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Albania

Biodiversity Assessment

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List of Acronyms and Abbreviations

ADS	Automated Directives System
amsl	above mean sea level
AWAP	Albania Watershed Assessment Project
BG	Botanical Garden (University of Tirana)
BSAP	Biodiversity Strategy and Action Plan
CBD	Convention on Biological Diversity
CEA	Committee on Environmental Protection
CEE	Central and Eastern Europe
CITES	Convention on International Trade in Endangered Species of Wild Flora and Fauna
CSP	Country Strategic Plan
CTO	Cognizant Technical Officer
DFID	Department for International Development (UK)
DG	Democracy and Governance
DGF	Directorate General of Fisheries
DGFP	Directorate General of Forests and Pastures
DNP	Directorate for Nature Protection
EA	Environmental Assessment
EAR	European Agency for Reconstruction
E&E	Europe and Eurasia Bureau
ECAT	Environmental Center for Administration and Technology
EDEM	Enterprise Development and Export Marketing Project
EGAT	Economic Growth, Agriculture, and Trade Overview Bureau
EIA	Environmental Impact Assessment
EPS	Energy Policy Statement
EU	European Union
FAA	Foreign Assistance Act
FAO	Food and Agriculture Organization of the United Nations
FPRI	Forest and Pastures Research Institute
FPSS&AP	Forests and Pastures Sector Strategy and Action Plan
FY	Fiscal Year
GDP	Gross Domestic Product
GEF	Global Environment Facility
GMO	Genetically Modified Organism
GOA	Government of Albania
GTZ	German Development Assistance Implementation Agency
ha	hectares
HM	Hydrometeorological Institute
IBR	Institute of Biological Research, Albanian Academy of Sciences
IEE	Initial Environmental Evaluation
IFDC	International Fertilizer Development Center
IFR	Institute of Fishery Research
IUCN	World Conservation Union
km	kilometers
LIFE	Less Intensive Farming and Environment (EU)
LOCP	Lake Ohrid Conservation Project
MOAF	Ministry of Agriculture and Food
MOE	Ministry of Environment

MedWet	Mediterranean Wetlands (Regional structure for the RAMSAR Convention)
mm	millimeters
MNS	Museum of Natural Sciences
NEA	National Environmental Agency
NEAP	National Environmental Action Plan
NESAP	National Energy Strategic Action Plan
NGO	Nongovernmental Organization
NSSED	National Strategy for Socio-Economic Development
PA	Protected Area
PAS	Protected Area System
PEA	Programmatic Environmental Assessment
PEMU	Project Environmental Management Unit
PHARE	*Pologne Hongarie Assistance à la Reconstruction des Economies* (EU)
PLCP	Prespa Lake Conservation Project
PPNEA	Protection and Preservation of the Natural Environment in Albania
PRSP	Poverty Reduction Strategy Paper
RAMSAR	Convention on Wetlands of International Importance Especially as Waterfowl Habitat
REA	Regional Environmental Agency
REC	Regional Environmental Center in Central and Eastern Europe
REReP	Regional Environmental Reconstruction Program
ROL	Rule of Law
SAP	Strategic Action Plan
SIDA	Swedish International Development Agency
SEA	Strategic Environmental Assessment
SO	Strategic Objective
SOW	Scope of Work
SP	Strategic Plan
UNDP	United Nations Development Program
UNEP	United Nations Environmental Program
USAID	United States Agency for International Development

Executive Summary

Purpose

The purpose of this assessment is to assist USAID/Albania in taking biodiversity considerations into account while implementing projects and activities during the two-year extension of the current Country Strategic Plan (CSP, FY 2004-2006) and to inform development of the subsequent CSP. Specifically, FAA Section 119(d), Country Analysis Requirements, states: "Each country development strategy statement or other country plan prepared by the Agency for International Development shall include an analysis of: **(1) the actions necessary in that country to conserve biological diversity**, and **(2) the extent to which the actions proposed for support by the Agency meet the needs thus identified."**

Status of Albania's Biodiversity

Albania has a high level of biological diversity at the landscape, ecosystem and species levels, especially in relation to its small land area. This diversity is the result of:

- The wide range in climate, altitude, and geology in Albania;
- Its location at the intersection of two major biogeographic zones (Central Europe and Mediterranean);
- Its location astride an important bird migration route;
- Its coastline on the Adriatic and Ionian seas; and
- An abundance of ecologically diverse freshwater ecosystems.

Albania is ecologically linked to neighboring countries through shared ecosystems, habitats, lakes, and rivers as well as migrations of birds and marine organisms. Albania contains important populations of large mammals that are rare or extinct elsewhere in Europe.

Albania's land is a mosaic of various forest and shrub types interspersed with agricultural land, pastures, and barren areas, creating a range of landscapes. Some landscapes have a focal feature such as one of the large lakes, a section of coastline, or a group of mountains. More commonly, landscapes are agrarian in nature, such as those typical of the hilly terrain between the coastal plain and the mountains. Hill landscapes have changed significantly in recent decades as forests and pastures were converted to agricultural production and have now been abandoned, returned to pasture, or are being returned to village forests. Soil erosion has been and continues to be a serious problem that reduces soil fertility and adversely affects irrigation and hydroelectric systems.

Albania has a wide range of forest types, but most, except those in the high mountains, have been degraded by poor management and overharvesting. Efforts are being made to protect biologically important high altitude forests and to reestablish communal forests that provide fuelwood and fodder for nearby communities. Albania's mountains support alpine and subalpine meadows with characteristic and in some cases, rare vegetation communities. Alpine meadow vegetation has been modified through centuries, if not millennia of use for summer grazing, and adjacent subalpine vegetation has been repeatedly burned to expand the size of the pastures. These human actions have caused a shift in the type and abundance of plants that grow in these meadows. The Albanian landscape is well endowed with herbal and medicinal plants—such as chamomile, sage, thyme and St. John's Wort—the sale of which accounts contributes to Albania's

agricultural exports and generates foreign exchange earnings. The collection and sale of these natural products also serves as a source of employment for many rural poor, especially women.

Albania has an abundance of freshwater bodies in relation to its size, including three large lakes shared with neighboring countries, hundreds of smaller natural and human created lakes, and several relatively large river systems. The biodiversity value of Albania's large natural lakes is exceptionally high and that of the rivers is poorly documented.

Albania's coast contains a wide diversity of habitats and ecosystems including beaches, sand dunes, rocky coasts, lagoons, and estuaries. Territorial waters extend 12 nautical miles offshore and include a wide range of water depths and substrate conditions. Although the marine environment has been less well studied than terrestrial and freshwater environments, much work remains to document the occurrence of species and monitor their populations.

Threats to Biodiversity

Albania's biodiversity, viewed in total, is seriously threatened. Forests are threatened by overharvesting, overgrazing, encroachment of urban areas, and wild fires. All freshwater bodies are threatened by pollution from domestic and industrial sources and rivers face additional threats related to damming, sand mining, water extraction, and flood control. Albania's coast is generally better preserved than elsewhere in the Mediterranean, but threats to the nation's coast are numerous and increasing in severity. Albania's lagoons are economically and ecologically valuable and face a number of serious threats that are changing their productivity and biodiversity status. Over the past decade, Albanian marine fishermen have acquired boats and trawling nets that allow them to intensively fish shallow waters. This is believed to be depleting economically valuable species, damaging the sea floor habitat, and killing rare species such as turtles and dolphins. Some fisherman use destructive fishing methods such as dynamite and poisons.

Virtually all threats result from Albania's system of governance and weak economy. A reasonably comprehensive structure of laws and institutions has been designed to protect the environment and manage and conserve biological resources. Unfortunately, the Government of Albania (GOA) lacks the financial and human resources, and in some cases the political will, to use this structure to counteract threats. Albania's turbulent political transition during the 1990s resulted in a chaotic governance situation in which environmental protection and biodiversity conservation were largely ignored. Over the last few years the government has shown more interest in biodiversity conservation, although it is still a low priority in relation to economic and social development. The effectiveness of government efforts at biodiversity conservation ultimately depends on creating a political and economic climate in which scientists and government officials have the knowledge, resources, and political support to conserve biodiversity.

Laws and Institutions

The legal framework for biodiversity conservation in Albania has improved considerably since the transition to democratic governance in 1990. And while this framework continues to evolve to address lingering gaps, contradictions, and overlaps in institutional mandates and responsibilities, the quality of the evolving legal framework is largely supportive of biodiversity conservation. This being said, the general lack of ability to implement (e.g., regulate and enforce) the existing laws—due to weak institutional capacity, limited financial resources, and perhaps limited political will—pose a considerable threat to the conservation of biodiversity.

The basis for the legal framework is the Albanian Constitution, established in 1991, and revised in 1998. In recognition of the key role that sound environmental management must play if Albania is to achieve sustainable development, the revised Constitution strives to increase the focus on environmental management. Specifically, the revised Constitution provides for further elaboration of the legal and

institutional framework for environmental management—including specifically, both nature protection and biodiversity conservation.

In brief, Albania's laws are implemented through governmental decrees, issued by the Council of Ministers. These laws and decrees are further elaborated through by-laws, regulations and orders, approved by either a minister or the Prime Minister. While numerous by-laws, regulations, and orders have been developed to guide the application of the macro-level legal framework, there remains a need to further develop the micro-level legal framework. In so doing, it will be important to coordinate efforts across the productive resource sectors (e.g., agriculture, energy, water, etc.) to ensure the development of a consistent approach that avoids and/or eliminates overlapping institutional mandates.

Actions Required to Conserve Biodiversity

Some important steps have been taken by the GOA to protect biodiversity, most notably the development of a legal and policy framework and a Biodiversity Strategy and Action Plan (BSAP). The vast majority of the real work to conserve biodiversity still lies ahead. Many threats are actually increasing in severity and it can be expected that natural ecosystems and habitats are trending toward greater degradation while rare species are becoming more so. This loss not only has scientific and ethical impact, but also an economic dimension since wild plants and animals provide Albanians with subsistence materials as well as cash income. Some biological resources, such as commercially important marine fish and medicinal plants and herbs provide foreign exchange earnings.

The first crucial step in protecting and conserving biodiversity resources is to determine what species exist, where they occur, and their population status. This data must be systematically recorded and used as the basis of an ongoing system of monitoring. The following actions are required to **develop a sound scientific basis for conservation**:

- Assign responsibility for monitoring comprehensively across all species groups and ecosystem types.
- Maintain biodiversity data in a standardized format accessible to all.
- Allocate financial resources to support biodiversity monitoring on an ongoing basis.
- Develop a cadre of conservation practitioners (conservation biologists and protected area managers) to fill the gap between research scientists and natural resource utilization specialists (foresters and fishery specialists).
- Encourage more young people to enter the field.
- Develop a means to feed the results of biodiversity monitoring into the policy and planning via laws, regulations, spatial planning, and environmental impact assessments (EIAs).

The following actions are needed to **conserve biodiversity** in Albania:

- Adopt the proposed expanded protected area system and provide the human and financial resources to effectively manage the system.
- Develop a strategy for biodiversity protection within the various types of working landscapes.
- Provide more resources to conserve genetic material *ex situ*.
- Bring rampant development under control through appropriate planning and industrial design.
- Develop means to manage biological natural resources on a sustainable basis.
- Build sewage treatment plants and sanitary landfills for all urban areas.
- Strengthen current efforts by nongovernmental organizations (NGOs) at environmental education and awareness raising.

Recommendations for Linking Improved Biodiversity Conservation and Environmental Management to USAID's CSP Extension (FY 2005-2006)

Given pressing economic and social develop needs, biodiversity conservation has not emerged as a priority programming area in Albania. This being said, a small number of donors and NGOs have focused some programming efforts in support of biodiversity conservation—including the World Bank, the United Nations Development Program (UNDP), the UN Environmental Program (UNEP), the Global Environmental Facility (GEF) and the German Development Assistance Implementation Agency (GTZ). The large majority of these activities have focused on building the capacity necessary to support sound environmental management and biodiversity conservation on Albania's three largest transboundary lakes. Given this limited attention, biodiversity conservation needs in Albania are increasing, or at least becoming more pressing.

While USAID/Albania is not directly supporting conservation activities, Mission-supported programs have the potential to either positively or negatively impact upon the status of biodiversity conservation in Albania. These potential impacts, which are greatest for certain activities supported under Strategic Objective (SO) 1.2, SOs 2.1/2.2 and SO 4.1, are discussed below. For each, we have tried to highlight the best opportunities to integrate biodiversity conservation needs/concerns, into Mission programming.

SO 1.3 Program Areas – Economic Growth and Restructuring

Albania is a major producer of a wide range of herbs, spices and medicinal plants. Promoting enterprise development activities in this cluster, if managed properly, can provide significant income earning potential to rural Albanians, while ensuring the sustainability of the natural resource base. On the contrary, the unsustainable usage of these resources will both compromise the economic value (e.g., the long-term earning potential) of the natural resource base, and will further contribute to environmental degradation (e.g., erosion) in Albania. Specific activity areas that USAID/Albania could support that would promote biodiversity conservation and improve environmental management would be to (through the Enterprise Development and Export Marketing [EDEM] project):

- More directly link producers/collectors with processors and markets, in an effort to increase benefit flows along the value chain;
- Formalize production/collection systems, building upon the concept of annual sustainable harvest/yields; and
- Devolve to local-level organizations some shared authority for regulation and enforcement.

SOs 2.1/2.2 Programming Areas – Democracy and Governance/Rule of Law

Under the planned CSP extension, the Mission will likely consolidate SOs 2.1/2.2 support in two, or possibly three, umbrella activities. These umbrella activities are expected to focus on decentralization and NGO support, rule of law, judicial strengthening and anti-corruption. While these programming areas pose little threat to the current status of biodiversity conservation, both present strong potential to integrate key biodiversity conservation needs into Mission programs. Specific opportunities to do so include:

- Support to the development of Albanian Environmental NGOs—and in particular, support capacity for outreach, education and awareness capacity;
- Support of regulation and by-law review/revision/development would certainly improve the biodiversity conservation and environmental management, on-the-ground; and
- Support of continued development of local government capacity—with particular focus on integrating environment into the budgeting process; and providing assistance to local governments in developing their tax base.

SO 4.1 Programming Areas – Special Initiatives

Under SO 4.1, USAID/Albania has been supporting a number of activities including, but not limited to, activities in the fields of energy, trafficking in people, and GOA-supported public-private-partnerships. Of greatest interest to this assessment is USAID/Albania's support of energy activities.

The transitional period of the 1990s resulted in the closure and atrophy of Albania's thermal generating facilities. Since this time, domestic demand for electricity has increased dramatically. As a result of these, and other (e.g., climatic) factors, Albania has become a net electricity importer—unable to meet domestic demands. This energy crisis poses significant threats to Albania's development, and must be addressed if the country's economic goals are to be achieved. Since the autumn of 2000, USAID/Albania has worked to support a number of energy-related activities designed to improve the functionality and sustainability of Albania's energy sector. Specific activity support has included, but not been limited to, the development of a Strategic Action Plan (SAP) to address medium- to long-term institutional, structural and financial issues; support for the development of the Energy Policy Statement (EPS) and National Energy Strategy Action Plans (NESAPs); and support for the implementation of the EPS and NESAPs.

Keeping in mind Albania's long-term economic goals, ensuring the country's capacity for energy production is of primary importance. Also, to avoid compromising the economic potential of Albania's natural endowment, it will be important to mitigate the environmental impacts from energy production. Given the range of donors supporting activities in the energy sector, USAID/Albania could play a very useful role by ensuring the integration of environmental concerns into developments in the energy sector. Possibilities for achieving this goal include:

- Promoting the consistent application of high-quality environmental assessments (EAs) and environmental impact assessments (EIAs) to planned developments in the energy sector; and
- Building local capacity, both to conduct and to review/approve EAs/EIAs.

1.0 Introduction

1.1 Purpose and Objectives

The purpose of this assessment is to assist USAID/Albania in taking biodiversity considerations into account while implementing projects and activities during the two-year extension of the current Country Strategic Plan (CSP, FY 2004- FY 2006) and to inform development of the subsequent CSP. The assessment ensures United States Agency for International Development (USAID) compliance with Section 119 of the US Foreign Assistance Act (FAA 119) as well as Agency guidance on country strategy development. FAA 119 requires USAID to assess national needs for biodiversity conservation and potential USAID contributions to these needs in all country strategy documents. Specifically, FAA Section 119(d), Country Analysis Requirements, states: "Each country development strategy statement or other country plan prepared by the Agency for International Development shall include an analysis of: **(1) the actions necessary in that country to conserve biological diversity**, and **(2) the extent to which the actions proposed for support by the Agency meet the needs thus identified."** This requirement is further articulated in USAID's Automated Directives System (ADS), Section 201.3.4.11.b, on mandatory environmental analyses for strategic plans. This report is written to comply with the FAA 119 requirements. Because the current CSP has been extended for two years, the assessment is based on current USAID Strategic Objectives (SOs) in Albania, with the understanding that programming under the next CSP is likely to be developed within similar SOs.

