REPUBLIC OF BULGARIA
Council of Ministers

National Biodiversity Conservation Plan

Sofia, June 1999

CONTENTS

List of Abbreviations Used in the National Biodiversity Conservation Plan

AA	Academy of Agriculture
BAS	Bulgarian Academy of Sciences
BHFU	Bulgarian Hunters and Fishermen Union
BSBCP	Bulgarian-Swiss Programme for Biodiversity Conservation
BSBCP-forest	Bulgarian-Swiss Programme for Biodiversity Conservation at the National Forestry Department
BSPB	Bulgarian Society for the Protection of Birds
CE	Committee of Energy
CM	Council of Ministers
CP	Civil Protection
EU	European Union
FAO	Food and Agricultural Organisation
FU	Forestry University
GEF	Biodiversity Conservation Project financed by the Global Environmental Facility
HEF	Higher Education Facility
IB	Institute of Botany
IF	Institute of Forestry
IHE	Inspectorate of Hygiene and Epidemiology
IUCN	International Union for the Conservation of Nature
MAFAR	Ministry of Agriculture, Forests and Agrarian Reform
MD	Ministry of Defence
MES	Ministry of Education and Science
MF	Ministry of Finance
MFA	Ministry of Foreign Affairs
MH	Ministry of Healthcare
MInd	Ministry of Industry
MInt	Ministry of the Interior
MLSP	Ministry of Labour and Social Policy
MOEW	Ministry of Environment and Waters
MRDPW	Ministry of Regional Development and Public Works
MT	Ministry of Transport

MTT	Ministry of Trade and Tourism
NDF	National Department of Forests
NEPF	National Environment Protection Fund
NF	National Fund
NGO	Non-Governmental Organisation
NNPS	National Nature Protection Service
NPPQAS	National Plant Protection, Quarantine and Agrochemistry Service
NSS	National Soil Service
PHARE	Programme of the EU
RIEW	Regional Inspectorate of Environment and Waters
SAPARD	Special Accession Programme for Agriculture and Rural Development
SIR	State Inspectorate of Fishing
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNESCO	United Nations Education, Science and Culture Organisation
WWF	World Wide Fund for nature

INTRODUCTION

Biodiversity is a pre-requisite for the sustained existence of mankind and is of essential importance for the continued survival of present and future generations. In light of the extent of threats to ecosystems and species, the governments of the world came to an agreement in Rio de Janeiro in 1992 to work together to conserve biodiversity and promote the sustainable use of biological resources. Bulgaria is one of Europe's most biodiversity rich countries. Despite the considerable difficulties and challenges in the current transition to a market economy, concern for biodiversity conservation remains strong within the country. This is confirmed both by the national legislation and by Bulgaria's accession to international acts and initiatives in this field.

In 1998 the Bulgarian Government approved the National Biological Diversity Conservation Strategy, which was inspired by the Pan European Strategy for Biological and Landscape Diversity. The development of the National Biodiversity Conservation Plan (NBCP) is a direct follow up to the National Strategy and it outlines specific priority activities. The identified activities are largely achievable within existing institutional, financial and personnel resources and determine the following key areas:

- Priority measures for biodiversity conservation and maintenance;
- Specific activities within the priority measures;
- Financial resources required for the implementation of priority activities and identified domestic and external sources of funding;
- Implementation co-ordination mechanisms.

An ecosystem approach was applied in the drafting of the NBCP. Even where specific abiotic and biotic components are of conservation importance and might be the object of special conservation actions, these were considered in a holistic ecosystem framework. The following ecosystems were given specific attention in the NBCP:

- Marine ecosystems;
- Coastal ecosystems;
- Wetlands along the Black Sea coastline;
- The Danube and wetlands along the Danube;
- Internal water and wetland ecosystems;
- Forest ecosystems;
- Mountain (pasture) ecosystems;
- Agroecosystems;
- Low-land (grass) ecosystems.

In addition to the biodiversity conservation activities identified for the above ecosystems, the NBCP includes activities that are generic to all. Such as the establishment of a national econetwork, the conservation and maintenance of endangered plants and animals, and the conservation of genetic resources. However, care has been taken not to include activities already encompassed in planed or ongoing environmental management plans and programmes. The National Biodiversity Conservation Plan was developed by representatives of scientific and academic institutions, domestic and international NGOs as well as the concerned governmental ministries and departments. The characteristics of the country's main ecosystems were described; the threats to the biodiversity identified and specific maintenance and conservation actions were proposed. This part of the NBCP development relied extensively on a series of workshops to ensure peoples participation in the process. Representatives of government institutions analysed the reports and the workshop outcomes and structured the Plan activities by importance and feasibility. Special attention was given to the financial resources of the institutions entrusted with carrying out of these activities. Representatives from the Ministry of Environment and Water (MOEW), international consultants, members of the Plan Editing Group and of the NBCP Steering Committee collaborated in the finalisation of the Plan. The successful implementation of the Plan will depend up broad participation of all sectors, and the securing of adequate financial resources.

CHAPTER 1
CURRENT STATUS OF BIODIVERSITY IN BULGARIA

1. Legal Biodiversity Conservation Framework in Bulgaria

A. Hierarchical System of National Legal Norms

The concept of environmental protection is firmly established in Article 15 of the Constitution, which states "The Republic of Bulgaria shall ensure the protection and reproduction of the environment, the maintenance and diversity of living Nature, and the sustainable use of the country's natural and other resources". In Bulgaria this concept is supported by a series of specific laws and regulations.
Article 5 of the Main Law states that "international agreements, ratified in compliance with the constitutional order, published and made effective for the Republic of Bulgaria, are a part of the internal legislation of the country. They have priority over those norms of internal legislation which contradict them".

Biodiversity is a pre-requisite for the existence of mankind.

In the light, international agreements, signed by Bulgaria, relative to biodiversity conservation, sustainable use, and the equitable sharing of benefits arising from the use of genetic resources, gives important orientations for biodiversity conservation in Bulgaria. The following special environmental laws are currently in effect:
- The Environment Protection Act;
- The Nature Protection Act;
- The Protected Areas Act.

The environmental protection concept is firmly established in the Constitution.

A number of other laws adopted or pending adoption by the National Assembly concern biodiversity conservation and the sustainable use of the biological resources. These include:

- Agricultural Land Conservation Act;
- Forests Act;
- New Plant Varieties and Animal Breeds Protection Act;
- Hunting Economy and Game Animal Protection Act;
- Fishing Act;
- Clean Air Act;
- Water Act;
- Agricultural Land Ownership and Use Act;
- Limitation of the Harmful Impact of Waste on the Environment Act;
- Underground Natural Riches Act;
- Medicinal Plants Act.

The legal framework is complemented by:

- Regulations and Decrees of the Council of Ministers, Regulations for the implementation of

the laws that describe specific application measures of the more general provisions in the laws;

- Decrees of the Council of Ministers on the functions and objectives of the individual ministries and agencies define the allocation of biodiversity conservation related responsibilities within government.
- The National Biological Diversity Conservation Strategy [NBDCS] was approved in1998.

In addition, the system of administrative and regulatory instruments at the disposal of the MOEW, the Ministry of Agriculture, Forests and Agrarian Reform [MAFAR], the Ministry of Regional Development and Public Works [MRDPW] and others reinforces these dispositions. These cover control, prevention and sanctioning of the potential and real violators of the current biodiversity conservation norms. These norms are defined in the Environment Protection Act, the Nature Protection Act, the Protected Areas Act, and the Penal Code etc. Additional administrative and regulatory instruments for biodiversity conservation include:

- The Environmental Impact Assessment Procedures (EIA);
- The regime for trade in medicinal plants, endangered species of wild flora and fauna and their derivatives;
- Administrative penalties and the compulsory administrative measures applied in the field of nature conservation, or biodiversity, respectively.

B. International Agreements (Conventions)

International instruments are crucial in the determination of the biodiversity conservation regulatory framework. Bulgaria has signed and ratified the following international conservation agreements:

Global or Pan-European agreements

- Convention on Biological Diversity;
- Convention on the Conservation of the Wild European Flora and Fauna and Natural Habitats (Bern);
- Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES);
- Ramsar Convention on Wetlands of International Importance Especially as Waterfowl Habitat;
- Convention for the Conservation of marine live resources of the Antarctic (ANTCOM);
- Convention on the Conservation of the World and Cultural Heritage.

Regional agreements

- 1958 Convention on Fishing in the Danube;
- 1959 Convention on Fishing in the Black Sea;
- Convention on the Protection of the Black Sea against Pollution.

Bulgaria participates in many International agreements on Biodiversity Conservation.

C. Harmonisation with the European legislation for Nature Protection

The following directives and regulations of the European Union are relevant for biodiversity conservation in Bulgaria:

- Directive 92/43/EEC for Protection of the Natural Habitats and Wild Flora and Fauna;
- Directive 79/409/EEC for the Protection of Wild Ducks;
- Regulation 338/97/EC for Trading with Species of Wild Flora and Fauna;
- Directive 83/129/EEC for Trading with Firs from Young Seals and Products, made of them;
- Regulation 348/81/EEC for the Import of Whales and Products, made of them;
- Regulation 254/91/EEC for Prohibition of Traps and the Import of Firs.

The requirements of the Directives and the regulations, except for those on seals and whales, are largely transposed in the Bulgarian legislation by the Protected Areas Act, the Nature Protection Act, the Fishing Act, the Hunting Act, the Customs Act and Directive No.3 of Ministry of Environment and Waters on the Order and the Conditions for Co-ordination of Export and Import Certificates. It should be noted that Bulgarian legislation, unlike European legislation, does not regulate:

- Protection of bird habitats outside the protected areas;
- Catching, killing or trading of specific bird species;
- Procedures for species [in compliance with Regulation 338/97/EC] which fall outside the range of CITES Convention;
- The procedures, forms and other import and export related documents included in Regulation 338/97/EC, which are different from those under the CITES Convention;
- The procedures and accompanying documents for control of trade, acquisition, possession and movement within the country of representatives of the species under Regulation 338/97/EC and the CITES Convention;
- Customs offices where the import and the export are carried out;
- Procedures for the sale of confiscated species inside the country.

