



**Fourth National Report
of the European Community to the Convention on Biological Diversity**

May 2009

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Executive Summary

An assessment of the status and trends in biodiversity in Europe reveals a mixed picture.

Certain populations and distributions of wildlife species are showing positive trends, with some species that were once considered at risk of extinction now stabilising or even increasing. The conservation status of many species and habitat types protected under the Habitats Directive is still unfavourable, despite the progress made to implement the Natura 2000 network. But there are some positive trends for some species and some large carnivore species have recovered in Europe, which is encouraging. The Birds Directive has clearly helped bird species to recover. From 1990 to 2006, populations of European common birds declined by 10%. Farmland birds declined by 25%. The conservation status of over 40% of European bird species remains unfavourable and the risk of extinction for birds has increased almost everywhere in Europe. The trend in grassland butterfly populations is not encouraging, having declined by 60% since 1990 and showing no sign of recovery.

While land use in Europe continues to change, it is not on the same scale as in recent decades. Forest area in Europe has increased in recent decades. However increasing the quantity of forest cover does not always equate to an increase in the quality of habitats for biodiversity. Core forest areas across Europe have been fragmented between 1990 and 2000. The trend in species diversity in forests is mixed. Whilst the status of some species has improved in some parts of Europe common forest birds declined by 18% from 1990 to 2006. Land ecosystems remain fragmented.

Eutrophication, alien invasive species and climate change are major threats to European biodiversity. Half of the geographical range of natural and semi-natural habitats across the European Union was exposed to atmospheric nitrogen deposits above the critical load in 2004. Invasive species pose a risk to biodiversity as numbers continue to rise. More bird species are negatively affected by climate change than positively affected.

Positive trends are noted regarding freshwater pollution, which has decreased. The improved ecological status of freshwater systems has reduced the stress on freshwater biodiversity.

In most of the European seas, fisheries activities are still negatively affecting marine ecosystems and marine resources are overexploited.

Certain types of agricultural practices in Europe still put high pressure on biodiversity although policy measures and increasing organic production are having positive effects. The main threats to biodiversity from agriculture are mismanaged intensification and land abandonment, as well as habitat loss. If these threats lead to a loss of soil biodiversity, there can be knock-on effects and a concurrent reduction of ecosystem services. Particular focus should be placed on the potential effects of bio-energy crops on biodiversity, through land use conversion and increasing pressure on semi-natural grasslands. To address these concerns, the new Renewable energy directive and the Fuel Quality directive coming into force in May 2009 include a ban to use certain types of biodiverse areas for the production of bioenergy feedstock and require the producers to take measures for prevention of negative impacts on soil, air and water quality from increased biofuel production in the EU and in third countries, if these biofuels are to be counted towards European targets.

Europe does not meet its consumption demands from within its own borders and its ecological footprint has a high impact on the rest of the world.

The Commission Communication on ‘Halting Biodiversity Loss by 2010 — and Beyond: Sustaining ecosystem services for human well-being’ was adopted in May 2006. It underlines the importance of protecting biodiversity as a pre-requisite for sustainable development. It sets out a detailed Action Plan to achieve the European Union’s goal to halt biodiversity loss on its territory by 2010. This target has pushed biodiversity higher up the European Union’s political agenda than ever before. In December 2008 the European Commission adopted a mid-term assessment of implementing the EU Biodiversity Action Plan (BAP) that summarises the progress made since June 2006. The assessment reveals that targeted measures under nature legislation have successfully reversed the negative trends of some threatened species and habitats.

At the core of EU biodiversity policy are the Birds and Habitats Directives, which provide the legal basis for the Natura 2000 network of protected areas. Since 2006, Member States agreed to protect an area larger than Portugal under the Habitats Directive. Under the Birds Directive, Member States agreed to protect an area larger than Ireland. The combined Natura 2000 network now comprises more than 25 000 sites, covering around 17% of all land in the European Union. For the future the challenge will be to effectively manage and restore Natura 2000 sites.

Progress has been made in conserving and restoring biodiversity and ecosystem services in the countryside as a whole under the Common Agricultural Policy. Under the Rural Development Programme, an estimated EUR 20.3 billion from the European Agricultural Fund for Rural Development (EAFRD) has been allocated to agri-environment measures for 2007-2013, providing substantial support for Natura 2000 and biodiversity. In addition, approximately EUR 577 million of EAFRD resources have been allocated specifically to Natura 2000 agriculture and forest areas.

Over the last two years, measures have been taken to conserve and restore biodiversity in the marine environment. The Marine Strategy Framework Directive, adopted in June 2008, provides the basis for achieving good environmental status in the marine environment and improved conservation status for marine biodiversity. A Communication on ‘The role of the Common Fisheries Policy in implementing an ecosystem approach to marine management’ was adopted in April 2008. A Council Regulation to combat illegal, unregulated and unreported fishing was adopted in September 2008. The Commission has also put forward proposals to reduce unwanted catches and eliminate discards in European fisheries. A series of fisheries regulatory measures are also being put in place to minimise the impact of fisheries on non-target species and habitats. Still, many commercial fish stocks are outside safe biological limits and a significant reduction in overall fishing is needed to reduce catches to sustainable levels.

Under the operational programmes for 2007-2013 co-financed by the European Regional Development Fund (ERDF) and the Cohesion Fund, Member States have allocated EUR 2 719 million to the ‘Promotion of biodiversity and nature protection’. A further EUR 1 146 million has been allocated to the ‘protection of natural assets’, which includes biodiversity projects. A total of EUR 1 376 million, earmarked for the ‘protection and development of natural heritage’ in the framework of tourism, will also include some spending on biodiversity.

Average annual European Union external assistance for biodiversity amounted to about EUR 740 million in 2003-2006, representing 48% of aid for global biodiversity. Mainstreaming biodiversity in the development cooperation budgets of both donor and recipient countries is a

huge challenge. This is partly due to the tendency to limit the number of intervention sectors, often resulting in a lower priority given to environmental issues amongst other compelling needs. Other factors include the difficulty to earmark funds for biodiversity-related work.

The European Union has contributed to progress in ongoing negotiations on an international regime on access to genetic resources and the fair and equitable sharing of benefits arising from their use. The European Community also became a contracting party to the International Treaty on Plant Genetic Resources for Food and Agriculture in 2004. The Multilateral System for Access and Benefit Sharing is key to implementing this Treaty.

Progress has been made in implementing the EU Forest Law Enforcement, Governance and Trade (FLEGT) Action Plan. The first Voluntary Partnership Agreement (VPA) was signed with Ghana on 3 September 2008. Negotiations on FLEGT are ongoing with Malaysia, Indonesia, Cameroon and Congo Brazzaville, and are expected to start soon with other partner countries. The Commission has also proposed a Regulation laying down obligations for operators who place timber and timber products on the European market.

Research undertaken under the Community's 6th Research Framework Programme (2002-2006) is already feeding into the development of EU biodiversity policy. Expected funding for eight biodiversity projects for the first two calls for proposals under the Environment Research theme in FP7 brings the total EC contribution to EUR 23 million, about 7% of total expenditure for environmental projects. In addition, the Agricultural Research theme in FP7 is providing funds to increase knowledge supporting the use of genetic resources and the management of biodiversity in agriculture, forestry and fisheries. As regards the promotion of ecosystems approach to fisheries and aquaculture for example three projects are currently funded with the EC contribution amounting to 9 millions and corresponding to 30% of the budget allocated to fisheries and aquaculture projects. The Joint Research Centre of the Commission has set up a Soil Biodiversity Working Group (SBWG) composed of experts and scientists to deepen our understanding of the role that soil biodiversity plays in supporting soil functions and the ecosystem.

As part of the Potsdam initiative agreed by the G8 in 2007, a study into 'The economics of ecosystems and biodiversity' (TEEB) has been jointly initiated by the European Commission and Germany in collaboration with the European Environment Agency. The results of a first phase assessment were presented to the CBD COP9.

The governance structure for nature and biodiversity issues within the European Union has been reviewed. Regular meetings of the Nature Directors from EU Member States now systematically include items on progress on the Biodiversity Action Plan and implementation of the Nature Directives. A new Coordination Group for Biodiversity and Nature (CGBN) oversees a joint technical work programme for nature and biodiversity issues. Several subgroups are attached to CGBN, such as the Ad-Hoc Expert Working Group on Biodiversity and Climate Change. In addition the European Commission's internal Biodiversity Inter-service Group works closely with the Coordination Group. A new EU network of practitioners called 'GreenForce', dealing with nature conservation and forest policies and laws in the Member States, has been set up to facilitate communication and the sharing of experience on practical implementation, compliance and enforcement. However, the mechanisms for cooperation within and between the Community and Member States in delivering the Action Plan should be stepped up, especially with regard to policy sectors affecting biodiversity.

In November 2007, the Portuguese Presidency organised a conference on Business and Biodiversity in Lisbon, at which an EU Business and Biodiversity Initiative was launched.

To harness public support for EU action to halt biodiversity loss, the Commission is considering priority actions for a public communication campaign to be launched in support of national and other campaigns.

More progress has been made on the SEBI 2010 initiative. A set of 26 pan-European biodiversity indicators provides the basis for a first European indicator-based assessment of progress on the 2010 biodiversity target, to be published by the EEA in the first half of 2009.

Despite the fact that some progress was made on the EC Biodiversity Action Plan, it is highly unlikely — on the basis of current efforts — that the overall goal of halting biodiversity loss in the European Union by 2010 will be achieved. To do so, the European Community and the Member States would need to make significant additional commitments over the next two years. The European Union's biodiversity policy framework needs improving, as there are still important gaps, such as addressing invasive species. An effective legal framework is also needed for the conservation of soil structure and functions and for the protection of soil biodiversity. Mainstreaming biodiversity considerations into other sectoral policies remains a key challenge. Methods to evaluate ecosystem services, relevant to different policy sectors, need developing. The European Commission will continue to closely monitor implementation of the Biodiversity Action Plan with a view to providing a comprehensive assessment at EU and Member State level in 2010.

An international high-level conference on biodiversity protection beyond 2010 organised on 27-28 April 2009 by the European Commission will provide an opportunity to further assess progress on the 2010 target and reflect on a future biodiversity policy framework beyond 2010.

CHAPTER I Overview of Biodiversity Status, Trends and Threats

BIODIVERSITY AND ECOSYSTEMS IN EUROPE — AN OVERVIEW

This chapter provides a brief overview of the situation in Europe and was prepared by the European Environment Agency. Two more comprehensive reports on the state of biodiversity in Europe are to be published in 2009. The first will be the report required by Article 17 of the Habitats Directive. This requires Member States of the European Union to report on the progress in implementing the Habitats Directive and will provide an overview of the conservation status of species and habitats in the European Union. This will be crucial to make an overall assessment of biodiversity trends in Europe. The second report is an assessment based on the Streamlining European 2010 Biodiversity Indicators and is due in May 2009. While some of data used for these reports has been used to produce this National Report, the reports will provide more detailed insights on the status, trends and threats of biodiversity.

Facts & figures for Europe

The main ecosystems in EU25 plus Norway and Switzerland are croplands (33%), forests (30%), pastures (16%) and urban land (2%). (Source: EEA Technical Report 9/2007).

Europe is home to a considerable diversity of species: there are 250 species of mammals, 500 species of fish, 700 of birds, 150 of reptiles, 70 of amphibians, 90000 species of insects, including 10000 of butterflies and moths and 30000 of beetles (source: Fontaine, B. personal communication based on Fauna Europa, 2008).

There are around 31000 species of vascular plants in Europe (plus eastern and southern Mediterranean countries) (Syria, Lebanon, Israel, Jordan, Egypt, Libya, Tunisia, Algeria, Morocco) (Euro+Med PlantBase, PGR forum 2008 http://www.pgrforum.org/Documents/Poster_presentations/OPTIMA_poster_abstract.pdf).

Nearly 3000 domesticated animal breeds are registered in the pan-European region (Central Asia countries not included) (Source: ERF 2007).

Europe as a continent is considered to be relatively species-poor compared with equivalent regions in Asia and America. The largest number of plant and animal species in Europe lives in the Mediterranean basin, which is also one of the 33 'biodiversity hot-spots' in the world (Mittermeier, R. *et al.*, 2005).

In Europe, human activity has had a marked influence on biodiversity over time. The main consequences were clearing forest areas to create open habitats and mass population increases in species associated with agriculture. Thus, Europe's biodiversity has historically been embedded in a rural environment, with complex interactions between species populations in open habitats and a dynamic landscape.

Since the agricultural and industrial revolutions of the past two centuries, and even more since the 1950s, dramatic changes in land use, intensification of agriculture, urbanisation, land abandonment and the move to towns and cities have led to widespread changes of the socio-economic systems that supported these diverse systems of land use.

Species trends and movements

During the past decade we have witnessed positive trends in the populations and distributions of several wildlife species, such as geese, wild boar, reindeer, cormorant and wolf, due to current land-use and management practices. It has been shown that the numbers of plant species on certain alpine summits and arctic lakes are increasing as a result of shorter periods under ice and snow, a sign of climate change.

Several species that were considered threatened by extinction, such as the beaver, otter, vultures and many raptors, are now stabilising or even increasing in certain areas as a result of protection and restoration measures.

Land-cover change between 1990 and 2000 in Europe

Land use in Europe continues to change, but not on the scale of recent decades. Most of Europe's population now lives in urban areas. Overall, forest area in Europe has increased in recent decades, largely through afforestation of agricultural land as part of the set-aside strategy under the EU common agricultural policy (Van Brusselen *et al.*, 2005) but also as a result of natural vegetation dynamics in regions where land is being abandoned. However, depending on the type of management and the overall local situation, such increase in forest quantity does not necessarily ensure an increase in the quality of habitats for biodiversity.

BIODIVERSITY IN EUROPE — A BRIEF ASSESSMENT

The SEBI 2010 set of indicators is structured according to CBD focal areas.¹ The indicators are summarised in the text, and more information is given in Appendix IV to this report.

¹ The CBD focal area 'Status of traditional knowledge, innovations and practices' was not included at European level.

Table 1: SEBI indicators grouped by Headline Indicators and CBD focal areas

| CBD focal area | Headline Indicators | SEBI indicator |
|---|--|---|
| Status and trends of the components of biological diversity | Trends in the abundance and distribution of selected species | 1. Abundance and distribution of selected species a. Birds b. Butterflies |
| | Change in status of threatened and/or protected species | 2. Red List Index for European species |
| | | 3. Species of European interest |
| | Trends in extent of selected biomes, ecosystems and habitats | 4. Ecosystem coverage |
| | | 5. Habitats of European interest |
| | Trends in genetic diversity of domesticated animals, cultivated plants, and fish species of major socioeconomic importance | 6. Livestock genetic diversity |
| Coverage of protected areas | 7. Nationally designated protected areas | |
| | 8. Sites designated under the EU Habitats and Birds Directives | |
| Threats to biodiversity | Nitrogen deposition | 9. Critical load exceedance for nitrogen |
| | Trends in invasive alien species (Numbers and costs of invasive alien species) | 10. Invasive alien species in Europe |
| | Impact of climate change on biodiversity | 11. Impact of climatic change on bird populations |
| Ecosystem integrity and ecosystem goods and services | Marine trophic index | 12. Marine Trophic Index of European seas |
| | Connectivity/ fragmentation of ecosystems | 13. Fragmentation of natural and semi-natural areas |
| | | 14. Fragmentation of river systems |
| | Water quality in aquatic ecosystems | 15. Nutrients in transitional, coastal and marine waters |
| | | 16. Freshwater quality |
| Sustainable use | Area of forest, agricultural, fishery and aquaculture ecosystems under sustainable management | 17. Forest: Growing stock, increment and fellings |
| | | 18. Forest: Deadwood |
| | | 19. Agriculture: Nitrogen balance |

| | | |
|---|--|--|
| | | 20. Agriculture: Area under management practices potentially supporting biodiversity |
| | | 21. Fisheries: European commercial fish stocks |
| | | 22. Aquaculture: Effluent water quality from finfish farms |
| | Ecological Footprint of European countries | 23. Ecological Footprint of European countries |
| Status of access and benefits sharing | Percentage of European patent applications for inventions based on genetic resources | 24. Patent applications based on genetic resources |
| Status of resource transfers | Funding to biodiversity | 25. Financing biodiversity management |
| Public opinion (additional EU focal Area) | Public awareness and participation | 26. Public awareness |

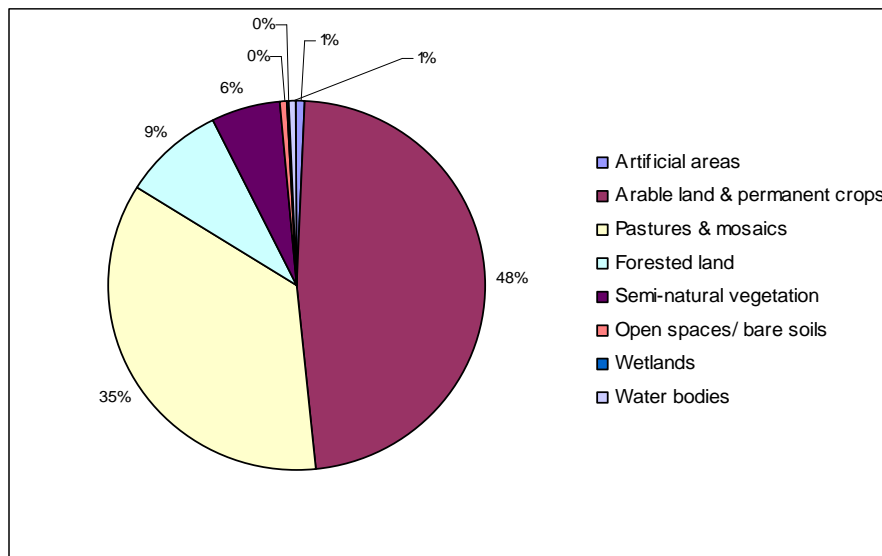
A proposed outcome of the work of JRC Soil Biodiversity Working Group is to introduce indicators for soil biodiversity under the SEBI 2010. Selecting these indicators could be aided by the evaluations carried out during the ENVASSO (ENVironmental ASsessment of Soil for mOnitoring) project, for which a minimum set of three indicators have been proposed. The ENVASSO project developed groups of indicators which can be selected for investigations using a hierarchical system of application depending on resource availability and the required level of detail of information, with the aim of providing simple but effective indicators to assess soil biodiversity.

Status and trends of the components of biodiversity

Grassland and wetland areas have decreased, but forest cover has increased.

Extensive areas of agricultural land, pastures and wetlands have given way to urban areas, more intensive farmland and forest.

Graph 1: Extension of urban land by 2000 (urban sprawl and sprawl of economic sites and infrastructure)



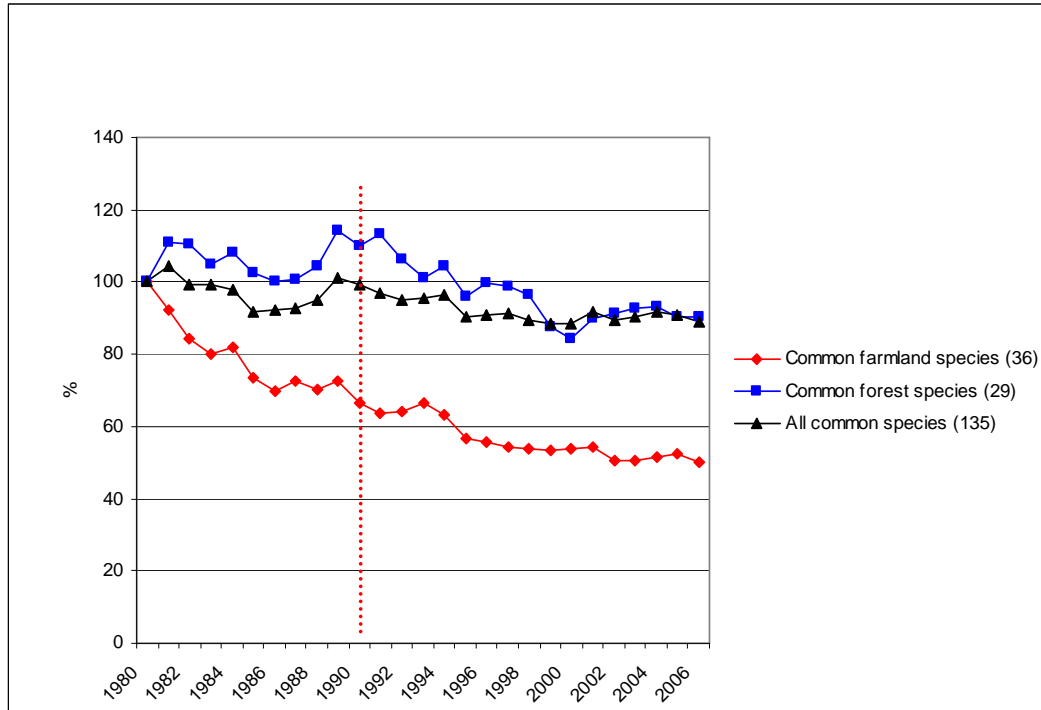
Source: EEA (Based on Corine Land Cover)

The negative trends for some populations of European common birds appear to have slowly levelled off but populations of butterflies continue to decline dramatically.

From 1990 to 2006, populations of European common birds declined by 10%. Farmland birds declined by 25%. Based on the data from four countries available as of 1980 (Denmark, Finland, Sweden and the United Kingdom), farmland birds declined by up to 50% in the period 1980-2006, although most of the decline occurred from the late 1970s to the early 1990s, see European Bird Census Council website². Data collection had begun even earlier (1966 in the UK, mid-1970s in the other three countries), and it was these very data that gave a first indication that changes in farming practices may have led to problems for farmland bird populations. This worrying development prompted other countries to begin monitoring schemes. By 1990, ten countries were monitoring bird populations; as of 2009, twenty-one are involved.

² <http://www.ebcc.info/index.php?ID=28>

Graph 2: Common birds in Europe, population index (1980 = 100)



Source: EBCC/RSPB/BirdLife/Statistics Netherlands.

Common forest birds declined by 18% from 1990 to 2006, a figure much more worrying than the 9% decline for the entire period 1980-2006, which begins with considerable fluctuations in the first decade, again based on the same four countries.

The population of grassland butterflies is declining sharply, having fallen by 60% since 1990 with no sign of levelling off.

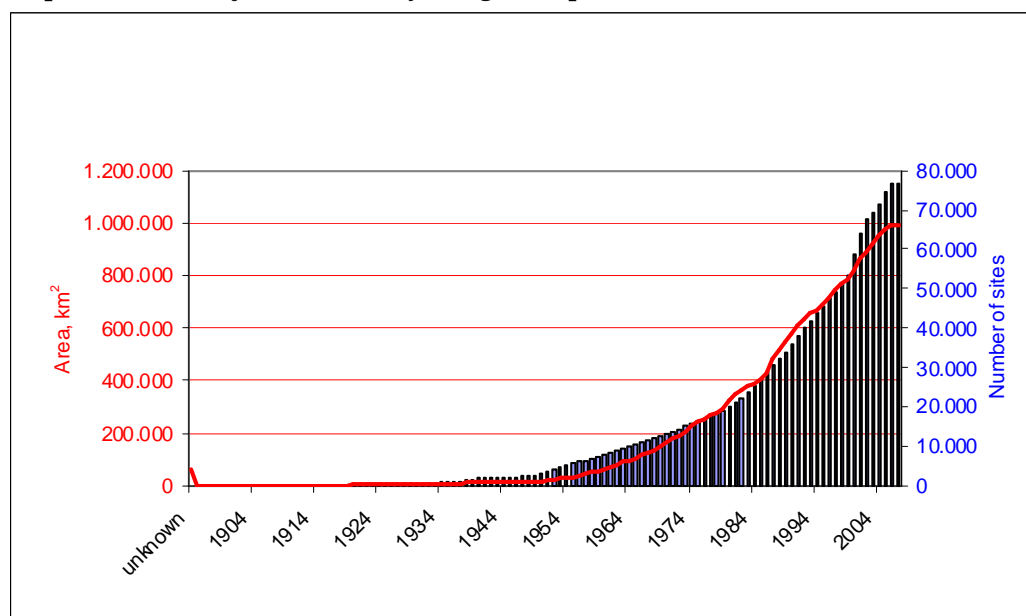
Livestock genetic diversity is threatened by high production needs

In several countries, populations of native well-adapted breeds have largely been replaced by a few highly productive breeds. This puts many native breeds in low populations in danger of extinction.

Implementation of Natura 2000 is progressing well but more must be done to improve the conservation status

17% of the EU27 territory is designated under Natura 2000 and 16% of European land is designated under national schemes in 39 countries. Although some of these schemes overlap, they reinforce each other to help protect biodiversity.

Graph 3: Growth of the nationally designated protected areas in 39 EEA countries



Source: CDDA v7, 2007

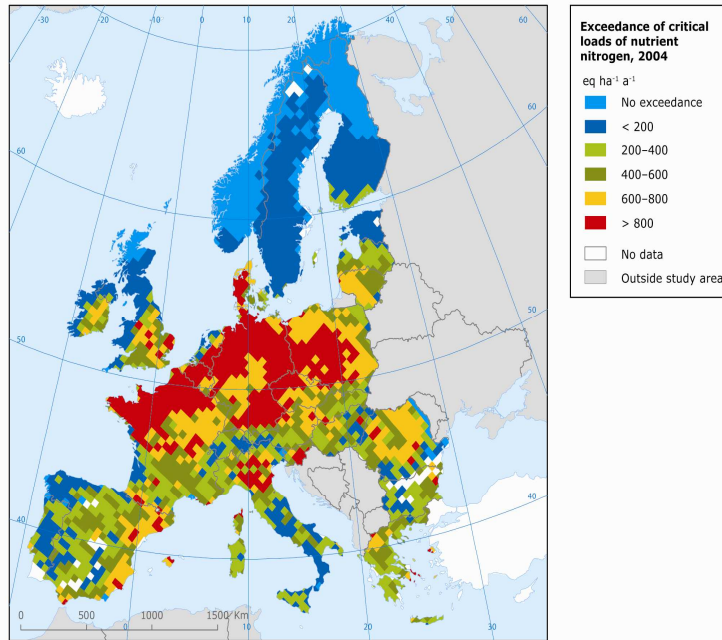
The first assessment of implementation of the EU Habitats Directive shows that the conservation status of 40-80% of habitats of European interest (listed in Annex I to the Habitats Directive) is unfavourable. The conservation status of between 30 and 80% of species of European interest (listed in Annexes II, IV and V to the Habitats Directive) is unfavourable.

Threats to biodiversity

Half of all European ecosystems are still exposed to eutrophication

In 2004, half of the geographical range of natural and semi-natural habitats across the EU25 remained exposed to atmospheric nitrogen deposits above the critical load.

Graph 4: Exceedance of critical loads of nutrient nitrogen for the most sensitive ecosystems

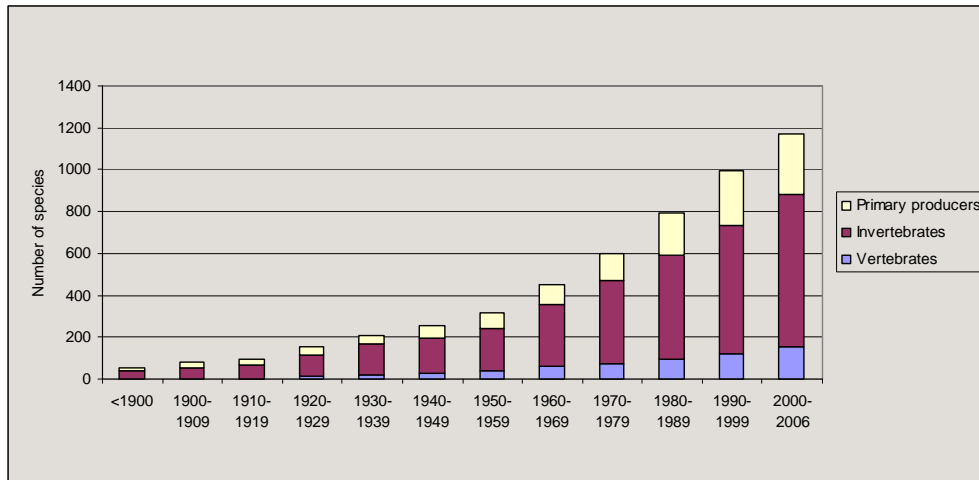


Source: Critical loads by CCE (Coordination Centre for Effects) and deposition data by EMEP (European Monitoring and Evaluation Programme)/MSCW (Meteorological Synthesising Centre-West)

The number of alien species in Europe continues to rise, which poses an increasing risk for biodiversity.

