



COMMISSION OF THE EUROPEAN COMMUNITIES

Brussels, 22.5.2006
COM(2006) 216 final

COMMUNICATION FROM THE COMMISSION

HALTING THE LOSS OF BIODIVERSITY BY 2010 — AND BEYOND
Sustaining ecosystem services for human well-being

{SEC(2006) 607}
{SEC(2006) 621}

TABLE OF CONTENTS

1.	Introduction	3
2.	Why is biodiversity important?	4
3.	What is happening to biodiversity and why?	5
4.	What have we done so far and how effective has it been?	6
5.	What more needs to be done?.....	10
ANNEX 1: EU Action Plan to 2010 and Beyond		
ANNEX 2: EU Biodiversity Headline Indicators		

1. INTRODUCTION

Over recent decades, humanity has benefited enormously from development¹, which has enriched our lives. However, much of this development has been associated with a decline in both the variety and extent of natural systems — of biodiversity.² This loss of biodiversity, at the levels of ecosystems, species and genes, is of concern not just because of the important intrinsic value of nature, but also because it results in a decline in ‘ecosystem services’ which natural systems provide. These services include production of food, fuel, fibre and medicines, regulation of water, air and climate, maintenance of soil fertility, cycling of nutrients. In this context concern for biodiversity is integral to sustainable development and underpins competitiveness, growth and employment, and improved livelihoods.

The recent Millennium Ecosystem Assessment (MA)³ launched by the UN Secretary General highlighted that most such services are in decline, both in the EU and globally. The bottom line, it said, is that we are spending the Earth’s natural capital and putting at risk the ability of ecosystems to sustain future generations. We can reverse the decline, but only with substantial changes in policy and practice.

The EU has made significant commitments in this regard. EU Heads of State or Government agreed in 2001 “to halt the decline of biodiversity [in the EU] by 2010”⁴ and to “restore habitats and natural systems”⁵. In 2002, they joined some 130 world leaders in agreeing “to significantly reduce the rate of biodiversity loss [globally] by 2010”⁶. Opinion polls show that these concerns for nature and biodiversity are strongly supported by EU citizens⁷.

At Community level, the policy framework to halt biodiversity loss in the EU is now largely in place. Biodiversity objectives are, for example, integrated in the Sustainable Development Strategy (SDS)⁸ and the Lisbon partnership for growth and jobs and in a wide range of environmental and sector policies. An EC Biodiversity Strategy⁹ was adopted in 1998 and related Action Plans¹⁰ in 2001. Most Member States have also developed, or are developing, such strategies and/or action plans.

While important progress has been made and there are first signs of slowing rates of loss, the pace and extent of implementation has been insufficient. Much of our biodiversity remains greatly impoverished and continues to decline. Achievement of the 2010 target is still possible but will require accelerated implementation at both Community and Member State levels.

¹ See, e.g. Human Development Index trends, in UNDP *Human Development Report 2005*

² CBD Secretariat (2006) *Global Biodiversity Outlook 2*.

³ <http://www.maweb.org>

⁴ Presidency Conclusions, Göteborg European Council 15 and 16 June 2001

⁵ COM (2001) 264 final

⁶ World Summit for Sustainable Development, Plan of Implementation

⁷ Special Eurobarometer 217 (2005)

⁸ COM (2001) 264 final

⁹ COM (1998) 42 final

¹⁰ COM (2001) 162 final

Two particular threats to EU biodiversity are highlighted. First, that of ill-considered land use and development. Member States have particular responsibility, through improved planning, to reconcile land use and development needs with the conservation of biodiversity and maintenance of ecosystem services. Second, the increasing impact of climate change on biodiversity. This reinforces the imperative for effective action on greenhouse gas emissions beyond the Kyoto Protocol targets. We must also support biodiversity adaptation to climate change, while ensuring that climate change adaptation and mitigation measures are not themselves harmful to biodiversity.

Worldwide, progress is not encouraging. There is real risk of failure to meet the global 2010 target. The EU shares responsibility for this. Our lifestyles rely heavily on imports from developing countries, the production and transport of which may often accelerate loss of biodiversity. If we are to make a difference, we must establish our credibility by protecting EU biodiversity, while redoubling our efforts to protect global biodiversity through development assistance, trade relations and international governance.