This report is intended to be a useful biodiversity reference for the Mission and staff of the Europe and Eurasia (E&E) Bureau. Furthermore, it is hoped that this report will be an especially helpful tool for developing subsequent environmental reviews and assessments as required by CFR 216 (Reg. 216). The report is designed to be understandable to a general audience of development professionals and addresses issues related to the sustainable use of biodiversity resources as an important aspect of their conservation. The report addresses the following topics in a logical sequence designed to meet the two overall FAA 119 objectives stated above:

- The socioeconomic and historical context of natural resource use in Albania;
- An overview of current biodiversity status and threats in the country;
- A review of laws and institutions intended to manage and conserve biodiversity;
- An analysis of actions necessary to conserve biodiversity in Albania;
- A review of existing or planned biodiversity-related actions by the Government of Albania (GOA), donors, or nongovernmental organizations (NGOs);
- Identification of biodiversity conservation needs that have not been addressed or that require additional attention;
- A description of USAID/Albania's assistance program;
- An analysis of how actions in USAID/Albania's existing CSP meet or contribute to meeting identified biodiversity conservation needs; and
- Biodiversity-related factors to be considered in the development of the next CSP.

1.2 Methodology

The assessment was conducted by an ARD Team consisting of two expatriates and one local specialist with expertise in biodiversity conservation, natural resources management and governance, and environmental protection and compliance. In conducting the assessment, the Team began by conducting a literature review to identify sources of documentation relevant to biodiversity conservation and environmental management in Albania. The Biodiversity Specialist/Team Leader and the Natural Resources Policy and Governance Specialist met with E&E Bureau environmental specialists in Washington prior to departing for Albania to discuss the assessment Scope of Work (SOW, see Annex A) and to receive guidance and background

information. In Albania, the ARD Team met with the USAID Cognizant Technical Officer (CTO) to confirm the scope and schedule of the assessment and subsequently met with the Mission Program Officer and representatives of the Mission's SO teams to gain a better understanding of current and planned future activities. The Team gave an exit briefing to Mission staff on October 15, 2003 to present and discuss preliminary findings and recommendations of the assessment.

In Tirana, the ARD Team met with a diverse range of people from governmental agencies, donor organizations, and civil society (see Annex F for a list of persons consulted) and gathered additional documents (see Annex B for a full bibliography). The ARD Team made two field trips in the course of the assessment, one to Karavasta Lagoon on the central Albanian coast and the other to Lake Shkodra in the northeastern area of the country. The Team interviewed local government officials, university faculty, and NGOs during the latter visit.

A draft of the assessment report was completed upon the Team's return to the United States and was submitted to the Mission for review and comment. The report was revised in response to Mission comments and was submitted in final form to USAID/Albania and the E&E Bureau.

1.3 Acknowledgements

The Biodiversity Assessment Team would like to thank USAID/Albania for providing considerable input and support to this assignment, with special thanks to the CTO, Mr. Kristaq Jorgji. The Program Officer, Barry Primm, also made time to brief and update the Team on the status of the Mission's CSP and likely future programming. The ARD Team received valuable information and guidance in Washington from Alicia Grimes (USAID/EGAT), Phil Jones and Mohammad Latif of the E&E Bureau, and Jeff Ploetz of DevTech Systems, Inc.

We are especially indebted to the many Albanian scientists, government officials, and NGO leaders who enthusiastically shared their knowledge with us and provided most of the information upon which this report is based. The two American members of the Team would like to thank Albanian Team member, Mr. Mihallaq Qirjo, who took time out from his important duties as Director of the Regional Environmental Center Albania office to help us understand the context of biodiversity threats in Albania.

2.0 Background on Albania

2.1 Physical Description of Albania

Albania, located on the western edge of the Balkan Peninsula, has a 362 km-long coast on the Adriatic and Ionian seas and shares terrestrial borders with Montenegro, Kosovo, Macedonia, and Greece. The mountainous spine that forms the eastern border of Albania is the southern continuation of the Drinic Alps and rises to an altitude of 2,751 meters on the border with Macedonia. The rugged Albanian Alps in the north were glaciated during ice age periods and retain glacial terrain features, including small glacial lakes. Altitudes decrease and the terrain goes from mountainous, to hilly, to flat moving westward from the mountains to the coastal plain. Approximately 75% of the country lies at an altitude of 300 meters or higher. Sedimentary rocks predominate in the geology of the country, with an abundance of limestone, but there are also nutrient-poor rocks of volcanic origin.

Albania is known to have been settled by humans for at least three millennia and the landscape reflects this long history of human use. Soil erosion rates are generally high as a result of the sloping terrain, heavy winter rainfall, and poor land use practices, including overgrazing, deforestation, vegetation fires, and terracing of steep hillsides by the former regime.

Albania's coastal plain has a Mediterranean climate with hot, dry summers and wet, cool winters. The high mountains receive more summer rain than the lowlands and have cold, snowy winters. Annual precipitation varies from an average of 1,000 mm on the coast to as high as 3,000 mm in the mountains. Albania has several major river basins, the longest being the Drini, which has its headwaters in Kosovo and Macedonia and produces most of Albania's electric power from three hydroelectric dams along its course. River flows in all rivers are much higher in winter and spring than in summer and early fall.

2.2 Socioeconomic Overview

Albania, which is about the size of Maryland, had a population of 3.069 million people in 2001,[1] over 90% of whom are ethnic Albanians and the rest minorities, most with ethnic affinities to neighboring countries. The major religions are Islam, Orthodox Christianity, and Roman Catholicism, although religion does not play a major role in society or politics. Like other transition countries, the population is young by European standards. The birthrate is high, but declining, and population growth is buffered by continuing emigration.

The Gross Domestic Product (GDP) per capita is slightly above US $1,000 and a large proportion of the population lives below the official poverty line. The incidence of poverty is significantly higher in rural areas, where most families farm at the subsistence level, relying on products from their domestic animals for limited cash income. The land and assets of collectivized farms were distributed to workers in the early 1990s and other rural land is in the process of being titled to individual owners. Despite this transfer of property, the rates of internal migration from the mountains to the cities of the coastal plain has been high since 1990, with the population of Tirana increasing almost four-fold since the end of communism. Unemployment and underemployment are high. Many families survive on remittances from family members working abroad.

[1] There are varying estimates of Albania's population, reaching as high as almost four million, although these higher estimates probably include people who have migrated abroad. This estimate was taken from the GOA's 2001 Census.

2.3 Political History and its Effects on Biodiversity Conservation

Albania is still recovering from decades of communist rule and isolation from 1945 until 1990. During this period, Albania fell far behind other European countries in the biological sciences and biodiversity conservation, as in other spheres of national life. Albania then suffered through a difficult transition from communism and a centrally planned economy to democracy and a free market economy. The 1990s were marked by high rates of emigration, a popular uprising against the government in 1997, and the influx of large numbers of Kosovar Albanians during the Kosovo military conflict in 1999. The country is only now beginning to recover from these disruptions.

During the years of communist rule, Albania's economy was based primarily on mining and agriculture, with a diverse manufacturing sector to meet domestic needs. In pursuit of food self-sufficiency, the former regime expanded the area of arable land by terracing hillsides and draining coastal wetlands. The mines and factories of that era were designed and operated with little or no regard for environmental protection nor were facilities developed to safely dispose of industrial wastes. Most of the mines and factories were closed during the 1990s but left behind a legacy of toxic waste and other environmental degradation. The closing of mines and reduction of wood harvesting and processing created massive unemployment in rural areas, forcing rural people to migrate to cities or abroad. Many families remaining in the countryside now rely more heavily on natural resources for subsistence needs and cash income. Albania's environment and people also suffer from the lack of investment by the former regime in basic municipal infrastructure, most notably municipal sewage treatment plants and solid waste landfills.

Albania's turbulent political transition during the 1990s resulted in a chaotic governance situation in which environmental protection and biodiversity conservation were largely ignored. Over the last few years the government has shown more interest in biodiversity conservation, although it is still a low priority in relation to economic and social development. The effectiveness of the evolving biodiversity-related legal framework and government institutions described in Section 4 ultimately depends on creating a political and economic climate in which scientists and government officials have the knowledge, resources, and political support to conserve biodiversity.

3.0 Albania's Biodiversity

3.1 Biodiversity Concepts

Biodiversity is often understood to mean only species diversity, however it also includes diversity at the genetic, ecosystem, habitat, and landscape levels. Examples of genetic diversity are traditionally grown varieties of an important food crop such as wheat or genetically distinct populations of a wild animal species. Ecosystems are formed by the interaction of a community of plants and animals with their physical environment and may be defined at a wide range of spatial scales. Wetlands or coastal lagoons are examples of ecosystems commonly found in Albania. Habitats are the type of environment in which an organism or group of organisms live. Terrestrial habitat types are usually identified by characteristic associations of plant species, while marine habitats are usually defined by water depth and substrate conditions such as rocky inter-tidal zone. Landscapes are large areas with characteristic geological and hydrological features, vegetation, and human land use. The World Conservation Union (IUCN) recognizes human use as a defining characteristic of landscapes. Entire ecosystems, habitats, or landscapes can be threatened, for example when wetlands are systematically drained, a dominant tree species is selectively overharvested, or a rural landscape is totally altered by urbanization.

Flora refers to all groups of plants, including trees and flowering plants, ferns, mosses, fungi, algae, and lichens. Fauna refers to all groups of animals, insects, and other invertebrates including microscopic organisms. Biodiversity is preferably conserved in the wild (i.e., *in situ*), either within protected areas or in larger landscapes used for agriculture or sustainable natural resource management. Severely threatened species may require protection in zoos or botanical gardens (i.e., *ex situ*).

Biodiversity conservation is acknowledged to be an important social responsibility by the international community and virtually all national governments, but there are also very practical reasons to conserve genetic diversity, wild species, ecosystems, and landscapes. Well functioning natural systems provide valuable environmental services, such as flood control, economically important natural products, and sites for recreation and tourism development.

3.2 Overview of Albania's Biodiversity

Albania has a high level of biological diversity at the landscape, ecosystem, and species levels, especially in relation to its small land area. This diversity is the result of: (1) the wide range in climate, altitude, and geology in Albania; (2) its location at the intersection of two major bio-geographic zones (Central Europe and Mediterranean); (3) its location astride an important bird migration route; (4) its coastline on the Adriatic and Ionian seas; and (5) an abundance of ecologically diverse fresh water ecosystems. Albania is ecologically linked to neighboring countries through shared ecosystems, habitats, lakes, and rivers as well as migrations of birds and marine organisms.

There are 3,250 higher plant species in Albania, about 30% of the total in all of Europe, and 2,350 species of lower plants including mosses, algae, and fungi. There are 27 plant species found only in Albania (endemic species) and another 160 species that are endemic to Albania and adjacent countries. Among the endemic plants are a number of relict species, such as *Forsythia europa*. Albania is home to 756 vertebrate animal species including 70 mammals, 323 birds, and 36 reptiles. There are 64 species of fish in Albania's lakes and rivers and 249 species of fish in territorial marine waters. Albania is home to 91 globally threatened species of animals including 21 mammal species, 18 bird, 4 reptile, 2 amphibian, 28 fish, and 18 invertebrate. Albania's Red Books[2] for endangered, rare, and endemic species list 573 species of animals (including vertebrates and invertebrates) and 320 species of flowering plants, 45 fungi species, and 25 marine plants.

[2] Albania completed its Red Books in the mid-1990s and they are in need of updating based on field monitoring.

Albania also has significant agriculture-related genetic diversity with 30 species of food plants native to the country as well as 9 local breeds of goats and 5 breeds of sheep.

3.3 Biodiversity Status and Threats

The current status of Albania's biodiversity at the species level is poorly documented due to the lack of human and financial resources to implement monitoring programs during and after the political transition further hampered by an academic tradition focussed on research rather than practical management of biological resources. The status of ecosystems, habitats, and landscapes is better known because this can be judged at a basic level through observation by biological scientists.

The sections below are organized by major natural environments with descriptions of categories of ecosystems and habitat types within each environment. Species of particular significance because of their economic value, rarity, or human interest are noted. Economic or subsistence values of biological natural resources are discussed, including threats to these resources and constraints to their sustainable management.

Albania's biodiversity, viewed in total, is seriously threatened. Specific threats to ecosystems and habitats are described in the sections below but virtually all threats originate from the country's weak governance and economy. As discussed in Section 4, a reasonably comprehensive structure of laws and institutions has been designed to protect the environment and manage and conserve biological resources. Unfortunately, the GOA lacks the financial and human resources, and in some cases the political will, to use this structure to counteract threats. Most threats are driven by Albanians taking advantage of weak governance to ignore land and natural resource use laws. Poor rural Albanians may have no other option than to unsustainably exploit natural resources. The lack of a working system of spatial planning to guide development and a functioning environmental impact assessment (EIA) process to avoid or mitigate impacts of commercial development are particularly damaging to the natural environment.

3.3.1 Terrestrial Vegetation and Animals

Albania's natural vegetation is very diverse as a result of a wide variety of ecological conditions created by combinations of elevation, soil type, rainfall, and topographic position. Vegetation types range from alpine meadows through various types of forest and shrub habitats, to coastal vegetation. Northern Albania shares floral and faunal species groups with Central Europe while southern Albania has affinity with Mediterranean species groups. Current natural plant distribution and habitat conditions reflect human actions in the recent or more distant past, particularly land clearance for agriculture, recurrent burning, and grazing by domestic animals. Only the forests in roadless areas of the high mountains remain in a largely natural state and can be considered undisturbed.

Forests and Shrublands

Prior to human influence, forests or shrub communities would have covered all of Albania except areas where rainfall is too low, the soil is too thin, on mountaintops, and in wetlands. The sub-alpine upper slopes of mountains are still covered with pine (*Pinus*) and fir (*Abies*) forests that contain rare plant species including an endemic association of Black Pine (*Pinus nigra*) and the shrub *Forsythia europa*. High elevation forests that are inaccessible by road are still in good condition. Below the conifers are forests of European beech (*Fagus sylvatica*) that range from 800 to 1,900 meters in elevation. The beech forests mix

with pines at their upper limits and with oak (*Quercus*), ash (*Fraxinus*), maple (*Acer*), and fir (*Abies*) at their lower limits.

In the low to middle elevations Albania was once covered with extensive forests dominated by oak, a genus represented by over 40 species in Albania. Some of these oak species, along with conifers, grow in shrub form as part of the Mediterranean shrub habitats that covers dry hillside and coastal areas. Steep slopes that would naturally support either forest or shrubs are often barren sub-soil due to severe erosion that has removed the entire soil profile. Soil erosion rates in Albania are very high by European standards and are likely to remain high as the result of the tremendous growth of the nation's goat, sheep, and cow population over the last decade and the use of fire to create and maintain pasture for these animals. The agricultural productivity of much of the country's sloping lands has been reduced by soil erosion, in some cases resulting in abandonment or the refusal of owners to take possession of it. High erosion rates also contribute to rapid sedimentation of reservoirs and irrigation systems as well as increasing the severity of floods.

According to forest inventory results published in 1997[3], approximately one million hectares of land, about 36% of the nation's area, was forested at that time. The forested area consisted of approximately 480,000 hectares of high elevation conifer and broad-leaved forest, 300,000 hectares of coppiced[4] oak woodlands, 255,000 hectares of shrubs, and 150,000 hectares of tree crop plantations. Low to mid-elevation forestland was formerly more extensive, but approximately 260,000 hectares of forest was cleared during the 1960s, 70s, and 80s to increase the area of agricultural land. Since that time, and especially during the tumultuous years of the 1990s, much of the remaining oak forests, especially those close to population centers, were badly degraded by fuel wood and fodder collection and uncontrolled grazing. Many of these are now forests in name only because the density and health of the trees is very low. The fir and pine forests of the mountainous north and northeast have been subject to intensive illegal timber harvest since the 1990s. Poor logging practices and poorly designed forest roads exacerbate the impact of illegal tree harvesting.

Albania's land is a mosaic of various forest and shrub types interspersed with agricultural land, pastures, and barren areas, creating a range of landscapes. Some of landscapes have a focal feature such as one of the large lakes, a section of coastline, or a group of mountains, several of which have been identified for protection when the nation's protected area system is expanded (see Section 5). More commonly, landscapes are agrarian in nature, such as those typical of the hilly terrain between the coastal plain and the mountains. Hill landscapes have changed significantly in recent decades as forests and pastures were converted to agricultural production and have now been abandoned, returned to pasture, or are being returned to village forest.

Rural villages traditionally managed nearby forests and pastures on a communal or family basis to provide building materials, fuel wood, fodder, and pasture for community members. These lands were nationalized during the communist era and are now being returned to village management through the joint efforts of the former USAID Private Forestry Development Project and the ongoing World Bank-funded Forestry Project. The initial management objective is to fence communal forest areas to allow natural re-growth of oak species followed by hand over to village control under the auspices of a committee at the *comunas* level. The present law allows that use rights to the forest be granted for only a ten-year period, while a majority of involved villages want ownership rights to be transferred in recognition of historical tenure rights.

The communist regime established Forest Enterprises to manage commercial forests and required that these enterprises prepare management plans and maintain annual harvests within sustainable limits until the latter years of the regime when this system broke down. These forests fed a once-thriving wood processing and products industry with beech and pine logs worth $68 million in 1990. This vertically integrated system of

[3] Another forest inventory is currently being conducted by the Forest and Pastures Research Institute and the results are expected to be released in a few months time.

[4] Coppicing is a forest management technique in which tree branches are repeatedly harvested leaving the main stem intact. Such systems are very sustainable and appropriate to Albanian conditions if proper management is employed.

wood products production broke down after the fall of communism and was replaced by a system of small logging operators who either harvest wood illegally themselves or encourage rural people to do it on their behalf. The government has placed a moratorium on further wood harvesting (December 2002), but illegal harvesting continues. In an effort to better manage forest resources, the World Bank forestry project funded the preparation of detailed forest management plans for 43 state forest blocks and 110 communal forest blocks. Given the current low levels of implementation capability by the DGFP, implementation of these plans is likely to be a challenge.

