

**NATIONAL REPORT**  
**FOR BIOLOGICAL DIVERSITY CONSERVATION**  
**IN BULGARIA**  
**1998**

CONTENTS

INTRODUCTION.....	2
1. BULGARIA'S BIOLOGICAL DIVERSITY. THREATS TO BULGARIA'S BIOLOGICAL DIVERSITY.....	5
2. BIODIVERSITY CONSERVATION AGENCIES.....	7
3. THE NATIONAL BIOLOGICAL DIVERSITY CONSERVATION STRATEGY. PRIORITIES FOR IMMEDIATE ACTION AND SUPPORT .....	9
3.1. LAND AND RESOURCE MANAGEMENT.....	9
3.1.1. PROTECTED AREAS.....	10
3.1.2. NONRESERVED LANDS.....	10
3.1.3. SUSTAINABLE RESOURCE MANAGEMENT.....	10
3.1.4. HABITAT RESTORATION.....	11
3.1.5. EX SITU CONSERVATION.....	11
3.2. LEGISLATIVE INITIATIVES AND INTERNATIONAL AGREEMENTS..	11
3.3. CONSERVATION ADMINISTRATION AND POLICY.....	12
3.4. RESEARCH AND TECHNICAL SUPPORT.....	12
3.5. ENVIRONMENTAL EDUCATION.....	12
3.6. ECOTOURISM.....	13
3.7. COLLABORATIVE PARTNERSHIPS .....	13
3.8. PRIORITIES FOR IMMEDIATE ACTION AND SUPPORT.....	13
4. OVERVIEW OF THE IMPLEMENTATION OF THE ACTIVITIES RECOMMENDED IN THE BULGARIAN NATIONAL BIOLOGICAL DIVERSITY CONSERVATION STRATEGY.....	17
4.1. LAND AND RESOURCE MANAGEMENT.....	17
4.1.1 PROTECTED AREAS.....	17
4.1.2. NONRESERVED LANDS.....	23
4.1.3. SUSTAINABLE RESOURCE MANAGEMENT.....	24
4.1.4. HABITAT RESTORATION.....	24
4.1.5. EX SITU CONSERVATION.....	25
4.2. LEGISLATIVE INITIATIVES AND INTERNATIONAL AGREEMENTS..	25
4.3. ENVIRONMENTAL EDUCATION.....	30
4.4. ECOTOURISM.....	31
4.5. COLLABORATIVE PARTNERSHIPS.....	32
5. FUTURE ACTIVITIES FOR BIOLOGICAL DIVERSITY CONSERVATION IN BULGARIA.....	34

## INTRODUCTION

The present report is prepared according to article 26 of the Convention on biological diversity that requires “Each Contracting Party to at intervals, determined by the Conference of the Parties, present to the Conference of the Parties reports on measures which it has taken for the implementation of the provisions of this Convention...”.

This is the first report of this nature. The basic biodiversity conservation measures and results, undertaken in the country up to this moment, as well as the activities which have to be urgently implemented in the near future are exposed in this report. It has to be mentioned, that all measures, undertaken in the country, are in accordance with the Pan-European Biological and Landscape Strategy principles. And this is not by chance, because it was in Sofia that the participants in the third Pan-European ministerial conference “Environment for Europe”, held from 23 to 25 October 1995, adopted the Pan-European Biological and Landscape Strategy as a frame for development of the biodiversity conservation activities in Europe.

The rich biological diversity of the country is emphasised in the report and the great number of plant and animal species of the Bulgarian biota is pointed out. Bulgaria's biota includes significant numbers of endemic species and subspecies. The degree of rarity varies significantly among the taxonomic groups. Bulgaria is characterised by a wide variety of plant and animal communities, and supports examples of almost all the main habitat types found in Europe. Bulgaria has a number of unique and representative communities and ecosystems that are highly valuable in terms of biological diversity.

The threats that faces Bulgaria's biological diversity are analysed in the report: the direct loss and degradation of both aquatic and terrestrial habitats; the pollution of the environmental components; the legal and illegal overexploitation of economically valuable species; the invasion of exotic species; accelerated rates of global climate change. Different areas problems, connected to biodiversity can also be considered threats: knowledge, information, policies, management, legislation, lands and forests restitution, etc.

To prevent future losses of biological diversity, a comprehensive conservation program, entailing a wide variety of activities, is needed. Such a long term program is the National Biological Diversity Conservation Strategy.

The Strategy recommendation areas are described in the report. The recommendations which implementation is urgently needed are pointed

out, as well as the administrative bodies and nongovernmental organisations involved in the nature conservation process.

The main Bulgarian institutions responsible for biodiversity conservation undertake various measures, according to the predictions and the recommendations of the National strategy priorities. It is necessary to emphasise, that the circumstances in Bulgaria and especially the lack of stable economical conditions provide a context that is far from the ideal for the implementation of conservation measures. However, there are certain successful results achieved in Bulgaria, that are presented in the Report according to the sectors, as follows:

- Land and resource management:
  - Protected areas;
  - Nonreserved lands;
  - Sustainable resource management;
  - Habitat restoration;
  - Ex situ conservation;
- National legislative initiatives and international agreements;
- Environmental education;
- Ecotourism;
- Collaborative cooperation and partnerships.

Future biodiversity conservation activities in the country are closely linked to two state administrative acts: the adoption of the National biological diversity conservation strategy by the Council of Ministers and the adoption of the Protected areas law by the Parliament. The approval of the Strategy the Council of Ministers establishes the regulative basis for the involvement of the different economic sectors into a common planning process for strategy recommendations implementation. In 1998 the Ministry of the Environment and Waters in conjunction with the concerned ministries commits to organise development of the National Biodiversity Conservation Action Plan. The implementation of the activities envisaged in the National Action Plan will facilitate the Ministry of the Environment and Waters in the implementation of an unified state policy and in the implementation of the Ministry's duties and responsibilities in the area of biodiversity conservation.

The new Protected areas law will result in a large number of future activities such as:

- the change of categories of the currently existing protected areas according to the international classification;
- establishment of an unified institutional system for the protected areas. At that, the Ministry of the Environment and Waters takes the entire responsibility for the management, maintenance, restoration and guarding of the national parks and reserves;

- introduction of plans for management of the protected areas;
- introduction of the economical mechanism for generation of revenues from the protected areas, and the collected resources to be utilised for the preparation of the management plans, maintenance of the visitors centers, educational programs, scientific research, support for municipalities, natural and legal persons, owners of forests and lands in the protected areas, for maintenance and other nature protection activities in these areas;
  - establishment of protected areas cadaster, etc.
  - extension of the cooperation between the international and the Bulgarian institutions in nature protection area.

In the report are shown also already commenced activities, the continuation of which is of a primary significance for the Bulgarian biodiversity protection.

## **1. BULGARIA'S BIOLOGICAL DIVERSITY. THREATS TO BULGARIA'S BIOLOGICAL DIVERSITY**

Although Bulgaria is relatively small in size (110,912 km<sup>2</sup>), it is rich in biological diversity due to its highly varied climatic, geologic, topographic, and hydrologic conditions. These conditions allow Bulgaria to support a biota that includes 94 species of mammals, 383 birds, 36 reptiles, 16 amphibians, 207 Black Sea and freshwater fish, an estimated 27,000 insects and other invertebrate species, between 3,550 and 3,750 species of vascular plants, and more than 6,500 nonvascular plants and fungi. Bulgaria thus ranks among the most biologically diverse countries in Europe.

Bulgaria's biota includes significant numbers of endemic species and subspecies. Endemic plant species constitute about 5 percent of the total flora, a high proportion compared with other, larger European countries. The available information on invertebrate taxa indicate that 8.8 percent of all noninsect species and 4.3 percent of insect species are endemic. Further research on these groups is likely to boost these percentages. Known endemic vertebrates include 12 freshwater fishes, 1 amphibian subspecies, 4 reptile subspecies, and at least 4 subspecies of mammals.