This Communication outlines the extent of the problem and reviews the adequacy of the EU response so far. It then identifies key policy areas for action, and related objectives and supporting measures to deliver the 2010 targets and put biodiversity on course to recovery. These are translated into specific targets and actions in the annexed “EU Action Plan to 2010 and Beyond.” This is addressed to both Community institutions and Member States and specifies the responsibilities of each in order to pull together action. The Plan is based on, and strongly supported by, wide-ranging expert and public consultation.

Finally, halting biodiversity loss by 2010 is not an end-point in itself. The Commission intends to launch a debate on a longer-term vision within which to frame future policy — on the kind of nature we want in the EU, and on the EU’s role in safeguarding nature worldwide.

2. WHY IS BIODIVERSITY IMPORTANT?

Does it matter if we drive more and more species to extinction? Cannot human ingenuity and technology substitute for lost ecosystem services?

For many, the loss of species and natural habitats matters because they take an ethical view that we do not have the right to decide the fate of nature. More tangibly nature is valued for the pleasure and inspiration it provides. While this value can be difficult to quantify, it provides a basis for much of our tourism and recreation industries.

From an economic perspective, biodiversity provides benefits for present and future generations by way of ecosystem services. These services include production of food, fuel, fibre and medicines, regulation of water, air and climate, maintenance of soil fertility, cycling of nutrients. It is difficult to put precise monetary values on these services worldwide, but estimates suggest they are in the order of hundreds of billions of Euros per year. These services underpin EU growth, jobs and wellbeing. In developing countries, they are vital to achievement of the Millennium Development Goals. Yet according to the MA, some two-thirds of ecosystem services worldwide are

in decline, compromised by over-use and loss of the species richness which ensures their stability.

Evidence of this decline is seen, for example, in collapsing fish stocks, widespread loss of soil fertility, crashes in pollinator populations and reduced floodwater retention capacity of our rivers. There is a limit to the extent to which human ingenuity and technology can substitute for this natural life support system and even when it can, the costs frequently exceed those of looking after biodiversity in the first place. Once they pass a certain threshold, ecosystems are often very difficult or impossible to restore. Extinction is forever. Ultimately, humanity cannot survive without this life support system.

3. WHAT IS HAPPENING TO BIODIVERSITY AND WHY?

3.1. Biodiversity state and trends

The MA found that Europe's ecosystems have suffered more human-induced fragmentation than those of any other continent. For example, only 1–3% of Western Europe's forests can be classed as 'undisturbed by humans'; since the 1950s, Europe has lost more than half of its wetlands and most high-nature-value farmland; and many of the EU's marine ecosystems are degraded. At the species level, 42% of Europe's native mammals, 43% of birds, 45% of butterflies, 30% of amphibians, 45% of reptiles and 52% of freshwater fish are threatened with extinction; most major marine fish stocks are below safe biological limits; some 800 plant species in Europe are at risk of global extinction; and there are unknown but potentially significant changes in lower life forms including invertebrate and microbial diversity. Moreover, many once common species show population declines. This loss of species and decline in species' abundance is accompanied by significant loss of genetic diversity.

Worldwide, biodiversity loss is even more alarming.¹¹ Since the late 1970s, an area of tropical rain forest larger than the EU has been destroyed, largely for timber, crops such as palm oil and soy bean, and cattle ranching; an area equivalent to the size of France is destroyed every 3–4 years. Other diverse ecosystems, such as wetlands, drylands, islands, temperate forests, mangroves and coral reefs, are suffering proportionate losses. Species' extinction rates are now around 100 times greater than that shown in fossil records and are projected to accelerate, threatening a new 'mass extinction' of a kind not seen since the disappearance of the dinosaurs.

3.2. Pressures and drivers causing biodiversity loss

The main pressures and drivers are well known. The principal pressure is habitat fragmentation, degradation and destruction due to land use change arising, *inter alia*, from conversion, intensification of production systems, abandonment of traditional (often biodiversity-friendly) practices, construction and catastrophic events including fire. Other key pressures are over-exploitation, the spread of invasive alien species and pollution. The relative importance of these pressures varies from place to place and, very often, several pressures act in concert.

