CHAPTER 2

THE THREATS TO BIODIVERSITY IN ALBANIA

THE SOURCE OF THREATS

2.1 Economic development during the past 50 years has had a strong impact on the biological and landscape diversity of Albania. This is primarily because it was based upon unstable development practices in agriculture, industry, forestry, fishing, and urbanisation, although there was less impact from transportation and tourism.

2.2 Without doubt, agriculture has been the major sector of the country's economy with the strongest impacts on biological and landscape diversity. From the 1960's until the end of the 1980's there was extensive agricultural development, followed by the intensive use of agricultural land in the 1990's. Together this has had enormous impacts on biological and landscape diversity.

2.3 Drainage and reclamation of swamps (250,000 ha), deforestation for opening up new lands (290,000 ha), terracing and the creation of fruit tree plantations, and damage to subalpine and alpine pastures for the purpose of setting up cultivated ground or "improved" pastures have all had adverse consequences on the environment and biodiversity. These actions were perhaps justified on behalf of the country's economic development, but they also destroyed hundreds of thousands of hectares of forests, pastures, and wetlands with high ecological, social, and economic values. Human interference without consideration of the consequences on environment, brought the following results:

- excessive erosion (100-1000 times higher than most other European countries);
- coastal floods;
- an increase in the quantity of unproductive areas of land (from 235,500 ha in 1950 compared to 703,516 ha today);
- abandoned or deserted lands (about 160,000 ha);
- degraded and impoverished biological and landscape diversity (some habitats and species have been lost while there has been a decrease in the population of many others); and
- considerable potential loss of tourism and the associated economic development.


Degraded landscape

2.4 In the past, intensive agricultural processes utilized fertilisers and pesticides, mechanical cultivation practices, and irrigation. These practices have also had impacts on the ecological status of waters and agricultural land, as well as on that part of wild flora and fauna, which are found on agricultural land and in the wetland ecosystems.

2.5 Uncontrolled exploitation of inland lake waters for irrigation has contributed to severe ecological stress and crises in these ecosystems – most notably the lakes of Prespa and Dumre and on many glacier lakes such as Lura. Exploitation of river networks for irrigation has also had the same effects since it was often carried out without regard for scientific criteria or "the biological minimum" of the water that needs to flow on the river's bed for ensuring the continuation of life in the water. Another contributing factor was the deviation of the rivers' course for reclamation reasons as was done with

the Bistrica River on the plain of Vurgu in Saranda. The result has been ecological stress on the wetland ecosystems of the down stream rivers respectively on the lake of Butrinti and on the wetland ecosystems of Lezha).

2.6 Although Albania has not used large quantities of fertilizers and pesticides at the national level, large doses in some localized areas have had adverse consequences on the quality of the land, as well as on the composition of terrestrial flora and fauna. The long-term impacts on flora and fauna, and on humans, will continue in the future.

2.7 The opening of Albania after the 1990's to the free market economy damaged, and is continuing to damage, biological and landscape diversity. Farmers and the population in general, now also have less interest in protecting and improving native breeds of flora and fauna. If left unchecked, this could lead to a large loss of genetic resources with significant economic and social consequences.

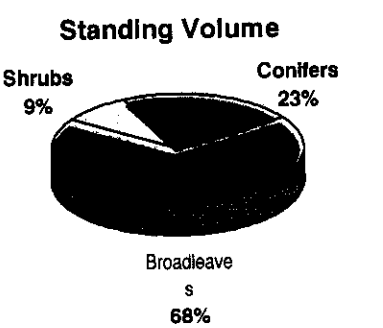
2.8 After agriculture, industry is the second most damaging sector with respect to the environment, and its biological and landscape diversity in particular. These consequences have been greatest along the coastal areas of Albania where there are larger concentrations of industrial activities.

2.9 Industrial development has been vital for economic development, but it was not carried out in Albania with regard for the biological potential of the country, or with any intention to avoid or minimize the impact upon the environment.

2.10 The discharges of gases, liquids, and solids generated by old technologies which did not take into consideration the impacts on the environment have had enormous consequences, some of which continue even though the major part of industry has not been functioning since the beginning of the 1990's. Most notable are the metallurgical plant of Elbasan and its impacts on the Shkumbini River, and especially on the downstream coastal ecosystems, and the PVC Plant in Vlora and its impacts on the coast and the Bay of Vlora. Other examples include the paper factory in Lezha and its impacts on the wetlands of Kune-Vaini, the hydrocarbons and other chemicals from the Fieri fertiliser factory have downstream impacts on the Semani river, and the copper mines in Rubik, Burrel, Kukes, and Lac and their impacts on the landscape and nature surrounding them. The major impacts of these activities have been on the marine ecosystems, especially in the coastal areas. There are cases of marine degradation as a result of settling of solid materials, minerals, and heavy metals in those zones.

2.11 Although the major part of country's industry is out of functioning, the remaining ones continue to use old technologies, which cause harm to the environment.

2.12 Excessive forest exploitation due to the lack of alternative fuel resources for heating and cooking has adversely affected forest biodiversity.



2.13 Since 1953, the forest areas have decreased by around 300,000 ha or 22% – equivalent to 30% of existing forests. There have also been notable effects on forest productivity since many existing forests are heavily degraded and thin, and can not fulfil the ecological functions of the forest. This phenomenon is easily noticed by comparing the area and volume of the forest resources of Albania. Actually, more than 26% of country's forest area is occupied by forests with crown density less than 0.4.

2.14 The building of forest roads and the techniques used for extracting and transporting timber have had grave effects on the forest biodiversity of Albania, which have been compounded by the lack of funds for new technologies, and the geological and relief features of the areas covered by high trees.

2.15 The lack of national objectives for the protection and sustainable management of forests and forest and pastures biodiversity has adversely impacted biodiversity, large mammal populations in particular. These populations have decreased and been isolated from each other, leading to a higher danger of extinction because of the genetic degeneration which characterizes small and isolated populations.

2.16 The lack of investments for silvicultural works, new forestation or reforestation, the maintenance of forest roads, fire protection, and other measures has contributed to the loss and degradation of forest habitats for many plant and animal species.

2.17 During the planning process and the implementation phase of forest and pasture management, there was a lack of concern for wildlife protection. Hence, there has been overexploitation of biological resources leading to degradation and impoverishment of habitats, as well as the risk of extinction for a large number of plant and animal species. Uncontrolled harvesting of medicinal plants, aromatic plants, and plants with industrial value have severely affected many of them.

2.18 Forests close to the rural dwelling areas are particularly degraded. These forests include oak and other tree plantations, which are characterised by high biological diversity in comparison to the other types of forests. Because of the existing difficult economic conditions and the traditional nature of Albanian society, the rural population is surviving by overexploiting the forest – severe tree cutting for cooking and heating and overgrazing, particularly by goats. The harvesting of shrubs and coastal forests has created problems, especially for the birds, which use these habitats for nesting.

Illegal cutting inside the "Q. Shtama" National Park

2.19 During the recent past, and particularly the last 2-3 years, illegal tree cutting has been rampant in many parts of Albania –especially in the poorer northern and north-eastern districts of the country. (This situation has aggravated recently after the Kosovo crisis got over and the demand for timber inside Kosovo is increasing). Uncontrolled cutting occurs even inside the Protected Areas. Most of this cutting was done to provide timber for industry and construction. Fir and pine forests have been most damaged by this activity because of

their high quality and high selling price on the uncontrolled market.

2.20 In the past, there have not been considerable effects from fishing on marine and wetland biodiversity. However, new and uncontrolled fishing practices used during the last few years are adversely affecting biodiversity.

2.21 During the last five years, there has been fishing along the whole marine stretch with a depth of 2-30 meters, which has led to the depletion of the breeding grounds of Sparidae, Soleidae, Mullidae, and other families. The breeding grounds of *Posidonia oceanica* have also severely deteriorated because of changes in the structure of the fishing fleet. More than 50% of fishing boats have small power motors and hence are able to apply deep fishing techniques in shallow areas since they are unable to fish in zones more than 50 meters deep.