Albania's forests, particularly those on steep slopes stabilize soils and regulate water flow in watersheds, while forests also sequester carbon that would otherwise contribute to greenhouse gases in the atmosphere. The forests also provide habitat for important animal and plant biodiversity. Watershed and carbon sequestration services can be evaluated and expressed in monetary terms. Albania's natural and agrarian landscapes have an unrealized potential to attract foreign and domestic tourists if appropriate infrastructure, facilities, and marketing are developed.

Meadows

Albania's mountains support alpine and subalpine meadows with characteristic and in some cases, rare vegetation communities. Alpine meadow vegetation has been modified through centuries, if not millennia of use for summer grazing and adjacent subalpine vegetation has been repeatedly burned to expand the size of the pastures. These human actions have caused a shift in the type and abundance of plants that grow in these meadows.

Livestock form an important and growing part of Albania's agricultural economy, with many rural families depending on their domestic animals for both subsistence and cash income. Approximately 60% of Albania's 440,000 hectares of pasture are classified as lowland pasture (up to 1,500 meters) and the remainder above that altitude as summer pasture. Lowland pasture is being returned to *comunas* and the more fragile summer pastures are to be retained under state management. There is currently no real pasture management and the pastures are under pressure from the greatly increased numbers of sheep, goats, and cows over the last decade. The Forest and Pastures Research Institute's (FPRI) ongoing inventory of the nation's forests indicates that the high-altitude summer pastures have decreased in area over the past several years, while the lower pastures are increasing at the expense of both forest and crop land. This reflects human emigration from the higher elevations.

The Albanian landscape is well endowed with herbal and medicinal plants—such as chamomile, sage, thyme and St. John's Wort—the sale of which are largely for export, and generate foreign exchange earnings.[5] The collection and sale of these natural products also serves as a source of employment for many rural poor, especially women. Currently, due to the lack of hard data, it is difficult to know the precise status of these resources. That being said, there is a strong belief that the trade in herbal and medicinal plants is being conducted at levels, and with techniques, that are unsustainable. In theory, regulating the harvest and sale of these natural products is the responsibility of the DGFP. In reality, few management and/or regulatory controls are in place to control the harvest and trade in natural products—some of which, like *Platanthera bifolia*, a member of the orchid family, is endangered and subject to the Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES). In order to limit the environmental impacts associated with the gathering of natural products, and to increase yields and subsequent returns to rural people, it has been suggested that the natural products industry shift from gathering, to cultivation. However, at the time of this assessment, there was no significant cultivation of natural products for export markets. If natural products are going to continue to play a role in Albania's economic development, the sustainability of the resource base will need to be addressed.

[5] DGFP estimates that Albanian businesses earn as much as $15 million per year, from the trade in natural products.

Terrestrial Animals

The factors that create favorable conditions for plant diversity in Albania also explain the high level of faunal diversity within this relatively small area. Terrestrial vertebrates have not been as well studied as plants or other animal groups in Albania. The mountains provide habitat for a number of large mammal species including brown bears (*Ursus arctos*), lynx (*Lynx lynx*), wild cat (*Felis silvestris*), wolves (*Canis lupis*), foxes (*Canis vulpes*), wild goat/chamois (*Rupicapra rupicapra*), and roebuck (*Capreolus capreolus*). Populations of these species are relatively small, are scattered in remote mountain areas, and have been declining in numbers over the past two decades as the result of habitat degradation and hunting. Wolves, extinct in most of Europe, are found throughout Albania except along the coast. Wolves are currently thought to have a relatively stable population of 900-1,200 individuals that largely depend on domestic sheep and goats for food. Wild boar (*Sus scrofa*) live primarily in oak forest habitat from 800 to 1,000 meters and their already small population has been steadily decreasing.

Large mammal species are protected or strictly from hunting and the Biodiversity Strategy and Action Plan (BSAP) calls for species action plans to be developed and implemented for most of the large mammals. This has not yet been done due to lack of funding. One large mammal species, *Cervus elaphus*, in the deer family, is extinct in Albania. Foxes were formerly heavily trapped for their fur, but this practice is thought to have decreased in recent years. As a result of the political instability in Albania and the war in neighboring Kosovo, small arms have been readily available and have been used for illegal hunting.

Small mammals are well represented in Albania, including many rodent species and members of the weasel family, such as the endangered river otter (*Lutra lutra*). The Nutria (*Myocastor coypus*), a rodent native to South America, is the only introduced mammal species known to have established a breeding population in Albania. Several bat species live in Albania's caves, including rare species listed in the fauna Red Book.

It is anticipated that 323 species of birds are either resident in Albania or are seasonal migrants. About 60 bird species are associated with forest habitats. Two eagle species (*Aquila heliaca* and *A. chrysartos*) and a falcon (*Falco naumanni*) are large birds of prey living primarily in the mountains, but these species are increasingly rare. Water birds over-winter and breed in coastal lagoons and wetlands in great numbers, but their populations are known to have decreased as the result of the drainage of wetlands during the communist era and virtually uncontrolled hunting in the post-communist era. The Directorate General of Forests and Pastures leases large tracts of coastal land to private firms that run them as water bird hunting concessions. This currently modest source of income could become significant if hunting were controlled and all hunters forced to pay a fee.

Amphibians and reptiles have received relatively little scientific attention, but some species of frogs, salamanders, lizards, snakes, turtles, and tortoises are still relatively abundant in Albania. Thirty-six reptile species have been identified in the country. An illegal trade in turtles and tortoises is known to exist as evidenced by seizure of shipments of these animals when they enter Italy.

3.3.2 Rivers and Lakes

Albania has an abundance of freshwater bodies in relation to its size, including three large lakes shared with neighboring countries, hundreds of smaller natural and human created lakes, and several relatively large river systems. The biodiversity value of Albania's large natural lakes is exceptionally high and that of the rivers is poorly documented. All freshwater bodies are threatened by pollution from domestic and industrial sources and rivers face additional threats described below.

Rivers

Albania's major rivers are the Drini, Mati, Ishmi, Erzeni, Shkumbini, Semani, Vjosa, and Bistrica. River flows are highly variable with high flows in winter and early spring and dramatically lower flows in the late summer. Rivers have received little scientific attention from biologists and little is known about the status of biodiversity they contain. Given the threats described in the following paragraphs, the biodiversity resources that existed in the past must now be badly degraded. Rivers are likely to be the most threatened natural environment in Albania.

The hydrological regimes of Albania's rivers have been dramatically altered by engineering works over the past half-century, changing both their water flows and the sediment loads they carry. Accelerated erosion on hillsides delivers both sediment and agricultural chemicals to rivers. Dams have been built on most of the major rivers to generate electricity, extract irrigation water, and control floods. Three hydroelectric dams on the Drini River, with headwaters in Kosovo and Macedonia, provide over 90% of the nation's electrical power. The lower courses of many of the rivers have been contained within artificial levees. Sand and gravel are being mined from rivers and tributaries on a largely uncontrolled basis despite a recent ban on this activity in four major rivers. The combined effects of artificially controlled water flows, increased turbidity from soil erosion and sand mining, and the disturbance of river beds by sand mining in the lower reaches is certain to have an overwhelmingly negative impact on fish habitat and populations. The construction of dams without fish ladders has blocked the upstream migrations of fish in the salmon family. No consideration is given to maintaining minimum flows needed to support ecological functions in the rivers.

Albania has no sewage treatment facilities and untreated municipal sewage is released directly into rivers except in locations where lakes or the ocean are closer at hand. Solid wastes are often dumped directly into rivers and their tributaries or are deposited in flood plains, to be washed in the river during the next flood. Albania's communist era factories, mines, and ore processing facilities dumped untreated and usually toxic industrial wastes directly into rivers. Although many of these facilities are now closed, pollutants, including heavy metals, continue to leach into rivers from waste dumps and mine tailings. The Gjanka and Semani Rivers continue to be polluted by wastewater created by petroleum extraction and processing. Tests of river water reflect generally high levels of both chemical and biological oxygen demand, indicating low levels of available oxygen to sustain aquatic organisms. The combined effect of massive physical alteration to river channels and chemical/organic pollution creates an extremely adverse living environment for fish and aquatic invertebrates.

Lakes

A total of 247 natural lakes cover 4% of Albania's total area. Three large lakes shared with neighboring countries are important for the biodiversity they contain and their current and potential contribution to economic development through fisheries and tourism development[6]. Lake Ohrid is shared with Macedonia and the nearby Lake Prespa is shared with Macedonia and Greece. These lakes have been isolated for 2-3 million years and are notable because of their exceptionally deep, clear waters. They contain a large number of species that are either relicts of an earlier era of evolution or are endemic to one or both of the lakes. Almost 70% of Lake Ohrid's plants and animals are relict or endemic species, the most well known being a trout species, called *Koran* in Albanian, that is a national delicacy[7]. Lake Shkodra, located in northern Albania and shared with Montenegro, is the largest lake on the Balkan Peninsula. Shkodra does not have high levels of endemism but is biologically diverse and has an economically important fishery.

These three lakes face common threats, primarily phosphorous pollution from sewage and agricultural wastes, solid waste dumping, pesticide run-off, uncontrolled development of fragile and biologically important shoreline habitats, and over-harvesting of commercial fish species. The formerly crystal clear water of Lakes Ohrid and Prespa is becoming opaque near urban centers as a result of nutrient loading.

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[6] Lake Ohrid in particular could be an important attraction for foreign tourists due to its combination of natural and cultural attractions.

[7] Koran is also reportedly found in Russia's Lake Baikal .

Shoreline reed beds that provide valuable fish and wildlife habitat and are being destroyed at a rapid rate. The population structure of commercial fish species is changing in ways that indicate that they are being over-harvested. The important carp fishery in Lake Shkodra is impacted by illegal dynamite fishing.

Human communities around these lakes have grown rapidly in recent decades.[8] Neighboring countries are generally ahead of Albania in dealing with the environmental impacts of this growth. For example, Pogradec, an Albanian city of 60,000 on the shore of Lake Ohrid, has no sewage treatment system and discharges wastewater directly into the lake, while neighboring Macedonia built a sewage treatment plant in the late 1980s to serve approximately 100,000 residents who live near the lake. Freshwater commercial fishery stocks in neighboring countries are generally under some form of enforced management while Albania is now forming fisherman's associations to self-regulate the harvest of fish and prevent outsiders from entering the fishery. This fishery is more economically important to Albanian fisherman than to their Macedonian counterparts. A fish stock assessment is currently being done with funding from the World Bank Fisheries Project. The portions of Lakes Ohrid, Prespa, and Shkodra in neighboring countries have some level of protected status including the surrounding land, facilitating the control of construction and agricultural land use. A Lake Ohrid Management Board has been established with representative stakeholders from both countries and a draft management plan has been developed.

Small alpine lakes of glacial origin are a unique feature of the high mountains and are likely to contain rare or endemic fish, invertebrate, and reptile species. The authors of this assessment were unable to obtain documentation of the biodiversity status of these lakes.

3.3.3 The Coast and Marine Waters

Albania's 316-km coast (GOA, INSTAT, 2001) contains a wide diversity of habitats and ecosystems including, beaches, sand dunes, rocky coasts, lagoons, and estuaries. Territorial waters extend 12 nautical miles offshore and include a wide range of water depths and substrate conditions. Habitat diversity creates diversity at the species level, although the marine environment has been less well studied than terrestrial and freshwater environments, so much work remains to document the occurrence of species and monitor their populations. Albania's coast is generally better preserved than elsewhere in the Mediterranean other than parts of the North African coast, but threats to the nation's coast are numerous and are increasing in severity.

The major underlying cause of threats to the Albanian coast and marine waters is the **virtually uncontrolled development of land and exploitation of natural resources in the years since 1990**. This chaotic situation has particularly affected growing coastal urban centers (e.g. Durres) as well as rural communities whose populations have been swollen by migrants from the hills and mountains. The human population of the coast was 25% higher in 1997 than it was in 1990 and has climbed since then. The coastal population rises even higher in summer when Albanians vacation in seaside hotels and villas. Houses, hotels, and restaurants have been built in coastal areas with no thought to avoiding sensitive environments nor with any means to treat sewage or dispose of solid waste. Sand for building construction is taken directly from nearby beaches and dunes. The pressure on the biological resources of the sea and coastal waters has increased over the past decade with the increased intensity of commercial fishing and increased size of boats and gear. Industrial pollution threatened many coastal areas during the communist period when more factories were in operation, and still affects some places such as the bays of Vlora and Drini. Vast areas of coastal wetlands were drained during the communist period to increase the area of agricultural land, which has had a lasting negative impact on coastal hydrology and biodiversity. Much of this drained land is now out of agricultural production as the result of soil salinity.

A longer-term threat to Albania's coastal areas is the expected rise in sea level over coming decades. This will accelerate coastal erosion, increase the salinity of coastal groundwater and may eventually cause important coastal features such as lagoons to be inundated with seawater.

[8] The population in the watershed of Lake Ohrid has grown by a factor of 5 or 6 since the end of World War II.

Lagoons
A characteristic and biologically important feature of Albania's coast are numerous lagoons that receive fresh water from adjacent uplands and are connected to the sea by tidal channels. These shallow water bodies provide critical habitat for wintering water birds as well as summer breeding grounds for numerous bird species including the globally threatened Dalmatian Pelican (*Pelecanus crispus*). Karavasta Lagoon on the central coast was declared a wetland of international importance (Ramsar site) because of its significance as water bird habitat. The Narta Lagoon near Vlora is the site of a MedWet project because of its biological importance within the Mediterranean Basin. The coastal lagoons are also very important as fish habitat and nurseries for economically important fish species.

Albania's lagoons and the biodiversity they contain face a number of serious threats that are changing the structure and productivity of these ecosystems. The lagoon waters are receiving elevated levels of nutrients (nitrogen and phosphorous) from untreated sewage, animal wastes, and fertilizers causing excess algae growth and reduced levels of oxygen in the water. Accelerated rates of soil erosion from nearby land, coupled with restricted flow in tidal channels, increase the rate of sediment accumulation on the lagoon bottom. Nutrient loading and the reduction in tidal flushing action combine to degrade water quality for fish and invertebrate species. Humans are directly affecting lagoon biodiversity through essentially uncontrolled hunting of water birds and poorly controlled fishing within the lagoons and at the mouths of the connecting channels to the sea. Concessions for fishing in lagoons are given to businesses on a one-year basis and they are responsible for practicing sustainable fishing practices under the supervision of the Directorate of Fisheries.

Beaches and Dunes
Albania's Adriatic Sea coast is largely sandy, with long stretches of beaches and sizeable areas of sand dunes. The beaches and dunes provide habitat for unique communities of plants that are adapted to the harsh growing conditions in this environment. The sandy coasts also have natural and planted forests that grow at the land ward edge of the beach. Albania's beaches and dunes are threatened by seaside construction and uncontrolled sand mining, which has removed entire dune ecosystems in some areas and has led to accelerated coastal erosion. More than a third of the Adriatic coast is eroding at an average of 1 to 2 meters per year with a maximum rate estimated at 20 meters/year in some places.

Estuaries and Mud Flats
These biologically productive ecosystems form at river mouths and provide rich habitat for water birds, mud-dwelling invertebrates, and marine fish, including those that visit to breed. These ecosystems are vulnerable to changes in the flow and quality of water in the rivers that feed them. As discussed in Section 3.3.2, Albania's rivers have been and are being used as receptacles for untreated sewage, industrial pollutants, and solid waste. The quantity of water and sediment flowing down the river is affected by upstream dams, soil erosion, and flood control measures. The effect of pollution and hydrological changes on river mouth ecosystems is certainly significant, but has not been scientifically documented in Albania to the knowledge of the authors.

Rocky Coasts
The southern, Ionian Sea portion of Albania's coast is predominantly rocky, with characteristic terrestrial plant communities as well as marine communities that are typical of the inter-tidal and sub-tidal zones of rocky substrates. These communities are rich in mollusks and other marine invertebrates. The rocky coasts, especially those close to the Greek border, are threatened by the unplanned development of hotels, restaurants, and other tourist facilities. Mining of sand from shallow waters along the Ionian Sea coast to construct beaches in Greece destroys seabed communities and accelerates coastal erosion. Commercially valuable mollusks are being harvested in an uncontrolled manner that degrades seabed habitat. Red coral is being harvested in deeper waters, mostly by foreign divers, toward the point of commercial extinction.

Marine waters

Albania's marine waters provide a diversity of habitats created by differences in water depth and substrate (sandy and rocky). The numerous lagoons and estuaries along the coast further enrich habitat diversity and provide critical breeding habitat for many marine fish species. Biologically rich sea grass beds grow in sandy-bottomed shallow waters and provide habitat for both fish and invertebrates. Albania's waters are visited by rare, globally threatened marine animals such as the Loggerhead Turtle (*Caretta carreta*) and the Mediterranean Monk Seal (*Monochus monochus*) and two dolphin species (*Delphinus delphis* and *Tursiops truncatus*). The fish known to be most endangered are two shark species, but little is known about the status of fish and invertebrate species that are not easily observed or commercially valuable.