¹¹ CBD Secretariat (2006) *op. cit.*

Worldwide, two key drivers underlie these pressures: population growth and growing *per capita* consumption. These drivers are set to intensify considerably, increasing pressures in particular on tropical forests, other tropical ecosystems and mountainous ecosystems. While these are less important as drivers of EU biodiversity loss, various pressures are set to increase in the EU, including demand for housing and transport infrastructure.

Other important drivers worldwide include governance failures, and the failure of conventional economics to recognise the economic values of natural capital and ecosystem services.

Added to these drivers is that of climate change, the effects of which on biodiversity (such as changing distribution, migration and reproductive patterns) are already observable. In Europe, average temperatures are expected to rise by between 2°C and 6.3°C above 1990 temperatures by the year 2100. This would have profound effects on biodiversity.

Finally, globalisation, including European trade, increases pressures on biodiversity and ecosystem services in developing countries and the EU by, *inter alia*, increasing demands on natural resources, contributing to greenhouse gas emissions, and facilitating spread of invasive alien species.

4. WHAT HAVE WE DONE SO FAR AND HOW EFFECTIVE HAS IT BEEN?

This section provides an overview of progress in implementation of the EC Biodiversity Strategy and Action Plans, and meets the requirement to report to Council and Parliament in this regard. It is based on a review of biodiversity policy carried out in 2003–04,¹² and takes into account subsequent developments.

4.1. The EU approach to biodiversity policy

The EU's policy approach recognises that biodiversity is not evenly spread, and that certain habitats and species are more at risk than others. Consequently, it affords special attention to the creation and protection of a substantial network of sites of highest nature value — Natura 2000. However, the approach also recognises that much biodiversity resides outside these sites. Action in the wider environment outside Natura 2000 is provided for by dedicated nature policy (for example, action for threatened species, and for connectivity of the Natura 2000) and by integration of biodiversity needs into agricultural, fisheries and other policies.

In the international arena, the EU's focus has been on strengthening the Convention on Biological Diversity (CBD) and other biodiversity-related agreements, pursuing their implementation and supporting biodiversity through external assistance. The EU has been active in regulating unsustainable trade in endangered species and has promoted synergy between the World Trade Organisation and multilateral environmental

¹² Further details in Malahide conference 'audit' papers, DG Environment on Europa: http://europa.eu.int/comm/environment/nature/biodiversity/develop_biodiversity_policy/malahide_conference/index_en.htm

agreements. To date, relatively limited attention has been given to biodiversity in relation to bilateral and multilateral trade agreements.

4.2. Biodiversity in EU internal policy

4.2.1. Safeguarding most important habitats and species

The basis for EU action in this regard is provided by the Birds¹³ and the Habitats¹⁴ Directives (the ‘nature directives’). While these have not yet been fully implemented in all Member States, substantial progress has been made towards designation of the Natura 2000 network. This consists of sites containing ‘sufficient’ areas of the EU’s 200 most important habitat types. The network now covers some 18% of the territory of the EU–15. Its extension to the EU–10 countries is well advanced. Species-specific action plans are proving beneficial for some of the EU’s most endangered species.

Remaining problems include the absence, as yet, of the Natura 2000 network within the marine environment, the damaging impacts of developmental activities on Natura 2000 sites, and the limited funds available for effective site management and supporting actions. The full benefits of the network, for biodiversity and ecosystem services, will only be felt when these remaining problems are fully addressed.

The outermost regions and overseas countries and territories of Member States are of international importance for biodiversity but most of these areas are not covered by the nature directives.¹⁵

4.2.2. Integration of biodiversity into the SDS, Lisbon partnership for growth and jobs, and environmental policy

Biodiversity conservation is a key objective of the SDS and 6th Environment Action Programme (6th EAP)¹⁶. It has also been recognised as an important objective to contribute to growth and jobs in the EU (two thirds of Member States address this in their Lisbon national reform programmes). Significant progress in environmental policy is yielding biodiversity benefits. The more obvious successes have been in reducing impacts of point-source pollutants, such as those of urban waste waters on ecological status of rivers. However, diffuse pollutants, such as airborne eutrophication pollutants, remain a significant pressure. The more recent framework directives and thematic strategies in the areas of water, air, marine, soil, natural resources, urban and pesticides (forthcoming) should, when implemented, ensure further progress.