The degree of rarity varies significantly among the taxonomic groups. The rare flora and fauna include more than 700 vascular plants, many of which are endemic species found in the high mountain regions; 567 species of noninsect invertebrates (about 23 percent of all known species); more than 1,500 insect species; 29 species of Black Sea and freshwater fish; 2 species of snakes; 78 birds (including 16 from the World Conservation Union's [IUCN] 1993 List of Globally Threatened Species); and at least 10 large mammals, including the Black Sea morik seal, endemic subspecies of harbor porpoise and bottle-nosed dolphin, chamois, brown bear, wolf, otter, and European marbled polecat.

As a result of anthropogenic pressures, a number of Bulgarian species have in recent decades diminishes to the point of extinction. These include at least 31 species of vascular plants, 7 invertebrates, 3 fish, 2 snakes, 3 birds, 2 (possibly 3) mammals, and 6 indigenous animal breeds.

Bulgaria is characterized by a wide variety of plant and animal communities, and supports examples of almost all the main habitat types found in Europe. Bulgaria has a number of unique and representative communities and ecosystems that are highly valuable in terms of biological diversity, including alpine and subalpine coniferous forests, meadows, wetlands, peat bogs, and lakes; mature coniferous and beech forests; oak woodlands; caves and mountain gorges; Mediterranean and sub-Mediterranean plant communities; steppe grasslands; riparian shrub and

forest vegetation along the Danube and smaller rivers; important inland, riparian, and coastal wetlands; sand dunes, coastal limestone communities, and other unique habitats along the Black Sea coast; and the pelagic, littoral, sublittoral, and benthic communities of the Black Sea itself. Of special note are Bulgaria's forests, which cover about 3.9 million hectares (about 35 percent of the nation's total land) of this area. About 60 percent of forests are of natural origin.

Bulgaria's biological diversity includes species and genetic resources that are widely used for both commercial and noncommercial purposes and that have the potential to confer important economic and environmental benefits. In addition to economically important species of plants and animals (including timber trees, Black Sea and freshwater fish species, more than 200 species of edible fungi, and several hundred native medicinal plants), Bulgaria is home to many traditional and rare cultivars and breeds, and many wild relatives of domesticated species.

Bulgaria's biological diversity faces a broad array of threats. The loss and degradation of both aquatic and terrestrial habitats constitute the most significant threats to biological diversity in Bulgaria, affecting all ecosystems from the high mountain forests and lakes to the open waters and benthic communities of the Black Sea.

Pollution of Bulgaria's air, soil, groundwater, freshwater, and coastal waters has (as in other countries) intensified over the last decades and constitutes a significant threat to both biological diversity and human health. Virtually all forms of point and non-point source pollution - household, agricultural, petroleum and petrochemical, industrial, and nuclear - are present in the Bulgarian landscape and threaten biological diversity to varying degrees.

Direct exploitation, and especially overexploitation of economically valuable species, affect many ecosystems, habitats, and taxa. This includes such specific threats as illegal gathering (and export) of edible fungi, medicinal plants, snails, and several reptiles and amphibians; overharvesting of commercial fish species in the Black Sea coastal and open waters; poaching and sport hunting of large mammals and birds (especially waterfowl and birds of prey); and the control of predators, especially those (such as the wolf and cormorant) that subsist on game animals and commercially valuable fish species.

As a European country long occupied by humans and their domesticated plants and animals, the invasion of exotic species is a less critical threat. Nevertheless, invasions (for example, of the Black Sea by a new species of ctenophore) have significantly affected the dynamics of major ecosystems. The intentional introduction of non-native fish, game, and timber trees has also had detrimental impacts on indigenous

ecosystems, species and subspecies. Bulgaria's unique genetic resources local crop varieties, wild relatives of cultivated plants, and local and primitive domestic animal breeds - have diminished as a result of changes in land use and in the agricultural economy.

Citizens and communities regain title to land through the process of land restitution constitutes an important potential threat to biological diversity. Restitution offers significant opportunities for conservation. If citizens and local governments are not fully informed or encouraged to adopt conservative or restorative land use practices, the restitution process may have adverse impacts on biological diversity both in protected areas and on nonreserved lands.

Accelerated rates of global climate change could have far-reaching effects on Bulgaria's biological diversity, given its traditional position amid three major bioclimatic regions. If global warming should result in a rise in sea levels, the adverse effects along the Black Sea coast would also be substantial.

Lack of knowledge and ineffective policies can also be considered threats. While the foundation of scientific information on Bulgaria's biological diversity is one of the nation's most significant strengths, it has a number of gaps. The most significant are: insufficient information on species richness, distribution, current populations, and population trends for many taxonomic groups; insufficient information on biological diversity in specific geographic regions; insufficient information on the impact of various anthropogenic threats and on mitigation methods and restoration procedures.

There is inadequate public understanding of biological diversity and the threats to it. The lack of accessible information makes difficult the achieving a higher level of public awareness. The weaknesses include: poor enforcement of conservation laws and environmental regulations; ineffective management and administration of protected areas; ineffective (or non-existent) penalties and sanctions; and lack of registration and effective monitoring of harvested biological resources.

## **2. BIODIVERSITY CONSERVATION BODIES**

The conservation of biological diversity and the protection and use of natural resources is managed and controlled by several bodies of the Bulgarian Government. These are the Ministry of Environment and Waters, the Ministry of Agriculture, Forests and Agrarian Reform, and the Ministry of Regional Development and Public Works.

The Ministry of Environment and Waters is the body of the Council of Ministers responsible for drafting and implementing the government policy in the field of environmental protection and water protection and use. In carrying out its regulating and coordinating functions in the area of biological diversity conservation the Ministry of Environment and Waters:

- develops strategies, plans and programmes for conservation of biological diversity;
- drafts laws and implementing regulations;
- defines the size of indemnities to be paid for damages incurred on protected natural sites;
- manages the conservation of biological diversity and controls activities in protected natural sites;
- controls the protection and the environmentally sound use of natural resources;
- designates protected natural sites and endorses management plans for them;
- keeps register of protected natural sites;
- issues permits for the import, export and re-export of protected wild animal and plant species; for introduction into nature of alien wild animal and plant species;
- coordinates the functions of the ministries and other institutions and of the municipal bodies in terms of environment and waters.

In March 1994 the Ministry of Environment and Waters established a National Nature Protection Service (NNPS), a “specialized body for management, control and conservation of biological diversity, protected areas and natural ecosystems”.

The control on biodiversity conservation within and outside protected areas is exercised by the staff of the Regional Environmental Inspectorates. Some of the Regional Environmental Inspectorates have specialized units to carry out the controlling activities in national parks, coordinate the activities of land and forest owners within national parks, organize education and awareness programmes, etc.

As the body of the Council of Ministers responsible for implementing the government policy in the field of agriculture, forestry, hunting and fisheries, the Ministry of Agriculture, Forests and Agrarian Reform:

- manages and controls the use, restoration and protection of the protected natural sites in the forestry fund under the general governance and control of the Ministry of Environment and Waters;
- manages and controls the preparation and approval of projects and plans related to the keeping, use and protection of forests and game;



- drafts and submits to the Council of Ministers laws and regulations for implementing the government policy and restoration and use of natural resources in the area of agriculture, forests and agrarian reform;

The National Forestry Department within the Ministry of Agriculture, Forests and Agrarian Reform carries out the government policy in the area of forestry, hunting and non-industrial fisheries.

The National Forestry Department has structures in the 12 national parks of the country.

The State Fishery Inspectorate within the Ministry of Agriculture, Forests and Agrarian Reform exercise control over the use and management of water biological resources.

The Ministry of Regional Development and Public Works, in cooperation with other government bodies, ensures the conditions for efficient use of land, energy and other resources and for sustainable development at regional and municipal levels.

The district and municipal councils and the local self-government bodies develop more specific and detailed environmental programmes, report environmental violations, in cooperation with government institutions, set environmental pollution levels and standards, and cooperate in the process.