2.22 Uncontrolled fishing also affect internal waters – even in the critical periods of fish growth. These waters have been affected as well by the usage of explosive and poisonous materials. The major lakes of Ohrid, Shkodra, and Prespa have all been affected, and these lakes have an international importance because of the high number of endemic species present in their aquatic fauna, and because some of these species are globally endangered.

2.23 Foreign vessels fishing offshore Albania also cause damages, especially to fish and crustaceans, which are in demand in western markets. Along the Ionian coast there has been severe damage to benthic forms. Foreign divers have extracted the mollusc *Lithofaga* in a way, which damages entire coastal rocks. Hence these rocks have been damaged in a very short period of time after being relatively undisturbed for thousands of years. Strong measures need to be undertaken to ensure that such practices do not cause desertification of marine life along the rocky areas of the coast.

2.24 Due to the lack of funds for maintenance, sea-lagoon communication channels have deteriorated with a notable reduction of water exchange between the wetlands and the sea. This phenomenon is accompanied by the transformation of the limnologic regime which itself affects the icthyofauna. Most problematic is the situation of the Narta lagoon, where almost half of the area remains dry for the major part of the year.

2.25 Uncontrolled hunting is a major form of disturbance on biodiversity, especially during the winter when migratory winter birds are at risk. Birds are abandoning certain areas such as Kune-Vaini, Patok, Pishe Poro, and the Semani delta.

The Chick of *Larus cachinnans*

2.26 There is a reduction in the population of some species due to illegal hunting methods, including poison which is sometimes used for the killing or capture of wildlife (mammals). The carnivore mammals and birds of prey are the most affected.

2.27 Disturbances to biodiversity caused by hunting have their greatest consequences during critical life cycle periods such as reproduction. Every disturbance or illegal form of hunting practised during this period brings the abandonment of lairs or nests, the abandonment of the young, and even the interruption of reproduction. This can also influence the reproduction "memory" of the animals leading to a permanent abandonment of the reproduction place.

2.28 The animals, which are most sensitive to these disturbances, are the ones, which reproduce in colonies. A disturbance in the colony would bring the interruption of reproduction for all the individuals of that colony. For example, the sea eagle, *Haliaetus albicilla*, had previously been a permanent species with many nesting places in coastal areas such as Velipoja, Lezhe, and Karavasta. Presently, however, it is found only as a winter species in the area of Karavasta. The disappearance from the other Albanian wetlands came as result of the disturbances and the deterioration of parts of its nutrition habitats. A similar fate has met the Phalacrocorax *pygmeus*.

2.29 High rates of population growth during the past 50 years were accompanied by a progressive increase of anthropogenic impacts on nature and biodiversity. Many new towns and villages were constructed, and existing ones were enlarged with the enhancement of infrastructure and economic activities. In 1997, the population of Albania reached 3.7 million, or triple its level of 50 years ago. The fragmentation, reduction, and loss of natural habitats have been a direct result of demographic developments and the urbanisation process.

2.30 At the beginning of the 1990's the relatively free movement of people from the rural areas toward the urban ones began. This movement was uncontrolled and unguided, and has led to particular stress on the coastal and wetland ecosystems of the country which are more ecologically fragile. At the beginning of 1997, the population in the coastal areas was 2.4 times higher than in 1960. During the period from 1960-1990, the population of this area has increased by an average of 28,429 habitants per year, and for the period from 1990-1997 by an average of 54,661 habitants per year or twice as fast.

2.31 According to the data of the State Secretariat of Local Government, 54% of Albania's population lived in the coastal districts (including Tirana district) in 1997, while at the same time this land covers 35.7% of the country's area (10,279 km). Population density has increased from 82.4 inhabitants per km2 in 1960, to 179.3 inhabitants per km2 in 1997. The maximum density is in the central part of this area (Tirana, Durresi, and Kavaja districts) with 388.4 inhabitants per km^2.

2.32 The environmental impacts of the increasing number of newcomers have been obvious. The coastal areas, particularly those close to the major urban centres (Tirana, Durresi, Lezha, and Vlora) are facing today a number of emerging problems with severe impacts on biological and landscape diversity. In summary, they are:

- The intensification of natural resources assimilating activity, mainly the fish and forest ones;
- The enlargement of construction sites, sometimes up to the seashore;
- The degradation, deterioration, and deformity of landscape;
- The increase of urban wastewater discharges into the environment; and
- The increase of urban and industrial solid waste; thousands of tons of urban and industrial wastes are being deposited every day in different sites, the majority of them in inappropriate places.

2.33 Population movements also affect the areas where people migrate from through:

- Abandonment of agricultural land on the slopes which leads to erosion and land degradation;
- The cutting of fruit plantations or their total abandonment and degradation;
- Overexploitation of forest resources; and
- Overgrazing and further degradation of forests and pastures.

2.34 The transport sector has also expanded and led to damages to

biological and landscape diversity. Due to lack of funds, inappropriate planning and poor estimation of the impacts on the environment, irreversible damages to the natural landscape have sometimes occurred.

2.35 The construction of the north-south and east-west highways, and the increase of traffic are contributing to: (i) increase of natural habitats fragmentation; (ii) interruption of migration and large movement of animal species leading to the genetic degeneration of animal populations; and (iii) air and water pollution from gases emitted from vehicles which are highly polluting and would not be allowed to circulate in many countries. These effects will be more pronounced in the future. Thus, measures to avoid or minimize the consequences/impacts on the environment, as well as biological and landscape diversity, will need to be taken.

2.36 Because of the low levels of tourism during the time of communism, there were no impacts on biodiversity. However, after the 1990's, there is an increasing risk to biodiversity from the adverse impacts of tourism. The number of tourists who came to Albania in the 1990's was greater than that of the period from 1960-1990. Moreover, the number of tourists in 1996 was 75,000 or twice as much as in 1992. The majority of them passed the vacations in the coastal areas. Some of the tourists were also hunters who hunted without the required licenses and contributed to the further deterioration of coastal fauna (e.g., Kune-Vaini, Divjake, and Patoi).

2.37 The presence of an increasing number of people in the coastal area is accompanied by an increase of pollution (water, air, and land pollution) which further the deterioration of biodiversity.

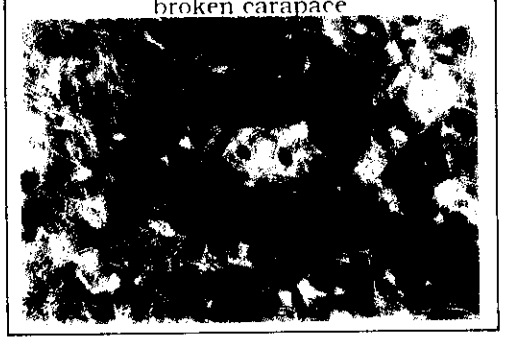
2.38 Urban pollution has become a major concern in the 1990's because of the increasing consumption of everyday products (especially those packed with plastic materials) while at the same time there is an absence of waste treatment stations. This phenomenon is apparent not only in large urban centres and beaches, but also in rural areas. Thousands of tons of urban and industrial wastes are being deposited in the coastal area every day. At the same time, the sewage pipes are discharging wastewater into the sea from these resident areas. For these reasons, the existence of many species is endangered along the coastal strip.

THE IMPACTS ON BIODIVERSITY

2.39 The major impacts and damages caused by past and recent practices are as follows:

- loss and fragmentation of habitats;
- damage, impoverishment, and degradation of ecosystems and habitats;
- disturbance and harassment of wildlife in nature;
- species extinction or risk of extinction; and
- genetic deterioration and erosion.

An individual of Testudo *marginata* of broken carapace



2.40 In Albania, the main endangered types of ecosystems and habitats include marine ones (medium and infralittoral level), coastal ecosystems (sand dunes, delta rivers, alluvial and wet forests, lagoons and coastal lakes), and terrestrial ones such as alpine pastures and meadows, continental and glacial lakes, and oak and conifer forests.

2.41 The known number of species, which have become extinct during this century, is not high, however the rates of biodiversity loss during the past 50 years are among the highest in

Europe. The insufficient level of knowledge and studies concerning a large number of flora and fauna does not allow for an accurate estimation of biodiversity status in Albania. However, at least two species of plants and four species of mammals are totally extinct, while 17 species of birds do not nest anymore in Albania.

