EU Member States except Germany and Ireland) as well as, in February 2005, the European Community.

The 'strategic approaches' of the 6EAP include 'ensuring access to information, participation and justice through early ratification of the Aarhus Convention by the Community and by Member States' (Art. 3(9)). While the objective of ratification has been achieved (except by the two above-mentioned Member States), the process of implementation of the Convention's requirements in national and Community law is far from completed.

New Directives on access to information (2003/4/EC) and public participation (2003/35/EC) were adopted during the period of the 6EAP, but a proposed Directive on access to justice (COM(2003)624) is stalled in the Council. Access to environmental justice in the Member States remains very uneven.^{xlv} However, this important issue can only be noted within the framework of this report.

In the context of this chapter, we will focus on the proposed Regulation designed to implement the principles of the Convention in EU institutions and bodies. (COM(2003) 622) This proposal was tabled by the Commission at the same time as it proposed the approval of the Aarhus Convention by the Community. At the time of writing, the draft Regulation is subject to a conciliation procedure between Council and Parliament. The Council's common position waters down the Commission's

initial proposal – which already fell short of the Convention’s legal requirements – on a number of points, especially as regards access to justice. While Parliament is still trying to press for amendments to improve the provisions on access to information, it did not support amendments proposed by its own Environment Committee which would have reinstated the minimal provisions of the Commission’s initial proposal regarding access to justice.^{xlvi} As a result, the Regulation, when finally adopted later this year, will merely confirm the status quo, ie will not give citizens and NGOs the right to challenge acts or omissions of EU institutions and bodies which contravene EC environmental law before the Court of First Instance and Court of Justice of the European Communities.^{xlvii}

6 CONCLUSIONS

This review of the implementation of the 6EAP has shown that the efforts of the institutions to attain the 'priority objectives set out' – to quote the terms of Article 175(3) of the Treaty – are quite deficient in many areas of environmental policy and that the state of implementation of the Programme at mid-term does not indicate that most of these objectives are likely to be effectively fulfilled before 2012. In some cases, the evolution of the policy debate since the adoption of the 6EAP under the influence of the Lisbon agenda even tends to undermine objectives and principles that were agreed upon only four years ago.

Progress towards the 6EAP objectives has been made across all four 'key environmental priorities', but in most cases this progress is not sufficient to put the EU on course to achieve the targets agreed upon in 2002. Many objectives were formulated rather vaguely from the outset, but the Thematic Strategies were specifically launched as a tool to further specify the measures to be taken to achieve these general objectives and, where appropriate, to lay down targets and timetables. Instead, the development of these Strategies has led to a protracted policy-making process with few immediate outcomes, delaying the formulation of concrete policy proposals. In effect, the implementation of the 6EAP has become bogged down in process at the expense of results.

While the Thematic Strategies are viewed as the main instrument for the delivery of the 6EAP, the focus on them should not lead policymakers to forget that many 'priority actions' identified in the Programme do not require the prior development of such Strategies. Paradoxically, the implementation of the 6EAP seems generally more advanced in areas where no Thematic Strategies were foreseen (such as, eg, climate change) and where relatively clear objectives had already been set independently of the 6EAP.

Though a lot of time has been lost during the first four years since the adoption of the 6EAP, the institutions can now seize the mid-term review as an opportunity to revitalize the implementation of the Programme and give new political impetus in all priority areas, whether or not covered by Thematic Strategies. Their credibility ultimately depends on their ability to deliver objectives which they have themselves laid down to respond to the major environmental challenges facing Europe and the world at the beginning of this new century.

