FINANCIAL CO-OPERATION BETWEEN GERMANY AND ALBANIA

PRESPA BASIN CONSERVATION PROGRAM
PRESPA NATIONAL PARK

Kreditanstalt für Wiederaufbau

Report on the Consultant Mission
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TABLE OF CONTENTS

List of Tables

List of Maps

Annexes

Acronyms

ADF	Albanian Development Fund
AFD	Albanian Forestry Directorate
ESM	Ecological Sensitivity Map
FAT	Feasibility Assessment Team
FD	Forestry Directorate
FSC	Forest Stewardship Council
GEF	Global Environmental Facility
GOA	Government of Albania
GTZ	Gesellschaft fuer technische Zusammenarbeit
IoU	Institute of Urbanistik
MoA	Ministry of Agriculture
MoU	Memorandum of Understanding
NEA	National Environmental Agency
NGO	Non-Government Organization
NPG	National Park Galicica
NPP	National Park Prespa
NTC	National Tourism Committee
PA	Protected Area
PAC	Prespa Advisory Committee
PPNEA	Preservation and Protection of Nature and Environment in Albania
STC	State Tourism Committee
UNESCO	United Nations Environmental Science Organizations

Notes

In this report, "$" refers to US dollars and "DM" to Deutschmarks

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overall logistic support throughout the team's stay in Albania. The team would like to thank KfW for financing the evaluation mission.

Executive Summary

Introduction

From September 20 to October 10, consultants Dr. Goetz Schuerholz (the team leader) and Mr. Wolfgang Fremuth visited Albania to implement a feasibility assessment based on the framework of the proposed KfW intervention in support of the National Park Prespa (NPP).

In accordance with the terms of reference, the assessment included: a situation analysis of national, regional and local scope that covers policy, legal and institutional framework conditions; an evaluation of socio-cultural-economic aspects of the Prespa area; a general problem analysis with emphasis on threats to the ecological integrity of the NPP and the region at large; an assessment of planning documents related to the NPP and the support zone; an examination of ongoing projects in the region related to the proposed intervention, with a focus on lessons learned from the GEF-funded Ohrid Lake project; an assessment of current and proposed trans-boundary agreements, proposed activities and opportunities associated with neighboring Greece and Macedonia.

Based on the findings of the situation analysis, the consultants were asked to elaborate an intervention package for the Prespa Conservation Area that would benefit the overall conservation goals for the region and the local population.

KfW could fund the proposed intervention in the support zone of Prespa National Park with its ADF contributions, and possible co-financing from GEF for the development and protection of the NPP.

Approach

The Feasibility Assessment Team spent its first week in Albania conducting meetings with key institutions in Tirana and the Prespa region to discuss project rationale and collect background information for the situation analysis as stipulated in the terms of reference. Meetings were held with: (a) the Directorate of Forestry in Tirana and its regional representatives (i.e., district foresters) from Korca and Pogradec; (b) the PMUs of the World Bank Forestry Sector Loan, GEF Ohrid Lake Project and Korca Irrigation Project; (c) the Ministry for Economic Cooperation in Tirana; (d) the Albanian Development Bank in Tirana and its regional inspectors from Korca and Pogradec; (e) the Institute for National Planning, (f) the National Environment Agency in Tirana and its local representative in Korca; (g) the Committee for Tourism in Tirana; (h) the PMU of the FAO forestry project; (i) the German Embassy.

The field trip to the NPP concentrated on meetings with local authorities, the NGO community, representatives from the Ohrid Lake GEF project and NPP personnel. Site visits focused on land- and resource-use conflict areas inside the NPP and its support zone. Case studies on social infrastructure, vital statistics, socio-economy and environmental problems were conducted. These focused on surveys carried out in the village Peshkpo, located in the support zone of the NPP, and the village Gorica e Madhe, located adjacent to the NPP core area. Both are considered typical examples of villages inside the NPP and support zone.

A SWOT analysis was implemented in the NPP, involving more than 20 stakeholders from the Prespa region and the NPP's Advisory Board (PAC). The workshop served as basis for a detailed problem analysis and discussions on conflict resolution.

The rationale for and the structure of a management plan for the NPP were discussed with the NPP director and members of the PAC. An analysis of manpower, infrastructure and equipment required for the sustainable protection of the NPP, broken down by management program, followed. This formed the basis for the preparation of financial spreadsheets for the NPP.

In a subsequent visit to Macedonia, the team discussed trans-boundary issues and opportunities with local authorities and key resource personnel from Macedonia and Greece. Discussions revolved around protected area problems, opportunities for Prespa and Ohrid Lake protected areas in Greece, Macedonia and Albania, irrigation with lake water from Micro Prespa, regional tourism potential, the GEF project Ohrid Lake, multi-national agreements and other such issues. Greek resource personnel associated with the Prespa Protected Areas System met at an environmental workshop September 29 in NP Galicica, Macedonia. The emphasis of those discussions was the need for an assessment of mutual benefits and close cooperation between countries in the tri-country lake area. This emphasis guided subsequent discussion of the pros and cons of creating one biosphere reserve – a single ecological entity of global significance – encompassing all of the Ohrid- and Prespa Lakes area.

The findings of the fieldwork, multi-stakeholder discussions and resulting recommendations were discussed in a concluding meeting with representatives of key institutions in Tirana. Key findings and recommendations of the feasibility study are summarized in this Ayuda Memoria.

Results

The most serious environmental problems in the Prespa NP region are poverty related. The notorious local energy shortage continues to have detrimental effects on the forest

ecosystems of the NPP and its support zone, as fuel wood is the major source of energy for the predominantly rural population of the region. The second most serious threat to the forests is tree lopping for the collection of winter fodder, mostly for goats. Livestock grazing inside the already-degraded mountain forests poses another threat to forest integrity. This causes soil erosion and compaction, the destruction of natural tree regeneration and the removal of the water-retaining vegetative ground layer.
As a result of this extensive over-utilization, most local forests have deteriorated into unproductive shrub communities of low commercial and biodiversity values. This is presumably associated with a reduction in species diversity and loss of biodiversity. A concerted effort is needed to successfully rehabilitate the forests of the NPP and support zone. This may only be achieved in close cooperation with local villagers, the root cause of the environmental problems. This can only be made possible through providing suitable alternatives to fuel wood, reducing livestock numbers, eliminating goat populations and eliminating tree lopping.

Over-grazing of sub-alpine and alpine meadows detrimentally affects the naturally fragile alpine ecosystems of the NPP and support zone. Grazing of alpine meadows requires a sound range management plan that regulates grazing season, livestock numbers, species composition and rotation cycles in designated areas. This should be complemented by a well designed environmental monitoring program and strict controls, implemented in cooperation with local herds-people.

Serious concerns in the support zone of the NPP, with international implications, are related to (a) the poorly managed irrigation system in the Korca plains, which affects the water regime of Micro Prespa Lake, and (b) the draining of the Maliqi wetlands, which is having a disastrous impact on migratory waterfowl and shorebirds and the water balance of the Prespa basin at large. The latter is believed to be responsible for the local disappearance of formerly resident breeding populations of endemic species, mostly from the avifauna and amphibians. The Maliqi area is currently being used for agriculture that cannot be sustained. In the process, the peat-moss deposits of the former Maliqi wetlands are being systematically burned to produce nutrients for crop production. This unsustainable practice destroys requisites critical to sustainable wetland.