A number of fish species of shallow coastal waters and lagoons are vulnerable to illegal harvest and habitat degradation including European eels and several species of mullet. Over the past decade, Albanian fishermen have acquired boats and trawling nets that allow them to intensively fish shallow waters which is believed to be depleting economically valuable species, damaging sea floor habitat, and killing rare species such as turtles and dolphins. Some fisherman use destructive fishing methods such as dynamite and poisons. Fish catches are thought to be seriously under-reported and there is little data on fish populations upon which to base management decisions. The World Bank Fisheries Project is trying to address the lack of data issue. Approximately 40% of the catch of marine fish is exported, primarily to Italy and Greece. Italian fishing boats are illegally fishing deeper waters but this is currently a topic of bilateral talks between Italy and Albania. Albania also belongs to the General Commission for Fisheries in the Mediterranean run under the auspices of the FAO. Fisheries policies are to be formulated within the framework of this body. Albania has established fisherman's associations in four harbors to self-regulate fishing practices.

4.0 The Legal, Institutional and Policy Framework for Conserving Biodiversity in Albania

4.1 Legal Framework

The legal framework for biodiversity conservation in Albania has improved considerably since the transition to democratic governance in 1990. And while this framework continues to evolve to address lingering gaps, contradictions and overlaps in institutional mandates and responsibilities, the quality of the evolving legal framework can, and should, be viewed as largely supportive of biodiversity conservation. This being said, the general lack of ability to implement (e.g., regulate and enforce) the existing laws—due to weak institutional capacity, limited financial resources, and perhaps limited political will—pose a considerable threat to the conservation of biodiversity.

Section 4.1.1 (below) briefly highlights those international conventions most relevant to biodiversity conservation ratified by the government and in force in Albania. Section 4.1.2 describes the legal framework for biodiversity conservation in Albania. This is followed, in Sections 4.2 and 4.3, by a discussion of the institutions and the policies and strategies most relevant to biodiversity conservation in Albania.

4.1.1 Global and Regional Conventions

Albania has signed and ratified key international and regional environmental conventions, many of which are designed to strengthen biodiversity conservation. Those global and regional conventions most relevant to improving biodiversity conservation are presented below in Table 4.1.

Table 4.1. Relevant Global and Regional Conventions to Improving Albania's Biodiversity Conservation

Global Conventions

- Convention on Wetlands of International Importance Especially as Waterfowl Habitat (RAMSAR) - ratified, November 1995; in force
- Convention on the Protection of the World Cultural and Natural Heritage (PARIS) - ratified, March 1979; in force
- Convention on International Trade in Endangered Species of Wild Fauna and Flora (WASHINGTON) - ratified, September 2003; in force
- Convention on the Conservation of Migratory Species of Wild Animals (BONN) - ratified, November 2000; in force
- Convention on Biological Diversity (RIO) - ratified, April 1994; in force
- Convention to Combat Desertification - ratified, December 1999; in force

Regional/Subregional Conventions

- Convention for the Protection of the Mediterranean Sea Against Pollution (BARCELONA) - ratified, May 1990; in force
- Convention on the Conservation of European Wildlife and Natural Habitats (BERN) - ratified, March 1998; in force
- Convention on Environmental Impacts in a Transboundary Context (ESPOO) - ratified, October 1991; in force
- Convention on the Protection and Use of Transboundary Waters and International Lakes – (HELSINKI) - ratified, January 1994; in force
- Convention on Access to Information, Public Participation and Decision-Making and Access to Justice in Environmental Matters (AARHUS) - ratified, 2000; in force

The signing and ratification of many of these conventions has been reflected in the development of recent national legislation. However, the ability of the GOA to meet its obligations under these conventions remains limited. For example, while the government has ratified the RAMSAR Convention, and Karavastra Lagoon has been designated a RAMSAR site, little to no management capacity for the lagoon exists at present, and uncontrolled hunting, fishing, and solid waste disposal pose serious threats to biodiversity conservation. Similarly, while the government has recently ratified the CITES Convention, and the Ministry of Environment (MOE) is cognizant of the country's obligations under the convention, the Customs Authority, at present, has very limited knowledge of CITES and as a result, is not able to effectively police the trade in endangered species.

4.1.2 The Legal Framework for Biodiversity Conservation

The legal framework for biodiversity conservation in Albania, as stated earlier, has largely been established within the last twelve years. Throughout the process of developing a macro-level legal framework for biodiversity conservation, the GOA has made efforts harmonize its evolving legal framework with that of the European Union (EU).

The basis for the legal framework is the Albanian Constitution, established in 1991, and revised in 1998. In recognition of the key role that sound environmental management must play if Albania is to achieve sustainable development, the revised Constitution strives to increase the focus on environmental management. Specifically, the revised Constitution provides for further elaboration of the legal and institutional framework for environmental management—including specifically, both nature protection and biodiversity conservation.

In brief, Albania's laws are implemented through governmental decrees, issued by the Council of Ministers. These laws and decrees are further elaborated through by-laws, regulations and orders, approved by either a Minister or the Prime Minister. While numerous by-laws, regulations, and orders have been developed to guide the application of the macro-level legal framework, there remains a need to further develop the micro-level legal framework. In so doing, it will be important to coordinate efforts across the productive resource sectors (e.g., agriculture, energy, water, etc.) in order to ensure the development of a consistent approach that avoids and/or eliminates overlapping institutional mandates.

Laws of Primary Importance to this Assessment

The **Law on Environmental Protection**, the *framework law* for environmental management, was initially approved by the GOA in 1993, and amended in 1998. In an effort to reflect growing awareness of the need to improve environmental management, and to reflect the changing institutional framework, a new **Law on Environmental Protection**[9] was developed and approved in 2002. This comprehensive and well-drafted law presents the basic institutional framework and competencies for environmental management, documents the state policy on the environment, and mandates the integration of environmental concerns into sectoral and crosscutting policies, strategies, and action plans. The law also approves, by the Council of Ministers, the updated National Environmental Action Plan (NEAP), and deems it valid for a period of (at least) 10 years. Although not required by the framework law, the MOE has agreed to develop and submit to Parliament, every two years, a State of the Environment Report, in effect, operationalizing the updated NEAP.

The new Law on Environmental Protection also incorporates numerous globally recognized principles for environmental protection and sustainable environmental management including, among others, the principles of:

- Sustainable use,
- Precaution,

[9] Protection of Biodiversity is discussed in Article 18, of the new Law on Environmental Protection

- Prevention,
- Polluter pays,
- Legal liability, and
- Public awareness and participation in environmental decision making.

The enactment of the **Law on Protected Areas**, in June 2002, comprises the most significant step in the development a legal framework that is supportive of *in-situ* biodiversity conservation. The goal of the Law is to ensure special protection for Albania's biodiversity and natural resources, through the establishment of functional protected areas. The Law on Protected Areas establishes categories of protected areas and defines allowable and prohibited activities for each category, in accordance with IUCN guidelines. The law formalizes the process for declaring, administering and managing protected areas. The law also defines the process for developing ecotourism in and around protected areas, and establishes a process for economic benefit sharing generated by protected areas.[10]

The Law on Protected Areas establishes the competencies of the newly established MOE. These include:

- Recommending areas to be protected;
- Publishing an agenda of proposed protected areas, that incorporates mechanisms for consensus building at the local level;
- Developing and disseminating public information on approved protected areas, their biological resources, and the conditions for their protection;
- Approving protected area management plans; and
- Developing monitoring objectives for protected areas.

The law requires that Administrative Units be established to oversee the administration of protected areas. The composition of these Administrative Units must be established by decree of the Council of Ministers, but it is anticipated that the composition of these Administrative Units will include representatives of the MOE, MOAF, representatives from local government, and representatives from civil society. Keeping with trends in protected area management, the law recognizes the principle of collaborative management/co-management, allowing protected areas to be managed by the full range of public and civil society organizations. Given the financial constraints facing the GOA, and the lack of institutional experience with protected areas management, this last point is seen as a particularly positive aspect of the Law on Protected Areas. This assumes, of course, that capacity evolves within both the MOE and the Protected Areas Administrative Units, to oversee the implementation of protected area management plans.

A **Draft Law on Biodiversity** has been developed and presented to the Albanian Parliament. This draft law, designed to ensure *in-situ* as well as *ex-situ* conservation of Albania's biological resources, is currently stuck in Parliament and unlikely to pass, stemming from debate over the issue of genetically modified organisms (GMOs).

Other Laws with Implications for Biodiversity Conservation

In addition to the three laws of primary importance to biodiversity conservation, discussed above, there are literally tens of standing laws that have, or could have, an impact on biodiversity conservation in Albania. These include, among others, the following:

- Law on the Organization and Functioning of Local Government (2000)
- Law on Construction Police (1998)
- Law on Environmental Impact Assessment (2003)
- Law on Public Waste Removal (1996)

[10] Republic of Albania, People's Assembly Law on Protected Areas (No. 8906, June 06, 2002).

- Law on Water Resources (1996)
- Law on Water Supply and Sanitation Sector Regulation (1996)
- Law on Fishing and Aquaculture (1995)
- Law on Pastures and Meadows (1995)
- Law on Hunting and Wildlife Protection (1994)
- Mining Law of Albania (1994)
- Law on Forest Revenue (1993)
- Law of Plant Protection Service (1993)
- Law on the Development of Areas with Tourism Priority (1993)
- Law of the Protection of Medicinal and Taniferous Plants (1993)
- Law on Forests and Forest Service Police (1992)
- Law on Land and its Distribution (1991)

4.2 The Institutional Framework for Biodiversity Conservation

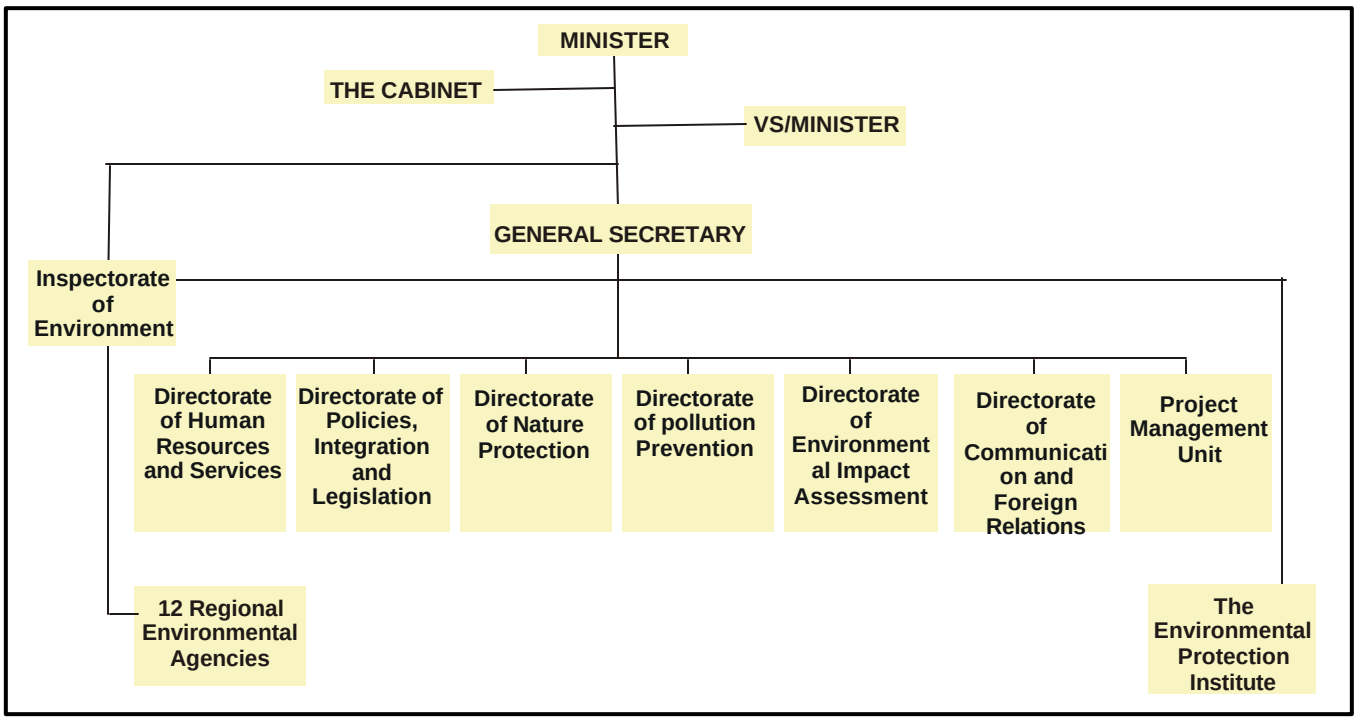
The legal foundation for Albania's institutional structure was established by the Albanian Constitution, and was further elaborated in the Law on Environmental Protection and the Law on Protected Areas (described above). While the MOE has been allocated considerable competencies related to environmental monitoring, regulation, and enforcement, other institutions have been given competencies for management of Albania's productive resources. Of these, the MOAF, with the mandate for the administration of agricultural land, forests, pastures, fisheries, protected areas, and the control and regulation of hunting, is most relevant to this assessment. The biodiversity conservation responsibilities of these two institutions are discussed in Sections 4.2.1 and 4.2.2. Section 4.2.3 briefly highlights the biodiversity conservation roles played by other governmental institutions, and Section 5.2. discusses the status of NGO support to biodiversity conservation in Albania.

4.2.1 Ministry of Environment

The Ministry of Environment (MOE), a relatively new institution, was established in September 2001. In the decade prior to the establishment of the MOE, the institutional responsibility for environmental management changed three times—each progressively strengthening the institutional framework for environmental management. In 1991, the Committee for Environmental Protection and Preservation was established under the Ministry of Health. In the same year the institutional mandate for the environment was moved to Committee on Environmental Protection (CEA), within the newly established Ministry of Health and Environment. Then, in 1998, the Albanian Parliament transformed the CEA into the National Environmental Agency (NEA), established as an independent institution reporting directly to the Deputy Prime Minister. While the establishment of the NEA raised the profile for environmental management, the institution was still not represented in the Council of Ministers, and as a result, had limited capacity to ensure the integration of environmental concerns into national and sectoral development plans. The establishment of the MOE, supported with some assistance from the UK's Department for International Development (DFID), has elevated the state agency responsible for environmental protection to a full fledged Ministry, with representation on the Council of Ministers. Since this time the structure and function of the MOE has evolved, and continues to evolve, rapidly.

The Ministry is organized into six directorates, one inspectorate and one project management unit (see Figure 4.1 for an organizational chart).

Figure 4.1. Organization Structure of the Ministry of Environment



The **Directorate for Nature Protection** (DNP) is the primary unit within the MOE charged with biodiversity conservation. At present, the DNP is comprised of six individuals: a Director, three technical specialists, and two support personnel. All six staff are located in the MOE's Tirana headquarters. The Directorate is responsible for coordination of biodiversity conservation activities within the MOE, including recommendations regarding the constitution and development of the protected area network, determination of data needs, database development, and the development and dissemination of information on Albania's biodiversity. It is also possible, in the near future, that the DNP will assume institutional responsibility, from the Ministry of Agriculture's Directorate General of Forests and Pastures, for the management of one or a few protected areas.

The **Inspectorate of Environment** represents the structure within the MOE, responsible for decentralized environmental protection. The Inspectorate, in addition to centrally located staff in Tirana, is also responsible for staffing the 12 Regional Environmental Agencies (REA). REAs have been established in the 12 prefectures. Environmental offices, subsets of the REA, have been established in some, but not all districts. Together, the REAs and environmental offices are responsible for ensuring compliance with environmental regulations at the prefecture and district levels.

4.2.2 Ministry of Agriculture and Food

The Ministry of Agriculture and Food (MOAF) is the institution charged with administration of the large majority of Albania's productive natural resources (e.g., agricultural land, forests, pastures, fisheries). MOAF has also been responsible for the management of protected areas and the control and regulation of hunting. The three bodies under MOAF (two directorates and one project management unit) most relevant to this assessment are described below:

The **Directorate General of Forests and Pastures** (DGFP) has been, and continues to be, responsible for management and administration of both protected areas and hunting. In addition, DGFP is responsible for forest and pasture management and administration—including private forests, state forests and communal forests; high alpine pasture and communal pasture—and the full range of biodiversity contained therein.

DGFP is comprised of five departments:

- The **Department of Forestry**, responsible for the administration and conservation of state forests and high alpine pastures;
- The **Department of Communal Forestry**, responsible for the administration and conservation of communal forests;
- The **Department of Forest Police**, responsible for policing/enforcing laws, by-laws and regulations governing the use of forest resources;
- The **Department of Protected Areas and Hunting**, has traditionally been responsible for the administration and management of protected areas. The department and DGFP's representatives at the district level are responsible for granting hunting permits and controlling hunting. The department, through DGFP, determines game species, sets maximum off-take per species, and defines the duration and timing of hunting seasons; and
- The **Department of Finance**, responsible for financial oversight of DGFP operations.

The **Directorate General of Fisheries** (DGF), within MOAF, is responsible for administration of fishery resources, including marine fisheries, freshwater fisheries and aquaculture. DGF is charged with developing programs and regulations to better manage fishery resources, based upon the principles of sustainable use. To control the use of fishery resources, a Fishery Inspectorate, under DGF, has been recently established.

The **Project Environmental Management Unit** (PEMU) under MOAF, is responsible for ensuring that environmental impacts of potential activities to be supported by the World Bank Forestry Project, are properly screened prior to their implementation. While the PEMU requires biodiversity resources to be inventoried during the development of all State Forest and Community Forest Management Plans, this information base is not currently being used in the development of management regimes.