It is expected that the above gaps will be filled by the end of 2000 with the adoption of the Biodiversity Act, the Hunting and Protection of Game Act, the Decree on Protected Area Management Plans etc.

Bulgarian biodiversity legislation will be finalized in year 2000

2. Institutional Framework for Biodiversity Conservation in Bulgaria

Biodiversity conservation and the sustainable use of natural resources are managed and monitored by several governmental authorities.
The Ministry of Environment and Waters develops and conducts the State environment conservation policy and, in particular, biodiversity conservation**.**
In March 1994, the Ministry of Environment and Waters included in its structure the **National Nature Protection Service**, a "specialised authority for the management, control and conservation of the biological diversity, the protected nature areas and the natural ecosystems."
The **National Centre for Environment and Sustainable Development**, a unit under MOEW, maintains the National Environmental Monitoring System (NEMS). This biodiversity conservation related data system monitors thereby evaluating the state of the overall environment in which living organisms develop.

Regional authorities of the Ministry of Environment and Waters are the three National Park Directorates, and the Regional Inspectorates of Environment and Waters. The tasks of the National Park Directors and of the Regional Inspectorates are:

- Manage protected areas;
- Organize the guarding, the management planning for protected areas exclusively owned by the state, and also commission the implementation there of activities related to maintenance, guidance and regulation in conformity with the management plans;
- Supervise biodiversity conservation in and outside the protected areas;
- Co-ordinate the work of forest and land owners within protected areas;
- Organize educational and information programmers.

The Ministry of Agriculture, Forests and Agrarian Reform (MAFAR)
The Ministry conducts the policy of the state for agriculture, forestry, hunting and fishing, and agrarian reform. Through the National Department of Forests**,** this Ministry manages and controls the protection, maintenance, restoration, use and guarding of protected areas within the state forests. Administrative units have been established under the National Department of Forests in the country's nature parks.
Biodiversity conservation related units in the MAFAR system, mainly with agro ecosystems, are the National Plant Protection Service, the Quarantine and Agro chemistry Service, the National Veterinary-Medical Service, the National Animal Breeding Selection and Reproduction Service, the Technical Control Inspectorate, the State Inspectorate of Fishing, the National Soil Service etc., as well as the National Extension Service under the Regional Departments on Agriculture, Forests and Agrarian Reform. The Agriculture Academy, which is under MAFAR, carries out research for biodiversity conservation and maintenance within a complex of experimental stations. Among the important institutes and institutions to be found under the Agricultural Academy are the Institute on Introduction and Plant Resources and the National Genetic Bank, which has been operational since 1977.

The Regional Forest Departments and the State Forestry Boards are legal persons and authorities of the National Department of Forests. Within their functions are: organisation, co-ordination and control of reproduction, use and protection of forests, planning, construction and maintenance in the forests and state owned forest land including protected areas and reserves, except those in national parks.

The Ministry of Regional Development and Public Works
The Ministry ensures in co-operation with other government authorities efficient use of land, energy and other resources, as well as sustainable development at regional and municipal levels.

The Regional and Municipal Councils and the Local Self-administration Authorities
These government bodies develop more specific and concrete environmental programmes, report on environmental violations, establish environment pollution norms and standards together with the government institutions, and co-operate in the process of regional planning and territorial and urban development.

Government/NGO cooperation is important.

Apart from the above institutions, the biodiversity conservation process in Bulgaria involves **other governmental participants**, including

- the Ministry of Trade and Tourism, the Ministry of Industry, the Ministry of Education and Science, the Committee for Energy and other government institutions, working in different areas of biodiversity conservation;

- the National Statistics Institute is the government institution which monitors, processes and publishes official information, including information about protected areas, as well as other information related to biodiversity conservation.

Partners

The main partners working with central and local authorities in biodiversity conservation are, as follows:

- **The Bulgarian Academy of Sciences** consists of approximately 68 individual scientific research institutes and laboratories. More than 30 of them conduct biodiversity and environment-protection related scientific research and studies. This area was actively researched by the Institute of Botany, the Institute of Zoology, the Forest Institute, the Central Environment Laboratory, the Institute on Biology and Immunology and Reproduction, the Institute on genetics, the Institute of the Physiology of the Plants, the National Museum of Natural Sciences etc.

- There are 34 scientific-research institutes within the **Academy of Agriculture** under the MAFAR. Of these, the Institute on Introduction and Plant Resources in the town of Sadovo, the Institute for Genetic Engineering in the town of Kostinbrod and the Institute for Wheat and Sunflower in the town of General Toshevo carry out activities closely related to biodiversity and biological safety.

- New environmental faculties and departments have been established in some Universities, such as the University of Forestry, the Sofia University etc. These facilities conduct biodiversity related training, scientific research and practical activities.

- In parallel with the new democratic changes in Bulgaria, **many national, regional and local-level environmental NGOs** have been established. These organizations work towards the achievement of various objectives including the protection of nature sites, more efficient pollution control, better environmental education and training programmes, and conservation of specific nature areas. The NGOs' increased capacity to implement environmental programmes as well as the increased Government/NGO and NGO/NGO co-operation might be regarded as an important achievement of recent years.

- Many **international partners** render assistance to the state in biodiversity conservation:

    - The main objectives of the Bulgarian-American Programme for biodiversity [GEF] funded by the US-AID are: elaboration of protected area planning and management systems, development and implementation of management plans for the Rila and Central Balkan National Parks; strengthening of the government institutions responsible for nature conservation through provision of equipment and training of specialists; elaboration and development of financial mechanisms in aid of biodiversity conservation; information and educational activities aimed at involving the public supporting biodiversity conservation and management in Bulgaria;

    - A National Biological Safety Programme seeks to prevent the potential harmful impact which genetically modified organisms pose to biodiversity. It is financially supported by UNEP;

    - The preparation, publication and promotion of this NBCP was financed by GEF/UNDP;

- Bulgarian-Swiss Biodiversity Conservation Programme is currently in its second phase. The first phase ended in 1997 after 4 years of active operation. Seven protected area management plans were drafted, three information centres were set up, and many collaborators trained. The ongoing second phase, which ends in the 2000, has the objectives of conserving biodiversity rich areas, carrying out of priority activities from the management plans, institutional strengthening of government and non-government organisations, and establishment of economic mechanisms in support of biodiversity conservation. This project is funded by the Swiss Government. The National Department of Forests carries out activities with the support of Switzerland and the FAO in the forestry sector. These include the implementation of the main recommendations of the Ministerial Conference on the Protection of Forests in Europe, held in Helsinki, and urgent measures for gypsy moth control in the Bulgarian forests;

- A management plan for the Veleka and Silistar Estuary a protected area in Strandzha was developed with the support of the Principality of Monaco. This project included maintenance and restoration activities;

- The Bulgarian-French Project for Conservation and Evaluation of the Ecosystems in the Coastal Dobrudzha Area is carried out under the guidance of the Le Balkan-Bulgaria Foundation. The main objective of the project is to promote nature protection and use nature protection activities as a bases for local economic development;

- The Ramsar Convention Bureau allocated funds for the elaboration of a management plan for the Srebarna Biosphere Reserve. UNESCO provided funds for equipment of the administrative office of the reserve;

- Under the National EU Accession Programme, the PHARE Programme carries out a contract with the MOEW for the harmonisation of the Bulgarian biodiversity conservation legislation with the EU equivalent. PHARE also collaborates with MOEW on the establishment of a cadastral survey of Bulgaria's protected areas. Negotiations for the commissioning of eco-agriculture projects are ongoing under the SAPARD programme of the EU.

Close cooperation with local communities is needed.

- International NGOs also provide crucial input. The main programmes of BirdLife International are related to the conservation of globally endangered species, important bird areas and habitats, including Bulgaria. One important contribution by BirdLife International is the institutional strengthening of one of Bulgaria's main NGOs – the Bulgarian Society for the Protection of Bird [BSPB]. Also, IUCN and the WWF have since 1997 been implementing a biodiversity conservation programme along the Danube, in cooperation with the National Department of Forests and the Bulgarian NGOs the Green Balkans, and the BSPB. Activities focus on the Small Wetland Restoration Programme.

Partnership principles are largely accepted by the main governmental and civil organisations participating in biodiversity conservation. The need to work closely with local communities is recognised.

3. Protected Nature Areas

The total protected area in 1997 was 491,219 ha or 4.42% of the country. Protected areas in Bulgaria in 1997 are classified into five categories:

- **Reserves:** There are 90 reserves in the Republic of Bulgaria covering an area of 80,561.5 ha. These are strictly protected areas containing representative natural ecosystems and habitats of rare species. All activities within the reserves that may damage the original natural features are banned. Most of the reserves are in forest ecosystems and more than 60% of the total Bulgarian forested area is included within the Peoples parks.

- **People' parks:** There are 12 people's parks in the Republic of Bulgaria. These are spacious protected areas with large diversity of nature. These areas are of cultural and recreational value, where natural conditions and ecosystems dominate;

- **Natural landmarks and protected localities:** There are 2,241 nature landmarks and 123 protected areas in Bulgaria. The nature landmarks cover an area of 23,408 ha, and the protected areas cover23, 527 ha. These are smaller territories, mostly from 1 to 500 ha, where specific landscape features, such as waterfalls, caves, as well as habitats of rare and endangered species and communities are protected;

- **Historical places:** There are 972 historical places with a total area of 12,139 ha.

The Protected Area's Act was adopted by the National Assembly late 1998. It provides for the following protected area categories:

1. Reserve;

2. National Park;

3. Nature Monument;

4. Maintained Reserve;

5. Nature Park;

6. Protected Site.

Bulgaria is one of Europe's most biodiversity rich countries.

The Act sets forth deadlines for protected area re-categorisation from their old categories into the new protected territory categories.

As a result of precategorisation 3 National Parks and 9 Nature Parks are expected to be established.