Other environmental concerns inside the NPP and support zone are: (a) uncontrolled sewage/wastewater disposal by literally all villages, communities and cities with unknown effects on the quality of potable water sources, lake ecosystems, rivers and creeks; (b) uncontrolled solid waste disposal throughout the region; (c) unregulated development and housing construction inside the NPP, which negatively affects tourism potential in the region.

Other problems adversely affecting the sustainable development of the NPP and its support zone, as identified by local stakeholders in the SWOT workshop, are:

- the lack of a participatory management plan for the NPP;
- insufficient staff, equipment and infrastructure needed for control, administration and public-use programs;
- lack of a regional land use development plan focusing on the designated development zone inside the NPP along the shoreline of Macro Prespa Lake;
- absence of a regional tourism development plan;
- unsound agricultural practices and poor choice of cash crops throughout the region;
- over-fishing of Macro Prespa Lake.

Other environmental constraints are: (a) a rather weak national policy and legal framework with respect to Albania's protected area system at large and the NPP in particular; (b) biodiversity conservation mandates that overlap between the Directorate of Forestry and the National Environmental Agency; (b) poor institutional recognition of the NPP administration; (c) insufficient government funds for the NPP and the sustainable development of the support zone; (d) insufficient inter-institutional and inter-donor communication and cooperation on a local and national level. The latter is of particular concern because valuable opportunities for synergies in the interest of sustainable conservation management are being lost.

The primary shortcoming of local trans-boundary significance is insufficient conservation management agreements between the three countries, especially regarding:

- Micro Prespa water management (Albanian and Greek authorities);
- the Prespa Park on the Greek site and the Albanian NPP (Greece and Albania);
- the Galicica and Prespa NPs (Macedonia and Albania);
- synchronized fishery management of Macro Prespa Lake (all three countries).

The most significant findings in favor of sustainable conservation of the NPP, its support zone and the trans-boundary region are as follows:

- high eligibility for international funding due to global significance and uniqueness of the Prespa/Ohrid region;
- strong commitment by the Central Government to the sustainable development and management of the NPP and its support zone;
- proven interest by Albanian state authorities in trans-boundary conservation and development issues (agreements with Macedonia and Greece);
- strong presence of environmental NGOs on the local level with proven dedication to conservation issues in the region and the NPP in particular;
- high quality preparatory work by local and international NGOs and donors for the creation of the NPP;
- continuing support from local and international NGOs (Euronatur);

- continuing support of and growing interest in the sustainable development of the region by international donors (Germany, Switzerland, EU, GEF, World Bank);
- a well-established, well structured and functioning Albanian Development Fund that is of critical importance to the sustainable development of the NPP area;
- commitment by the German Government to assist Albania in its conservation program for the Prespa region.

Recommendations

The recommendations of the Feasibility Assessment Team can be grouped into three categories: (a) support and development of the NPP, (b) support and development of the support zone, and (c) support of trans-boundary conservation.

The following recommendations are made with respect to the National Park Prespa:

- Develop a multi-stakeholder management plan in a participatory manner that is structured according to international guidelines. This plan should include a vision statement that incorporates the long-term development view, practical zoning of the park area to facilitate management and the adoption of appropriate management programs such as administration and maintenance, protection, public use, research and monitoring, environmental education, infrastructure development and the support zone. The management plan should form part of the legal basis for the NPP and become a legally binding formal document. If outside funding for the elaboration of the management plan becomes available, both the management plan for the NP Prespa and that for Galicica in Macedonia should be created at the same time in order to establish synergies. This would be of particular value to the capacity building process for PA planning.

- The NP Galicica, which also needs a management plan, is located adjacent to the NP Prespa. Both NPs are considered one ecological entity, encompassing the mountain ridge between the Macro Prespa and Ohrid Lake. The management plan should provide development guidelines and a management prescription for both parks. It should list proposed activities by priority and program. NPP boundary demarcation and infrastructure needed for proper control, such as ranger stations, should be emphasized in the protection program.

- Define boundaries for the support zone of the NPP, including all communities that share a common boundary with the NPP.

- Create a practical and transparent operational plan, based on the recommendations of the management plan, to complement the management plan. The management plan should be the basis for the elaboration of annual work plans and budgets.

- Formalize the existing multi-stakeholder Prespa Advisory Committee (PAC) with clearly defined functions and responsibilities for the management of the NPP and support zone.

- Prepare a funding proposal for the NPP, possibly as integral part of a GEF proposal encompassing the overall development and conservation management of the proposed trans-boundary biosphere reserve Ohrid-Prespa.

- Upon approval of funds, implement the management plan in close collaboration with local stakeholders, NP Galicica and the Greek authorities responsible for Greek Prespa National Park.

Synergies in the support zone should focus on designated thematic and geographic areas by capitalizing on the current and planned projects of the donor community in the region – ADF, the World Bank Forestry Sector Loan, GEF Ohrid Lake project and possibly EU funding for trans-boundary activities between Greece and Albania.

The following recommendations concern the support zone:

- Provide the PAC with legal authority to screen and approve (if eligible) all development proposals submitted to the local ADF in connection with the NPP and support zone.

- Broaden and formalize the parameters of eligibility for proposals submitted to ADF in an agreement between KfW and the ADF. This would support a broader range of conservation-oriented projects and participating stakeholders in the area of concern.

- Focus the assistant package for the support zone and the NPP on forest rehabilitation, with special consideration for the heavily degraded forests along the slopes of the Prespa/Ohrid mountains. More specifically:

  (a) prioritize micro-watersheds originating from the NPP and support zone;
  (b) conduct a feasibility assessment for rehabilitation of identified critical watersheds in terms of biodiversity values and importance to downstream communities;
  (c) practice sustainable management for firewood production in designated areas under strict control of the Forestry Directorate, with participation of corresponding villages;

(d) in close cooperation with villagers reduce the numbers of goats, thereby reducing the need for tree lopping;
(e) in close cooperation with affected villages, control livestock grazing in mountain forest;
(f) conduct a feasibility study on the use of fuel-efficient stoves and apply findings in the form of a pilot project if appropriate;
(g) conduct a feasibility study on the use of solar energy and apply the findings as a pilot project;
(h) assess cooperation and financing potential of the World Bank Forestry Sector loan, the GEF-funded Ohrid Lake watershed management component, and other sources, for watershed rehabilitation and forest recuperation.

- Conduct a range management feasibility assessment with emphasis on mountain grasslands in the NPP and support zone, leading to the development of a sound and practical range management plan in close collaboration with key stakeholders. Subsequent to range management approval, implement the plan. In parallel, develop guidelines for more efficient and ecologically compatible livestock management in collaboration with corresponding stakeholders and local authorities.

- Implement an ecological sensitivity assessment of the support zone in preparation for a regional land use plan for the area.

- Develop GIS capability in the Korca region, spearheaded by NPP personnel collaborating with regional planning authorities.

- Assist in developing a land use development plan compatible with overall conservation objectives for the Prespa region.

- Conduct a feasibility assessment of the regional tourism potential and facilitate the participatory development of a regional trans-boundary tourism plan.

- Implement a feasibility study in preparation for an ecologically viable water management plan for the Micro Prespa and the Korca region and secure cooperation with Greek authorities and ecologists for implementation of the plan.

- Conduct a feasibility assessment in support of the rehabilitation of the former Maliqi wetlands and prepare a management plan accordingly.

- Assist in the development of ecologically compatible agricultural techniques and the use of more appropriate cash crops.

