Стручни рад

Економика пољопривреде
Број 3/2009.
УДК: 504.05(496.5)

BIODIVERSITY AND THE PROTECTED AREAS SYSTEM IN ALBANIA

M. Metaj[1]

Abstract. Albania possesses a wide range of ecological systems including coastal zones, estuaries and lagoons, lakes and wetlands, grasslands, middle-low altitude coppice forests, high altitude forests, alpine vegetation and glacial areas. The country possesses about 3,250 species of vascular plants, 165 families and more than 900 genera. Medicinal plants (botanicals) and non-timber forest products have a long history of importance in the culture and traditional knowledge of Albania. Proper legislation and especially legal and regulatory framework enforcement for the regulation of this developing industry remains lacking. A Strategy of Biodiversity plan developed in 2000 calls for an increase in the Protected Areas system which currently covers some 6 % of Albania's area to a total area of 435,600 ha, approximately 15 % of the country's territory. Changes in the legal and policy framework as well as institutional structures is required to move forward and provide an environment for biodiversity conservation and a sustainable protected areas system. The various threats to biodiversity and constraints to improvement are outlined as well as recommendations for sustainable use, assessment and regulation.

Introduction

Albania, formally named the Republic of Albania, is a country in southeastern Europe. It is bordered by Montenegro in the north, Serbia (Kosovo) in the north-east, the Republic of Macedonia in the east, and Greece in the south. Its land area totals 28,750 km^2. Albania is mountainous, with about 70 % of the land above 300 m. The land rises steeply from the coastal plain to elevations of more

[1] Mehmet Metaj, Executive Director, AlbaForest, "Sami Frasheri" Street, Colosseo, Nr. 39, P.O.Box. 1544, Tirana, ALBANIA, Tel. +355-44804113, Fax. +355-42-232 363, Mobile: +355-693560507, albaforest@yahoo.com; mmeta@ekolevizja.net

than 2,400 m (2,764 m at the country´s highest point, Mount Korabi). The most rugged mountains, the Dinaric Alps, are in the north and the country´s geology prevails in high limestone mountains. The territory - known in ancient times as Illyria - was long dominated by Greeks and Latins before becoming, in 395 AD, part of the Byzantine Empire. The capital is Tirana, with an area of 42 sq. km, and a population of 600,000.

Albania remains a young and rather unstable democracy. The medium term interests of the country are often sacrificed to shorter term, narrower, political interests. Consolidation of a democratic culture is essential to bring about necessary reforms.

This article is an overview of the current state of Albanian biodiversity and of the protected area system.

Geography. It is situated between latitude 49 grade 38´ - 42 grade 39´North and longitude 19 grade 16´-21 grade 4 ´East. The highest peak in the country is Mount Korabi (2751 m) and the Alps in the North resemble a big cupola (Jezerca-2694 m).

Lakes: Shkodra lake - 368 km^2 (the Albanian portion is 168 $km^{2)}$, Ohrid lake - 367 km^2 , Bigger Prespa lake - 285 km^2, Smaller Prespa lake - 44 km^2.

Flora and fauna. Flora – 3220 species, out of which 1% are endemics, 15 % are sub-endemics and the rest are Mediterranean species.

Human Development. A great number of Albanians (roughly 15% of the urban population and 30% of the rural population) still live in poverty, despite government plans to eradicate the problem. Corruption among officials remains widespread and results in major dispersion of public resources made available for this purpose. Albanian economy GDP- per capita: $3,287, Inflation: 2.2 %.

Ecological and Socio-Economic Diversity of Albania. Although Albania is relatively small in land area, it possesses a wide range of ecological systems derived primarily from its rugged and varied topography. The major ecological zones include coastal zones (associated with the Adriatic and Ionian Seas), estuaries and lagoons, lakes and wetlands, grasslands, middle-low altitude coppice forests (mostly oaks and chestnut, heavily disturbed by man over the centuries) high altitude forests (pine and beech), alpine vegetation and glacial areas. As would be expected, the primary socio-economic activities throughout the country reflect the great diversity of the ecological landscape. Rural activities are mostly agricultural based, but there are great regional and local uses of minerals, timber and fishery resources. Often one is tied to the other, as in the case of Puka District where the closing of several mines has led to a marked increase in the commercial forestry sector.