Sand Dunes (Poro-Vlore)

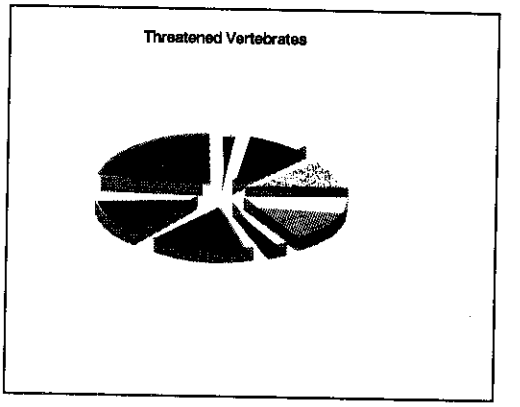
2.42 During the last 25 years, approximately 122 species of vertebrates (27 mammals, 89 birds, and 6 fish) and four species of plants have lost more than 50% of their population. The number of rare and threatened species of plants and animals is high and expected to increase. Today, the number of vertebrates included in the Albanian Red Book is around 273 species, or 36% of the vertebrates of the country.

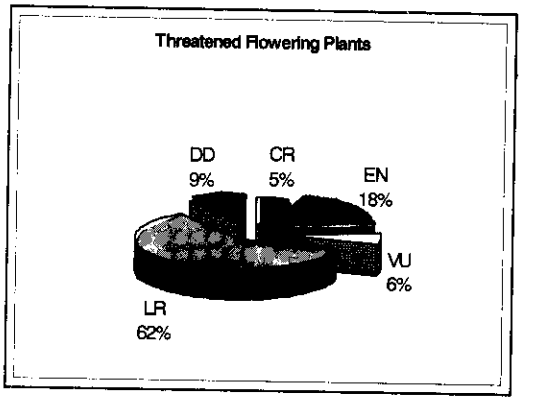
Water buffalo (*Bubalus bubalis*) - an endangered species

2.43 Several species with nutrient and economic values have become nearly extinct such as *Penaeus kerathurus* (marine shrimp), which had been in abundance during the 1960's and 1970's in the Drini and Mati deltas. Today this species is rare, and losing its previous economic value. The same is true for *Crangon crangon* (a crustacean species).

2.44 The red coral (*Coralum rubrum*) and sponges of the genus Spongia are in high demand in western markets and are at risk of total extinction because of their extraction.

2.45 Different species of fish crustaceans, molluscs, and other marine species are endangered because of the use of dynamite and poisonous materials for fishing, the consequences of which will be more evident in the future.





CHAPTER 3

THE STATUS OF BIODIVERSITY PROTECTION IN ALBANIA

LEGISLATION

3.1 Although the basic law on environment has existed since 1967, the development of a modern legal system for environmental protection based on democratic principles began only in 1991. This legal system needs to be further developed and refined in the future.

3.2 There are also a number of laws, which have been approved since 1991, and represent an important advancement in the legislative area.

- Laws on the Land and Its Distribution (no. 7491 and no. 7501, 1991)
- Law on the Forests and the Forest Service Police (no. 7623, 1992)
- Law on Environmental Protection (no. 7664, 1993)
- Law on City Planning (no. 7693, 1993)
- Law on Plant Protection Service (no.7662, 1993)
- Law on Protection of Medicinal and Taniferous Plants (no. 7722, 1993)
- Law on Development of Areas with Tourism Priority (no. 7665, 1993)
- Law on Hunting and Wildlife Protection (no. 7875, 1994)
- Law on Fishing and Aquaculture (no.7908, 1995)
- Law on Pastures and Meadows (no.7917, 1995)
- Law on Protection of Fruit Trees (no. 7929, 1995)
- Law on Water Resources (no. 8093, 1996)
- Law on Construction, Administration, Maintenance, and Operation of Water and Drainage Systems. (no. 7846, 1994)
- Law on Water Supply and Sanitation Sector Regulation(no. 8102, 1996)
- Law on Waste's Public Removal (no. 8094, 1996)
- Mining Law of Albania (no.7796, 1994)

3.3 A large number of by-laws and regulations based on these statutes have also been drafted and approved. For example, the draft procedures on Environmental Impact Assessment.

3.4 With all the efforts made towards the improvement of the environmental legal system, there are still gaps, especially in the aspects of nature protection, and biological and landscape diversity. In addition, the existing legal system is also unclear in some cases due to overlapping responsibilities and sometimes-contradictory language. Some of the reasons for this are: the short time available for preparing the laws, inefficient approval procedures, and the relative lack of attention afforded to environmental problems in Albania. This situation has created confusion with respect to establishing the proper competencies and responsibilities, and, as a consequence, implementation of the law has been weak.

3.5 The Constitution of the Republic of Albania approved in 1998 provides for further improvement and completion of the legal and institutional framework in the sphere of nature and biodiversity protection.

3.6 Although progress has been made, the reality is that the impacts on environment have been exacerbated by poor implementation and ignorance of the law, moreso than because of gaps in the laws.

3.7 A solution to the country's environmental problems can not be expected so long as the legally responsible institutions do not co-operate and work together to implement the law. This will require taking concrete actions to work together to prevent and reduce the causes and risks of environmental

degradation since co-operation is the most cost-effective solution.

3.8 Although there is good will among governmental institutions for co-operation, the costs of not promoting actual co-operation will be higher the longer it takes to effectively promote co-operation. More professional training for the employees responsible for implementing the law and regulations will be required. District and central inspectors should have greater and more well defined authority, especially for dealing with illegal construction or construction undertaken without the appropriate environmental permits.

3.9 The implementation of the CBD and other international environmental conventions is a process that requires Albania to review and improve its existing legal system, and to ensure the implementation of the law. This will require the approval of the law on the protection of nature and biodiversity in Albania, which was recently prepared by NGOs with EU assistance.

3.10 The aim of this draft is stated clearly:

> ***To help the protection and re-establishment of the natural balance of landscape and biodiversity, and protection of all the forms of life as well as the natural and aesthetic values inside or outside Protected Areas, through promoting the sustainable use of those resources.***

3.11 The NEA is defined as the *responsible authority* for implementation of the law in Albania. In 1998, a governmental decision transformed the CEP into the NEA by positioning it directly under the authority of the Council of Ministers instead of the Ministry of Health and Environmental Protection. This act was an important and progressive step for strengthening and enhancing the position of the NEA, and preparing it for possibly becoming a future Ministry of Environment. This step will enhance the legislative and policy-making initiative of the NEA.

THE INSTITUTIONAL FRAMEWORK

3.12 The Parliament is the main authority of the legislative system, and the *Permanent Commission on Health and Environment* is the main body within the Parliament responsible for the environment.

3.13 The Council of Ministers (CM) is the main organ of the administrative system. The National Environmental Agency (NEA) is the main public institution responsible for environmental protection, and it reports directly to the Prime Minister.

3.14 At the inter-ministerial and ministerial levels, there are other institutions of public administration and scientific research institutions, which are responsible for administration, studying, and monitoring of the country's natural and biological resources.

3.15 The Ministry of Agriculture and Food is one of the national institutions with important environmental responsibilities in Albania including the administration, protection, studying, and inventorying of biodiversity.

3.16 The General Directorate of Forest and Pastures (GDFP) within this ministry is responsible for the management and administration of Protected Areas and National Parks, and of wildlife and game hunting in Albania. Recently, a Project Environmental Management Unit (PEMU) was established in the GDFP to monitor the implementation of mitigation measures recommended under the environmental impact assessment process of the Forest Management Project.

3.17 The *General Directorate of Fisheries* administrates the resources of marine aquatic fauna, and of the freshwaters in areas where there is fishing and aquaculture.

3.18 The judicial system guaranties equality in front of the law and, when

relevant, rules on civil and criminal cases which are affected by environmental legislation. Figure 2 presents a general scheme of the institutional framework of Albania and depicts the relations and functions of the existing institutions.