- Assess opportunity for the establishment of an "eco-village" in the support zone to serve as model for the region. Implement a variety of the recommendations made for the support zone, such as using solar energy and energy-efficient stoves, changing to suitable and economically attractive cash crops, organizing solid waste and sewage disposal and reducing livestock.

- Pursue opportunities for sustainable financing of the operational costs of the project and for the continuation of support zone programs beyond the project life.

The feasibility of converting the entire Ohrid and Prespa lakes region into one single biosphere reserve should be assessed. In ecological terms, this would be the most sensible and desirable solution for sustainable conservation management and the development of a globally unique ecological entity – one comprised of inter-linked lakes, marshes, wetlands and terrestrial mountain ecosystems of global significance. There is little doubt that this would strengthen the international standing of the area and decisively add to trans-boundary cooperation and international peace movements. This would in turn likely attract the interest of the international donor community. Unlike the current split-and-splinter efforts in the border areas, a biosphere reserve would help solve common management problems and strengthen the elaboration of conservation needs for the mutual benefit of the three participating countries. Specific recommendations for initiating the process are as follows:

- Implement a feasibility assessment and prepare a scientifically sound justification.

- Present the findings to the three governments and initiate a dialogue in favor of a biosphere reserve.

- Assist the three governments in preparing the technical submission of the proposal to UNESCO.

- Create a tri-national Steering Committee with clearly defined functions and responsibilities.

- Produce an action program for the proposed reserve with priority based on a proper multi-stakeholder, tri-national need assessment.

- Prepare one common fund-raising GEF proposal to implement the action program. The preparation and implementation of the proposed management plan for the NPP should be included as an integral part of the GEF biosphere funding proposal.

- KfW should spearhead all activities in support of the preparation of a biosphere reserve.

- **Counterpart Agencies and Funding of the Proposed Interventions**

The Albanian Forestry Directorate (AFD) of the Ministry of Agriculture is the legal entity with the mandate for the administration of protected areas. The management of the national park Prespa (NPP) falls under its jurisdiction. Unless the responsibility for the management of the NPP is officially transferred to local authorities or another entity, the AFD should be the official counterpart for the project component of the NPP. The AFD currently provides personnel for the NPP and covers operating costs. Funding for the proposed intervention will be obtained through a GEF grant. It is recommended that the funding proposal be prepared with the assistance of KfW and be presented by the AFD, through the Government of Albania, to the GEF Council for approval. In the case that all three countries accept the proposed biosphere reserve, one single grant proposal for GEF funding should be prepared with the NPP as the focal area.

As a semi-autonomous entity, the ADF has a legal mandate to administer ADF funds to strengthen villages through the development of social infrastructure. It is recommended:

- that KfW formalize an agreement with the ADF that allows fund allocation to projects that are compatible with overall conservation goals for the Prespa basin and that are conducted in support of villages inside the NPP and support zone;
- that the responsibility for screening, selecting and approving priority projects favoring conservation management of the Prespa Basin and the NPP be delegated to the Prespa Advisory Committee;
- that a corresponding agreement between KfW, the ADF and the PAC be formalized;
- that KfW increase its contribution to the ADF in support of the proposed interventions and the conservation program in the Prespa region at large.

Considering the complexity of this program, the recommended time frame for the KfW intervention should be nine years. This includes a five-year development phase for infrastructure development and management plan implementation, and a subsequent four-year management phase to stabilize the initiatives of phase one and monitor and test the success of the proposed interventions. This is of special importance for the proposed pilot projects in the area of forest management, which involves watershed rehabilitation and rehabilitation of the Maliqi wetlands, and the implementation of the range management plan. It is also crucial for agriculture and livestock improvement. Lessons learned in phase one of the program can be applied to phase two, which involves the dissemination of results and the replication of successful program components.

FEASIBILITY ASSESSMENT IN SUPPORT OF THE PRESPA CONSERVATION PROGRAM, ALBANIA.

1. Introduction

The German Government has been approached by the Albanian authorities to support the Prespa Basin Conservation Program in the framework of financial cooperation. For this purpose KfW has considered devoting part of its financial contributions to the Albanian Development Fund to conservation efforts in the project area. At the same time, KfW has approached the GEF to request co-financing of the interventions proposed for National Park Prespa, the focus of the Prespa Basin Conservation Program.

In anticipation of the proposed intervention, KfW commissioned Dr. Goetz Schuerholz of TAESCO Consultants Ltd. (the designated team leader) and Dipl. Biologist Wolfgang Fremuth of Euronatur to implement a feasibility study between September 17 and October 30, 2000. The team visited Albania between September 20 and October 8 to conduct the fieldwork. The terms of reference for this assignment (see Annex 1) required the consultants:

- To conduct a situation analysis in Albania on a national, regional and local level. The situation analysis was to incorporate several key elements: policy, legal and institutional framework conditions; an assessment of the socio-cultural-economic aspects of the Prespa area; a general problem analysis with emphasis on threats to the ecological integrity of the NPP and the region at large; an assessment of planning documents related to Prespa NP and its support zone; an assessment of ongoing projects in the region pertinent to the proposed intervention, with a focus on lessons learned from the GEF-funded Ohrid Lake project; an assessment of current and proposed trans-boundary agreements, proposed activities and opportunities with respect to neighboring Greece and Macedonia.

- To elaborate an intervention package for the Prespa Conservation Area that would benefit the overall conservation goals for this region, Prespa National Park and the local population. The proposed recommendations were to result from the fieldwork, an extensive literature review and discussions with key stakeholders from government and civil society.

2. Approach

The Consultants spent the first weeks in Albania on discussions with key institutions in Tirana and the Prespa region and collecting background information for the situation

analysis as stipulated by the terms of reference. Meetings were held with: (a) the Directorate of Forestry in Tirana and its regional representatives (district foresters) from Korca and Pogradec, (b) the PMUs of the World Bank Forestry Sector Loan, GEF Ohrid Lake Project and Korca Irrigation Project, (c) the Ministry for Economic Cooperation in Tirana, (d) the Albanian Development Fund in Tirana and its regional inspectors from Korca and Pogradec, (e) the Institute for National Planning, (f) the National Environment Agency in Tirana and its local representative in Korca, (g) the Committee for Tourism in Tirana, (h) the PMU of the FAO forestry project, and (i) the German Embassy.

The field trip to the NPP concentrated on meetings with local authorities, the NGO community, representatives from the Ohrid Lake GEF project and the NPP personnel. Site visits focused on land and resource use conflict areas inside the NPP and its support zone. Case studies on social infrastructure, vital statistics, socio-economy and environmental problems were conducted, focusing on village surveys in the village Peshkpo, located in the support zone of the NPP, and the village Gorica e Madhe, located adjacent to the NPP core area. Both are considered typical examples of villages inside the NPP and support zone.

A SWOT analysis was implemented in the NPP, involving more than 20 stakeholders from the Prespa region and the NPP's Advisory Board (PAC). The workshop served as the basis for a detailed problem analysis and discussions on conflict resolutions and activities suitable for KfW/GEF support.

The rationale for, and the structure of, a management plan for the NPP were discussed with the NPP director and members of the PAC. An analysis of manpower, infrastructure and equipment required for the sustainable protection of the NPP, broken down by management program, followed. This formed the basis for the preparation of financial spreadsheets for the NPP.