Rationalizing of the management structure and clarification of the function and activities of the units dealing with biological conservation are expected after the adoption of the new Protected Areas Act which is currently considered in the Bulgarian Parliament.

### **3.THE NATIONAL BIOLOGICAL DIVERSITY CONSERVATION STRATEGY. PRIORITIES FOR IMMEDIATE ACTION AND SUPPORT**

None of the threats to Bulgaria's biological diversity can be easily addressed. In most ecosystems, various threats interact and diminish the ability of species and communities to perpetuate themselves. To prevent future losses of biological diversity, the many threats must be addressed in a co-ordinated and mutually reinforcing manner. A comprehensive conservation program, entailing a wide variety of activities, is needed. Such a long term program is the National Biological Diversity Conservation Strategy. It's execution is urgently needed and largely achievable with existing institutions, financial resources, and personnel.

#### **3.1. LAND AND RESOURCE MANAGEMENT**

The key to conserving biological diversity in Bulgaria is the adoption of an approach to land and resource management that recognizes the value of retaining and restoring the diversity at all scales, on both reserved and nonreserved lands, and under various management regimes. The recommendations offered under this category stress the need to better integrate the management of all land, water and biological resources in order to protect and renew the ecological processes on which biological diversity depends.

##### **3.1.1. PROTECTED AREAS**

The foundation of Bulgaria's efforts to conserve biological diversity is its network of protected areas. This network needs to be both expanded and strengthened to provide protection for Bulgaria's most important and threatened natural areas. High-priority regions for new or expanded protected areas are the Rhodope Mountain; the Black Sea coast; Strandzha Mountain; areas surrounding and connecting the existing national parks in the Rila, Pirin, Vitosha, and Stara Planina Mountains; and the valley of the Strouma River. Further step's should immediately be taken to delineate new protected areas and to renew the goals and methods of the network as a whole. In addition, measures should be taken to strengthen the administrative capabilities of the network. These measures should emphasize improvements in land management, law enforcement, biodiversity monitoring, education and interpretation, training of personnel, information services, and research capabilities.

### **3.1.2. NONRESERVED LANDS**

Even if the official goal of placing 7.5 percent of Bulgaria's land in protected areas is met, the protected areas network will still be able to protect only a small portion of the nation's biological diversity. Moreover, the fate of the protected areas and the biological diversity they contain is influenced to a great degree by actions within the surrounding landscape. Greater attention must be given to managing lands beyond the protected areas, especially those that are soon to be returned to private or municipal ownership. Conservation of nonreserved lands should be encouraged through new economic incentives, better integrated resource management programs, effective environmental assessments and modified benefit-cost analyses, appropriate regulations, and other policy reforms.

### **3.1.3. SUSTAINABLE RESOURCE MANAGEMENT**

To ensure that economically important species, habitat types, and soil and water resources are used in a sustainable manner, their management must be based on sound ecological principles. The sustainable management of fisheries, commercial forests, wildlife populations, and agricultural lands should be promoted through the enactment of new laws regulating domestic use and export of important species; the adoption of stronger pollution controls and improved forestry and agricultural practices; unilateral and regional actions to protect the fish and water resources of the Black Sea; and Balkan-wide cooperative conservation initiatives.

### **3.1.4. HABITAT RESTORATION**

Extensive area of Bulgaria - especially wetlands, forests, lands supporting intensive crop agriculture, pastures, riparian zones, and industrial zones - have been degraded or even destroyed in the past by unwise management practices. To restore biological diversity, vitality, and productivity of these lands, greater investments of time, labour, skill and knowledge are required. Restoration should be promoted by adopting economic incentives, disseminating information on restoration ecology and management techniques, developing seed banks and nurseries, and collaborating with other countries on transboundary restoration projects, among other measures.

### **3.1.5. EX SITU CONSERVATION**

Ex Situ facilities - seed banks, experimental farms, aquaculture structures, captive propagation centers, and other facilities (including herbaria, arboreta, aquaria, botanical gardens, zoos, and museums) are needed to bolster and complement in situ conservation programs. These

institutions should be strengthened and their activities integrated into broader conservation strategy, supporting appropriate commercial development of biological resources as well as sustainable agriculture, reintroduction, public education, and ecological restoration projects.

### **3.2. LEGISLATIVE INITIATIVES AND INTERNATIONAL AGREEMENTS**

Law is an essential tool for ensuring that public policy and governmental actions accurately and consistently reflect scientific information, public opinion, and social values. New and revised national laws, and the ratification and implementation of international agreements, are needed to ensure the protection and sustainable use of biological diversity in Bulgaria. As specific legislation and implementation provisions are developed, lawmakers should strive to create laws that are well coordinated, consistent, and enforceable, and that anticipate advances in scientific knowledge and changing social conditions. NGO involvement is especially important if the laws are to reflect existing scientific expertise and the full range of viewpoints among conservationists and the public at large.

### **3.3. CONSERVATION ADMINISTRATION AND POLICY**

The formulation of effective conservation policies and execution of laws affecting biological diversity require a solid administrative structure. A critical goal of this national strategy must be to secure a stronger and better coordinated administrative structure to conserve biological diversity both within and outside the protected areas. There are various models that the Bulgarian Ministry of Environment (MOE), the Committee of Forests (COF), other government agencies and NGOs can adopt to manage more effectively the nation's protected areas, and to cooperate in the conservation of the biodiversity on private, municipal, and state-owned lands. As a high priority, the agencies should examine these different models of collaboration to determine which fit existing needs and emerging mandates.

### **3.4. RESEARCH AND TECHNICAL SUPPORT**

Scientific information on Bulgaria's biological diversity and its conservation is the foundation on which this strategy is built. Fortunately, the body of existing knowledge about Bulgaria's biodiversity is relatively extensive and detailed. However, Conservation is hindered by numerous knowledge gaps and technical constraints. To provide a stronger scientific and technical basis for Conservation policy and action in Bulgaria, support

should be given to research that fills these gaps, as detailed in the research recommendations of this report and in the back-ground scientific papers.

### **3.5. ENVIRONMENTAL EDUCATION**

This strategy will not succeed without strong public understanding and support. These in turn can only be fostered by communicating information about the values, status, and conservation of biological diversity in Bulgaria in the public school curriculum, in professional training, and in various public forums (including museums, zoos, national parks, information and visitor's centers, and the mass media). Conservation education programs should aim to increase public awareness of biological diversity issues, stimulate pride in and enjoyment of Bulgaria's unique biota, communicate existing and scientific information about biodiversity, convey new concepts in conservation, and foster constructive debate over conservation strategies. Finally, education about biological diversity should be undertaken as part of a still broader national environmental education program.

### **3.6. ECOTOURISM**

Bulgaria, with its many mountain ranges, national parks and other protected areas, Black Sea coast, wine-producing regions, monasteries, and other cultural and historical sites, presents abundant ecotourism opportunities. These opportunities, if developed in an appropriate manner, can encourage broad interest in the protection and restoration of biological diversity while providing economic returns for conservation at the local level. Bulgaria has recently taken steps to promote ecotourism. It should build on these by adopting national policy on ecotourism and by integrating ecotourism into the municipal and regional planning process, environmental assessments, and environmental education programs.

### **3.7. COLLABORATIVE PARTNERSHIPS**

Partnerships involving a wide range of individuals and organizations can and should play a key role in conserving biological diversity in Bulgaria. Partnerships can be formed to support many conservation activities, including park and trail maintenance, education and interpretation programs, biological inventory and monitoring, and fund raising. In Bulgaria, innovative conservation partnerships are still relatively uncommon. However, it is a country rich in human skills, knowledge, and commitment needed to build successful partnerships.

The program outlined here must evolve continually. All of the components will require constant public involvement and feedback, and will need- to change as they are implemented and as new opportunities and

constraints arise. Implementation must involve all who have a stake in the future of Bulgaria's biological diversity, including farmers, land managers, agency officials, recreationists, educators, students, scientists, environmental advocates, and decision makers. All must contribute if this program is to succeed. Finally, successful implementation will require different activities on the international, regional, (European and Balkan), national, municipal, and lower levels. If properly coordinated, activities at the different levels can promote and reinforce.

