



## **Sectoral Integration of Biodiversity in Hungary**

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## 1. Introduction

Hungary reported<sup>1</sup> the efforts to integrate biodiversity conservation and sustainable use into relevant sectoral and cross-sectoral plans, programmes and policies in Hungary.

One of the key challenges for Hungary is how to reconcile the improvement of the quality of life and environment, preservation of environmental assets and biodiversity, and sustainable use of natural resources with economic development and economic interests.

Hungary has managed to preserve its biodiversity to a large extent. However, the efficiency of measures to protect the environment has not reached the desirable level yet. The real challenge is not only integrating biodiversity into sectoral policies but to achieve the real implementation of these principles.

The main policy objectives of the relationship of economy and environment are laid down in the successive National Environmental Programmes. The first six-year National Environmental Programme (NEP-I, 1997-2002), approved by the Hungarian Parliament in 1997, focused mainly on the reduction of the emission of traditional pollutants. The second six-year National Environmental Programme (NEP-II, 2003-2008) adopted in 2003, aimed at the integration of the objectives of environmental policy into economic, sectoral and regional strategy preparation, planning and programming activities. The third National Environmental Programme (NEP-III, 2009-2014), including the third Nature Conservation Master Plan, has already been drafted, the adoption process is under way. The overall target areas of NEP-III are the followings: improving the quality of urban life and environment; conserving natural resources and assets; promoting sustainable livelihood, production and consumption, and improving environmental safety. The National Biodiversity Strategy will be part of NEP-III.

The National Environmental Programmes are always adopted by way of parliamentary resolutions. Financing for the NEPs are provided mainly through the national budget, adopted annually in the form of an act of Parliament or through European funds, governed by European Community (EC) regulations.

During the development of national policies (legislation, strategies and programmes), inter-ministerial conciliation takes place. This mechanism ensures that all relevant sectors have the possibility to influence the decision making process. In this way, the Ministry of Environment and Water makes efforts to integrate biodiversity conservation aspects into sectoral and cross-sectoral policies.

After a decade of preparatory work in 2007 the institution of the Commissioner for Future Generations was established by the Hungarian Parliament. Above all, the Commissioner is an environmental ombudsman: his principal responsibility is to safeguard citizens' constitutional right to a healthy environment. He is empowered to carry out investigations in relation to all issues that may affect

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<sup>1</sup> Hungary (2009). Fourth National Report to the Convention on Biological Diversity, Ministry for Environment and Water, 28 May 2009, 81 pp.

citizens' constitutional right to a healthy environment. Thus the field of competence of the Commissioner also extends to issues concerning biodiversity conservation.

## **Integrating biodiversity conservation into relevant sectors**

### **2. Agriculture**

The National Agri-Environmental Programme (NAEP), launched in 2002, was prepared in the framework of a multiannual co-operation of the Ministry of Agriculture and Rural Development and the Ministry for the Environment and Water. Within this, the areas with significant natural value were addressed as a zonal target programme of Environmentally Sensitive Areas (ESA).

In 2002 the rules applicable to Environmentally Sensitive Areas (ESAs) were set in legislation (Joint Decree of the Minister of Environment and Water and of the Minister of Agriculture and Regional Development). It identified three categories of ESAs: highly important ESAs (without low-input production their maintenance is doubtful in medium time period.), important ESAs (low-input production is necessary to the conservation of their values or to improve their condition) and planned ESAs (the natural value of these areas can be increased by supporting extensive cultivation). The total size of highly important ESAs is 1,980,000 hectares. Zonal or horizontal measures facilitate agricultural land uses in line with nature conservation and environmental considerations in an area-based manner and ensure the conservation and maintenance of natural values along sufficient income generation by laying down special conditions. The aim of the programme elements is to contribute to the widespread application of management methods in compliance with the local characteristics, to the establishment of landscape management, and to the conservation and improvement of the environmental and natural values of the area. In the framework of the National Agri-Environmental Programme, ESA measures were initiated in 11 sample areas in 2002, and expanded to 4 further ESAs in 2003.

In 2004, the continuation of the National Agri-Environmental Programme was implemented within the framework of the objectives of the National Rural Development Plan (NRDP). Again, one of the main objectives was to continue – among the agri-environmental measures – the establishment of a system of environmentally sensitive areas which are most important in terms of maintaining the natural environment. Among the measures of the NRDP, farmers, provided that they voluntarily undertake to comply with the management requirements of the measure, are entitled to receive area-based financial subsidies and payments for the favourable environmental performance of their holdings. The amount of payment is proportionate to the complexity of the measure and to the expected effects on the environment and the economic return of production.