Protected areas in Bulgaria constitutes 4.42% of the country.

4. Bulgaria's Biodiversity

Despite Bulgaria's comparatively small area (110,912 esq.), it possesses a very rich and unique biodiversity. The country hosts 94 mammals, 383 birds, 36 reptiles, 16 amphibians, 207 Black-Sea and fresh water fishes, around 27,000 insects and other invertebrates, 3,500-3,750 vascular plant species and more than 6,500 non-vascular plants and fungi.

Endemic plants account for about 5% of the entire flora.

Endemic are also 8.8% of non-insect and 4.3% of the insect species.

Categorised as rare in the flora and fauna have also been more than 700 vascular plants, 567 non-insect invertebrates, more than 1.500 insect species; 29 species of Black Sea and fresh water fishes; 2 species of snakes; 78 birds and at least 10 large mammal species including the Black Sea monk seal, endemic dolphin subspecies – the sea porpoise and the bottle-nosed dolphin, chamois, brown bear, wolf, otter and the European marbled polecat.

As a result of anthropogenic pressure, a number of Bulgarian species have decreased to a level of becoming extinct during the last decades. They include at least 31 vascular plant species, 7 invertebrates, 3 fish species, 2 snakes, 3 birds, 2 (or, possibly, 3) mammal species and 6 local animal breeds. In total Bulgaria has 473 protected animal species and 389 protected plant species.

Endemism in Bulgaria:
5% of the flora,
8.8% of non-insect species,
4.3% of insect species…..

Bulgaria has representatives of almost all the main habitats and biotopes known in Europe. Bulgaria's national collections of genetic resources harbour a rich diversity of species. In addition to already known commercial species, non-commercial species, including Black Sea and fresh water fish, could provide important economic and ecological benefits in the future. For instance more than 200 edible mushroom species and scores of medicinal plants can be found in Bulgaria. Bulgaria also hosts many relatives of domesticated species.

5. Threats to Biodiversity

The country's biodiversity is subject to many threats of varying in nature, origin, location, time and intensity of action. According to the National Biological Diversity Conservation Strategy the most common threats for almost all ecosystems have been ranked as follows:

- **Loss, destruction and deterioration of habitat** in both the aquatic and terrestrial ecosystems. Aquatic ecosystems and their biological diversity are threatened by:
- The draining of wetlands especially along the banks of the Danube and in the Danubian plain;
- Adjustment and channeling of river beds, construction of dykes, dams, strengthening facilities,
- Pollution of water from various sources,;
- Overloading of water with organic matter etc. Terrestrial ecosystems are threatened by:
- Construction and development works in disregard of environmental impacts;
- Environmentally unsound technologies applied in the main and auxiliary uses of forest resources and agricultural lands;
- The genetic isolation resulting from habitat disturbance etc.;

Environmental pollution where the main sources of pollution are:

- Household waste;
- Agricultural organic waste and chemicals;

- Heavy metals and other toxic waste;
- Oil and thermal pollution of large water basins and of the Black Sea;
- Transboundary pollution of air and water.

The over-harvesting of economically valuable species affects various ecosystems, habitats and taxons. Threats include poaching, over-harvesting of economically valuable fish species, plants and animals.

The introduction and settlement of invasive species and subspecies also has negative effect on biodiversity;

Agricultural intensification has had a diminishing effect on Bulgaria's unique genetic resources – local plant varieties and primitive domestic animal breeds.

Global Change such as the thinning and depletion of the ozone layer and other climatic changes may render unforeseeable consequences for Bulgaria's ecosystems.

Lack of awareness primarily in the areas of limited scientific information and knowledge, the insufficient understanding by the public of biodiversity and threats affecting it are impediments to its conservation.

Almost all main habitats and biotopes in Europe are found in Bulgaria.

The following ecosystem specific threats have been identified:

Marine and Coastal Ecosystems

- Eutrophication as a result of organically charged inflow of river and continental waters;
- Over-harvesting and poaching – trawling and dredging of the sea bottom, uncontrolled destruction or collecting of endangered plants and animals;
- Pressure by invasive predators;
- Inadequate choice of plant species for planting and afforestation.

Inland Water and Wetland Ecosystems

- Excessive pumping of water from the water basins and from near-by ground waters;
- Changes to the water regime including silting of water basins, bank strengthening and construction of dukes, barrages and dams;
- Draining of wetlands;
- Channelling and correction of river beds and wetlands, including destruction of their surrounding natural vegetation and its replacement with other species, erosion;
- Increasing numbers of wild predators of feral domestic animals;
- Unregulated grazing;
- Extraction of peat and inert materials;
- Eutrophication resulting from organically charged inflow of river and continental waters.

Forest Ecosystems

- Gaps in the legal basis for biodiversity conservation within forests;
- Lack of funds to complete and effectively implement the existing legal basis for the management of forest resources;
- Insufficient public information regarding limitations in the use of nature resources;
- Insufficient connection between the process of planning and management at the local and regional levels;
- Negative socio-economic and demographic trends that lead to increased pressure on nature resources in regions experiencing a deterioration of economic conditions.

Mountain (Pasture) Ecosystems

- Uncontrolled tourism and camping;
- Burning of juniper;
- Uncontrolled access of off-road motor vehicles.

Agroecosystems

- Disturbance and degradation of the soil cover: removal of earth masses from open pits in extraction of ores and minerals, discharge areas, construction, erosion, salinization and acidification.
- Uncontrolled gathering and destruction of plant and animal species;
- Application of agricultural systems and technologies in disregard of the environment;
- Uncontrolled fires;
- Lack of agro ecosystem quality standards and of supporting legal framework;
- Loss of genetic diversity and uncontrolled abandonment of local plant varieties and domestic animal breeds.

Low-Land (Grass) Ecosystems

- Ploughing up of meadows and desolate lands;
- Inadequate regulation of the use of meadows and pastures;
- Environmentally unsound agrochemical activities.

Successful implementation of the NBCP requires broad participation of all sectors.

6. Impact of the Main Socio-Economic Sectors in the Country on Biodiversity

Forestry

Forestry in Bulgaria is still aimed at ensuring optimal economic gains from the forestry production. Forest planning projects are not designed to take account of the non-economic dimensions of forestry. Biodiversity in forests is impacted by:

- The substitution of diverse indigenous and natural forests with homogenous forests of high

economic value species (for example, the replanting of hybrid poplar on the flooded island forests along the Danube and other large rivers);

- Economic activities conducted without a preliminary assessment of the impact of these activities on the biodiversity in the given area;
- The lack of real attention toward protection of the old-growth forests;

Certain conservation activities in the forestry sector have been undertaken recently. Among these are the restoration of the inundated forests along the Danube, the efforts to maintain the hydrology of certain inland wetlands, as well as the reintroduction of the Crimean wort *(Sideritis taurica),* and the protection of the globe flower *(Trollius europaeus L.),* etc.

Agriculture

Biological resources are directly affected by the environmentally unsound production technologies, unsustainable crop rotation, monocrop cultivation, inadequate land management practices, and changing climatic conditions etc.

However, at present positive effect can be seen due to reduction of arable lands and a diminished use of fertilisers and chemicals for plant protection. Also, a trend toward a threefold reduction, on average, of the number of cattle has occurred. On the other hand, a significant increase in the number of goats' counter acts this latter trend and seriously threatens grass-land and bush vegetation.

The lack of manure storage and treatment facilities and of legislation for the adequate use of meadows and pastures also have a negative impact on the biological resources.

Hunting and Fishing

One of the main threats to the biodiversity is poaching the control of which has diminished in recent years. Hunting has both a direct impact through the shooting of birds or mammals, and an indirect impact through disturbance and driving away of wild animals from their natural habitats.

Fishing, as a separate sector, has both a positive and a negative role in biodiversity conservation. Trawling and excessive fishing along the Black Sea coast create many serious threats for the whole coast line ecosystem.

The role of fishponds is mostly positive in that it creates and maintains a great number of artificial wetlands that are exceptionally important for ornithofauna. The development of fishponds with its control and reproduction of the fish recourses and other marine crops is a positive factor of sustainable chthyofauna development. The benefits of such dams are not only economical but they do also provide support to the biodiversity in aquatic ecosystems.

Power Industry

The negative impacts are most markedly manifest in the direct destruction of biodiversity in the open cast mines, in slag depots, embankments and other similar areas. In many cases this effect is aggravated by additional pollution with chemicals, heat and others from power plants. At the same time the power industry also provides benefits, as some of Europe's most important locations for wintering waterfowl are the water bodies used as cooling water for the

large power plants. However, the water works and the plants generally disturb the natural water regime of the rivers, causing serious changes in the ecosystem.

In addition the construction of large water reservoirs and cascade chains destroys the biodiversity in a given area as it changes from terrestrial to aquatic. As a result, species are being displaced and migration routes are obstructed. However, the radical changes provide habitats for water and wetland dependent species.

Industry

The impact of industry on the biodiversity is mostly seen as indirect, where its harmful impact on the environmental often are caused by pollution in form of air, water and solid waste. Obsolete treatment facilities, or the lack of such facilities prevents adequate clean up causing damages to biological diversity primarily in water basins.
Industry directly impacts the habitats of a number of species. At the same time, the closed mines ensure favourable conditions for the distribution and increasing of the populations of certain animals, such as bats

Transport

The construction of new highways and roads in areas with an undeveloped transportation network can have severe consequences. It is in these areas that many rare species and valuable communities and ecosystems still remain. Due to the continuous development of transport infrastructure, the unaffected areas decrease. Apart from habitat destruction one direct effect to animal population is fatalities caused by collisions with vehicles. Transport also has indirect impacts on biodiversity, such as chemical, dust, noise and other types of pollution. In addition, the construction of new roads eases access for people to more remote areas.

Construction

Construction also has a serious negative effect on biodiversity. This is brought about by land conversion and direct extinction during construction activities. Further, subsequent long-term effect caused by the users of the various facilities, buildings or structural complexes can be seen in the adjacent territories' biodiversity.
The negative effect of this sector on biodiversity can be reduced by strict enforcement of EIA procedures and of other legal requirements. Special attention should be paid to the protection of biodiversity in and around the urban areas, and particularly to the opening, operation and reclamation of lands for extraction of inert materials and rock.