The number of alien species is steadily rising in European marine and estuarine systems. However, the rate of establishment in terrestrial and freshwater systems has levelled off.

Graph 5: Alien species in European marine/estuarine Waters (April 2007)



Source: SEBI 2010 Expert Group on invasive alien species, based on national data sets (e.g. Germany, Denmark, UK) available on the internet; review papers (e.g. Netherlands, Turkey); NEMO database for the Baltic; Black Sea database; HCMR data base for the Mediterranean; project reports (e.g. ALIENS); and contributions from experts in France, Spain, Russia during a dedicated workshop. Note: Geographic coverage: all European countries with marine/estuarine waters.

Three times more bird species are negatively affected by climate change than positively affected, based on data for a set of 120 widespread European land bird species used to calculate this indicator.

Ecosystem integrity and ecosystem services

The water quality of freshwater ecosystems has consistently improved in recent years.

Freshwater pollution has decreased, reducing stress on freshwater biodiversity and improving the ecological status of freshwater systems.

Nutrient concentrations in transitional, coastal and marine waters are relatively constant, but more work is needed to assess the long-term effects of current concentrations.

In the Atlantic, the Baltic Sea, the Greater North Sea, the Skagerrak and part of the Mediterranean, the great majority of stations report unchanged loads of nitrogen and phosphorus (85 and 82 %, respectively). More than half the remaining stations report a decrease in pollution levels.

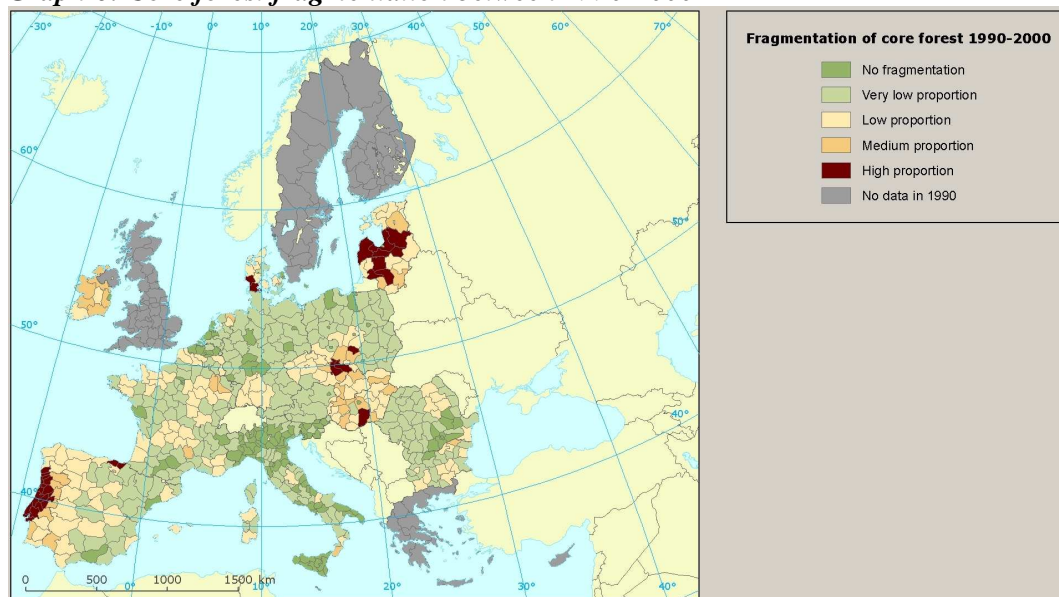
Commercial fisheries have damaged the integrity of the marine ecosystem in most European seas.

Commercial fisheries have caused a decline in big predatory fish and an increase in relative numbers of small fish and invertebrates. The Marine Trophic Index has declined in 11 seas since the mid 1950s.

Fragmentation has a major impact on the integrity of terrestrial ecosystems.

Data for forest ecosystems show that across Europe, core forest areas have fragmented (in that forest parcels have split into smaller forest parcels) between 1990 and 2000, most severely in North, Central-Eastern and South-Western Europe. Fragmentation is in many places caused by forest harvesting and has a very dynamic and cyclic nature that may be beneficial to some species and highly detrimental to others (land mechanically disturbed after a clear cut may be replanted or left to natural regeneration). In South-Western Europe, fragmentation due to land development with artificial infrastructure is more frequent.

Graph 6: Core forest fragmentation between 1990-2000



Data source: European forest pattern map based on forest mask of CORINE Land Cover (year 2000 and 1990, 100m spatial resolution, 25 ha minimum mapping unit; JRC 2008 / Estreguil and Mouton 2008).

Soil degradation processes

The effect of soil degradation processes can be detrimental for biodiversity, both above and below ground. Soil erosion, soil contamination and salinisation have clear effects on vegetation cover and plant biodiversity, but much less is known about the effects of soil degradation processes on soil organisms.

Sustainable use

Wood harvesting in European forests is sustainable in terms of the amount of timber harvested, but biodiversity can still be improved.

Because less wood is harvested than is added to the stock every year, on average the forest area and volume is increasing in Europe. In this sense, timber harvest is sustainable in Europe. Throughout Europe, the ratio of fellings to increment is relatively stable at around 60%, allowing for a continuous build-up of the forest growing stock. However this utilisation percentage is forecast to increase to between 70% and 80% by 2010. Deadwood (coarse woody debris) invertebrate biodiversity, since it is a habitat for a wide array of organisms. The quantity of deadwood in Europe decreased rapidly between the middle of the nineteenth century and latter part of the twentieth century. Data for the period 1990-2005 show that the amount of deadwood is increasing slowly.

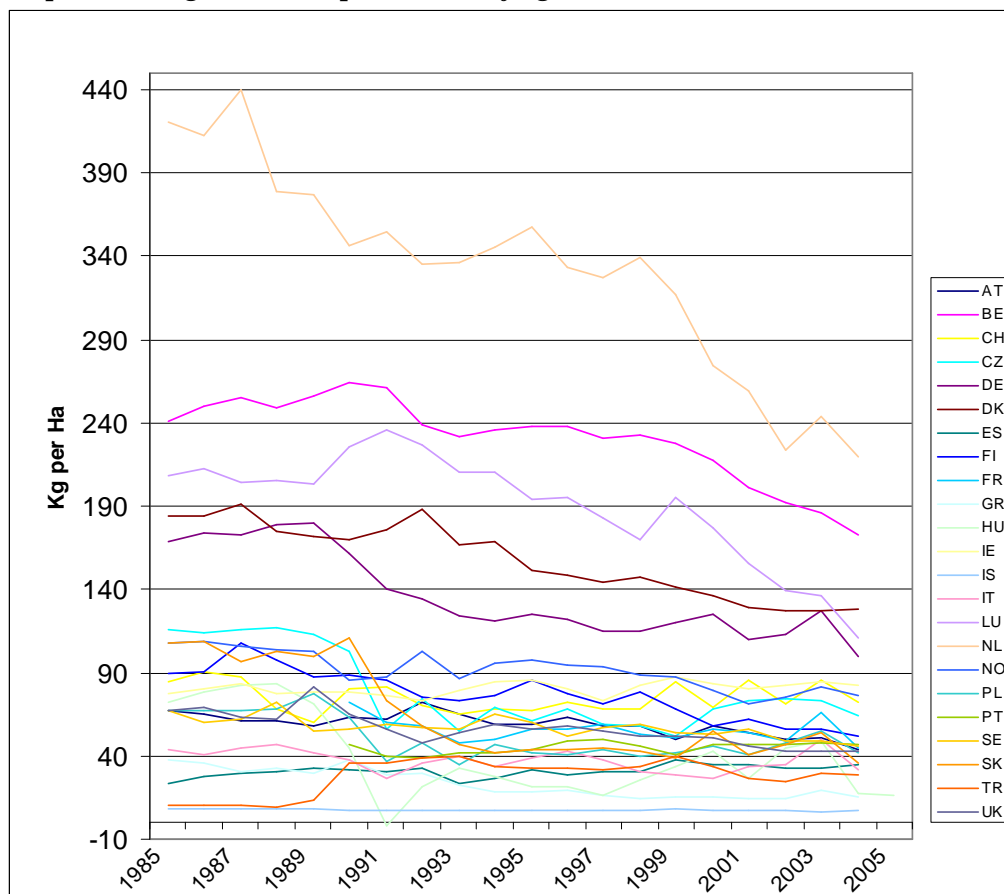
In many European countries, initiatives have been taken to increase the amount of deadwood in forests, though not all increases are the result of biodiversity considerations. In some areas the accumulation of deadwood may not be desirable, for example, where the risk of insect pests (such as invasions of bark beetles) or forest fires is considered unacceptable, or in Mediterranean coniferous plantations where deadwood must be removed because of the risk of forest fires. Overall, the amount of deadwood in most European countries remains well below optimal levels from a biodiversity perspective.

Agriculture still exerts a high pressure on biodiversity. However, agri-environmental measures and organic production are being more and more applied.

Europe has significant areas of High Nature Value farmland, farmland which supports biodiversity by providing habitats for a wide range of species. These areas are under threat from intensification and land abandonment.

Nitrogen surpluses (the difference between all nutrient inputs and outputs on agricultural land) are declining, but generally remain high, particularly in lowland Western Europe.

Graph 7: Nitrogen balance per hectare of agricultural land



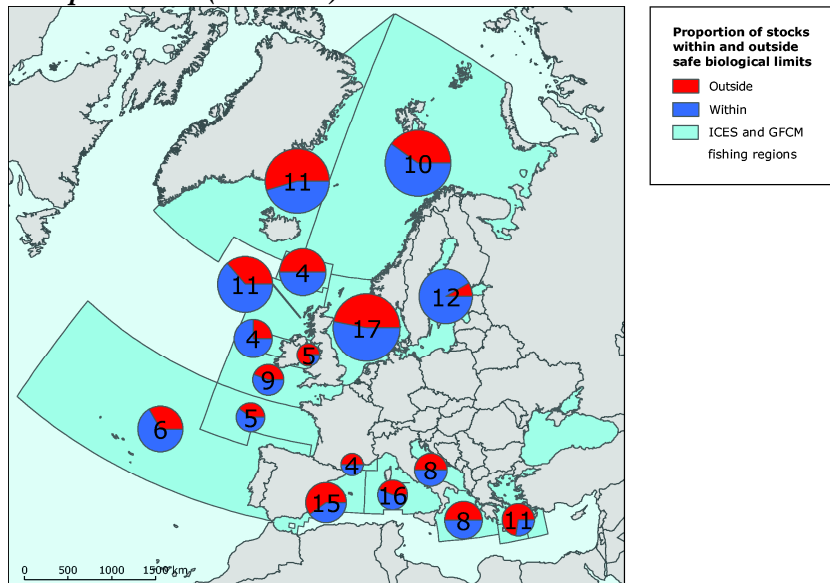
Source: OECD

Throughout Europe, measures are being introduced to reduce the environmental impact of agriculture. Agri-environment schemes have been widely used to make agriculture more sustainable in the EU. Organic agriculture continues to expand, and currently covers 6.5 million ha in Europe.

Marine resources are still overexploited.

Commercial fisheries are unsustainable with about 45% of assessed European stocks outside safe biological limits, according to the European Environmental Agency. Pelagic stocks, like herring and mackerel, are generally faring better than demersal stocks like cod, plaice and sole.

Graph 8: Status of the fish stocks in ICES (International Council for the Exploration of the Sea) and GFCM (General Fisheries Commission for the Mediterranean) fishing regions of Europe in 2006 (Ver. 8.00)



Source: GFCM and ICES Note: The chart shows the proportion of assessed stocks which are overfished (red) and stocks within safe biological limits (blue). The number in the circle is the number of stocks assessed within the given region. The size of the circles is scaled proportional to the magnitude of the regional catch.

Aquaculture provides an alternative source of fish protein. Production in Europe has increased since 1990, levelling off slightly since 2000. While this increase implies a rise in pressure on ecosystems, improvements in the efficiency of feed and nutrient utilisation as well as environmental management have mitigated the pressure.

Europe's impact on the wider world

The use of natural resources and waste generation within Europe is more than twice the natural capacity of the continent to provide these resources and absorb waste. This ecological deficit means that Europe cannot sustainably meet its consumption demands from within its own borders. Europe's Ecological Footprint has increased almost constantly since 1961, while its capacity to produce useful biological materials and absorb waste materials (biocapacity) has fallen.

Status of access and benefits sharing — Status of resource transfer and use — Public opinion

The number of patent applications based on genetic resources

About 16% of all European patent activity relates to biodiversity. While providing a clear indicator of the access to biodiversity, more work is required to link the indicator with economic and other data related to benefit-sharing under the CBD.

Provision of financing for biodiversity management

Under the Convention on Biological Diversity, this concerns providing developing nations with the resources to implement the Convention. Within Europe, this means spending on biodiversity management. Funds for biodiversity management constitute only a small part of the EU budget.

Public awareness is a major challenge

A ‘flash Eurobarometer’ EU-wide opinion poll on biodiversity held in November/December 2007 found that two thirds of EU citizens do not know the meaning of the word ‘biodiversity’, or understand the main threats to biodiversity. Only a small proportion of EU citizens have heard of the NATURA 2000 network, which is the cornerstone of EU biodiversity policy.

However, when the issue is explained to them, over two thirds consider the loss of biodiversity a serious problem, albeit more at global level. The fact that Europeans believe pollution and man-made disasters to be the main threats to biodiversity indicates that the level of understanding of the problem is still inadequate.

KEY FINDINGS FOR SELECTED BIOMES AND SOIL

Agricultural ecosystems

Agricultural areas represent a significant share of Europe’s land: 33% is cropland, and 16% pastures. Nearly 3000 domesticated animal breeds are registered in the pan-European region (Central Asian countries not included). The region is an important source of wild plants closely related to crop plants. The EU Common Catalogues of varieties of agricultural and horticultural plant species contain 18000 and 17000 varieties respectively. There is also a huge diversity of woody plants for forestation and varieties of vine and fruit plants, which is reflected in the lists compiled at EU level. This diversity is constantly increasing.

Agriculture has traditionally shaped the European landscape, and Europe’s biodiversity has historically been embedded in a rural environment. Europe has significant areas of High Nature Value farmland, which supports biodiversity by providing a habitat for a wide range of species.

The main threats to biodiversity in these systems are mismanaged intensification and abandonment of agriculture, as well as habitat loss (extensive agricultural land and pastures converted to urban areas or more intensive farmland and forest). Another threat comes from eutrophication. In 2004, half of the geographical range of natural and semi-natural habitats across the EU25 was still exposed to atmospheric nitrogen depositions above the critical load.

As a result, the available data for species show a sharp decline (common forest birds declined by 18% from 1990 to 2006) and grassland butterfly populations have fallen by 60% since 1990, with no sign of levelling off.

Livestock and crop genetic diversity is threatened by high production needs, and populations of native breeds have largely been replaced by a few highly productive breeds.

Measures have been taken to reduce the environmental impact of agriculture. Agri-environment schemes have been widely used to make agriculture more sustainable in the EU. Organic agriculture continues to expand, and currently covers 6.5 million ha in Europe.

Nitrogen surpluses (the difference between all nutrient inputs and outputs on agricultural land) are declining, but generally remain high, particularly in lowland Western Europe. Overall, the water quality in freshwater ecosystems has consistently improved in recent years.

Forests

Forests (as defined by FAO) cover 42% of the EU-27 (data of 2005). Overall, forest cover in Europe has increased over recent decades. However, depending on the type of management, an increase in forest quantity does not always equate to an increase in the quality of habitats for biodiversity.

Another key threat is fragmentation. Across Europe core forest areas have fragmented between 1990 and 2000, most severely in North, Central-Eastern and South-Western Europe.

The trends in species diversity in forests give a mixed picture. The status of some species (wild boar, reindeer, and wolf) has improved, but in some parts of Europe, Forest bird species decreased by 18% since 1990.

Wood harvest is economically sustainable, but biodiversity of tree species could be enhanced. The ratio of fellings to increment is relatively stable at around 60%, allowing for a continuous build-up of the forest growing stock. However this percentage is forecast to increase to between 70% and 80% by 2010. In most European countries, the amount of deadwood remains well below optimal levels from a biodiversity perspective.

Inland waters

The quality of inland water systems has improved in recent years. The rate of establishment of alien species has levelled off, and overall water quality has improved.

Marine and coastal areas

Overexploitation and to a lesser extent invasive alien species are the main threats to marine ecosystems. 45% of assessed European stocks are outside safe biological limits according to the European Environmental Agency. The Marine Trophic Index has fallen in 11 European seas since the mid 1950s and the number of alien species is steadily rising in European marine and estuarine systems.

The pressures from aquaculture as an alternative source of fish protein have mitigated due to improvements in the efficiency of feed and nutrient utilisation as well as environmental management.

Nutrient concentrations in transitional, coastal and marine waters are stable.

Soils

There is currently no clear picture regarding soil biodiversity trends in Europe, although there is some evidence of a decline. Data from The Netherlands and Switzerland show that there has been a sharp decline in mushroom diversity as a part of soil biodiversity over the last decades. In Scotland, several species of soil fungi and microarthropods are classified as endangered, and there is further evidence of a decline in the soil biota in other areas. Several types of herbicides (MCPA, Dinoseb, Bentazone, etc.), applied to leguminous crops constitute a potential hazard to the establishment and performance of N₂-fixing root nodules (Zahran, 1999). Radical changes in farming systems over the last decades have caused a reduction of organic energy input to the system, with consequent detrimental effects on soil biodiversity and soil health, leading to an increase in plant diseases and other pest problems (Pimental et al., 1991).

Several soil degradation processes have local effects, but global processes, such as climate change, may also play a major role in the decline in soil biodiversity.

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CHAPTER II — Current Status of National Biodiversity Strategies and Action Plans

The vast majority of the information presented in this chapter is based on official documents of the European Commission, such as the EU Biodiversity Action Plan and the mid-term assessment of the implementation of the Biodiversity Action Plan published in December 2008, including supporting documents and annexes. The official documents are available at http://ec.europa.eu/environment/nature/biodiversity/comm2006/bap_2008.htm.

THE EU BIODIVERSITY ACTION PLAN — HALTING BIODIVERSITY LOSS BY 2010 AND BEYOND — SUSTAINING ECOSYSTEM SERVICES FOR HUMAN WELL-BEING

In 2003 the European Commission launched a wide-ranging review and in-depth consultation amongst all sectors of society on the effectiveness of the existing Biodiversity Strategy and its associated action plans. Backed by an unprecedented level of stakeholder consensus, the EU decided to re-double its efforts and endorsed, in June 2006, an ambitious new Biodiversity Action Plan.

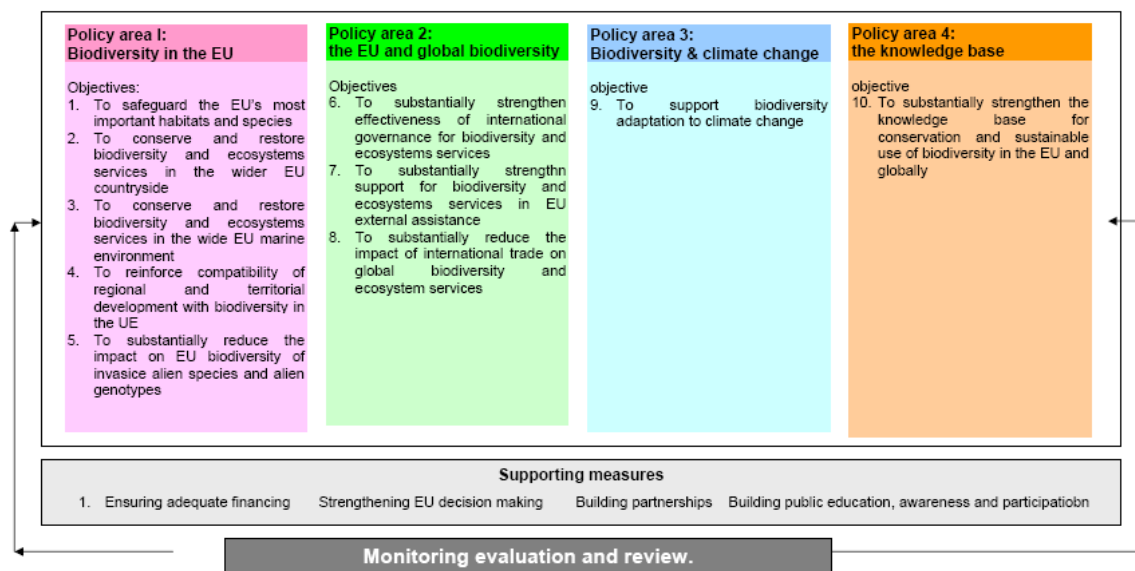
The overall target of the EU Biodiversity Action Plan ‘Halting the loss of Biodiversity by 2010 — and beyond — Sustaining ecosystem services for human well-being’ is to halt the decline of biodiversity in the EU by 2010. EU Heads of State or Government agreed in 2001 ‘to halt the decline of biodiversity [in the EU] by 2010’ and to ‘restore habitats and natural systems’. In 2002, they joined some 130 world leaders in agreeing ‘to significantly reduce the rate of biodiversity loss [globally] by 2010’.

The objectives of the Action Plan are to:

- Reinforce action to halt the loss of biodiversity in the European Union by 2010;
- Accelerate progress towards the recovery of habitats and natural systems in the EU;
- Optimise the EU’s contribution towards significantly reducing the rate of biodiversity loss worldwide by 2010.

The Action Plan identifies four main policy areas and sets out 10 key objectives to meet the 2010 biodiversity target and put biodiversity on the course to recovery. These are, in turn, translated into over 150 individual priority actions and supporting measures which are to be implemented against specific time-bound targets.

Table 2: Structure of the EU Biodiversity Action Plan



PAN-EUROPEAN INITIATIVE FOR STREAMLINING EUROPEAN 2010 BIODIVERSITY INDICATORS (SEBI 2010)

The Biodiversity Action Plan contains provisions on monitoring, evaluation and review and asks to adopt and apply, at European Community and Member States level, a small set of biodiversity headline indicators which inform the public and decision-makers on the state and trends of biodiversity, pressures on biodiversity and the effectiveness of key policy measures.

More progress has been made on the pan-European initiative for Streamlining European 2010 Biodiversity Indicators (SEBI 2010), aimed at assessing, reporting on and communicating progress on the 2010 target in Europe. Using a common methodological framework, endorsed under the Convention on Biological Diversity, a set of 26 pan-European biodiversity indicators has been selected with the financial support of the European Commission, the European Environment Agency, and UNEP.

The set of 26 pan-European biodiversity indicators provides the basis for a first European indicator-based assessment of progress on the 2010 biodiversity target, which is to be published by the European Environmental Agency (EEA) in the first half of 2009. More information on the indicators can be found in Appendix IV to this report.

Further refinement and improvement of the SEBI 2010 indicators is ongoing, and will consider the impact of climate change on biodiversity, interlinkages and communication. The European Commission collected response indicators in 2008 to help assess progress in meeting, or contributing to, the relevant objectives and targets of the Biodiversity Action Plan. In 2008, SEBI 2010 was selected by Red Life, a Spanish Journal, as one of the ten best ideas to save nature. EU Member States are in the process of developing national indicators, aligned with the SEBI 2010 framework.

The European Commission and EEA together with the Secretariat of the Convention on Biological Diversity and UNEP-World Conservation Monitoring Centre (WCMC) are actively

involved in improving the alignment and synchronisation of biodiversity reporting based on a streamlined set of indicators.

HOW THE EU BIODIVERSITY ACTION PLAN HELPS IMPLEMENT THE CONVENTION ON BIOLOGICAL DIVERSITY

The EU Biodiversity Action Plan (BAP) responds to the call made by the Convention on Biological Diversity to prioritise action up to 2010. It explicitly requests the EC and Member States to ‘press for effective worldwide implementation of the Convention on Biological Diversity, decisions of the Conference of the Parties including thematic and cross-cutting programmes of work’. The broad scope of the Action Plan with its four key policy areas, ten priority objectives and supporting measures makes a significant contribution to overall implementation of the Convention and specifically to implementing the thematic programmes and cross-cutting issues.

The EU Action Plan contains general measures to promote conservation and the sustainable use of biological diversity, in line with Article 6 of the CBD. It also contains measures related to in-situ conservation (Article 8), traditional knowledge of indigenous and local communities (Article 8j), ex-situ conservation (Article 9), sustainable use of components of biological diversity (Article 10), research and training (Article 12), public education and awareness (Article 13), impact assessments (Article 14), access to and benefit sharing of genetic resources (Article 15), financial resources (Article 20) and implementation of the Cartagena Protocol.

Targets and measures under the BAP tackle specific issues, including:

- Agricultural biodiversity (e.g. *‘Target A2.1 Member States have optimised use of opportunities under agricultural, rural development and forest policy to benefit biodiversity 2007-2013’*);
- Forest biodiversity (e.g. *‘Target A2.1 Member States have optimised use of opportunities under agricultural, rural development and forest policy to benefit biodiversity 2007-2013’*);
- Inland waters biodiversity (e.g. *‘Target A2.3 Substantial progress made towards ‘good ecological status’ of freshwaters by 2010 and further substantial progress made by 2013’*);
- Marine and coastal biodiversity (e.g. *‘Objective 3. To conserve and restore biodiversity and ecosystem services in the wider EU marine environment; headline target: In wider marine environment (outside Natura 2000 network), biodiversity loss halted by 2010 and showing substantial recovery by 2013’*);
- The 2010 target (e.g. *‘Objective 1. To safeguard the EU’s most important habitats and species; headline target: Biodiversity loss of most important habitats and species halted by 2010’*);
- Access to genetic resources and benefit-sharing (e.g. *‘Action A8.1.3, Promote full implementation of the CBD Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of Benefits (ABS) arising out of their Utilisation, and other agreements relating to ABS such as the FAO International Treaty on Plant Genetic Resources for Food and Agriculture — and continue to contribute to negotiation of an international regime on ABS’*);
- Biodiversity for development (e.g. *‘Objective 7. To substantially strengthen support for biodiversity and ecosystem services in EU external assistance; Target A7.2: EU*

- ‘mainstream’ external development assistance delivering enhanced biodiversity and related livelihoods benefits, and negative impacts on biodiversity prevented or minimised, from 2006 onwards’);*
- Climate change and biodiversity (e.g. *‘Objective 9. To support biodiversity adaptation to climate change, headline target: Potential for damaging impacts, related to climate change, on EU biodiversity substantially reduced by 2013’);*
 - Communication, Education and Public Awareness (e.g. *‘Supporting Measure 4: Building public education, awareness and participation for biodiversity; Target B4.1: 10 million Europeans actively engaged in biodiversity conservation by 2010, 15 million by 2013’);*
 - Economics, Trade and Incentive Measures (e.g. *‘Objective 8: to substantially reduce the impact of international trade on global biodiversity and ecosystem services; Target A8.1: Impact on biodiversity of EU trade significantly reduced by 2010 and again by 2013’);*
 - Ecosystem Approach (e.g. *‘Target A3.3: Ecosystem approach to the protection of the seas in place and implying fisheries management measures no later than 2016’);*
 - Impact Assessment (e.g. *‘Target A4.6: All Strategic Environmental Assessments and Environmental Impact Assessments have taken full account of biodiversity concerns (2006 onwards)’);*
 - Identification, Monitoring, Indicators and Assessments (e.g. *‘Target C.1.3: Monitoring providing adequate data flow for implementation of indicator set, for reporting on favourable conservation status, and for broader assessment of effectiveness of this Action Plan by 2010’);*
 - Invasive Alien Species (e.g. *‘Objective 5: To substantially reduce the impact on EU biodiversity of invasive alien species (IAS) and alien genotypes; headline target: Negative impacts on EU biodiversity of IAS and alien genotypes prevented or minimised from 2010 onwards’);*
 - Liability and Redress (e.g. *‘Action A1.1.5: Ensure full and timely application of the Environmental Liability Directive (ELD) as it applies to protected species and natural habitats (as defined under the directive), including preventive measures and remedial actions, as appropriate [2006 onwards]’);*
 - Protected Areas (e.g. *‘Target A1.1 Natura 2000 network established, safeguarded, designated and under effective conservation management by 2010, 2012 in marine’);*
 - Sustainable Use of Biodiversity (e.g. *‘Objective 10: To substantially strengthen the knowledge base for conservation and sustainable use of biodiversity in the EU and globally; Target A10.1: Research findings on biodiversity and ecosystem services has substantially advanced our ability to ensure conservation and sustainable use by 2010 and again by 2013’);*
 - Tourism and Biodiversity (e.g. *‘Action A4.4.1 CBD Guidelines on Sustainable Tourism promoted, adopted and implemented as appropriate by key stakeholders [2006 onwards]’);*
 - Traditional Knowledge, Innovations and Practices — Art. 8(j) (e.g. *‘Action A8.1.9: Apply principle of prior informed consent when commercially using traditional knowledge relating to biodiversity and encourage the equitable sharing of benefits arising from the use of such knowledge [2006 onwards]’).*

While biodiversity in dry and sub-humid lands, islands and mountains, the Global Strategy for Plant Conservation, Technology Transfer and Cooperation, and the Global Taxonomy Initiative

are not explicitly addressed by the Action Plan, measures to implement the Action Plan also contribute to implementing these thematic programmes and cross-cutting issues.