This range of natural systems and socio-economic patterns requires a variety of skills and technical expertise to ensure sound management. Furthermore, administratively there are 36 districts superimposed on this range of natural areas, and the Ministry of Environment, Forests and Water Administration (MoEFWA) through Directorate of Forests and Pastures Policies (DFPP) is responsible for the management of a considerable amount of this area. The 36 districts are currently being grouped into 12 regions, and a new initiative is to re-group them into 7-8 aimed at improving planning, coordination and communications among the districts. The regions have not been designed around major ecological zones; they are essentially larger administrative units.

Productivity and Health. A third issue is the productivity and health of forest ecosystems, plantations and pastures. Many of the actions contained in the Strategy of Biodiversity plan are predicated on attaining a level of sustainable utilization of the resource in question. At present, it is widely believed that some of the management systems as currently practiced (whether formal or informal) are not sustainable. Implicit in the strategy, though not clearly stated, is the importance of improving the overall productivity and health of the forest and pasture estate.

There are a number of specific problems that could be addressed to ameliorate the situation. Only two examples are presented here. In the case of forest and agroforest species, significant improvements could be realized in both growth and disease resistance within 15-20 years. Several key species are suffering from chronic insect and disease problems. Among these populations, however, there are individuals that are outperforming the rest of the trees. A modest tree improvement program could be developed around these individuals that would not require a great deal of resources. Most of this could be accomplished through training and regular fieldwork. This is, of course, a medium to long term investment, but one that could eventually pay great dividends. Another factor related to productivity is the uncontrolled grazing that takes place in many parts of Albania. The grazing patterns are very extensive, often leading to a considerable amount of damage to the young forest stock particularly on State and Komuna lands. (Komuna lands still as property-ownership belong to the State though there is a scheduled program supported by the World Bank Natural resources development project, NRDP, 2005-2010, to go to full property rights transfer to Komunas in the next ten-years.) This damage retards the development of a needed resource and could be averted through the introduction of basic grazing management techniques executed at the village level. These examples illustrate how technical improvements, whether based on biophysical or sociological factors, could help increase productivity of the forest and pasture resource base.

Biodiversity and protected areas in Albania.

Flora and Fauna

Albania's high mountains and deep valleys ensure rich and diverse vegetation. The country possesses about 3,250 species of vascular plants, 165 families and more than 900 genera.

The most common forest species of Albania are: beech (*Fagus silvatica*-L.), spruce (*Picea abies*), pines (*Pinus nigra*, *P. Peuche*, *P sylvestris*, *P. Leucodermis*, and *P. Heldrechi*), silver fir (*Abies alba* and *A. Borisii-regis*), poplar (*Populis tremula*), *Acer pseudoplatanus*, *Ostrya carpinifolia*, *Sorbus aucuparia*. The most common shrubs are *Vaccinium myrtillus*, *Rubus idaeus*, *Erica herbacea* and *Ilex aquifolium*. The dominant grassland species is Festuca (*F. Bosniaca*, *F. Adamovici*, *F. Panciciana*, *F. F. Paniculata*).

The endemic species *Wulfenia baldacci* is found in the "Bjeshket e Namuna" (accursed mountains) at "Shtegu i Dhenve" and at high altitudes, the endemic plants *Petasites doerfleri*, *Lilium albanicum* and *Viola ducagjinica* are found. Furthermore *Teucrium arduini*, *Micromeria parviflora*, *Athamantha turbith* and *Asperulla scutellaris* all grow together with the Balkan species *Campanula albanica*. Other plants that are considered threatened such as *Colchium autumnale*, *Gentiana lutea* and *Atropa belladonna* can also be found here.