In 2004-2009 ESA measures were implemented in 15 sample areas and successful applications were submitted for a three times larger total area (ca. 120,000 ha) than in 2002 when the programme was initiated.

The European Agricultural Fund for Rural Development (EAFRD) provides new opportunities for compensating environmental and conservational management prescriptions and for subsidizing

voluntary agri-environmental and forest-environmental measures. Based on the EARDF regulation of 2005 Natura 2000 payment was launched in 2007. Regarding the obligatory management prescriptions of the Natura 2000 network this payment (38 euro/hectare) compensate the income foregone and the extra costs of the farmers managing Natura 2000 grassland areas. In 2008 the Payment Agency received 2,634 applications with a territory of 73,000 ha in this measure. The Ministry of Agriculture and Rural Development (MARD) and the Ministry of Environment and Water intend to provide facility to launch the Natura 2000 payments in forest areas as well.

By finding the suitable balance between the compulsory conservational requirements and the possibility of voluntary measures the agri-environmental measures under the New Hungary Rural Development Plan (NHRDP) will be implemented in 2009. Taking the various environmental characteristics of agricultural areas into consideration, and in order to implement high quality environmental management programmes, 21 different schemes have been defined within the framework of this action (9 for arable plant production, 6 for grassland management and planting, 3 for the environmentally friendly management of plantations and 3 for the management of wetlands).

The general programme specifications are:

- implementation of the management prescriptions of the scheme undertaken, compliance with the eligibility criteria during the entire term of the support (5 year, or in case of compulsory set-aside for water-protection purposes scheme 10 years)
- compliance with the guidelines set forth in Article 4 and 5, as well as Annex III of European Union Regulation 1782/2003/EC pertaining to mutual correspondence, and the requirements stipulated in Annex IV of the Regulation on the maintenance of "good agricultural and environmental conditions" in the area of the farm,
- compliance with the minimum requirements of nutrient management and the pesticide use on the whole farm,
- keeping farm management records for the whole farm,
- participation on 2 agri-environmental trainings (organised by the MARD) during the schemes period.

On improving of the ESA network the zonal agri-environmental schemes with high environmental performance will be eligible in 2009 for farmers in 25 sample areas, on approximately 914,000 ha. The overlapping of ESAs with the Natura 2000 sites is quite notable as more than 50% of this area is part of the Natura 2000 network as well.

According to the NHRDP the 'Assistance provided to non-productive investments' measure will also be implemented in 2009, in order to conserve the rural landscape, to promote the maintenance of the individual value of the landscape, increase of the richness in species of the fauna and flora, an improvement of the environment's condition, facilitation of the fulfilment of the commitments made on a voluntary basis and increase public welfare in the areas of high natural value, specified in Natura 2000.

Serving the habitat rehabilitation goals of the Natura 2000 areas the measure allocates sources among others for plantation of hedgerows and field-protecting trees, for establishment of grassland for nature conservation purpose.

### **3. Forestry**

The main objectives of the forestry policy are: to assure the long-term environmental, economic and social benefits of forests; to harmonise the society's interests with forest owners' and economic interests; and to increase the forest area up to 25-27% of the territory of the country. However, the practical implementation of objectives promoting biodiversity conservation faces difficulties several times.

Protection of forests and forest biological diversity is incorporated into the National Forest Programme (NFP) for 2006-2015. The NFP states that during the conservation of forests not only species but the whole forest ecosystem should be considered. The target program on "conservation in forests" has a general approach meaning that conservation of natural values, areas and the biodiversity of forests can not be restricted solely to objects (e.g. species, habitats, areas), but whole systems should be protected together with their respective buffer zones. In reasonable cases whole natural areas should be protected together with their ecological potential. NFP includes objectives related to the National Ecological Network and Natura 2000 sites, forest naturalness and biodiversity conservation, as well as to the introduction of near-natural forest management.

According to the currently effective legislation, the integration of nature conservation objectives targeting the maintenance and conservation of forests can be achieved through the system of planning and controlling (conservation management plans, district forest management plans and related administrative system) and the subvention of forest managers.

The main aim of district forest management plans is to provide planning for forest management; therefore they are not primarily targeting conservation planning. However, these basic plans in forestry can not be finalized without taking in account conservation aspects. Accordingly, on the basis of relevant legislation, plans concerning protected natural areas can only be approved in agreement with the Minister of Environment and Water. In the case of non-protected forests the opinion of the Minister of Environment should be taken in notice. In the case of protected forests, until the development of conservation management plans, the district forest management plan must be considered in replacement. The harmonisation of conservation management plans and district forest management plans is difficult as they have different geographical scope and different time-frame.

From 2004 a new opportunity to link nature conservation objectives to management techniques is the forest-environmental measure of the New Hungary Rural Development Plan.