3.19 However, the role of the central and local institutions is still inadequate with respect to the problems of inventorying, studying, managing, and monitoring biodiversity.

3.20 Albania inherited a very limited experience and institutional structure in the area of environment. In addition, there is a lack of aims, objectives, and national strategies and action plans for nature and biodiversity protection. This is compounded by the existing gaps in the legal framework and in law enforcement, and this explains why the responsible institutions do not effectively co-ordinate their functions and responsibilities.

3.21 This situation has led to overexploitation of some of the natural resources without taking into consideration the real cost of the damage done, the consequences on resource depletion, and the related effects on other biological resources.

3.22 With an incomplete institutional framework for environmental management, the responsible ministries for nature and biodiversity management have not yet established their environmental monitoring units, which should oversee the effects of economic activities on the environment. Experience has also shown that the National Environmental Action Plan has not been completely implemented, and that the systematic request of the NEA for the implementation of the relevant acts and programs has not been complete.

3.23 After 1990, the National Environmental Agency has undergone some reforms of its structure and institutional dependency. In 1992, the former Committee of Environmental Protection (CEP) was put under the authority of the Ministry of Health. This reform weakened its position and independence in the environmental area. Being under the authority of another Ministry, the CEP and the country's environmental problems were viewed as secondary ones.

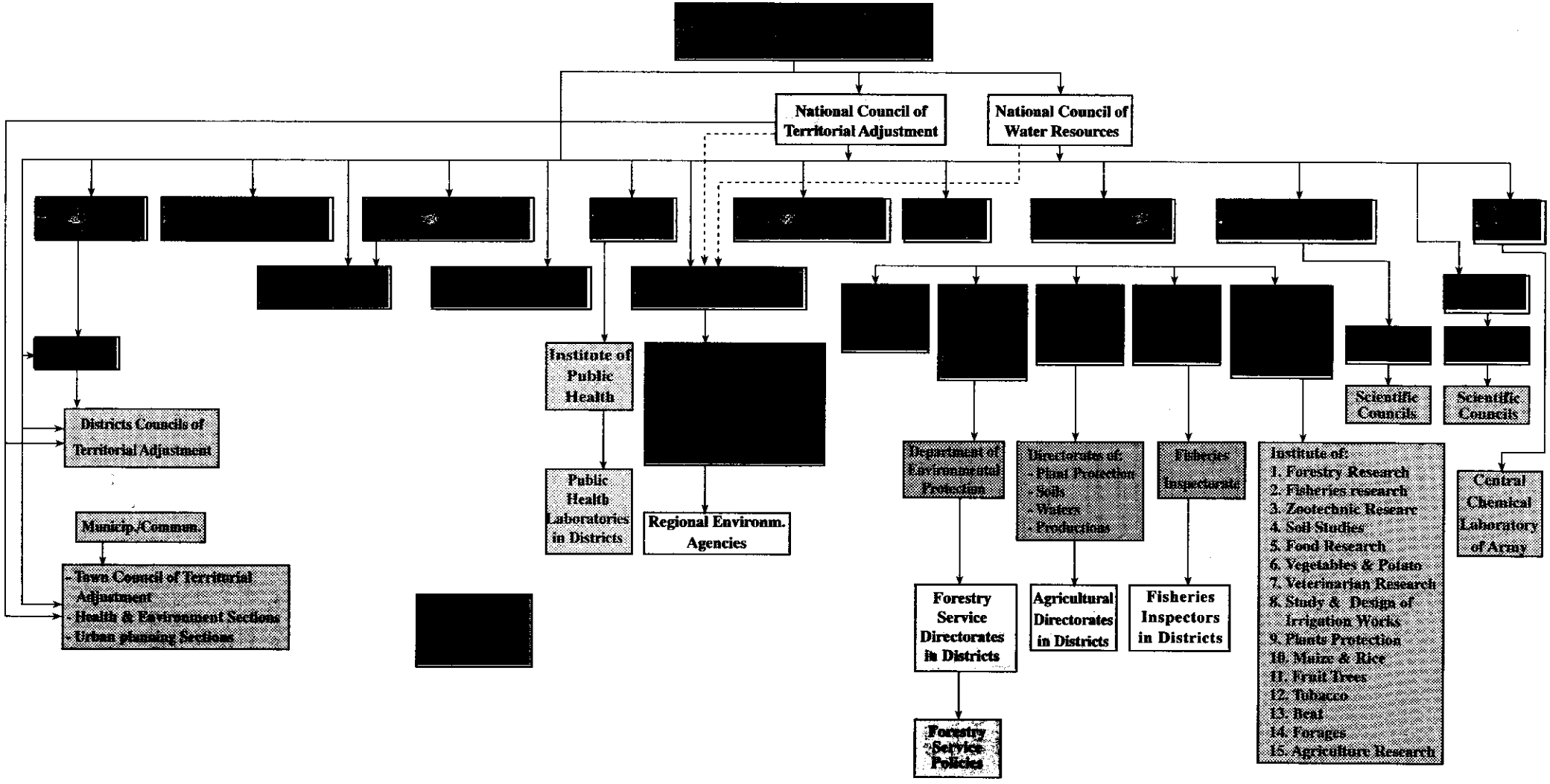
3.24 The NEA has played the role of catalyst and co-ordinator for the protection of nature and biodiversity. CEP previously, and NEA today, nominally has control of, but effectively limited participation in, the management of the natural and biological resources of the country. This is because of the lack of governmental support and the incomplete legal framework.

3.25 The shortage of NEA employees and its unstable positioning has had a strong negative impact on the environment, and biological and landscape diversity.

3.26 The recent changes that positioned the NEA under the direct authority of Council of Ministers, and the establishment in the future of the Ministry of Environment will strengthen its role, especially in the process of decision-making.

3.27 A number of institutions have been defined by decisions of the Council of Ministers to participate in Environment and Biodiversity Monitoring (Figure 3).

Figure 2. ORGANOGRAM ON THE INTERRELATIONS AND LINKS BETWEEN INSTITUTIONS/STRUCTURES IN CORRELATION WITH THE BIODIVERSITY ISSUES IN THE REPUBLIC OF ALBANIA



However, their efficiency is limited because of a lack of co-ordination among them, and the low level of technical and financial support.

3.28 The role of Non Governmental Organisations (NGOs) and the citizens for the protection of environment and biodiversity should also be mentioned.

3.29 In Albania, there are 15 environmental NGOs – all of which were established after 1991. Their role is promoting public awareness and participation and the protection of nature and biodiversity. During these years they have enhanced their activities with support for their projects from foreign and national donors. Gradually, their activity has expanded throughout the country. Also they are setting up a forum of environmental NGOs to further their work. However, the environmental movement of NGOs is still weak and its impact on society and the general public is limited. Some of the reasons are:

- lack of experience;
- total lack of financial and material means (the only financial source for the majority of NGOs is the contribution of their members and the project funds released by foreign donors);
- Concentration of work in the hands of a few people and the nonactivisation of the members;
- Insufficient co-ordination of joint activities among NGOs;
- Activity concentration of NGOs mainly in big cities;
- Relatively low level of environmental awareness of the people; and

  Difficult economic conditions and the unstable political situation in the country especially during the last two years.

3.30 There are also virtually no sanctions in case of damage to the environment or non-implementation of the law. This situation has had its negative effects on the existing institutional structure.

3.31 The lack of law enforcement, low collection of fines because of the weak institutions, and the corruption of the judicial system has had adverse impacts on the environment, and on biological and landscape diversity.

THE CONVENTIONS AND INTERNATIONAL PROGRAMS

3.32 The long isolation of Albania had notable impacts on the environment. Until 1990, the participation of Albania in international organisations and agreements was only formal and very limited.

- On February 4, 1975 Albania ratified the Agreement *"For Non-proliferation of Nuclear Weapons."*
- On March 26 1975, Albania ratified the Convention *"On the Prohibition of the Development Production and Stockpiling of Bacteriological (Biological) and Toxic Weapons and on their Destruction."*
- On March 20, 1979 Albania ratified the Convention concerning *"The Protection of the World Cultural and Natural Heritage"*. As part of UNESCO, the World Heritage Committee, which administers the List of World Heritage, was established.