The fauna is also very diverse. The mountainous waters are rich in *Salmo trutta marmoratus* and *Salmo trutta macrostigma*. Thethi is one of the rare places where *Salamandra atra* is found, alongside other threatened amphibians like *Triturus alpestris*, *Bombina variegate*, *Algyroides nigropunctatus*, *Lacerta agilis*, *Coronella austriaco*, and *Vipera spec*. In the forest, resident birds include woodpeckers (*Piciformes*), falcons and hawks (*Falconiformes*) and capercallie (*Tetrao urogallus*). There are also some important large forest mammals such as the Brown Bear (*Ursus arctos*); along the river, the rare otter (*Lutra lutra*); on the tops of the mountains , Wild Goat (*Rupicapra rupicapra*) and lower down, the Roe Deer (*Capreolus capreolus*). In Thethi, Red Squirrel (*Sciurus vulgaris*), Pine Martin (*Martes martes*) Polecat (*Mustela putorius*), Wolf (*Canis lupus*) and Fox (*Vulpes vulpes*) can all be observed.

Medicinal Plants and other non-timber forest products. The importance of medicinal plants (botanicals) and non-timber forest products has been greatly appreciated at the local level of Albanian society for many generations. Their use is widespread throughout the country and many regions of Albania are known nationally for their production of one type of botanical or another. Most botanicals are produced and collected on State or Komuna lands. More recently, a small number of entrepreneurs have begun to understand the economic potential of producing and marketing botanicals on a larger scale. The Albania Private

Forestry Development Program (APDFP) has been instrumental in assisting these groups and individuals to move forward with their initiatives through training and technical assistance.

Despite promising developments in the non-timber forest product sector recently, there are a number of significant obstacles that must be addressed. First, policy and legislation that promotes the rational development of this sector is virtually non-existent. Without policy and legislation, the appropriate regulatory environment cannot exist. Other factors that contribute to retarding the development of this sector include limited business and marketing skills, lack of capital for investment, and inexperience in the import/export business due to years of isolation.

Despite these constraints, the Forest and Pasture Sector Strategy (FPSS) contains a number of actions that directly affect botanicals and non-timber forest products. The current action plan which is under development for the next two years contains some of these elements as well, and several recommendations address the constraints listed above. However, as long as policy and legislation relevant to the production and distribution of botanicals is lacking, the development of this sector will always fall short of realizing its actual potential.

Protected Areas System

The current Protected Area System (PAs) covers some 6 % of Albania's area, including 13 national parks (56,440 ha), 204 nature monuments (4.780 ha), 26 managed nature reserves (42.958 ha), 5 protected landscapes/seascapes (29.873 ha) and 4 resource managed reserves (18.200 ha), classified according to IUCN protected area designation criteria. In addition there have been new designations of PA´s and NP´s over the last decade and today their surface has increased to 166,691 ha, 16.6 % of the total forest area. Out of these four are strictly PA´s (14.500 ha). The Strategy of Biodiversity, outlined and approved by the Government in 2000, has proposed to increase the number and size of Albania´s PA´s representative network with an increase in the total area to 435,600 ha, approximately 15 % of the country´s territory, with 180,00 ha of NP´s. This is more than double the current PAs area, reaching the European accepted norm of 15% of land area.

Legal and Policy Framework

Legislation

One of the government's priorities is the harmonization of the legal framework so that it will include biodiversity and protected areas. This will

improve the sustainable management of natural resources and development. The government also aims to raise public awareness and encourage participatory approaches in the sustainable management of natural resources.

Policies

The Government of Albania is committed to the formulation of a sound policy for the better management of biodiversity and the protected areas system. Recently, the Ministry of Environment, Forests and Water Administration (MoEFWA) in close cooperation with the Ministry of Agriculture and Food, with the support of international organizations such as the World Bank (WB) and the Food and Agriculture Organization (FAO), has taken important steps towards improving the legal and policy framework for protected areas.

Institutional Structure

The main institution responsible in Albania for biodiversity and protected area conservation and management is the Ministry of Environment (Directorate of Nature Protection - DNP). The day-to-day administration has traditionally been a task of the former General Directorate of Forests and Pastures (DFPP), Ministry of Agriculture and Food, through regional and district Forest Service Directorates. The new reviewed government in 2005 transferred this administration to the Ministry of Environment, Forests and Water Administration, under the Directorate of Nature Protection (DNP/MoEFWA) under districts Directorates of Forest Service (DFP/MoEFWA). However PAs management in the field has not been transferred to the DNP but remains under DFPP due to pending institutional reform.