In a subsequent visit to Macedonia, the team discussed trans-boundary issues and opportunities with local authorities and key resource personnel from Macedonia and Greece. Discussions revolved around protected area problems, opportunities for Prespa and Ohrid Lake protected areas in Greece, Macedonia and Albania, irrigation with lake water from Micro Prespa, regional tourism potential, the GEF project Ohrid Lake, multi-national agreements and other such issues. Greek resource personnel associated with the Prespa Protected Areas System met at an environmental workshop on September 29 in NP Galicica, Macedonia. The emphasis of those discussions was the need for an assessment of mutual benefits and close cooperation between countries in the tri-country lake area. This focus guided subsequent discussion on the pros and cons of creating one biosphere reserve – a single ecological entity of global significance – encompassing all of the Ohrid- and Prespa Lakes area.

The findings of the fieldwork, multi-stakeholder meetings and resulting recommendations were discussed in a concluding meeting with representatives of key institutions in Tirana. Key findings and recommendations of the feasibility study are summarized in an Ayuda Memoria (see Annex 2). A list of persons contacted in Albania for this assignment is attached as Annex 3.

3. Background

3.1 Relevance of the Proposed Intervention

3.1.1 Description of the Prespa region

The Prespa and Ohrid region is located on the Balkan Peninsula (~41° N latitude, ~23°E longitude) in southeastern Europe (see Map 1). It is characterised by the three inter-linked lakes Ohrid, Macro Prespa, and Micro Prespa and by mountainous ecosystems. With a surface area of approximately 350 km^2, Ohrid Lake is the largest lake, followed by the Macro Prespa at 285 km^2 and Micro Prespa at 44 km^2 (see Table 3.1.1 -a).

The two Prespa lakes are situated at an altitude of 850 m above sea level. Ohrid Lake is located approximately 160 m below the Prespa lakes, at 690 m above sea level. Macro and Micro Prespa Lakes are separated from Ohrid Lake by an elongated calciferous mountain block comprised of Galicica and Mali i Thate mountains. The highest peaks reach about 2,200 m above sea level. The Baba Mountain Range borders the lake basin to the east; its highest peak is Pelister Mountain, which rises to 2,600 m above sea level. Micro Prespa Lake on the Greek side is bordered to the south by the Triklarion Mountains, which reach about 1,750 m above sea level. The mountains to the east and south of the watershed are comprised of silicate rock, producing soils and growing conditions that differ significantly from the soils resulting from the calciferous mountains to the north and west of the watershed.

Because the mountains between Ohrid Lake and the two Prespa lakes are calciferous rock, they are no barrier to the underground flow of water from the Prespa lakes to the lower Ohrid Lake, where water comes to the surface in mighty springs at Drilon (in Albania) and Sveti Naum (in Macedonia). It is also reported that there are springs on the bottom of Ohrid Lake. Because of these characteristics, the three lakes are considered a combined aquatic ecosystem.

Table 3.1.1 -a: The Ohrid-Prespa Lake System

	Surface	Max. Depth	Altitude m a.s.l.	Trophic Condition
Ohrid Lake	358.2 km^2	300 m	695 m	Oligotroph
Macro Prespa	285 km^2	52 m	845 m	Mesotroph
Micro Prespa	44 km^2	9 m	845-850 m	Eutroph
Maliqi Lake[1]	ca 1.5 km^2	2 - 3 m	845 m	Eutroph

Until the end of the 1960s, Albania hosted a fourth lake – Maliqi Lake – that could also have been considered part of this aquatic system. This shallow lake was originally surrounded by a large swamp of several hundred hectares fed by the Devolli River. The river was channelled at the end of the 60s, which resulted in the draining of Maliqi Lake and the swamp. The main disturbances of the Prespa basin water regime are highlighted in table 3.1.1. -b.

Table 3.1.1b. Disturbances of the Prespa Basin Water Regime

Year	Encroachment
1936	Diversion of Agios Germanos stream from Micro Prespa to Macro Prespa.
1953	Channel between Devolli River and Micro Prespa constructed on Albanian side.
1962-1982	Irrigation systems for intensive bean cultivation constructed on Greek side of Prespa region.
1969	Dam and sluice gates built at existing channel on the Albanian side.
1969-72	Draining of Maliqi Lake and associated swamp; conversion to agricultural area on Albanian side.
1969	Construction of weir (sluice gate) between Macro and Micro Prespa Lakes on the Greek side.
1970-1990	Irrigation of Maliqi plain using water from Micro Prespa Lake. During winter, about 2.5 m^3 per second were introduced into Micro Prespa Lake and during summer, approximately 100 x 10^6 m^3 were used for irrigation of the Maliqi/Korca area. The Devolli River's water carried a load of about 80,000 tons per year of sediment into the Albanian part of Micro Prespa Lake. In the 20 years since, about 1.6 million tons of sediments have been introduced into the lake.
1993	Application of a digger on the Albanian side to extract the sediments.
1999	Rehabilitation of the irrigation system in the Maliqi/Korca area by the Islamic Bank and the World Bank.

The watershed, which is about 1500 km^2 in size, was artificially enlarged by two important encroachments. First, the river Sateska was diverted from its original course as

[1] Drained at the end of the 1960s.

a tributary of the Drin River directly into Ohrid Lake. Second, the Devolli River in the south was channelled and partly diverted into Micro Prespa Lake. These two measures enlarged the watershed by approximately 300 km^2.

The climate of the Prespa region is subject to Mediterranean and Continental influences and may be termed southeastern-mountainous-Mediterranean. It is characterised by warm but moderate summers and relatively mild winters. Mean monthly temperatures in the Prespa and Ohrid valleys are around 9-10° C.

The mean annual precipitation in the area is between 730 and 890 mm. However, levels can be as low as 350 mm at dry lowland sites and as high as 1350 mm at moist mountainous sites, depending on exposure. Periods of maximum precipitation usually occur in November and December, and again in May. Out of 120 days of precipitation, a mean of 30 days are snow. The summers are dry, with July and August usually rainless. The frost-free growing period in the lowlands lasts approximately six months, from mid-April to the end of October.

3.1.2 Socio-economic-cultural conditions

Some 134,600 people live in the lakes region – a relatively dense population that reflects the favourable living conditions of the area. Most settlements are located along the shorelines of the three lakes, although the city of Korca is located in the centre of the Korca Plain. The inhabitants of the Prespa basin are distributed as follows: 69.61 per cent live on the Macedonian side, 29.5 per cent live on the Albanian side, and 0.89 per cent live on the Greek side. For further information on population trends in the region, refer to Annex 4.

The ethnic origin of people around both Prespa lakes, including those who live on the Greek side, is Macedonian. The people on the Albanian side of Ohrid Lake, and a small group on the northeastern part of Ohrid Lake (on the Macedonian side), are Albanian. Most people in the support zone of the NPP are of Macedonian origin. There is also a small group of Vlach people, who are of Romanian origin.

The region has been inhabited for several centuries. Several archaeological sites have shown that in ancient times an important trade route of the western Roman empire – the Via Egnatia – passed through the region into its eastern province. Long ago, the city of Ohrid was the intellectual and spiritual centre of the Slavic world. Because of this, the historical centre of the town has been declared a UNESCO World Cultural Heritage Site.

While the economy of the area around Ohrid Lake thrived in the past, even until the present time, the area around the two Prespa lakes has remained poor. This is likely due to poor karst soils on the Albanian side, which have limited the profitability of

agriculture. The abundance of fish in the lakes has provided a source of income that has, until now, sustained the local people. On the Greek side, fishermen generate a reasonable income selling their catch from Micro Prespa Lake. Most of the people from the Albanian side of the Prespa lakes, especially the young, go to Macedonia or Greece for employment.