Private forest owners will be able to apply for payments regarding special voluntary measures aiming to protect forest biodiversity presumably from 2010. From nature conservation aspects, the most important payments are related to compensation for forests on Natura 2000 sites, voluntary forest-

environment payments and afforestation. The support for afforestation is already available, while preparation of the others is ongoing.

The new Act on Forests and the Protection of Forests is currently under development.

The draft new act introduces the concept of 'naturalness', according to which forest areas will be classified into six categories from plantations to natural forests. Regarding forests on protected natural areas the regulations of the Act on Nature Conservation will continue to be determinative. The draft new Act on Forests includes and recommends management systems aiming at continuous forest cover. Forests are also classified according to protective, social and economic functions. The new act is planned to include 'Natura 2000 function' among the protection function, which would be important in case of forests outside protected natural areas.

#### **4. Fisheries**

The National Fisheries Strategic Plan 2007-2013 incorporates ecosystem-based management and identifies at least one specific objective and one medium-term aim towards that end. One of the Specific Objectives of the National Fisheries Strategic Plan 2007-2013 is 'Slowing down the degradation of natural aquatic habitats, restocking indigenous species and reducing the overpopulation of invasive fish species'.

One medium-term aim of the sector concerning production is 'The number of multifunctional farms (fish production, nature conservation, eco-tourism, angling tourism) should be increased, parallel to this fisheries services should develop and production should be demonstrated as many places as possible (e.g. harvesting shows for the public). Integrated pond production should be introduced, as many places as possible and it should be in harmony with the given agro-ecosystem.'

It is also stated in the National Fisheries Strategic Plan that 'Capture fishery has (and always had) an outstanding role in the utilisation of the natural resources in aquatic ecosystems. Based on traditional values, knowledge and experiences it is able to apply a system approach, so called 'wise use', during the utilisation of natural resources in a particular ecosystem.'

#### **5. Regional development**

National Spatial Development Concept (2005) defines the overall objectives of regional development policy until 2020. The document consists of the medium-term national territorial objectives until 2013 as well, for instance spatially integrated developmental priorities for rural areas. This part defines development priorities of the different types of rural area, including 'areas rich in valuable natural and cultural landscape'.

The revision of the Act on National Spatial Plan in 2008 has led to the greater integration of biodiversity considerations into spatial planning. The revised NSP contains framework regulations regarding the land use of the zones of the updated and revised National Ecological Network. The restrictions of the National Spatial Plan (NSP) include the following:

- Within the national ecological network, only special regional or county land use categories and zones may be established which do not damage the natural and seminatural habitats of the ecological network and their relationships;
- Within the zone, mining activities may be pursued in line with the provisions applicable to mining areas;
- In the Special Regional Land Development Plan and County Land Development Plan, the zones of the national ecological network should be classified as core area, ecological corridor and buffer zone.

The NSP defines further land use restrictions regarding the zones of the core area, ecological corridor and buffer zone as classified in the Special Regional Land Development Plan and County Land Development Plan.

Act on the General Rules of Environmental Protection and Government Decree on the environmental assessment of certain plans and programmes require an environmental assessment of local, regional and national development plans, when they fall under the scope of the environmental assessment regulation. These plans must take account of the interests of biodiversity conservation and in particular the coherence of the Natura 2000 network.

## **6. Land use planning**

Applicable nature conservation and planning legislation (Act on Regional Development and Physical Planning as well as their implementing decrees) provide for a strict protection of designated nature conservation land and of protected species. The legislative requirements have been reinforced and complemented by the jurisprudence of the Hungarian Constitutional Court which has consistently ruled on several occasions that de-classification of protected land is only possible in the light of overriding interests relating to human health and safety, but not with reference to economic interests. Natura 2000 sites enjoy similar legislative protection.

Building permits or any other development permits can be issued for protected areas at a very limited scope and always subject to the prior approval by the nature conservation authorities. The shoreline and the floodplain of natural or semi-natural watercourses are protected by the Nature Conservation Act. Only water management facilities are permitted in floodplains. It is also prohibited to locate new buildings or any other constructions within 50 metres of the shoreline of natural or near-natural watercourses and wetlands, within 100 metres of the shoreline of lakes and ponds and in the flood-plain of watercourses in designated natural areas.

## **7. Transport**

An official national standard was prepared and published on ecological corridors arching through public roads in order to offer feasible technical solutions to mitigate habitat fragmentation effects of public roads intersecting natural habitats. The standard is under review, the updated version will be published soon.

The Environment and Energy Operational Programme (EEOP), starting in 2007, finances the establishment of corridors under or over public roads and railroads in order to reduce the adverse effect of linear structures on Natura 2000 network in Hungary.