References and endnotes

- ⁱ This also implies that when we refer to the 6EAP, we mean the Programme in its final form as formally adopted by the European Parliament and the Council in Decision 1600/2002/EC, and not the Commission's version as laid down in Commission document COM(2001) 31. With respect to earlier EAPs, up to and including the 5EAP, the usual practice was to refer to the Commission document as the Programme, and not to the much shorter Council declaration or resolution endorsing it. But since the 6EAP as adopted is the result of a formal co-decision procedure involving all three institutions, the original Commission document only constitutes the initial step in this procedure of which Decision 1600/2002/EC is the final and authoritative outcome. The only remaining relevance of the Commission's proposal is that its explanatory memorandum may shed some light on that institution's intentions and may still be useful for interpretation purposes, to the extent that it does not appear from the European Parliament and Council Decision that the co-legislators actually had a different intention.
- ⁱⁱ Krämer, L (2000) *EC Environmental Law*, 4th ed., Sweet & Maxwell. London. p 44; Krämer, L (1995) *E.C. Treaty and Environmental Law*, 2nd ed., London: Sweet & Maxwell, p 83.
- ⁱⁱⁱ Eijsbouts, W J, Jans, J H and Vogelaar, F O W (2004) *Europees Recht: Algemeen Deel*, Europa Law Publishing, Groningen, p 58.
- ^{iv} Decision 1/CMP.1, *Consideration of commitments for subsequent periods for Parties included in Annex 1 to the Convention under Article 3, paragraph 9, of the Kyoto Protocol*, UN Doc. FCCC/KP/CMP/2005/8/Add.1, 30 March 2006, p 3.
- ^v Decision 1/CP.11, *Dialogue on long-term cooperative action to address climate change by enhancing implementation of the Convention*, UN Doc. FCCC/CP/2005/5/Add.1, 30 March 2006, p 3.
- ^{vi} References to most can be found on the Commission's website at <http://europa.eu.int/comm/research/fp6/projects.cfm?p=63>.
- ^{vii} Nagy, S and Crockford, N (2004) *Implementation in the European Union of species action plans for 23 of Europe's most threatened birds*. Report to the European Commission. BirdLife International, Wageningen. Available at http://www.europa.eu.int/comm/environment/nature/nature_conservation/focus_wild_birds/species_birds_directive/pdf/action_plans_review_final.pdf
- ^{viii} See: http://www.panda.org/about_wwf/where_we_work/europe/what_we_do/epo/initiatives/natura_2000/publications/index.cfm
- ^{ix} See for example Farmer, M and Swales, V (2004) *The development and implementation of cross compliance in the EU 15: An Analysis*. BirdLife.
- ^x EEA (2006) *Integration of environment into EU agriculture policy – the IRENA indicator-based assessment report*. EEA. Copenhagen.
- ^{xi} See for example EEB (2003) *Opportunities for greening the CAP, National Implementation of CAP Reform*. EEB. Brussels.
- ^{xii} Case C-6/04, Judgment of 20 October 2005, *Commission v United Kingdom*.
- ^{xiii} See http://www.europa.eu.int/comm/environment/newprg/pdf/6eap_scoreboard_oct2005.pdf
- ^{xiv} IIASA (2005) *A final set of scenarios for the Clean Air for Europe (CAFE) programme* submitted to the European Commission.
- ^{xv} For a more detailed review of the implications of this agenda for environmental policy, see Wilkinson, D, Monkhouse, C, Herodes, M and Farmer, A (2005) *For Better or for Worse? The EU's 'Better Regulation' Agenda and the Environment*. IEEP, London.
- ^{xvi} Pallemaerts, M (1999) The decline of law as an instrument of Community environmental policy. *Law & European Affairs*. 9, pp 338-354.
- ^{xvii} The most recent such report is COM(2005) 570.
- ^{xviii} The most recent annual survey published by DG ENV is SEC(2005) 1055.
- ^{xix} European Commission (2000) *Second annual survey on the implementation and enforcement of Community environmental law - January 1998 to December 1999*, p 76
- ^{xx} Macrory, R (2005) The enforcement of EU environmental law: some proposals for reform, in: Macrory, R (ed.), *Reflections on 30 Years of EU Environmental Law: A High Level of Protection?*, Europa Law Publishing, Groningen, p 387.
- ^{xxi} European Commission (2000) *Second annual survey on the implementation and enforcement of Community environmental law - January 1998 to December 1999*, pp 70-71.

^{xxii} This is based on data supplied by the Commission services on 10 April 2006 in reply to a request for access to documents introduced by IEEP under Regulation 1049/2001/EC on 9 February 2006. The number of statutory staff in the Infringements Unit was the same on 31 December 2005 as on 31 December 2002 (27 persons), whereas the total number of statutory staff in DG ENV increased from 463 to 511 during the same period.

^{xxiii} Krämer, L (2006) Introductory Statement at a Hearing of the European Parliament Committee on Legal Affairs on 'Monitoring Application of Community Law', Brussels, 21 February, para 6.

^{xxiv} Frassoni, M (2006) *Report on the Commission's 21st and 22nd Annual reports on monitoring the application of Community law (2003 and 2004)*, EP Doc. A6-0089/2006, p 19

^{xxv} For an analysis of the effectiveness of the IMPEL network, see IEEP and Ecologic (2005) *Exploration of options for the Implementation of the Open Method of Coordination for Environmental Policy*. A report for VROM.