The more fertile silicate soils on the Macedonian side of the Prespa lakes have allowed for intensive fruiticulture, consisting primarily of apple orchards. Annual fruit production, according to Ristevksi et al. (2000),[2] was about 55,000 tons in 1999. About 98 % of the 1,642,800 trees under cultivation are apple trees. Since World War II, production has increased from 1,200 tons per year to between 50,000 and 60,000 tons per year.

Until the 1960s, the Greek portion of the Prespa lakes region was a strictly controlled border zone that people were only allowed to enter with special permission. Since then, and especially after Greece joined the European Community, intensive bean cultivation has taken place.

Large areas around Micro Prespa Lake were converted into bean fields and irrigated with water from the lake. After the establishment of the National Park in 1974, attempts were made to phase out irrigation of the bean fields and substitute this crop with other sources of income for the local people. A quantitative analysis of crop production in the Prespa Lake Basin is provided in Appendix 5.

On the Macedonian and Albanian sides of the Prespa Basin, cereal production contributes primarily to subsistence and is not a cash crop. On the Greek side, cereal production seems to have been replaced by vegetables, which may be a better source of income for the local people. On the Macedonian side, the dominant agricultural product that generates surplus income is fruit.

Fruit orchards were abandoned on the Albanian side after 1991; only a few attempts have been made to bring them back into production. A precondition would be the rehabilitation of the irrigation system, but it must first be determined whether irrigation can be carried out without harming the lakes' ecosystem. It may also be possible to establish viticulture, a viable source of income, on the southern slopes of the Albanian side, provided the products are manufactured and marketed professionally.

[2] B. Ristekvsi et al (2000), *Fruit production in a function of sustainable development of Prespa Region*, Proceedings of International Symposium, Sustainable Development of Prespa Region, Oteschewo 2000.

3.1.3 Ecological Importance of the Prespa Lake Basin

Detailed vegetation studies have been undertaken in the Macedonian and Greek parts of the Ohrid/Prespa region and provide fairly comprehensive reviews (e.g., Pavlides 1997a,b; Rizovski et al. 1997). They assume that, in particular, the calcareous mountain of Mali Thate hosts several unique biotopes that are important from a European conservation perspective. A recent study of the trees growing in Galicica National Park revealed the presence of about 78 tree species, a comparatively a high number. The aquatic ecosystems of the region are rich in endemic species. It is believed that 80 % of the Infusoria of Ohrid Lake are endemites. Even among vertebrate species, several aquatic endemites can be found, including Ohrid trout (S*almo letnica*), Ohrid salmon (S*almothymus ohridanus*), Prespa barbel (B*arbus prespensis*), Prespa nose (C*hondrostoma nasus prespensis*) and others.

With about 285 bird species, the avifauna of the lake region is also highly diverse. Among them are globally endangered species, such as the Europe Dalmatian pelican (P*elecanus crispus*) and White pelican (P*elecanus onocrotalus*), the Pygmy cormorant (P*halacrocorax pygmaeus*), which breeds and overwinters here, and the globally endangered Ferruginous duck (A*ythya nyroca*), which breeds in the Ezerani Reserve on the Macedonian side.

The water surfaces of the lakes are important wintering sites for waterfowl of the palae-arctic area. In 1997, for instance, 51,512 individual birds belonging to 26 species were recorded over-wintering at Ohrid Lake and 28,383 individuals of 23 species were recorded at Macro Prespa Lake. In 1998, that number rose to 58,991 wintering waterfowl belonging to 21 species at Ohrid Lake and 39,281 of 26 species at Macro Prespa Lake. The highest number of individual birds was observed in 1999, with 64,948 birds of 23 species at Ohrid Lake. Also in 1999, a large number of birds were found at Macro Prespa Lake, with 41,741 individuals of 23 species. In 2000, there were 56,617 individuals of 21 species at Ohrid Lake and 28,445 individual birds of 16 species observed at Prespa Lake.

The area hosts mammal species that are endangered Europe-wide, such as bears, wolves, and lynx. There are also 25 recorded species of bats in the region. Among these are nine species that are either threatened with extinction or are classified as vulnerable (M*yotis natteri, Nyctalus leisleri, N. noctula,Rrhinolophus ferrum-equinumm, R. euryale, R. hipposideros, R. blasii, Tadarida tenoites and Vespertilio murinus*).

Based on the richness of waterfowl, especially during winter, the Macedonian and Greek sides of the lake system are recognised as a wetland of international importance by the *Convention on Protection of Wetlands of International Importance* (Ramsar, 1971). Also, the Greek side of the wetland system is considered a special area of European nature conservation concern (SPA) and is part of the Greek contribution to the NATURA 2000

network of protected sites according to the Directive on *protection of Fauna, Flora, and their Habitats* (92/43 EEC). It is also recognised as an important bird area and is subject to the *Bird Protection Directive* of the European Union (79/409/EEC).

The recognition procedure for the Albanian side of the Prespa and Ohrid Lakes is under preparation. The Macedonian part of Ohrid Lake is recognised as a World Heritage Site and the town of Ohrid is registered as a World Cultural Heritage Site by the UNESCO World Heritage Convention.

Several conservation efforts have been undertaken by all three countries to protect their particular part of the lake ecosystem. The National Park Galicica and the National Park Pelister were established on the Macedonian side in 1958. On the Greek side, the National Park Prespa was established in 1974. Table 3.1.3 provides an overview of the protected Areas (PAs) in the lake region.

In 1999, the western bench of Ohrid Lake was declared a landscape protected zone and the National Park Prespa at Prespa Lake was established. Both of these are on the Albanian side. The main objective for the National Park Prespa is to protect the remaining semi-natural forests that border the existing National Park Galicica in Macedonia and National Park Prespa in Greece.

The gap between the existing parks was bridged through the establishment of the National Park Prespa in Albania, an important measure in an attempt to achieve ecosystem integrity for the entire system. In this way the restoration of semi-natural forest conditions, as achieved by establishing the NP Galicica, can be extended to the Albanian side. The NP Galicica serves as an excellent example of appropriate protection and management.

Table 3.1.3: Protected Areas in the Ohrid-Prespa Region

Name	Size in ha	Year established	Main objective	Administration
Pelister NP	12,500	1948	Protection of the autochthonous population of P*inus peuce*	Based in Bitola
Galicica	22,700	1958	Restoration and protection of sensitive ecosystem of Galicica mountain	Based in Ohrid, 14 persons
National Park Prespa (GR)	30,000	1974	Protection of terrestrial and aquatic ecosystem at Micro Prespa Lake	None
Bird Sanctuary	2,800	1994	Protection of breeding sites of global endangered species at the Prespa lake	No official administration exists. The Macedonian Bird Protection Society is commissioned by the MoE to administer the site.
National Park Prespa (Al)	27,750	1999	Protection of the remaining semi-natural forests, rehabilitation of degraded forests, protection of the aquatic ecosystem, filling in the gap of protected areas around the lake in order to improve ecosystem integrity	Director and six rangers, administration building inside the park
Ohrid landscape protected zone (Al)	27,323	1999	Rehabilitation of degraded forest ecosystem, improvement of the landscape, reduction of negative human impact to the watershed	None

3.2 Situation Assessment of National Park Prespa (NPP) and its Support zone

3.2.1 National Park Boundaries

To the east and north the boundaries of the NPP coincide with the international boundaries of Greece and Macedonia. They therefore do not need to be surveyed and/or demarcated (see Map 1). To the west, the international boundary with Greece and Macedonia follows a virtual line across Macro Prespa Lake, thereby placing a large portion of the lake and the biologically important shoreline systems under protection. The southwestern boundary, which is approximately 50 km long, follows the height of the land of the Male i Thate mountain. This section needs to be surveyed, demarcated and protected against outside pressures, such as villagers from neighboring communities and the Korca plain entering the park with their livestock and crossing the Male i Thate

mountain ridge to access the east-facing sub-alpine meadows of the NPP. For practical and ecological reasons it would have been a wiser decision to include the entire Male i Thate mountain ridge in the park. This would have facilitated law enforcement and it would have protected the fragile sub-alpine and alpine meadows along both sides of the ridgeline.