## **8. Energy**

Efforts were made to integrate the aspects related to biodiversity conservation in the energy sector especially during the implementation of the activities in connection with renewable energy production and use. The three main pillars of the Hungarian Energy Policy (HEP) for 2007-2020 is security of supply, competitiveness and sustainability. In the context of the HEP, sustainability means taking into account environmental concerns, primarily controlling greenhouse gas emissions. The concrete related tasks are included in the programmes to improve energy efficiency and to promote the development and use of renewable energy. Biodiversity is not mentioned specifically in the HEP. The basic principle of the Strategy on Increased Utilization of Renewable Energy Sources (2008-2020) in Hungary is to increase the ratio of domestic renewable energy use in accordance with country characteristics and environmental, economic and social sustainability aspects.

A practical example for the cooperation of the energy and nature conservation sectors is the following: The Ministry of Environment and Water and the Hungarian Ornithological and Nature Conservation Society signed a new “Accessible sky” agreement with the major electric companies in 2008 in order to protect bird species against electrocution. The electric companies involved promised a ‘bird-friendly’ transformation of all dangerous power lines in Hungary by 2020, and agreed to only use ‘bird-friendly’ methods when constructing new power lines. The work is financed by European and Hungarian funds, and also by the electric companies themselves.

## **9. Tourism**

The fundamental policy document in the field of tourism, the National Tourism Development Strategy for 2005-2013, places a special emphasis on the integration of environmental concerns into the development of the tourism sector. The three main objectives laid down by the Strategy are as follows:

- Optimization of the effects on society: Greater participation in tourism will contribute to the evolution of a visitor friendly society and ensure better planning conditions (local participation, bottom-up initiatives);
- Preservation of cultural heritage: Hungarian cultural heritage must be preserved. Destinations should differentiate themselves with their specific image (traditions, natural and built environment). Local population should be made aware of beneficial effects of tourism like renovating of built heritage, additional incomes, greater social cohesion and economic diversification. Responsible tourism practices must prevent irreversible damage caused by excessive exploitation of resources;
- Optimization of the effects on environment: Tourist stakeholders, enterprises play a pivotal role in changing environmental attitudes. Tourists must be made aware of the expected behaviour (information, convincing) at protected areas; appropriate argumentation is a better incentive than prohibition. The



impact of tourism on global environment must be highlighted besides the local effects. Tourist enterprises and visitors must be informed about the negative effects on biodiversity and the restrictive measures. Environment friendly operation of tourist enterprises must be encouraged (changing of attitudes, regulation, sanctions). The impact of tourism on the environment must be quantified; sustainable destinations must be acknowledged. Air pollution must be reduced through environment friendly solutions. Local raw materials, renewable energy resources should be utilized. Tourist developments need planning and impact assessments.

In addition to the overall strategy of tourism, the National Ecotourism Development Strategy (NEDS) was prepared in 2008 with the coordination of the Ministry of Local Governments and Regional Development and the involvement of the Ministry of Environment and Water and the national park directorates. The NEDS sets out ecological, socio-cultural, economic and touristic objectives. The ecological objectives are to maintain ecological diversity and to maintain and improve the environmental status of the certain destinations.

Cooperation started between the Hungarian Tourism Company and the Ministry of Environment and Water for the organisation of the '2007 – Year of Green Tourism' campaign. In 2007 in-depth research was conducted on public demand on ecotourism, the outcomes of which can be used in planning processes. In connection with the Year of Green Tourism national park directorates developed special programme offers, services and information systems in tourism. In the framework of the aforementioned cooperation, publications, educational leaflets were published, domestic and international exhibitions (e.g. Hungarian 'Travel exhibition'), public events (Day of European National Parks, Week of Hungarian National Parks, Consultation Days for Eco-tourism) have been organised, marketing and communication activity of national park directorates has been improved significantly. Several new facilities were built at the national parks, for instance visitors' centres, conference and education centres and other programme destinations.

Eco-tourism activities, for instance development of visitor centres, nature trails, complex ecotourism services, are financed from the regional operative programmes of the New Hungary Development Plan.

Case study: Conservation and Sustainable Use of Biodiversity through Sound Tourism Development in Biosphere Reserves in Central and Eastern Europe

The international program supported by the Global Environment Facility and UNEP was implemented in 3 selected biosphere reserves (in Czech Republic, Poland and Hungary) in the period between 2005 and 2008. The overall goal of the project was to promote the conservation and sustainable use of biological diversity through the development and implementation of sustainable tourism practices in the 3 participating biosphere reserves.

These practices were consistent with the conservation and sustainable use of vulnerable mountain ecosystem biodiversity by using the UNEP/CBD International Guidelines for Biodiversity and Tourism Development.