### **3.8. PRIORITIES FOR IMMEDIATE ACTION AND SUPPORT**

Several activities are key to the overall success of this conservation strategy and deserve immediate support within Bulgaria and from the international community. The following seven areas are of urgent importance, offer diverse long-term benefits, and provide much of the foundation for the full conservation strategy.

#### **Strengthening the Scientific Basis for Conservation**

Support should be given to strengthen scientific understanding of biological diversity in Bulgaria. These efforts should focus on the gaps identified within the strategy, especially the need for basic information on specific taxonomic groups, geographic areas, anthropogenic threats and impacts, and mitigation and restoration methods. Other high-priority needs include improvements in basic scientific equipment and supplies; revision of the Bulgarian Red Data Books and creation of new red data books for taxonomic categories that lack them; additional species- and community-level information; encouragement of interdisciplinary research; greater access to, and more effective dissemination of, existing scientific information.

#### **Support for Legislative Initiatives**

Legal reforms and initiatives related to conservation in Bulgaria have reached a critical stage. New laws and revisions of existing laws, are now being formulated. These proposals include a new protected areas act, a new forestry law, a new game law, a new herbs law, a comprehensive biodiversity law, legislation implementing the Convention of International Trade in Endangered Species (CITES) and other international conventions. To ensure that these laws are based on the most complete scientific information and that they reflect the broadest possible public input and NGO involvement, support should be given to the in-country legal experts and non-Bulgarian advisers that have been working with Bulgarian scientists, NGO representatives, and government officials to draft these

laws. This support should extend to efforts to ensure that new laws are fully and effectively implemented.

### **Expanding and Strengthening the Protected Areas Network**

Further steps should immediately be taken to expand and strengthen the network of protected areas. According to the proposed new protected areas act full authorisation of the National Nature Protection Service has to be given, definition of its responsibilities, and coordination of its functions with those of other government agencies. It is necessary to review the mission and goals of the protected areas network and its effectiveness; as well as identification of areas of special interest and concern for inclusion in the network. The public has to be invited to discussions about expanding the network and developing of plans for management of the protected areas. Support should be given for development of public education, information, and interpretation programs; strengthening of enforcement capabilities; assessments of staffing requirements; development of effective management plans; and increased opportunities for professional training.

### **Environmental Education and Cooperative Extension**

Much more time and energy need to be devoted to environmental education at all levels. This is a long-term undertaking, but immediate steps can be taken to begin the process. These steps include developing a national strategy for environmental education; appointing an advisory group of scientists, educators and conservationists to provide guidance and advice in the design of curricula involving biological diversity and its conservation; developing teacher training programs; and supporting opportunities for Bulgarians to interact with environmental educators in other countries. Educational programs should not be limited to students or to schools. This is especially important to the land restitution process. Extension services should be organized on the national level to disseminate information about biological diversity to new (as well as current) landholders, and to communicate landholder concerns back to the scientists and policy makers.

### **Developing and Implementing an Ecotourism Policy**

Support should be given to Bulgarian conservation and regional planning agencies to develop and implement a clear, workable national policy on ecotourism. This policy should involve support for a number of practical activities, including the publication of tourism-related literature on protected areas; establishment by the Ministry of Environment and waters - of tourist management guidelines for protected areas definitions of

conservation design guidelines for essential construction activities; establishment of an incentive system for conservation projects; and the dissemination of business development and marketing advice for craft industries.

### **Stimulating Conservation in the Black Sea Basin**

The Black Sea requires both national and international measures to recover and conserve its biological diversity and economic resources. At the national level, support is needed for efforts to identify biologically important areas for inclusion in the protected areas network; to implement nationwide integrated coastal zone planning; to undertake restoration and pollution mitigation measures; and to strengthen the enforcement of environmental regulations. At the international level, support is needed for cooperative efforts to address the problems of transboundary pollution, overexploitation, and inappropriate development; for biodiversity monitoring and conservation planning; for the restoration of marine biodiversity; for scientific research on the Black Sea and its biological diversity; and for the implementation of the Convention on the Protection of the Black Sea from Pollution and further development of the Black Sea Action Plan.

### **Stimulating Conservation in the Balkan Peninsula**

The conservation of biological diversity within Bulgaria requires cooperation and coordination with neighbouring countries. Conversely, actions taken within Bulgaria have ramifications for conservation beyond its boundaries. Support should be given to efforts to explore shared concerns, exchange information, and coordinate biodiversity conservation plans with the other countries of the Balkan Peninsula. Short-term actions that can be taken to strengthen existing ties and to build the foundation for cooperative conservation projects include the investigations of biodiversity conservation issues in important transboundary areas; the sponsoring of a region-wide conference on the biological diversity of the Balkan Peninsula and its conservation; establishment of advisory councils in each of the Balkan countries; collaborative scientific research on the biogeography and biological diversity of the Balkan Peninsula; the preparation of Balkan-wide red data books; and landscape level conservation planning in border areas. Although such actions are difficult to initiate given the current levels of economic instability in the region, cooperative conservation projects can contribute to the realization of a more secure and peaceful future for the Balkan Peninsula as a whole.



## **4. OVERVIEW OF THE IMPLEMENTATION OF THE ACTIVITIES RECOMMENDED IN THE BULGARIAN NATIONAL BIOLOGICAL DIVERSITY CONSERVATION STRATEGY**

The National Strategy for the Conservation of Biological Diversity has received recognition in and outside Bulgaria. In view of the complex nature of the priorities and problems, the need to involve other institutions in its implementation, to ensure financial resources and the support of the general public for the implementation of the strategy, it needs to have the approval of the Council of Ministers. This was the main motivation for the Ministry of Environment and Waters to submit the strategy to the Council of Ministers for adoption.

The main Bulgarian institutions responsible for the conservation of biological diversity undertake various activities, in accordance or in line with the forecasts and recommendations of the National strategy. It should be stressed that the situation in Bulgaria, in particular the lack of economic stability is far from providing the ideal context for the implementation of conservation measures. Nevertheless, Bulgaria has achieved success in the following:

### **4.1. LAND AND RESOURCES MANAGEMENT**

#### **4.1.1. PROTECTED AREAS**

##### **Categories of protected areas**

A main approach in biological conservation on Bulgaria is the establishment of a system of protected areas. The extreme diversity of natural geomorphological formations, wetlands, forest ecosystems, plant and animal species, and unique landscapes determines the drive towards conservation and protection of valuable natural forms. The protection of areas of high conservation values, and representative ecosystems through restricting or prohibiting human intervention in the natural processes is one of the goals of developing the system of protected areas. The establishment of such a system started back in 1933 when the first nature reserves in Bulgaria were designated: Silkosia and Parangalitsa. In the following year the “Bayuvi dupki “ reserve and the Vitosha National Park were declared, at a time when only a few countries in Europe had established national Parks. New protected areas were established regularly over the following four decades. In late 1977 the protected areas included 491219.6 ha. This constitutes about 4.4% of the country’s area.

In 1997 the national system of protected areas in the Republic of Bulgaria included 12 national parks, 89 reserves, 2241 natural places of interest, 123 protected sites and 972 historical sites. Protected plant species are 389, and protected animal species - 473.

The Nature Protection Act from 1967, according to which the existing system of protected areas was established and is still managed, defines five categories of protected areas and describes their use and status.

Nature reserves are strictly protected areas including representative natural ecosystems and habitats of rare species. They correspond to IUCN category I (strict nature reserve/wilderness area - protected areas managed mainly for scientific or conservation purposes). Reserves include 80561.5 ha (16.4% of the total area of the system). Most of them are situated in forest ecosystems, and more than 60% of their total area is included in national parks.

National parks are large protected areas for the conservation of regions dominated by natural conditions and ecosystems. They may include other protected natural sites which remain under their own regime.