In addition, there are two research institutes affiliated with the MOAF charged with some biodiversity conservation competencies. These are:

- **Forest and Pastures Research Institute (FPRI)**: Supports the DGFP, and is primarily responsible for inventorying forest and pasture resources and developing management plans for government-owned forests and pastures;
- **Institute of Fishery Research (IFR)**: Primarily responsible for assessing the status of freshwater and marine commercial fish stocks; and,
- **National Seed Institute (NSI):** The Germplasm Department of NSI has limited capacity for storing and analyzing germplasm. The Department's laboratory was previously supported (1997-1998) by USAID/Albania, through IFDC.

4.2.3 Other Governmental Institutions

In addition to the Ministry of Environment and the Ministry of Agriculture and Food, numerous governmental bodies have some responsibility for biodiversity conservation. The most important of these are highlighted below.

The **National Academy of Science** is comprised of numerous scientific research institutes and centers, two of which have a role in biodiversity conservation in Albania. Both organizations are currently contracted by the MOE to assist with aspects of the environmental monitoring program.

- **Institute for Botanical Research (IBR)**: Responsible for floral inventories, studies and monitoring, IBR is home to Albania's foremost botanist, Dr. Jani Vangjeli; and

- **Hydrometeorological Institute (HM)**: Responsible for surface water quantity and quality monitoring, as well as some aspects of air quality monitoring.

The Ministry of Education and Science, Faculty of Natural Science, in addition to serving as the training ground for new generations of scientists (primarily through Tirana University, the Agricultural University of Tirana, and the University of Shkodra), the Tirana University, Faculty of Science is also responsible for two important conservation research organizations. These are:

- **The Museum of Natural Sciences (MNS)**: Responsible for inventories, studies and monitoring. MNS is home to two of Albania's preeminent field biologists, Dr. Ferdinand Bego and Dr. Taulant Bino.
- **The Botanical Garden (BG)**: The Botanical Garden serves as the largest *ex-situ* conservation center in Albania, and includes examples of vegetation from three of Albania's four agro-ecological zones. Dr. Liri Dinga, the Director of the Botanical Garden, is quite likely Albania's leading expert in floral conservation.

Albania has the following academic and research institutions with the mandate to undertake biodiversity-related studies and monitoring:

Following recommendations established in the Biodiversity Strategy and Action Plan, the Government of Albania has established 13 thematic **Biodiversity Working Groups**. These have been created to focus on the conservation of individual species, species groups, and ecosystem types, and are primarily comprised of individuals from the National Academy of Science and the Faculty of Science.

Structures of the **Ministry of Public Works and Tourism**, at the national and local levels, are responsible for issuing permits for construction activities. The new law on Urban Development, (approved in 1998), requires the conduct of EIAs prior to the issuance of any construction permits. To enforce the various laws and regulations governing construction the Government of Albania approved the establishment of, under the Ministry of Public Works and Tourism, the Construction Police (through law No 7752, dated 28 March 1993). Construction Police have the authority to stop and/or destroy illegal construction in urban areas, and in areas of environmental importance. Similarly, Construction Police have the mandate to control the exploitation of inert materials (e.g., sand and gravel) from riverbeds. Both responsibilities, if taken seriously, could positively impact on biodiversity conservation, and more generally, on environmental protection. However, illegal construction abounds across Albania. Riverbeds, as well as lakeshores and coastal areas are mined for sand and gravel.

Within the context of the 2001 Local Government Law, **municipal, district and commune governments** have legal authority to take responsibility for environmental management within the municipality. Competencies to be devolved to these levels of government include those for environmental planning, nature conservation, and enforcement of provisions of the Environmental Protection Law. Additionally, these levels of government are to assume responsibilities for:

- Developing, documenting and publishing information of their environmental protection programs, in cooperation with relevant governmental institutions;
- Managing and distributing local environmental funds; and
- Defining sites for domestic and industrial waste disposal and processing, so they do not pose risks to human health or the environment.

Given the status of the decentralization process at present, there is very limited capacity at the level of local government to assume responsibility for any of these competencies. Limited financing further constrains the ability of local government to address environmental issues. If responsibilities for environmental protection

and management are truly going to be devolved to local government, the constraints of limited capacity and financing will need to be addressed.

4.3 Policies, Strategies and Action Plans to Support Biodiversity Conservation

Numerous governmental policies, strategies and action plans have implications for biodiversity conservation. The most relevant of these, are discussed below.

The **National Strategy for Socio-Economic Development (NSSED)** defines the long-term socioeconomic development objectives of the GOA, and establishes a plan for priority public measures to achieve these objectives. The NSSED was developed through broad consultations with civil society, local government, local communities, and the donor community, and integrates suitable models for development identified through the Poverty Reduction Strategy Paper (PRSP). While the NSSED makes an attempt to integrate the concept of environmental protection into rural and urban development, it is the impression of this Assessment Team that the sustainability of the natural resources base upon which rural economic growth is largely premised is not adequately stressed. If the agriculture sector—including on-farm agriculture, livestock production, the collection and sale of herbal and medicinal plants, and fisheries—is to serve as a long-term vehicle for rural economic growth, these resources will need to be actively managed in a manner that integrates the concept of sustainable use.

The Albanian **Biodiversity Strategy and Action Plan (BSAP)** was completed in 1999 by the precursor to the MOE, the NEA, with technical inputs from both the MNS and the IBR. Funding for the development of the BSAP was provided by the Global Environment Facility. The BSAP, which forms the leading strategy for biodiversity conservation in Albania, provides an assessment of the current status of biodiversity in Albania, threats to its conservation, establishes priorities for mitigating these threats, utilizing the criteria set forth in the Convention on Biological Diversity (CBD).

The **National Environmental Action Plan (NEAP)** was developed in 1993 with financial support from EU PHARE (*Pologne Hongarie Assistance à la Reconstruction des Economies*). This NEAP was recently been updated (2001) to reflect changes over the past decade, and to provide the basis for ensuring an integrated approach to environmental management that optimizes the ecologically and economically sustainable utilization of natural resources. The NEAP focuses largely on issues of management, but also identifies legal and policy reforms seen as priorities for promoting sound environmental management. In addressing these issues the NEAP was designed to be implemented in three phases: short-term (one year or less), medium-term (one to three years) and long-term (three to five years) actions for implementation. The NEAP acknowledges that the lack of data on flora and fauna does not allow for an accurate assessment of the biodiversity situation in Albania, but goes on to identify habitat fragmentation and loss, and environmental degradation as the primary threats to biodiversity conservation. The NEAP is intended to serve to guide donor investment in addressing these threats.

The **Government Strategy of Agricultural Development in Albania** (commonly referred to as the **Green Strategy**), initiated in 1997 and completed in 1999, was designed to establish sustainable and efficient structures to increase agricultural production; stabilize domestic markets for agricultural products; increase agricultural exports and reduce imports; improve the welfare of Albanian farmers; protect the environment and improve the management of Albania's natural resources; and ease the integration of Albania into the EU.

The **Forests and Pastures Sector Strategy and Action Plan (FPSS&AP)**, which follows from the Green Strategy, was designed to ensure the optimal contribution of the forestry and pasture sectors to economic growth and sustainable development in Albania. It also established the structure of public institutions and agencies to guide its implementation, and underscored linkages with other sectoral development plans (e.g., agriculture, water, energy). DGFP has recently determined that the FPSS&AP is outdated, and is currently working to update the strategy.

The **Coastal Zone Management Plan (CZMP)**, which was developed and completed with UNEP support in 1996, was not approved by the Government of Albania until 2001. The CZMP sought to inventory Albania's coastal and marine resources, and to identify future directions to improve the management of these resources. Unfortunately the delay in the approval of the CZMP, coupled with overlapping mandates for management and increasing pressures on Albania's coastal and marine resources, have resulted in a lack of action. As a result, the country's coastal and marine resources are, at present, largely unmanaged. Revision of the CZMP has been identified as a priority by both the MOE and the MOAF.

5.0 Donor and NGO Support for Biodiversity Conservation in Albania

Given pressing economic and social development needs, biodiversity conservation has not emerged as a priority programming area in Albania. This being said, a small number of donors and NGOs have focused some programming efforts in support of biodiversity conservation. The most relevant of these current, and planned future activities, are discussed below.

5.1 International Donors Support for Conservation in Albania

Biodiversity conservation activities are currently receiving support from three multilateral, and one bilateral donor, the World Bank, the Global Environment Facility (GEF), the United Nations Environment Program (UNEP), and GTZ. To date, three of these four activities have focused on building the capacity necessary to support sound environmental management and biodiversity conservation on Albania's three largest transboundary lakes. The World Bank Forestry and Fisheries Projects focus on promoting sustainable management of Albania's state and communal forests and fisheries. These activities are briefly described below.

5.1.1 World Bank Forestry Project

Started in 1996 and due to terminate at the end of 2003, the Forestry Project is intended to provide support to the GOA to improve management of Albania's natural forests, regenerate communal forests and hand them over to *comunas* for management, hand over pastures to *comunas* for management, strengthen forest-related institutions, and conserve protected forests. A follow-on project is planned to facilitate communal forest management and bring natural forests under sustainable management.

5.1.2 World Bank Fisheries Project

The Fisheries Project began in 2002 and is due to terminate in 2007. This project is intended to increase the economic and environmental sustainability of exploiting marine and lake fishery resources by introducing community-based co-management, strengthening government institutions, reestablishing aquaculture, and investing in fisheries infrastructure.

5.1.3 GEF Lake Ohrid Conservation Project

The primary objective of the Lake Ohrid Conservation Project (LOCP) is to develop the foundation for joint management and protection of Lake Ohrid by the governments and peoples of the former Yugoslav Republic of Macedonia and Albania. LOCP consists of four components, outlined below:

- The institutional strengthening component (US$ 325,000) focuses on strengthening the capacity of public agencies within the Lake Ohrid watershed to improve enforcement of existing environmental laws, regulations, standards and policies.
- The monitoring component (US$ 1,900,000) focuses on establishing a comprehensive bilateral monitoring program to inform governmental and nongovernmental stakeholders, and to provide the environmental information necessary for effective and rational planning and decision making.
- The watershed management component (US$ 1,180,000) promotes the formation of a broadly representative watershed management committee; pilots practical, cost-effective interventions intended to protect and conserve Lake Ohrid; and is attempting to develop and implement a watershed action plan.
- The public awareness and participation component (US$ 315,000) is designed to create public awareness that promotes sound management of the Lake Ohrid watershed's natural resources.

LOCP is jointly implemented by the Albanian MOE, and the Macedonian Ministry of Environment and Spatial Planning. The project, initially slated to end on December 4, 2002, was extended through December 4, 2003.

5.1.4 UNDP/GEF Project on Conservation of Coastal Lagoons and Ecosystems (MedWetCoast)

MedWetCoast is a five-year activity being implemented by the Government of Albania with support from the UNDP/GEF ($1.7 million). The overall objective of this project is to build capacity in six participating Mediterranean countries, to conserve globally endangered biodiversity in coastal and wetland ecosystems. In Albania, MedWetCoast-supported activities include improving the availability of information on Albania's wetlands; increasing the appreciation of wetland values; promoting the sustainable use of Albania's wetlands; conserving Albania's wetland biodiversity; developing and implementing national wetland policies; and strengthening international cooperation for conservation.

5.1.5 Future Biodiversity Conservation Activities Likely to Receive Donor Support

- **Karavastra Lagoon Support Project**: Supported by a GEF Grant (status: approved by the GEF Secretariat), and to be implemented by the MOE. The project will have two goals: to establish a management authority for the protected area, and to assist the management authority in the development of a protected area management plan.

- **Coastal Zone Management Project**: Supported by the World Bank (status: possible), and implemented jointly by the Directorate of Fisheries and the MOE. The project will encourage active management of coastal resources, and will focus on strengthening capacity for sustainable coastal fisheries management.

- **Shkodra Lake Transboundary Conservation Project**: Supported by the GEF (status: Project Preparation funds approved by the GEF Secretariat), and to be implemented by the Albanian MOE and the Montenegrin Ministry of Environment and Physical Planning. The project will look to further cooperation between Montenegro and Albania, and to improve the management of Lake Shkodra and its surrounding environment.

- **Prespa Lake Conservation Project (PLCP)**: Supported by the UNDP/GEF (status: Project Implementation funds approved), PLCP was developed to support ecologically sound regional development in the transborder regions of Albania, Macedonia, and Greece. The activity will be implemented by all three countries' governments, local authorities, NGOs, and the private sector.

5.2 Nongovernmental Organization Support for Conservation

While none of the international conservation NGOs are implementing or supporting the implementation of ongoing activities in Albania, one regional and a small number of local NGOs have become increasingly involved in promoting conservation and sound environmental management.[11] The strongest of the Albanian environmental NGOs are described below.

5.2.1 Regional Environmental Center For Central and Eastern Europe

The Regional Environmental Center for Central and Eastern Europe (REC) is a nonpartisan, nonadvocacy, not-for-profit international organization, with a mission to assist in solving environmental problems in

[11] While the growth in the number of local NGOs interested in conservation and environmental issues is promising, the basic capacity of these NGOs is, in general, still quite low.

Central and Eastern Europe (CEE). The center fulfils this mission by promoting cooperation among NGOs, governments, businesses, and other environmental stakeholders, and by supporting the free exchange of information and public participation in environmental decision making.

The REC was established in 1990, with the assistance of the United States, the European Commission and the Government of Hungary. Today, the REC is legally based on a charter signed by the governments of 28 countries and the European Commission, and on an international agreement with the Government of Hungary. The REC has its head office in Szentendre, Hungary, and country offices and field offices in each of its 15 beneficiary countries, which are Albania, Bosnia and Herzegovina, Bulgaria, Croatia, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, FYR Macedonia, Poland, Romania, Serbia and Montenegro, Slovakia, and Slovenia.

5.2.2 The Regional Environment Center for Central and Eastern Europe, Country Office Albania

The Regional Environment Center for Central and Eastern Europe, Country Office Albania (REC Albania) was established on 1993 with its main office in Tirana. Field project offices are established, as needed, to support specific projects' needs. At the time of this assessment, REC Albania's programs included activities targeting civil society strengthening, including a new $1 million grant program funded by the Government of the Netherlands to support environmental NGOs in implementing activities; training and capacity building to support local government units and local NGOs; public awareness and education; and environmental information management, including a daily electronic service. In addition, REC Albania supports the implementation of numerous discrete projects. Among these, REC Albania has recently completed the development of 17 local environmental action plans for rural communes of Korca region.

5.2.3 The Environmental Center for Administration and Technology (ECAT)

The Environmental Center for Administration and Technology (ECAT) was established through the EU (Less Intensive Farming and Environment) LIFE Programme, with international support from German and Italian NGOs. ECAT is registered in Albania as a Center of Excellence. In this capacity ECAT works with both the public sector and NGOs, to promote the integration of environmental concerns into public decision-making processes. ECAT is currently supporting the MOE, with the development of a website through which the MOE will make information on the environment publicly available.

5.2.4 Protection and Preservation of Natural Environment in Albania (PPNEA)

Protection and Preservation of Natural Environment in Albania (PPNEA), established in 1991, is the oldest environmental NGO in the country. PPNEA maintains a central office in Tirana, and several branch offices located around the country. PPNEA is comprised of members who are, for the most part, technical specialists in the fields of biology, chemistry, geography, etc. PPNEA has implemented several activities, most focused on environmental education and the development of a sound legal framework for environmental protection. PPNEA publishes a periodical newsletter titled, "We and the Environment."

6.0 Actions Being Taken and Still Needed to Conserve Biodiversity

It is clear from the discussion in Section 3 that Albania's rich natural heritage of biological diversity is being depleted as the result of a range of threats to its terrestrial, freshwater, coastal, and marine environments. These threats have been acknowledged by the GOA and some important steps have been taken to protect biodiversity, most notably the development of a legal and policy framework and a Biodiversity Strategy and Action Plan (BSAP). The donor community has assisted with these efforts to a certain extent, while international conservation NGOs do not have a permanent presence in Albania.

The vast majority of the real work to conserve biodiversity still lies ahead. Many threats are actually increasing in severity and it can be expected that natural ecosystems and habitats are trending toward greater degradation while rare species are becoming more so. This loss not only has scientific and ethical impact, but also an economic dimension since wild plants and animals provide Albanians with subsistence materials as well as cash income. Some biological resources, such as commercially important marine fish and medicinal plants and herbs provide foreign exchange earnings.

6.1 Scientific Basis for Biodiversity Conservation

The first crucial step in protecting and conserving biodiversity resources is to determine what species exist, where they occur, and their population status. This data must be systematically recorded and used as the basis of an ongoing system of monitoring. In most European countries, biodiversity-related information has been collected and refined for over a century. Albania also has a tradition of enquiry in the biological sciences, but its development was impeded by decades of enforced isolation followed by several years of chaos after the fall of communism. The determinations that were made regarding inclusion and classification of species in the Red Book were made largely based on outdated field survey data and may not reflect the current status of these populations (see Annex C for Red Book lists). Very little is known about the more obscure plants and animals such as the lower plants and invertebrates. There is especially a lack of information regarding the status of marine organisms and stocks of fish.

Albania has the following academic and research institutions with the mandate to undertake biodiversity-related studies and monitoring (the institutions' mandates are described in Section 5):

- Museum of Natural Sciences
- Institute for Biological Research
- University of Tirana, Faculty of Biology
- Forest and Pastures Research Institute
- Institute of Fishery Research
- Working Groups: A number of these have been created under the BSAP to address conservation of individual species or species groups as well as ecosystem types.