In this context the project aimed to:

- Give support to the development and implementation of tourism management plans in relation to biodiversity objectives.
- Create and strengthen an enabling environment for combining sustainable tourism development and biodiversity conservation.
- Support international cooperation among the participating countries, especially with regard to trans-boundary cooperation, to enhance knowledge on tourism and biodiversity.
- Facilitate a consultative process with key stakeholders (in the public and private sectors) to ensure their active participation and influence in the development of public policies for sustainable tourism development and management in vulnerable mountain and forest areas

The project area in Hungary was the Aggtelek Biosphere Reserve, where the following main activities were carried out:

A set of sustainability indicators were developed and a monitoring system was established to track and evaluate the role and the social, economic and environmental effects of tourism in the region. In parallel, research was made on the ecological and tourism carrying capacity of the region and selected sites. The findings are to be used in planning.

Landscape history researches helped to identify the traditional land use structures and patterns, which provide information and knowledge to the establishment of farming and land use practices and other activities integrated into the landscape.

Detailed data collection and processing was carried out to provide raw data to other researches and surveys, and additionally to help in the promotion activities and in gathering tourist information.

Long-term tourism management plan was developed for the Aggtelek National Park, which also deals with the surrounding areas and the transboundary linkages. Based on the demands of the stakeholders, training courses, education programs and other capacity building actions were carried out.

Of the traditionally managed agricultural areas, special attention was given to extensive orchards, because these habitats harbor unique, endangered and irreplaceable fruit types (genetic diversity) on the one hand, and integrated elements of the traditional landscape on the other. Maintenance of these sites is essential for the local as part of the traditional life, and also as an attraction for tourists. Attention was given to the conservation of related infrastructure, too, thus a community fruit dryer was built. To maintain the genetic variability of the fruits in the region, in-situ and ex-situ gene banks were established, and the local population has been encouraged to use them.

As an economically underdeveloped region, the people of Gömör-Torna Karst in the Aggtelek Biosphere Reserve still bear the traditional culture and knowledge. Based on this knowledge, tourism product development (services built on local resources, like itineraries and syllabuses for guided walks and

nature trails, exhibition plan outlines, souvenirs, modern articles) and coaching of local craftsmen was another activity of the project.

Traditional housing is essential in soft tourism. The project area is rich in beautiful old buildings, but unfortunately the task of maintenance in many cases exceeds the capacity of the owners. Within this program, guidelines and information were provided to the locals on how to renovate and maintain the traditional housing patterns; moreover, minor financial contribution was also given to such activities.

During the project period, the most important tourism-related event (a 10-day-long cultural festival) in the region was also supported, with special attention to increase the number of actively involved communities from both sides of the state border (Slovakia/Hungary).

In order to utilize the achievements of the project (for the benefit of the local stakeholders) to the highest level possible, a holistic marketing plan was developed. To strengthen promotion and to provide quality insurance, a regional qualification and labeling scheme was drafted.

Although the direct project area covered Aggtelek BR, a transboundary approach was applied during the implementation. Stakeholders from the neighboring Slovensky Kras BR were encouraged to join the relevant activities in Hungary (due to the special history of the region, there was no need to tackle language barriers). This horizontal feature helped multiply the impacts of this composite, 3-years program.

At the Ninth Meeting of the Conference of the Parties to the CBD a side-event was held on 22 May to highlight results, good practices and lessons learned from this UNEP/GEF project. In parallel with the side event in Bonn, a press conference and the closing celebration of the UNEP/GEF project was organized at the project site in Jósvali, Aggtelek National Park in Hungary.

## **10. Education**

Environmental education is incorporated in the educational legislation. According to the amendment of the Act on Public Education every Hungarian public educational institution must develop its programme for school-based environmental education. The development priorities of Hungarian public education are spelled out in the Mid-term Strategy for Public Education, issued by the Ministry of Education in 2004.

The Nature Schools and Nursery Schools Programme is jointly operated by the Ministry of Environment and Water (MEW) and the Ministry of Education and Culture (MEC), and it is being implemented with the involvement of the Hungarian Federation of Environmental Study Centres as a partner institution. The programme is organised during the school term with the aim is to make students become more familiar with the natural environment and biodiversity, to raise awareness about the importance of sustainable development and biodiversity conservation. In order to legitimise the Nature School and Nursery School qualification procedure, the MEW, the MEC and Hungarian Federation of Environmental Study Centres signed a co-operative agreement in 2007, which ensures the continuity of the qualification activity. On the basis of the certification procedure and the agreement of the three above

mentioned responsible institutions, 100 nature school service provider institutions and one nature nursery were certified in 2008.