Of special concern is the protection of the southern boundary from Korca-region poachers who cut firewood for commercial purposes inside the NPP. No pressures are encountered along the northern and/or northeastern boundaries, which are protected against intrusions by the national border patrol.

3.2.2 Ecological Description of National Park Prespa

The Albanian National Park Prespa covers an area of 27,750 ha, including forests and shrublands, pastures, natural and semi-natural meadows, aquatic areas, and cultivated lands (see Table 3.2.2). The protected landscape of Pogradec includes another 27,300 ha within the Ohrid Lake watershed system.

Table 3.2.2: Land Use of the NPP

Area	Size in ha	Percent
Cultivated land	2,100	7.57
Forest	13,500	48.65
Pastures and meadows	1,828	6.59
Urban areas	4,950	17.84
Aquatic areas	5,372	19.35
TOTAL	27,750	100

The karstic landscape of the basins and mountains in the Albanian part of the Ohrid and Prespa region is mainly composed of limestones and dolomites. They date back to the Middle to Lower Triassic period. Precipitation readily passes through the karst soil and flows into the lakes underground. Springs and surface water flows are rare in this karst landscape.

The Ohrid and Prespa region belongs to the Balkan subdivision of the Sub-Mediterranean vegetation zone. Three phytoclimatic zones are distinguishable: oak, beech, and alpine meadows.

The oak zone ranges from 600 m to ca. 1,300 m a.s.l. Large parts of this zone are used for agriculture. The remaining forests are dominated by deciduous oak woods (quercetum), with *Quercus petraea, Q. frainetto, Q. pubescens,* or *Q. cerris.* Oak woods with *Ostrya*

carpinifolia and *Carpinus orientalis*, which show a similarity to the mixed deciduous and evergreen forests of the *ostryo-carpinion orientalis* at the lower elevations, are also included in this zone.

On dry and stony sites, Q*uercus trojana* (*quercetum trojanae*) dominates. Also confined to dry and stony sites are the juniper woods (*juniperetum excelsae*) of the Kallamas Peninsula. As the trees are often standing singly in these dry oak and juniper communities, the patches in between may be covered with continental Stipa grasslands (*festucetalia*). Another remarkable community at slightly moister sites within the upper oak zone is *castanetum*, which is found on the eastern-oriented slopes of the Chervenaka Mountains near Pogradec.

The beech zone extends from elevations of 1,200 m to 1,900 m. Beech forests are restricted to the eastern slopes of Mali Thate (Dry Mountains) and small parts of the Chervenaka Mountains near Pogradec. Besides beech trees (*Fagus sylvatica*), A*cer obtusatum, A. pseudoplatanus* and C*orylus colurna* are present. As in the oak zone, only a few remnants are in good condition, and these remaining woods are threatened by cutting.

In the lower parts of the beech zone close to settlements, some plum and apple orchards have been established. Large areas are covered with pastures and mountain meadows. Depending on the exposure, water content and soil properties, the plant communities of the meadows vary from *arrhenatheretea* types to communities of *festuco-brometea*. Within this region elements of sub-mediterranean (*meso- or xerobrometum*) and continental types (*festucetum* as dominant association) occur. These “intergrades” at the geographic border of the European beech zone seem of great importance from a phytogeographical point of view and in terms of biodiversity. They certainly deserve a basic study in the future. With increasing altitude, the meadows show an increasing number of species from alpine grasslands.

The alpine zone in Mali Thate extends from an altitude of about 1,900 m up to the summit. Above the timberline, different types of alpine meadows (*seslerietalia*), dwarf shrub formations of J*uniperion nanae* and communities of rocky sites and crevices can be found. The various meadow and sedge communities of the slopes, plateaux and funnels of the higher altitudes have been studied in more detail in the Macedonian Galicica mountains. In the Albanian part of the Prespa area, they still have to be studied.

3.2.3 Resource Use Inside National Park Prespa

Subsistence agriculture and livestock production are the main sources of income for communities residing inside the NPP (Annex 6, Case Studies). The forests of the park are

overused for firewood, livestock grazing, and lopping of tree branches for winter goat fodder. Livestock currently grazes on almost all parkland. Overall, livestock numbers in the park are comparatively high, with goats having the most significant adverse impacts on the park's ecosystems. Livestock numbers by village are presented in Table 3.2.3.

Agriculture is restricted to the Prespa shoreslines. Local people cultivate various crops in small plots, primarily for subsistence. Horticulture is also practiced along the lakeshore to produce vegetables for subsistence purposes.

Table 3.2.3: Livestock Using the NPP by Village

Village	Cattle	Sheep	Goats	Horses/ Donkeys	Total
Liqenasi	460	1,283	1,067	197	3,625
Zaroshka	231	329	329	70	1,311
Lajthiza	121	228	388	46	943
G. Madhe	600	2,200	2,200	283	5,566
Gollomboçi	173	144	486	52	1,121
Kallamasi	407	599	973	177	2,758
G. Vogel	215	332	463	70	1,227
Cerje	153	435	206	43	1,045
Djellasi	169	233	698	61	1,320
TOTAL	2,236	5,783	6,810	999	18,916

Previous fruit production ended after the “revolution” of 1991. Some fields, vineyards, and fruit gardens are still in use, but the water systems in large parts of the former agricultural areas are no longer maintained, and therefore production is quite poor. Fishing is still an important source of income, at times used as "cash crop". Fishing in the NPP is still carried out mostly in a sustainable and traditional way.

Tourism in the area is rudimentary. More than 2,000 visitors are reported to have visited the NPP so far in 2000. This figure likely includes school classes being taken into the NPP quite regularly.

3.2.4 The Support Zone of the NPP

At present, the NPP has no defined support zone boundaries, although the need for a support zone itself seems widely recognized. A clearly identified support zone for the NPP is of importance since many of the proposed interventions will be implemented outside NPP boundaries. It will therefore be critical to know that the benefits from such interventions are directed at the communities who have made the biggest sacrifices for

the benefit of the NPP. The concept of a support zone is self-explaining. It has been aptly described by Schuerholz (1998).[3] In summary, the rationale of a support zone is to gain the support of park neighbors for the sustainable protection of a PA through providing economic assistance and support in lieu of forfeited user rights.

In the absence of guiding rules on the establishment of support zones, it is suggested that Prespa park include the legal territories of all communities that share an administrative boundary with the NPP. It may safely be assumed that these communities have the greatest impact on the park and that they had to make most sacrifices by giving up traditional user rights. Communities qualifying to be included in the support zone should therefore be supported in an attempt to promote sustainable economic development of their areas.

It should be noted that support zone boundaries are arbitrarily chosen and are by no means legally binding. In contrast, the boundaries of a national park are legal boundaries that have to be surveyed and entered in a land registry.