Tourism

The impact of tourism is particularly important for biodiversity because of the sectors direct or indirect use of natural areas. Tourism depends directly upon the condition of biodiversity, thus promoting a sector interest in maintaining biodiversity, as it is a condition for the sustainability of tourism.
Seaside recreation poses a serious threat to coastal ecosystems with the excessive concentration of people and various activities on a limited and very sensitive natural area.
Mountain hiking and educational tourism can also cause serious damages. The excessive proximity to nests or lairs of rare birds and mammals may lead to their displacement of these species.

CHAPTER 2

OBJECTIVES AND PRIORITIES IN SELECTION OF SITES OF THE NBCP

The over-riding objective of the NBCP is the conservation of biodiversity. This objective includes two main sub-objectives:

- *Conservation, strengthening and restoration of key ecosystems, habitats, species and their genetic resources;*
- *Ensuring of possibilities for sustainable use of biological resources.*

1. Objectives and main measures to achieve the objectives

To achieve the objectives, priority measures have been identified consisting of several activities. In order of priority, these measures are:

Drafting of Acts, normative acts and information-managerial documents.

Priorities:

- Acts envisaged in the annual legal initiative of the Council of Ministers;
- Normative acts identified in the Programme for Adoption of the *Aquis* of the European Union;
- Secondary legislation drafted under the adopted acts;
- Elaboration of guidelines strategies, programmes for the conservation and the sustainable use of biodiversity;
- Establishment of data bases, monitoring systems and Geographic information systems in support of the process of management;
- Cadastre of protected areas;

Institutional Strengthening of Government Biodiversity Conservation Units

Priorities:

- Establishment of new units where necessary;
- Capacity building in terms of personnel of the existing units;
- Material and technical provisions for the new units;
- Improvement of the equipment of the existing units;
- Training of the experts in the units on biodiversity conservation.

Establishment and Maintaining of a National Eco-network

The National eco-network will promote:

- Integration into a coherent complex of the most important areas from nature-protection (endangered species present; representative ecosystems; characteristic areas of the main types of

habitats and landscapes);

- Preservation of samples of characteristic ecosystems, habitats and landscapes;
- Possibilities for migration of species, population and genetic material on as large territory as possible;
- Environment-friendly and sustainable activities for the benefit of the local population. Criteria for including sites in the National eco-network are:
- Degree of conservation importance of the existing species;
- Degree of endemism;
- Presence of rare taxon organisms;
- Migration corridors;
- Existing protected natural areas.

Expansion and Maintenance of the Protected Area Network

Priorities:

- Re-categorising of protected areas according to the new categories of the Law on Protected Areas;
- Study of new areas and sites in view of including them in the ecological network;
- Gazetting of new protected areas on the basis of the plan for the development of the network and the research studies;
- Maintenance of ongoing records of Protected Areas taking account of increases or the decrease of their areas and changes in their regimes, new categories, statistical records, etc.;
- Drafting of Management Plans for protected areas;
- Implementation of the main recommendations of the Management Plans.

Restoration and Maintenance Activities

Restoration and maintenance activities are related to conservation of endangered species and of their genetic resources, and include *ex situ* activities.

Priorities:

- Provision of legal protection for endangered plant and animal species; Implementation of species conservation action in compliance with relevant laws and conventions;
- Drafting of protected species action plans;
- Carrying out of practical on-site measures on the terrain according to the action plans (restoration of habitats, fencing of a rare plant habitat, artificial nests or islands to attract for nesting endangered birds, etc.).
- Reinforcement and development of ex-situ facilities and institutions (seed banks, herbaria, arboreta, nurseries)
- Maintenance of critical populations of endangered species of domestic plants, animals and fish;
- Construction of national reserves for domestic plants, animal and fish breeds threatened with

extinction;

- Establishment of a National Gene Bank of deep-frozen gametes and embryos.

Strengthening of the Scientific Base for Biodiversity Conservation

Priorities:

- Accelerated fauna and flora studies for a fuller inventory;
- Establishment of a data base of taxonomic groups, geographic areas, anthropogenic threats and impacts, as well as methods for reduction of undesirable impacts;
- Improvement of the essential equipment of the scientific biodiversity units;
- Review Bulgaria's Red Data Book and establishment of new red data lists for the taxonomic categories now lacking;
- Improved collection of data on species;
- Encouraging of interdisciplinary studies;
- Ensuring larger access and more efficient distribution of the existing scientific information;

Information, Education and Training

Priorities:

- Improving promotion of the significance of biodiversity, carrying out of periodical information campaigns through the mass media in visitor centres;
- Elaboration and introduction of nature protection programmes for use in the educational system;
- Increasing the involvement of non-governmental environmental organisations in the implementation of state policy;
- Providing biodiversity related information and additional training services to new (and former) farmers and landowners.

2. Priorities in selection of sites for conservation and maintenance of biodiversity

This section covers measures that are site of species specific, contrary to those having to do with legislation, institutional strengthening, information and training. These measures include restoration and maintenance work, establishment and maintenance of the national econetwork, expansion and maintenance of the protected area network, and scientific and information support activities, such as the reconstruction of the National Genetic Bank for Plant Resources. As well as the establishment of reserves for all breeds of animals in the towns of Troyan and Kostinbrod establishment of an animal breeding station in the town of Shumen.

It will be noted that the NBCP does not identify specific sites for the endangered animals and plants. This is because the drafting of the management plans and action plans for protected species is still ongoing. There are no new protected areas identified in the NBCP because one of the criteria for their selection is to abide with the requirements of the National Econetwork and with the European Directives for the habitats, birds, etc. Such specifications will

be made on the basis of work in progress, and will be described in the annual updates to the NBCP.
The selection of sites will be subject to criteria for prioritisation. These criteria were developed in the course of the preparation of the NBCP on the basis of domestic and foreign experience. Criteria for selection of priority biodiversity conservation and maintenance sites are shown separately for ecosystems, for animal and plant species, for habitats, for genetic resources, as well as for sustainable use of biological resources.

3. Criteria for Selection and Priority Sites in the Conservation and Maintenance of Key Eco-Systems:

- International Conservation Significance;
- National Conservation Significance;
- Participation in ecological networks;
- Degree of biodiversity;
- Degree of uniqueness;
- Degree of richness
- Ecosystem age;
- Origin;
- Representativity

- .Existing or future categorization of the sites are/will be:
  - Sites of the world and cultural heritage;
  - Biosphere reserves under the UNESCO Programme “Man and Biosphere”;
  - Reserves;
  - Maintained Reserves;
  - National Parks;
  - Nature Parks, Natural Monument and protected Sites;
  - Significant (of conservation value) nature areas, sites of the European and national ecological network;
  - Bulgarian sites included in the list of Important Areas;
  - Sites included in the Corine Biotope Programme.
- *Ecosystems rich in diversity of species;*
- *Unique ecosystems;*
- *Ecosystems of advanced age (old);*
- *Natural ecosystems;*
- *Representative ecosystems.*

4. Criteria for Selection and Priority Sites for Conservation of Plant and Animal Species

- Degree of protection by law;
- Degree of threat (vulnerable, endangered);
- Degree of international significance;
- Degree of endemism;
- Degree of rarity;
- Status of the population;
- Economic significance.

The following plant and animal species conservation will be applied:

- Locally extinct species (for restoration of the population and their habitats);
- Species protected under the Bulgarian legislation;
- Endangered species:

  - Listed under Bulgaria's Red Data Book;

  - Listed under the IUCN Red List;

  - Strictly protected under the Bern Convention;

  - Species endangered with becoming extinct in all or part of their area of distribution (Bonn Convention);

  - Endangered species which are or may become the object of trade (CITES Convention);

  - Species and habitats included in EEC Directive 92/43 on the Conservation of the Natural Habitats and of the Wild Flora and Fauna;

  - Species included in the EEC Directive 79/409 on the Conservation of Wild Birds;

  - Species included in the practical code of the UN Economic Commission on the Conservation of Endangered Animals, Plants and Other of International Importance;
- Endemic species;
- Other vulnerable and endangered species;
- Rare species;
- Diminishing species;
- Species of economic importance.

5. Criteria for the Selection and Priority Sites for Protection of Habitats

The main criteria, for the selection of the habitats of animal and plant species for protection, restoration and maintenance are:

- Legal protection;
- Degree of international conservation significance;
- Degree of representativeness of the type of habitat for the respective area (country);

- Area of the habitat in comparison with the habitat area in the country;
- Degree of conservation of the characteristics of the habitat;

Specific sites will receive priority attention if they are:

- Part of a protected areas;
- Part of international and national ecological networks and programmes;
- Representativeness;
- Distribution;
- Typicality.

6. Criteria for Selection and Priorities for Conservation of Genetic Resources

Priority attention will be given to:

- Old varieties and populations (vegetable, cereals, legumes and the wild relatives of the cultivated crops having a status of rare, protected species and endemic species) not collected and preserved ex-situ;
- Local varieties of maize, corn, beans, vegetables, orchard species endangered by genetic erosion due to invasion of alien varieties and hybrids;
- Wild relatives of cultivated plants and valuable wild species, endangered by reduction of habitat;
- Endangered breeds, strains and lines of animals;
- Indigenous breeds and strains of animals;
- Species with economic significance;
- Species with high degree of vulnerability;
- Species with high degree of rarity.

CHAPTER 3

NATIONAL BIODIVERSITY CONSERVATION PLAN ACTIVITIES

The National Biodiversity Conservation Action Plan is a set of activities to be carried out during the 1999-2003 period. These are presented in the tables below. The first part of table 1 presents a summary, showing the contribution of each of the activities to the main programme priorities. The following pages present an exhaustive list of the activities defined under each of the programme priority areas.

The NBCP is five year plan.

The NBCP activities have been determined by the Bulgarian and international scientific researches and specialists and by the experts in the country's socio-economic involved in the plan development.