The Green Nursery Schools Programme extended environmental education to the lower grade education. Every year the MEW and the MEC jointly announce a call for applying for the 'Green Nursery School' awards.

The Hungarian Eco-School Network coordinates schools that have the pedagogical values of sustainability at the centre of their operation and gives them assistance by the provision of information, organisation of training courses and events. The difference between an eco-school and an ordinary school is that the principles of environmental education and the pedagogy of sustainability prevail not only in teaching but in all areas of school life. The network is open to all public education institutes in Hungary. Over 350 institutions have been granted the honourable title and the Eco-School Certificate.

## **Other national and sub-national strategies, programmes and processes**

### **11. New Hungary Development Plan**

The most relevant objective of the New Hungary Development Plan (NHDP) relates to raising the level of employment and establishing conditions underpinning permanent growth.

Therefore, development was launched in 6 priority areas, namely: economy, transport, initiatives targeting social renewal, environmental protection and energy, regional development and tasks relating to state reform. The government has approved 15 operational programmes of the New Hungary Development Plan, within the framework of which development activities are financed in the period of 2007-2013 with the assistance of EU funding.

The Environment and Energy Operational Programme of the New Hungary Development Plan 2007-2013 integrates biodiversity conservation measures, in particular in the 'Wise management of natural assets' priority axis. Main objectives under this priority axis are to protect and restore protected natural and Natura 2000 areas and assets and to support environmental education. Projects aiming at the implementation of these objectives are financed from EEOP in order to preserve the natural and traditional landscape features, and individual landscape values of the Pannonian biogeographical region.

### **12. New Hungary Rural Development Programme**

The NHRDP is discussed in the above section on Agriculture.

### **13. National Sustainable Development Strategy**

The National Sustainable Development Strategy (NSDS) was approved by the Government in June 2007. One of its basic principles is the sustainable management of natural resources and biodiversity. Based on the processes and trends threatening sustainability, the NSDS sets priorities in order to facilitate sustainability by positively affecting key processes.

One of these priorities is to protect natural values and biodiversity. Preserving the operability of natural ecosystems is a fundamental prerequisite for the sustainability of both the economy and of social life. Under this priority, the most important fields of action are the followings:

- Active protection of natural values. This includes the conservation of habitats, species biodiversity and sustainable land use.
- Integration. This action describes that biodiversity may be preserved and natural resources may be sustainably used only through an active effort on the part of all players of the economy and all members of society. Regarding the required actions and steps in the areas of spatial development, tourism, hunting, mining, and fisheries, it refers to the relevant parts of the National Biodiversity Strategy.
- Institutional protection. In order to slow down and stop degradation processes in nature, this action aims that, sufficient funding should be provided for institutional nature conservation.
- Change lifestyle and attitude. The success of efforts aimed at preserving the natural environment depends on whether people regard biodiversity valuable and whether people understand the complex relationships involved and the interdependence of nature, society, and economy. Strengthening environmental awareness, facilitating the process of understanding and encouraging people to adopt sustainable modes of life are crucial requirements.
- Participation. The active participation of all stakeholders is needed in the implementation of actions.

#### **14. National Climate Change Strategy**

The National Climate Change Strategy (NCCS) for the period 2008-2025 has two main parts: on the mitigation of and also on the adaptation to climate change. The adaptation part of the NCCS describes and accepts the importance of ecosystem services.

The main objective of the actions proposed in relation to natural flora and fauna and nature conservation in the adaptation part of the NCCS is to maintain or possibly enhance the inherent adaptation capacity of biodiversity. The main opportunity for mitigating the harmful effects of climate change is the improvement of the adaptation capacity of the habitats to climate change. Therefore, the tasks to be completed are divided into two main groups:

1. Tasks to be completed in order to promote local adaptation, to preserve and increase the existing biodiversity and maintain and improve the naturalness thereof (also in nonprotected areas):

- Nature conservation: elaborating the priority lists of habitats and species considered as sensitive to the climate change; preserving and regenerating the biological (landscape, species, genetic etc.) diversity; restoring the water retaining capacity of aquatic habitats and developing the possible means for ensuring extra water supply; implementing or continuing the necessary habitat reconstruction projects; preserving the heterogeneity, mosaic-like character and different successive stages of the habitats; introducing approaches that reduce the increasing risk of invasion, strengthening the monitoring activities in order to track the processes.

- Water management: eliminating the necessity of water drainage; operating the reservoirs in accordance with the ecological considerations; revising the system of water rights authorisation (soil and deep groundwater uses); implementing the complex water management system specified by the Water Framework Directive in accordance with the ecological regulations and nature conservation considerations.