3.33 After 1990, Albania started to participate in the international environmental organisations and to benefit from the rights of this participation by trying to fulfil its legal duties as a member and participant.

3.35 The European Union has its own legislation and directives on environment, which are mandatory for all of its members. As part of this legislation, there are also a series of conventions and directives, which are consistently revised according to social-economic developments and their impacts on the environment. Gradually, Albania is taking part in this initiative by signing different conventions, and by trying to implement them as best as possible under current conditions.

3.46 During the past years, Albania has continued to work to fulfil the duties defined in the agreement between the Government and UNESCO as part of the regional program on the pollution of the Mediterranean Sea (MEDPOL). This has been done through pollution monitoring in coastal areas. Thus, in co-operation with UNEP and with the Mediterranean Action Plan (MAP) based in Athens, Albania began the process of pollution monitoring in the Ionian and Adriatic Seas as well as on the main rivers that discharge into the seas.

3.47 In Albania, from 1993-1996 the *"Program on Coastal Zone Management in Albania"* was initiated as a co-operation of the Albanian Government, UNEP, World Bank and the European Union. The main objectives of the program were: (i) biodiversity protection in the coastal areas of Albania, including as well the marine habitats, fresh, and intertidal waters; (ii) development of tourism and of recreation activities; and (iii) institutional strengthening of the institutions responsible for coastal management in Albania.

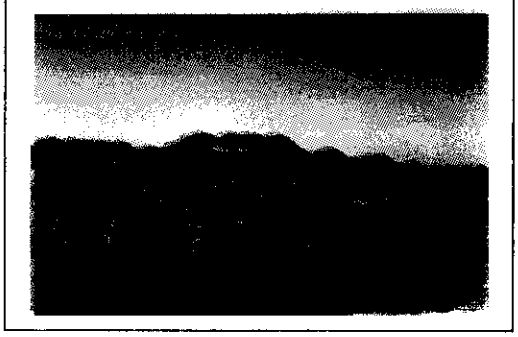
3.48 Co-operation also began with the Mediterranean Technical Assistance Program (METAP), which included some programs on the *"Assessment of Environmental Status"* financed by the European Community and the World Bank.

3.49 Another program financed by the World Bank was the *"Ecological Monitoring of the High Forests in Albania"* (1995). This program aimed to address the needs of biodiversity protection for the high forests of Albania through the extension of Protected Areas and the improvement of forest management. The Project on Forests Management being implemented with the technical and financial assistance of the World Bank and other foreign donors, is aiming to strengthen the management of the protected areas as one of its components.

3.50 The NGOs are also contributing to awareness of different issues on nature and biological diversity in Albania. Some of the programs that they have been more active in are: *"An NGO Strategy for Nature Protection in Albania"* (1994-1997) financed by REC (Budapest), IUCN and MilieuKontakt (Netherlands), and *"Biodiversity Protection of the Ohrid-Prespa Transboundary Lakes"* (PPNEA, EURONATURE, GTZ).

3.51 The Biodiversity Strategy and Action Plan is based on the recommendations and findings of the above mentioned programs, but goes one step further by evaluating what should be done based on current conditions.

Divjaka Pine Forest (National Park)



IN-SITU AND EX-SITU CONSERVATION

3.52 In Albania, *in-situ conservation* started to be applied only in the second half of this century. A number of Protected Areas have been established, and a number of laws and by-laws for the protection of endangered species of plants and animals have been passed.

3.53 The Protected Areas are within the forest areas, and to enhance their protection and management the Department of Nature Protection was established within the National Environmental Agency. In some of the districts with Protected Areas or National Parks there are locally functioning units responsible for their management and protection.

3.54 Until the beginning of the 1990s, the total amount of Protected Areas was not more than 2% of the country's territory. At that time there were only three categories of Protected Areas:

3.35 The environmental conventions of which Albania is a party are as follows:

- On May 30, 1990, Albania participated by accession to the *Barcelona Convention "For the Protection of the Mediterranean Sea against Pollution"* (Barcelona, February 16, 1976). This convention has some protocols as well, such as the Protocol Concerning Mediterranean Specially Protected Areas (1982), and the Protocol for the Protection of Biodiversity in the Mediterranean Sea (1996).
- On October 4 1991, Albania ratified the *ESPOO Convention (Finland) "On Environmental Impact Assessment in a Transboundary Context."*
- On March 18, 1992 Albania signed the convention *"On the Protection and Use of Transboundary Watercourses and International Lakes"* (Helsinki March 17, 1992). The ratification of the convention was done on January 5, 1994.
- The convention *"On Transboundary Effects of Industrial Accidents"* was approved in principle on March 18, 1992, and was ratified on January 5, 1994.
- On November 29, 1995 Albania participated by accession to the *Ramsar Convention* (Ramsar, 1971). The official name of it is *"Convention on Wetlands of International Importance especially as Waterfowl Habitat."* Decision no. 581 on June 29, 1993 of the Council of Ministers approved the accession of Albania to this convention. *Decision no. 413 on August 22, 1994* of the Council of Ministers declared the *area of Divjaka-Karavasta* as a "Specially Protected Natural Ecosystem". Albania became a party to this convention through ratification on March 29, 1996.
- On October 31, 1995 Albania signed the Bern Convention (September 19, 1979) *"For the Protection of Flora and Wildlife Fauna of the Natural Environment in Europe,"* which was ratified by the Parliament on March 2, 1998.

3.36 Albania participated in the Earth Summit "The Environment and Development" of the United Nations (UN) (Rio de Janeiro, 1992). Around 500 documents were approved, the most important of which were:

1. *Agenda 21* – a complex program for the development of ecological actions.
2. *Rio Declaration on Environment* which proclaims 27 principles following the ones included in the Stockholm Declaration of 1972.
3. Convention on *Climate Change*. [On October 3, 1994 Albania signed the basic text of this convention (New York, May 9, 1992). The Council of Ministers approved the accession of Albania to this convention by the decree no. 580 on June 29, 1993].
4. Convention *"On Biological Diversity"* which represents an agreement among different countries for the conservation of biological diversity, the sustainable uses of genetic resources, and the transfer of relevant technologies by appropriate funding. [Albania signed the convention on January 5, 1994 and it entered into force on April 5, 1994].
5. Declaration on "Forest Related Principles" was a non-mandatory declaration but it is an important step towards the composition of an international convention for the forests which will later be mandatory.

3.37 The treaties and documents of the Earth Summit aim to promote environmental actions, and the establishment of solidarity among the countries of the world for better managing the world's environmental problems. This conference also defined the concepts of environmental protection and sustainable development for developing countries. The adopted documents stated the

importance of NGO participation for the protection of environment.

3.38 The *Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters* (Aarhus-Denmark, June 25, 1998), is an important instrument for strengthening and harmonising the environmental rights of citizens by giving them more possibilities for being informed for public participation and for justice in Europe. Albania was among the 35 countries, which signed this convention.

3.39 Albania is also a party to the *"Adriatic Initiative"* together with Italy, Slovenia, Croatia, Greece, and the EU.

3.40 Albania's participation in other conventions is still under preparation:

1. *The Convention on Protection of Migratory Species of Wildlife* known also as the Bonn Convention (Bonn, on June 23, 1979. Entry into force on 1983). Albania has signed two protocols of this convention (for the Mediterranean mammals and for the *Numenius tennuirostris*). The documents for the participation of Albania in this convention have been prepared.
2. *Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and their Destruction.* The convention was adopted in 1989, and entered into force in May 1992. The Council of Ministers and the parliament approved the participation of Albania, but the process of document deposition at the UN by the Foreign Affairs Ministry still needs to be completed.
3. *The Convention on Desertification* and dryness aiming to combat these phenomena in countries suffering form them (December 4, 1996). Annex no.4 recognises the desertification problem in Mediterranean countries.
4. *The Convention on International Trade in Endangered Species of Flora and Fauna (CITES)* signed in Washington DC March 3, 1973 with amendments done in Bonn June 22, 1979.