Work to establish the Natura 2000 network in the Alpine and the Macaronesian biogeographical regions is contributing to implement the work programmes on island and mountain biodiversity. The islands of the Canaries, Azores and Madeira in the Macaronesian Region, for instance, are all protected under the Birds and Habitats Directive, with a network of Natura 2000 sites at an advanced state of development. Measures to implement the Habitats Directive also contribute to implementing the Global Strategy for Plant Conservation. Regarding dry and sub-humid lands, a capacity-building project has been undertaken to improve civil society networks to address dryland degradation and poverty issues, in the context of strategic development frameworks and the UNCCD under the Community's development assistance.

Although the Biodiversity Action Plan does not address the Global Taxonomy Initiative, the European Commission supports the initiative under the Thematic Programme for Environment and Sustainable Management of Natural Resources. In 2008 and 2009 it supports work to establish the Global Taxonomy Partnership and Fund to mobilise and focus new financial resources for CBD implementation. This work is carried out by BioNet.

PROGRESS MADE IN IMPLEMENTING THE EU BIODIVERSITY ACTION PLAN

Objective 1. — To safeguard the EU's most important habitats and species

Box 1: European Species Action Plans – a recipe for success

Since 1993, the European Commission has supported the development and implementation of EU-wide Action Plans for 46 of the most threatened bird species in Annex I of the Birds Directive. Prepared by BirdLife International, every plan goes through an extensive consultation process amongst scientific experts, government agencies and civil society in order to establish European priorities for the conservation of the target species.

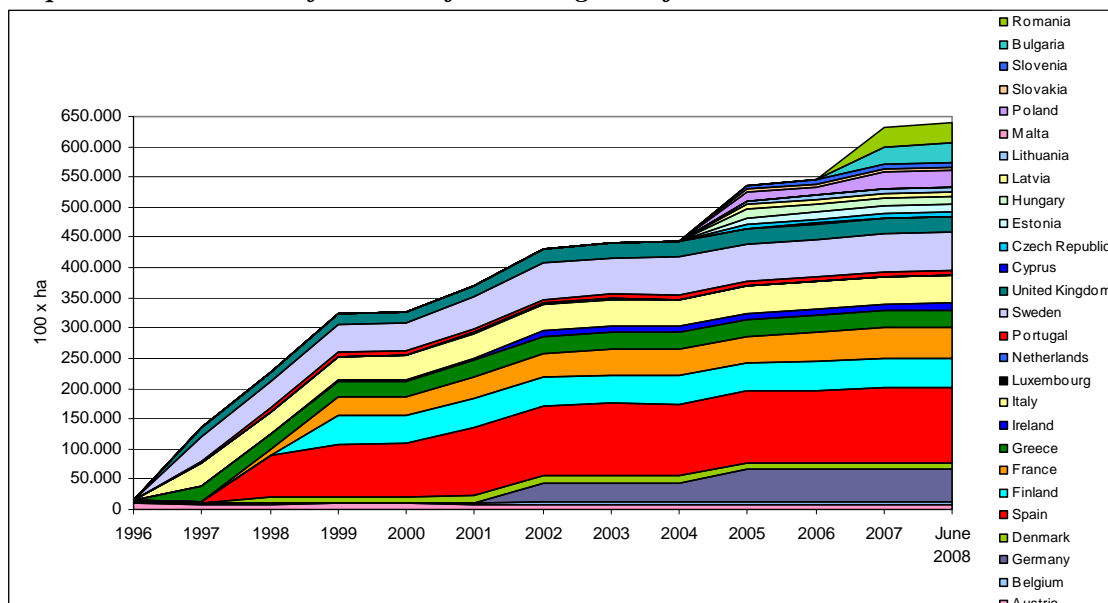
A recent study on the impact of these plans after 10 years found that they are indeed very effective. The report concluded that significant progress had been made in implementing 18 of the 23 plans and that the long and medium targets had already been met for 11 of them. It also found that the majority of the species had increased in number or expanded in range during that time. Amongst the most successful were the Dalmatian pelican, Imperial eagle and Zino's Petrel whose populations increased by 20% or more. In view of the success, the Commission intends now to start developing EU-wide action plans for threatened species other than birds as well.

Target 1.1 Natura 2000 network established, safeguarded, designated and under effective conservation management by 2010, 2012 in marine

Establishment of Natura 2000

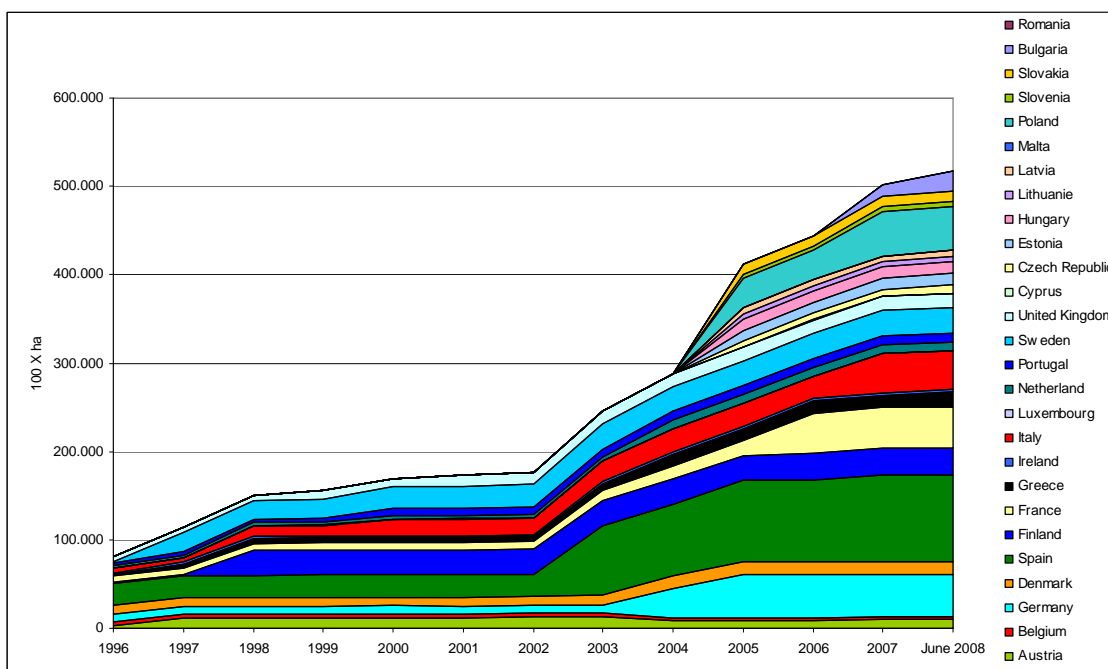
At the core of EU biodiversity policy are the Birds and Habitats Directives, which provide the legal basis for the Natura 2000 network of protected areas. The combined Natura 2000 network now comprises more than 25000 sites, covering around 17% of the total land area of the European Union.

Graph 9: Cumulative surface area of sites designated for the Habitats directive over time



Source: DG ENV, SCIs database, June 2008

Graph 10: Cumulative surface area of sites designated for the Birds directive over time



Source: DG ENV, SCIs database, June 2008

The situation regarding the marine establishment of Natura 2000 is less advanced than for terrestrial areas. This is especially the case for the offshore marine environment. To facilitate progress the European Commission published in 2007 a guide on establishing Natura 2000 in the marine environment to assist Member States in the selection of marine Natura 2000 sites by 2008. The European Commission has prepared non binding guidance on introducing measures for marine Natura 2000 sites under the Common Fisheries Policy (CFP), complementing the earlier marine Natura 2000 guidelines.

The Commission has continued to assess the completeness of the Natura 2000 network for different Member States as well as of their legal transposition of the Birds and Habitats Directives. A summary of existing important case law on the nature directives provided by the EU Court of Justice has been published.

Management Natura 2000

As the selection, proposal and designation of Natura 2000 sites is now at an advanced stage, attention needs to increasingly focus on the protection and management of the network. Although not explicitly mentioned as an obligation under the Habitats Directive, management plans are recognised by most Member States as a valuable tool to assist with the positive management of Natura 2000 sites. Based on available information, at least 5 312 Natura 2000 areas have completed or agreed management plans. Furthermore, a total of 3 250 Natura 2000 sites in the EU have management plans under development. 17 EU member states have indicated that they are preparing management plans for Natura 2000 sites.

Financing Natura 2000

The Financial Instrument for the Environment (LIFE+) continues to be a strategically important fund to support the development of demonstration and best practice projects for management and restoration of Natura 2000 sites throughout the Member States. Between 2000 and 2006 EUR 436 532 507 was spent over 434 projects. Furthermore, the period from 2000 onwards has a more stable budget though applications were not equally successful, so not all allocations were used. The allocation of LIFE+ for nature and biodiversity related projects for 2007 (EUR 187 000 000) shows an increase in EU expenditure, though a decision on project proposals is not finalised. It should be noted that the amounts indicated represent the EU contribution to the projects, not the total cost of the projects in question as LIFE+ covers 50% to 75% of the total costs, depending on the target species and/or habitats and biodiversity aims of the project.

The range of opportunities to co-fund Natura 2000 costs are set out in each EC funding regulations for 2007-2013, including the European Agricultural Fund for Rural Development. Guidelines and training are provided under an EC contract to help Member States apply for these funds. An Information Technology Tool on financing Natura 2000 has been developed to provide potential beneficiaries with guidance on how individual measures for Natura 2000 may be funded through various EU sources. A new Commission study aims to improve the links between financing and managing Natura 2000.

Environmental Impact Assessment (EIA) and Strategic Environmental Assessment (SEA)

The Directive on Environmental Impact Assessment (EIA) of the effects of projects on the environment and the Strategic Environmental Assessment (SEA) Directive on the environmental consequences of certain plans and programmes ensure that the environmental implications of decisions are taken into account before the decisions are made. Two studies on the application of the EIA and SEA Directives have been launched in 2008 and will include examination of the relationship between these directives and the EU Biodiversity Action Plan and the Habitats Directive. Final reports are expected in early 2009.

Ensure full and timely application of the Environmental Liability Directive (ELD) as it applies to protected species and natural habitats)

Directive 2004/35/EC of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental establishes a framework for environmental liability based on the 'polluter pays' principle, with a view to preventing and remedying environmental damage. The European Commission monitors progress on the transposition of the Directive. 19 EU Member States have notified complete transposition of the Directive.

Target 1.2 Sufficiency, coherence, connectivity and resilience of the protected areas network in the EU substantially enhanced by 2010 [and further enhanced by 2013]

Natura 2000 sites do not exist in isolation from the surrounding landscape. Corridors and connectivity, as recognised under Article 10 of the Habitats Directive are important, especially in the light of pressures associated with climate change. Initial guidelines on how to manage landscape features of major importance for wild flora and fauna have been prepared with a view to identifying ways to support the ecological coherence of the Natura 2000 network.

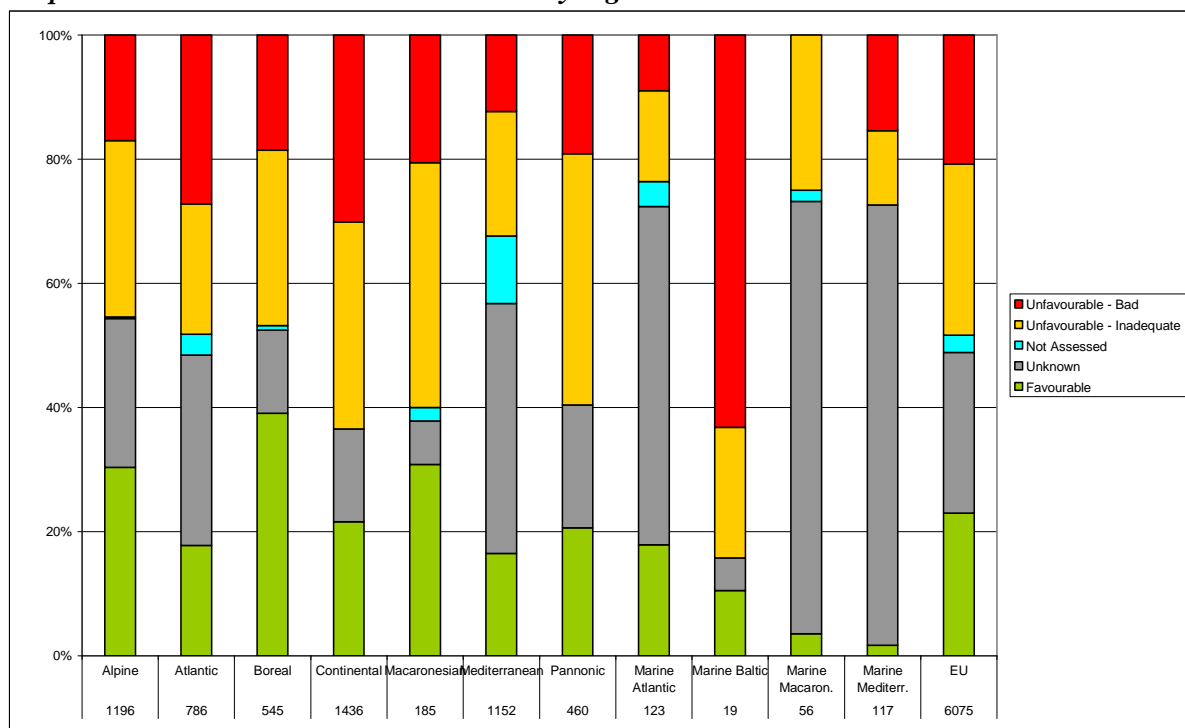
Target 1.3 Good conservation status of species achieved (Article 17, Red Data Book, Atlases, Common bird monitoring, ex-situ conservation)

Conservation status assessment and red data lists

The first major assessment of the conservation status of species and habitats of Community interest under Article 17 of the Habitats Directive is underway. On the basis of national reports received in 2007/early 2008 the Commission, with support of the European Topic Centre on Biological Diversity of the European Environment Agency, will complete an EU-level assessment by mid-2009. An initial examination of the data reveals that the conservation status of most species of European interest is unfavourable.

Likewise, there is significant variation in the conservation status of habitats of European interest in different Member States. In each biogeographic region (terrestrial part), between 40 and 60 % of heaths, scrubs and rocky habitats are in favourable status. Bogs, freshwater habitats, grasslands and dunes are mainly in unfavourable status and between 20 and 30 % of species are in unfavourable bad status. As for species there are still significant gaps in knowledge, resulting in unknown assessments and as trend information was not supplied for most assessments, it is not possible to determine if their status is getting better or worse.

Graph 11: Conservation Status — Habitats by region



Source: EEA/ETC-BD

While not encouraging, these preliminary results based on an assessment for the period up to 2006 come as no surprise. The decline and destruction of species and habitats, which has been ongoing for many decades, cannot be reversed within a few years. Several animal species, once at the brink of extinction, such as the Otter *Lutra lutra*, the Beaver *Castor fiber* or the European bison *Bison bonasus*, are doing very well again and have — due to protection and active conservation measures — increasing populations. For others, the decline has been halted; implementation of management/restoration measures are about to start and hopefully the first signs of recovery will be evident in the next assessment in 2013/2015.

The next step of the current assessment is to carry out an EU-level (biogeographic level) assessment of conservation status. This will help identify the extent to which additional measures to manage and restore species populations and habitats are needed and will be a key input to reviews of species and habitat types of EU conservation concern.

Following up the Article 17 conservation status assessment exercise, the Commission also launched a new initiative to streamline reporting under the Birds and Habitats Directives. The aim is to improve the available data to assess the effectiveness of the nature directives. An Expert Group on reporting has been established. It will review the Article 17 exercise, launch a similar status and trends assessment for bird species and improve the dataflow on Natura 2000.

Red data lists are also being prepared and updated at EU and Member State level. A red data list for mammals was published in 2007 providing the first Europe-wide comprehensive assessment. This shows that nearly one in six (15%) European mammal species are threatened, and a further 9% are close to being threatened. The Iberian lynx is now the most threatened wildcat species in the world. The Commission is financially supporting the development of European red data lists for other taxonomic groups: amphibians and reptiles (due early 2009),

dragonflies, butterflies and saproxylic beetles (due end 2009) and molluscs and vascular plants (selected families) (due end 2010).

European red data lists for birds were produced by BirdLife International in both 1994 and 2004, allowing for changes in the threat status of species to be compared. This shows that the overall condition of Europe's birds has deteriorated over the last decade. For the assessed bird species on the IUCN Red List, the risk of extinction throughout European regions is increasing. However, in August 2007 the journal "Science" published an analysis showing that the Birds Directive has made a significant difference in protecting many of Europe's most threatened birds from further decline. The groundbreaking paper shows that the Birds Directive has clearly helped the species considered to be most at risk, partly through designation of Special Protection Areas (SPAs).

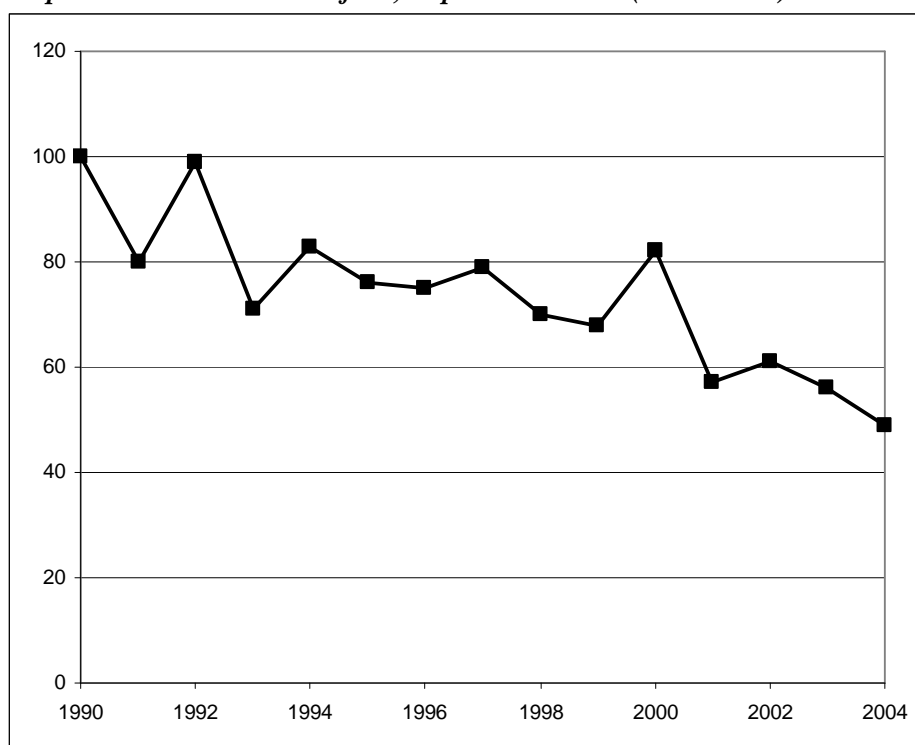
Conservation action for species

Species action plans continue to be developed as a practical tool to help target conservation action, as evidence of the success of earlier plans for 47 threatened bird species. The EU continues to support the development of action plans for threatened birds, updating existing plans (*Acrocephalus paludicola*, *Marmaronetta angustirostris*, *Aquila adalberti*) and preparing new bird action plans (*Coracias garullus*, *Chersophilus duponti*, *Neophron percnopterus*). Seven new management plans for huntable bird species were finalised in 2007, as well as an international action plan for the Saker Falcon (*Falco cherrug*). Draft criteria have been prepared for selecting non-bird species for action plans. A first set of action plans is planned for 2009. Many Member States appear to use action plans, with 13 EU Member States having these plans in place. More than half of EU Member States have plans or programmes for ex-situ conservation. For most, ex-situ conservation is referred to in the NBSAP as submitted to the CBD Secretariat. New possibilities for EU financing of 'ex-situ' conservation actions exist under LIFE+ when justified for species conservation linked to delivering the EU Biodiversity Action Plan.

As birds are considered to be highly representative of biodiversity and the integrity of ecosystems, the common bird monitoring scheme has been used to develop a biodiversity index of common birds. Of the more common bird species, forest and particularly farmland birds have declined. The initial steep decline in farmland birds is associated with increasing agricultural specialisation and intensity in some areas, and large-scale marginalisation and land abandonment in others. The downward trend has levelled off since the late 1980s, partly due to stabilising inputs of nutrient and pesticides in the EU-15 and partly due to drastically lower inputs in the EU-10 as a result of political reforms and the resulting economic crisis in the agricultural sector. Renewed agricultural intensification in the eastern regions, combined with further land abandonment throughout Europe, could lead to further decline.

Over the past decade, grassland butterflies have suffered even sharper declines than birds, with an almost 50% reduction in the abundance of grassland butterflies, and little sign of improvement.

Graph 12: Grassland butterflies, Population index (1990 = 100)



Source: De Vlinderstichting/Butterfly Conservation Europe

The Commission has provided guidance for the protection of species under the nature directives. A guide on the strict protection of animal species listed in Annex IV of the Habitats Directive also covers the derogations granted under the Directive. The guide on sustainable hunting under the Birds Directive has been updated to take account of recent case law from the European Court of Justice. The Commission has prepared EU guidelines for management plans for large carnivores, which promote best practice and provide guidance on population level management planning.

Target 1.4 All above targets applied for Acceding Countries from date of accession Bulgaria and Romania have been required to apply the nature directives since their accession on 1 January 2007.

Bulgaria and Romania are required to apply the nature directives since their accession on 1 January 2007. Assessments of their progress are being incorporated into overall evaluations for Member States. Bulgaria had submitted part of its national Special Protection Areas (SPAs) and potential Sites of Community Importance (pSCIs) lists by the start of 2008. Romania had submitted the pSCIs list in mid 2007 and its list of SPAs in December 2007. The level of designation of both SPAs was evaluated in 2008. A biogeographic seminar to assess the pSCI for the five biogeographic regions in these new Member States took place in June 2008.

Target A.1.5: For those EU Outermost Regions not covered by the nature directives, the aim is to ensure that valued biodiversity sites and species are not in a worsening conservation status by 2010 and that the majority of valued sites and species are moving towards a favourable conservation status by 2013

An ERA-NET NET BIOME Community-funded network for biodiversity in the outermost regions was launched in September 2006. The islands of the Canaries, Azores and Madeira in

the Macaronesian Region, for instance, are all protected under the Birds and Habitats Directive, with a network of Natura 2000 sites at an advanced state of development.

A European Conference on Biodiversity and Climate Change in the Outermost Regions was held in La Réunion, from 7 to 11 July 2008. This conference brought together for the first time representatives of all Outermost Regions (ORs) and Overseas Countries and Territories (OCTs). The participants agreed on the need for EU Member States and the European Commission, together with OCTs and ORs, to establish a voluntary scheme to protect species and habitats, inspired by the Natura 2000 approach.

OBJECTIVE 2. To conserve and restore biodiversity and ecosystem services in the wider EU countryside

Box 2: Agri-environment measures help conserve the Ebro delta

Located on the North-East coast of Spain, the Ebro delta is one of the most important wetlands in the Mediterranean and a major overwintering site for hundreds of thousands of waterbirds. Two-thirds of the delta is made up of paddy fields which produce around 100,000 tonnes of rice every year. Rice production and biodiversity are able to work hand in hand within the delta thanks to the introduction of EU agri-environment schemes. Farmers receive additional financial support in exchange for applying measures that go beyond statutory requirements, such as restricting the use of pesticides or leaving water on the fields in winter for the birds. Although this means more work for the farmers, 80 % have signed up to the schemes within the delta. The high quality of their organic rice fetches twice the normal market price and is in great demand amongst Europe's best restaurants. The area also benefits from increasing numbers of ecotourists who come specifically to see the spectacular wildlife in the delta.

Target A2.1 Member States have optimised use of opportunities under agricultural, rural development and forest policy to benefit biodiversity 2007-2013

Rural Development Programmes

Rural Development Programmes (RDPs) funded under Pillar 2 of the Common Agricultural Policy (CAP) by the European Agricultural Fund for Rural Development (EAFRD) provide the principal means of supporting biodiversity protection, management and restoration measures in agricultural and forest habitats. The rural development policy gives the Member States options to support measures that aim to preserve biodiversity: under Axis 1, measures on training, information and advisory services; under Axis 2, land management and non-productive investment measures and under Axis 3, measures for the conservation and upgrading of the natural heritage, providing for support to draw up management plans related to Natura 2000 sites.

The main measures are available under Axis 2 of the EAFRD, with a 44 % (approximately EUR 39.8 billion) share of the total EAFRD for 2007-2013. The proportion of Pillar 2 spending allocated to Axis 2 measures (of which Natura 2000 payments and payments linked to Directive 2000/60/EC, Agri-environment payments, Forest-environment payments, Forest Natura payments are the main measures benefiting biodiversity) provides a broad indication of the degree to which Member States use RDPs to support biodiversity. An analysis of EAFRD expenditure in all approved RDPs indicates that the budgetary emphasis placed on environmental measures varies considerably.

Of these four measures, agri-environment payments account for the majority of EAFRD expenditure, with approximately 22 % of RDP expenditure (approximately EUR 20.3 billion of EAFRD funds) across all Member States. But, there is considerable variation in the proportion spent amongst the Member States. Allocations for dedicated Natura 2000 measures (agriculture and forest) are very low, 0.64% of total EAFRD expenditure, approximately EUR 577 million. These measures were included in the rural development regulation to support conservation management of Natura sites and implementation of the Water Framework Directive (WFD). In total, the measure for Natura 2000 payments for agricultural land will be used in 14 Member States, with an allocated expenditure of EUR 469 million. Only 10 Member States are expected to use Natura 2000 payments for forests, with an allocation of approximately EUR 108 million. One main reason for the low allocations for dedicated Natura measures is probably that many countries have already established systems for managing Natura 2000 sites that are already supported by established agri-environment schemes. Another key reason is that in many Member States, uptake of Natura measures is constrained by a lack of management plans for Natura 2000 sites. Some of the Member States concerned have received support to draw up management plans under axis 3 (measure ‘conservation and upgrading of the rural heritage’).

Less favoured areas (LFA)

In addition to the measures described above, the less-favoured area (LFA) measure may provide some biodiversity benefits where it supports traditional low-intensity farming systems that maintain certain semi-natural habitats and other high nature value farmland. Approximately EUR 12.6 billion will be spent on the LFA measure under all approved rural development programmes.

Non-productive investment measures for agriculture and forestry areas

These measures are sometimes used to provide one-off capital grants, e.g. for habitat restoration works. This amounts to some EUR 463 million of EAFRD funds for non-productive agricultural investment and EUR 808 million of EAFRD funds for non-productive forestry investment.

Agricultural cross-compliance

Beneficiaries of Common Agricultural Policy (CAP) payments must comply with a range of requirements and standards, or risk reductions in or cancellations of their payment. Two sets of requirements must be met under cross-compliance. Firstly, the ‘Statutory Management Requirements’ (SMR), which are derived from 19 items of EU legislation on the environment, public health and animal health and welfare, including requirements related to the Birds and Habitats Directives. Secondly, the standards that set the framework for Good Agricultural and Environmental Condition (GAEC). These ask Member States to introduce standards to address soil erosion, soil structure, soil organic matter and the minimum maintenance of habitats. Under the GAEC, a quantitative rule ensures the maintenance of existing permanent pasture against massive conversion into arable land.