3.2.5 Problem Analysis

The following problem assessment is based mainly on the participatory multi-stakeholder SWOT analysis that was conducted within the framework of this feasibility assessment (see Annex 7), supported by field investigations and two village surveys (see Annex 6).

It may safely be assumed that the ecological integrity of the NPP is currently being lost everywhere inside the park and its support zone. The category of “National Park” seems an unsuitable choice for this protected area for several reasons. It certainly does not meet IUCN's requirements for a category II protected area that does not permit extractive resource use and that stipulates ecological integrity of a representative sample of a characteristic ecosystem. Although the NPP has designated core areas (approximately 1,100 ha above the 2,268-metre contour-line, and roughly 1,000 ha at lake level) the core areas are too small to safeguard the ecological integrity of its bio-resources, which implies that viable populations of species native to such an ecosystem can be sustained.

The biggest problem threatening the integrity of the NPP is the proportionately large human population residing inside the park boundaries. The park people depend on the park's resources for their livelihood, mainly derived from the mountain forest, the sub-alpine meadows and the lake. At present, an estimated 6,400 persons from 13 villages, located primarily along the shoreline of Macro Prespa Lake and the foothills of the Male i Thate mountain, live inside the NPP. The pressure from these communities on the park's resources is extremely high.

[3] Schuerholz, Goetz, 1998. “Buffer zone,” a term to put to rest. IUCN / CPPA August newsletter.

The most serious environmental problems encountered in the Prespa NP region are poverty related. The notorious local energy shortage continues to have detrimental effects on the forests of the NPP and support zone. Fuel wood still is the major source of energy for the predominantly rural population of the region (see Annex 6). The second most serious threat to the forests is tree lopping for the collection of winter fodder, mainly for goats (see Annex 6). Livestock grazing inside the already very degraded mountain forests poses another threat to forest integrity. It is directly linked to soil erosion and soil compaction preventing natural regeneration and the removal of the water retaining vegetative ground layer.

Due to extensive over-utilization, most local forests have deteriorated into unproductive shrub communities of low commercial and biodiversity values. This phenomenon is likely associated with a reduction in species diversity and a general loss of biodiversity. A concerted effort is needed to successfully rehabilitate the forests of the NPP and support zone, which may only be achieved in close cooperation with local villagers, who are the root cause of the environmental problems. This, however, will only be possible through providing suitable alternatives to fuel wood, reducing livestock numbers, eliminating goat populations and tree lopping.

Over-grazing of sub-alpine and alpine meadows detrimentally affects the naturally fragile alpine ecosystems of the NPP and support zone. Grazing of alpine meadows requires a sound range management plan that regulates grazing season, livestock numbers, species composition and rotation cycles in designated areas. This should be complemented with a well-designed environmental monitoring program and strict controls, implemented in cooperation with local herds-people.

Serious concerns, with international implications, in the support zone of the NPP are related to (a) the poorly managed irrigation system in the Korca plains, which affects the water regime of Micro Prespa Lake, and (b) the draining of the Maliqi wetlands, which is having a disastrous impact on migratory waterfowl and shorebirds, and the water balance of the Prespa basin at large. The latter is believed to be responsible for the local disappearance of formerly resident breeding populations of endemic species, mostly from the avifauna and amphibians. The Maliqi area is currently being used for agriculture that cannot be sustained. In the process, the peat-moss deposits of the former Maliqi wetlands are being systematically burned to produce nutrients for crop production. This unsustainable practice destroys requisites critical to sustainable wetland.

The water balance of both Prespa lakes in general is negatively influenced by uncontrolled water use for irrigation and other purposes in all three neighbouring countries (see Table 3.2.5). Both lakes are expected to continue to be used for irrigation as in the past. In Albania the water is primarily used for the irrigation of the Korca plain, the now-drained Maliqi wetlands.

Table 3.2.5 Prespa Lake Water Used for Irrigation and Other Purposes[4]

Country	Water extraction for irrigation	Water extraction for other purpose	Total
Albania	35,000,000 m^3Year	none	35,000,000 m^3/Year
Macedonia	15,552,000 m^3/Year	1,246,000 m^3/Year	16,816,000 m^3/Year
Greece	6,235,000 m^3/Year	3,440,000 m^3/Year	9,675,000 m^3/Year

The water regime of the Micro Prespa/Maliqi/Devolli complex is influenced by the following major factors:

- large-scale water deviation from the Devolli river into Micro Prespa Lake during the rainy season in spring and winter;
- large-scale water extraction from Micro Prespa Lake by the three neighbouring countries (largest consumption by Albania);
- ecologically unsound irrigation scheme designed for the Korca/Maliqi basin;
- draining of the Korca/Maliqi basin via the Devolli channel;
- weir with sluices between the Macro and Micro Prespa Lakes on the Greek side.

Other environmental concerns inside the NPP and support zone are: (a) uncontrolled sewage/wastewater disposal by literally all villages, communities and cities with unknown effects on the quality of potable water sources, lake ecosystems, rivers and creeks; (b) uncontrolled solid waste disposal throughout the region; (c) unregulated development and housing construction inside the NPP, which negatively affects the tourism potential in the region.

Problems adversely affecting the sustainable development of the NPP and its support zone, as identified by local stakeholders in the SWOT workshop, are:

- the lack of a participatory management plan for the NPP;
- insufficient staff, equipment and infrastructure needed for control, administration and public-use programs;
- lack of a regional land use development plan with focus on the designated development zone inside the NPP along the shoreline of Macro Prespa Lake;
- absence of a regional tourism development plan;
- unsound agricultural practices and poor choice of cash crops throughout the region;
- over-fishing of Macro Prespa Lake;
- high contamination of lake water due to intensive use of fertilizers.

[4] I.Chavalovski (2000), *Antropgenic influence on the denivelation of Lake Makro and Mikro Prespa*" Proceedings of International Symposium, Sustainable Development of Prespa Region, Oteschewo 2000: p 251ff.

Other environmental constraints are:

- a rather weak national policy and legal framework with respect to Albania's protected area system at large and the NPP in particular;
- biodiversity conservation mandates that overlap between the Directorate of Forestry and the National Environmental Agency;
- poor institutional recognition of the NPP administration;
- insufficient government funds for the NPP and the sustainable development of the support zone;
- insufficient inter-institutional and inter-donor communication and cooperation on a local and national level.

The latter is of particular concern because valuable opportunities for synergies in the interest of sustainable conservation management are being lost.

The primary shortcoming of local trans-boundary significance is insufficient conservation management agreements between the three countries, especially regarding:

- Micro Prespa water management (Albanian and Greek authorities);
- the Prespa Park on the Greek site and the Albanian NPP (Greece and Albania);
- the Galicica and Prespa NPs (Macedonia and Albania);
- synchronized fishery management of Macro Prespa Lake (all three countries).

3.2.6 Forest Management in the Support Zone of the NPP

Three of Albania's 37 forestry districts touch the NPP and its support zone: the districts of Korca, Pogradec and Devolli. The district forest offices are composed of six sectors, each sector being headed by a chief forester and one inspector, and supported by three to five staff. The sectors are: forest use, silviculture, medicinal plants, pasture and livestock, forest protection and forest ownership (Illyr Gallo, pers.comm.[5]).