4.2.3. Integration of biodiversity into agricultural and rural development policy

Agriculture, in managing a large part of the EU territory, conserves genes, species and habitats. However, in recent decades, intensification and specialisation, and at the same time marginalisation and under-utilisation of land, have resulted in significant biodiversity loss. The Common Agricultural Policy (CAP), together with broader

¹³ Directive 79/409/EC, OJ L 103, 25.4.1979, p.1

¹⁴ Directive 92/43/EEC, OJ L 206, 22.7.1992, p.7

¹⁵ Azores, Madeira, Canary Islands are covered

¹⁶ Decision No 1600/2002/EC, OJ L 242, 10.9.2002, p.1

developmental dynamics of the agricultural sector, was one of the drivers for these processes, but has since 1992 been adapted to better integrate biodiversity needs. Increasing use of agri–environment measures, Good Farming Practice, organic farming and the support of Less Favoured Areas has favoured farmland biodiversity. The 2003 CAP reform promotes these and other pro–biodiversity measures. Measures under market and income policy, including mandatory cross–compliance, the single farm payment (decoupling) and modulation, should provide indirect benefits to biodiversity.

The new Rural Development Regulation¹⁷ provides *inter alia* for enhanced support for Natura 2000, maintains agri–environmental measures and payments for areas with handicaps and provides for a set of measures in support of sustainable forest management (some tailored to enhance ecological value) such as forest–environment payments. However, realisation of the full benefit of these measures will depend on implementation by Member States and on the available budget.

4.2.4. *Integration into fisheries policy*

EU fisheries and aquaculture have had damaging impacts both on commercially harvested fish stocks, and on non–target species and habitats. While recent years have seen progress in integrating biodiversity into fisheries policy, it is too soon to judge effectiveness. However, the reformed Common Fisheries Policy (CFP)¹⁸, when fully implemented, will reduce fishing pressure, improve the status of harvested stocks and better protect non–target species and habitats.

4.2.5. *Integration into regional and territorial development policy*

The nature directives and the Environmental Impact Assessment (EIA) Directive¹⁹ require the consideration of potential impacts of certain regional and territorial developments. This includes consideration of alternatives and the design of measures to prevent and reduce negative impacts. Careful assessments carried out early in the decision–making process have proven helpful. However, it is often done too late or is of poor quality. The recent introduction of strategic environmental assessments (SEA)²⁰, which apply to certain plans and programmes, should help better reconcile conservation and development needs by ensuring consideration of impacts much earlier in the planning process.

4.2.6. *Control of Alien Species*

Invasive alien species were identified in the 6th EAP as a priority for action. While support has been given to some localised eradication programmes via LIFE funding, the Community has still to develop a comprehensive strategy to address this issue. Work has now begun on this.

¹⁷ Council Regulation (EC) No 1698/2005, OJ L 277, 21.10.2005, p.1

¹⁸ COM (2001) 135 final

¹⁹ Directive 85/337/EEC as amended by Directive 97/11/EC, OJ L 073, 14.3.1997, p.5

²⁰ Directive 2001/42/EC, OJ L 197, 21.7.2001, p.30

4.3. Biodiversity in EU external policy

4.3.1. International governance

The EU plays an active role in international biodiversity governance. The Commission and Member States believe however that implementation of the CBD needs to be substantially reinforced. The EU also actively implements a range of other biodiversity-related international agreements and promotes synergies between these.

4.3.2. External assistance

Member States are important donors to the Global Environment Facility which supports biodiversity projects. However, these funds amount to less than 1/100th of Community and Member States' total annual development aid budgets. Progress in mainstreaming biodiversity in these budgets has been disappointing, largely due to the low priority often given to biodiversity in the face of other compelling needs.

However, the Commission's Communication on Policy Coherence for Development²¹ specifies: "The EU should enhance funding earmarked for biodiversity and strengthen measures to mainstream biodiversity in development assistance." This ambition is carried forward in the new EU Development Policy²² (the European Consensus on Development Cooperation) and Neighbourhood Policy²³.