Specific standards, for instance under the GAEC issue ‘Minimum level of maintenance’, may provide significant biodiversity benefits (e.g. minimum livestock stocking rates and appropriate management regimes, protection of permanent pasture, retention of landscape features). The SMR and GAEC standards provide a broad baseline coverage, mandatory for all farmers receiving direct payments, wine payments related to grubbing up, restructuring and conversion, and payments for area- and animal-related rural development measures (8 measures under axis 2). In addition to cross-compliance and other standards, the agri-environmental measures

reward farmers who voluntarily provide environmental benefits, such as managing or enhancing habitats.

The GAEC standards on maintenance of minimum livestock rates and appropriate management regimes and on the protection of permanent pasture are important to maintain the ecological value of grasslands. The standard to retain landscape features, such as hedgerows, ponds and trees, can provide important habitat benefits (e.g. breeding sites) and help maintain ecological connectivity.

In the context of the CAP Health Check, the Council decided³ to reinforce the existing GAEC standard on landscape features and to introduce two new standards of Good Agricultural and Environmental Condition, i.e. buffer strips along water courses and establishment and retention of habitats.

An evaluation of cross compliance application was carried out between July 2006 and June 2007, the report of which can be found on the following website:

http://ec.europa.eu/agriculture/eval/reports/cross_compliance/index_en.htm.

In addition to the cross compliance obligations for farmers, Member States are obliged to set up and manage a system of advising farmers on the cross compliance requirements and standards.

Agricultural genetic diversity

Rural Development Article 39 (1)-(4) of Regulation (EC) No 1698/2005, and Article 27 of Regulation (EC) No 1974/2006 offer the possibility to promote agri-environment measures that support the rearing of 'farm animals of local breeds indigenous to the area and in danger of being lost to farming', and the preservation of 'plant genetic resources naturally adapted to the local and regional conditions and under threat of genetic erosion'. Article 39(5) of Regulation 1698/2005. Article 28 of Regulation 1974/2006 also supports the conservation of genetic resources in operations not covered by the above-mentioned measures by supporting the preservation of endangered animal and plant genetic resources.

The Community programme on the conservation, characterisation, collection and utilisation of genetic resources in agriculture promotes genetic diversity in agriculture. The Programme has given rise to 17 schemes, involving 179 partners located in 25 Member States and 12 non-EU countries, with a total EU co-funding of EUR 8.9 million. 59% of the schemes concern plants, 12% trees and 29% animal species. The schemes started in 2007 and have a maximum duration of 4 years.

Commission Directive 2008/62/EC provides for certain derogations for acceptance of agricultural landraces and varieties which are naturally adapted to the local and regional conditions and threatened by genetic erosion and for marketing seed and seed potatoes of those landraces and varieties. This allows the registration of a number of varieties and landraces that do not meet the normal criteria as regards distinctness, uniformity and stability and whose marketing would otherwise not be permitted.

³ Council Regulation (EC) No 73/2009, OJ L30, 31.1.2009, p. 16

Parallel directives covering vegetable seed, vegetable propagating and planting material other than seeds and fodder plant seed mixtures are currently being drafted. Community zootechnical legislation is also being adapted to protect animal genetic resources.

The Sixth EU Framework Programme for Research and Technological Development funded "Farm Seed Opportunities" project provides a science and marketing based framework to facilitate the use and commercialisation of seeds of landraces and conservation varieties.

Afforestation / deforestation policies and biodiversity

Five out of 27 Member States indicated that they have national or sub-national strategies regulating afforestation and deforestation plans. Most countries indicated that afforestation and deforestation activities were regulated in some way, usually involving a requirement for some form of authorisation after completion of a Strategic Environmental Assessment (SEA) and Environmental Impact Assessment (EIA). Deforestation activities appear to be regulated in most countries, but some do not appear to control afforestation.

Target 2.2 Risks to soil biodiversity in the EU substantially reduced by 2013

Soil protection and biodiversity

There is still a need to put in place an effective legal framework to conserve soil structure and functions and protect soil biodiversity. To that end, the European Commission adopted the Soil Thematic Strategy⁴ in September 2006 and presented a proposal for a Soil Framework Directive.⁵ The European Parliament adopted its first reading decision on the Soil Framework Directive in November 2007. The Council has so far failed to reach a political agreement on the proposal. However, discussions are currently ongoing with the EU institutions to adopt and subsequently implement the Directive.

The failure to adopt the proposed Soil Framework Directive still leaves a major legislative gap in relation to the preservation of soil structure and functions and the protection of soil biodiversity. While waiting for the adoption of the Directive, the Commission is actively involved in the protection of soil biodiversity using other existing instruments, such as scope under rural development to support appropriate agricultural practices (e.g. crop rotation, buffer strips, ploughing-in of crop residues, organic farming) in the context of agri-environment measures pursuant to Council Regulation (EC) No 1698/2005. In addition, cross compliance, links CAP payments with compliance with a list of requirements and standards. This horizontal tool for both pillars of the Common Agricultural Policy, compulsory since 2005, plays an important role in soil protection, conservation and/or improvement. The statutory management requirements create synergies between the CAP payments and the need to ensure compliance with a number of relevant EU environmental directives, including the Nitrates Directive. The requirement to keep agricultural land (whether in productive use or not) in good agricultural and environmental condition (GAEC) aims at preventing land abandonment and at ensuring a minimum maintenance of agricultural land. The elements of GAEC specifically target protection against soil erosion, maintenance of soil organic matter, and maintenance of a good soil structure. Furthermore, the Commission is well aware that there are many knowledge gaps on soil biodiversity. To overcome these deficiencies, the Joint Research Centre (JRC) has set up a Soil Biodiversity Working Group (SBWG). With the aim of raising awareness on soil biodiversity, the JRC has already carried out several initiatives, such as attending the CBD

⁴ COM(2006)231, 22.9.2006 (http://ec.europa.eu/environment/soil/three_en.htm).

⁵ COM(2006)232, 22.9.2006.

COP in Bonn, the AAAS Conference in Chicago and contributing to the scientific debate on this issue. Moreover, the Commission is paying increasing attention to soil biodiversity and soil fertility in the Seventh Framework Programme for Research. It also recently launched a 12-month study specifically on compiling an exhaustive overview of the current level of knowledge on soil biodiversity and the link between soil biodiversity and soil functions.

Target 2.3 Substantial progress made towards 'good ecological status' of freshwaters by 2010 and further substantial progress made by 2013

Ecological status of freshwaters

The main measure to improve the aquatic environment is the Water Framework Directive (WFD), which aims to establish a framework to protect inland surface waters, transitional waters, coastal waters and groundwater to prevent the deterioration of aquatic ecosystems and protect and enhance the status of aquatic ecosystems. The key aim is to put in place measures to achieve a 'good status' of all waters by December 2015.

The progress made on implementation was presented in a Communication (COM(2007) 128 and SEC(2007) 362). River Basin Management Plans (including ecological reporting) covering 110 river basin districts are due to reach WISE in March 2010. The Commission will report on the progress made in this first planning cycle (including progress on contributing to biodiversity goals) at the end of 2012.

Target 2.4 Principal pollutant pressures on terrestrial and freshwater biodiversity substantially reduced by 2010, and again by 2013

Reduction of pollution impacts on biodiversity

The Commission adopted a package to improve the EU policy on industrial emissions on 21 December 2007. This includes a Proposal for a Directive on industrial emissions that recasts seven existing Directives (IPPC Directive, the Large Combustion Plants Directive, the Waste Incineration Directive, the Solvents Emissions Directive and 3 Directives on Titanium Dioxide) related to industrial emissions into a single clear and coherent legislative instrument.

The IPPC Directive (2008/1/EC) requires installations falling under its scope to operate in accordance with permits, including emission limits based on the best available techniques (BAT), designed to prevent and, where that is not practicable, generally to reduce emissions and the impact on the environment as a whole. The prevention or reduction of emissions to air, water and soil should therefore be dealt with in the environmental permits issued in accordance with the IPPC Directive. The key deadline for full implementation of the Directive was 30/10/2007.

The EPER is the European Pollutant Emission Register, the first European-wide register of industrial emissions into air and water. According to the EPER Decision, Member States must produce a triennial report, which covers the emissions of 50 pollutants to be included where the threshold values indicated in Annex A1 of the EPER Decision are exceeded. From 2007, reporting follows Regulation 2006/166/EC concerning the establishment of a European Pollutant Release and Transfer Register, which replaces the EPER.

The Waste Incineration Directive (2000/76/EC) requires the Commission to report on the application of the Directive, in particular for new plants, and on the progress achieved in emission control techniques and experience in waste management. The Commission's Communication 'Towards an improved policy on industrial emissions' summarises this report.

The 4th Implementation Report on Urban Waste Water Directive (91/271/EEC) was published on 22 March 2007 linked to the Communication 'Towards Sustainable Water Management in the European Union'. The Executive Summary presents the overall picture in the EU, whilst a more detailed report presents the status of implementation in each Member State. (http://ec.europa.eu/environment/water/water-urbanwaste/implementation/implementationreports_en.htm).

The Commission adopted a 'Common Implementation Strategy for the Water Framework Directive' in 2006 as the progress and work programme for 2007-2009 for the implementation of the Water Framework Directive (2000/60/EC). Agreement in 2nd reading was achieved in June 2008 for a Daughter Directive under the Water Framework Directive setting environmental quality standards for 41 dangerous chemical substances (including 33 priority substances and 8 other pollutants) that pose a particular risk to animal and plant life in the aquatic environment and to human health. Publication of the new Directive is foreseen in early 2009.

A study to complement the priority list of endocrine disruptors with a focus on Low Production Volume Chemicals (LPVC) was completed at the end of December 2006. The third implementation report of the Community Strategy for Endocrine Disruptors was published in November 2007 (SEC (2007) 1635).

REACH (Registration, Evaluation, Authorisation and Restriction of Chemical substances) (EC 1907/2006) entered into force on 1 June 2007. The Regulation will result in an assessment of the risks to human health and the environment of around 30000 chemical substances currently used in the EU.

Six substances (chlordane, hexabromobiphenyl, octa-BDE, pentachlorobenzene, short-chained-chlorinated-paraffins and endosulfan) were identified by the European Community to be listed in the Stockholm Convention on persistent organic pollutants between 2005 and 2007. Once parties to the Convention agree to amend the Convention to list the chemicals proposed, the substances will be eliminated or restricted world-wide.

A Framework Directive on the Sustainable Use of Pesticides was proposed to reduce the risks to human health and the environment of using pesticides. This new proposal is accompanied by a revision of existing legislation regarding placing plant protection products on the market and by two additional legislative proposals: one on the environmental protection requirements to be met by new pesticide application equipment placed on the market and the other one on the collection of statistics on plant protection products. The legislative adoption procedure of the Framework Directive started in 2006 and should be completed in 2009.

Nutrient balance describes the difference between all nutrient inputs and outputs on agricultural land. A positive balance or surplus reflects inputs that exceed crop and forage needs, and can result in the loss of nutrients to water bodies, decreasing their quality and promoting eutrophication. Surplus nitrogen can also be lost to the air as ammonia and greenhouse gases.

All European countries have nitrogen surplus, though overall agricultural nitrogen surpluses have fallen, potentially reducing the environmental pressure on soil, water and air. The adoption of nutrient management plans and environmental farm plans has been instrumental in achieving this reduction.

Acidification, eutrophication and ground-level ozone exposure are the most significant threats to biodiversity in Europe resulting from air pollution. The National Emission Ceilings

Directive (NEC Directive) was therefore established to reduce emissions of the four pollutants responsible for these threats, namely sulphur oxides (SO_x), nitrogen oxides (NO_x), ammonia (NH₃) and non-methane volatile organic compounds (NMVOC). The NEC Directive sets ceilings for each Member State for emissions within their boundaries of each of these pollutants, which must be complied with by 2010. Although the Directive allows Member States to decide how to comply, they are obliged to provide annual reports with emissions inventories and projections up to 2010, and to draw up programmes to progressively reduce their emissions to meet the 2010 ceilings. A Communication preparing a legislative proposal has been drafted to revise the NEC Directive to lay down national emission ceilings for 2020, achievable with cost-effective measures at national level on top of recent Commission policy proposals for industrial installations, new emission standards for heavy duty vehicles, the Climate action and renewable energy package and the recent International Maritime Organization (IMO) agreement on air pollution from ships⁶, which all together will reduce emissions significantly, but not sufficiently to meet all the objectives of the Thematic Strategy on Air Pollution. The proposal will also include a provision to monitor the effects on aquatic and terrestrial ecosystems within all types of Natura 2000 sites. (For background documentation prepared for the revision of the NECD see http://ec.europa.eu/environment/air/pollutants/iam_nec_dir.htm).

Target 2.5 Flood risk management plans in place and designed in such a way as to prevent and minimise biodiversity loss and optimised biodiversity

The Flood Risk Directive as a basic legal measure was adopted in 2007. The first milestone will be the preliminary flood risk assessment (for 2011), to be followed by the preparation of flood hazard maps and flood risk maps (for 2013). Flood risk management plans are to be developed by 2015 for each river basin, in line with implementation of Water Framework Directive. Certain aspects of flood risk management are also due to be considered in the first river basin management plans currently in preparation and due by December 2009. The plans will also cover the prevention of pollution as a result of floods, as well as hydromorphology and the need to assess better environmental options before any modifications are made to water bodies, which could hinder the achievement of the WFD objectives.

⁶ Revised Annex VI of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL), on the prevention of air pollution from ships.

Objective 3. — To conserve and restore biodiversity and ecosystem services in the wider EU marine environment

Box 3: Limiting the by-catch of non-target marine animals

Thousands of sea turtles, sharks, dolphins and birds die accidentally every year in European fishing nets. According to the International Council for the Exploration of the Sea (ICES), over 4400 harbour porpoises drown as a result of fishing operations in the North Sea alone and some 55000 sea turtles are reportedly caught in the Mediterranean on pelagic longlines designed for swordfish.

In 2004, the EU made it obligatory for all gillnet fishing vessels over 12 m to use acoustic 'pingers' on their nets to help ward off harbour porpoises. The EU is also considering setting minimum obligatory by-catch levels for all fisheries, but in order to do so, it must first have a reliable estimate of the total abundance of cetaceans and other marine species in EU waters. In 2005, the EU co-financed a survey of small cetaceans across the entire EU Atlantic shelf waters (SCANS II). The scale of the operation was enormous involving seven ships, three aircraft and a team of over 70 observers, illustrating just how complex it is to obtain data on marine resources. Nevertheless the survey was successful and its results are now being considered as part of a wider package of measures to help reduce bycatch and discard levels across all EU fisheries.

Target 3.1 Substantial progress achieved by 2010 towards 'good ecological status' of the marine environment

Good marine and coastal ecological status

One of the key actions under this BAP target is to establish environmental targets for each marine region. The Marine Strategy Framework Directive establishes European Marine Regions on the basis of geographical and environmental criteria and has expanded the scope of water protection to all marine areas, with the objective of achieving a good environmental status for all marine waters, and an obligation for Member States to cooperate and coordinate action in shared marine regions or sub-regions, across administrative and political boundaries. Each Member State, in close cooperation with other Member States and third countries within a Marine Region, will be required to develop Marine Strategies for its marine waters. The Marine Strategies will contain a detailed assessment of the state of the environment, a definition of 'good environmental status' at regional level and the establishment of clear environmental targets and monitoring programmes.

A range of marine and coastal species and habitat types are protected under the Habitats Directive, some of which require protection under Natura 2000. The first conservation status assessment undertaken in accordance with Article 17 of the Habitats Directive indicates that the conservation status of almost all Member States marine areas is unfavourable. This assessment is to be completed in the first half of 2009.

Coastal zone policy

The Biodiversity Action Plan requires implementation and review of the EU Integrated coastal zone management (ICZM) Recommendation. An independent evaluation of ICZM in Europe was undertaken in 2006 (http://ec.europa.eu/environment/iczm/pdf/evaluation_iczm_report.pdf). Up to 2006, nine coastal Member States have an ICZM strategy or equivalent that has been adopted and a further

five Member States are developing strategies. The remaining eight countries have no ICZM strategy. The European Commission launched a contract in 2008 to support the exchange of experiences and best practices in coastal management.

Target 3.2 Principal pollutant pressures on marine biodiversity substantially reduced by 2010

The European Commission issued a Communication (COM/2006/0863) presenting the current state of Community action in terms of preparedness and response to marine pollution and indicating how the Commission plans to continue promoting work in this field.

The European Union established the European Maritime Safety Agency (EMSA) (1406/2002/EC) to boost its role in the field of maritime safety and pollution by ships. This Agency provides technical and scientific assistance to the Commission and Member States on related matters and fulfils tasks on responses to oil pollution.

The European Union established the European Maritime Safety Agency (EMSA) (Regulation 1406/2002/EC as amended) to strengthen its role in the field of maritime safety and, maritime security, prevention of pollution and response to pollution caused by ships. This Agency provides technical and scientific assistance to Commission and Member States on accidental or deliberate pollution by ships and supports, on request, pollution response mechanisms of Member States.

The EU Bathing Water Directive (76/160/EEC) was adopted in 1976. In 2006 a new Bathing Water Directive (2006/7/EC) was adopted and will repeal the earlier Directive by 2014 at the latest. Both Directives currently apply. Bathing waters covered by the Directive are either coastal or inland waters, and must be explicitly authorised (or not prohibited) and traditionally utilised by a large number of people. Swimming pools and waters for therapeutic purposes are not covered. To ensure good bathing water quality, the EU has set limits for microbiological parameters. Member State authorities must test the bathing waters and classify them into categories. According to the 'Quality of Bathing Water: 2007 Bathing Season Summary Report', 95.2% of coastal bathing waters met the mandatory compliance standards across the EU. This represents an overall significant improvement since the past decade. The Report also indicated that 86.1% of coastal bathing waters complied with the more stringent guidelines across the EU.

Other directives and Community strategies on different sources of pollutants include measures taken to promote the protection of coastal and marine environment and regulations on land areas.

Target 3.3 Ecosystem approach to the protection of the seas in place and implying fisheries management measures no later than 2016

Through the European Fisheries Fund (EFF) and National Fisheries Operational Programmes for the period 2007-2013, the Biodiversity Action Plan seeks to implement schemes beneficial to marine biodiversity. The Action Plan requires the introduction of regional fisheries management measures in line with the Marine Strategy Framework Directive by 2017. The Commission's Communication of April 2008 to the Council and the European Parliament emphasised the need to integrate the ecosystem approach into the Common Fisheries Policy.

Target 3.4 Substantially enhanced funding provided to environmentally-friendly fisheries management from 2007 onwards

The European Fisheries Fund (EFF, 2007-2013) is designed to secure a sustainable European fishing and aquaculture industry. Assistance under the EFF shall aim to: support the Common Fisheries Policy (CFP) to ensure exploitation of living aquatic resources and support aquaculture to provide sustainability in economic, environmental and social terms; promote a sustainable balance between resources and the fishing capacity of the Community fishing fleet; promote a sustainable development of inland fishing; and foster the protection and enhancement of the environment and natural resources where related to the fisheries sector.

From 2007-2013, the EFF provides opportunities to support biodiversity conservation and sustainable use of natural resources. This can take the form of many different types of measures included in 4 of the 5 Priority Axes defined by Regulation 1198/2006. However, in every operational programme these operations are grouped together with many other measures under the same Axis and not linked to biodiversity and Natura 2000. The financial information provided by the EFF Operational Programmes does not include the amount allocated to measures or operations. The only available information concerns the total allocation from the EFF plus the national public contribution for each Priority Axis, and the total annual commitment of the EFF in the operational programme. However, it appears that most Member States (63 %) have Operational Programmes that incorporate environmentally-friendly fisheries approved by the EC.

Target 3.5 Stock levels maintained or restored to levels that can produce maximum sustainable yield, where possible no later than 2015

Restoration programmes for diadromous species

Diadromous fishes are species that use both marine and freshwater habitats during their life cycle. These include certain species of salmon, trout, sturgeon, and eels. Because of their vast migration distances, conservation measures of these species need to cover both targeted fishing for species and river management issues, like dam construction and fish passes. Currently, 44 % of Member States have a management plan for at least one diadromous species. A total of 19 % lack management plans, although some countries may not be home to diadromous species.

A total of 33 % of Member States have a management plan for salmon. This includes national obligations under regional management plans.

According to the EU Regulation on eel protection, Member States are obliged to identify and define individual river basins (including maritime waters) within their national territory that constitute natural habitats for the European eel (*Anguilla anguilla*), prepare Eel Management Plans for each eel river basin to reduce anthropogenic mortalities, with a view to bringing the eel population up to at least 40 % of the estimated population had there been no human influence. The Plan must also include an intended time scale to achieve this. Member States are exempt from preparing these plans if they are not home to European eel. Eel Management Plans have to be submitted for approval to the European Commission no later than 31 December 2008 and have to be implemented by 1 July 2009.

Common Fisheries Policy in the Maritime Policy

The Common Fisheries Policy (CFP) shall help improve the balance between fishing capacity and available resources. The aim of the CFP is to secure the future of the EU fisheries sector by

ensuring sustainable fisheries. Member States have agreed a series of multi-annual guidance programmes (MAGP), which aim to reduce the EU fishing fleet's capacity to levels more in line with fishing opportunities. These programmes operate by setting targets for each Member State for their individual fishing fleets. The exact measures set out in the programmes for reductions in fleet capacity have become more and more complex with each programme and include targets related to total tonnage and engine power and also to reduce fishing effort for individual specific fisheries. Quotas are set yearly for each fleet, on the species and sea region in which they are allowed to fish. In 2004, when data were first available for all 27 Member States (excluding those without a coastline), total EU fishing capacity was 92054 vessels, falling by 5.7% to 86733 in 2006, and in terms of tonnage, 2101108 tonnes in 2004 falling by 6.9% to 1955629 tonnes in 2006.

Technical workshops to assess the appropriateness of marine protected areas as a tool to manage fisheries activities were carried out by the Commission and supported by Community experts. Measures are being introduced to protect sensitive habitats (e.g. deep sea coral reefs) and may result in no-take areas. A Council Regulation concerning management measures for the sustainable exploitation of fisheries in the Mediterranean has been adopted, Chapter 3 of which includes fishing in protected areas.

A Communication on 'a new strategy for the Community to prevent, deter and eliminate Illegal, Unreported and Unregulated fishing', and a proposal for a Council Regulation Establishing a Community system to prevent, deter and eliminate illegal, unreported and unregulated fishing were adopted by the Commission in October 2007. On 29 September 2008, the Council adopted the Regulation establishing a Community system to prevent, deter and eliminate IUU fishing. A stakeholder consultation was recently launched on the reform of the Common Fisheries Policy (CFP), which is opened until 31 December 2009. The Commission adopted on 14 November 2008 a proposal for a Council Regulation on the reform of the control of the Common Fisheries Policy (CFP). It is designed to improve the current regulatory framework to ensure a level playing field and develop a culture of compliance within the fisheries sector across the European Union (COM(2008) 721 final).

Many commercial fish stocks in European waters remain to be assessed. In the North East Atlantic, the percentage (of catch in weight to the total catch) of un-assessed stocks range from a minimum of 3% (West Scotland and West of Ireland) to a maximum of 34% (Irish Sea and Iberian Peninsula). There is a general trend from North to South of an increase in percentage of un-assessed stocks. In the Mediterranean region, the percentage is higher, ranging from 23% in the Adriatic Sea to 70% for tuna and tuna-like species for the entire Mediterranean. In the Black Sea no stock is assessed.

Target 3.6 Impact of fisheries on non-target species and habitats progressively and substantially reduced from 2006 onwards

Action plans and conservation status for marine species and habitats

A total of 86% of coastal Member States have action plans for marine species that are not the target of specific fisheries. These include cetaceans, seals, seabirds, fish, corals, turtles and molluscs. Almost all Member States have monitoring programmes for non-target marine species. Marine habitats are also extensively monitored. 82% of coastal Member States have monitoring programmes for non-target marine habitats. It was not clear whether the remaining 18% of Member States do or do not.

After a wide consultation of stakeholders, who concluded on the whole that the recommended measures are necessary, the Commission approved the European Union Action Plan for the Conservation and Management of Sharks on 5 February 2009 and will forward it to the Council of Ministers and the European Parliament. The Commission is gathering information and scientific advice with a view to completing a Community plan of action for reducing seabird by-catch in the context of FAO by the end of 2009.

Implement technical measures to help ensure favourable conservation status of marine species and habitats

The simplified technical measures under the New Technical Measures Regulation proposed in 2008 aim to improve the selectivity of fishing gear for the North Sea and Atlantic. A multi-annual recovery Plan for Bluefin tuna in the Eastern Atlantic and Mediterranean was adopted. In March 2007 the Commission adopted a Communication on reducing unwanted catches and eliminating discards in European fisheries, for which the European Parliament expressed broad support in its plenary session of 31 January 2008. The Communication proposes adopting a progressive fishery-by-fishery discard ban and setting standards for maximum acceptable by-catch. In this Communication the Commission announced it would propose specific legislation as from 2008 and a sequence and plan for implementation.

Legislation implementing fisheries restrictive areas to protect vulnerable deep-sea habitats in the Mediterranean and in the North East Atlantic is included in the 2008 Total Allowable Catch and Quota Regulation. Council Regulation 1967/2006 of 21 December 2006 concerning management measures for the sustainable exploitation of fisheries in the Mediterranean prohibits fishing with devices impacting sensitive habitats (e.g. sea grasses) in areas known to host such habitats.

Protection measures for four Irish SACs included as an amendment to the 2008 TAC and Quota Regulation adopted in December 2007. DG ENV and DG MARE have completed a guidance document for Member States on how to request fisheries management measures for marine N2000 sites under the CFP. See: http://ec.europa.eu/environment/nature/natura2000/marine/docs/fish_measures.pdf.

The Commission is responding to Member State requests regarding fisheries management measures for Natura 2000 sites. It has recently approved the request from Spain for the marine Natura 2000 site 'El Cachucho'.

Study and expert workshops have been carried out with STECF and ICES to identify improved indicators for reporting on the impact of fishing on the marine ecosystem (report released in July 2007). The Council adopted on 25 February 2008 Regulation (EC) No 199/2008 concerning the establishment of a Community framework for the collection, management and use of data in the fisheries sector and support for scientific advice regarding the Common Fisheries Policy (CFP). This new framework also introduces provisions to meet new developments following the 2002 Reform of the CFP, in particular the move towards fisheries- or fleet-based management as opposed to managing individual stocks, the integration of environmental data, and the shift towards an ecosystem-based approach. The new Data Collection Regulation (DCR) includes the obligation for Member States to collect environmental data. The collection of basic scientific information will help regularly assess the progress made under the CFP to integrate biodiversity protection requirements. The new DCR also includes access to and use of detailed data, in particular, access to satellite monitoring (VMS) data will provide detailed information at a high level of resolution required for effective spatial planning. This will play a major role in enabling effective action to protect vulnerable

marine habitats under the Habitats Directive and to fulfil the EU's international commitments. In August 2008 the Commission adopted technical implementing rules (COM 665/2008). The Commission also recently proposed detailed implementing rules concerning its financial contribution to the Data Collection National programmes. A European Monitoring and Data Network for the Seas (EMODNET), to be established in the context of the new Integrated Maritime Policy, will monitor indicators on the natural state of the seas, including biodiversity.

Aquaculture planning and biodiversity

Priority Axis 2 of the European Fisheries Fund (EFF) relates to promoting the production of environmentally friendly aquaculture. The Operational Programmes of 55 % of Member States describe plans for aquaculture that take account of biodiversity and have been adopted, whilst a further 4 % have a draft operational programme relating to biodiversity and aquaculture.

Objective 4. — To reinforce compatibility of regional and territorial development with biodiversity in the EU

Box 4: EIA on Billund airport's runway extension saves money as well as nature

Billund airport, in Southern Denmark, has more than 2 million passengers a year but the frequent take off and landings were proving a nightmare for local residents. Over 1 300 homes were exposed to noise levels above the recommended threshold. In order to reduce this impact, the airport authorities decided to apply for planning permission to construct a new runway on the north side of the airport away from the residential zone. The EIA revealed, however, that the new runway was not necessary. A similar reduction in noise could just as well be achieved by changing the take-off procedure. The EIA assessors discovered that if airplanes left as quickly as possible and turned 30 degrees right, away from Billund, at 150 m above ground, the number of homes exposed to noise — even when the airport was running at full capacity — would be reduced by 75 %. The EIA ended up saving the airport authorities €40 million as well as protecting 450 ha of farmland and a valuable old-growth forest.