The following actions are required to develop a sound scientific basis for conservation:

- Assign responsibility for inventorying/monitoring comprehensively across all species groups and ecosystem types.
- Maintain biodiversity data in a standardized format accessible to all.
- Allocate financial resources to support biodiversity monitoring on an ongoing basis.
- Develop a cadre of conservation practitioners (conservation biologists and protected area managers) to fill the gap between research scientists and natural resource utilization specialists (foresters and fishery specialists).
- Encourage more young people to enter the field.

- Develop a means to feed the results of biodiversity monitoring into the policy and planning via laws, regulations, spatial planning, and EIAs.

6.2 Conserving Biodiversity

Albania articulated its national strategy for biodiversity conservation in the Biodiversity Strategy and Action Plan (1999). This strategy is built on the following major pillars:

- Protecting a representative sample of ecosystems and habitats within a protected area system (PAS). This system currently covers 5.8% of the nation's land area and is to be increased to 14% within five years of adoption of the BSAP. The expansion will be accomplished through enlarging and consolidating units in the current system as well as adding new areas, including marine protected areas (see Annex E for a list and maps of the protected areas);
- Protecting species and habitats within landscapes and seascapes, including those designated for agriculture and natural resource extraction;
- Maintaining species and genetic material *ex situ* in the botanical garden, gene banks, and the zoological park;
- Protecting biodiversity by reducing the negative environmental effects of urban, industrial, and agricultural development;
- Reducing pollution to rivers, lakes, and marine waters from sewage and solid waste;
- Raising the awareness of the Albanian people about the need to need to conserve biodiversity; and
- Improving the legal framework as discussed in Section 5.3.

Very little has been done in the four years since the BSAP was completed to accomplish the biodiversity conservation strategy other than identifying areas to be included in the expanded PAS. Individual units of the PAS are managed by district forest departments who lack the training, manpower, and financial resources to effectively protect these areas. Furthermore, none of the protected areas have management plans nor does the DGFP have experts to provide scientific backstopping. The following actions are still needed to conserve biodiversity in Albania:

- Adopt the expanded protected area system and provide the human and financial resources to effectively manage the system.
- Develop a strategy for biodiversity protection within the various types of working landscapes.
- Provide more resources to the botanical garden including funds to establish a seed bank.
- A massive effort is needed to bring rampant development under control through appropriate planning and industrial design.
- Develop a means to manage biological natural resources on a sustainable basis.
- Build sewage treatment plants and sanitary landfills for all urban areas.
- Strengthen current efforts by NGOs at environmental education and awareness raising (e.g., CITES: Trade in Animals).

7.0 USAID/Albania's Assistance Program and Opportunities to Support Biodiversity Conservation

The USAID/Albania Country Strategic Plan (CSP) was recently extended for a period of two years. The extended CSP will now run through FY 2006. In preparing for the extension, which will begin in FY 2005, the Mission is taking considerable steps to consolidate programs under its four Strategic Objectives (SOs):

- SO 1.2 Economic Growth and Restructuring
- SOs 2.1/2.2 Democracy and Governance/Rule of Law
- SO 3.2 Public Health
- SO 4.1/4.2 Special Initiatives/Training and Program Support

The anticipated focus of these Strategic Objectives through the extension period, vis-à-vis their potential impacts on and/or contributions to biodiversity conservation, are discussed below (in Sections 7.1.1 – 7.1.3).

7.1 Relationship of the FY 2005-2006 CSP Extension to Biodiversity Conservation

Stemming from the pressing needs of the population, and exacerbated by the difficult transitional period of the mid- to late-1990s, USAID/Albania decided, early in 2000, to phase out support for environmental and natural resources management activities.[12] As a result, through both the current CSP and the two-year CSP extension, there are no plans to directly support any biodiversity conservation activities.

While USAID/Albania is not directly supporting conservation activities, Mission-supported programs have the potential to either positively or negatively impact upon the status of biodiversity conservation in Albania. These potential impacts, which are greatest for certain activities supported under SO 1.2, SOs 2.1/2.2 and SO 4.1, are discussed below. For each, we have tried to highlight the best opportunities to integrate biodiversity conservation needs/concerns, into Mission programming.

7.1.1 SO 1.3: Economic Growth and Restructuring

Under the current CSP, USAID/Albania has supported SO 1.3 programs in a broad array of areas, including agricultural productivity, business development, and marketing; nonagricultural small and medium enterprise development; micro-finance; and land reform. The large majority of these programs have either recently been completed, or are scheduled for completion in FY 2004—and as the Mission approaches its two-year CSP extension phase, further efforts will be made to consolidate SO 1.3 programs.

SO 1.3 programs, through the two-year extension, will likely focus on dairy marketing; enterprise development and export marketing—both agriculturally and nonagriculturally based; and micro-finance. Of specific interest from a biodiversity conservation perspective is the Enterprise Development and Export Marketing (EDEM) Project. EDEM, an umbrella contract providing support to a range of agricultural enterprise and nonagricultural enterprise development activities, has been designed to integrate the herbs, spices and medicinal plants cluster, formerly supported through the IFDC-implemented Assistance to Albanian Agro-Business Trade Associations.[13]

Albania is a major producer of a wide range of herbs, spices, and medicinal plants. Promoting enterprise development activities in this cluster, if managed properly, can provide significant income earning potential

[12] The last USAID/Albania-supported environment/natural resources activity, the Albania Watershed Assessment Project (AWAP), will come to an end in December 2003.

[13] Originally, this cluster was identified and supported through the USAID-funded Private Forestry Development Program.

to rural Albanians, while ensuring the sustainability of the natural resource base. On the contrary, the unsustainable usage of these resource will both compromise the economic value (e.g., the long-term earning potential) of the natural resource base, and will further contribute to environmental degradation (e.g., erosion) in Albania.

At present, the capacity of the GOA to control the use of these resources is extremely limited. While aspects of a legal and regulatory framework exist (e.g., The Law of the Protection of Medicinal and Taniferous Plants was approved by Parliament in 1993; MOAF drafted regulations to control the use of aromatic, herbal and medicinal plants), there is very inadequate capacity for enforcement.

To address some of these shortcomings, donors and the GOA have talked of limiting the collection/gathering of herbs, spices and medicinal plants from natural environments, in favor of increasing cultivation. However, the economic incentives to support this shift are simply not yet in place, and it seems very likely, in light of the state of the rural Albanian economy, that people will continue to collect these resources from the wild.

It is the opinion of this assessment team that the sustainable exploitation of these resources, and the development of this cluster, is dependent upon the ability to:

- More directly link producers/collectors with processors and markets, in an effort to increase benefit flows along the value chain;
- Formalize production/collection systems, building upon the concept of annual sustainable harvest/yields; and
- Devolve to local-level organizations some shared-authority for regulation and enforcement.

7.1.2 SOs 2.1/2.2: Democracy and Governance (DG)/Rule of Law (ROL)

Through the current CSP, USAID/Albania has supported numerous DG and ROL activities. Similar to developments in SO 1.3, numerous activities under SOs 2.1/2.2 have been, or are preparing to be closed out, as the Mission makes a concerted effort to consolidate its DG and ROL programs.

Under the planned CSP extension, the Mission will likely consolidate SOs 2.1/2.2 support in two, or possibly three, umbrella activities. These umbrella activities are expected to focus on decentralization and NGO support, and rule of law, judicial strengthening and anti-corruption. While these programming areas pose little threat to the current status of biodiversity conservation, both present strong potential to integrate key biodiversity conservation needs into Mission programs.

Within the scope of SOs 2.1/2.2, it is likely that USAID/Albania will continue to support the development of Albanian civil society—and in particular, the development of the NGO sector. The capacity of Albania's environmental NGOs, as documented earlier, is extremely weak. There is limited capacity to serve in an outreach, education, and awareness capacity; and with the exception of REC Albania, there is no capacity to feed into the policy reform/development process. Any assistance that could be provided to support the development and evolution of Albanian environmental NGOs could go a long way to promoting biodiversity conservation and improving environmental management.

With a suitable macro-level legal and policy framework largely in place, there is now a need to focus on the "micro-level"—to ensure that regulation and by-laws exist or are developed that promote on-the-ground implementation, including regulation and enforcement. Any assistance that could be provided to support regulation and by-law review/revision/development would certainly improve on-the-ground biodiversity conservation and environmental management.

At present, local governments are poorly positioned to accept their mandate for biodiversity conservation, and more generally, environmental management. In addition to technical support, these organizations also

require the funding to carry out their mandate. Currently environmental management, a crosscutting theme, rarely appears in local government budgets—which means no funds are made available, at the level of local government, to address issues of water quality, air quality, green spaces, etc. If future USAID/Albania assistance is provided to support the development of local government, assistance in integrating environment into the budgeting process could go a long way toward improving the quality of the Albanian environment. The same can be said for any assistance that USAID/Albania may provide in assisting local governments in developing their tax base.

7.1.3 SO 4.1: Special Initiatives

Under SO 4.1, USAID/Albania has been supporting a number of activities including, but not limited to, activities in the fields of energy, trafficking in people, and GOA-supported public-private-partnerships. Of greatest interest to this assessment, is USAID/Albania's support of energy activities.

The transitional period of the 1990s resulted in the closure and atrophy of Albania's thermal generating facilities. Since this time, domestic demand for electricity has increased dramatically. As a result of these and other (e.g., climatic) factors, Albania has become a net electricity importer—unable to meet domestic demands. This energy crisis poses significant threats to Albania's development, and must be addressed if the country's economic goals are to be achieved. Since autumn of 2000, USAID/Albania has worked to support a number of energy-related activities designed to improve the functionality and sustainability of Albania's energy sector. Specific activity support has included, but not been limited to the development of a Strategic Action Plan (SAP) to address medium- to long-term institutional, structural, and financial issues; support for the development of the Energy Policy Statement (EPS) and National Energy Strategy Action Plans (NESAPs); and support for the implementation of the EPS and NESAPs.

Keeping in-mind Albania's long-term economic goals, ensuring the country's capacity for energy production is of primary importance. Also, in order not to compromise the economic potential of Albania's natural endowment, it will be important to mitigate the environmental impacts from energy production. Given the range of donors supporting activities in the energy sector, USAID/Albania could play a very useful role by ensuring the integration of environmental concerns into developments in the energy sector. One possibility for achieving this goal would be to promote the consistently application of high-quality environmental assessments (EAs) and environmental impact assessments (EIAs).

Local capacity, both to conduct and to review/approve EAs/EIAs is still weak. As is often the case in transitional and developing countries, international specialists/contractors conducting EAs/EIAs may not apply the same rigor that they would in their home countries (this could occur for many reasons, including a lack of access to information). By way of example, the Power Sector Generation and Restructuring Project EA/EIA commissioned by the Ministry of Industry and Energy (and funded by the World Bank), while following international standards for analyses, misrepresents one "key" piece of information. Specifically, the EA/EIA notes that the proposed site for the development of thermal generating facility "is situated on a relatively barren coastal area with little vegetation or wildlife." This neglects to mention the adjacent Narta Lagoon, one of Albania's more important biodiversity areas, and site of the previously described MedWetCoast Project—selected, in part, because of its biological importance within the Mediterranean Basin. Promoting and encouraging the application of rigorous and well-informed EAs/EIAs, through USAID/Albania's support for future energy sector activities, could yield significant biodiversity conservation and environmental management benefits.

Annexes

Annex A. Scope of Work

Annex B. Bibliography

Albania, Republic of. 2002. “National Report on Marine and Coastal Biodiversity. 49 pp.

Bego, F., N. Peja, and S. Pllaha. 2002. “Large Carnivores in Albania” in *Protected Areas in the Southern Balkans*. ARCTUROS, pp 73-79.

Bego, F.N., et al. 2000. “Albania: Guide to its’ Natural Treasures” Verlag Herwig Klemp. 144 pp.

Coastal Area Management Program, 1996. “The Region of Durresi-Vlora Coastal Zone Management Plan” Mediterranean Action Plan/UNEP. 87 pp.

ECAT. 1998. “Conservation and Wise use of the Wetlands of the Mediterranean Basin: Focus on the Kune-Vaini Basin, Lexha, Albania”. MedWet. 133pp.

Economic Commission for Europe, Committee on Environmental Policy. 2002. “Environmental Performance Review of Albania”. Economic and Social Council of the United Nations. 173 pp.

Jungbluth, F. and D. Lugg. 2002. “Rural Development Strategy: Underpinning Growth and Sustainable Development” World Bank/FAO. 83 pp.

REC/Albania. 2003. “Strategic Plan, Skader Lake” 6 pp.

Vangjeli, J., D. Habili, and F. Bego, eds. 1997. “Ecological Survey of the High Forests of Albania” (in Albanian with English summary), Institute of Forest and Pasture Research, Institute of Biological Research, and the Museum of Natural Sciences. 331 pp.

Watzin, M.C., V. Puka, and T.B. Naumoski, eds. 2002. “Lake Ohrid and its Watershed, State of the Environment Report.” Lake Ohrid Conservation Project. 134 pp.

World Bank. 2003. “World Bank in Albania.” 78 pp.

Chemonics International, Inc., and Herb Research Foundation, 2000. “Albanian Botanicals Technical Assistance Report.” USAID/Albanian Private Forestry Development Program. 47 pp.

GTZ. 1998. “Biodiversity Conservation in the Lake District of Ohrid, Prespa and Little Prespa.” Implementing the Biodiversity Convention. 2 pp.

IFAD-MADA. 1999. “Mountain Areas Development Program.” 5 pp.

UNEP. 2000. “UNEP Balkans Technical Report: Institutional Capacities for Environmental Protection in Albania.” 23pp.

LOCP, 2001. “Lake Ohrid Watershed Action Plan.” 19 pp.

Ministry of Environment, GOA. 2002. “Updated National Environmental Action Plan.” 54 pp.

GOA. 2003. “NSSED: Progress Report for Implementation in 2002.” 231 pp.

Chemonics, Inc. 2001. “PFDP: Final Report.” USAID/Albania Private Forestry Development Program. 55 pp.

Troendle, C. 2003. "AWAP Final Summary." USAID/Albania: Albanian Watershed Assessment Program. 5 pp.

World Bank. 2003. "World Bank in Albania" 78 pp.

Annex C. Red Book Lists

#	[Scientific Name]	Common Name(s)	Red List	Trend
1	Acantholingua ohridana		VU B1+2bc ver 2.3 (1994)	
2	Acipenser naccarii	ADRIATIC STURGEON (E)		
		ESTURGEON DE L'ADRIATIQUE (F)		
	VU A1ac	ESTURIÓN DEL ADRIÁTICO (S)	VU A1ac ver 2.3 (1994)	
3	Acipenser sturio	BALTIC STURGEON (E)		
		COMMON STURGEON (E) ESTURGEON COMMUN (F) ESTURIÓN COMÚN (S)	CR A2d ver 2.3 (1994)	
4	Aegypius monachus	BLACK VULTURE (E)		
		CINEREOUS VULTURE (E)		
		VAUTOUR MOINE (F)		
		BUITRE NEGRO (S)	LR/nt ver 2.3 (1994)	
5	Alopias vulpinus	THRESHER SHARK (E)	DD ver 3.1 (2001)	
6	Alosa fallax	TWAIT SHAD (E)		
		TWAITE SHAD (E)	DD ver 2.3 (1994)	
7	Aphanius fasciatus	MEDITERRANEAN KILLIFISH (E)		
		SOUTH EUROPEAN TOOTHCARP (E)		
		APAHNIUS DE CORSE (F)	DD ver 2.3 (1994)	
8	Atherina boyeri		DD ver 2.3 (1994)	
9	Aythya nyroca	FERRUGINOUS DUCK (E)		
		FERRUGINOUS POCHARD (E)		
		WHITE-EYED POCHARD (E)		
		FULIGULE NYROCA (F)		
		PORRÓN PARDO (S)	LR/nt ver 2.3 (1994)	
10	Barbus graceus		DD ver 2.3 (1994)	
11	Barbus peloponnesius		DD ver 2.3 (1994)	
12	Barbus plebejus	ITALIAN BARBEL (E)	LR/nt ver 2.3 (1994)	
13	Barbus prespensis	BRIÁNA (E)	VU A2c ver 2.3 (1994)	
14	Buprestis splendens	GOLDSTREIFIGER (E)	VU A1c ver 2.3 (1994)	
15	Carabus intricatus	BLUE GROUND BEETLE (E)	LR/nt ver 2.3 (1994)	
16	Carcharhinus brachyurus	BRONZE WHALER (E)		
		COCKTAIL SHARK (E)		
		COPPER SHARK (E)		
		NARROWTOOTH SHARK (E)		
		NEW ZEALAND WHALER (E)		
		REQUIN CUIVRE (F)		
		BACOTA (S)		
		JAQUETON DEL ESTRECHO (S)		
		TIBURÓN COBRIZO (S)	NT ver 3.1 (2001)	
17	Carcharhinus brevipinna	SPINNER SHARK (E)	LR/nt ver 2.3 (1994)	
18	Carcharhinus plumbeus	SANDBAR SHARK (E)	LR/nt ver 2.3 (1994)	
19	Carcharias taurus	GREY NURSE SHARK (E)		
		SAND TIGER SHARK (E)		
		REQUIN TAUREAU (F)		