Changes in the present institutional structure are being introduced. The overall restructuring and decentralization of the administration and management system includes the following:

- The re-organization of a distinguished/separate PAs administration and management.
- Development of respective policies and regulatory framework.
- Coordination and harmonization of the legal framework.
- Participation and active involvement of local governments in protected area management.
- Appropriate training of the respective top-level administration staff.

- Support with donations and technical assistance for protected area management and biodiversity conservation issues.

Threats to Biodiversity

There are several potential threats to protected area management in Albania and those of trans-boundary regions.

- Lack of subsistence alternatives to protect the livelihoods of local communities.
- Lack of know-how to augment their values and management skills.
- Rare medicinal plants are threatened by over harvesting.
- Unemployment, especially in rural areas where people rely more on natural resources.
- Illegal hunting and trapping for wild fauna in the wild and remote areas.
- Lack of funds for rare species preservation and monitoring.
- Lack of funding for virgin/intact forests and for studying and monitoring natural habitats.
- Uncontrolled overgrazing and cutting/pruning of broadleaves for fodder.

Constraints to improving the biodiversity state

- Lack of adequate legal and policy framework.
- Lack of MP and mapping for protected areas (Proposed National Park by Strategy and Action Plan of Biodiversity - SAPB).
- Lack of trained administration with appropriate skills.
- Lack of financial and technical support for biodiversity conservation by government and donors.
- Lack of sustainable tourism.
- Lack of support and funding of civil society groups in the area of biodiversity conservation.
- Low level of public awareness and the need for public awareness campaigns.

World Bank Forestry Project

Within the WB Forestry project (1996-2003) the PAs have been a special component supported by funding of 1.2 million USD. This has assisted in capacity building, purchase of office equipment, management plan redesign, carrying out selected area studies and evaluations/assessments and providing required tools and

equipments and re-habilitating the visitor centres etc. The latter have included a study on the existing status of PAs, study of main habitats using the CORINE system, "EMERALD" network study, study of new representative PAs network proposed by the Strategy of Biodiversity, mapping and database studies (ongoing).

National Biodiversity Strategy and Action Plan

The first National Biodiversity Strategy/Action Plan (BSAP) updated the status and trends of biodiversity threats and protection in Albania, and identified the objectives, priorities, and actions for *in-situ* and *ex-situ* biodiversity protection as well as the implementation requirements and financing needs for achieving these. Monitoring of the implementation of the BSAP has been one of the main tasks of the National Council for Nature and Biodiversity (NCBD), established in 2000 and chaired by the deputy Prime Minister. The new Ministry of Environment, was established in 2001, with an expanded mandate for improving environmental protection and promoting conservation and sustainable use of biodiversity. In 2002, the MoE was successful in obtaining approval of a new Law on Protected Areas. The new Law on Protected Areas, represents an important step forward for Albania by expanding the mandate for protected areas to include environmental tourism, public education functions, and benefit sharing with local communities. As from 2005 within new Government from the born from country´s general new elections the former MoE was awarded as a new responsibility to directly administrate/manage the forest and pasture resources, to include PAs and NPs and also the water sources and it was re-named into Ministry of Environment, Forests and water administration (MoEFWA).

Trans-boundary Cooperation and Balkans Peace Park Project (BPPP)

Some activities have already been initiated through mutual cooperation between trans-boundary countries; exchange visits, workshops, seminars, and tourist activities in "Thethi" NP. Links have been made between several NGOs in Shkodra/Albania and in Kosovo and Montenegro.

Recently there have been more activities conducted in the proposed Bjeshkët e Namuna National Park such as trekking, workshops and field trips. These activities need to be better planned and inclusive of the local community in the future.

The Balkan Peace Park project (Bjeshkët e Namuna) has already been initiated in order to promote coordination between bordering countries, as well as aiming to encourage and support local activities, research, nature conservation, and environmental education.

Implementation of Measures for *In-situ* and *Ex-situ* Conservation and Sustainable Use

There are a number of priority areas for improving the policy framework for biodiversity which require assessments. These are:

(a) Biodiversity-related legislation. A review of legislation related to biodiversity conservation, focusing on gaps in legislation and on areas where improvement in integration among the laws is needed.