Target 4.1 Cohesion and structural funds contributing to sustainable development and making (directly or indirectly) a positive contribution to biodiversity, and negative impacts on biodiversity prevented or minimised or, where unavoidable, adequately compensated for

Cohesion and structural funds contributing to nature conservation and biodiversity

Regarding EU Cohesion policy, the Community Strategic Guidelines and the relevant fund regulations include clear references to the importance of nature protection in developing infrastructure and on economic diversification. Moreover, the 2007-2013 programming period of the Cohesion Policy directly addresses the preservation of biodiversity.

An initial assessment of the European Regional Development Fund and Cohesion Fund operational programmes for 2007-2013 reveals that Member States have allocated several categories of spending to protect biodiversity and manage natural resources. The most relevant category is the 'Promotion of biodiversity and nature protection' (category No 51) for which EUR 2 719 million has been allocated. Also highly relevant is the 'protection of natural assets' for which EUR 1 146 million is allocated. The 'protection and development of natural heritage' with a total of EUR 1 376 million, in the framework of tourism, will also include some spending and have an indirect impact on nature and biodiversity. All but three Member States

have allocated funding for nature and biodiversity protection, although the amount per country varies considerably as a proportion of overall allocations.

Compared to national programmes, the operational programmes that help achieve the European Territorial Cooperation (ETC) objective (formerly INTERREG) include a wide variety of cross-border cooperation schemes within transnational partnerships. Higher allocations are evident for specific schemes in favour of biodiversity and/or Natura 2000, representing on average 5.6% of the ETC 2007-2013 programmes budget. Approximately EUR 2500 million is allocated to measures covering a range of environment related activities, roughly EUR 500 million of which is for measures under category 51.

Strategic Environmental Assessment (SEA) and Environmental Impact Assessment (EIA) of programmes and project that might have an impact on nature, biodiversity

Biodiversity considerations are also integrated into regional development investments. Programmes and plans under the Cohesion policy must undergo a mandatory Strategic Environmental Assessment (SEA) which is essential to help avoid negative impacts on the environment and biodiversity. Experience in applying SEA to Structural Funds for 2007-2013 is building up. This will need to be evaluated to determine whether specific guidelines are needed as regards its effectiveness in protecting biodiversity. Two studies on the application of the SEA and EIA Directives were launched in 2008 and will include examination of the relationship between these directives and the EU Biodiversity Action Plan and the Habitats Directive. The final reports are expected in early 2009.

In line with the provisions laid down by the SEA Directive, the adaptation process of operational programmes involved civil society. Authorities responsible for the programmes were obliged either to take the comments expressed during the public consultation into consideration or to provide a satisfactory explanation for rejecting the proposal. In practice, even if the timeframe of the consultations was not always sufficient to engage broad public participation, the SEA process involved most NGOs interested in the programme.

Evaluations of major projects for the period 2007-2013 will begin as soon as the projects are submitted to the Commission (around mid 2008). The EIA includes a description of the aspects of the environment likely to be significantly affected by the project, including fauna, flora, and landscape. The EIA also provides an outline of the main alternatives studied by the developer and an indication of the main reasons for the choice made, taking into account environmental effects. The European Commission's Environment Directorate-General will verify that the EIA takes duly into account the impact on nature and biodiversity (including eco-systems) and the measures planned to avoid, minimise and compensate impacts.

Target 4.2 Negative impacts of territorial plans (within each Member State) on biodiversity prevented or minimised and positive benefits optimised

Two studies on the application of the EIA and SEA Directives were launched in 2008 and will examine the relationship between these directives and the EU Biodiversity Action Plan and the Habitats Directive. Final reports are expected in early 2009.

Target 4.3 Ecological coherence and functioning strengthened through spatial planning

A new initiative 'Territorial Agenda for the European Union' was adopted in May 2007, which provides the background for planning and implementing European ecological networks,

stressing the opportunities for sustainable development in marginal areas and the preservation of traditional cultural landscapes in Europe.

Target 4.4 Significant increase in proportion of tourism which is ecologically sustainable

The European Commission itself has no ready initiative or guidance document on ecologically sustainable tourism, but in 2006 it launched the pilot project EDEN 'European Destinations of Excellence', which in 2008 focused on protected areas. The European Commission aims to establish a European Business and Biodiversity (B@B) Platform that may include the tourism sector.

Target 4.5 All above outcomes achieved also in Outermost Regions

For more information on the progress made please see Objective 1, Target A1.5.

Target 4.6 All Strategic Environmental Assessments and Environmental Impact Assessments have taken full account of biodiversity concerns

For information on the progress made please see text Objective 1, Target 1.1.

Objective 5. — To substantially reduce the impact on EU biodiversity of invasive alien species and alien genotypes

Target 5.1 Impact of IAS on biodiversity in the EU and alien genotypes prevented or minimised from 2010 onwards

Strategies to reduce impacts from invasive alien species

The EU Biodiversity Action Plan includes a specific objective and several actions on invasive alien species and alien species. Importantly, it encourages Member States to develop national strategies on invasive alien species and to fully implement them by 2010.

Existing EU legislation and policy already provides part of the solution to the problems linked to invasive species. However, at present there are no mechanisms to harmonise or align approaches between neighbouring countries or countries in the same sub-region. Work is ongoing to develop an EU Framework on Invasive Species in two steps. The first step is a Communication entitled 'Towards an EU Strategy on Invasive Species' adopted in December 2008 (http://ec.europa.eu/environment/nature/invasivealien/index_en.htm). This identifies policy options to tackle invasive species. An ongoing study for the Commission assessing the environmental, economic, and social impacts of invasive alien species, assists with the development of this policy. A Council Regulation dealing specifically with alien species in aquaculture was agreed on 11 June 2007 and a new permit system will enter into force for this sector no later than 1 January 2009.

Early warning system

An effective early warning and information system (EWIS) is an integral part of the policy options suggested in the upcoming Commission Communication. The European Environmental Agency commissioned a feasibility study on an European wide Early Warning and Information System (EWIS). This system would be based on existing work, including the Alien Species Inventory for Europe delivered by DAISIE see <http://www.europe-aliens.org/index.jsp>

Target 5.2 Impact of alien genotypes on biodiversity in the EU significantly reduced by 2010 [and again by 2013]

Biosafety measures to reduce impacts from alien genotypes

All Member States have ratified the Cartagena Protocol on Biosafety, and have adopted or implemented Community Regulations and Directives referring to genetically modified organisms (GMOs), though to varying degrees. This includes Regulation 1946/2003 on transboundary movements, which transposes the provisions of the Protocol into Community law.

Objective 6. — To substantially strengthen effectiveness of international governance for biodiversity and ecosystem services.

Target 6.1 International governance for biodiversity substantially more effective in delivering positive biodiversity outcomes by 2010

Implementation of the CBD at the EU level

All EU Member States and the European Community are party to the CBD and implement the CBD and related MEAs in their countries through a wide range of policies and measures. Nearly all Member States have prepared National Biodiversity Strategy and Action Plans (NBSAP), as required by the CBD.

From the information received by the Member States, it is impossible to assess the level of direct financial contributions to national biodiversity conservation schemes (as a percentage of GDP). The available information shows that substantial funding for national biodiversity in the EU is released through a range of European, national and sub-national programmes, ranging from dedicated nature protection schemes to rural development measures. It is not possible to ascertain whether financial support has increased since adoption of the BAP.

Implementation of the CBD at the regional and global level

Since adoption of the BAP, the EU has continued to promote implementation of the UN Convention on Biological Diversity (CBD) and to improve its effectiveness. These efforts culminated in the Ninth Conference of the Parties to the CBD (COP9) which took place in Bonn, Germany in May 2008. The COP9 adopted a number of landmark decisions that greatly advance global biodiversity politics on a range of critical issues and thereby help achieve the global target of substantially reducing current rates of biodiversity loss by 2010.

The European Community and Member States have provided significant financial contributions to both the core and voluntary budgets of the CBD, the Cartagena Protocol on Biosafety, other biodiversity-related Multilateral Environmental Agreements and to non-governmental and other international organisations supporting implementation of the CBD and achievement of the 2010 target. For example, the 28 EU CBD Parties collectively provided in 2007 around 54 % of the contributions to the trust funds of the CBD in 2007 of the CBD (191 Parties).

They also provided substantial contributions to secretariats of the other biodiversity-related conventions (Ramsar, CMS, AEW, World Heritage Convention), to which they are party, as well as to the UNEP Environment Fund. All Member States contributed a total of CHF 1 258 867.00 in 2007 and CHF 1 508 384.00 in 2008 to the Ramsar secretariat. Twenty-six Member States and the EC are parties to the Convention on Migratory Species (CMS) and

contributed a total of EUR 1 354 240.00 to the CMS secretariat in 2007. Twenty-one Member States and the EC are parties to the African-Eurasian Waterbird Agreement (AEWA) and in 2006 they contributed a total of EUR 528 779.00 to the Secretariat. All Member States are parties to the World Heritage Convention and they contributed a total amount of USD 1 128 951.00 to the World Heritage Fund in 2006. Member States also provide substantial contributions to the UNEP Environment Fund. In 2007, they made a total contribution of USD 49 053 442.00 to fund the UNEP Programme of Work.

Enhance integration of biodiversity into global processes

The 2010 target was included in the Millennium Development Goals. Biodiversity also made it to the top of the G8 agenda. In 2007, G8 Environment Ministers launched the Potsdam Initiative, which contains specific action to achieve the 2010 biodiversity target. This was reinforced and further developed at the G8 Environment Ministers meeting in Kobe, Japan in May 2008, which adopted the 'Kobe Call for Action for Biodiversity'. At the G8 Summit in Heiligendamm, Heads of States and Governments acknowledged the Potsdam Initiative and committed to stepping up their work on conservation and the sustainable use of biodiversity.

The EU promotes maximising co-benefits between biodiversity and climate change mitigation and adaptation measures in negotiations of both UNFCCC and the CBD.

Promote improved Oceans Governance

On top of work under the CBD, the EU continues to promote initiatives to boost international action in the UN, Regional Fisheries Management Organisations (RFMOs) and relevant international conventions to protect vulnerable marine habitats. It actively participated in the UNCLOS process that led to the adoption in December 2006 of Resolution 61/105 of the UN General Assembly on Sustainable Fisheries, for the protection of vulnerable deep-sea ecosystems in the high seas. Scant progress has been made on negotiating international rules under the UN General Assembly (UNGA) to guide and facilitate the establishment of marine protected areas in areas beyond national jurisdiction.

Nevertheless, in June 2008, the Council reached political agreement on two draft regulations presented by the Commission in October 2007. One regulation aims to protect fragile deep-water ecosystems from bottom trawling in the high seas, in line with recommendations issued by the UNGA. The EU will continue to promote initiatives to step up international action in the UN, Regional Fisheries Management Organisations (RFMOs) and relevant international conventions to protect vulnerable marine habitats.

The second regulation aims to step up the fight against Illegal, Unreported and Unregulated (IUU) fishing. The measures will only allow access to the EU market of fisheries products that have been certified as legal by the flag state or the exporting state concerned. A European black list of vessels and states will be set up, as will deterrent penalties against IUU fishing in EU waters and against EU operators engaged in IUU fishing anywhere in the world. The Council also approved a new regulation on fishing authorisations for EU vessels fishing outside EU waters, which will ensure the EU has a single coherent framework for dealing with all EU vessels which operate away from home, whether under Fisheries Partnership Agreements, in waters managed by Regional Fisheries Organisations, or under private agreements with third countries.

The Illegal Unreported and Unregulated (IUU) fisheries activities represent a serious threat to the marine biodiversity. Therefore, the European Community makes also international efforts to stop this plug. In this regard, the Community and the Indian Ocean Commission (IOC) have signed in 2007 a framework partnership agreement in order to implement a Regional Plan for fisheries surveillance in the South West Indian Ocean. The general objective of this Regional Plan is to reduce the number of IUU vessels in this region and to contribute to the sustainable conservation and management of the tuna resources. In the first 3 years (2007-2010), this framework partnership agreement with the Indian Ocean Commission will reach approximately € 7 million. The participants representing the Member States of the IOC agreed to take immediate actions in order to accelerate the fight against IUU."

Objective 7. To substantially strengthen support for biodiversity and ecosystem services in EU external assistance.

Box 5: Conserving biodiversity in Central Africa

The dense humid forests of Central Africa represent the second largest block of rainforest on earth, after the Amazon, and harbour an incredible diversity of wildlife, including many rare apes. Over the past 20 years the 'bush meat' trade has become a major threat to their survival. Its rapid evolution has been accelerated by the network of roads, many opened by logging companies, which now penetrate deep into the remotest corners of the forest.

Since 1992, the European Commission has been supporting a major regional forest conservation initiative, the ECOFAC Programme, covering six countries in West Africa. As a result of the project, some 28 000km² of forest are now being properly managed as functioning protected areas.

ECOFAC has also devoted considerable resources to providing alternative sources of revenue as a way of reducing hunting pressure on wildlife populations. Eco-tourism activities, based on great ape viewing, now generate important financial returns for local populations.

Revenue from regulated safari hunting is channelled directly to the local communities and used for local development activities and management of the hunting zone.

Target 7.1 Financial resources flowing annually to projects directly benefiting biodiversity has substantially increased in real terms

Adequate funds earmarked for biodiversity in European Community projects and programmes in developing countries

In 2007, the European Commission's Directorate General for Development collected data on all environmental projects funded in the context of development cooperation from 2000-2006. Preliminary results demonstrate that, in all geographical regions, combined disbursements for biodiversity in this period amounted to about EUR 50 million/year with considerable annual fluctuations. Both commitments and disbursements tended to be concentrated in certain years as they were linked to a certain extent to the different programming cycles. Analysing trends at this stage would therefore not provide a reliable insight. This figure includes all 286 projects which are marked as relevant to biodiversity. These data include projects funded under the Environment and tropical forests budget heading as well as projects funded by geographical instruments. The commitments made during the period 2002-2006 appear comparable, according to recent work carried out by the European Commission's EuropeAid co-operation

office, with an average annual commitment of EUR 107 million for biodiversity and forests issues (thematic and geographic instruments together).

Thematic instruments

A total of EUR 30.6 million was allocated to biodiversity for 2007-2010 under the EC Thematic Programme for Environment and Natural Resources (ENRTP). Other ENRTP headings are also closely linked to biodiversity. A total of EUR 72 million is earmarked to promote Sustainable Forest Management (additionally, EUR 34 million is available to implement the initiative on Forest Law Enforcement, Governance and Trade (FLEGT)). EUR 6.4 million is earmarked for fisheries and marine/coastal resources. EUR 12.3 million is earmarked for climate change and biodiversity projects for countries covered by the European Neighbourhood and Partnership Instrument (ENPI). In total, approximately EUR 150 million will be available for biodiversity-related issues under the 2007-2010 ENRTP. This represents an annual average of EUR 37.5 million.

During the former period (2000-2006) the amount allocated to biodiversity and forests projects under the Thematic budget lines (Environment, Tropical Forest etc.) was approximately the same, with a total of approximately EUR 265 Million over seven years, representing an annual average of EUR 37.3 million. The Life 3rd Countries programme added approximately EUR 8.5 million to external action on biodiversity during this period. The yearly amount allocated to biodiversity and forests therefore reached EUR 38.5 million on average.

As for thematic instruments on the environment, the conclusion is that the global increase in budget (from EUR 323 million for 7 years (2000-2006) to EUR 470 million for 4 years (2007-2010)) has not been to the benefit of biodiversity, since the allocation remains stable in absolute terms. The inclusion of new themes and sectors in the thematic programme (such as energy and climate change adaptation) explains this stability.

Geographical instruments

During the former period (2002-2006), programmes whose main objective is biodiversity management and conservation (support to protected areas, forest management etc.) were allocated approximately EUR 276 million (EUR 55 million yearly). This figure reaches EUR 382 million for programmes for which biodiversity is a significant objective (EUR 76.5 million yearly).

The European Development Fund financed the largest share of projects directly related to biodiversity, with about EUR 25 million yearly. The main programmes concerned Central African forests/savannas (ECOFAC Programme, EUR 38.5 million; CURESS in Chad, EUR 7 million; DRC projects EUR 8.7 million), Indian Ocean coastal zones (EUR 18 million); Monitoring of illegal killing of elephants (pan-African, EUR 10 million). Two programmes in EU overseas countries and territories accounted for about EUR 9 million.

In Asia, the main programmes concerned China (EUR 30 million), Indonesia (15 million, FLEGT), and support to the ASEAN centre for biodiversity (EUR 6 million).

In Central America, the Honduras & Ecuador programmes on forestry (EUR 59 million and EUR 17 million respectively) were the main projects. In the neighbourhood countries, two projects focused mainly on biodiversity, accounting for about EUR 3 million.

For 2007-2010, the forecasts shows that more than EUR 220 million would be allocated to programmes with a focus on biodiversity (EUR 55 million yearly). Central African region, Ethiopia and Malawi in Africa, Honduras, Bolivia and Brazil in Latin America are the main areas in which the EC will intervene in the coming years.

For 2007 and 2008, the first years of the programming exercise following the Communication, the committed funds for projects whose main objective is biodiversity were respectively EUR 9.6 million (25.8 million including FLEGT support projects) and EUR 44.5 million (51.5 million including FLEGT support projects). For these two years, EUR 121 million were also earmarked for projects with components or a significant objective on biodiversity — which is a sign that the issue has been better integrated into other sectors. Initial estimates indicate that funding for specific biodiversity, protected areas & forest management projects under the European Development Fund (EDF) will increase in real terms in the ACP countries between 2002-2006 and 2007-2010 (from EUR 25 million yearly to EUR 36 million). This will concern mainly Africa, while commitments are expected to decrease in the Caribbean and Pacific regions. Several rural development programmes in ACP countries also propose a biodiversity component. At least 20 countries have identified biodiversity or natural resources management in one or the other sectors of their national strategies. A good example is Ethiopia's CSP which allocates EUR 10 million for sustainable management of natural resources, including to promote conservation, use and national and international valorisation of Ethiopian's (agro)-biodiversity in all parts of the country. The 10th EDF intra-ACP programme (global allocation) has allocated EUR 20 million for biodiversity.

However, the global increase under the EDF should be put in perspective, as the annual EDF allocation has been approximately doubled between the 9th and the 10th EDF.

In Latin America, a slight increase is planned in real terms (from EUR 16.5 million yearly to 18.75), as two countries, Bolivia and Honduras would benefit from significant support for forest/river basin management (respectively EUR 69 and 28 million). EUR 18 million has also been allocated to natural resources management in Brazil.

In Asia, on the contrary, a significant decrease is expected — mainly due to the fact that the former period included a significant commitment (EUR 30 million) in China. Other environment programmes nevertheless exist, with potential positive impacts on biodiversity preservation, such as the 'Rural development and natural resource management' programme in Pakistan and the SWITCH-Asia programme on sustainable production and consumption. In Bangladesh EUR 7.5 million has been allocated to integrated natural resources management in Sundarbans. Environmental issues are also included in the India, China, Bangladesh, Bhutan and Central Asia Strategy Papers, although they do not focus specifically on biodiversity.

In the Neighbourhood countries, there is so far not enough visibility to ascertain the trends on biodiversity, even though there is potential as significant funds have been earmarked for environment issues in that region.

For the programming cycle of 2007-2010 for ENPI (European Neighbourhood and Partnership Instrument) and 2007-2010 for the DCI (Development Cooperation Instrument) and the European Development Fund (EDF), after adoption of the EU Action Plan, initial estimates made by the Commission indicate that funding for specific biodiversity or protected areas projects will slightly increase in real terms in the ACP region, but decrease in Asia.

As a conclusion, funds allocated to biodiversity will stabilise in real terms within the Thematic Instrument. Funds under the geographical instruments (EDF, DCI, ENPI), are expected to

stabilise in real terms, with regional variation as a slight increase is expected in Africa and Latin America, and a decrease in Asia. Nevertheless figures for 2007-2010 are still provisional, as some strategy papers are still in preparation and projects and schemes are still being identified. Following the up-coming mid-term review of strategy papers, some amendments to the funding for biodiversity may be made.

Adequate funds earmarked for biodiversity in Member States projects and programmes in developing countries including through a substantial 4th GEF replenishment.

The EU and its Member States are major donors in the field of biodiversity. Yearly external assistance for biodiversity from the EU totalled around EUR 1500 million during 2003-2006 (according to the OECD DAC). This represents 48% of total biodiversity-related aid from all OECD DAC members. These funds amount to around 1/50th of Community and Member States' total annual development aid budgets, which indicates that biodiversity-related funding has increased since adoption of the Biodiversity Action Plan.

Member States are also key donors to the Global Environment Facility (GEF). EU Member States strongly advocated substantially replenishing the GEF. At the conclusion of negotiations on the fourth replenishment of the GEF Trust Fund in June 2006, 31 donor countries agreed to replenish the Trust Fund with 3.13 billion dollars for the four year period 2007-2010.

Enhanced earmarked and mainstreamed development assistance funds available for biodiversity in Overseas countries and territories (OCT)

As regards the EC, programming for OCTs is underway. A Regional Environmental Profile has been prepared, which stresses the importance of biodiversity in these countries and areas.

The Commission and several EU Member States attended, and actively contributed to, the European Conference on Biodiversity and Climate Change in Outermost Regions (OR) held in La Réunion on 7-11 July 2008. This conference brought together for the first time representatives of all OR and OCTs and stressed the need to earmark additional funding for biodiversity conservation as currently the available funds for environmental protection are still considered not sufficiently allocated to biodiversity.

Target 7.2 EU 'mainstream' external development assistance delivering enhanced biodiversity and related livelihoods benefits, and negative impacts on biodiversity prevented or minimised, from 2006 onwards.

Mainstream biodiversity into bilateral development cooperation programmes through the preparation and implementation of Country and Regional Environmental Profiles

Significant progress has been made to mainstream environmental and biodiversity concerns in EC development cooperation strategies over the last few years. However further progress is needed, particularly to ensure that commitments and recommendations are coherently translated into action. Environmental Profiles have been established for most countries (CEP) and regions (REP) covered under EC external cooperation, as a way to help draft response strategies that take due regard for environmental issues, along with political and socio-economic considerations. This is clear progress with respect to the previous EC programming exercise where only a few country strategies relied on environmental profiles to underpin the country analysis. In preparing CEPs and REPs, systematic attention has been focused on the critical links between environmental degradation and development work, as well as the

commitments and needs stemming from the involvement of individual partner countries in key multilateral environmental agreements, including the CBD.

Findings and recommendations formulated therein have been taken further in country analysis and response strategies, leading in most cases to general references to the need to support sustainable use of natural resources (in energy water and agriculture), protect biodiversity and carry out environmental assessments (EIA/SEA) in relation to sensitive cooperation sectors. However, this has not frequently led to earmarking financial provisions for environmental mainstreaming purposes in National/Regional Indicative Programmes. Additional efforts are therefore required to ensure a more coherent and systematic uptake of environmental considerations within individual country/regional strategies and programming documents.

The Commission adopted a Staff Working Document on Improving Environmental Integration in Development Cooperation in April 2009 in which an operational approach to achieve further progress in environmental integration was set out.

The allocation of funds for biodiversity in Country Strategy Papers is still hampered by several obstacles. First, it is almost impossible under the current financial rules for geographic allocations to earmark funds for any sector before programming. Second, partner countries must allocate at least 75% of available funding to two focal sectors, and the environment is very seldom selected as one of these sectors. Lastly, and linked to the latter, the ownership principle (partner countries decide on their priorities) and the weakness of environment ministries result in environment often coming low on the national development agenda.

Prevent negative impacts from cooperation projects on biodiversity through ex-ante SEAs and EIAs

According to the OECD DAC, an increasing number of countries have legislation or regulations that prescribe the application of strategic environmental assessment (SEA), and many more are introducing it as a policy tool. Also many development cooperation agencies and their partners are making good progress in applying SEA. However, it remains unclear to what extent countries ensure that SEAs are systematically carried out on relevant development strategies, programmes and projects.

As regards the European Community, quite a few Country Strategy Papers include references to undertaking EIA and SEA in relation to environmentally sensitive cooperation sectors. Alongside with more traditional project-level EIA, a significant number of SEA are underway or actively planned as part of EC-supported sector wide programmes in areas such as transport and infrastructure, sugar sector reform and regional development planning. An example is the Mauritius SEA of the sugar sector reform, which inter alia recommends measures to optimise environmental performance of sugar cane farming, mainly in relation to: sugar cane burning, use of fertilisers and sustainable agricultural practices, and research on nutrient balance in Mauritius. A requirement to carry out SEA and EIA is specified in the new legal basis for EC development cooperation financed under the EU budget (DCI Regulation, art 22(4)).

There is a need for further progress to ensure that environmental assessments (SEA/EIA) are systematically carried out in relation to environmentally sensitive aid operations funded by Member States and the EC, to prevent and minimise negative impacts on biodiversity and enhance environmental benefits wherever possible.

Objective 8. — To substantially reduce the impact of international trade on global biodiversity and ecosystem services

Target 8.1 Impact on biodiversity of EU trade significantly reduced by 2010 [and again by 2013]

Enhancing co-benefits between biodiversity, trade agreements, WTO and Fisheries Partnership Agreements

As part of its trade-related Sustainability Impact Assessment (SIA) Programme, the Commission is in the process of conducting SIAs for all its planned regional and bilateral free trade and partnership agreements, be they in Asia, Africa or Latin-America. These studies will include assessing potential impacts on biodiversity (e.g. as a result of trade liberalisation in biofuels) and will identify possible preventive or mitigation measures. A case in point is the SIA that is being conducted for the planned EC-Mercosur Free Trade Agreement. This will cover case studies on the effects of liberalising trade in agricultural products and biofuels. SIA for the FTA between the EU and ASEAN includes two case studies on illegal logging and biofuels. In all cases, a key challenge will be to ensure that the recommendations made in these studies feed into the negotiations, i.e. that they are translated into concrete policy measures, be they trade or non-trade related.

In the negotiations on the WTO's Doha Development Agenda, the EU is promoting the objective of sustainable development (paragraphs 6 and 51 of the Doha Declaration) and stresses the mutual benefits of trade and environment (notably paragraphs 28 and 31). However, scant progress has so far been achieved in the WTO Committee on Trade and Environment.

The Commission is at the final stage of renegotiating new Fisheries Partnership Agreements (FPA), which will provide support to sectoral fisheries policies in the third countries with a view to establishing a sustainable and responsible fisheries policy in their waters. In 2007, the FPAs with Ivory Coast, Madagascar and Guinea Bissau were successfully renegotiated. In March 2007, mid-term amendments to the FPA with the Seychelles were finalised. In March 2008, the Commission negotiated a new fisheries protocol (1st August 2008 to 31 July 2012) with Mauritania and in December 2008, the Commission negotiated a new FPA with Guinea.

The current Fisheries Partnership Agreements in force (as from 1 May 2009) are: Cap Verde, Comoros, Ivory Coast, Gabon, Guinea, Guinea Bissau, Greenland, Kiribati, Madagascar, Mozambique, Morocco, Mauritania, Micronesia, Solomon, Sao Tomé, Seychelles.

In 2008 the Commission will renegotiate the agreement with Guinea Conakry and Mauritius as these are the only two remaining countries that do not yet benefit from a FPA.

Promoting implementation of the Bonn Guidelines on Access and Benefit Sharing (ABS), the negotiations of an international ABS regime and the prior informed consent when commercially using traditional knowledge

The Commission and many Member States made specific efforts to raise awareness, and promote implementation, of the Bonn Guidelines. The EU contributed to successful adoption of the standard Material Transfer Agreement under the FAO International Treaty in June 2006. The EU has been a key player and contributor to the negotiations on an International Regime on Access and Benefit Sharing under the CBD. The mandate adopted at the 7th Conference of the Parties of the CBD was amended by the 8th and 9th Conferences of the Parties in March

2006 and May 2008 respectively. The Commission and several Member States provided the majority of funds to organise and negotiate expert and ABS working group meetings of the CBD. In line with the EU objectives outlined in the Conclusions of the EU Environment Council adopted in June 2007 and March 2008, the EU sent a series of notifications to the CBD Secretariat and participated constructively in the CBD ABS negotiations. At the CBD COP9 in Bonn in May 2008, major progress was made as a detailed roadmap for finalising negotiations by the 10th Conference of the Parties in 2010 was adopted.