The existing 12 national parks cover about 351583.6 ha (without the area of the nature reserves within their boundaries) or 71.6% of the total area of the system. Parks differ in their features. Some meet the requirements for category II of the International Union for the Conservation of Nature (national park - a protected area, managed, restored or used mainly for the purposes of conservation of ecosystems and ecotourism). Other rather meet the requirements of IUCN category IV (management areas - areas protected mainly for the purposes of species and habitats conservation through specific intervention) or category V (protected landscape/seascape - area protected mainly for the conservation of a landscape or seascape and for recreation). National parks of the last two categories include both nature reserves and agricultural lands, urban areas, winter sports facilities and ski-runs, recreation houses and other tourist facilities.

Natural places of interest protect specific elements of natural landscapes such as rock formations, waterfalls, caves. The requirements for them are like those for IUCN category III (natural monument/natural place of interest - a protected area managed mainly for the conservation of a specific natural feature).

In most cases protected sites are smaller areas between 1 and 500 ha. They protect characteristic landscapes or habitats of certain species (IUCN category IV or V). More than 500 such sites have been designated.

More than 972 historical sites in Bulgaria ensure the protection of areas around historical and archaeological monuments. Their value in

terms of biological diversity is limited although many of them include natural elements and places of interest.

A number of the Bulgarian protected areas are of international importance. Two areas (Pirin national park and the Sreburna nature reserve) are recognized as sites of the world natural heritage under the Convention on the Protection of the World Cultural and Natural Heritage (1972). Seventeen areas are listed as biosphere reserves under UNESCO's Man and Biosphere Programme. Four wetlands are included in the list of the Convention on Wetlands of International Importance (the Ramsar Convention). In addition, 22 areas (some of which are currently not protected) have been identified by Birdlife International as important range areas for birds in Europe.

Altogether the UN list of national parks and other protected areas include 50 Bulgarian areas covering 80% of the total protected area in the country.

In 1996 eight areas with a total surface of 93.4 ha were included in the national system of protected areas. Of them seven are natural places of interest and one is a protected site. Most important of them is the Strandja mountain, declared national park.

In 1997 one protected site was declared covering 379.4 ha.

The new categories of protected areas proposed in the draft Protected areas act are:

1. Reserve
2. National park
3. Natural monument
4. Managed reserve
5. Natural park
6. Protected site.

### **Management of protected areas**

Administrative units were established for the five largest protected areas - the national parks Pirin, Rila, Vitosha, Central Balkan and Strandja, but because of institutional problems most of these units are still not working in a satisfactory manner.

The various activities for improving the management and conservation of biological diversity in protected areas are developed by the Ministry of Environment and Waters in the framework of international programmes and projects. Main partners of the Ministry in this respect are the US government and the government of Switzerland.

A US sponsored project for biodiversity conservation, referred to as the GEF project, is aimed at institutional strengthening of the systems for management of nature protection activities at national, regional and local

levels, setting an institutional framework for development and implementation of justified and appropriate strategies for the conservation of biological diversity in protected areas. The scope of the project includes also economic activities respecting the support of biodiversity in protected areas.

A main priority of the Bulgarian-Swiss Biodiversity Conservation Programme is the elaboration of management plans, mainly for wetlands in the country.

Under the PREST project the Bulgarian authorities were supported in the conservation of the qualities of nature in the areas within and around the national parks Rila and Pirin through transfer of British practical experience in protected area management.

In spite of the extremely difficult economic situation, some funding was ensured for strengthening the system of protected areas. Most of the funding comes from external sources: the EU PHARE programme, the government of the Netherlands, the Swiss federal government, the Regional Environmental Center - Budapest, WWF - Germany, Monaco, Birdlife International, the British Know How Fund.

Some government institutions and non-governmental organizations work for strengthening the domestic capacity for funding biodiversity conservation activities. One of the main goals of the GEF project is to identify and study alternative financing mechanisms to support conservation of biodiversity management of protected areas.

The Ministry of Environment and Waters has established a National Environmental Protection Fund. A number of biodiversity conservation projects have been financed through it.

### **Management plans**

For the first time in Bulgaria the Ministry of Environment and Waters and non-governmental organizations have developed management plans and their implementation is starting. These plans include smaller areas or parts of larger areas. Such are the management plans for the wetlands along the Black Sea coast - the mouth of the river Veleka, Silistar (the Monaco project), Durankulak-Shabla, Kamchia, Atanassovsko Lake, Poda, Ropotamo complex, for the Strandja mountain and the Kaliakra reserve (Bulgarian-Swiss biodiversity Conservation Programme). Under the GEF project support was provided in developing an overall system for the elaboration of management plans for protected areas. In 1998 management plans for the national parks Central Balkan and Rila will be prepared.

In 1993 were prepared a National Strategy for the Conservation and Management of Wetlands and a Programme for the Management of the Black Sea Coastal Zone whose implementation has already started.

Action plans for the conservation of species have been prepared and implemented, mainly for globally endangered bird species such as the Dalmatian Pelican, Pigmy Cormorant, Ferruginous Duck, White-tailed Eagle, Imperial Eagle, Lesser Kestrel and Corncrake, etc. (by the Bulgarian Society for the protection of Birds), and also for some mammals such as bear, marbled polecat, bats ( by Wilderness Fund and Green Balkans).

Efficient management plans should be based on profound knowledge about biological diversity and potential threats to it. The GEF project organized a large-scale field research in the national parks Central Balkan and Rila. The work was carried out by teams of leading scientists from the Bulgarian Academy of Sciences and other academic institutions, in cooperation with the park administrations.

### **Research activities in protected areas**

There is a considerable increase in scientific information and research programmes concerning protected areas. As a result of the recent economic difficulties, the support for a number of Bulgarian scientific institutes is practically withdrawn. Research is almost entirely carried out by non-governmental organizations or under various nature conservation projects. More important ongoing or completed research and applied research developments are the following:

- the programme for monitoring of ornithological important places of the Bulgarian Society for the Protection of Birds;
- the research projects undertaken through the Bulgarian-Swiss Biodiversity Conservation Programme in the regions of the Black Sea coast, Strandja, the Eastern Rhodopes, Dobrudja and Central Balkan;
- the projects of the Ministry of Environment and Waters for monitoring of the components of environment, including the PHARE - financed project for the development of the National Programme for Biological Monitoring;
- the CORINE Biotopes project for inventory and identification of sites of European conservation importance and establishment of a data base of the CORINE sites which is included in the European data base maintained by the European Environment Agency (EEA) in Copenhagen;
- study and mapping of the vegetation in the reserve Tisnata
- mapping of deposits of rare and endangered species of the flora in Bulgaria with a view to including them in protected areas;

- study of the resources of medical plants under special management regime with a view to providing scientifically justified regulation for their use.

The Botanical Institute and the Botanical Garden of the Bulgarian Academy of Sciences have collected and published detailed information about the florist diversity, the composition and structure of plant communities along the sand dunes in the region of the tourist complex Slantchev Briag (Sunny Beach). The project is financed by the management of Slantchev briag and the Bulgarian Movement “Blue Flag”.

### **Training, education and public relations within and around protected areas**

The GEF project works with the park administrations and their various partners for building an efficient system of organization and management of parks. The local experience is used and local experts are trained.

Under the PREST project training was held for mayors, hotel keeper, teachers and museum workers. In the framework of the Bulgarian-Swiss Biodiversity Conservation Programme training was held for staff of the Regional Environmental Inspectorates, NGOs and journalists concerning the ways of development and public acceptance of management plans for protected areas. A workshop was held on “Sustainable land use and water management in the basin of the biosphere reserve Sreburna”.

Serious attempts were made to increase public interest in the problems within the protected areas. The Ministry of Environment and Waters, the Ministry of Education and all the biodiversity conservation projects undertook various activities: elaboration, publication and dissemination of explanatory materials on the new laws and regulations, the benefits from expanding the protected area in the country, institutional strengthening, analysis from foreign experience, interpretation of scientific information, unveiling the secrets of Bulgarian biological diversity. An awareness raising campaign about the Central Balkan national park under the Bulgarian-Swiss Biodiversity Conservation Programme has led to increased public interest in the problems of this protected area.