4.3.3. International trade

A start has been made on efforts to address the impact of the timber trade on tropical forests²⁴, but little has been done to tackle other trade-related causes of deforestation. Some progress has been achieved on wildlife trade through active engagement in the Convention on International Trade in Endangered Species. More generally, the EU has promoted the integration of the environmental dimension into international trade (for instance through its work on trade-related sustainability impact assessments) and in global efforts to curb unsustainable production and consumption patterns — but with few concrete results for biodiversity to date.

4.4. Supporting measures

4.4.1. Knowledge

The 6th Framework Programme²⁵, complemented by Member States' research funding, has helped strengthen a European approach to biodiversity, land use and climate change research and improve scientific support to policy for the EU and its partner regions, in particular those of the developing world. However, much more is needed to fill critical knowledge gaps. A helpful assessment of research needs has been produced by the European Platform for Biodiversity Research Strategy. The recent proposal for the 7th

²¹ COM (2005) 134 final

²² COM (2005) 311 final

²³ COM (2003) 104 final, COM (2004) 373 final

²⁴ COM (2003) 251 final

²⁵ Decision No 1513/2002/EC, OJ L 232, 29.8.2002, p.1

Framework Programme (FP7)²⁶ provides opportunity to address these needs through cooperation, new infrastructures and capacity building.

The MA has played a key role in bringing to political and public attention the current state and trends of biodiversity and ecosystem services globally. Important as this has been, there is currently no mechanism to ensure that this is regularly reviewed and updated.

4.4.2. Awareness raising and public engagement

The Community institutions, Member States and civil society have pursued a wide range of initiatives in this regard, including adoption of Directives on the Århus Convention, and the multi-stakeholder Countdown 2010 initiative. The 2010 targets provide a helpful focus to raise the political profile of the issue.

4.4.3. Monitoring and reporting

Progress is being made on the development and streamlining of indicators, monitoring and reporting. A biodiversity state indicator was selected both as a structural indicator in 2004 and as a headline sustainable development indicator in 2005. In addition, the Commission is developing a headline set of biodiversity indicators with the European Environment Agency, based on those adopted by the CBD. Work is in progress to develop monitoring approaches and tools, and to streamline reporting under the nature directives.

5. WHAT MORE NEEDS TO BE DONE?

5.1. An EU Action Plan to 2010 and Beyond

The 2003–04 policy review culminated in an important stakeholder conference held under the Irish Presidency in Malahide in May 2004 which achieved broad consensus on priority objectives towards meeting the 2010 commitments, expressed in the ‘Message from Malahide.’²⁷

Building on this, and on the analysis presented in sections 2–4 above, the Commission has identified four key policy areas for action and, related to these, ten priority objectives. Additionally, the Commission has identified four key supporting measures. These objectives and supporting measures are strongly supported by the results of a recent public consultation.²⁸

Delivery of the objectives and supporting measures will require specific actions which are set out, with related targets, in an ‘EU Action Plan to 2010 and Beyond’, annexed to this Communication. The Action Plan also specifies actions and targets for monitoring, evaluation and reporting.

²⁶ COM (2005) 119 final.

²⁷ In: Conference Report, DG Environment on Europa

²⁸ DG Environment consultation page on Europa

The Action Plan represents an important new approach for EU biodiversity policy, in that it addresses both Community and Member States, specifies the roles of each in relation to each action, and provides a comprehensive plan of priority actions towards specified, time bound targets. Success will depend on dialogue and partnership between the Commission and Member States and common implementation.

This Action Plan responds to the recent CBD call to prioritise actions to 2010²⁹, and is intended as a complement to the EC Biodiversity Strategy and Action Plans. Member States are encouraged to adjust their own strategies and action plans taking it into account.

The Commission proposes that, following consideration by Council and Parliament, implementation of the Action Plan should be overseen by the existing Biodiversity Expert Group (BEG). The BEG should also work to ensure coordination and complementarity between Community and Member States level actions.

5.2. The four key policy areas and ten priority objectives

This section introduces the four key policy areas and ten priority objectives, explains their scope, and highlights some of the key actions identified in the Action Plan.

5.2.1. POLICY AREA 1: Biodiversity in the EU

Objectives

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

Action for the EU's most important habitats and species is vital to halting biodiversity loss by 2010 and fostering recovery. Securing these habitats requires greater commitment from Member States to propose, designate, protect and effectively manage Natura 2000 sites. It also requires that they strengthen coherence, connectivity and resilience of the network, including through support to national, regional and local protected areas. The use of species action plans for the recovery of the EU's most threatened species should be extended. Comparable measures for habitats and species are required in those EU outermost regions not covered by the nature directives³⁰.