The European Commission and several Member States are raising awareness of Article 8j of the CBD and relevant parts of the Bonn Guidelines. Traditional knowledge is recognised as part of biodiversity-related research. The EC and the Member States provided financial support to enable representatives of indigenous groups to participate as observers in the meetings of the Convention on Biological Diversity, including in international ABS negotiations. The EC and Member States also push for advancing work on the protection of traditional knowledge in the World Intellectual Property Organisation and for recognition of the UN Declaration on the Rights of Indigenous People adopted on 13 September 2007 in relevant fora.

Support the implementation of the Convention on International Trade in endangered Species (CITES)

Regular meetings of the EU Scientific Review Group (SRG) meeting were held and several positive and negative opinions were issued for imports into the EU of specific CITES species of certain countries. These were followed up where necessary with consultation between the Commission and Range States. SRG negative opinions were published in Commission Suspension Regulations. Reviews and studies were undertaken to assist the SRG.

A Commission study into enforcement of the EC CITES Regulations in EU-25 was finalised in December 2006. As a result of the study, the Commission adopted on 13 June 2007 a Recommendation to the Member States identifying action to effectively enforce the EC CITES Regulations. The recommendations were formally sent to Member States (autumn 2007) and replies are awaited for follow-up action. In its December 2006 conclusions, the Council also underlined the importance of effectively implementing the CITES Convention and EC CITES Regulations, stressed the need for capacity-building on CITES in developing countries and called upon Member States to step up efforts to combat illegal trade. The CITES Secretariat has prepared proposals to implement COP decisions and capacity building programmes to be considered in the framework of the EU's Environment and sustainable management of natural resources, including the energy thematic programme.

A Study into the effectiveness of EU regulations has been finalised and the Commission is currently considering follow-up to it.

Support sustainable consumption, in particular of wood products

The European Commission and Member States have taken a wide range of measures to support sustainable production and consumption. These range from specific public procurement measures to promoting forest certification. On 16 July 2008 the Commission presented a series of proposals on sustainable consumption and production that will contribute to improving the environmental performance of products and increase the demand for more sustainable goods and production technologies. The proposals also seek to encourage EU industry to take advantage of opportunities to innovate. These proposals are an integral part of the European Union's renewed Sustainable Development Strategy (EU SDS), which reinforces the EU's long-standing commitment to meet the challenges of sustainable development and builds on

initiatives and instruments at EU and international level, including with the United Nations. The building blocks of the European Union's policy on sustainable consumption and production include an Action Plan on sustainable production and consumption and sustainable industrial policy and a proposal to set ambitious targets for green public procurement linked to common green procurement criteria.

As for external cooperation, the EC launched in 2008 the SWITCH programme (EUR 90 million), focusing on sustainable consumption and production in Asia. Under the first call for proposals, two projects focused on wood products and the transformation industry.

Combat illegal logging

Significant progress has been made in implementing the EU Action Plan for Forest Law Enforcement Governance and Trade (FLEGT) adopted in 2003. Though the ultimate goal of the Action Plan is to encourage sustainable forest management, ensuring the legality of forest operations is considered a vital first step. The Plan focuses on governance reforms and capacity building, to ensure timber exported to the EU comes only from legal sources. It includes ideas for action in areas such as public procurement and the private sector.

A key aspect of the Action Plan is a voluntary scheme to ensure that only legally harvested timber is imported into the EU from countries agreeing to take part in this scheme. The Council adopted a Regulation in December 2005, allowing for the control of imports of timber to the EU from countries entering into bilateral FLEGT Voluntary Partnership Agreements (VPA) with the EU. Once agreed, the VPAs will include commitments and action from both parties to halt trade in illegal timber, notably with a license scheme to verify the legality of timber. The agreements will also promote better enforcement of forestry law and promote an inclusive approach involving civil society and the private sector.

In accordance with the FLEGT Regulation, a FLEGT Committee has been established. The Committee is comprised of Member State representatives and assists the Commission in implementing the FLEGT Regulation. Detailed rules for the implementation of the FLEGT Regulation within the EU are under discussion in the Committee.

The European Commission has been given a mandate from the Council of Ministers to conduct negotiations in view of concluding FLEGT VPAs. Although the European Commission leading these negotiations, several EU Member States play a key role in supporting the negotiations and future implementation. Negotiations are currently underway with Malaysia, Indonesia, Cameroon and Congo Brazzaville and the first VPA has been signed with Ghana in September 2008. The Commission is working on launching negotiations with several other countries. To complement the FLEGT VPAs, the Commission has also proposed a Regulation on the Placing of the Market of Timber and Timber Products. Funding for FLEGT-related projects is provided by development cooperation instruments managed by the Commission and Member States.

Objective 9. — To support biodiversity adaptation to climate change

Box 6: The BRANCH project

BRANCH — ‘Biodiversity, spatial planning, climate change’ — was a three-year (2004–2007) project, funded under the EU’s INTERREG fund, aiming to promote the importance of adapting to climate change using spatial planning systems. BRANCH brought together spatial planners, policy makers and scientists from across North-West Europe to:

- Review existing spatial planning policies and recommend a new policy framework to provide greater resilience for our biodiversity;
- Model how European wildlife will respond to climate change under varying climate scenarios and how their climate space might alter over time;
- Develop planning options and tools to help tackle the impacts of climate change on our coasts;
- Assess the impact of climate change on inland ecosystems and ecological networks;
- Engage stakeholders so that adaptation to climate change is integrated at all planning levels.

The project results conclude that Europe’s fragmented landscape is likely to prevent many species from moving into new areas as a result of climate change. It brings into sharp focus the urgent need to integrate biodiversity into spatial planning procedures and mitigation measures which are being developed to reduce the impact of climate change.

Target: 9.1 % reduction in greenhouse gas emissions achieved by 2010

Progress on Kyoto targets

The EU BAP recognises the vital importance of helping to reduce the impacts of climate change by reducing greenhouse gas (GHG) emissions in accordance with the EU’s agreed Kyoto target and burden sharing agreements with Member States. However, progress on GHG emission reductions has been mixed. The latest EEA inventory of GHG emissions by Member States indicates that as a whole EU-27 emissions have decreased by 7.7% compared to 1990 (with a 0.3% decrease between 2005 and 2006).

Target 9.2 Global annual mean surface temperature increase limited to not more than 2°C above pre-industrial levels

Action to meet the target of limiting global climate change to 2°C is a top EU political priority. Current projections indicate that the Community will reach its Kyoto target of reducing its greenhouse gas (GHG) emissions by 8% by 2012 compared to base year levels if Member States put in place and implement as soon as possible their additional policies and measures. As part of comprehensive package of measures to establish a new climate and energy policy for EU, the Commission has adopted legislation for achieving at least a 20% emission reduction in the EU by 2020 compared to 1990 levels. This target will be extended to 30% if there is an international agreement.

The EU is willing to go further and sign up to a 30% reduction target in the context of an ambitious and comprehensive international agreement if there are comparable reductions by other developed countries and appropriate contributions by the economically more advanced developing countries based on their responsibilities and capabilities.

A Commission Communication on deforestation proposes that, within the framework of the UN Framework Convention on Climate Change negotiations on the future climate regime, the EU calls for halting global forest cover loss by 2030 at the latest and reducing gross tropical deforestation by at least 50% by 2020 from current levels. Meeting this objective would provide major climate change and biodiversity benefits by 2020.

Target 9.3 Climate change adaptation or mitigation measure from 2006 onwards delivering biodiversity benefits, and any negative impacts on biodiversity prevented or minimised, from 2006 onwards.

Measures to reduce climate change mitigation impacts on biodiversity — EU Task Force, White Paper

Following its 2007 Green Paper, the Commission has adopted a White Paper on climate change adaptation in April 2009.

Renewable Energies

Guidelines on relevant renewable energies focusing on wind, hydro and tidal barrages have been or are being prepared.

Research

Research is being undertaken in most Member States on the existing and likely impacts of climate change on biodiversity and ecosystems. A Commission study investigates biodiversity and climate change in relation to the Natura 2000 network and is due for completion in autumn 2009. Other projects funded under the Community RTD programmes and INTERREG IIIB aim to provide a better understanding of the large-scale environmental risks to biodiversity from climate change. The MACIS project supported by RTD FP6 (see <http://www.macis-project.net/links.html>) delivered a detailed report on adaptation and mitigation measures in different sectors and their impact on biodiversity. However, more work is necessary, in particular to better understand the link between biodiversity and climate and positive feedbacks that may work in our favour. We also need to improve the understanding of the capacity of species and ecosystems to mitigate and to adapt to climate change.

Target 9.4: Resilience of EU biodiversity to climate change substantially strengthened by 2010

Adaptation measures to increase biodiversity resilience to climate change

It is clear that a substantial amount of research is underway in most Member States on the existing and likely impacts of climate change on biodiversity and ecosystems. Several national and international research programmes have, for example, developed model-based projections of impacts on various taxa groups (e.g. birds). However, there is no indication that any country has yet produced a comprehensive climate change risk assessment for habitats and species of community interest, as required under the EU BAP. DG Environment has commissioned a study on biodiversity and climate change in relation to Natura 2000. The results are expected in June 2009.

Objective 10. To substantially strengthen the knowledge base for conservation and sustainable use of biodiversity in the EU and globally

Target 10.1 Research findings on biodiversity and ecosystem services has substantially advanced our ability to ensure conservation and sustainable use by 2010 [and again by 2013]

Strengthen research on biodiversity

The European Community's research Framework Programmes (FP), together with Member States' research investments, are helping to boost the European approach to biodiversity, land use, agricultural, marine and coastal as well as climate change research and to improve scientific support to policy for the EU and its partner regions, including the developing world. Research undertaken under the Community's 6th Framework Programme (FP6) from 2002-2006 to investigate pressures on biodiversity (e.g. ALARM, MACIS, COCONUT, DAISIE) is already feeding into the development of EU biodiversity policy. Under its International Cooperation strand the FP6 programme has also provided substantial support to research on underutilised crops in developing countries. Particular attention to genetic resources, soil biodiversity and on-farm biodiversity management will be given under the 7th Framework Programme (FP7).

Financial resources to European and National biodiversity research

Research is essential to help achieve the objectives of the EC BAP. In addition to steps taken at EC level, the Member States should be encouraged to allocate more resources to biodiversity research, including through the EC Research and Development Framework Programmes, to substantially expand the knowledge base for conservation and sustainable use of biodiversity. Community financial support allocated to biodiversity projects in the context of environmental research under FP5 (1998-2002) totalled EUR 58 597 500 allocated to 39 projects, and EUR 77 480 500 for 20 larger projects — plus EUR 78 608 847 for 13 projects focusing on ecosystems under FP6 (2002-2006). There were three calls for proposals in the first three years of FP7, 8 successful proposals (HUNT, SOILSERVICE, HighARCS, LiveDiverse, PALMS, SCALES and EBONE) and the LIFEWATCH support project are expected to be funded under the environmental research theme with a Community contribution of EUR 23 122 421. This period corresponds to half of the duration of the earlier FPs, but funding over the duration of FP7 is expected to rise quite steeply towards the end. In the context of the FP7 agricultural theme EUR 2 999 616 have been allocated to develop biodiversity indicators and guidelines for their implementation in organic/low-input farming systems (project BIO BIO). Similarly two projects are currently funded on ecosystem's approach to fisheries management (MADE, MEFEPO) and another one on preventing the escape from sea-cage aquaculture (PREVENT-ESCAPE). Funding to these three projects amounts to EUR 8 948 000. Following the latest evaluation of proposals in 2009 a project dealing with the optimisation of methods to maintain farm animal biodiversity and with a significant international dimension is expected to be funded, the maximum EC contribution being EUR 3 000 000.

FPs are also providing support to other initiatives that focus on ecosystems and also address biodiversity to a greater or lesser extent, such as programmes that support research infrastructure or encourage the mobility of researchers. Most notably, the FP7 'LifeWatch', an e-science and technology infrastructure for biodiversity data and observatories, will be funded by the EC with EUR 5 000 000 for the preparatory phase (2008-2010) through the 'infrastructure' budget and the Member States will add a further EUR 4.6 million. Another example is BiodivERsA, an ERA-Net in biodiversity research, which is co-funded by the EC (EUR 2 837 440) and the Member States (EUR 20 million).

Millennium Ecosystem Assessment (MA)

As part of the Potsdam initiative agreed by the G8 in 2007, a study on ‘The Economics of Ecosystems and Biodiversity’ (TEEB) was launched jointly by the European Commission and Germany in collaboration with the European Environment Agency. Lead by the Indian economist, Pavan Sukhdev, the first results of this assessment of the global economic benefit of biological diversity, the costs of losing biodiversity and the failure to take protective measures versus the costs of effective conservation were presented at the CBD COP9 in May 2008. A second phase of this study will further develop a methodological framework to evaluate the services provided by ecosystems, as a contribution to the Millennium Development Goals.

The European Community is also engaged in the global strategy to follow up the UN Millennium Ecosystem Assessment and is committed to developing a sub-global assessment (SGA) for the European region, using the EURECA project launched by the European Environment Agency, and the outcomes of the study on evaluating ecosystem services. According to the FP7 road map covering the research priorities for the next calls, a call for research proposals will adapt and apply concepts and methods of the Millennium Ecosystem Assessment, integrating all-taxa biodiversity inventories on key ecosystems, to assess conditions of European ecosystem services. This will be properly integrated with the work and results of the EEA’s EURECA project. Research work will be focused over the course of FP7 on making human use of biodiversity sustainable. As part of this, research support will be provided to follow up TEEB, with work on economic, social and environmental costs and benefits of conservation and use of biodiversity.

Science-policy interface

The European Platform for Biodiversity Research Strategy (EPBRS), an informal science-policy interface whose main aim is to identify the knowledge gaps that hinder the creation or application of policy, or that make it difficult to manage ecosystems effectively, has been very active. The EPBRS, which is used to channel the message that the Member States can fruitfully cooperate with the Commission in sharing the burden of financing biodiversity research, has contributed to the European consultation on an international mechanism for scientific advice on biodiversity (IMoSEB), and participated in the stakeholder consultation on the proposed Inter-governmental Platform for Biodiversity and Ecosystem Services (IPBES).

At CBD COP9 in May 2008 the EU and its Member States have supported UNEP's proposal for establishing an IPBES, to strengthen independent scientific advice to global policy making. Subject to funding being found from existing financial resources, the European Community is examining how to contribute to the establishment of an EU mechanism for independent, authoritative research-based advice to inform implementation and further EC policy development.

Supporting Measure 1. Ensuring adequate financing

Rural and regional development funds providing benefit for biodiversity and Natura 2000

Financing for the Natura 2000 network originates primarily from measures under Axis 2 of the Rural Development Programmes of each Member State/Region, as outlined in Council Regulation (EC) No 1698/2005, on support for rural development by the European Agricultural Fund for Rural Development (EAFRD).

The measures referred to aim to improve the environment and the countryside. These include agri-environment payments, support for non-productive investment, Natura 2000 payments for the sustainable use of agricultural land and payments linked to Directive 2000/60/EC, forest-environment payments and Natura 2000 payments for the sustainable use of forests. It is the Member States' responsibility to decide on allocations for the different measures in their Rural Development Programmes.

Analysing the allocations of the Member States on different measures for agricultural land, we can conclude that the agri-environment measure is the most important for Natura 2000 implementation. Several Member States have chosen not to use Natura 2000 payments and have allocations exclusively for agri-environment measures. Some Member States decided to use Natura 2000 agricultural payments combined with agri-environment measures.

As for forestry land, nearly the same number of Member States has Natura 2000 forestry payment combined with forest-environment measures as those allocating only for forest-environment measures.

A couple of categories of the European Regional Development Fund (ERDF) and Cohesion Fund (CF) spending are related to the protection of biodiversity and management of natural resources. The most relevant category is No 51 the 'Promotion of biodiversity and nature protection' (for which EUR 2 719 million has been allocated). Also highly relevant is category No 55 as it covers the 'protection of natural assets' (for which EUR 1 146 million is allocated). Category No 56 is the 'protection and development of natural heritage' (with a total of EUR 1 376 million), which may also have some indirect, positive impact on our natural heritage.

Each Member State prepared a National Strategic Reference Framework (NSRF), coherent with the Community strategic guidelines on cohesion over the course of an ongoing dialogue with the Commission. It is then up to the Member States to select and implement the individual projects within the Operational Programmes (OPs) which present the priorities of the Member State and/or regions. In this framework the regulations do not provide for a project level reporting on the use of the funds by the Member States. Therefore a more detailed breakdown of the allocation for biodiversity and Natura 2000 is not available. Among the objectives supported by the regional development funds, the European Territorial Cooperation objectives (formerly INTERREG) contributes to bi-or multilateral projects on the protection and promotion of biodiversity.

As the financial information provided by the European Fisheries Fund (EFF) Operational Programmes does not include the amount allocated to certain measures or operations, it is not possible to separate Natura 2000 and biodiversity-related expenditure from other environmental measures. The only available information concerns the total allocation of the EFF plus national public contributions for each Priority Axis, and the total annual commitment of the EFF in the operational programme.

Estimations of overall Natura 2000 costs date back to 2003 and indicate EUR 6 100 million per year. The calculation is based on a questionnaire survey answered by only 8 Member States and data extrapolated for the EU 25. As the 2007 EU enlargement took place, the Commission launched a project with the clear aim to provide up-to-date and more accurate data on the financial needs for Natura 2000 network. The project commenced in 2007 and aims to provide results by the end of 2008. Work is ongoing to develop a comprehensive and understandable format of questionnaire that will be circulated within the Member States. Analysis and final conclusions drawn from the data obtained are likely to be available in 2009.

Nature conservation projects and research

A key instrument of the European Commission to support environment-related projects across Europe is the LIFE funds, part of which is used to support the development of nature, biodiversity and especially Natura 2000. LIFE+ entered into force in the 2007-2013 EU budget period with an increased allocation for 2007 (EUR 187 million).

Framework Programmes (FP) aim to provide the financial basis for research carried out across Europe in different fields, a part of which is allocated to biodiversity projects. The Community contribution to environmental research was EUR 58.59 million for FP5 period (1993-1999), EUR 77.48 million for FP6 period (2000-2006) and there has been positive decision made on 9 biodiversity related projects in the framework of FP7 (2007-2013) with a total Community contribution of EUR 29.62 million.

Supporting implementation of Multilateral Environmental Agreements and Bilateral Assistance

The Commission will, by the end of 2008, draft a Communication on the Integration of Cross-Cutting Issues in Development Cooperation. As part of this process, the Commission is preparing a strategy on mainstreaming environment in development cooperation.

Data on 2007 expenditure is available from all Member States for the following Multilateral Environmental Agreements: Convention on Biological Diversity (CBD), Ramsar Convention, Convention on Migratory Species, AWEA (African-Eurasian Waterbird Agreement), UNESCO World Heritage Convention (WHC) and UNEP Programme of Work (PoW).

The most resources were spent on CBD-related work (EUR 2730922), while the least significant was AWEA (EUR 546901). Biodiversity-related aid is defined as activities that promote at least one of the three objectives of the CBD: the conservation of biodiversity, sustainable use of its components (ecosystems, species or genetic resources), or fair and equitable sharing of the benefits of the utilisation of genetic resources. The total allocation for external assistance is EUR 201.47 million. Policy objectives are reported by donors through 'markers' which do not allow an exact quantification of aid activities' contribution to the objectives. Thus, the figures are approximate. Biodiversity spending data are derived from the OECD Creditor Reporting System database where members of the Development Assistance Committee and multilateral donors report their aid activities. (Data are available online at www.oecd.org/dac/stats/crs).

Supporting Measure 2. Strengthening EU decision-making for biodiversity

Target 2.1 EU vision on biodiversity and ecosystem services agreed and providing policy framework by 2010

Millennium Ecosystem Assessment (MA)

As part of the Potsdam initiative agreed by the G8 in 2007, a study on The Economics of Ecosystems and Biodiversity (TEEB) was launched jointly, initiated by the European Commission and Germany in collaboration with the European Environment Agency. Initial results of this assessment of the global economic benefit of biological diversity, the costs of losing biodiversity and the failure to take protective measures versus the costs of effective conservation were presented at the CBD COP9 in May 2008.

The Commission is also supporting the development of a sub-global assessment (SGA) for Europe, in the context of UNEP's Millennium Ecosystem Assessment Follow-up Strategy. According to the FP7 road map covering the research priorities for the next calls, a call for research proposals will adapt and apply concepts and methods of the Millennium Ecosystem Assessment, integrating all-taxa biodiversity inventories on key ecosystems, to assess conditions of European ecosystem services. This will be properly integrated with the work and results of the EEA's EURECA project.

Research work will be focused over the course of FP7 on making human use of biodiversity sustainable. As part of this, research support will be provided to follow up TEEB, with work on economic, social and environmental costs and benefits of conservation and use of biodiversity. Other recommendations for research in this area will be taken into consideration, including those identified by the European Platform for Biodiversity Research Strategy (EPBRS).

Target 2.2 New policies benefit biodiversity and ecosystem services, and their negative impact on biodiversity and ecosystem services prevented or minimised, from 2006 onwards

An assessment by the Commission in January 2006 showed that two thirds of the Member States refer to biodiversity or nature protection in their National Reform Programmes. Some of them consider biodiversity a particularly crucial resource due to the important economic contribution from nature tourism. However, a further assessment in December 2006 showed that, while many countries have reported significant progress on biodiversity, additional integrated policy efforts are needed.

As part of its policy on Better Regulation, the Commission screens all new legislative and policy proposals for potential significant impacts on biodiversity. The impact assessment guidelines used by the Commission include biodiversity concerns.

Target 2.3 Biodiversity needs have been better integrated, as necessary, [into post-2013 financial Perspectives and any mid-term review of FP 2007-2013]

The mid-term review of the EC 6th Environment Action Programme carried out in 2007 confirmed that biodiversity is one of the four priority areas. The main commitments under the 6th Environment Action Programme have been delivered and environment issues were firmly at the top of the political agenda. But there is also cause for concern. Although the policy framework is in place, implementation of EU environment legislation by Member States is often slow or incomplete. Furthermore, the EU needs to prepare for major environmental challenges ahead: defining a long-term strategic vision for sustainable consumption and production, adaptation to the inevitable climate changes, and the protection of biodiversity.

Target 2.4 Complementarity of EC and Member States biodiversity strategies and action plans substantially enhanced by 2010

Alignment of national biodiversity strategies with EU

Ten Member States have environmental policy or strategies created or updated in light of the Communication 'Halting the loss of biodiversity by 2010 and beyond'. Four Member States are currently developing policy and seven have not.

EU governance structure

There have been discussions on improving the governance structure for implementing EU nature and biodiversity policy, with particular regard to delivering the EU Biodiversity Action Plan. This has led to the creation of a new Co-ordination Group on Biodiversity and Nature, involving the competent authorities of the Member States, various Commission departments and representatives of key stakeholder groups.

Target 2.5 Effective integration of Natura 2000, rural development, river basin management and other territorial plans and programmes in support of biodiversity achieved by 2010

The Commission has included biodiversity considerations and targets in its assessment of the Operational Programmes submitted by Member States in the context of the EC Cohesion policy (Structural and Cohesion funds) for the financing period 2007-2013. Rural Development programmes are also being monitored and assessed.

The Commission has started an initiative which aims to develop new concepts to integrate the Natura 2000 network into the broader countryside. This will include devising a new vision for a green structure of the European Union, ensuring sustainable management of natural resources, adapting to accelerated climate change and maintaining biodiversity.

Target 2.6 Substantial improvements in compliance with environmental regulations by 2010 [and again by 2013]

The Commission continues to closely monitor the implementation of environmental legislation and to take the necessary action to ensure that Member States comply with it. For example general conformity studies for all EU 25 MS have been carried out for both Birds and Habitats Directives and where gaps in transposition appear, the Commission has initiated non-conformity proceedings. As regards the Birds Directive, infringement procedures related to non-conformity issues are ongoing against 15 Member States. As regards the Habitats Directive, infringement procedures related to non-conformity issues are ongoing against 16 Member States.

The European Commission has launched a consultation exercise on its initiative to reform the control system of the Common Fisheries Policy (CFP). Continued failure of the control policy would have serious consequences for the future of fisheries resources and on conservation work. In February 2008, the Commission therefore launched a public consultation on how CFP control should be improved and strengthened to make it fit to deliver the core goals of the Common Fisheries Policy, namely, a genuinely sustainable European fishing industry. A meeting with stakeholders was held at the end of April 2008. The consultation exercise will lead to a proposal for a new Council regulation in October. This will replace the existing one which dates back to 1993. The Joint Deployment Plan (JDP) was launched in March this year by the Commission. This major EU control campaign will be coordinated by the Community Fisheries Control Agency (CFCA) and marks the EU's determination to ensure that the fifteen-year recovery plan for blue fin tuna, agreed within the International Commission for the Conservation of Atlantic Tuna (ICCAT) in November 2006, is fully respected. The JDP pools the resources of the seven main Member States involved in the fishery and will cover all stages in the market chain, including controls at sea, onshore and at fattening farms.

Supporting Measure 3. Building partnerships

Target 3.1 Key stakeholder groups actively engaged in conservation of biodiversity from 2006 in each Member State

Work on developing an EU Business & Biodiversity initiative has involved consultations with businesses, NGOs and Member States. Business and Biodiversity was one of the environmental priorities of the Portuguese Presidency during the second half of 2007 and a major conference on this subject, organised by the Presidency, took place in Lisbon on 12-13 November 2007 (see <http://countdown2010.net/business>). The Message from Lisbon, a consensus document from over 400 conference participants, half of them representing businesses, stressed the importance of engaging business in meeting the 2010 target, underlined the need for concerted action at the EU level. This initiative was followed up by the French Presidency at the meeting of the European Platform for Biodiversity Research Strategy. Building on the experience of the Lisbon conference, the Commission plans to establish and put into operation an EU Business and Biodiversity technical support platform.

An ongoing EU-funded pilot study establishing biodiversity technical assistance units in three selected new Member States aims to facilitate the creation of a new pro-biodiversity investment markets for businesses, especially small and medium enterprises (SMEs) and the banking sector, with a view to helping prepare bankable projects for future investment loans.

In 2008 the Commission launched some initiatives to develop and reward partnerships in the context of managing the Natura 2000 network. The first initiative includes establishing a web-based 'Natura 2000 communication platform'. This will allow different socio-economic sectors to become actively involved on their own initiative in exchanging good practice and preparing sector-specific guidance and recommendations for good conduct. The second initiative is the development of a 'Natura 2000 Partner Reward Scheme'. This will reward individuals, organisations and public institutions that show particular merit in promoting the management of and communication on Natura 2000. Both initiatives are well underway, and are scheduled to be launched in 2009.

The Commission has invited specific sectors to cooperate in producing guidance for practitioners on how to address problems associated with Natura 2000 sites. Stakeholders from non-energy extractive industries, representatives of ports and coastal management bodies with a special interest in estuaries and coastal zone management, and representatives of wind energy industry are participating in working groups, which will produce guidance documents on these topics in 2009. Member States, NGOs and other stakeholders are also involved in these initiatives.

The Commission will also promote greater involvement of the hunting community in implementing the Birds directive and the Habitats Directives and to further engage the community of wildlife recreational users in conservation and management of Natura 2000, including the angling community, with particular attention to the beneficial consequences that these activities bring to Natura 2000.

In relation to livestock biodiversity, the Commission is closely cooperating with the European Regional Focal Point on Animal Genetic Resources, in particular within the adoption and implementation of the Global Plan of Action for Animal Genetic Resources. This global framework was adopted by the FAO member countries in 2007 at the Interlaken conference.