3.41 The engagement of Albania in international environmental agreements has been growing, however, implementation and fulfilling the duties specified in these agreements is still lacking in many instances.

THE EXISTING NATIONAL PROGRAMS

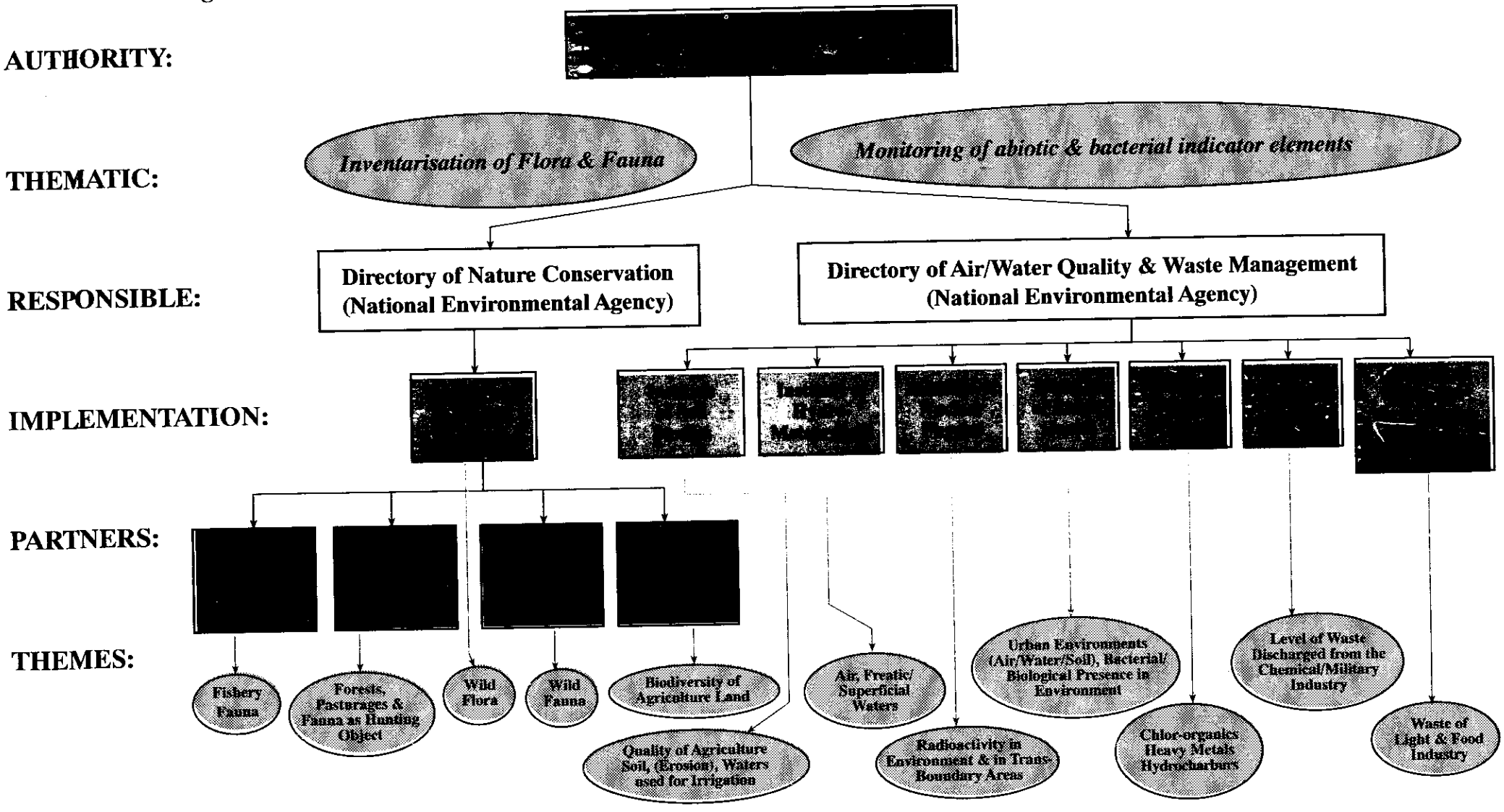
3.42 The preparation of the National Environmental Action Plan is a continuation of previously undertaken activities, including those undertaken with international co-operation and assistance.

3.43 Part of this co-operation is also the presence of many international organisations in Albania such as the European Union, UNDP, World Bank, International Monetary Fund, European Bank for Reconstruction and Development, and others. They have financed and prepared studies on environment in Albania.

3.44 The first was the study *"On Environmental Status and the Environmental Strategy"* financed by the World Bank. Its first phase was completed in 1992. It was considered to be a technical documentation in support of the Albanian Government, and served as a basis for the National Environmental Action Plan.

3.45 The second phase of the *"Environmental Strategy in Albania"* was completed in 1993. It was based on the co-operation of the CEP with the World Bank, and financed by though the Government of Italy and the World Bank. This important study preceded other concrete projects in this area. Based on it and on the Declaration of the Ministers of Environment (Lucerne, 1993) together with its document: Environmental Action Program (EAP), Albania prepared its National Environmental Action Plan (NEAP).

Figure 3. ORGANOGRAM OF STRUCTURES RELATED WITH THE BIODIVERSITY STUDY & MONITORING



Forest National Parks, Hunting Resources of Categories "A" and "B," and Nature Monuments.

3.55 In 1994, as part of the Ecological Monitoring of the High Forests in Albania, and based on the Protected Areas categorisation system of IUCN, there were identified and proposed a number of new Protected Areas which would have effectively doubled the existing number. After the recent designation of the Prespa National Park, and the lake Ohrid as Landscape Protected Area, the total country's area under protection has reached at 5.8% of the total territory.

3.56 Although progress has been achieved, there are still problems and issues, which need to be, addressed such as:

- The lack of a national strategy on nature protection;
- The lack of an adequate legal and institutional framework;
- The existing network of Protected Areas is very limited, not always representative of the highest nature and biodiversity values, and poorly managed (less than 6% of the territory of the country is protected);
- The lack of existing Protected Areas Management Plans (Management Plans have been prepared for only 2-3 of the existing Protected Areas);
- Lack of financial resources for effective administration of the protected areas;
- Shortage of personnel and lack of training; and
- Lack of protection for endangered species of plants and animals outside the Protected Areas.

3.57 On the basis of the Albanian NGOs Project: "***NGO Strategy for Nature Protection in Albania,***" the activity of Specially Protected Areas (1996) which was financed by the Regional Activity Centre/Specially Protected Areas (RAC/SPA, Tunis), and of the Coastal Zone Management Plan (CZMP), a new proposal for a representative network of Albanian Protected Areas has been prepared. This will be presented to the Government together with the BSAP.

Box 5

The Management Categories of Protected Areas

Category I- *Strict Nature Reserve/ Wilderness Area.* These are small areas to be managed mainly for science or wilderness protection.

Category II. *National Park.* These are large areas managed primarily for the protection of ecosystems, education and recreation.

Category III. *Natural Monument.* These are small areas managed for the conservation of specific natural or historic characteristics or phenomena.

Category IV. *Species and Habitats Management Area/Managed Resource Area.* These are protected areas for the conservation of species and habitats through appropriate management.

Category V. *Protected Landscape and Seascape.* Protected area managed mainly for landscape/seascape protection and recreation. This category includes terrestrial or marine areas, which can be public, or private property, and inhabited areas where different activities are undertaken such as agriculture, fishing, and forestry. The aim is to maintain the natural conditions of the landscapes, to protect the biological diversity, and encourage the harmonious interaction of man with the environment.

Category VI. *Protected Area of Managed Resources/Resources Reserve.* Protected area managed mainly for the sustainable use of natural resources.

Source: IUCN (1990/93).

3.58 Up to now, practices for *ex-situ conservation* of endangered species of plants and animals do not exist in Albania. The Botanical Garden close to Tirana University is a possibility, which should be considered in the future.