(b) Other biodiversity policy instruments - sectoral strategies and policies that affect biodiversity and protected areas such as natural resource pricing policies and other forms of subsidies that have the potential to encourage overuse of biological resources, introduction of incentives for their conservation and sustainable use;

(c) Harmonization of Albanian legislation with the EU, including international treaties and European Union environmental legislation, identifying priority actions for improvement.

The assessments would be carried out through workshops, review of draft working papers by key stakeholders, consultations, and distribution of recommendations to the relevant institutions. The output would be an assessment of gaps, capacities, and the needs and actions for improving the legal and regulatory framework for biodiversity conservation and use. These activities will contribute to the establishment of a more comprehensive and systemic policy framework through specific assessment of the need for change in legislation and other policy instruments in particular areas.

National plans and institutional framework for biodiversity conservation and protected area management.

Some of the protected areas in the Protected Area Network system are "paper parks" to some degree, and certain ecosystems such as wetlands are under-represented in the network. To assist Albania in expanding and strengthening its system of protected areas, the following actions are recommended:

(a) Assess the capacity of national and local authorities and local communities to contribute to the improvements that are needed in the management of protected areas. Identify critical gaps in the network and collaborate to develop a national plan to extend the network as needed.

(b) Assess the institutional arrangements for protected area management, including financing mechanisms to support conservation initiatives.

(c) Assess the capacity and training needs of the agencies responsible for managing protected areas at the national and local levels, taking into consideration the creation of a special administration structure for PAs management.

(d) Improvement of public access to information and environmental decision making, specifically on the sustainable use of biodiversity. In 2001, the Parliament ratified the Aarhus Convention on Public Access to Environmental Information and Decision Making, which provides an enabling environment for achieving this (the United Nations Economic Commission for Europe (UNECE) Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters, usually known as the Aarhus Convention, was signed on June 25, 1998 in the Danish city of Aarhus). It is important to finance an assessment of existing institutional capacities for widening public access to information and participation in decision making on environmental issues, and an assessment of laws and regulations concerning the management of natural resources that may need to be amended to be in compliance with the Aarhus convention.

Evaluation and suggestions to mitigate specific threats to biodiversity components.

Albanian ecosystems, especially its forest, grassland, and wetland ecosystems, were heavily impacted by economic activities under the communist regime. Some 250,000 ha of forests and pastures were converted to agricultural uses. About a third of forest and pasture lands are highly eroded. Overgrazing, unmanaged fishing and hunting activities, and unsustainable forest practices have led to the deterioration of ecosystems and significant reduction in their productivity and ability to support biodiversity. An assessment of methodologies for the evaluation and mitigation of threats to biodiversity is also needed for forest, wetland and marine ecosystems**.**

Forest Ecosystems comprise an important part of Albania's biodiversity. Over the last 50 years, the degradation and loss of biodiversity from Albania's 1M hectares of forest ecosystems has been substantial. More than 50 % of the total threatened vertebrates and about 30% of the endangered plant species in Albania occur in forest ecosystems. This negative biodiversity trend has been caused mainly by "mining" of forest and game resources, and the trends have worsened substantially since independence. One of Albania's highest requirements is the restoration of depleted forest ecosystems, however specific mitigation measures, financing mechanisms, and national capacity for undertaking these need to be assessed.

Special consideration will be given to the assessment of human resource development needs, responsibility sharing, means and methodologies to appropriate financial mechanisms and management. The output will be an assessment report on the threats to forest and wetland ecosystems, opportunities and constraints to mainstreaming of biodiversity conservation into relevant economic sectors (e.g., forestry, fisheries), specific mitigation needed, and the capacities of national agencies to implement these. The report will also include a review of the state's program on forest and wetland restoration, increasing the forest and wetland ecosystem health and productivity and rehabilitation of degraded lands and ecosystems.