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

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

Natura 2000 and the conservation of threatened species will not be viable in the long-term without a wider terrestrial, freshwater and marine environment favourable to biodiversity. Key actions include: optimising the use of available measures under the reformed CAP, notably to prevent intensification or abandonment of high-nature-value farmland, woodland and forest and supporting their restoration; implementing the

²⁹ CBD Secretariat (2006) *op. cit.*

³⁰ i.e. measures taken voluntarily and at national initiative for French Guiana, Reunion, Guadeloupe, Martinique

forthcoming Forest Action Plan including measures to prevent and combat forest fires; optimising the use of available measures under the reformed CFP, notably to restore fish stocks, reduce impacts on non-target species and reduce damages to marine habitats; and advancing implementation of key environmental framework directives and thematic strategies which reduce pressures on biodiversity, notably by improving the quality of freshwater, of the marine environment and of soils, and by reducing diffuse pollutant pressures (e.g. airborne acidifying and eutrophication substances, nitrates from farm sources, pesticides).

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

Better planning at Member State, regional and local levels holds the key to preventing, minimising and offsetting negative impacts of regional and territorial development, thereby reinforcing the compatibility with biodiversity. This requires taking account of biodiversity needs 'further upstream' in the decision-making process. Key actions include: effective treatment of biodiversity in SEA and EIA; ensuring that community funds for regional development benefit, and do not damage, biodiversity; and building partnerships between planners, developers and biodiversity interests.

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

Various measures for the prevention and control of invasive alien species are in place but some policy gaps may remain; a comprehensive EU strategy should be developed for this purpose as well as specific actions including an early warning system.

5.2.2. *POLICY AREA 2: The EU and global biodiversity*

Objectives

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

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

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

New impetus in Community and Member State action is required if the commitment to significantly reduce the rate of biodiversity loss globally by 2010 is to be met. A more coherent EU approach is required, which ensures synergy between actions for governance, trade (including bilateral agreements) and development cooperation. Regarding governance, the EU should focus on more effective implementation of the CBD and related agreements. Regarding external assistance, the EU should enhance 'earmarked' funds for biodiversity and strengthen mainstreaming of biodiversity into sector and geographical programmes. Regarding trade, measures to address tropical deforestation, including trade in commodities which drive deforestation, are particularly

urgent. Rapid implementation of the programme of Forest Law Enforcement Governance and Trade³¹ can make an important contribution in this regard. Effective action in the biodiversity-rich overseas countries and territories of Member States is vital to the EU's credibility in this international arena.

5.2.3. *POLICY AREA 3: Biodiversity and climate change*

Objective

9. *To support biodiversity adaptation to climate change.*

There is broad scientific and political consensus that we have entered a period of unavoidable and unprecedented climate change. Impacts on biodiversity in the EU are already measurable. Climate change has the potential, over a period of a few decades, to undermine our efforts for the conservation and sustainable use of biodiversity.

Substantial cuts in global greenhouse gas emissions are required to mitigate the longer-term threat to biodiversity. We must honour our Kyoto commitments and more ambitious global emissions targets post-2012 are needed in order to limit the increase in global annual mean temperature to no more than 2°C above pre-industrial levels.

Protection of biodiversity can help limit atmospheric greenhouse gas concentrations because forests, peat lands and other habitats store carbon. Policies will also be needed to help biodiversity adapt to changing temperature and water regimes. This requires in particular securing coherence of the Natura 2000 network. Care must also be taken to prevent, minimise and offset any potential damages to biodiversity arising from climate change adaptation and mitigation measures.