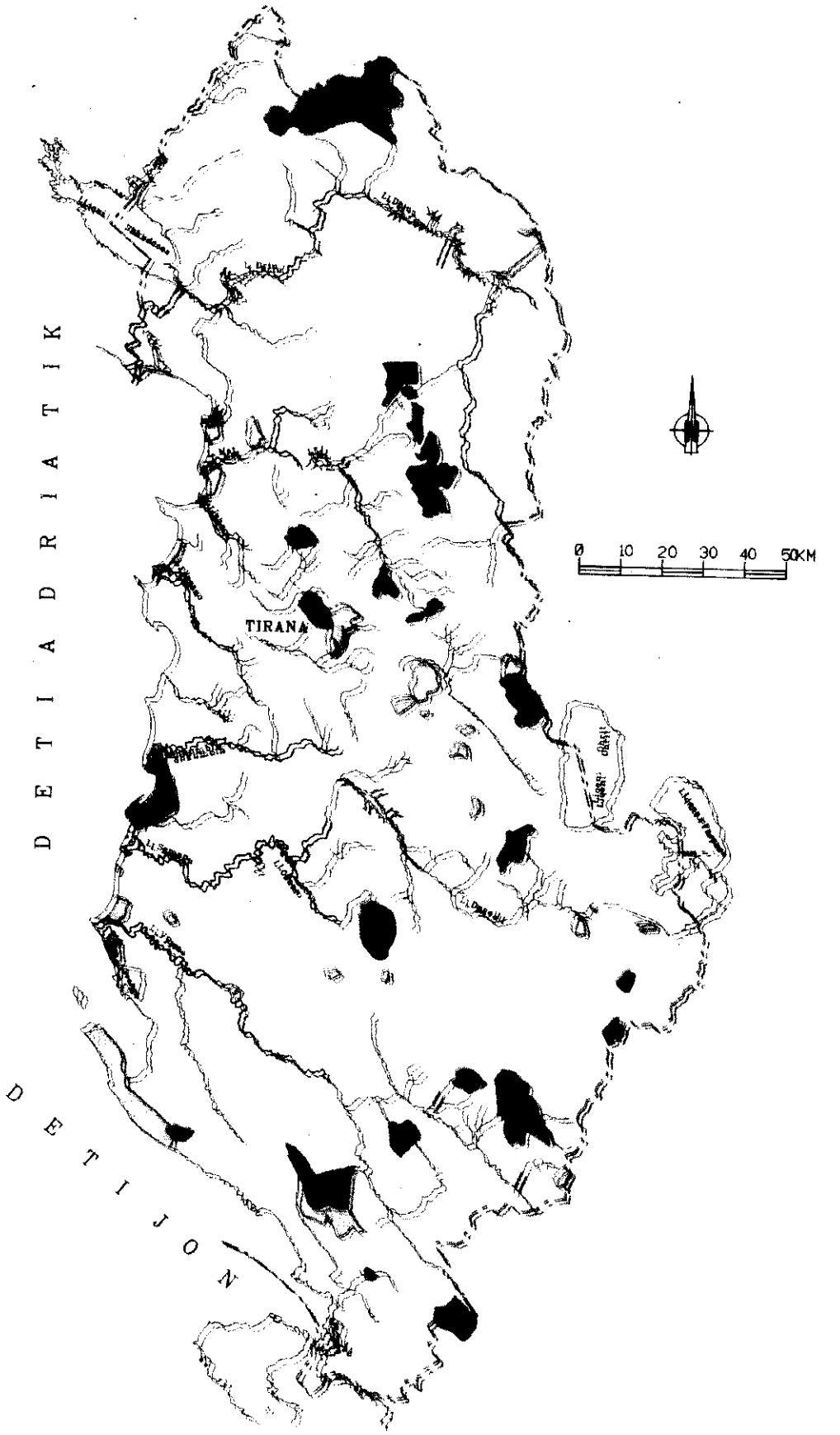
3.59 There is also no existing genetic bank for endangered species of plants and animals. A seed bank for agricultural crops was established recently near the National Seed Institute (NSI). This institution has around 260 species, subspecies, and varieties, of which 230 are herbaceous, and the other 30 are trees and shrubs. From all of the 260 taxa, 180 are cultivated and 80 are spontaneous plants. However, this bank should be used for the collection of the genetic material of endangered endemic species belonging to the natural flora of the country.

The Blue Eyes (Delvina)-Nature Monument

Flag-shaped Pine tree-Natural Monument

Lura National Park

RRJETI EKZISTUES I ZONAVE TE MBROJTURA TE SHQIPERISE
EXISTING SYSTEM OF PROTECTED AREAS OF ALBANIA



Legjenda/ Legend

- Rezervat Strikt Natyror/ Rezervat Shkencor
  Strict Nature Reserve/ Scientific Reserve
- Park Kombetar
  National Park
- Monument Natyre
  Nature Monument
- Rezervat Natyror i Menaxhuar
  Managed Nature Reserve
- Zone e Pejsazheve te Mbrojtur
  Landscape/Seascape Protected Area
- Zone e Perdorimit te Shumfishte
  Multiple Use Area

Box 6

National Environmental Agency Projects for Nature Conservation Financed by International Organisations

Project	Program	Phase	Grant	Project's Objective
1. Dajti National Park Conservation Plan	Phare Program AL9306	finished	50,000 ECU	The preparation of a management plan for the conservation of the Dajti National Park
2. Management of Karavasta Lagoon, Phase I	Phare Program AL9306	finished	346,224 ECU	The preparation of a management plan and a regulatory framework for the Karavasta Lagoon and of the eco-guides for this lagoon
3. Biodiversity Strategy and Action Plan	GEF/World Bank	finished the first phase, (1 year)	96,000 USD	The preparation of Biodiversity Strategy and Action Plan, and the National Report on Biodiversity
4. Lake Ohrid Conservation Project	GEF/ World Bank	start-up in December 1998 (4 years)	$1.78 million for Albania from GEF	To establish the base for sustainable management and joint protection of Lake Ohrid with Macedonia – legal framework and institutional strengthening, lake monitoring, watershed management, and public awareness
5. Management of Karavasta Lagoon, Phase II	Phare Program SOP 97	preparation phase (2 years)	400,000 ECU	Support for the management of the lagoon, pilot study for setting up an artificial lagoon for sewage water treatment, building guard facilities, local works for immediate improvement of the fence, entering roads, etc...
6. Conservation and Management of Mediterranean lagoons (the extension to non-EU countries)	LIFE/ MEDWET 2	Finished (1 year)	MedWet 3 (1,815,000 USD) financed by the GEF through UNDP	Study of the environmental and economic/social status of the lagoons of the area of Kune-Vaini as part of the report on wetland status of participating countries (Albania, Algeria, Morocco, and Tunisia), and the development of a model methodology for wetland studies. The fulfilment of this project was followed by another regional project expected to start soon, including Narta Lagoon, Llogara-Kanali-Orikumi-Karaburuni peninsula-Sazani Island.

PART TWO

IDENTIFICATION OF PRIORITY ISSUES

CHAPTER 4

THE TOPICS AND ISSUES

INTRODUCTION

4.1 Albania's biological and landscape diversity constitutes a valuable heritage not only for Albania but also for the Mediterranean region as a whole, the European continent and the rest of the world. The Albanian people are the owners of these resources, and hence it is in their interest that this property and its heritage be protected and managed in a way that it will promote sustainable economic development in the future.

4.2 In fact, natural resources have been valuable in the past for their economic importance. However, their exploitation brings not only profits (for both the state and private persons), but also losses (when they are not used in the right way) which impede future development because of further degradation of the environment.

4.3 The development of a new zone not yet exploited brings short-term economic benefits followed by the degradation of natural systems, which can lead to higher economic losses than the initial benefits. Of course, today it is impossible to conserve "museum ecosystems" especially close to inhabited areas, but these ecosystems need to be properly managed by protecting their natural values, and, when possible, by restitution of some of their lost values.

4.4 Due to the potential adverse effects of resource depletion, it is wise to implement the concept of sustainable development according to which every natural resource should be used to fulfil the needs of both present and future generations.