The activities are distributed by year in consideration of the following:

- Whether the activity implementation is already underway;
- Whether financing is ensured for the implementation of the activity;
- The need to implement the relevant activity as a prerequisite for the implementation of other national Plan activities;
- The degree of threat for the species, habitat or ecosystem at which the activity is aimed.

The NBCP activities are presented in priority order. In this sense the sequential number of an activity may be regarded as an indication of the relative importance of the activity.
For each activity, the lead and partner institutions that will take responsibility for carrying out the activity are identified, as are the total funds required per year, funds already secured, and the funding source.
A total of 96 separate activities have been identified in the course of the preparation of the NBCP. The total cost of implementation of the NBCP is Lev 44.355 million. Of this amount, Lev. 21.274 million has yet to be secured.

96 activities have been identified

.

Table 1. Contribution by Each National Plan Activity Toward Achieving the Biodiversity Conservation

Measures (means) for achieving the conservation of the biodiversity	Main objective: Conservation and maintenance of biological diversity					
	Goal 1: Conservation, strengthening and restoration of:				Goal 2: Establishment prerequisites for sustainable use of biological resources	
	key ecosystems	plant & animal species	Habitats	genetic resources		
Sequential numbers of National Plan activities						
1. Drafting of acts, secondary legislation and information and management related documents	1, 7, 8, 15, 16, 25, 28, 34, 36-40	1-4, 14, 19,24, 29, 30, 33, 35	1, 5-8, 11, 19, 31, 33, 35	1, 12, 13, 21, 26, 32, 41, 42	2-5, 8-11, 17, 18, 20, 22, 23,24, 27, 33, 43	
2. Institutional strengthening of biodiversity units	44-47, 49	44-47, 49	44-47, 49	44-49	48, 49	
3. Establishment and maintenance of a National Eco-network	50	50	50			
4. Expansion and maintenance of the protected area system	51-53	51-53	51-53	51-53	51-53	
5. Priority restoration and maintenance activities	56	54, 57-61, 71	54, 63, 64	65-71	55, 56, 61, 62, 72	
6. Strengthening of the scientific basis of biodiversity conservation	76, 79	73-76,84	73-75	77,78	80-85	
7. Information and educational activities, and training	88-92, 94,	86-94	89-92, 94	92, 95, 96	92, 93	

Drafting of Laws, Secondary Legislation and Regulations

N	Activities	Responsible institutions/ partners	Necessary funds, thousand levs – first row Ensured funds, thousand levs, by financing sources						Financing sources
			Amount	1999	2000	2001	2002	2003	
1	Biodiversity Act	MOEW/NGO, BAS	**40** 10	**20** 10	**20**				NFEP
2	Hunting and Game Animal Protection Act	MAFAR-NDF/ UHFB, MOEW, NGO	**12** 11	**12** 3	10 8				Bulgarian Forest National Fund
3	Fisheries Act	MAFAR–DF, NDF/UHFB, MOEW, NGO	**10**	**10**					
4	Medicinal Plants Act	MOEW/BAS, MH, NGO	**4** 4	**4** 4					NFEP
5	Act on the Amendments and Supplements to the Agricultural Land Protection Act	MAFAR- AA, НПС/ MOEW, NGO	–	–					
6	Territorial Development and Construction Act /TDCA/	MRDPW/MOEW, MAFAR, NGO	**12**	**12**					
7	Black Sea Coast Act	MRDPW/ MOEW, MAFAR, NGO	–	–					
8	Mountain Areas Act	MRDPW/MAFAR, MOEW, NGO, municipalities	–	–					
9	Sustainable Agricultural Development Act	MAFAR-CA/MOEW, NGO	**10**		**5**	**5**			
10	Management of Agricultural and Forest Fund Meadows and Pastures Act	MAFAR-CA, NDF/MOEW, NGO	**10**		**10**				
11	Fertilisation Act	MAFAR-НСРЗКА/ MOEW, NGO	–		–				

12	Protection of Old Plant Varieties and Agricultural Animal Breeds Act	MAFAR-CA/ MOEW, NGO	**4**		**4**				
13	Biological Safety Act	MAFAR-C A/ MOEW, NGO	–	–					
14	Trade in Endangered Species of the Wild Flora and Fauna Act	MOEW /BAS, MAFAR-NDF, Chief Customs Directorate, NGO	**40** 10	**40** 10					NFEP
15	Act on the Amendments and Supplements to the Protected Areas Act	MOEW/MRDPW, MAFAR-NDF, NGO	**10** 2 8	**10** 2 8					NFEP GEF
16	Secondary Legislation Under the Protected Areas Act	MOEW/GEF, BAS, HIGHER EDUCATION FACILITIES, NGO, Agrolesproject	**20** 5 15	**20** 5 15					NFEP GEF
17	Secondary Legislation Under the Forests Act	MAFAR-NDF/ BAS,HIGHER EDUCATION FACILITIES,NGO, Agrolesproject	63 63	40 40	23 23				Bulgarian Forest National Fund
18	Biological Agriculture Regulation	MAFAR-НСРЗКА,СА/ MOEW, МН, НПО	–		–				
19	Safe Distribution, Transportation, Storage and Application of Plant Protection Chemicals Regulation	MAFAR-НСРЗКА/МН, MOEW, МВР, MRDPW, NGO, Municipalities	–		–				
20	Regulation on the Sustainable Use and Maintenance of Meadows and Pastures	MAFAR-CA, NDF/MOEW, NGO, municipalities	**2**		**2**				
21	Regulation on the Import and Export of Genetic Plasma	MAFAR-CA/ MOEW, NGO, МН	–		–				
22	Amendments and Supplements to the Rules on the Implementation of the Agricultural Land Protection Act	MAFAR-CA,НПС/ MOEW, NGO	–		–				

23	Rules on the Implementation of the Territorial Development and Construction Act	MRDPW/MOEW, MAFAR-NDF, NGO	12 8 4	6 4 2	6 4 2				
24	Development of a Strategy for the Sustainable Use of Medicinal Plants	MAFAR-NDF/ UHFB, MOEW, BAS,NGO	40 40		20 20	20 20			
25	Development of a Strategy for the Conservation and Management of Forest Ecosystem Biodiversity	MAFAR-ДИР, NDF/MOEW, UHFB, NGO	60 60		10 10	10 10	15 15	25 25	Bulgarian Forest fund
26	Development of a Biological Safety Programme	MAFAR-NDF/ MOEW,	**108** 108	108					UNEP
27	Development of a Programme on the Cultivation of Medicinal Plants on Low-Productivity Lands and Eroded Terrains	MAFAR-NDF/ MOEW, UHFB, BAS	**10** 10		10 10				Nat. Biodiversity Conserv. Fund
28	Development of a Programme on the Integrated Plant Protection in Forests	MAFAR, MOEW, BAS,NFD	**20** 10	10 5	**10** 5				Bulgarian Forest National Fund
29	I Development of a Programme on the Regulation of Catches of Local Fish Species in the Black Sea and in the Danube	MAFAR-/ MOEW, BAS, NGO,	**100**		**100**				
30	Updating of International Agreements of 1957 on the Fishing in the Danube and in the Black Sea	MAFAR – ДИР/ MOEW, Min. of Foreign Affairs	**10**		**10**				
31	Development of a Programme on the Restoration of Soils, Polluted with Heavy Metals in Areas of Valuable Biodiversity, through Plantation of Suitable Plant Species	MI/MOEW, MAFAR, MH, NGO	**60** 60		**30** 30	**30** 30			In the frames of the state budget
32	Development of a Programme on the Prevention of Genetic Erosion	MAFAR-/ MOEW, municipalities MOEW/MAFAR-CA, BAS, HIGHER EDUCATION FACILITIES, NGO	**40** **40**		40 40				NBCF
33	Development of Plans for Action and Management of Priority Endangered Species and Habitats	MOEW/MAFAR-NDF, BAS, NGO, Birdlife, municipalities	**536** **372** **35**	7 7	**107** 93 7	107 93 7	207 93 7	107 93 3	NBCF, Birdlife

34	Development of a Plan for the Management of Pastures in Areas of Rich and Endangered Biodiversity	MAFAR- CA/ MOEW, BAS, NGO, municipalities	**80** **80**		**40** **40**	40 40			State Budget
35	Designing, establishment and maintenance of monitoring and data bases on the distribution and condition of endangered and rare, economically valuable and indicator biological species (including medicinal plants and mushrooms)	MOEW/BSBCP, MAFAR-NDF, NGO, BAS, HIGHER EDUCATION FACILITIES, municipalities	**800** **490** **70**		**200** **130** **70**	200 120	200 120	200 120	NFEP BSBCP
36	Designing of a monitoring system for the assessment of the condition of vegetation in selected areas and in the country by the use of satellite photographs and maintenance of a data base	MOEW /BAS,HIGHER EDUCATION FACILITIES, NGO	**100** **100**		**10** **10**	30 30	30 30	30 30	BSBCP
37	Designing, establishment and maintenance of a Protected Area Cadastral Survey, a Geographic Information System for Protected Areas and of Bulgaria's Biodiversity	MOEW/MAFAR –NDF, BAS, HIGHER EDUCATION FACILITIES, NGO	**1800** **400** **780**	200 200	400 200 120	**320** 220 220	420 220	460 220	PHARE, BSBCP
38	Designing, establishment and maintenance of monitoring and data bases on the condition of forest ecosystems	MAFAR-NDF/ MOEW	**300** **150**		**4**	100 50	100 50	100 50	Forest Fund
39	Maintenance of the existing monitoring and assessment of the impact of polluted air on the forest ecosystems	MOEW/MAFAR-NDF, BAS, NGO	**200** **100** **100**	40 20 20	40 20 20	40 20 20	40 20 20	40 20 20	NFEP, Bulgarian Forest National Fund
40	Establishment and maintenance of monitoring on the sustainable use of grass associations in the agricultural lands and in the forests	MAFAR-CA, NDF/MOEW, BAS, NGO, municipalities	**40**		10	10	10	10	
41	Establishment and maintenance of a data base for *ex-situ* collections of the wild flora and fauna	MOEW/MAFAR-NDF, BAS, NGO	**20** **20**		5 5	5 5	5 5	5 5	NFEP
42	Establishment and maintenance of a genetic resources data base in accordance with the Standards of the European Genetic Resources Programme	MAFAR-CA/MOEW	**50**		**10**	10	15	15	
43	Establishment and maintenance of a Fisheries Information and Statistics System	MAFAR – SIF	**50**		10	10	15	15	