5.2.4. *POLICY AREA 4: The knowledge base*

Objective

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

Understanding biodiversity presents one of the greatest scientific challenges facing mankind. There is a critical need to strengthen our understanding of biodiversity and ecosystem services, if we are to refine our policy response in future. This requires strengthening (under FP7 and national research programmes) the European Research Area, its international dimension, research infrastructures, the science-policy interface and data interoperability for biodiversity. This should exploit emerging information and communication technologies. Subject to funding being found from existing financial resources, the Commission will establish an EU mechanism for independent, authoritative research-based advice to inform implementation and further policy development. Internationally, the EU should identify and support ways and means to strengthen independent scientific advice to global policy making, *inter alia* by actively contributing to CBD consideration of the 2007 evaluation of the MA, and the ongoing

³¹ COM (2003) 251final

consultations on the need for improved International Mechanisms on Scientific Expertise on Biodiversity.

5.3. The four key supporting measures

1. *Ensuring adequate financing*

Adequate financing, both for Natura 2000 and for biodiversity outside Natura 2000, is essential. The new Financial Perspectives for 2007–13 open opportunities for co-financing of biodiversity and Natura 2000 under the Fund for Rural Development³², the Cohesion and Structural Funds³³, Life+³⁴ and FP7. However, the budget reduction foreseen by the December European Council³⁵ would certainly influence funding options for biodiversity under these instruments. Consequently, national implementation choices will be crucial. The Community and Member States will need to ensure, through Community co-financing and Member States' own resources, adequate financing of the Action Plan, notably in relation to Natura 2000, high-nature-value farmland and forests, marine biodiversity, global biodiversity, biodiversity research, monitoring and inventory. In any case the allocation of Community financial resources should take into account the budgetary constraints and be within the limits of the new Financial Perspectives.

2. *Strengthening EU decision-making*

This involves: improving coordination and complementarity between Community and Member States, notably through the BEG; ensuring existing and new policies and budgets (including those developed under Lisbon Strategy National Reform Programmes) take due account of biodiversity needs; taking account of environmental costs (including loss of natural capital and ecosystem services) in decision-making; improving coherence at national level between various plans and programmes affecting biodiversity; and ensuring decision-making at regional and local level is consistent with high-level commitments for biodiversity.

3. *Building partnerships*

This involves building progressive partnerships between government, academia, conservation practitioners, landowners and users, private sector, finance sector, educational sector and the media to frame solutions. It involves building on existing provisions (e.g. under the CAP and CFP) and the development of new partnerships, including outside the EU.

³² Regulation (EC) No 1698/2005, OJ L 277, 21.10.2005, p. 1 and Decision No 2006/144/EC, OL L 55, 25.2.2006, p. 20

³³ COM (2004) 492, 493, 494 , 495, 496 final

³⁴ COM (2004) 621 final

³⁵ Presidency Conclusions, European Council Brussels, 15 and 16 December 2005

4. *Building public education, awareness and participation*

This involves development and implementation of a communications strategy in support of the Action Plan, working closely with the Countdown 2010 initiative, and implementation of the Århus Convention and related Directives³⁶.

5.4. *Monitoring, evaluation and review*

The Commission will report annually to Council and Parliament on progress in implementation of the Action Plan, starting with the period from adoption of this Communication to end 2007.

The second report (to end 2008) will include a concise mid-term evaluation of progress towards the 2010 targets.

The fourth annual report (to end 2010) will evaluate the extent to which the EU has met its 2010 commitments. This will involve qualitative assessment of the extent to which Action Plan actions have been implemented and targets achieved, including consideration of underlying assumptions and possible missing actions. The evaluation will also be informed by quantitative data relating to a set of headline biodiversity indicators (Annex 2). A biodiversity index will be developed as a sustainable development and structural indicator in 2007. The Commission will develop and implement these indicators and related monitoring in partnership with Member States and civil society.

The seventh annual report (to end 2013) will provide a similar evaluation, addressing also all post-2010 targets in the Action Plan.

These evaluations will inform final evaluation of the 6th EAP, review of sectoral policies and budgets during the 2007–2013 period, and policies and budgets for the post-2013 period.

5.5. *A longer-term vision for biodiversity and the EU as a frame for policy*

Finally, halting the loss of biodiversity and putting it on the road to recovery are important milestones. However, there is a need to look beyond 2010 towards a longer-term vision as a framework for policy. This vision should recognise our interdependence with nature and the need for a new balance between development and the conservation of the natural world. The Commission will launch a debate in this regard.

³⁶ Directives 2003/4/EC, OJ L-41, 14.2.2003 p. 26 and 2003/35/EC, OJ L156, 25.6.2003, p. 17