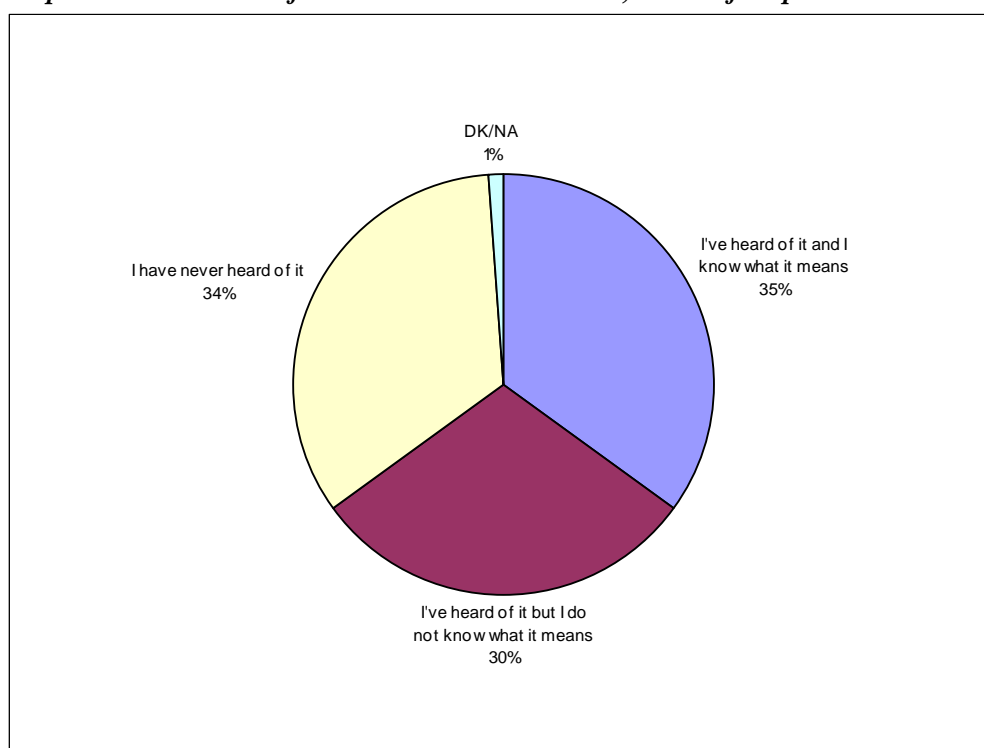
Supporting Measure 4. Building public education, awareness and participation

Target 4.1 10 million Europeans actively engaged in biodiversity conservation by 2010, [15 million by 2013]

National/Sub-national public awareness campaigns/initiatives

A Flash Eurobarometer opinion poll on the attitudes of Europeans on the issue of biodiversity, based on a survey of over 25 000 people in all Member States, was published in January 2008. Whilst most Europeans have heard of the term biodiversity (65%) only 35% know what the term means, let alone understand what the threats and challenges to its conservation are. Differences in the level of awareness vary across Europe, with some countries having a poor knowledge of biodiversity (where 60% of people or more have never heard of biodiversity).

Graph 13: Awareness of the Natura 2000 Network, share of respondents



Source: Flash Eurobarometer 219: The attitude of Europeans towards the issue of Biodiversity (December 2007)

Even though few EU citizens feel well informed about biodiversity, over two thirds consider the loss of biodiversity a serious problem, when the issue is explained to them. Over two thirds of EU citizens are personally taking action to help preserve biodiversity.

The Commission has produced an informative guide and related posters on the EU Biodiversity Action Plan. A book celebrating the Natura 2000 network was launched in May 2008, describing 80 of the finest Natura 2000 sites. Information material on Natura 2000 is being updated and translated and new material produced to improve outreach and create awareness, understanding and support for the key legislation, the Nature Directives, and the Natura 2000 network. EU support for the Countdown 2010 Initiative will continue in 2008 and 2009 to underpin a range of activities including events under EU Presidencies, with regions and local authorities and with the European Parliament.

A scoping study for an EU-wide Communications Campaign aimed at creating awareness about and support for the 2010 target and the long-term protection of biodiversity was published in March 2008. Recommendations from this study, including campaign objectives, key messages, target audience, framework and components of a communications campaign, fed into the 2008 call for proposals of the Information and Communication component of the LIFE+ financial instrument. Under this heading, priority is given to proposals relating to the protection of nature and biodiversity. A common visual identity for communication campaigns on nature and biodiversity will be developed and the Commission is also considering priority initiatives at EU level.

LESSONS LEARNED AND EFFECTIVENESS OF THE EU BIODIVERSITY ACTION PLAN

Although the 2006 Biodiversity Communication was well received and some progress has been made in delivering the EC Biodiversity Action Plan, it is highly unlikely — on the basis of current efforts — that the overall goal of halting biodiversity loss in the EU by 2010 will be achieved. The European Community and the EU Member States will need to make significant additional commitments over the next two years if the EU is even to come close to its goal.

Targeted measures under EU nature legislation have proved capable of reversing the declining trends of threatened species and habitats, but much greater efforts are needed to significantly scale up these successes.

At global level, biodiversity loss has not been significantly reduced, and major ecosystems — such as forests, wetlands and coral reefs — are placed under increasing pressure from destruction and degradation.

The unprecedented efforts called for in the Millennium Ecosystem Assessment have not yet been forthcoming. Far more global action is still needed to significantly reduce the current rate of global biodiversity loss by 2010.

Full advantage must be taken of 2010 as the UN International Year on Biodiversity to promote awareness of and global action on biodiversity.

While Plans are on target to complete land-based initiatives under Natura 2000 by 2010, additional efforts are needed to finalise the marine network by 2012. The challenge now is to effectively manage and restore sites within the Natura 2000 network.

Many commercial fish stocks in European waters are still outside safe biological limits — a situation which requires a significant reduction in overall fishing pressure to sustainable levels within the framework of the Common Fisheries Policy (CFP).

The projected expansion of crops for biomass and biofuel production, although replacing fossil fuels and thus reducing global greenhouse gas emissions may, in the absence of adequate environmental safeguards, have a negative impact on EU biodiversity. To avoid this, the Commission has proposed sustainability criteria for biofuels in the recently adopted (2009 Directive on the Promotion of the use of energy from renewable sources and the revised Fuel Quality directive contain sustainability criteria for biofuels.

Better information on the economics of biodiversity and on links with poverty would help decision makers on both sides to focus more attention on the issue.

Further progress is needed to ensure that environmental assessments (SEA/EIA) are systematically carried out for environmentally sensitive aid operations funded by Member States and the EC, to prevent and minimise negative impacts on biodiversity and enhance environmental benefits wherever possible.

A key challenge will be to ensure that the recommendations made in Sustainability Impact Assessments (SIAs) are acted upon and to enhance our understanding of the impact of EU consumption of food and non-food commodities (e.g. meat, soy beans, palm oil, metal ores) that are likely to contribute to biodiversity loss. This could mean considering policy options to reduce this impact.

There is a need for better recognition of the critical role of healthy ecosystems in strengthening resilience to environmental stresses, which will — in turn — reduce exposure to the threat posed by climate change.

Synergy between climate change mitigation and adaptation measures, and the conservation and sustainable use of biodiversity must be maximised.

There is a need to ensure that Member State and Community research funding adequately support biodiversity policy.

The mechanisms for co-operation within and between the Community and Member States also need boosting to deliver the Biodiversity Action Plan, especially with regard to policy sectors affecting biodiversity.

Biodiversity needs to be better integrated into communication campaigns promoting sustainable lifestyles and sustainable consumption and production.

More detailed information on how implementation of the EU biodiversity action plan and relevant EU legislation have resulted in changes to the status and trends of biodiversity can be expected from the indicator-based assessment of progress on the 2010 biodiversity target that the European Environmental Agency will publish in the first half of 2009 and the EU level assessment of the conservation status of species and habitats of Community interest under Article 17 of the Habitats Directive that the European Commission, with support of the European Topic Centre on Biological Diversity of the European Environment Agency, will complete by mid-2009.

The conclusion of the mid-term assessment is that the EU biodiversity policy framework will need to be bolstered to achieve the 2010 target. There are still important gaps, such as addressing invasive species. There is also a need to put in place an effective legal framework to conserve soil structure and functions and protect soil biodiversity. Integration of biodiversity considerations into other sectoral policies remains a key challenge. Evaluation systems need to be developed for ecosystem services, relevant to different policy sectors.

The Commission will continue to closely monitor the implementation of the Biodiversity Action Plan with a view to providing a comprehensive assessment at both Community and Member State level in 2010.

Additional Information requested to be submitted through national reports by COP 8 decisions

Apart from reporting on their NBSAP and progress, parties were asked to submit information related to various COP 8 decisions through their national reports. Additional information related to decision VIII/21 is set out below.

Decisions VIII/21 (Marine and coastal – deep seabed)

Para 3. Concerned about the threats to genetic resources in the deep seabed beyond national jurisdiction, requests Parties and urges other States, having identified activities and processes under their jurisdiction and control which may have significant adverse impacts on deep seabed ecosystems and species in these areas, as requested in paragraph 56 of decision VII/5, to take measures to urgently manage such practices in vulnerable deep seabed ecosystems with a view to the conservation and sustainable use of resources, and report on measures taken as part of the national reporting process;

The European Commission is convinced of the key role played by regional fisheries organisations (RFOs) in the good governance of deep-sea fishing and has consequently proposed a complete overhaul of the regulatory approach taken by RFOs and Member States. Deep sea beds have an extraordinary biodiversity but are highly vulnerable to any disruption of their ecosystem. Destructive fishing practices can seriously damage cold water corals and a multitude of other species living in these environments (fish, sea sponges etc.). The European Union has already taken measures to protect cold water corals in Community waters. However, to ensure protection of these environments on the high sea — a zone which is not under national jurisdiction — it is essential to cooperate with other countries through regional fisheries organisations (RFOs).

Mindful of the threats to these ecosystems, the European Union played a key role in the negotiations that culminated in the adoption by the United Nations General Assembly, in December 2006, of Resolution 61/105 on the viability of fisheries. The EU defended a ‘balanced’ position whereby strict regulatory measures will be introduced to provide protection, but fishing practices that are not destructive will be allowed to continue.

Following the recommendations made by the United Nations General Assembly, the European Commission presented in a communication in autumn 2007 the measures it asks its Member States to respect and proposed a regulation for the zones not yet covered by a regional fisheries organisation. The regulation was adopted by the Council of Ministers on 15 July 2008 (see <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:201:0008:0013:EN:PDF>).

In every regional fisheries organisation of which it is a member, the European Union actively promotes an ecosystem approach to deep water fisheries management and helps identify marine environments in need of protection. It supports the FAO in collecting data globally on vulnerable marine ecosystems.

CHAPTER III — Sectoral and cross-sectoral integration or mainstreaming of biodiversity considerations

Since 1997, integration is a requirement under the Treaty establishing the European Community. Article 6 of the Treaty states that ‘environmental protection requirements must be integrated into the definition and implementation of the Community policies [...] in particular with a view to promoting sustainable development’. Environmental integration means making sure that environmental concerns such as biodiversity are fully considered in the decisions and activities of other sectors. Policy areas of specific importance for environmental integration are Agriculture, Cohesion Policy, Development, Employment, Energy, Enterprise, Fisheries, Internal Market, Research, Trade and External Relations, Transport and Economic and Financial Affairs.

For more information please see:

<http://ec.europa.eu/environment/integration/integration.htm>.

The Cardiff Process

The Cardiff process, which was launched by European heads of state and government in 1998, provides a mechanism for integrating environment considerations into key sectors of EU policy. It has contributed to raising the political profile of integration, which is now being regularly discussed at the highest political level. Each Directorate-General of the European Commission has an ‘integration correspondent’, while a number have specialist environmental units. The Agriculture and Rural Development DG and the Fisheries and Maritime Affairs DG, for instance, have promoted integration of biodiversity concerns into revisions of the common agricultural policy (CAP) and the common fisheries policy (CFP), respectively.

For more information please see:

<http://europa.eu/scadplus/leg/en/lvb/l28075.htm>.

EU Sustainable Development Strategy

In 2001, the European Council adopted the EU Sustainable Development Strategy, which provides a long-term vision that involves combining a dynamic economy with social cohesion and high environmental standards. It requires a new emphasis on policy coordination and integration. As part of the implementation of the EU Sustainable Development Strategy, the Commission has extended the impact assessment system to all major policy proposals. This approach provides information on the tradeoffs between the economic, social and environmental aspects of sustainable development to inform decisions. By providing a full appraisal of the potential environmental costs and benefits of all major Commission proposals, and the costs and benefits of specific environmental measures, it helps promote environmental integration. The Sustainable Development Strategy strengthened the biodiversity strategy that was adopted in 1998, by adopting the target to ‘halt’ the decline in biodiversity by 2010 inside the EU. Under the 1998 biodiversity strategy, four biodiversity action plans were adopted in 2001, on conservation of natural resources, agriculture, fisheries and economic and development cooperation.

For more information please see:

<http://ec.europa.eu/sustainable/>.

The Sixth Environment Action Programme of the European Community 2002-2012

In July 2002, the EU adopted its sixth environment action programme ('Environment 2010: our future, our choice'), which established a 10-year framework for priorities under the Sustainable Development Strategy. The programme addresses nature and biodiversity protection as a matter of priority. The importance of integration is reaffirmed in the Sixth Environment Action Programme, which stipulates that 'integration of environmental concerns into other policies must be deepened' in order to move towards sustainable development. Nature and biodiversity are one of the priorities of the EU's sixth environment action programme 2002-12.

For more information please see:

<http://ec.europa.eu/environment/newprg/index.htm>.

The Environment Directorate-General (DG) of the European Commission has integrated biodiversity considerations into environmental policy — for example, in strategies concerning air quality, pesticide use, soils and the marine environment, as well as in directives on nitrates and the EU water framework. However, biological diversity is affected by many EU activities. Many more DGs are therefore involved in implementing the CBD to some degree.

The Commission's Directorate-General Environment established an interdepartmental coordination group on 'Biodiversity'. A subgroup deals with interdepartmental coordination in relation to implementation of EU Biodiversity Action Plan and delivery of the EU 2010 biodiversity target. Another interdepartmental co-ordination group on biodiversity deals with the international aspects of biodiversity. The international formation of this group serves to ensure inter-departmental coordination on meetings under the UN Convention on Biological Diversity and its Cartagena Protocol on Biosafety. The groups are composed of representatives of a broad range of Commission services including Eurostat (the Statistical Office of the European Communities), the Secretariat-General of the European Commission, Directorate-General Agriculture, Directorate-General Competition, Directorate-General Economic and Financial Affairs, Directorate-General Education and Culture, Directorate-General Employment, Directorate-General Transport and Energy, Directorate-General Enterprise, Directorate-General for Maritime Affairs and Fisheries, Directorate-General Health and Consumers, Directorate-General Information Society, Directorate-General Market, the Joint Research Centre of the European Commission, Directorate-General Justice, Freedom and Security, Directorate General Regional Policy, Directorate-General Research, Directorate-General Taxation and Customs Union, Directorate-General Development, Directorate-General Enlargement, Directorate-General AIDCO, Directorate-General External Relations, Directorate-General Trade and the Legal Service.

Integration of biodiversity in Agriculture

Many of the biodiversity-rich habitats in need of conservation are situated in, or close to, land devoted to agriculture. These habitats need to be maintained appropriately. The recent reforms of the common agriculture policy (CAP) have enabled further integration of biodiversity concerns into agricultural policy. With the major reform of 2003, national statutory requirements derived from EU directives concerning *inter alia* birds, habitats, nitrates and pesticides were included in the reference level to be respected by farmers (i.e. cross-compliance). Standards of good agricultural and environmental condition (GAEC) are also part of cross-compliance, some of them having a positive impact on biodiversity, e.g. retention of landscape features or protection of permanent pasture. for good farming practice. The new 2005 rural development regulation also refers to the objectives of the sixth environment action programme, stating that 'key issues to be addressed include biodiversity, Natura 2000 site

management, the protection of water and soil, climate change mitigation, including the reduction of greenhouse gas emissions, the reduction of ammonia emissions, and the sustainable use of pesticides’.

The rural development policy provides Member States with several possibilities to support environmental integration, lessen the adverse environmental impacts of farming, and reconcile agriculture with the objectives of the CBD. Community strategic guidelines for rural development, adopted in 2006, offer advice on how biodiversity enhancement can be made compatible with changes to land management. They aim to protect and enhance the EU’s natural resources and landscapes in rural areas. The resources allocated to the objective of improving the environment and the countryside should contribute to achieving three EU priorities: biodiversity and the preservation and development of high nature value farming and forestry systems and traditional agricultural landscapes; water; and climate change.

One possibility for the Member States is to use a series of agri-environmental measures, designed to encourage farmers to protect and enhance the landscape and biodiversity, in ways that go beyond the reference level of cross-compliance and other standards. During the period 2000-2006, around a quarter of all utilised agriculture land in the EU receives funding through the agri-environment payments, including sites in the Natura 2000 network. These measures include appropriate management of set-aside areas for conservation purposes, upkeeping abandoned farmland and woodland to benefit farm-dependent species, maintaining landscape features, such as hedgerows, stone walls and ponds, reducing pesticide and fertiliser use and facilitating public access to agricultural land of environmental interest.

Other possibilities include measures to help farmers comply with demanding, newly introduced EU standards, measures for the conservation of genetic resources in agriculture, for training, for using and setting up farm advisory services, for non-productive investment and for payments in areas with natural handicaps at risk of land abandonment. The single farm payment scheme (SFP), introduced in 2003, is expected to help conserve biodiversity, by decoupling direct payments from agricultural production (‘cross-compliance’). This removes a key incentive for intensive production. Full payments will only be granted under this scheme if standards for Good Agricultural and Environmental Condition and specific provisions in environmental legislation are met, including provisions under the birds and habitats directives, as well as legislation on pesticides (‘cross-compliance’).

As part of the Health Check of the 2003 CAP reform, the Council decided to make available additional rural development funding for *inter alia* biodiversity, via an increased transfer of money from the first to the second pillar of the Common Agricultural Policy (i.e. modulation). It also decided to strengthen the GAEC standard on landscape features, and to add two new GAEC standards concerning the establishment of buffer strips along watercourses (compulsory) and the establishment and/or retention of habitats (optional). These will also contribute to retaining the environmental benefits of set-aside which was abolished.

Indicators have been specially developed to assess farmland biodiversity. For example, in 2004, a set of indicators for farmland birds was added to the EU biodiversity headline indicators database. In September 2006, the Commission issued a communication entitled ‘Development of agri-environmental indicators for monitoring the integration of environmental concerns into the CAP’. The communication reviewed the progress made on developing agri-environmental indicators through the IRENA project, and identified key challenges and actions for future work to make all the selected indicators fully operational in terms of concepts, methodology and data availability and quality. This concerns also indicators explicitly addressing biodiversity (e.g. high nature value farmland).

Over the last few years, organic farming in Europe has expanded, to the benefit of biodiversity. Organic farming has been encouraged by EU funding for farmers willing to convert to organic methods of production. A European action plan for organic food and farming was adopted in June 2004, strengthening research on organic agriculture and production methods. It also aimed at improving and reinforcing the Community's organic farming standards, import and inspection requirements and completing and further harmonising the standards for organic agriculture. This objective led to the adoption in 2007 of a new Regulation on organic farming⁷.

For more information please see:

http://ec.europa.eu/agriculture/envir/index_en.htm.

Integration of biodiversity in Maritime and Water Policies

Human activities have exerted pressure on marine, coastal and inland water ecosystems. Biodiversity concerns therefore must be integrated into the management of marine resources, water and fisheries.

The EU biodiversity strategy put forward broad objectives for the fisheries sector, while the biodiversity action plan for fisheries, adopted in 2001, made specific recommendations to protect biodiversity from the impact of marine fisheries and aquaculture. The action plan for environmental integration, adopted in 2002, contained guiding principles, management measures and a work programme to move towards an ecosystem-based approach to fisheries and to limit the environmental impact of the common fisheries policy (CFP).

These objectives, integrated into the reformed CFP, include:

- reducing fishing pressure to sustainable levels;
- improving fishing methods to reduce discard, by-catch and the impact on habitats;
- protecting non-target species and habitats; and
- decreasing the environmental impacts of aquaculture.

A shift in focus, from supply-side productivity towards an ecosystem-based approach, is a major step to safeguard the EU's marine resources and their sustainable management. This is in line with the objectives of the CBD. However, much remains to be done. Many fish stocks in EU waters have been overexploited as a result of a complex interplay of driving forces. The World Summit on Sustainable Development (Johannesburg, 2002) set 2015 as a deadline to maintain or restore stocks to levels that can produce the maximum sustainable yield. The EU has recently developed a number of policies and schemes aimed at implementing the EU commitment to this objective.

The aim of the European Union's Marine Strategy Framework Directive (adopted in June 2008) is to protect more effectively the marine environment across Europe. It aims to achieve a good environmental status of the EU's marine waters by 2021 and to protect the resource base upon which marine-related economic and social activities depend. The Marine Strategy Framework Directive constitutes the vital environmental component of the Union's future maritime policy, designed to achieve the full economic potential of oceans and seas in harmony with the marine environment.

⁷ Council Regulation (EC) No. 834/2007 of 28 June 2007 on organic production and labelling of organic products and repealing Regulation (EEC) No. 2092/91, OJ L189, 20.7.2007, p. 1

The Marine Strategy Framework Directive establishes European Marine Regions on the basis of geographical and environmental criteria. Each Member State — cooperating with other Member States and non-EU countries within a marine region — are required to develop strategies for their marine waters. The marine strategies to be developed by each Member State must contain a detailed assessment of the state of the environment, a definition of ‘good environmental status’ at regional level and the establishment of clear environmental targets and monitoring programmes. The goal of the Marine Strategy Framework Directive is in line with the objectives of the 2000 Water Framework Directive 2000, which requires surface freshwater and ground water bodies — such as lakes, streams, rivers, estuaries, and coastal waters — to be ecologically sound by 2015 and the first review of the River Basin Management Plans should take place in 2020.

An increased emphasis on sustainability is also influencing EU policy regarding fishing beyond EU waters. In accordance with its duties under the UN Convention on the Law of the Sea, the UN Fish Stocks Agreement and the CBD, the EU cooperates with other parties to manage marine living resources effectively. The EU also actively promotes global progress in the development of effective international fisheries governance within multilateral institutions, such as the Food and Agriculture Organisation (FAO), the United Nations Bodies and the CBD. In October 2007, two important proposals were adopted by the Commission: a proposal to protect fragile deep-water ecosystems from bottom trawling in the high seas, in line with the recommendations issued by the UN General Assembly in December 2006, and a proposal aimed at improving the fight against ‘illegal, unreported and unregulated’ (IUU) fishing. Proposed measures would allow access to EU markets only to fisheries products that have been certified as legal by the flag state or the exporting state concerned. A European blacklist of vessels and states would be set up, as would deterrent sanctions against IUU fishing in EU waters and against EU operators engaged in IUU fishing anywhere in the world. Lastly, the EU has adopted a policy on fisheries partnership agreements with third countries, including measures to ensure sustainable fisheries management through improved scientific advice, reinforced fisheries controls and capacity building.

The EU water framework directive changed the way fresh and coastal waters are managed, to improve water quality and the way aquatic ecosystems in Europe work. The directive contains a number of qualitative and quantitative targets, such as the requirement that all surface water must not deteriorate in quality and that it should achieve good ecological and chemical status by 2015. Key actions include integrated management, international cooperation, environmental assessment and public participation. Implementation of the directive will ensure the maintenance of biodiversity in aquatic ecosystems and contribute to wider biodiversity objectives.

For more information please see:

http://ec.europa.eu/fisheries/cfp/management_resources_en.htm

http://ec.europa.eu/fisheries/cfp/external_relations_en.htm

http://ec.europa.eu/environment/water/marine/index_en.htm

http://ec.europa.eu/environment/water/water-framework/index_en.html

Integration of Biodiversity in Research Policy

EU multi-year framework programmes for research and technological development (RTD) allocate considerable funds for research on biological diversity conservation. Global change and ecosystems are among the research priority areas for 2002–06. Framework funds are also used to improve scientific support to policy. From 1998 to 2006, the EU allocated about EUR 100 million to biodiversity-related projects.

These projects include ALARM (assessing large-scale environmental risks with tested methods) and Daisie (delivering alien invasive species inventories for Europe). Optimising the infrastructure for sharing taxonomic information is a priority, in support of the Global Biodiversity Information Facility (GBIF). Research supporting integration of biodiversity concerns into the CAP and the CFP is also funded.

The seventh framework programme (2007–13) provides further opportunities to carry out research aiming to support implementation of the CBD.

Many EU-funded biodiversity research projects also involve developing and other third countries. Many involve training to identify, conserve and use biological diversity in a sustainable way.

The European Platform for Biodiversity Research Strategy (EPBRS) aims to identify and promote strategically important biodiversity research that will contribute to policies and management relating to biodiversity loss. The EPBRS developed and adopted a biodiversity research action plan, in 2005, which identifies the most urgent research needs in the field of biodiversity in Europe.

For more information please see:

http://ec.europa.eu/research/environment/index_en.cfm?pg=bio

Integration of Biodiversity in External Policies

EU policy addresses the relationship between biological diversity and poverty eradication within EU policy. The EU (Member States and European Commission) is the world's largest donor in the field of environment and natural resources. The EU Councils of both Environment and Development Cooperation Ministers have welcomed the 'Message from Paris' adopted at the Conference on Integrating Biodiversity in European Development Cooperation (19–21 September 2006 in Paris).

As regards the mainstreaming of biodiversity in development cooperation, country environmental profiles have been identified for most partner countries which stress the important role of biodiversity. Almost all draft country strategy papers include a commitment to undertake strategic environmental assessments (SEAs), which will be essential to avoid negative impacts on the environment and biodiversity. As the new development cooperation policy will be guided by the principles of partnership and ownership, substantial additional funding for biodiversity will only materialise if biodiversity is effectively integrated as a priority objective in partner countries' national development strategies or poverty reduction strategies. However, very few countries have identified biodiversity as a priority sector for cooperation in their country strategy papers. This is a major impediment to increasing EU funding for biodiversity in development cooperation. In order to raise awareness and build the capacity of staff to integrate the environmental dimension in EC development cooperation and into partner countries' sector policies and programmes, the European Commission funds a project on environmental integration in EC development co-operation (see http://www.environment-integration.eu/component/option,com_frontpage/Itemid,155/lang,en/) that provides information and training. Furthermore, Directorate-General Development produced specific programming papers on biodiversity to guide the programming of strategy papers (see http://ec.europa.eu/development/how/iqsg/tools_fiches_en.cfm).

The EU also supports neighbouring countries. At the Fifth Ministerial Conference on 'Environment for Europe' (Kiev, 2003), European environment ministers passed a resolution calling for substantially increased public and private investment for integrating biodiversity activities Europe-wide by 2008.

For more information please see:

http://ec.europa.eu/development/policies/9interventionareas/environment/biodiversity/biodiversity_en.cfm

Sectoral and Cross sectoral integration of biodiversity under the current EU Biodiversity Action Plan

The current EU Biodiversity Action Plan addresses the challenge of integrating biodiversity concerns into other policy sectors in a unified way. It identifies a comprehensive plan of priority action and outlines the responsibility of community institutions and Member States in relation to each. The Action Plan focuses on implementation and calls for the full integration of biodiversity concerns into all other EU policy areas, from territorial and rural development policies to fisheries and development cooperation.

The Action Plan represents an important new approach for EU biodiversity policy as it is the first time that all relevant economic sectors and policy areas are addressed in a single strategy document and apportioned a share of the responsibility to implement it. The plan explicitly calls for an integration of biodiversity into agricultural, marine, fisheries, external and research policies and identifies concrete methods to do so.

Under objective 2, which aims to conserve and restore biodiversity and ecosystem services in the wider EU countryside, the Action Plan identifies a target for Member States to optimise the use of opportunities under agricultural, rural development and forest policy to benefit biodiversity between 2007 and 2013. For agricultural and rural development policy, the Plan describes 12 actions to achieve this target (e.g. 'encourage that implementation of the Common Agricultural Policy first pillar benefits biodiversity, notably through mandatory cross compliance, and decoupling (single farm payments and single area payment scheme) and by encouraging take-up of modulation by the Member States') and three further actions for forest policy (e.g. 'ensure that the forthcoming EU Forest Action Plan addresses forest biodiversity among the priorities, in line with the EU Forest Strategy and the 6th Environment Action Programme').