Institutional Strengthening of the Biodiversity Units

44	Staff and Logistical Strengthening of the MOEW – The National Nature Protection Service	MOEW/MF	**120** 120		**30** 30	**30** 30	**30** 30	**30** 30	MOEW Budget
45	Staff and Logistical Strengthening of the Biodiversity Conservation Units in the RIEWs and Making of Provisions for their Activity	MOEW/MF, BSBCP, NGO, UNESCO	**1000** 272 156 24 170	**100** 16 56 24	**250** 46 100 25	**150** 60 30	**200** **70** 35	**300** **80** **80**	NFEP, BSBCP UNESCO MOEW Budget
46	Staff and Logistical Strengthening of the National Park Directorates	MOEW/GEF, MF, NGO	**8600** 6020 785 1080	**2800** 2000 785	**1900** 1500 50	**1400** 1120 180	**1300** 900 350	**1200** 500 500	NFEP GEF MOEW Budget
47	Staff and Logistical Strengthening of the NDF Units related to biodiversity conservation	MAFAR-NDF/PHARE, MF, NGO	**3180** **840** **1950**	690 195 150	690 195 450	600 150 450	600 150 450	600 150 450	Bulgarian Forest National Fund MOEW Budget
48	Establishment of a structural unit on genetic resources at the MAFAR	MAFAR/MF	**24** 24		6 6	**6** 6	**6** 6	**6** 6	MAFAR Budget
49	Development of programmes for training of specialists and other persons involved in biodiversity conservation	MOEW/MAFAR, BAS,GEF, MS, NGO	**360** **27**	100 27	**80**	**60**	**60**	**60**	GEF

Establishment and maintenance of the National Ecological Network

50	Establishment and maintenance of the National Ecological Network, involving: • Clarification and providing for the main scientific, regulatory, organisational and other pre-requisites; • Designing of the ecological network (EN); • Laying of the foundations of the EN using current areas and other areas of high nature conservation value; • Evaluation and analysis of the existing network elements and determination of its enhancement to cover all main ecosystem types, habitats and landscapes; • Identification of specific areas, determination of their regimes and undertaking of activities for their placing under legal protection; • Creation of conditions for sustainable operation of the EN (involving the local administration, local and national NGOs etc.)	MOEW/MAFAR-NDF, BAS, HIGHER EDUCATION FACILITIES, NGO	**1000** **1000**		**250** **250**	250 250	250 250	250250	NFEP

Expansion and Maintenance of the System of Protected Areas

51	Development of protected area management plans, development plans and projects on Protected territories:		**1000**	**450**	**150**	**150**	**125**	**125**	
			14	450	20	20	20	20	NFEP
	1. For the National parks “Rila”, “Central Balkan”: and “Pirin” for other 70 protected territories with priority for maintained reserves;	MOEW/GEF, BAS,NGO, municipalities Ramsar Bureau	400	**14**					GEF
			36	400					Ramsar Bureau
				36					
	2. For the nature parks “Vitosha” and “Strandja” and 100 other protected territories with priority for Nature parks and protected areas	MAFAR-NDF/	**1000**	**326**	**326**	**116**	**116**	**116**	Bulgarian Forest National Fund, BSBCP-forest,
		MOEW, BSBCP-forest, BSBCP, BAS, NGO, municipalities, PHARE	348			116	116	116	
			552	276	276				BSBCP
			48	24	24				PHARE
			52	26	26				
52	Carrying out of main activities from the Protected Area Management Plans	MOEW/BSBCP,	**4000**	**100**	**1000**	**1000**	**1000**	**1100**	
		Monaco, Le Balkan, NGO	600						
			95		150	150	150	150	NFEP,
			9	41					BSBCP Monaco,
			100	9					Le Balkan
				50					
		MAFAR - NDF, BSBCP	**1800**	**400**	**400**	**300**	300	**400**	Bulgarian Forest National Fund, BSBCP-forest
			150	50	50			50	
			500	100	100	100	100	100	
53	Re-categorisation of existing, declaration of new and changes of (boundaries, regimes etc.) protected areas	MOEW/BSBCP, MAFAR-NDF, BAS, NGO	**300**	**100**	**100**	**100**			
			132	32	50	50			NFEP, BSBCP
			18	18					

Priority Activities for Restoration and Maintenance

54	Carrying out of the activities in the protected species and habitat management plans, including introduction and reintroduction of endangered species from the wild fauna and flora	MOEW/BSBCP, Le Balkan, MAFAR-NDF, Birdlife municipalities	**1720** 1110 125 36 100	**140** 10 25 36 20	**240** 120 25 20	**340** 220 25 20	**440** 320 25 20	**560** 440 25 20	NFEP, Le Balkan, BSBCP Birdlife
55	Carrying out of the activities in the management plans for pastures in areas of abundant and endangered biodiversity	MAFAR- CA, NDF/ MOEW, BAS, municipalities, NGO	**150** 150			**50** 50	**50** 50	**50** 50	MOEW Budget
56	Carrying out of activities for sustainable use of grass associations in the agricultural lands and forests	MAFAR-NDF, CA/MOEW, BAS, municipalities, NGO	**50** 20				**25** 10	**25** 10	Bulgarian Forest National Fund
57	Assisting the nesting of insectivorous birds as biological regulators	MAFAR – NDF/ MOEW, NGO	**50** 50	**10** 10	**10** 10	**10** 10	**10** 10	**10** 10	Bulgarian Forest National Fund
58	Establishment of “rescue centres” in zoos for the restoration in nature of rare animal species	MOEW/BAS, zoos, NGO	**200**		**50**	**50**	**50**	**50**	
59	Establishment of “rescue centres” in botanical gardens for some endangered, rare and exotic plant species	MOEW/BAS, NGO	**100**		**25**	**25**	**25**	**25**	
60	Construction and installation of artificial platforms for white stork nesting on electricity poles	CE/MOEW, NGO	**220** 220		**55** 55	**55** 55	**55** 55	**55** 55	Committee of Energy Budget
61	Establishment and maintenance of specialised sheep breeding and cattle breeding farms in the mountain and border areas	MAFAR/MRDPW, MOEW, MF, Municipalities	5000		1000	1000	1500	1500	
62	Financial assistance for the development of some forms of sustainable tourism	MTT/BSBCP, MOEW, MRDPW, municipalities, NGO	**100** 2	**20** 2	**20**	**20**	**20**	**20**	BSBCP
63	Restoration of habitats of endangered biological species, former and	MOEW/BAS, MF	**1000**		**250**	**250**	**250**	250	NFEP

	present wetlands, forests and other locations of significance to nature		100		25	25	25	25	
64	Restoration of soils polluted with heavy metals in areas of valuable biodiversity, by planting of suitable plant species	MI/MOEW, MAFAR-CA, MH	**180** 180			**60** 60	**60** 60	**60** 60	MIND Budget
65	Establishment of a gene bank of valuable dry weather resistant tree and brush species	MAFAR-NDF/ MOEW, MF	**100** 60			**50** 30	**50** 30		Bulgarian Forest National Fund
66	Technical reconstruction of the national gene bank for the storage of plant genetic resources	MAFAR-CA/MOEW, MF	**100** 100			50 50	50 50		MAFAR Budget
67	Establishment of a national gene bank of animal gametes and embryos	MAFAR-CA/MOEW, MF	**300** 300			**100** 100	**100** 100	**100** 100	MAFAR Budget
68	Establishment of two reserves – in Troyan and in Kostinbrod – for conservation of old cattle breeds, sheep, goats, dogs and bees	MAFAR-CA/ MOEW, MF	**1600**			**600**	**500**	**500**	
69	Strengthening of the animal breeding facility in Shumen for the preservation of old breeds of horses, buffaloes and sheep	MAFAR-CA/MOEW, MF	**500**		**125**	**125**	**125**	**125**	
70	Creation of *ex situ* demonstration collections of local genetic resources	MAFAR- CA/ /MOEW	**90**	**30**	**30**	**30**			
71	Establishment of an integrated seed production facility and generative gardens for the most valuable local ecotypes and forms of tree species	MAFAR - NDF/BAS, University of Forestry, MOEW, MF	**120** 60			**40** 20	**40** 20	**40** 20	Bulgarian Forest National Fund
72	Establishment of demonstrative farms for sustainable environmentally sound agriculture	MAFAR- CA/ MOEW, MF, MOH, municipalities, NGO	**3000**			**1000**	**1000**	**1000**	