STRATEGIC PRINCIPLES

4.5 The implementation of the biodiversity convention can be achieved only through the acceptance and fulfilment of the objectives and principles of protection, as well the practices of sustainable development in the sectors which affect biodiversity such as agriculture, forestry, fishing, energy, tourism, urbanisation, transport, and water use and management. These globally recognised principles are emphasised in the Pan-European Strategy on Biodiversity and Landscape Diversity (PESBLD) as follows:

The Principle of Diligent Decision-making: The decisions regarding the Strategy are taken based on the best available information, and they adopt, as much as possible, measures which take into consideration economic and social factors to serve as incentives for the protection and sustainable development of biological and landscape diversity.

The Principle of Avoidance/Elimination: The implementation of procedures that require Environmental Impact Assessment (EIA) for any activity that might have considerable effects upon biological and landscape diversity and, when it is possible, the guarantee of public participation in these procedures.

The Principle of Prevention: The avoidance or minimisation of negative effects of the activities upon the biological and landscape diversity.

The Principle of Transfer/Shifting: The activities which are expected to have notable effects upon biological and landscape diversity but that could not be avoided, should, when possible, be shifted to areas which might be less affected by them.

The Principle of Ecological Compensation: The negative effects of physical changes which could not be avoided, should be balanced with protection and compensation measures taken by the subject that is causing them in the areas with high values of biological and landscape diversity.

The Principle of Ecological Integrity: The ecological processes responsible for species survival should be protected, and at the same time the habitats supporting their survival should be preserved.

The Principle of Restoration and Re-establishment: The rehabilitation of biological and landscape diversity when this is possible, and its re-establishment through the necessary measures for rescuing the endangered species and for setting up appropriate conditions for them.

The Principle of Best Technology and Practice: From the environmental view point, measures which are most appropriate for the protection and sustainable use of biological and landscape diversity.

The Principle of the Polluter Pays: According to this principle, the responsible party should cover as much as possible the costs of measures for the prevention, control, compensation, and minimisation of damages on biological and landscape diversity.

The Principle of Public Participation and the Public's Right for Information: Active public participation and support is important for the successful fulfilment of any protection plan for biological and landscape diversity. The media and other education programs should incorporate environmental issues by supporting participation in the decision-making process of public and private persons, the scientific community, and of all the individuals and other civil groups, which use terrestrial and marine resources.

THE CRITERIA

4.6 Different countries use different criteria for defining the primary problems and priority issues in the area of biodiversity protection. Because the term biodiversity constitutes species, habitats, and ecosystems, the criteria should express the need for their protection and for the survival of endangered species of national and international significance. These criteria also should address aspects of the economic and social benefits attributable to the protection and sustainable use of biodiversity. The criteria used in this BSAP are as follows:

- Critically endangered species and habitats of global, regional, or national importance;
- Habitats/ecosystems distinguished for their high endemism or biodiversity;
- Habitats or species at risk of total extinction;
- Habitats or species for which appropriate protection and management would lead to local or national economic and education benefits;
- Endangered species or habitats because of the use of inappropriate practices, but which could be improved through policy adjustments; and
- Actions/deeds that might lead to appropriate economic, social, and ecological choices.

4.7 During the BSAP preparation process, lists of priority species and habitats were composed (Annexes E and F) along with action plans for protecting them through the enhancement of the Protected Areas network and/or through *in-situ* and *ex-situ* conservation (Annex B).

ISSUES/PRIORITY TOPICS

4.8 The Pan-European Strategy on Biological and Landscape Diversity (PESBLD) has defined the 11 main topics, which should be addressed and developed according to the specific conditions of each country. They are as follows:

1. The establishment of a European Ecological Network (EECONET);
2. The integration in other sectors of the biological and landscape diversity issues;
3. The enhancement of awareness and support from the public and policy-makers;
4. Landscape protection;

5. Coastal and marine ecosystems;
6. River ecosystems and the wetlands linked to them;
7. Inland wetland ecosystems;
8. Grassland ecosystems;
9. Forest ecosystems;
10. High mountain ecosystems; and
11. Actions for the endangered species.

4.9 The preparation of the national action plans for the above topics, remains a governmental duty, but at the same time co-operation with the environmental NGOs will be required. For this reason the permanent working groups (WG) with joint participation of Government organisations, NGOs, and other interested persons or groups should be established as shown in Box 7. During the BSAP preparation process 14 Working Groups were identified, the establishment of which will be done after the approval of this document. The duties of each Working Group will be the preparation of action plans, as well as facilitation and co-ordination, and promoting the implementation of these plans.

HABITAT AND SPECIES ACTION PLANS

4.10 Based on the above criteria and the existing level of knowledge of national biodiversity, a consensus has been reached on the selection of endangered species and habitats for which action plans will be prepared (Annexes E and F). The proposed network of Protected Areas shown in Annex B takes into consideration the inclusion of terrestrial protection of the landscapes, habitats, and species which are an important instrument for the protection of biological and landscape diversity in the country. At the same time this instrument could not solve the survival issues for a large number of species and habitats that remain outside the Protected Areas, or where the level of protection is inadequate. Hence, the implementation of action plans for endangered species and habitats has a special importance.

4.11 The selected species and habitats are presented in two lists based on their importance and the level of danger: (i) species/habitats action plans which should be undertaken within 1-2 years; and (ii) species/habitats action plans which should be undertaken within 3-5 years. The first list of short-term priorities includes 80 species/taxa – 42 vertebrates, 26 invertebrates and 12 plant species, while the longer-term priorities include 143 species/taxa – 95 vertebrates, 31 invertebrates and 17 plant species. The lists are presented in the Annexes E-1 and E-2.

Box 7

The Working Groups for BSAP Implementation

1. The Working Group for Protected Areas and the Establishment of the Ecological Network -- Co-ordinator: the General Directorate of Forest and Pasture (GDFP)

2. The Working Group for Public Education and Information.-- Co-ordinator: Protection and Preservation of the Natural Environment in Albania (PPNEA)

3. The Working Group for Landscape Protection -- Co-ordinator: Institute of Geographical Research and National Planning Institute

4. The Working Group for Coastal and Marine Ecosystems -- Co-ordinator: Fisheries Research Institute and Institute for Biological Research

5. The Working Group for Wetland Ecosystems -- Co-ordinators: Faculty of Natural Sciences (FNS) and Institute for Biological Research

6. The Working Group for Plants and Agriculture Ecosystems -- Co-ordinator: Agriculture Directorate (MAF) and FNS

7. The Working Group for Forest and Alpine Ecosystems. Co-ordinator -- Forest and Pasture Research Institute (FPRI)

8. The Working Group for the Protection of Plant Species -- Co-ordinator: Institute for Biological Research and FNS

9. The Working Group for the Protection of Animal Species -- Co-ordinator: Faculty of Natural Science

10. The Working Group for the Protection of Native Cultivated Plants -- Co-ordinator: Agricultural Research Institute (MAF)

11. The Working Group for the Protection of Native Animal Agricultural Breeds -- Co-ordinator: Institute of Zootechnic Research (IZR)

12. The Working Group for Genetic Banks (Animals) -- Co-ordinator: FNS and Institute of Zootechnic Research

13. The Working Group for Genetic Banks (Plants) -- Co-ordinators: National Seed
Institute and FNS

14. The Working Group for Biotechnology -- Co-ordinator: Food Research Institute and Institute for Biological Research.

Box 8

What should be the Content of the Action Plans for Species and Habitats?

1. The actual status (situation) -- the reasons that explain this situation and what is the knowledge level of the limiting factors

2. The factors that cause depletion or aggravation – a short summary of the threatening factors of the past and present

3. The Protection measures taken up until now -- a short summary of what is being done for the moment regarding species/habitat protection

4. The Objectives of the Action Plan -- the objectives defined for the protection, improvement, and/or the growth of species population, or for the geographical extension of species or habitats.

5. The deeds/actions/proposed measures and the responsible lead agency -- here are presented the steps to be undertaken for the achievement of the objectives; what is being done, what should or might be done in the fields of:

   - Politics and legislation
   - Site/zone, protection and management
   - Species/habitats protection and management
   - Consultation
   - Scientific research and monitoring
   - Public communication and publication