- Forest management: wider application of forest management practices based on natural processes, maintaining a contiguous forest coverage, applying natural forest renovation methods, converting forests which are inappropriate to the habitat and/or have non-native species, maintaining the park forests with lower closure in the foreststeppe zone, preserving the landscape, habitat, species, successional, genetic etc. diversity of forests and the natural processes and natural values of forests as much as possible; creating buffer areas in the vicinity of sensitive habitats.

- Agriculture: preserving or revitalising the elements of traditional landscape management (lawn mowing and grazing); creating buffer area in the vicinity of sensitive habitats and – especially in these areas but possibly everywhere – shifting towards less intensive farming methods that cause lower environmental burden; land use changes.

2. Tasks to be completed in order to enhance the intercommunication through the landscape surrounding natural areas and to facilitate the migration of species (measures mostly related to areas currently without protection):

- Nature conservation: ensuring migration between the areas having natural flora and fauna; evaluating the areas with various protection status and the National Ecological Network in terms of climate change considerations, identifying the conflict points; developing the nature conservation areas and Natura 2000 areas and regular revision of the boundaries thereof in line with the movements of species and biocenoses.

- Water management: water management in accordance with the recommendations of the EU Water Framework Directive and taking ecological considerations into account; restoring the water retaining capacity of aquatic habitats, and developing the possible means for ensuring extra water supply. The water supply and water levels should follow their natural course as closely as possible and areas that were originally exposed to water coverage or currently affected by inland inundation should be given back to nature in accordance with the relevant sections of the New Vásárhelyi Plan.

Water management in floodplains should follow the natural course as much as possible (e.g., water level management); review of the drainage systems; increasing the size of aquatic habitats.

- Forest management: separating the regulation related to natural-like forests and tree plantations; applying the conclusions of climate change-related forestry research studies in forest renovation; disseminating management methods that are based on natural processes and ensure a contiguous forest coverage (according to the Pro Silva principles), reducing the size of areas where clear-felling can be authorised; establishing large scale forest plantations possibly using native tree species that are

appropriate to the habitat, developing a system of field-protection forest belts, increasing the area of grazing lands with trees both in the existing forest zone and in the forest-steppe areas of the Great Plain.

- Agriculture: increasing the heterogeneity and mosaic-like character (balks, hedges, alleys, small land parcel sizes) of the agricultural landscape; applying soil and water saving technologies; prioritising extensive and ecological farming methods.
- Transport: incorporating nature conservation considerations into road track planning, enhanced application of the relevant rules in force; creating ecological corridors (corridors for wild animals) across main roads and motorways and planting hedges and forests of native species along their edges.

Horizontal tasks include among others the following:

- considering biodiversity aspects in the sectoral regulations and support schemes;
- integrating biodiversity conservation into the regional regulation plans and authorisation schemes and into the system of means to be elaborated to ensure sustainable use.

Biodiversity conservation is also highlighted in the “Agriculture and forestry” chapter of the “Adaptation” part of the NCCS.

Hungary does not have a separate, approved Strategy to Combat Desertification, but the National Climate Change Strategy includes chapters and measures that relates to combating droughts. The chapters on water management and agriculture of the “Adaptation” part of the NCCS sets the aims to be prepared for floods and drought periods.

## **15. Impact assessments**

The relevant regulatory instruments require, on the first hand, the environmental assessment of plans and programmes, and on the other hand, the impact assessment of a wide range of projects. According to the main Natura 2000 legislation on nature conservation areas of European Community importance, any plan or project in Hungary must undergo prior assessment if it is likely to have negative effects on a Natura 2000 site.

Case-study: Supporting business for biodiversity

Biodiversity business opportunities exist across a range of sectors from specific agricultural practices, to ecotourism or sustainable forestry. Companies that make use of natural resources are mostly micro, small and medium-sized enterprises. Markets can work for biodiversity and sustainable use of resources and, if properly managed by public policy, remain a good mechanism for managing scarce resources and improving livelihoods. The challenge of long-term biodiversity conservation is one that would benefit from the active involvement of the business and banking community.

The 'Biodiversity Technical Assistance Units' pilot project aims to create instruments in selected countries – Hungary, Bulgaria and Poland – that apply a public-private partnership approach in exploring business opportunities for safeguarding biodiversity. These instruments

- 'Biodiversity Technical Assistance Units' - aim to achieve followings:
- to facilitate the creation of a new pro-biodiversity investment market for the business and banking sector;
- to deliver a pipeline of bankable projects for future investment loans for the benefit of biodiversity.