Strengthening of the Scientific Base for Biodiversity Conservation

73	Preparation and publishing of a Red List of plants, animals and habitats in conformity with the international categories for being endangered	MOEW/BAS, NGO	**30** 30	**15** 15	**15** 15				NFEP
74	Preparation and publishing of a contemporary national Red Data Book in compliance with the international categories of protected plants, animals and habitats	MOEW/BAS, NGO	**200** 120			**70** 40	**70** 40	**60** 40	NFEP
75	Development of projects for the restoration and expansion of the existing populations of protected medicinal plants on low-productivity or eroded terrains	MOEW/BAS, MAFAR, municipalities, NGO	**15** 15		**5** 5	**5** 5	**5** 5		NFEP
76	Studying of the conditions and possibilities for introduction of bats and cave fauna in abandoned mine shafts	MI/BAS, MOEW, NGO	**40** 40	**20** 20	**20** 20				MIND Budget
77	Development of projects for the maintenance of populations of endangered genetic resources through integrated breeding methods	MAFAR-CA/MOEW, NGO	**25** 25	**5** 5	**5** 5	**5** 5	**5** 5	**5** 5	MAFAR Budget
78	Studying of the effects of long-term storage and reproduction of seed samples on the genotype integrity of the embryonic plasma	MAFAR-CA/MOEW	**24** 24		**6** 6	**6** 6	**6** 6	**6** 6	MAFAR Budget
79	Development of a contemporary classification of meadows and pastures	MAFAR-CA/BAS	**30** 30		**15** 15	**15** 15			MAFAR Budget
80	Certification and inventorying of common lands, meadows and pastures	MAFAR-CA/MOEW, BAS, NGO	**45** 45		**15** 15	**15** 15	**15** 15		MAFAR Budget
81	Development of a model project for the establishment of a maximum load depending on the type of animals in the important pasture complexes	MAFAR-CA/MOEW	**10** 10		**5** 5	**5** 5			MAFAR Budget
82	Carrying out of studies and activities aimed at improving the conditions of inundated forests	MAFAR-NDF/ BAS, HIGHER EDUCATION FACILITIES, NGO	**10** 10	**5** 5	**5** 5				Bulgarian Forest National Fund
83	Development of national forest certification standards	MAFAR-NDF/ MOEW, NGO	**50** 50	**25** 25	**25** 25				WWF
84	Annual studies and assessments on the condition of local fish species and fish species migrating on long distances	MAFAR-ДИР/ /MOEW, BAS, NGO	**80**		**20**	**20**	**20**	**20**	

85	Development of regional agroecological schemes of sustainable development and efficient management of agricultural activities in rich biodiversity areas	MAFAR-CA/MOEW, BAS, NGO	**60** 60	**20** 20	**20** 20	**20** 20			Avalon Fund

Information, Education and Training

86	Publishing of a book on protected plant and animal species	MOEW/BAS, NGO	**100** 40		**50** 20	**50** 20			 NFEP
87	Publishing of a children's book on “Protected animals and plants”	MOEW/MOH, NGO	**10** **10**		**5** 5	**5** 5			 NFEP
88	Annual publication of posters on protected plants and animals, decorative wild growth plants, protected areas and landscapes	MOEW/GEF, BSBCP, NGO	**50** 28 20 2	**22** 20 2	**7** 7	**7** 7	**7** 7	**7** 7	 NFEP GEF BSBCP
89	Issuance of leaflets, brochures and biodiversity related promotion materials	MOEW/MAFAR, MTT, MOH, GEF, BSBCP, NGO	**132** 100 20 12	**32** 20 12	25 25	**25** 25	**25** 25	**25** 25	NFEP, GEF BSBCP
90	Conducting of periodic information campaigns related to protection of nature, respectively biodiversity conservation	MOEW/MAFAR, MOH, GEF, NGO	**200** 120 60 60	**60** 60 60	**35** 15 15	**35** 15 15	**35** 15 15	**35** 15 15	 NFEP, GEF
91	Maintenance of the functioning of visitor and information centres in protected areas	MOEW/MAFAR, MTT, BSBCP, NGO	**1000** 300	**100** 100	**200** 200	**200**	**200**	**300**	BSBCP
92	Development of a uniform strategy, a nature education programme at all levels and its introduction	MOH/MOEW, GEF, MAFAR, NGO	**436** 36 400	**36** 36	**100** 100	**100** 100	**100** 100	**100** 100	GEF, MSE Budget
93	Development of medicinal plant related education programmes	MOEW/BAS, MOH, NGO	**12**		**3**	**3**	**3**	**3**	

			12		3	3	3	3	NFEP
94	Inclusion into the Biology and Ecology subjects in higher education facility curricula of courses on *Biodiversity*, *Protection of the Diversity of Species*, and *Protected species, territories and habitats*	MOH/HIGHER EDUCATION FACILITIES, MOEW	**60** 60		**15** 15	**15** 15	**15** 15	**15** **15**	MSE Budget
95	Inclusion in the curriculum of agriculture schools and of the Higher Institute of Agriculture of an optional subject on genetic resources	MAFAR-CA/MOH, MOEW	**40** 40		**10** 10	**10** 10	**10** 10	**10** 10	MAFAR Budget
96	Development of educational programmes for genetic resources conservation and use	MOEW/MOH, MAFAR,NGO	**20** 20		**5** 5	**5** 5	**5** 5	**5** 5	NFEP
TOTAL FUNDS NEEDED:			44355	6165	8555	9565	9915	10155	

CHAPTER 4

FUNDING THE NATIONAL BIODIVERSITY CONSERVATION PLAN

Staff Requirements in Central Units.

In order to provide adequate support for the implementation of the NBCP the central units within the ministries needs to be strengthened. The NNPS staff has to be expanded, by the year 2000, with 5 persons and the NDF with 2. One additional person will be needed for the establishment of a genetic resource conservation unit under MAFAR. In fulfilling the provisions of the Protected Areas Act, the National Park administrative staff and guards have to reach 200 persons by the year 2003, and the RIEW should be increased by 55 persons during the same year. The funds required from the State Budget are reflected in the NBCP financial account. The National Plan envisages staff for these units, as follows:

- Staff strengthening of the National Nature Protection Service – 30 thousand levs – for the year 2000, and the same amount for each subsequent year;

Total Cost: Lev 120, 000

- Staff strengthening of the Rila, Central Balkan and Pirin National Park Directorates: 50 thousand for the year 2000, 180 thousand levs for 2001; 350 thousand levs for 2002 and 500 thousand levs for 2003.

Total Cost: Lev 1, 080, 000

- Staff strengthening for RIEW: 25 thousand levs for the year 2000, 30 thousand levs for 2001; 35 thousand levs for 2002 and 80 thousand levs for 2003.

Total Cost: Lev 170, 000

- For NDF staff strengthening: 12 thousand levs for the year 2000 and the same amount for each subsequent year.

Total Cost: Lev 48, 000

- For MAFAR staff strengthening – 6 thousand levs for the year 2000 and the same amount for each subsequent year.

Total Cost: Lev 24, 000

Estimated and Required Financial Resources

The total funding required for the implementation of the NBCP amounts to Lev 44, 355, 000 over five years. As compared with investments in other sectors, this amount is small. It is also comparatively small as compared to the funds planned for other environmental components. For example the funds required to fully implement the NBOP amount to 5.6% of the average funding provided under the National Waste Management Programme.

The total NBCP cost is Lev 44, 355, 000 over five years.

The cost of the programme does not exceed the budgets of the respective institutions. Budgeting procedures used are those of the State Budget of the Republic of Bulgaria Act, and reflect the present estimation of availability of funds. Foreign donors will be approached in an attempt to secure funds required to fully implement the NBCP.

Lev 23, 081, 000 are already secured.

Table 2 presents Distribution of Funds by source of funding and years. The different between funds required and available for each Ministry is identified.

Table 2. Distribution of Funds by Source of Funding and by Year

Sources of financing for the activities by institutions responsible for their implementation	Funds, thousand lv					
	Amount	**1999**	**2000**	**2001**	**2002**	**2003**
Ministry of Environment and Waters						
A. NEPF	**11754**	**2142**	**2713**	**2528**	**2323**	**2048**
B. State Budget	**1370**	-	**105**	**240**	**415**	**610**
C. External Sources (total):	3062	2099	747	72	72	72
C.1 GEF Project	1335	1335				
C.2 Bulgarian-Swiss Programme	690	265	425			
C.3 Le Balkan Foundation	225	75	75	25	25	25
C.4. PHARE	400	200	200			
C.5. UNEP	108	108				
C.6. BirdLife International	135	27	27	27	27	27
C.7. Ramsar Bureau	36	36				
C.8. UNESCO	24	24				
C.9 Monaco Project	9	9				
C.10. Bulgarian Forest National Fund	100	20	20	20	20	20
Non-secured Funds	**8790**	**247**	**1782**	**2092**	**2172**	**24977**
Necessary Funds	24976	4488	5347	4932	4982	5227
Ministry of Agriculture, Forests and Agrarian Reform (without the NDF)						
A. State Budget	**2724**	**155**	**5211**	**7311**	**6856**	**621**
National Fund "Bulgarian Forest"	**1911**	**325**	**323**	**401**	**416**	**446**
B. External Sources: Avalon Fund	60	20	20	20		
PHARE Programme	**52**	**26**	**26**			
Bulgarian-Swiss programme – forests	**1052**	**376**	**376**	**100**	**100**	**100**
Bulgarian-Swiss Programme	**48**	**24**	**24**			
WWF	**50**	**25**	**25**			
Non-secured Funds	**12374**	**638**	**1643**	**3101**	**3481**	**3511**
Necessary Funds	**18271**	**1589**	**2968**	**4353**	**4683**	**4678**
Ministry of Education and Science						
A. State Budget	460	-	115	115	115	115
B. External Sources: GEF Project	36	36				
Secured Funds (A + B)	496	36	115	115	115	115
Non-secured Funds	-					
Necessary Funds	496	36	115	115	115	115
Ministry of Trade and Tourism						
B. External Sources: Bulgarian Swiss Programme	2	2				
Non-secured Funds	98	18	20	20	20	20
Necessary Funds	**100**	**20**	**20**	**20**	**20**	**20**
Ministry of Industry						
A. Budget	280	20	50	90	60	60
Secured Funds	280	20	50	90	60	60
Non-secured Funds	-					
Necessary Funds	280	20	50	90	60	60
Ministry of Regional Development and Public Works						
Secured Funds	-					
Non-secured Funds	12	12				
Necessary Funds	12	12				

Committee of Energy						
A. State Budget	220		55	55	55	55
Secured Funds	220		55	55	55	55
Non-secured Funds	-					
Necessary Funds	220		55	55	55	55
TOTAL FOR THE NATIONAL PLAN						
A. NEPF	**11754**	**2142**	**2713**	**2528**	**2323**	**2048**
B. Bulgarian Forest National Fund	2011	345	343	421	436	466
D. State Budget	**5054**	**175**	**856**	**1231**	**1331**	**1461**
E. Foreign Sources (total):	**4262**	**2588**	**1198**	**172**	**152**	**152**
E.1. GEF Project	1371	1371				
E.2.Bulgarian-Swiss Programme	740	291	449			
E.3 Le Balkan Foundation	225	75	75	25	25	25
E.4. PHARE	**452**	**226**	**226**			
E.5. UNEP	108	108				
E.6. BirdLife International	135	27	27	27	27	27
E.7. Ramsar Bureau	36	36				
E.8. UNESCO	24	24				
E.9. Monaco Project	9	9				
E.10. Avalon Fund	60	20	20	20		
E.11.Bulgarian Swiss Programme-forests	1052	376	376	100	100	100
E.12. WWF	50	25	25			
Non-secured Funds	**21274**	**915**	**3445**	**5213**	**5673**	**6028**
Necessary Funds	**44355**	**6165**	**8555**	**9565**	**9915**	**10155**

CHAPTER 5

ORGANISATION OF THE IMPLEMENTATION OF THE NATIONAL BIODIVERSITY CONSERVATION PLAN

Updating the National Biodiversity Conservation Plan

The NBCP will be updated on an annual basis, with the addition, amendment or closing of activities.