The information about the existing system of protected areas has been enriched and is provided to the public.

Public awareness of the concept of biodiversity conservation at the park level is raised under different projects (Vitosha Visitor Centre, GEF, etc.); guidelines for an action plan in nature conservation education have been drafted with the aim to improve training in nature conservation.

Workshops were held in the framework of the projects while the National Nature Protection Service systematically provides methodological assistance for training park staff in communication and interpretation skills.

The visitor centres in the national parks Vitosha and Rila and those under construction (Poda, Ropotamo, etc.) provide conditions for extracurricular activities in nature conservation education. The Bulgarian-Swiss biodiversity Conservation Programme finances the building of a nature conservation information centre in the Eastern Rhodopes.

All international projects for biodiversity conservation within and outside protected areas include training workshops for different groups of the public. The topics focus on the importance and the role of protected areas for the conservation of biodiversity and for improving the social and economic situation of the population.

#### **4.1.2. NONRESERVED LANDS**

Compared to the activities in protected areas, less is being done for the conservation of biological diversity outside them. Programmes for encouraging the involvement of citizens and private land owners in the protection of important elements of biological diversity are still at a very early stage. Such is the French-Bulgarian project “ Conservation and evaluation of the ecosystems in Primorska Dobrudja” of the Le Balkan Foundation. It has an important role in directing the development of agriculture in the region by introducing a new policy in Bulgaria: conservation of biological diversity through land and operation control.

In this way improved conservation of endangered species will be achieved and the progressive reduction of biotopes will be halted in the areas of active agricultural activities.

The teams of three different projects work in partnership and coordination for biodiversity conservation and development of ecological agriculture in the areas around the Central Balkan national park.

Some cooperation exists between agricultural programmes and biodiversity conservation programmes in the area of fisheries (placed under the management of the Ministry of Agriculture, Forests and Agrarian Reform).

Work on habitats strategies for biodiversity conservation in Europe, initiated by Birdlife International, is at an initial stage. The Bulgarian part of this programme will be carried out by the Bulgarian Society for the Protection of Birds. The programme focuses on developing rules and principles regulating economic activities in different habitat types in order to minimize adverse impact on biodiversity in the most sensitive and valuable habitats. Similar is the project for undertaking the most urgent

biodiversity conservation measures in the wetlands of the Thracian lowland.

A three-year project for inventory of the diversity of plant communities and vascular plant species in the pasture area of the Mursalishki part of the Rhodopes will be completed in 1998. Possibilities for economic use under a regime ensuring the protection of rare species and communities are evaluated.

The use of satellite images and geographic information systems in mapping and research of forest ecosystems in Eastern Bulgaria is the subject of the PHARE-financed MERA project.

The state scientific institutes and a number of non-governmental organizations carry on:

- studying rare and endangered species;
- collecting data for updating the Red Book;
- screening natural areas for potential inclusion in the system of protected areas;
- undertaking long-term research projects with a special focus on the changing distribution and populations of the species (a project for a National Atlas of Birds of the Bulgarian Society for the Protection of Birds).

#### **4.1.3. SUSTAINABLE RESOURCE MANAGEMENT**

Elements of this approach are contained in some of the new laws on resources management. The ecology-based management methods are still underestimated and ignored in planning economic activities in the different sectors (agriculture, forestry, fisheries, etc.) Attempts are made for introducing in the law a provision for compulsory environmental impact assessment (EIA) for forestry projects.

#### **4.1.4. HABITATS RESTORATION**

The few things being done in this respect are at a very initial stage and are undertaken to a very limited extent. An evaluation of the potential for restoration of the wetlands on the Belene island in the Danube river was made in cooperation with the Japanese International Cooperation Agency (JICA).

Similar to a certain extent are the goals of the Green Danube pilot project for protection and restoration of natural longish forests, started by WWF-Germany jointly with National Forestry Department within the Ministry of Agriculture, Forests and Agrarian Reform and the NGO Green Balkans.

Restoration measures are undertaken in Kamchia, Shabla and Sreburna in the framework of the national management plan for wetlands.



#### **4.1.5. EX-SITU CONSERVATION**

Some progress has been achieved in the development of ex-situ programmes. For many years the Institute for plant resources in Sadovo is dealing with ex-situ conservation of seeds and its gene-bank is the largest in the Balkans.

Through a project of the Bulgarian-Swiss Biodiversity Conservation Programme the national gene-bank has been enriched with seeds of endemic, rare and endangered plant species.

A strategy for conservation and use of the existing diversity of forage plant species has been developed.

A collection of medical plants is maintained in the Botanical Institute, while there is also a seed bank of rare and endangered species of the Bulgarian flora in the Botanical Garden.

#### **4.2. NATIONAL LEGISLATION AND INTERNATIONAL AGREEMENTS**

Historically, Bulgarian environmental legislation developed in scope and at a pace similar to the European context. At a relatively early stage, in 1936, Bulgaria already had a special law on nature, the Regulation-Act on the protection of Bulgarian nature. All those who were entrusted with the management and keeping of protected sites were reporting to one authority - the Ministry of Agriculture and State property. Special culture plans were elaborated for the large protected sites. That Act was invested with all mechanisms for good management of protected sites: the ownership, the regime and the allowed activities were all clear. The vertical structure of the management bodies and their responsibilities were clearly outlined. Two facts make a particular impression: the existence of forest police in protected sites and the participation of the tourist unions in the control functions allowing them to draw up statements against violators.

In 1960 the Regulation-Act on the protection of Bulgarian nature was replaced by a Decree on the protection of Bulgarian nature. Protected sites are declared with an order of the chairperson of the General Forestry Department after an agreement procedure with interested institutions. The Department also carries out the management of protected natural sites. In addition, a consultative body is established to the General Forestry Department - the National Council on the protection of Bulgarian nature. The Decree on the protection of Bulgarian nature makes its contribution to the development of this matter mainly with regard to setting the goals of legal regulation, the differentiation of regimes for different protected sites and the development of tourism in them.

The next stage in the development of Bulgarian legislation is the adoption of the Nature Protection Act in 1967.

It provides measures not only for nature conservation, but also for rational use, improvement and restoration of natural resources. In a chapter “Protected natural sites” the Act distinguishes between reserves, national parks, natural places of interest, protected sites, historical sites, valuable plant and animal species.

Still valid is the continued practice of declaring protected natural sites without changing their ownership and possession but only placing their management, use and conservation under a regime specified by a government authority. Natural sites are declared protected by an order of the Minister of Environment after an agreement procedure with interested institutions. Proposals for declaring new protected sites can be made by institutions, enterprises, organizations and individuals.

The Environmental Protection Act adopted in 1991 is the next stage in the development of Bulgarian environmental legislation. It is a modern law containing legal definitions of environment, natural resources, etc. and clearly defining its scope and objectives. It is particularly important that this Act establishes two entirely new institutes: the public access to environmental information and the environmental impact assessment. The Minister of Environment is empowered to “guide and control the conservation of biological diversity and natural ecosystems, to declare protected areas and species”. This is an individual right of the Minister of Environment, arising from the law. The Environmental Protection Act takes account of the priority of the direct effect of international legal norms and their priority over national legislation. Competent authorities under the Act may, in cases of committed or possible damage to the environment, established by environmental impact assessment, suspend industrial and other activities until the violation is eliminated, stop industrial and other activities that cause or may cause irremediable damages to environment and human health, prescribe the elimination of the effects caused by the damage. The Act empowers the Minister of Environment to suspend acts issued by other ministries and municipal authorities when they contravene the prescriptions of this Act.

The National Nature Protection Service of the Ministry of Environment and Waters has prepared a new protected areas draft law. Currently it is being considered by Parliament.

The protected areas draft law responds to the urgent need of legal sanction of the socio-political and economic changes in the field of environmental protection and biodiversity conservation in Bulgaria.