Initial assessment and monitoring programs, including taxonomy

Albania has a rich and globally significant biological heritage (about 3,200 higher plants and 2,350 lower plants; and 15,600 species of invertebrates and vertebrates (including insects, mollusks, crustaceans, fish, amphibians, reptiles, birds and mammals). Albania has 91 globally threatening species, some with special regional significance (Dalmatian Pelican, *Pelecanus crispus*, Pygmy Cormorant, *Phalacrocorax pygmeus,* and Sturgeon, *Acipenser sturio*). The rates of biodiversity loss during the past 50 years are among the highest in Europe. At least two species of plants and four species of mammals are extinct, while 17 species of birds do not nest anymore in Albania. During the last 25 years, an estimated 122 species of vertebrates (27 mammals, 89 birds, and 6 fish) and four species of higher plants have lost more than 50% of their population. The number of rare and threatened species of plants and animals is high and expected to increase. These problems are the result of inadequacies in the Protected Areas System and its management, as well as weaknesses in mainstreaming biodiversity into sectoral development outside of protected areas.

Albania's biodiversity monitoring programs and institutional capacities are not sufficient to collect, analyze, and mobilize action to remedy the condition of biodiversity in the country. To assist Albania to assess its biodiversity and monitor future trends, it is very important to finance an assessment of the capacity for establishing and using a biodiversity information database and monitoring system. This database should provide the necessary information for expanding the network of protected areas and monitoring the status of biodiversity and conservation initiatives throughout the country.

Incentive Measures for Sustainable Use of Natural Resources

Under current economic conditions, rural communities are turning increasingly to natural resources for subsistence, e.g., through hunting, fishing, gathering of medicinal and other wild plants, collecting fuel wood and harvesting

trees. Dealing effectively with these urgent challenges will require a change from the current "top-down" approach to the development and enforcement of regulations to one with more participation of local communities, natural resource user groups, and other stakeholders. Albania has been successfully implementing community based approaches to forest management and irrigation through several Bank-financed projects. However, models of community based management have not yet been applied to protected areas.

The enabling activity will assess opportunities for improving conservation and sustainable use of biodiversity using incentive-based approaches such as community based management. An assessment will also be made of the capacities to implement these. Of particular importance will be community based approaches in protected area management and in the management of mountain pastures, which are biodiversity-rich and over utilized as a result of inadequate incentives for their sustainable management.

Conclusions/recommendations

1. Develop the **legislative and management framework** for biodiversity conservation and set criteria for the selection of the PAs, with legal and administrative autonomy.

2. Identify the existing **needs** and develop the required **capacities** for effective management.

3. Develop special **short training courses** (1-3 months) for biodiversity and PAs administration and management for administration staff, consisting of up-to-date topics.

4. Develop **management plans (MPs)** for priority PAs and assess financial and technical assistance needs, including participatory mechanisms and economically viable **alternative livelihood options** Management plans should include investment in basic park infrastructure and forest resource conservation and sustainable mangement.

5. Develop an **Integrated Territory Plan** and a proper **waste management** in the PAs. Define mechanisms for **local population awareness** to be included in the management plans.

6. Identify through a participatory process **investments and activities** (equipment, basic infrastructure, trails, habitat restoration, monitoring, awareness, etc.) to be implemented in each PA and the corresponding design, costs and schedules.

7. Identify issues and constraints to extend existing PAs, in particular to create a **Peace Park** in **"Bjeshket e Namuna" and "Thethi "** region and develop a

framework for this trans-boundary cooperation, as well as a costed action plan required for implementing the project,

8. Develop a baseline study for the **sustainability** of regional biodiversity and PAs and their management system **effectiveness.** This study will be used later in an annual assessment of management effectiveness, using the IUCN criteria for both **Biological Inventory** and the Biodiversity Action Plan of the park.

9. Promote new job opportunities including provision of **small grant programs.** Carry out case studies to develop a "marketing strategy" focused on eco-tourism and traditional biological production, with a detailed analysis of local training needs.

10. Develop a **Participatory Operational Plan** which would denote the medium and long term operations of the area administration (the process would include consensus building processes, critical assessment and design studies, zoning plans and physical demarcation of zones) including tourist trail mapping of the priority protected areas.