#	[Scientific Name]	Common Name(s)	Red List	Trend
		TORO BACOTA (S)	VU A1ab+2d ver 2.3 (1994)	
20	Carcharodon carcharias	GREAT WHITE SHARK (E)	VU A1cd+2cd ver 2.3 (1994)	
21	Caretta caretta	LOGGERHEAD (E)		
		CAOUANNE (F)		
		TORTUE CAOUANNE (F)		
		CAYUMA (S)		
		TORTUGA BOBA (S)	EN A1abd ver 2.3 (1994)	
22	Centrophorus granulosus	GULPER SHARK (E)	VU A1abd+2d ver 2.3 (1994)	
23	Cetorhinus maximus	BASKING SHARK (E)		
		PELERIN (F)		
		PEREGRINO (S)	VU A1ad+2d ver 2.3 (1994)	
24	Chalcalburnus belvica		LR/nt ver 2.3 (1994)	
25	Chondrostoma prespense		LR/nt ver 2.3 (1994)	
26	Chondrostoma scodrensis		CR A1a, B1+2e ver 2.3 (1994)	
27	Circus macrourus	PALE HARRIER (E)		
		PALLID HARRIER (E)		
		BUSARD PÂLE (F)		
		AGUILUCHO PAPIALBO (S)	LR/nt ver 2.3 (1994)	
28	Cobitis meridionalis		LR/nt ver 2.3 (1994)	
29	Coenagrion mercuriale	SOUTHERN DAMSELFLY (E)	VU A2c ver 2.3 (1994)	
30	Crex crex	CORN CRAKE (E)		
		CORNCRAKE (E)		
		RÂLE DES GENÊTS (F)	VU A2c ver 2.3 (1994)	
31	Dalatias licha	KITEFIN SHARK (E)	DD ver 2.3 (1994)	
32	Dermochelys coriacea	LEATHERBACK (E)		
		LEATHERY TURTLE (E)		
		LUTH (E)		
		TRUNKBACK TURTLE (E)		
		TORTUE LUTH (F)		
		BAULA (S)		
		CANAL (S)		
		CARDON (S)		
		TINGLADA (S)		
		TINGLAR (S)		
		TORTUGA LAUD (S)	CR A1abd ver 2.3 (1994)	
33	Dipturus batis	COMMON SKATE (E)	EN A1abcd+2bcd ver 2.3 (1994)	
34	Elaphe situla	LEOPARD SNAKE (E)	DD ver 2.3 (1994)	
35	Emys orbicularis	EUROPEAN POND TURTLE (E)		
		CISTUDE D'EUROPE (F)	LR/nt ver 2.3 (1994)	
36	Epinephelus marginatus	DUSKY GROUPER (E)	LR/nt ver 2.3 (1994)	
37	Falco naumanni	LESSER KESTREL (E)		
		FAUCON CRÉCERELLETTE (F)		
		CERNÍCALO PRIMILLA (S)	VU A1bce+2bce ver 2.3 (1994)	
38	Galeorhinus galeus	SCHOOL SHARK (E)		

#	[Scientific Name]	Common Name(s)	Red List	Trend
		TOPE SHARK (E)	VU A1bd ver 2.3 (1994)	
39	Grampus griseus	GREY DOLPHIN (E)		
		RISSO'S DOLPHIN (E)		
		DAUPHIN DE RISSO (F)		
		GRAMPUS (F)		
		DELFÍN DE RISSO (S)		
		FABO CALDERÓN (S)	DD ver 2.3 (1994)	
40	Haliaeetus albicilla	GREY SEA EAGLE (E)		
		WHITE-TAILED EAGLE (E)		
		PYGARGUE COMMUN (F)		
		PYGARGUE À QUEUE BLANCHE (F)		
		PIGARGO COLIBLANCO DE GROENLANDIA (S)		
		PIGARGO COLIBLANCO (S)		
		PIGARGO EUROPEO (S)	LR/nt ver 2.3 (1994)	
41	Hexanchus griseus	BLUNTNOSE SIXGILL SHARK (E)	LR/nt ver 2.3 (1994)	
42	Hirudo medicinalis	MEDICINAL LEECH (E)		
		SANGSUE MÉDICINALE (F)		
		SANGSUE OFFICINALE (F)	LR/nt ver 2.3 (1994)	
43	Hyla arborea	EUROPEAN COMMON TREE FROG (E)		
		EUROPEAN TREE FROG (E)		
		RAINETTE VERTE (F)	LR/nt ver 2.3 (1994)	
44	Knipowitschia panizzae	DD ver 2.3 (1994)		
45	Lamna nasus	PORBEAGLE (E)	LR/nt ver 2.3 (1994)	
46	Lampetra fluviatilis	RIVER LAMPREY (E)	LR/nt ver 2.3 (1994)	
47	Lutra lutra	COMMON OTTER (E)		
		EURASIAN OTTER (E)		
		EUROPEAN OTTER (E)		
		EUROPEAN RIVER OTTER (E)		
		OLD WORLD OTTER (E)		
		LOUTRE COMMUNE (F)		
		LOUTRE D'EUROPE (F)		
		LOUTRE DE RIVIÈRE (F)		
		NUTRIA COMÚN (S)	VU A2cde ver 2.3 (1994)	
48	Lycaena ottomanus		VU A1ac ver 2.3 (1994)	
49	Lynx lynx	EURASIAN LYNX (E)		
		LYNX (F)		
		LINCE (S)	NT ver 3.1 (2001)	
50	Maculinea alcon	ALCON LARGE BLUE (E)	LR/nt ver 2.3 (1994)	
51	Maculinea arion	LARGE BLUE (E)	LR/nt ver 2.3 (1994)	
52	Messinobarbus albanicus		DD ver 2.3 (1994)	
53	Microtus felteni	FELTEN'S VOLE (E)	LR/nt ver 2.3 (1994)	
54	Microtus thomasi	THOMAS'S PINE VOLE (E)	LR/nt ver 2.3 (1994)	
55	Miniopterus schreibersi	COMMON BENTWING BAT (E)		
		SCHREIBER'S LONG-FINGERED BAT (E)	LR/nt ver 2.3 (1994)	
56	Mobula mobular	DEVIL FISH (E)		

#	[Scientific Name]	Common Name(s)	Red List	Trend
		GIANT DEVILRAY (E)	VU A1cd ver 2.3 (1994)	
57	Monachus monachus	MEDITERRANEAN MONK SEAL (E)		
		PHOQUE-MOINE MÉDITERRANÉEN (F)	CR C2a ver 2.3 (1994)	
58	Muscardinus avellanarius	COMMON DORMOUSE (E)		
		HAZEL DORMOUSE (E)	LR/nt ver 2.3 (1994)	
59	Mycteroperca rubra	MOTTLED GROUPER (E)	DD ver 2.3 (1994)	
60	Myotis capaccinii	LONG-FINGERED BAT (E)	VU A2c ver 2.3 (1994)	
61	Myotis myotis	GREATER MOUSE-EARED BAT (E)		
		LARGE MOUSE-EARED BAT (E)		
		MOUSE-EARED BAT (E)	LR/nt ver 2.3 (1994)	
62	Nyctalus leisleri	LESSER NOCTULE (E)	LR/nt ver 2.3 (1994)	
63	Oxyura leucocephala	WHITE-HEADED DUCK (E)		
		ÉRISMATURE À TÊTE BLANCHE (F)		
		MALVASÍA (S)	EN A1acde ver 2.3 (1994)	
64	Pachychilon pictum	ALBANIAN ROACH (E)	LR/nt ver 2.3 (1994)	
65	Pagrus pagrus	RED PORGY (E)	EN A1bd+2d ver 2.3 (1994)	
66	Parnassius apollo	APOLLO BUTTERFLY (E)		
		APOLLO (E)		
		MOUNTAIN APOLLO (E)		
		APOLO (S)		
		MARIPOSA APOLLO (S)	VU A1cde ver 2.3 (1994)	
67	Pelecanus crispus	DALMATIAN PELICAN (E)		
		PÉLICAN DALMATE (F)		
		PÉLICAN FRISÉ (F)		
		PELÍCANO CEÑUDO (S)		
		PELÍCANO RIZADO (S)	LR/cd ver 2.3 (1994)	
68	Phalacrocorax pygmeus	PYGMY CORMORANT (E)	LR/nt ver 2.3 (1994)	
69	Phoxinellus epiroticus		DD ver 2.3 (1994)	
70	Phoxinellus minutus		DD ver 2.3 (1994)	
71	Phoxinellus pstrossii		DD ver 2.3 (1994)	
72	Pinus peuce		LR/nt ver 2.3 (1994)	
73	Pomatoschistus canestrinii	CANESTRINI'S GOBY (E)	DD ver 2.3 (1994)	
74	Prionace glauca	BLUE SHARK (E)	LR/nt ver 2.3 (1994)	
75	Raja clavata	THORNBACK SKATE (E)	LR/nt ver 2.3 (1994)	
76	Rhinolophus blasii	BLASIUS'S HORSESHOE BAT (E)	LR/nt ver 2.3 (1994)	
77	Rhinolophus hipposideros	LESSER HORSESHOE BAT (E)	VU A2c ver 2.3 (1994)	
78	Sabanejewia aurata	GOLDSIDE LOACH (E)	DD ver 2.3 (1994)	
79	Salmo letnica		VU A1ad+2d ver 2.3 (1994)	
80	Salmo marmoratus		DD ver 2.3 (1994)	
81	Sphyrna mokarran	GREAT HAMMERHEAD (E)	DD ver 2.3 (1994)	
82	Sphyrna zygaena	SMOOTH HAMMERHEAD (E)	LR/nt ver 2.3 (1994)	
83	Squalus acanthias	PIKED DOGFISH (E)		
		SPINY DOGFISH (E)	LR/nt ver 2.3 (1994)	

#	[Scientific Name]	Common Name(s)	Red List	Trend
84	Squatina squatina	ANGEL SHARK (E)	VU A1abcd+A2d ver 2.3 (1994)	
85	Syngnathus abaster	DD ver 2.3 (1994)		
86	Testudo graeca	COMMON TORTOISE (E)		
		GREEK TORTOISE (E)		
		MOORISH TORTOISE (E)		
		SPUR-THIGHED TORTOISE (E)		
		TORTUE MAURESQUE (F)		
		TORTUGA MORA (S)	VU A1cd ver 2.3 (1994)	
87	Testudo hermanni	HERMANN'S TORTOISE (E)		
		TORTUE D'HERMANN (F)		
		TORTUGA MEDITERRÁNEA (S)	LR/nt ver 2.3 (1994)	
88	Thunnus alalunga	ALBACORE TUNA (E)	DD ver 2.3 (1994)	
89	Thunnus thynnus	NORTHERN BLUEFIN TUNA (E)	DD ver 2.3 (1994)	
90	Triturus cristatus	GREAT CRESTED NEWT (E)		
		WARTY NEWT (E)	LR/cd ver 2.3 (1994)	
91	Valencia letourneuxi	EN A2bcd ver 2.3 (1994)		
92	Vipera ursinii	MEADOW VIPER (E)		
		ORSINI'S VIPER (E)		
		VIPÈRE D'ORSINI (F)		
		VIPÈRE DES STEPPES (F)	EN A1c+2c ver 2.3 (1994)	
93	Xiphias gladius	SWORDFISH (E)	DD ver 2.3 (1994)	
94	Zosterisessor ophiocephalus	DD ver 2.3 (1994)		

Citation: IUCN 2003. 2003 IUCN Red List of Threatened Species. www.redlist.org.

Key:

EXTINCT (EX) - A taxon is Extinct when there is no reasonable doubt that the last individual has died.

EXTINCT IN THE WILD (EW) - A taxon is Extinct in the wild when it is known only to survive in cultivation, in captivity or as a naturalised population (or populations) well outside the past range. A taxon is presumed extinct in the wild when exhaustive surveys in known and/or expected habitat, at appropriate times (diurnal, seasonal, annual), throughout its historic range have failed to record an individual. Surveys should be over a time frame appropriate to the taxon's life cycle and life form.

CRITICALLY ENDANGERED (CR) - A taxon is Critically Endangered when it is facing an extremely high risk of extinction in the wild in the immediate future, as defined by any of the criteria (A to E) as described below.

ENDANGERED (EN) - A taxon is Endangered when it is not Critically Endangered but is facing a very high risk of extinction in the wild in the near future, as defined by any of the criteria (A to E) as described below.

VULNERABLE (VU) - A taxon is Vulnerable when it is not Critically Endangered or Endangered but is facing a high risk of extinction in the wild in the medium-term future, as defined by any of the criteria (A to E) as described below.

LOWER RISK (LR) - A taxon is Lower Risk when it has been evaluated, does not satisfy the criteria for any of the categories Critically Endangered, Endangered or Vulnerable. Taxa included in the Lower Risk category can be separated into three subcategories:

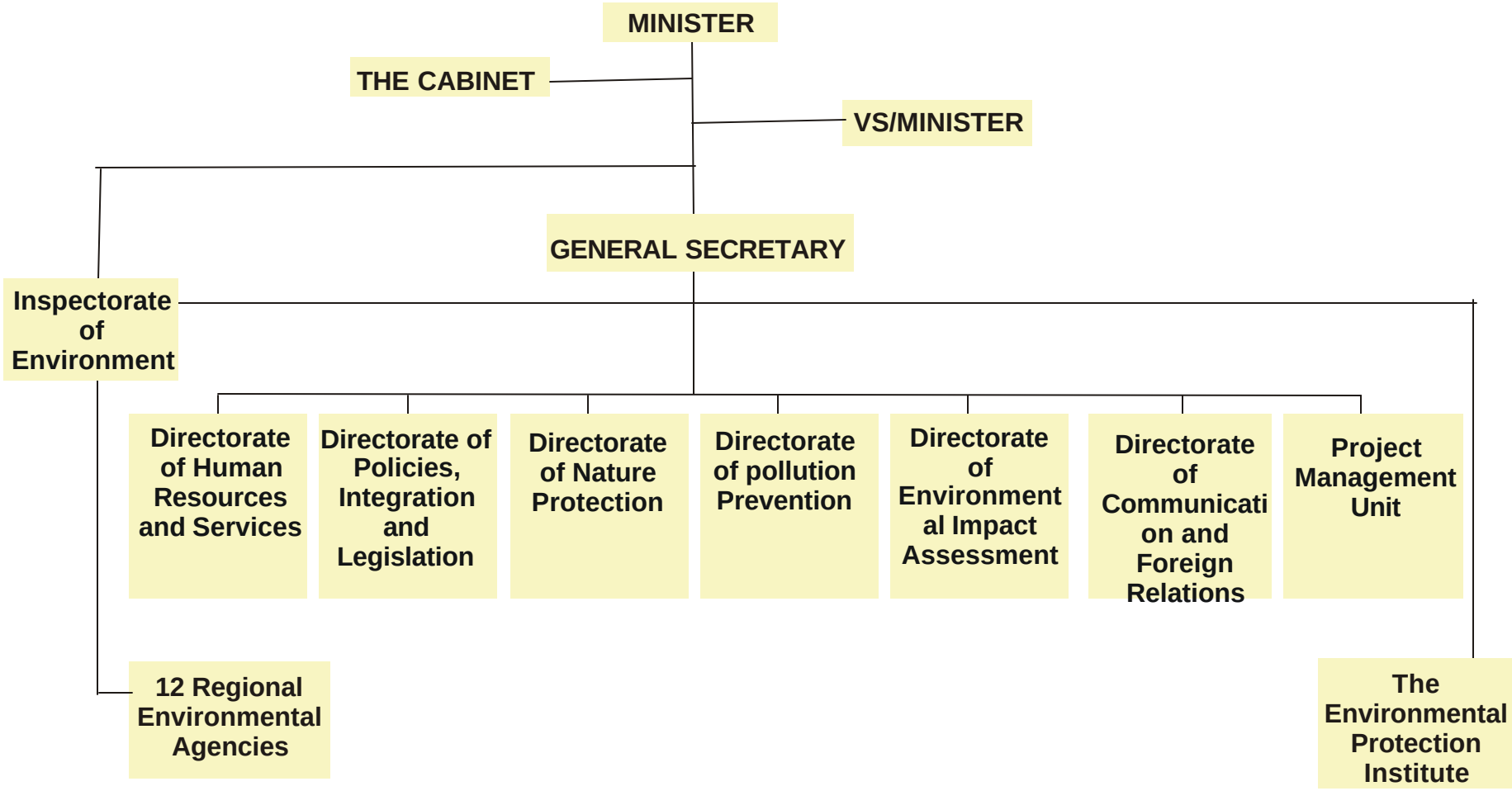
1. **Conservation Dependent (cd).** Taxa which are the focus of a continuing taxon-specific or habitat-specific conservation programme targeted towards the taxon in question, the cessation of which would result in the taxon qualifying for one of the threatened categories above within a period of five years.
2. **Near Threatened (nt).** Taxa which do not qualify for Conservation Dependent, but which are close to qualifying for Vulnerable.
3. **Least Concern (lc).** Taxa which do not qualify for Conservation Dependent or Near Threatened.

DATA DEFICIENT (DD) A taxon is Data Deficient when there is inadequate information to make a direct, or indirect, assessment of its risk of extinction based on its distribution and/or population status. A taxon in this category may be well studied, and its biology well known, but appropriate data on abundance and/or distribution is lacking. Data

Deficient is therefore not a category of threat or Lower Risk. Listing of taxa in this category indicates that more information is required and acknowledges the possibility that future research will show that threatened classification is appropriate. It is important to make positive use of whatever data are available. In many cases great care should be exercised in choosing between DD and threatened status. If the range of a taxon is suspected to be relatively circumscribed, if a considerable period of time has elapsed since the last record of the taxon, threatened status may well be justified.