The Units create and apply a public-private partnership approach to exploring business opportunities for safeguarding biodiversity by linking commercial loan funding with public subsidies to produce long-term, site and region-specific economic and nature benefits. The project began in January 2007 and runs for three years. The project explores the specific links between small and medium sized enterprises (SMEs), social and economic development in rural areas, and the protection of biodiversity. It highlights the opportunities and constraints faced by SMEs in managing biodiversity in a sustainable way, while achieving commercial viability. The project focuses on those areas of nature that have been recognised as high value and that are included in the Natura 2000 network, these include the large majority of Important Bird Areas as defined under the EU Habitats and Birds Directives.

## **16. Other convention processes**

Hungary actively participates in various processes taking place under the auspices of the UN (for example, Rio process and pan-European environmental co-operation). Hungary has ratified several international and regional conventions and agreements relevant to biodiversity conservation, the most important of which are listed below. Dates are shown in brackets in case of those conventions that have been promulgated since 2004.

- Agreement on the Conservation of Populations of European Bats (Eurobats)
- Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA)
- Cartagena Protocol on Biosafety (2004)
- Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)
- Convention on Migratory Species (CMS)
- Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention)
- Convention on Co-operation for the Protection and Sustainable Use of the River Danube (Danube River Protection Convention)
- Convention on the Protection and Sustainable Development of the Carpathians (Carpathian Convention) (2004)



- Convention on the Protection and Use of Transboundary Watercourses and International Lakes (2004)
- Convention on Wetlands (Ramsar Convention)
- European Landscape Convention (2007)
- International Convention for the Regulation of Whaling
- International Plant Protection Convention (IPPC)
- International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA)
- Protocol to Abate Acidification, Eutrophication and Ground-level Ozone (2006)
- Convention on Access to Information, Public Participation in Decision-making and

Access to Justice in Environmental Matters (Aarhus Convention)

- United Nations Framework Convention on Climate Change (UNFCCC)
- United Nations Convention to Combat Desertification (UNCCD)
- World Heritage Convention

Hungary has sub-regional cooperation with the other three countries of the Visegrád group (Visegrád group includes Hungary, Czech Republic, Poland and Slovakia), field of cooperation include the followings: biodiversity conservation, the Pan-European Ecological Network, cooperation about the Natura 2000 network and the Carpathian Convention. Under the Carpathian Convention Hungary actively participated in the development of the Protocol on Conservation of Biological and Landscape Diversity.

In the field of biodiversity conservation, bilateral cooperation exists with several countries. High-level bilateral memoranda of understanding are signed and other on-going cooperation exist for nature conservation on regional level through neighbouring national park directorates and other nature conservation agencies. Hungary cooperates with neighbouring countries concerning protected sites for instance through the transfer of experience on the establishment and management of the Ramsar protected sites, World Heritage sites, transboundary ecological network, protected caves, Natura 2000 network or other activities in relation to the transboundary ecotourism, wetland restoration, integrated international EU projects and other co-partnership programmes. Concrete cooperation activities include the following:

- with Austria – cooperation between the transboundary national parks (Fertő-Hanság National Park – Neusiedler See-Seewinkel National Park); common grassland management system; establishment of visitors centre; wetland reconstructions;
- with Croatia – preparation of the transboundary Danube-Drava-Mura Biosphere Reserve

- with Romania – activities related to the Natura 2000 network, harmonized monitoring activity regarding some protected bird species, joint projects (e.g.: Conservation of *Falco vespertinus* in the Pannonian region)
- with Slovakia – common map of ecological network; cooperation regarding Natura 2000 sites and certain species conservation action plans; establishment of transboundary Ramsar site; joint conservation actions at the World Heritage Site at the Aggtelek National Park – Slovak Karst; several joint publications, films and exhibitions, nature conservation dictionary in Hungarian-Slovak-English
- Slovenia – cooperation between transboundary protected areas (İrség-Raab-Goricko naturpark)
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Successful cooperation with neighbouring countries exists concerning the following EU LIFE-Nature and LIFE+ programmes:

- Funding the base of long term large carnivore conservation in Hungary;
- Conservation of *Aquila heliaca* in the Carpathian basin;
- Conservation of *Falco cherrug* in the Carpathian basin;
- Conservation of *Vipera ursinii rakosiensis* in the Carpathian basin and
- Conservation of *Falco vespertinus* in the Pannonian region.

The so-called Visegrád Group is the cooperation among four countries in the Central European region (Hungary, Czech Republic, Slovakia and Poland) in a number of fields of common interest, including environment. Several joint projects have been carried out in the field of environment protection and nature conservation. Following the general guidelines on the development of the Pan-European Ecological Network the “Visegrád 4 countries” with Croatia and Ukraine worked together on a common Ecological Network Mapping Project.

In Hungary the Ministry of Environment and Water and four NGOs are members of the International Union for Conservation of Nature and Natural Resources (IUCN) and in 2003 the IUCN National Committee was established.