Article 18 of the Constitution of the Republic of Bulgaria says that parks of national importance and nature reserves are exclusive state

property. This Constitutional provision is realized in the protected areas act. It defines the specific protected areas which are exclusive state property.

The protected areas act introduces new categories of protected areas in conformity with international classification. Their purpose, conservation and use regime are defined. The protected areas act regulates the procedures for designation and changes of protected areas and such as change of category, deletion, increase in surface, change in the regime, etc.

Pursuant to the protected areas act the Ministry of Environment and Waters assumes the responsibility for management, keeping, and guarding of the protected areas which are exclusive state property and the responsibility for management and control of activities in other protected areas. The establishment of a system of regional management bodies and the endorsement of their rights and obligations provided by the protected areas act will facilitate the Ministry of Environment and Water in carrying out a uniform national policy and in exercising its powers in protected areas.

As a modern means of organizing conservation of protected areas, management plans are introduced by the protected areas act.

One of the achievement of the protected areas act is the introduction of an economic mechanism for accumulation of income from protected areas. The raised funds will be used for elaboration of management plans, maintenance of visitor centres, educational programmes, scientific research, support to municipalities, natural and legal persons, owners of land, forests and water surfaces in protected areas, for carrying out restoration, maintenance and other activities in them.

The act provides for the participation of individuals, municipalities, scientists, non-governmental organizations and others in the decision-making process concerning the designation of protected areas and the carrying out of activities in them; thus, issues of biological diversity conservation are put for resolution on a wide public basis.

The administrative measures and penalties provided by the protected areas act have simultaneously preventive and penal function with regard to the conservation of biological diversity, the habitats of plant and animal species in protected areas, etc.

The entry in force of the protected areas act will enable international institutions to expand their cooperation with Bulgarian institutions in the field of nature protection.

The adoption of the protected areas act, in addition to achieving its own objectives, will provide an irrefutable evidence of Bulgaria's involvement in the pan-European process for conservation of biological

and landscape diversity and will facilitate the country's efforts for integration in the European Union.

Realizing the intransigent value of biological diversity and that its conservation is a common concern of mankind, a number of international conventions dealing with biodiversity conservation were signed in recent years, also by Bulgaria. The recommendations of these conventions have been considered and reflected in the protected areas act taking account of the features of Bulgarian nature.

The particular importance of international agreements in Bulgaria arises from Article 5(4) of the Constitution from 1991, reading that "international treaties, ratified under constitutional procedure, promulgated and in force for the Republic of Bulgaria, are part of its national legislation. They have priority over national norms that contradict them". Among the most important international agreements are the following:

- Convention on Biological Diversity: signed, ratified, not published. By this, Bulgaria commits, as far as possible and appropriate, to:
  - conservation and sustainable use of biological diversity and cooperation with other parties on issues of mutual interest;
  - identify and manage components of biological diversity;
  - in-situ and ex-situ conservation;
  - adopt economic and socially justified measures to encourage the conservation and sustainable use of the components of biological diversity;
  - promote and encourage research contributing to the conservation and sustainable use of biological diversity; develop and support educational programmes and practices in taking measures for identification, conservation and sustainable use of biological diversity;
  - inform and educate the public in the conservation and sustainable use of biological diversity and their importance;
  - evaluate and minimize adverse effects on biological diversity;
  - regulate access to its genetic resources and facilitate it for ecological use by other Parties, implement it by mutual agreement;
  - provide transfer of technologies and access to them, exchange of information;
  - technical and scientific cooperation and use of biotechnologies and sharing benefits from them;
  - provide financial assistance for national activities aimed at achieving the goals of this Convention;

- Convention for the Protection of Wetlands of International Importance (the Ramsar Convention): signed, ratified and in force for Bulgaria since 1976;
- Convention on International Trade in Endangered Species of the Wild Flora and Fauna (CITES): signed, ratified and in force for Bulgaria since 1991;
- Convention for the Protection of the World Cultural and Natural Heritage: signed, ratified and in force for Bulgaria since 1976;
- Convention on the Conservation of European Wildlife and Habitats (the Bern Convention): signed, Ratified and in force for Bulgaria since 1991;
- Convention for the Protection of Migratory Species (the Bonn Convention): Bulgaria is not a Party to the Convention, but has participated in adoption and signing of agreements for the protection of migratory species;
- Convention on Fishing in the Black Sea: signed, ratified, promulgated;
- Convention for the Protection of the Black Sea from Pollution: signed, ratified, promulgated;
- Convention on Fishing in the Water of the Danube: signed, ratified, promulgated;

Important steps are undertaken for the approximation of Bulgarian legislation with the EU directives in the field of biological diversity conservation.

### **4.3. ENVIRONMENTAL EDUCATION**

Integrating the goals of biodiversity conservation in all sectors of socio-economic life requires a wide educational activity and public awareness campaign about the policy of the Ministry of Environment and Waters and other interested institutions.

The National Strategy for the Conservation of Biological Diversity encourages the interdisciplinary and intersectoral approach in educational programmes for all education levels. Education initiatives are undertaken by the Ministry of Environment and Waters, the GEF projects and other projects related with biological diversity conservation. Various non-governmental organizations are also working in the same direction; however, no significant progress in the development of a real national environmental education strategy has been achieved.

The Ministry of Environment and Waters and the Ministry of Education have jointly drafted education materials and programmes in biological diversity conservation. An example is the programme

“Education fro environment” in kinder gardens and high schools in the whole country.

To assert nature conservation education in the official education system at national scale, the Ministry of Environment and Waters has supported the publication of a Guide on environmental information for teachers in Bulgaria.

In the framework of the GEF project a contact group on nature conservation education was set up with the involvement of the Ministry of Education, the Ministry of Environment and Waters, the Sofia University - the Central Institute for Training of Teachers and education NGOs. After the participation of the National Nature Protection Service in a meeting in Gland in 1994, devoted to the exchange of experience in the development and implementation of national strategies for contacts with the public and environmental protection education, and in the workshops of the IUCN Commission for Education and Public Relations (1995, Valseine, Spain), the Ministry of Environment and Waters initiated a proposal for developing a national educational strategy for environment. The first step in this direction is the programme “Education for environment”. The stronger contacts with the Ministry of Education, the public discussions of the draft laws and other initiatives of the Ministry are also results of the campaigns for strengthening public participation in nature conservation policy.

Different NGOs carry out public education programmes and information campaigns, as well as more specific training projects in biodiversity conservation. The Bulgarian Society for the Protection of Birds, Green Balkans, the union for the Protection of the Rhodopes, Le Balkan and others have organized summer camps for improving the conditions in some protected areas, planting trees and promoting other conservation activities.

The Green Balkans Association holds training for NGO members from the whole country in management of nature conservation projects, financed by the Regional Environmental Center for Central and Eastern Europe.

To promote positive experience in getting knowledge about nature in the native region, the PREST and GEF projects, the Bulgarian-Swiss Biodiversity Conservation Programme, etc. organized educational eco-weekends for parents and children entitled “Threats for Biodiversity in Bulgaria”, and “Importance of protected areas for the conservation of Wild nature”. Cleaning of the areas of protected landscapes and habitats was organized (Mussala, Poda, Sreburna).

The PHARE programme supported the publication of a book called “Bulgaria Natural Heritage” and 6 educational films on protected sites in

the country. The equipment of the exhibition space in the visitor centre “Rila” in Panichishte is being completed.

Media campaigns, press conferences, public discussions of draft laws, local projects for conservation of biological diversity, public discussions of the proposals for new protected areas are held regularly by the public relations officers of the park administrations. The Ministry of Environment and Waters Finances nature protection programmes of the central media and environmental magazines (the programme “Planeta” on the national television, the magazine “ECO”, “Svyat” (World), etc.). Programmes on local radio and TV stations are financed under the international projects.

Information about nature protection laws and the texts of international agreements is improved and an easier public access is ensured.