NOT EVALUATED (NE) A taxon is Not Evaluated when it is has not yet been assessed against the criteria.

Annex D. Ministry of Environment Organizational Chart


MINISTER
THE CABINET
VS/MINISTER
GENERAL SECRETARY
Inspectorate of Environment
Directorate of Human Resources and Services
Directorate of Policies, Integration and Legislation
Directorate of Nature Protection
Directorate of pollution Prevention
Directorate of Environmental Impact Assessment
Directorate of Communication and Foreign Relations
Project Management Unit
12 Regional Environmental Agencies
The Environmental Protection Institute

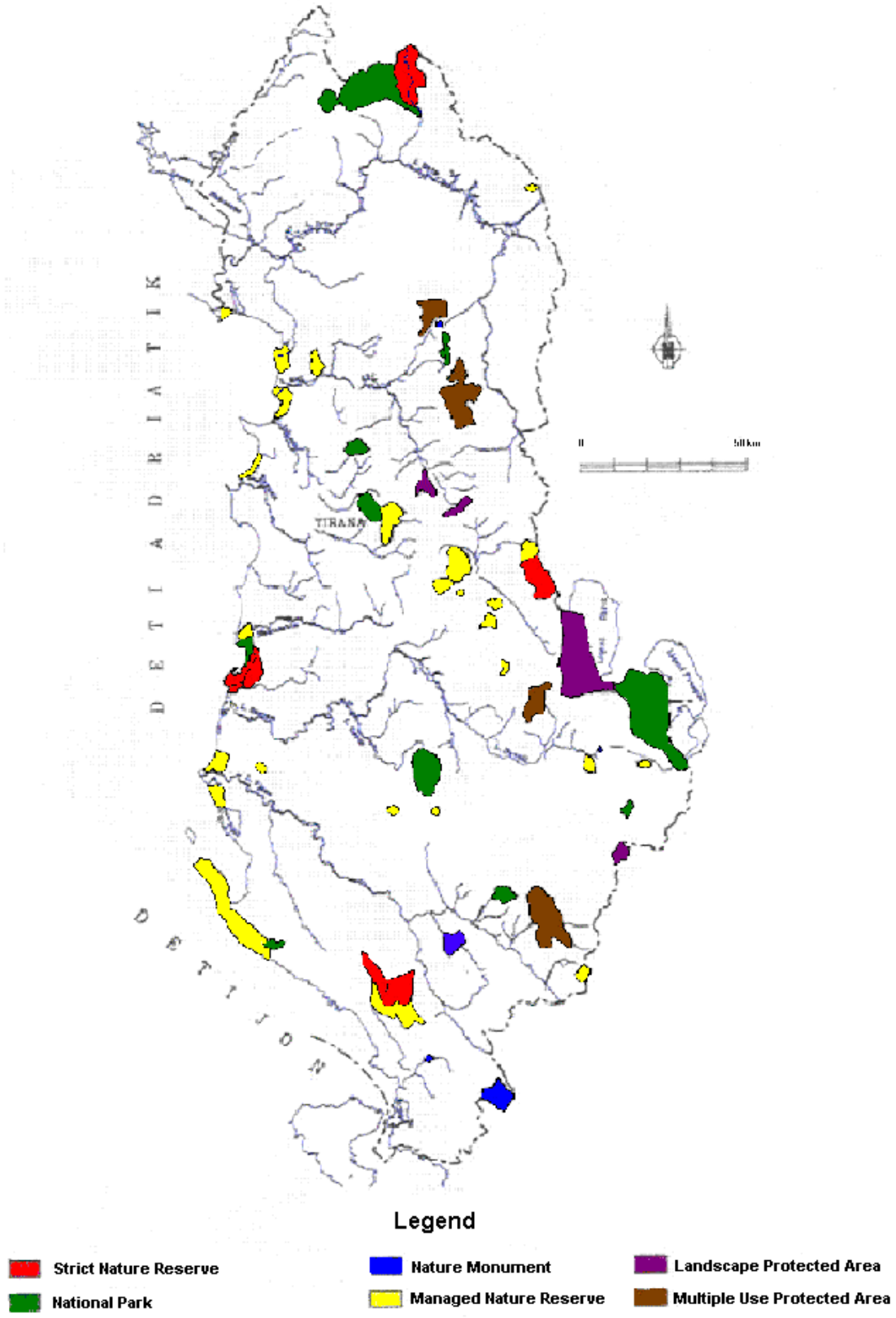
Annex E. List and Map of Protected Areas in Albania

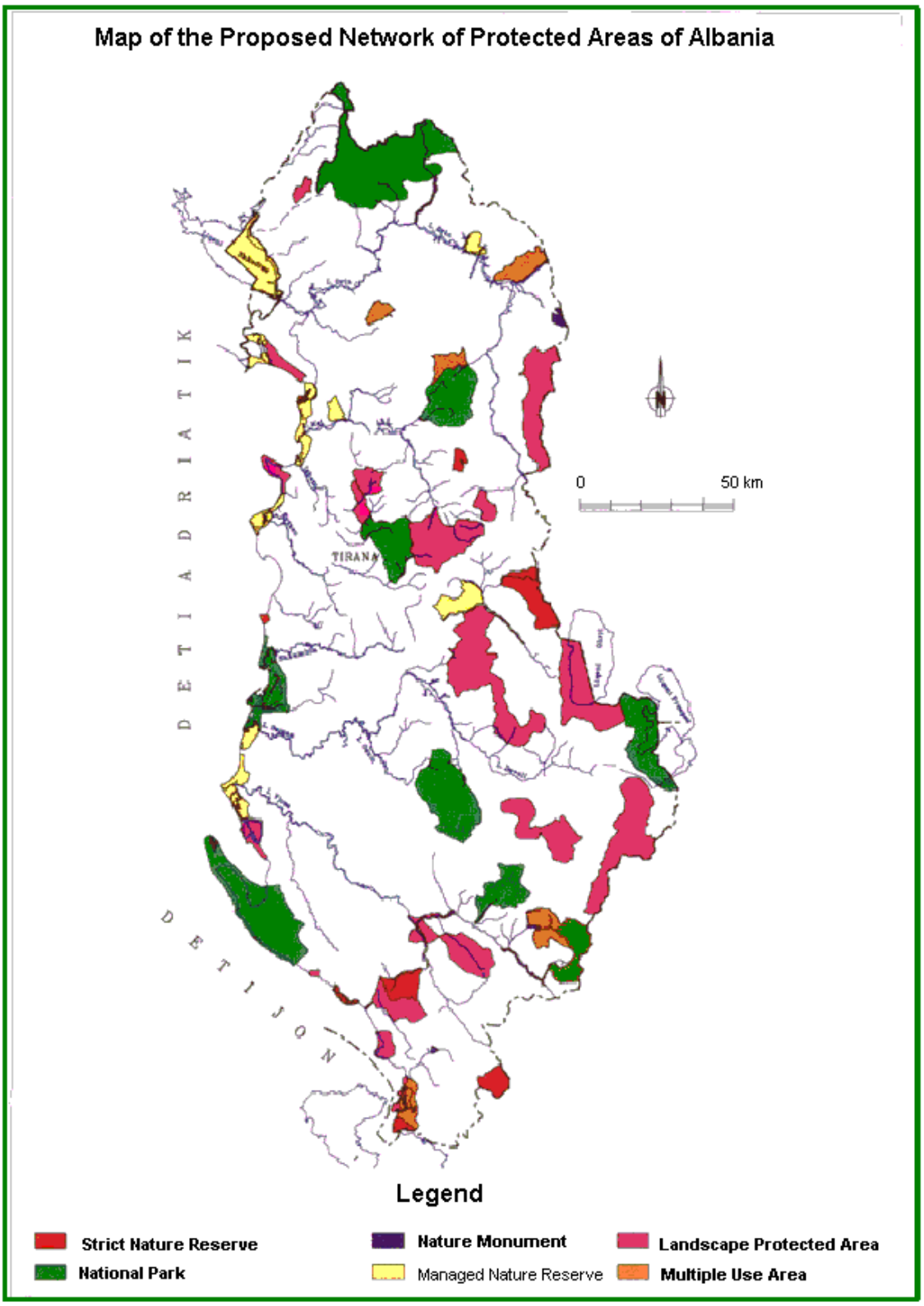
Protected areas according to districts and management categories (IUCN)

No	Designation	Surface in ha	District	Approved
Category I		**Strictly natural reserve/scientific reserve**		
1	Karavasta Lagoon	5 000	Lushnja	22.08.1994
2	Gashi River	3 000	Tropoja	15.01.1996
3	Rrajca	4 700	Librazhd	15.01.1996
4	Kardhiq	1 800	Gjirokastra	15.01.1996
	TOTAL	14 500		100,00 %
Category II		**National Park**		
5	Dajti mountain	3 300	Tirana	16.12.1960/1966
6	Theth	2 630	Shkodra	21.11.1966
7	Lura	1 280	Dibra	21.11.1966
8	Pine of Divjaka	1 250	Lushnja	21.11.1966
9	Llogara	1 010	Vlora	21.11.1966
10	Fir of Drenova	1 380	Korça	21.11.1966
11	Tomorri mountain	4 000	Berat	15.01.1996/1940
12	Valbona valley	8 000	Tropoja	15.01.1996
13	Fir of Hotova	1 200	Përmet	15.01.1996
14	Qafë Shtama	2 000	Kruja	15.01.1996
15	Zall Gjocaj	140	Mat	15.01.1996
16	Prespa	27 750	Korca	18.02.1999
	TOTAL	53.940		100.00 %
Category III		**Monument of nature**		
17	Fir of Sotira	1 740	Gjirokastra	15.01.1996
18	Blue Eye	200	Delvina	15.01.1996
19	Vlashaj	50	Dibra	15.01.1996
20	Zhej	1 500	Gjirokastra	15.01.1996
	TOTAL	4 360		100.00 %
Category IV		**Natural managed reserve**		
21	Rrushkull	650	Durrës	1955,1977,1983 26.12.1995
22	Pishë-Poro	1 500	Fier	1958/1977/1983
23	Velipojë	700	Shkodra	1958/1977/1983
24	Kune	800	Lezha	1940/1960/1977/ 1983
25	Maliq	50	Korça	1961/1977/1983
26	Patok-Fushëkuqe-Negel	2 200	Kurbin	1962/1977/1983
27	Karaburun	20 000	Vlora	22.02.1968/1977/1983
28	Pishë-Poro	1 770	Vlora	04.08.1969/1977/ 83
29	Vain	1 500	Lezha	1940,1969,1977, 1983
30	Cangonji	250	Devoll	05.11.1960/ 1977/ 83
31	Bërzanë	880	Lezha	05.11.1977/1983
32	Levan	200	Fier	05.11.1977/1983
33	Qafëmollë-Derje	3 300	Tirana	05.11.1960/ 1977/ 83
34	Balloll	330	Berat	05.11.1977/1983
35	Qafë-Bushi	500	Elbasan	05.11.1977/1983
36	Bogovë	330	Skrapar	05.11.1977/1983
37	Krastafillak	250	Korça	05.11.1977/1983
38	Kuturman	3.600	Librazhd	05.11.1977/1983
39	Kular	815	Lushnja	22.08.1994

No	Designation	Surface in ha	District	Approved
40	Rrezoma	1 400	Delvina	15.01.1996
41	Tej Drini Bardhë	30	Has	15.01.1996
42	Shelegur	430	Kolonja	15.01.1996
43	Polis	45	Librazhd	15.01.1996
44	Stravaj	400	Librazhd	15.01.1996
45	Sopot	300	Librazhd	15.01.1996
46	Qarishtë	318	Librazhd	15.01.1996
47	Dardhë-Xhyre	400	Librazhd	15.01.1996
	TOTAL	42 898		100,00 %
Category V		**Protected landscape/seascape**		
47	Bizë	1.370	Tirana	15.01.1996
48	Bërdhet	670	Tirana	15.01.1996
49	Nikolicë	510	Devoll	15.01.1996
21	Lake Ohrid	27 323	Pogradec	18.02.1999
	TOTAL	29 873		100,00 %
Category VI		**Reserve of managed resources**		
50	Luzni-Bulac	5 900	Dibra	15.01.1996
51	Piskal-Shqeri	5 400	Kolonja	15.01.1996
52	Bjeshka e Oroshit	4 700	Mirdita	15.01.1996
53	Guri i Nikës	2 200	Pogradec	15.01.1996
	TOTAL	18 200		100,00 %

Map of the Existing Protected Areas of Albania




Map of the Proposed Network of Protected Areas of Albania
DETIA ADRIATIK
DETI JON
TIRANA
0
50 km
Legend
Strict Nature Reserve
National Park
Nature Monument
Managed Nature Reserve
Landscape Protected Area
Multiple Use Area

Annex F. List of Persons Consulted

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Annex G. USG Foreign Assistance Act, Section 119

Foreign Assistance Act, Part I, Section 119 - Endangered Species

Sec. 119.\75\ Endangered Species.--

(a) The Congress finds the survival of many animal and plant species is endangered by overhunting, by the presence of toxic chemicals in water, air and soil, and by the destruction of habitats. The Congress further finds that the extinction of animal and plant species is an irreparable loss with potentially serious environmental and economic consequences for developing and developed countries alike. Accordingly, the preservation of animal and plant species through the regulation of the hunting and trade in endangered species, through limitations on the pollution of natural ecosystems, and through the protection of wildlife habitats should be an important objective of the United States development assistance.

\75\ 22 U.S.C. 2151q. Sec. 119, pars. (a) and (b) were added by sec. 702 of the International Environment Protection Act of 1983 (title VII of the Department of State Authorization Act, Fiscal Years 1984 and 1985, Public Law 98-164; 97 Stat. 1045).

(b) \75\ In order to preserve biological diversity, the President is authorized to furnish assistance under this part, notwithstanding section 660,\76\ to assist countries in protecting and maintaining wildlife habitats and in developing sound wildlife management and plant conservation programs. Special efforts should be made to establish and maintain wildlife sanctuaries, reserves, and parks; to enact and enforce anti-poaching measures; and to identify, study, and catalog animal and plant species, especially in tropical environments.

\76\ Section 533(d)(4)(A) of the Foreign Operations, Export Financing, and Related Programs Appropriations Act, 1990 (Public Law 101-167; 103 Stat. 1227), added ``notwithstanding section 660" at this point.

(c) \77\ Funding Level.--For fiscal year 1987, not less than $2,500,000 of the funds available to carry out this part (excluding funds made available to carry out section 104(c)(2), relating to the Child Survival Fund) shall be allocated for assistance pursuant to subsection (b) for activities which were not funded prior to fiscal year 1987. In addition, the Agency for International Development shall, to the fullest extent possible, continue and increase assistance pursuant to subsection (b) for activities for which assistance was provided in fiscal years prior to fiscal year 1987.

\77\ Pars. (c) through (h) were added by sec. 302 of Public Law 99- 529 (100 Stat. 3017).

(d) \77\ Country Analysis Requirements.--Each country development strategy statement or other country plan prepared by the Agency for International Development shall include an analysis of-

(1) the actions necessary in that country to conserve biological diversity, and

(2) the extent to which the actions proposed for support by the Agency meet the needs thus identified.

(e) \77\ Local Involvement.--To the fullest extent possible, projects supported under this section shall include close consultation with and involvement of local people at all stages of design and implementation.

(f) \77\ PVOs and Other Nongovernmental Organizations.-- Whenever feasible, the objectives of this section shall be accomplished through projects managed by appropriate private and voluntary organizations, or international, regional, or national nongovernmental organizations, which are active in the region or country where the project is located.

(g) \77\ Actions by AID.--The Administrator of the Agency for International Development shall-

(1) cooperate with appropriate international organizations, both governmental and nongovernmental;

(2) look to the World Conservation Strategy as an overall guide for actions to conserve biological diversity;

(3) engage in dialogues and exchanges of information with recipient countries which stress the importance of conserving biological diversity for the long-term economic benefit of those countries and which identify and focus on policies of those countries which directly or indirectly contribute to loss of biological diversity;

(4) support training and education efforts which improve the capacity of recipient countries to prevent loss of biological diversity;

(5) whenever possible, enter into long-term agreements in which the recipient country agrees to protect ecosystems or other wildlife habitats recommended for protection by relevant governmental or nongovernmental organizations or as a result of activities undertaken pursuant to paragraph (6), and the United States agrees to provide, subject to obtaining the necessary appropriations, additional assistance necessary for the establishment and maintenance of such protected areas;

(6) support, as necessary and in cooperation with the appropriate governmental and nongovernmental organizations, efforts to identify and survey ecosystems in recipient countries worthy of protection;

(7) cooperate with and support the relevant efforts of other agencies of the United States Government, including the United States Fish and Wildlife Service, the National Park Service, the Forest Service, and the Peace Corps;

(8) review the Agency's environmental regulations and revise them as necessary to ensure that ongoing and proposed actions by the Agency do not inadvertently endanger wildlife species or their critical habitats, harm protected areas, or have other adverse impacts on biological diversity (and shall report to the Congress within a year after the date of enactment of this paragraph on the actions taken pursuant to this paragraph);

(9) ensure that environmental profiles sponsored by the Agency include information needed for conservation of biological diversity; and

(10) deny any direct or indirect assistance under this chapter for actions which significantly degrade national parks or similar protected areas or introduce exotic plants or animals into such areas.

(h) \77\ Annual Reports.--Each annual report required by section 634(a) of this Act shall include, in a separate volume, a report on the implementation of this section.