The Minister of Environment and Water presents the update of the NBCP to the Council of Ministers. Physical and legal persons, municipalities and state institutions may make proposals to the Minister for changes in the plan.

The NBCP is a "living" document.

Responsibilities for Implementation

The main functions of the units and participants in the National Biodiversity Conservation Plan implementation are as follows:

The Minister of Environment and Water:

- Presents the annual reports on the implementation of the NBCP and proposals for updates to the Council of Ministers for consideration and approval;
- Designates the Chairman of the NBCP Steering Committee, and, in agreement with the Ministers of other interested institutions, the other members of the Steering Committee;
- Co-ordinates the implementation of the NBCP.

Heads of Responsible Institutions

- Approve the plans of the relevant institutions;
- Designate persons responsible for NBCP implementation in the relevant institutions;
- Approve the institutional NBCP Implementation reports.

Steering Committee of the NBCP for Biodiversity Conservation

The Minister of Environment and Water establishes the Steering Committee of the National Biodiversity Conservation Plan in agreement with the Ministers of interested Ministries. A Deputy Minister of Environment and Waters is appointed as a Chairman of the Committee. A NGO representative participates in the Committee. The Co-ordinator of the NBCP and a secretary participate in meeting of the Steering Committee. The Steering Committee members convene at least twice annually.

The Steering Committee:

- Adopts the annual reports and proposals for updating of the NBCP and presents them to the Minister of Environment and Waters;
- Makes proposals to the Minister of Environment and Waters in relation to the development of strategies and programmes for the conservation and maintenance of biodiversity, when commissioning activities to international and domestic contractors.

Co-ordinator of the NBCP for Biodiversity Conservation

Co-ordinator of the NBCP is the head of the National Nature Protection Service.

The co-ordinator:

- Carries out operational co-ordination of the implementation of the activities under the NBCP for Biodiversity Conservation;
- Summaries the annual reports of the various participating institutions and presents this summery report to the NBCP Steering Committee.

Responsible Persons from the Institutions:

- Carry out operational co-ordination of the implementation of the biodiversity conservation activities in their institutions;
- Prepare annual reports on the Institutions plans and present them to the relevant heads of responsible institutions for approval;
- Submit the approved annual reports to the coordinator of the NBCP.

CHAPTER 6

MONITORING AND EVALUATION OF THE IMPLEMENTATION OF THE NBCP

The status of biodiversity in the country will serve as basis for assessing the efficient implementation of the activities in the NBCP. Monitoring is used for the identification of this status, type and degree of impact on the biological species and ecosystems.

The efficient implementation of the NBCP will be monitored

The following elements will be considered:

- Monitoring of the impact of activities on biodiversity;
- Special monitoring and evaluation of the impact of threats on these ecosystems, for which activities are planned or carried out in order to eliminate the threats or diminish their consequences;
- Establishment of data base of species including:
  - Data on the distribution and status of endangered and rare species:
  - Data on the distribution and status of species of economic value;
  - Data on the distribution and status of species used/selected as indicators of biodiversity or its components;
- Establishment of the status of vegetation in particular areas or throughout the country;
- Data on the status of environment by components:
  - in the areas of distribution of endangered species;
  - in the areas of distribution of species of higher economic value;
  - in selected other areas of the country.
- The data collected by the monitoring will be kept and updated in a database. A GIS will be established and maintained for protected areas and biodiversity.

1. Indicators for Sustainable Use of the Biological Resources

The sustainable use of biological resources implies that management and use ensures their current and future productivity, regenerative capacity, vitality and fulfilling their potential. It also implies that the resources keep their respective ecological, economic and social functions at local, national and global levels indefinite. A series of indicators for the sustainable use of biological resources have been considered for the NBCP and these indicators will influence the selection of activities and sites for inclusion in the annual biodiversity conservation plans. These will form the basis for the monitoring of the implementation of the NBCP and in the analysis of its impact. In general the baseline indicators should not change for the worse during the implementation of the NBCP. The main indicators retained for sustainable use of biological are as follows:

Maintenance and Increase of Resources
Indicators:

- Changes in area covered with various vegetation types, predominantly forests;

- Changes in the biological stock;
- Changes in the age structure of the forests.

Maintenance of the Vitality of the Ecosystems
Indicators:

- Changes in defoliation;
- Degree of damage due to biotic and abiotic factors (diseases and insects, fires, windfalls, windbreaks, game, etc.)
- Changes in the balance of nutrients;
- Changes in soil acidity.

Maintenance and Increase in the Production Functions of the Ecosystems
Indicators:

- Balance of growth and use;
- Percentage of the area under management plans;
- Changes of the total quantity and value of forest and plant and animal products.

Maintenance, Conservation and Expansion of Ecological Resources
Indicators:

- Changes in the area covered by natural vegetation;
- Changes of the numbers of endangered species;
- Changes of the share of mixed ecosystems;
- changes of the area of naturally restorable ecosystems;
- Changes of the nature-conservation status (change of the size of protected areas or of the areas of forest categories by economic purpose).

Maintenance and Improvement of the Protection Functions and of other Socio-economic Functions and Conditions
Indicators:

- Area of soil protection systems;
- Area of sanitary water belt ecosystems;
- Area for recreation per capita.

The main results expected from the implementation of the NBCP activities are as follows:
- Conservation and expansion of the country's biodiversity;
- Establishment of acts and secondary legislation acts related to biodiversity conservation in conformity with European environmental legislation;
- Formation of functional units for biodiversity conservation, provided with equipment and qualified staff;
- Optimisation of the protected area system and creation of an operational national ecological network, integrated with the European ecological network;
- Working in partnership and providing increased awareness and education of the public on biodiversity issues.

The total funding required for the implementation of the NBCP amounts to Lev 44,355,000 over

five years. The main funding sources of the secured funds in the initial period of NBCP are the National Environment Protection Fund (NEPF), the Bulgarian Forest national Fund (BFPF) and international donors. The provision of funds from State sources is projected through to 2003. International assistance will still be required in the future to fully implement the NBCP.

The NBCP is the principal organisational guide for biodiversity conservation for the next five year period. In the event of changing implementation conditions, adjustments will be made as needed.

ANNEX 1

Table of Endangered Plant and Animal Species as the Object of Management Planning

1. Plants

SPECIES	NOTE
1. Achillea Tracica	
2. Alopecurus thracicus	
3. Arenaria rigida	*Beloslav, and Dianthus nardiformis, Anthemis regis-borisii and others may be seen alongside it.*
4. Cehpalantera epipactoides	
5. Chamaecyticus neicheffii	
6. Colchicum borisii	
7. Colchicum davidovii	
8. Cypripedium calceolus	
9. Dactylorhiza kalopissii	
10. Fritillaria meleargoides	*together with Viola pumila (aldomirovsko marsh)*
11. Hippophae rhamnoides	
12. Laserpitium archangelica	*togegher with Ligularia subirica*
13. Ligularia sibirica	*together with Laserpitium archngelica*
14. Osmunda regalis	
15. Otanthus maritimus	*Estuary of the Veleka River*
16. Trapa natans	
17. Tulipa orphanidea	
18. Tulipa splendens	
19. Tulipa urumofii	*in individual habitats*
20. Viola dephinantha	
21. Viola pumila	*together with Fritillaria meleargoides*

2. Animals

SPECIES	NOTE
1. Parnassius apollo	
2. Barbus meridionalis petenyi	
3. Testudo hermani	
4. Testudo graeca	
5. Vipera ammodytes	
6. Phalacrocorax pygmeus	*Action plan prepared by the BSPB*
7. Pelecanus crispus	*Action plan prepared by the BSPB*
8. Anser erythropus	*Action plan prepared by the BSPB*
9. Branta ruficollis	*Action plan prepared by the BSPB*
10. Marmaronetta angustirostris	
11. Aythya nyroca	*Action plan prepared by the BSPB*
12. Oxyura leucocephala	*Action plan prepared by the BSPB*
13. Haliaeetus albicilla	*Action plan prepared by the BSPB*
14. Gyps fulvus	*BSPB carries out an Action Plan for this species together with the BSBCP*
15. Aegypius monachus	*BSPB carries out an Action Plan for this species together with the BSBCP*
16. Aquila clanga	
17. Aquila heliaca	*Action plan prepared by the BSPB*
18. Falco naumanni	*Action plan prepared by the BSPB*
19. Falco cherrug	*Action plan prepared by the BSPB*
20. Bonasa bonasia	
21. Viola pumila	
22. Phasianus colchicus colchicus	
23. Crex crex	*Action plan for the species being prepared by the BSPB and the BSBCP*
24. Otis tarda	*Action plan prepared by the BSPB*
25. Gallinago media	
26. Numenius tenuirostris	*Action plan prepared by the BSPB*
27. Rhinolophus mehelyi	
28. Myotis deubentoni	
29. Nyctalus noctua	
30 Mesocricetus newtoni	