#### **4.4. ECOTOURISM**

Ecotourism is among the priorities of the Ministry of Environment and Waters; it is supported as an approach, including through financing from the National Environmental Protection Fund.

Government institutions and non-governmental organizations have developed important elements of a potential national policy on ecotourism in the framework of several projects such as the ongoing GEF project-ecotourism in the national parks Central Balkan and Rila, and the PREST project for planned development of tourism in the Pirin region.

Opportunities for the development of various forms of ecotourism are offered in many places in the country: the village of Momchilovtsi and other villages in the Rhodopes; the areas around the national parks Rila, Pirin and Central Balkan; Belogradchik. There is also informative and hobby tourism in the mountains, at the Black Sea coast, in wetlands. The main difficulties come from the lack of funds for advertisement and good facilities, of coordination and a consistent national policy.

An evaluation of the existing ecological and cultural resources and their potential for ecotourism has been made. In particular, key sensitive areas for birds have been identified and some measures have been taken to direct birdwatching in a way that will have a better effect in tourist destinations and a minimal risk for birds and natural features (information published in the book of the Bulgarian Society for the protection of Birds “Where to watch birds in Bulgaria”).

Most of the private tour operators establish contacts with other key players (NGOs) and among themselves. The Bulgarian Society for the Protection of Birds has established cooperation with the major Bulgarian tour operators dealing with nature tourism.

In the Bulgarian nature conservancy Dobrudja there is a project among whose main objectives is the development of ecotourism in Primorska Dobrudja.

#### **4.5. COOPERATION AND PARTNERSHIP**

Extremely important steps were made in the last few years towards the establishment of partnerships for the conservation of biological diversity in Bulgaria. The work is an great challenge in the period of transition. During that time a number of organizations and institutions showed their serious interest in the conservation of biological diversity and a lot of international projects and measures of high value for the main stakeholders in this activity were undertaken in the country.

An important partner of the Ministry in the field of nature protection is the Bulgarian Academy of Sciences. It consists of about 30 scientific research institutes. Scientific research and observations on the conservation of biological diversity are carried out in the Botanical Institute, the Institute of Zoology, the Institute of Ecology, the Institute of Forests and the National Centre for Hydrology and Meteorology. The National Museum of Natural History together with the Institute of Zoology serves as the main national repository for the collections in natural history.

Non-governmental organizations play an important role in the movements for environmental and political reform in Bulgaria.

The most prominent environmental NGO, before and in the process of the breakdown of the totalitarian regime in Bulgaria was Ecoglasnost, founded in April 1989. One of the main goals of Ecoglasnost was to collect information about the impact of pollution on human health and environment, including the contamination of soil and water with arsenic and mercury and the radioactive contamination after the Chernobyl accident.

With the coming of democracy in Bulgaria a number of new environmental non-governmental organizations were formed at national regional and local level. These groups work for the achievement of different goals, including the protection of natural sites, more-efficient pollution control, better programmes for environmental awareness and training, and protection of specific natural areas. Among these newly-formed groups and movements are the Bulgarian Society for the Protection of Birds, the Bulgarian Union for the Protection of the Rhodopes, the Green Balkans association, Ecomonitoring Club, Green Society Foundation, Ecoforum for Peace, Eco Foundation and Green Patrols. Some of these groups have started developing local projects with the support of international organizations.



Although environmental NGOs in Bulgaria are quite strong, the present economic conditions limit their efficiency. To function smoothly, these organizations need assistance in a number of areas:

- adequate funding for carrying out their programmes;
- advice on the scientific, legal and socio-economic aspects of environmental issues;
- more information about the structure and the activities of similar organizations in other countries;
- qualification courses and training in the methods of work with the local population and communities;
- access to information.

An effective non-governmental centre for collection, exchange and dissemination of information about environment is being established - an Environmental information centre. However, a more important achievement is the increased capacity of NGOs to work together and to work with government institutions. It can be said that the principles of partnership are largely accepted by the major governmental and citizens' organizations involved in the conservation of biodiversity, and the need and the capacity to work with the local people are appreciated.

## **5. FUTURE ACTIVITIES FOR BIOLOGICAL DIVERSITY CONSERVATION IN BULGARIA**

The future biodiversity conservation activities in the country in a short term are closely linked to two state administrative acts: the adoption of the National biological diversity conservation strategy by the Council of Ministers and the adoption of the Protected areas law by the Parliament.

The government takes into account that an important problem for the Strategy priorities execution is the lack of common Biodiversity Conservation Action Plan. In most of the cases biodiversity conservation activities are organised and implemented separately, not as a parts of an coordinated national system. As a result, the outputs are far less significant than the possible ones. The Action plan preparation continues to be an important necessity, also because of the fact, that does not exist an official scheme for monitoring the implementation of the Strategy recommendations.

The primary objective is to develop a plan with mechanisms to reduce threats to biodiversity in Bulgaria caused by the different economic sectors. It will promote practical actions where there is a lack of suitable instruments, or where mechanisms are not implemented to their full potential in order to be in

compliance with the CBD and other biodiversity-related international treaties and conventions. The AP will introduce a co-ordinating and unifying framework for the strengthening and building on existing initiatives and programmes of the different national authorities. It presents an innovative and proactive approach towards the biological diversity in Bulgaria - addressing biological and landscape diversity values in one approach and integrating ecological consideration into all social and economic sectors. The AP will identify fundamental actions towards the implementation of the CBD and NBDCS for a five-year period in concrete and pragmatic ways. The AP will use the framework of the Strategic Action Plan 1996-2000 of the Pan-European Biological and Landscape Strategy (PEBLS) principles, adopted at Sofia'95 Environmental Conference and its development will be based upon the WRI/IUCN/UNEP Guidelines for Action Plan production.

Ministry of Environment and Waters will establish an Intersectoral Planning Team, representing policy makers from "Economic Sectors" (agriculture, energy and industry, forestry, hunting and fisheries, regional and local planning, and transportation) likely to have impacts upon biodiversity. Detailed analysis will be required in many instances to verify the linkages between threats to biodiversity and Economic Sectors to convince policy-makers of the need for remedial action. The decision makers from the sectors will be directly involved and asked to incorporate biodiversity concerns into their own policy and planning activity. In addition, legislative and institutional gaps as well as conflicting elements will be evaluated. Recommendations will be formulated for Government's decision on legal and institutional options for best meeting the CBD criteria.

The implementation of the activities which will be envisaged in the National Action Plan will facilitate the Ministry of the Environment and Waters in the implementation of an unified state policy and in the implementation of the Ministry's duties and responsibilities in the area of biodiversity conservation.

The new Protected areas law will result in a large number of future activities such as:

- the change of categories of the currently existing protected areas according to the international classification;
- establishment of an unified institutional system for the protected areas.

At that, the Ministry of the Environment and Waters takes the entire responsibility for the management, maintenance, restoration and guarding of the national parks and reserves;

- introduction of plans for management of the protected areas;
- introduction of the economical mechanism for generation of revenues from the protected areas, and the collected resources to be utilised for the

preparation of the management plans, maintenance of the visitors centers, educational programs, scientific research, support for municipalities, natural and legal persons, owners of forests and lands in the protected areas, for maintenance and other nature protection activities in these areas;

- establishment of protected areas cadaster, etc.
- extension of the cooperation between the international and the Bulgarian institutions in nature protection area.

It is necessary to be continued the already commenced activities of a primary significance for the biodiversity conservation, such as:

- development of regulations, under the existing laws, for establishment of management plans for the activities in the protected areas, exclusively state property, and other regulations connected to the Protected areas law;
- establishment of new laws like the Biodiversity law, the Law for herbs, and other laws concerning biodiversity conservation in nonreserved areas and connected to the EU directives for the habitats, for the birds, etc.;
- implementation of the obligations under the international conventions signed by Bulgaria, as well as preparation for participation of the country in a new conventions, like Bonn Convention, etc.;
- complete harmonisation of Bulgarian nature conservation legislation with the European one, so that Bulgaria might take its place in the structures of the European Union.