Recommendations for demand-driven training

1. Provision of knowlege for the protected areas in general (What is a PA? What are the various categories? The IUCN-system? What is the PAs network in Albania? Their procedure of designation, legal framework, international signed conventions etc.).
2. Management and administration of a NPs and PAs.
3. Knowledge of Biodiversity (What is biodiversity? Its importance in PAs/NPs conservation? Prespa's biodiversity? etc.).
4. Preparation and implementation of the action plans in PAs and NPs in collaboration with other country's expertise and experience.
5. Techniques for generating revenues/benefits from a PAs/NPs and reinvesting them back into NP preservation and management.
6. Fundraising and preparation/writing for NPs-rehabilitation and management projects.

Exchange of information among NPs and PAs inside and outside the country

1. National Park administration.
2. Commitee for NPs management.
3. Oversight NP Committee.

4. NGOs-including the CFA-Liqenas.
5. Permanent/scheduled capacity building of NP administration.

The implementation of this planning framework would require considerable funding and institutional capacity building of all involved stakeholders on a long-term basis. This option can therefore only be recommended in the context of a multi-donor basket funded programme approach.

Annex 1 List of Mountain Trans-Boundary Protected Areas (Existing and Proposed) in Albania, Strategy on Biodiversity, 2000).

No.	Current Protected Areas and Management Category, IUCN			Proposed PAs and Management Category, IUCN		
	Name	IUCN-Categ.	Area, ha	Name	IUCN-Categ	Area, ha
1.	Gashi river	SPA(I)	3,000	Gashi river	SPA(I)	3,000
2.	Thethi	NP(II)	2,630	Livadhi i Harushës-Bogë-Theth-Valbonë-Curraj	NP(II)	35,000
3.	Valley of Valbona	NP(II)	8,000	Korabi Mountain-Massif-Vlashaj	PL(V)	10,000
TOTAL			13,630			48,000

Existing and Proposed Network of Protected Areas of Albania (Strategy on Biodiversity, 2000).

Management categories, IUCN		Current Protected Areas		Proposed Protected Areas	
No.	Name	Number	Area	Number	Area
I	Strict PA-s	4	14,500	9	18,040
II	National Parks	13	56,440	10	184,950
III	Nature Monument	4	4,780	2	580
IV	Managed (habitat & species) Natural Area	26	42,958	13	40,450
V	Landscape/seascape PA	5	29,873	19	176,540
VI	Managed Resource PA	4	18,200	6	23,900
Total		54	166,691	58	435,420

References

1. Bego, F, Co-authors, National Strategy on Biodiversity and Action Plan on Biodiversity (SBAP), Tirana, 2000.
2. DFPP/MoEFWA. 2004. Protected Areas and National Parks in Albania.
3. CGS. 2004. Geographical Atlas of Albania, Centre for Geographic Studies, Tirana.
4. Clausen, R., and M. Meta. 2001. National Strategy and Action Plan on Forestry Sector,
5. Tirana, Albania.
6. DFPP. 2003. Forest and Pastures Fund Cadastra of Albania.
7. DGFP/DPA/MoEFWA. 2001. Emerald Study, Tirana.
8. DGFP/PMU. 1996. Assessment of priority selected Protected Areas.
9. DGFP/PMU/AGRIFOR. 2003. National Forest and Pastures Inventory.
10. Euronature-ECAT-Tirana. 1999. Albania-Guide to its Natural Heritage, Albania.
11. E/ECAT-Tirana. 2000. Albania, Guide to its Natural Heritage.
12. IBR. 1995. Study on Albanian Biotops, Tirana.
13. IGS. 2003. Geological Study and Mapping, Instititute of Geological Research, Tirana.
14. IUCN. 1995. The mountains of Central and Eastern Europe.
15. Lohmann, Jörg. 1999. Care for the Countryside - An introduction to nature protection and
16. landscape management with special consideration to forestry, Tirana.
17. Meta, M. and H. Kola, 2005. Study on Natural Resources of Northern Albania. GTZ/UNEP.
18. MoEFWA. 1997-1998 and 1999-2000. Report on environment in Albania.
19. PPNEA. 1997. Nature, lanscape and biodiversity conservation in Albania, Tirana.
20. Troendle, C. 2002. Albanian Watershed Assessment, AWAP.
21. WB/DGFP. 1996. Ecological Survey of Virgin Forests, Tirana, Albania.

Примљено: 14.04.2009. Одобрено: 28.09.2009.