^{xxvi} For extended discussion, see EEA (2005) *Market Based Instruments for Environmental Policy in Europe*. Technical Report 8/2005 and EEA (2006) *Using the market for cost-effective environmental policy - Market-based instruments in Europe*. Report 1/2006. EEA, Copenhagen. These reports are available on the EEA web-site at http://reports.eea.eu.int/technical_report_2005_8/en/EEA_technical_report_8_2005.pdf and http://reports.eea.eu.int/eea_report_2006_1/en/EEA_report_1_2006.pdf

^{xxvii} These measures are laid down in Council Directive 2004/74/EC of 29 April 2004 amending Directive 2003/96/EC as regards the possibility for certain Member States to apply, in respect of energy products and electricity, temporary exemptions or reductions in the levels of taxation, OJ L 157, 30.4.2004.

^{xxviii} EEA (2005) *Market Based Instruments for Environmental Policy in Europe*. Technical Report 8/2005. EEA, Copenhagen.

^{xxix} EEA (2005) *Market Based Instruments for Environmental Policy in Europe*. Technical Report 8/2005. EEA, Copenhagen.

^{xxx} IEEP and Ecologic (2005) *Exploration of options for the Implementation of the Open Method of Coordination for Environmental Policy*. A report for VROM.

^{xxxi} The suggestion was to remove the registration tax. This was arguably not a positive element given its importance in limiting car ownership and hence private transport dependency, congestion and traffic pollution.

^{xxxii} Adopted by the ECOFIN Council on 12 July 2005 following a mandate from the Spring European Council and published in European Commission (2005) *Working Together for Growth and Jobs: Integrated guidelines for growth and jobs (2005-08)*. European Commission, Brussels. Available at http://www.europa.eu.int/growthandjobs/pdf/integrated_guidelines_en.pdf

^{xxxiii} Guideline 10 of the Integrated Guidelines and accompanying commentary.

^{xxxiv} TNO, IEEP and LAT (2006 forthcoming) *Review and analysis of the reduction potential and costs of technological and other measures to reduce CO₂-emissions from passenger cars*. A report to DG Enterprise.

^{xxxv} This policy has been implemented since September 2005.

^{xxxvi} There have been studies into the potential use of tradable permits in other areas, notably for CO₂ from passenger vehicles, from maritime pollution, etc

^{xxxvii} Pallemmaerts, M, Jans, T M, and Misonne, D (2006) *The role of public authorities in integrated product policy: regulators or coordinators?*, Final Report, Project CP/49, Federal Science Policy, Brussels (forthcoming at http://www.belspo.be/belspo/home/publ/rappCPgen_en.stm).

^{xxxviii} IEEP and Ecologic (2005) *Exploration of options for the Implementation of the Open Method of Coordination for Environmental Policy*. A report for VROM.

^{xxxix} Renda, A (2006) *Impact Assessment in the EU: the state of the art and the art of the state*. Centre for European Policy Studies, Brussels.

^{xl} European Parliament resolution of 12 April 2005 on the draft Commission decision amending for the purposes of adapting to the technical progress the Annex to Directive 2002/95/EC of the European Parliament and of the Council on the restriction of the use of certain hazardous substances in electrical and electronic equipment (CMT-2005-151 and CMT-2005-642).

^{xli} European Parliament resolution of 6 July 2005 on the proposal for a Council decision amending for the purposes of adapting to technical progress the Annex to Directive 2002/95/EC of the European Parliament and of the Council on the restriction of the use of certain hazardous substances in electrical and electronic equipment (COM(2005)0241).

^{xlii} Commission Decision 2005/717/EC of 13 October 2005 amending for the purposes of adapting to the technical progress the Annex to Directive 2002/95/EC of the European Parliament and of the

Council on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

^{xliii} Action brought on 11 January 2006 by European Parliament against the Commission of the European Communities, Case C-14/06, OJ C 86/11, 8.4.2006.

^{xliv} This proposal was subsequently amended by COM(2004) 324.

^{xlv} See Ebbesson, J (2002) *Access to justice in environmental matters in the EU*. Kluwer Law International, The Hague. See also: de Sadeleer, N, Roller, G and Dross, M (2005) *Access to Justice in Environmental Matters and the Role of NGOs; Empirical Findings and Legal Appraisal*. Europa Law Publishing, Groningen.

^{xlvi} Recommendation for second reading on the Council common position for adopting a regulation of the European Parliament and of the Council on the application of the provisions of the Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters to Community institutions and bodies (6273/2/2005 – C6 0297/2005 – 2003/0242(COD)), EP Doc. A6-0381/2005.

^{xlvii} See Dodeller, S and Pallemerts, M (2005) L'accès des particuliers à la Cour de Justice et au Tribunal de Première Instance des Communautés européennes en matière d'environnement: bilan du droit positif et perspectives d'évolution. in C. Larssen & M. Pallemerts (eds.) *L'accès à la justice en matière d'environnement/Toegang tot de rechter in milieuzaken*. Bruylant, Bruxelles. pp 287-316