Objective 3 of the Biodiversity Action Plan aims to conserve and restore biodiversity and ecosystem services in the wider EU marine environment. Five targets, underpinned by 12 specific actions, for Maritime and Fisheries Policy are identified under this objective. The targets are to take an ecosystem approach to protecting seas and to take fisheries management measures no later than 2016, to substantially enhance funding provided to environmentally-friendly fisheries management from 2007 onwards, to have stock levels maintained or restored to levels that can produce the maximum sustainable yield, where possible no later than 2015, to reduce the impact of fisheries on non-target species and habitats progressively and substantially from 2006 onwards and to have substantially improved information and reporting on environmental integration of the Common Fisheries Policy from 2008 onwards.

The Action Plan also addresses regional policy and spatial planning. Both are covered by objective 4, which calls for improving the compatibility of regional and territorial development with biodiversity in the EU. The objective identifies five targets in the fields of cohesion and structural funds, territorial plans, spatial planning and tourism.

The EU Biodiversity Strategy and Action Plan also recognises the vital importance of biodiversity and ecosystem services to livelihoods and the achievement of the millennium development goals in developing countries. Objective 7 is ‘to substantially strengthen support for biodiversity and ecosystem services in EU external assistance’. Specific action is grouped into two targets: to substantially increase in real terms the financial resources flowing to programmes and projects which directly benefit biodiversity for the period 2006–10 compared with the period 2000–05, and to ensure that biodiversity is ‘mainstreamed’ into EU development assistance and that negative impacts on biodiversity are prevented or minimised.

Furthermore the goal to support measure three of the Action Plan is to build partnerships for biodiversity. Action under this measure includes establishing farming and biodiversity, forestry and biodiversity, business and biodiversity and finance and biodiversity partnerships.

CHAPTER IV- Conclusions: Progress on the 2010 Target and implementation of the Strategic Plan.

This final chapter will set out some conclusions on the extent to which EU action has contributed to progress on the 2010 target and the progress made on implementing the strategic plan. A lot of detailed information relevant for this final chapter is provided in chapter two, which gives a comprehensive overview of implementation of the EU Biodiversity Action Plan.

With almost two years before we reach the end of 2010, it is evidently premature to come to a final conclusion on the extent to which the 2010 biodiversity target will be achieved and the strategic plan will be implemented. The European Union will carry out a final evaluation of the extent to which it has met its 2010 commitments in the fourth annual report on the implementation of the EU Biodiversity Action Plan, due in late 2010. The evaluation will use quantitative data relating to the SEBI biodiversity indicators.

Any conclusions at this stage have to be preliminary as much EU action taken in recent years is only starting to have an impact. Result-based indicators will only display changes and trends of these actions with a time lag. At the moment, progress on the 2010 target can only be assessed on the basis of the mid-term report on the implementation of the EU Biodiversity Action Plan, which summarises the progress made both by the European Community and Member States.

Over the last years some progress has been made on delivering the EU Biodiversity Action Plan. Still, on the basis of current efforts it is highly unlikely that the overall goal of halting biodiversity loss in the European Union will be achieved by 2010. The European Community and the Member States of the European Union would have to make significant additional commitments to even to come close to the objective.

The EU's biodiversity policy framework needs to be further strengthened. Invasive alien species have to be addressed in a harmonised way and a legal framework should be put in place for the conservation of soil functions and the protection of soil biodiversity. Lastly, integration of biodiversity considerations into sectoral policies remains a key challenge.

Biodiversity loss is disastrous at global level. Ecosystems are frequently being degraded to the point where natural processes are disrupted, resulting in severe economic and social impacts. New issues, such as expansion of the agricultural sector to meet increasing demand for food, and the emergence of alternative market outlets such as biofuels, have emerged as major challenges.

PROGRESS ON THE 2010 TARGET

Considerable progress has been made in the European Union on the goal to promote the conservation of the biological diversity of ecosystems, habitats and biomes and the targets to effectively conserve at least 10% of each of the world's ecological regions and protect areas of particular importance to biodiversity. This has mainly been a consequence of the establishment of the Natura 2000 network. At EU level, around 12.2% of land is now protected under the Habitats Directive. To determine the completeness of the Natura 2000 network, ongoing technical evaluations are assessing whether each habitat type and species of the Habitats Directive occurring in a Member State is sufficiently represented within the network. By June 2008, 21 of the 27 EU Member States were considered to have reached a sufficient representation of site coverage for more than 80% of the terrestrial species and habitats of Community interest under the Habitats Directive within their territory.

Nature conservation legislation in the European Union, such as the Birds and Habitats Directives, are the main instruments to promote the conservation of species diversity, to restore, maintain, and reduce the decline of populations of species and to improve the status of threatened species. It is too early to come to comprehensive conclusions on the status of species diversity in the European Union. As highlighted in Chapter II, the first major evaluation of the conservation status of animal and plant species listed on Annex II of the Habitat Directive is ongoing. An assessment on the basis of national reports received in 2007/early 2008 by the Commission will be published by mid-2009. However, an initial examination of the data already reveals that most species of European interest are in an unfavourable status.

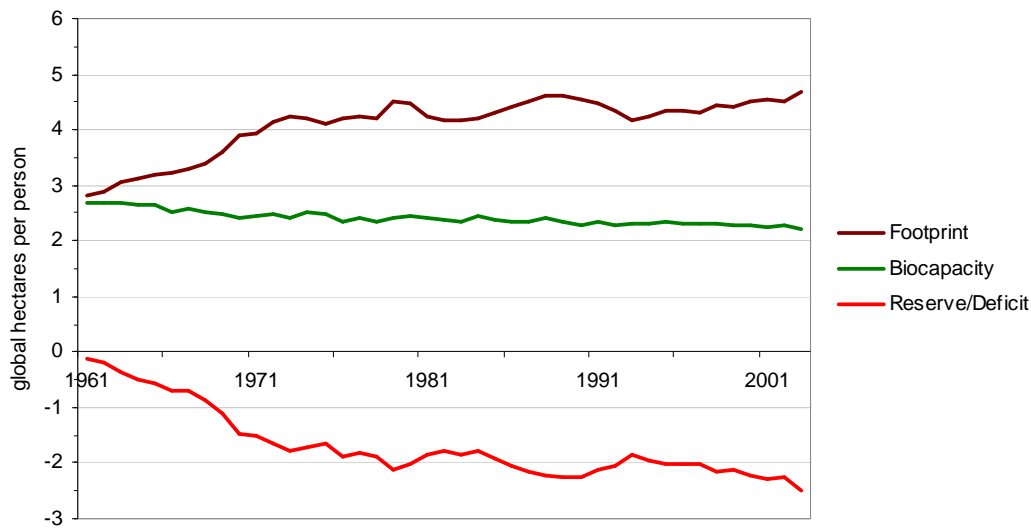
The first European red data list for mammals published in 2007 showed that nearly one in six of Europe's mammals are threatened and a further 9% are close to being threatened. The European Commission financially supports the development of further red lists for amphibians and reptiles, dragonflies, butterflies and saproxylic beetles, molluscs and vascular plants which will be finalised in 2009 and 2010.

The European Community has taken measures to promote the conservation and maintenance of genetic diversity. As highlighted in Chapter II, the community programme on the conservation, characterisation, collection and utilisation of genetic resources in agriculture promotes genetic diversity in agriculture. Although the programme has initiated 17 actions with partners from European Union and non European Union countries, it is too early to assess their effectiveness as they only began in 2007 and have a duration of up to four years. Moreover, a Commission Directive on the acceptance and marketing of landraces and varieties which are naturally adapted to the local and regional conditions and threatened by genetic erosion has been adopted for seed of agricultural plant species, including seed potatoes. Preparations are ongoing for parallel directives covering seed of vegetables, vegetable propagating and planting material other than seeds and fodder plant seed mixtures and adapting Community zootechnical legislation with view to protect animal genetic resources.

The European Community has over the last two years made efforts to promote sustainable use and consumption, trying to ensure that biodiversity-based products are derived from sustainably managed sources and unsustainable consumption of biological resources is reduced. Efforts have been made to integrate biodiversity concerns in forest, agricultural and fisheries policies and the Biodiversity Action Plan identifies several points of action to ensure that work in these policy areas contributes to the objective of halting biodiversity loss in the European Union by 2010. In parallel, a number of indicators have been developed to measure progress on sustainable use.

However, notwithstanding this action, the information on the status and trends of biodiversity, based on biodiversity indicators, suggests that certain forms of agriculture and fisheries still put strong pressure on biodiversity and contribute to the loss of biodiversity in Europe. While Europe's capacity to produce biological materials and absorb waste materials has fallen over the last four decades, its ecological footprint has been increasing, which means that Europe is unable to meet its demands from domestic sources.

Graph 14: EU 27 Footprint, Biocapacity and Reserve/Deficit



Source: Global Footprint Network, National Footprint Accounts 2006 Edition

An important legal initiative to reduce the impact of Europe's consumption patterns on global biodiversity has been the decision to include sustainability criteria for biofuels that explicitly address biodiversity, in the Fuel Quality and Renewable Energy Directives. Both Directives contain a sustainability scheme for biofuels, which will for the first time oblige all biofuel producers in the European Union and importers to comply with clear environmental criteria, and to report on a number of additional impacts, including any economic and social impacts within the European Union and in third countries. The Directives completely harmonise biofuel sustainability criteria in all Member States. The Member States are responsible for enforcing the sustainability criteria.

The Community is trying to ensure that no species of wild flora or fauna are endangered by international trade. The European Community is not yet a party to CITES but CITES provisions have been implemented in Community law since 1982. The European Community aims to ensure that international trade in species of wild fauna and flora does not threaten the survival of these species. It continuously works to improve CITES implementation and has issued recommendations to Member States in 2007 on how to effectively enforce EC CITES Regulations. A follow-up to a study on the effectiveness of EU CITES regulations is being considered.

To achieve the 2010 target pressures from habitat loss, land use change and degradation and unsustainable water use must be reduced and the rate of loss and degradation of natural habitats must fall. Europe has managed to decrease the rate of land use change since recent decades, as stated in Chapter I. However land use change, including loss and degradation of natural habitats, still continues and has not been stopped. Extensively used agricultural land, pasture and wetlands are being replaced by urban areas, more intensive farmland and forest.

Invasive alien species are the subject of increasing attention from the European Community, which is trying to step up control of threats from these species. The Communication 'Towards an EU Strategy on Invasive Species' was adopted in December 2008 and identifies several

policy options to tackle the issue. The communication comes to the conclusion that halting the loss of biodiversity in the European Union will not be possible without tackling invasive species in a comprehensive manner. The existing legislation is fragmented and hampers coordinated implementation. The European Commission aims to put forward in 2010 a proposal for a strategy on invasive species. For the time being it will examine the possibility of setting up an Early Warning and Information System for Invasive Alien Species.

The EU Biodiversity Action Plan addresses threats to biodiversity from climate change and pollution. Limiting global climate change to 2°C is a top political priority for the European Union. It adopted an ambitious package of measures in December 2008 to achieve at least 20% emission reduction in the EU by 2020 compared to 1990 levels. Following its 2007 Green Paper, the Commission has adopted a White Paper on adapting to climate change in April 2009 which addresses the relationship between biodiversity and climate change.

In a 2008 Communication on deforestation the Commission proposes that, within the framework of the UN Framework Convention on Climate Change negotiations on the future climate regime, global forest cover loss must be halted by 2030 at the latest and gross tropical deforestation must be reduced by at least 50% by 2020 from current levels. This would provide major climate change and biodiversity benefits.

Considerable efforts have been made in the European Community to reduce the impacts of pollution on biodiversity. Various measures have been taken regarding industrial emissions. Further progress has also been made in implementing the Water Framework Directive in Europe which resulted in a reduction of freshwater pollution and an improvement in water quality in freshwater ecosystems. More information is provided in Chapter II.

Maintaining the capacity of ecosystems to deliver goods and services and support human wellbeing within the European Union and abroad are essential objectives of the European Union's biodiversity policy. Conservation and restoration of ecosystems in the wider countryside and the marine environment are two of the pillars of the Biodiversity Action Plan. The integration of biodiversity into external assistance and boosting the importance of ecosystem services in this policy area is another policy objective. As presented in Chapter II, a number of activities have been carried out in the last years to this end. Nonetheless, the capacity of certain ecosystems to deliver goods and services both on European and global level has fallen in recent decades and there is reason to believe that these trends are continuing. At global level, biodiversity loss has not been significantly reduced, and major ecosystems — such as forests, wetlands and coral reefs — are placed under increasing pressure from destruction and degradation. More efforts will be needed in the future to maintain vital ecosystem services and restore the capacity of ecosystems to deliver these services. More information on the status of ecosystems in Europe and their capacity to deliver goods and services are expected from the sub-global ecosystem assessment for the European region, which will contribute to the next Millennium Ecosystem Assessment and the outcomes of the 'The Economics of Ecosystems and Biodiversity' study on the valuation of ecosystem services, to be finalised by 2010.

The European Community helps maintain the socio-cultural diversity of indigenous and local communities and protect traditional knowledge, innovation and practices. The number of indigenous people within the EU is small and limited to only two or three Member States. Outside the EU the Community provides support to indigenous and local communities through development cooperation programmes. The European Community provides financial support to enable representatives of indigenous groups to participate as observers in the meetings of the Convention on Biological Diversity. The EC and Member States also push to advance work on

the protection of traditional knowledge in the World Intellectual Property Organisation and to recognise the UN Declaration on the Rights of Indigenous People adopted on 13 September 2007 in relevant fora.

The European Community participates constructively in negotiations on Access and Benefit Sharing under the CBD. The detailed roadmap adopted at the 9th Conference of the Parties for finalising the Access and Benefit Negotiations by the 10th Conference of the Parties in 2010 is considered to be a major progress. The European Community will further contribute to progress on ongoing negotiations for an international regime on access to genetic resources and the fair and equitable sharing of benefits arising from their use (ABS) to conclude these negotiations by 2010.

As major donors in the fields of biodiversity, with a yearly external assistance for biodiversity totalling around 1500 million Euros during 2003 – 2006, the EU and its Member States are supporting developing countries in implementing their commitments under the Convention. Implementation of objective 7 of the Biodiversity Action Plan, which is to substantially strengthen support for biodiversity and ecosystem services in external assistance, fully contributes to achieving the 2010 target. See Chapter II for more information.

IMPLEMENTATION OF THE STRATEGIC PLAN

The European Community believes that the Convention on Biological Diversity plays a leading role in international biodiversity policies and contributes significantly to setting the global biodiversity agenda. Since it entered into force, the Convention on Biological Diversity has developed a comprehensive policy framework for the conservation and sustainable use of biological diversity. 191 parties have ratified the Convention, which is a clear sign of the global importance of this agreement. 166 parties to the Convention have developed National Biodiversity Strategies and Action Plans, in line with the provisions of the Convention. Hence, the CBD has had considerable influence on biodiversity policy at regional and national level.

The 2010 biodiversity target has been important in galvanising international support for biodiversity and played an important role in putting biodiversity high on the international policy agenda. The inclusion of the target in the Millennium Development Goals has strengthened the importance of biodiversity for development policy. Biodiversity is now being discussed regularly by the G8. The Convention also plays an essential role in preparing the International Year for Biological Diversity and the one-day high-level segment on biodiversity of the General Assembly in September 2010, to be attended by Heads of State and Government.

The 9th Conference of the Parties was for the first time attended by Heads of State and Heads of Government at its High-Level Segment. The COP9 adopted a number of landmark decisions that greatly advance global biodiversity politics on a range of critical issues and thereby help achieve the global target to substantially reduce the current rate of biodiversity loss by 2010.

A further important step for the Convention will be to finalise negotiations on access to genetic resources and the fair and equitable sharing of benefits arising from their use. The challenge for the Convention remains to boost global implementation of the Convention in all areas to achieve its target to significantly reduce biodiversity loss for sustainable development and long-term human well-being.

The European Community fully implements the Cartagena Protocol on Biosafety. Implementation of the Protocol in the EC relies on a wide range of legislative measures

covering the use and importation of GMOs in the European Union. The main measures are Directive 2001/18/EC on the deliberate release into the environment of genetically modified organisms, Regulation (EC) No 1829/2003 on GM food and feed and Regulation (EC) No 1946/2003 on the transboundary movements of GMOs (adopted in June 2003). EC legislation on genetically modified organisms promotes public awareness and participation as an integral part of its regulatory framework. For information on the implementation of the Cartagena Protocol on Biosafety, please consult the EU's first regular report on implementation of the Cartagena Protocol on Biosafety.

Although the EU has taken many steps to mainstream biodiversity concerns into sectoral or cross-sectoral plans, programmes and policies, it remains a major challenge. Chapter III provides an overview of the measures taken to ensure that biodiversity concerns are integrated into other policy areas.

Member States and the European Community are fully collaborating to implement the Convention. Implementation of the EU Biodiversity Action Plan is a joint responsibility of the European Community and its Member States. The communication on "Halting Biodiversity Loss by 2010 – and Beyond: Sustaining ecosystem services for human well-being" adopted by the European Commission in 2006, together with a detailed EU Biodiversity Action Plan, provides a policy framework to halt the decline of biodiversity in the EU by 2010. The specific targets and actions of the plan address Community institutions and Member States and their respective responsibilities are outlined in the plan. Chapter 2 provides a comprehensive overview of the progress made by the European Community in implementing the EU Biodiversity Action Plan between 2006 and 2008. Implementing the Action Plan is a priority for the European Community.

Public education, awareness and participation are an integral part of the EU Biodiversity Action Plan and contribute to implementation of the Convention in the European Union. Measure 4 of the Action Plan sets out several points of action for this purpose. The Commission has carried out a number of communication initiatives on biodiversity over the last two years, an overview of which is given in Chapter II. It is currently considering an EU-wide Communications Campaign for 2010.

The European Community is committed to involving key stakeholders in developing and implementing its biodiversity policy. Building biodiversity partnerships is one of the supporting measures under the EU Biodiversity Action Plan. The European Community has taken concrete measures to build partnerships with businesses and is further developing this initiative. Work is underway to build concrete partnerships with different socio-economic sectors to implement Natura 2000. See Chapter II for more information.

APPENDIX I — INFORMATION CONCERNING REPORTING PARTY AND PREPARATION OF NATIONAL REPORT

A. Reporting Party

| | |
|--|---|
| Contracting Party | European Community |
| NATIONAL FOCAL POINT | |
| Full name of the institution | <i>Directorate-General Environment, European Commission</i> |
| Name and title of contact officer | <i>Hugo-Maria Schally Head of Unit Environmental Agreements and Trade</i> |
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| CONTACT OFFICER FOR NATIONAL REPORT (IF DIFFERENT FROM ABOVE) | |
| Full name of the institution | <i>Directorate-General Environment, European Commission</i> |
| Name and title of contact officer | <i>Jörg Roos Policy Officer Environmental Agreements and Trade</i> |
| Mailing address | <i>Directorate-General Environment, European Commission Office BU 9 – 5/119 B-1049 Brussels Belgium</i> |
| Telephone | <i>+32 2 29 88338</i> |
| Fax | <i>+32 2 29 86360</i> |
| E-mail | <i>jorg.roos@ec.europa.eu</i> |
| SUBMISSION | |
| Signature of officer responsible for submitting national report | “signed” (Hugo-Maria Schally) |
| Date of submission | 13 May 2009 |

B. Process of preparation of national report

This report was prepared by the contact officer for the national report mentioned above with support from colleagues from Directorate-General Environment, other European Commission departments, the European Environmental Agency and the Joint Research Centre of the Commission.

Chapter I, which provides an overview of biodiversity status, trends and threats, was drafted by the European Environmental Agency (EEA) and additional comments made by the Joint Research Centre of the Commission were incorporated. The chapter is mainly based on the information for the first European indicator-based assessment of progress on the 2010 biodiversity target, which is due to be published by the European Environmental Agency (EEA) in 2009.

Most of the factual information used in this report was drawn from the mid-term report on implementation of the EU Biodiversity Action Plan. This report provides the first comprehensive assessment of progress on implementation at both European Community and Member State level. The report meets the commitment of the European Commission to provide an annual assessment up to 2010 on progress on delivering the EU Biodiversity Action Plan. It covers the period from adoption of the Biodiversity Communication up to end of 2008 and focuses on EU and Member State level action. The report represents the last real stock-taking opportunity before 2010.

Discussions on preparation of the 2008 mid-term report have taken place within the framework of the Biodiversity Interdepartmental Group, a forum for the various Commission departments to discuss implementation of the Biodiversity Action Plan. Representatives of these departments also provide updates within the framework of the new Co-ordination Group for Biodiversity and Nature, involving Member States and key stakeholder groups. There have also been discussions with Member States, both during meetings of the Nature Directors and the Coordination Group for Biodiversity and Nature. At the Lisbon Nature Directors meeting in November 2007, a mechanism for Member States to input information to prepare the mid-term report was agreed, aiming to reduce the reporting burden to a minimum by making use of all relevant available information sources. More information can be found at http://ec.europa.eu/environment/nature/biodiversity/comm2006/bap_2008.htm.

A draft of the 4th National Report underwent an inter-service consultation within the European Commission. Comments received in the course of this consultation were considered when finalising this report.

APPENDIX II — FURTHER SOURCES OF INFORMATION

Part of the mid-term report on implementation of the EU Biodiversity Action Plan is a compilation of key information sources that were used for producing the report. The list contains detailed information on a multitude of sources for all of the objectives of the European Biodiversity Action Plan and can be found under

http://ec.europa.eu/environment/nature/biodiversity/comm2006/pdf/key_sources.pdf

Further important sources of information will be the forthcoming EU level assessment on the conservation status of species and habitats of community interest as well as the first European indicator-based assessment of progress towards the 2010 biodiversity target. Both assessments are to be published in 2009:

APPENDIX III — PROGRESS ON TARGETS OF THE GLOBAL STRATEGY FOR PLANT CONSERVATION AND THE PROGRAMME OF WORK ON PROTECTED AREAS

A. Progress on targets of the Global Strategy for Plant Conservation

The European Commission has not developed a special instrument to implement the Global Strategy for Plant Conservation, but plants and other important species are covered by the Habitats Directive. The EU Biodiversity Action Plan also contributes to the achieving the targets of the Global Strategy for Plant Conservation. The information listed below is based on Communication COM(2008) 864 on the Mid-Term Assessment of implementing the EU Biodiversity Action Plan.

No particular information can be provided on targets 1, 3, 5, 7, 8, 9, 12, 13, 15, 16.

Target 2: A preliminary assessment of the conservation status of all known plant species at national, regional and international level

Initial results from the first major assessment of species and habitat types protected under the Habitats Directive show that 50% of species, and possibly up to 80% of habitat types, of European conservation interest have an unfavourable conservation status.

An overview of national assessments, including detailed information on the status of plant species, is available and can be accessed at <http://biodiversity.eionet.europa.eu/article17>.

Target 4: At least 10 per cent of each of the world's ecological region effectively conserved

Since 2006, Member States have proposed an area larger than Portugal for protection under the Habitats Directive, extending the network for the first time to the new Member States. Likewise, under the Birds Directive, Member States have designated an area larger in size than Ireland. The combined Natura 2000 network now comprises more than 25 000 sites, covering around 17 % of all land in the European Union.

Target 6: At least 30 % of production lands managed consistent with conservation of plant diversity

Under cross-compliance, there are four main standards of Good Agricultural and Environmental Conditions (GAEC), as well as Statutory Management Requirements related to the nature Directives, which can provide significant biodiversity benefits. Most countries are already applying these measures. As part of the health check under the 2003 CAP reform, the Commission proposed strengthening the standard on landscape features under GAEC that aims to promote biodiversity. This will contribute to retaining the environmental benefits of set-aside which the Commission proposes to abolish. It is also proposed to make available additional rural development funding for biodiversity, via an increased transfer of money from the first to the second pillar of the Common Agricultural Policy (i.e. modulation).

Target 10: Management plans in place for at least 100 major alien species that threaten plants, plant communities and associated habitats and ecosystems

Work is ongoing to develop an EU Framework on Invasive Species in two steps. The first step is a Communication 'Towards an EU Strategy on Invasive Species' adopted in December 2008 (http://ec.europa.eu/environment/nature/invasivealien/index_en.htm). This Communication

identifies policy options to tackle invasive species. An ongoing study for the Commission assessing the environmental, economic, and social impacts of invasive alien species, will help policy development.

Target 11: No species of wild flora endangered by international trade

The European Community is responsible for regulating trade in wildlife. The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) has been implemented throughout the EU through regulations, which are directly applicable in the Member States. Two regulations constitute the legal framework for all EU governments and regulate international as well as internal trade in wild animals and plants in the EU. For more information on CITES implementation and the European Community please see http://ec.europa.eu/environment/cites/home_en.htm.

Target 14: The importance of plant diversity and the need for its conservation incorporated into communication, education and public awareness programmes

A Life brochure 'LIFE and endangered plants — conserving Europe's threatened flora' has been published. It is available at: <http://ec.europa.eu/environment/life/publications/lifepublications/lifefocus/documents/plants.pdf>.

The brochure explores the challenges in conserving Europe's endangered plants and highlights the role of the LIFE programme in helping to halt biodiversity loss and to restore threatened habitats and natural systems. From Romania to northern Finland, France's Seine Valley to Spain's Sierra Nevada mountains, the Mediterranean to Macaronesia, LIFE has supported a range of successful projects, helping to restore habitats and to protect endangered plants.

A further edition dealt with 'LIFE and Europe's grasslands: Restoring a forgotten habitat', see <http://ec.europa.eu/environment/life/publications/lifepublications/lifefocus/documents/grassland.pdf>.

It stresses that grassland ecosystems are home to an important share of Europe's biodiversity. They offer ideal conditions for a vast diversity of habitats and species, are the source of a wide range of public goods and services, and also act as carbon 'sinks'. Changes in agricultural practices and land use pressures mean that grasslands are disappearing at an alarming rate. This brochure highlights a selection of LIFE co-funded projects targeting grassland ecosystems within the Natura 2000 network.

B. Progress on Targets of the Programme of Work on Protected Areas

CBD COP7 adopted a programme of work to establish a system of national and regional protected areas which are representative, comprehensive, effectively managed and integrated into a global network, by 2010 for land areas and by 2012 for marine areas. The EU component of this global network is called Natura 2000. It builds upon the Birds and Habitats Directives and provides a coherent ecological framework for protected areas, to secure the long-term conservation of Europe's most threatened species and habitats.

The Birds Directive (1979) was the first piece of EU legislation designed to preserve biological diversity in-situ. A pan-European approach was necessary to coordinate and support national initiatives, especially when dealing with trans-border bird migration. The Directive called for

the establishment of special protection areas (SPAs) for endangered bird species. Wetlands are recognised in the Directive as being of particular importance for migratory birds.

The Habitats Directive (1992) established a common framework for the conservation of endangered species and habitats in the EU. It obliges Member States to designate and manage special areas of conservation (SACs).

The aim of Natura 2000 is to ensure the restoration or maintenance of natural habitats and species of Community interest at a favourable conservation status. It complements other protected wildlife areas designated at national, regional and local levels.

Plans are on target to complete the land part of Natura 2000 by 2010. Additional efforts are needed, in particular to finalise the marine network by 2012. The challenge is increasingly to effectively manage and restore sites within the Natura 2000 network.

Comprehensive information on the progress made on Natura 2000 between 2006 and 2008 is provided in Chapter II.

Extensive information on the Birds and Habitats Directives is provided in the third national report. For more information on Natura 2000 please see http://ec.europa.eu/environment/nature/natura2000/index_en.htm.

APPENDIX IV — NATIONAL INDICATORS USED IN THE REPORT

All the indicators used for this report are part of the 26 Streamlining European 2010 Biodiversity Indicators (SEBI 2010). The SEBI 2010 process began in 2005 by selecting a set of indicators to measure and help achieve progress on the European target to halt biodiversity loss by 2010.

A history of the SEBI 2010 process and technical specifications of the indicators is given in the EEA Technical report of 11/2007 ‘Halting the loss of biodiversity by 2010: proposal for a first set of indicators to monitor progress in Europe’ (http://reports.eea.europa.eu/technical_report_2007_11/en).

It is beyond the scope of this report to list comprehensive information on the SEBI indicators. However, a set of indicator fact sheets has been produced for the mid-term assessment of the EU BAP and is available here:

http://ec.europa.eu/environment/nature/biodiversity/comm2006/pdf/sebi_indicators_1.pdf
http://ec.europa.eu/environment/nature/biodiversity/comm2006/pdf/sebi_indicators_2.pdf

The SEBI 2010 indicators will provide the basis for the first indicator-based assessment on progress on the 2010 target. The assessment will be published by the European Environmental Agency and is scheduled for the first half of 2009.