The Pogradec District encompasses 27,000 ha of forest, subdivided into five compartments. Some 8,000 ha are considered high forest, while the rest is degraded deciduous forest/shrublands. The current annual cut is 25,000 m^3 (95% deciduous species of mostly *Fagus spec*., and 5% conifers), harvested on a tendered concession basis. The annual cut within this forestry district until 1990 was approximately 70,000 m^3. The total production of firewood by the district is 20,000 m^3, compared with 60,000 m^3 in demand within the district. Firewood is sold for DM 20/ m^3 if provided by the district office. If collected under supervision by villagers the cost is DM 2/ m^3. An estimated 1,000 to

[5] Illyr Gallo, District Forester Pogradec, pers. commun., 24 Sept., 2000.

1,500 families make use of this opportunity, collecting an additional 6,000-10,000 m^3 annually. Illegal firewood collection in this district is estimated at 4,000-6,000 m^3per annum.

All forest land in the Pogradec district is owned by the state. As of 1998 a total of 2,290 ha in forest had been allocated to villages as "community forests." However, only the use rights are given to communities; ownership remains with the state. The new policy promoted by the government is that within the next four years, user rights to 50% of the forests will be transferred to communities. Control and supervision will remain the responsibility of the district foresters.

Foliage collection, or tree lopping, for animal fodder is licensed from June to September. Tree lopping supposedly takes place under supervision by the district forest inspectors. The fees are DM 10-15/ 100 kg (equal to two donkey loads). The forestry district collects approximately DM 20,000/year from tree lopping. Livestock grazing inside state forests and of sub-alpine meadows is subject to licensing. Rates are approximately 1 DM/animal. An estimated 10,000 to 20,000 animals graze the Pogradec District forests.

The Pogradec forestry district currently receives $40,000 from the Forestry Sector Loan (a World Bank loan of $21 million) to be used for the elaboration of a management plan for 4,000 ha of state forest. The management plans for "community forests" are elaborated by independent specialists for a 10-year cycle at an average cost of $5,000 to $7,000 per plan. The Forestry Sector loan supports 8,000 ha of the Ohrid Lake "green belt" and approximately 200-400 ha per year for forest improvement measures, or forest rehabilitation.

The Devolli forestry district encompasses 16,800 ha of deciduous forest. The management plan for this district allows an annual cut of approximately 9,000 m^3 (Faik Flamuri, pers. comm.[6]). As of the year 2000, approximately 10,000 ha of forests under the jurisdiction of the Devolli district have received protection (protected landscape) status, where no utilization is permitted. On the remaining area only 4,000 m^3 are cut annually of which 60 % is firewood. There are 40 villages located in this district, supporting 12,000 people with a firewood demand of 50,000 m^3/a. Illegal woodcutting for firewood in this district is accordingly high. About 10,000 m^3 of firewood per year is taken from designated forests inside the NPP. According to the district forester, 4-5 m^3/ha/a could be produced on a sustainable basis by the designated use forests inside the NPP. Approximately 40% of the district forests will be converted into designated community forests under the same conditions described for Pogradec. To date, this district has not benefited from the World Bank Forestry Sector Loan.

[6] Faik Flamuri, District Forester Devolli, pers. commun., 25 Sept., 2000.

The Korca Forestry District has a total area of 43,000 ha, composed of 15% oak mixed forests, 30% coniferous forests and 55% beach forests. This district still has some quality high timber. The annual allowable cut is 30,000 m^3 of which 30,000 m^3 is firewood (Kritaq Shore, pers. comm.[7]). Until 1990 most of the firewood demand for the Korca district was met by imports from other regions. Although the district shows a negative population trend, the firewood demand is extremely high, putting great poaching pressure on the local forests.

3.2.7 The World Bank's Forestry Sector Loan to Albania

The following information on Albania's forestry sector loan from the World Bank was provided by Haki Kola.[8] The loan covers four components: (a) institutional strengthening, with allocated $5 million, (b) sustainable high forest management with allocated $8 million, (c) communal forest and pasture management with allocated $4 million, and (d) protected area management with allocated $1 million. The loan is supported through a technical assistance package by FAO of $2 million.

The Forestry Sector loan project started in 1997 with a six years duration. It is composed of a $10 million grant from the Italian Government and a $10 million soft loan. To date only $6 million have been spent. Apparently, the project suffers from the lack of quality project proposals on which funds could be wisely spent.

Experiences of the project with community forest development and management have apparently been positive. According to the project director the key is the participatory development of management plans for community forests in cooperation with the corresponding communities. This fosters “ownership” development that benefit management.

Recommendations regarding potential cooperation between the Project Management Unit (PMU) and the proposed interventions by KfW in the area of forest protection met with a positive response by the PMU. There is a realistic chance that the elaboration of the proposed management plan for the NPP could be financed by component 4 of the forestry sector loan. Funding may also be available for the proposed watershed model projects to be implemented in the support zone of the NPP.

[7] Critaq Shore, District Forester Korca, pers. comm., 26 Sept., 2000.
[8] Haki Kola, Director PMU, Forestry Sector Loan, pers. comm., 5 Oct., 2000.

3.2.8 Role of Non-Government Organizations (NGOs)

There is a very active and dedicated NGO community in the Ohrid-Prespa region working in all three countries. More than 15 environmental NGOs are found on the Albanian side of the lake area, complemented by over 20 interest groups ranging from youth groups and women's groups to ethnic minority, cultural, and sport clubs (see Annex 8). All of them have been associated with specific environmental concerns.

All NGOs do their own fund-raising, more or less successfully. All of them are under-budgeted and poorly equipped. Some have received support by the donor community. The environmental NGOs of the Albanian Ohrid-Prespa region have formed an umbrella organisation that provides them with more political clout. Locally, the NGO community has been very successful in lobbying for environmental issues and could become a powerful ally to donors supporting environmental projects in the region. Of special interest are project components aiming at environmental education and building public awareness. The local NGOs are generally well connected with mass media and have shown great interest in co-operating with donor activities.

3.2.9 Regional Planning Documents

At present, the NPP does not have a management plan and/or a workable operational plan. In absence of long- and medium-term planning documents the NPP is currently managed on an *ad hoc* basis, driven by day-to-day problems instead of following practical guidelines as derived from a sound management plan.

Priority guidelines for the development of the NPP and support zone were elaborated in stakeholder meetings during the preparation phase for the creation of the NPP. This process was sponsored by the German Technical Development Agency (GTZ) and guided by the Germany-based NGO "Euronatur." Although the resulting "Eleven Point Priority Development Program" may have correctly identified regional priorities, it failed to provide an appropriate framework to facilitate implementation of identified development priorities (i.e., a management plan and complementary operational plans addressing the long- and medium-term time frames). The priority areas are very global and lack practical complementary action plans.

At present, no regional land use development plans are available anywhere in Albania. Land use planning that is affiliated with optimum resource allocation and based on sound land capability assessment is unknown in the country. Regional planning in the past was a centralized activity conducted by the Directorate of Urban Development, a branch of the Ministry of Public Works, and by the central Institute of Urbanistik (IoU) that reports to the same Ministry.

In recent years, the IoU has made efforts on its own to provide development plans for specific regions.[9] These plans are mostly tourism-related, and give little consideration to other resource areas, conservation issues or overall regional development. One such plan was produced for the NPP and the Korca region without sufficient stakeholder consultation or the participation of NPP personnel and civil society. Several development activities proposed in this plan contradict conservation-oriented development objectives for the NPP and the region at large. Although the IoU cooperated with the State Tourism Committee (STC), the planning results remain lopsided, reflecting only tourism development interests.

The STC is another agency attempting to produce regional tourism development plans, and just like the IoU, mostly in isolation and without proper stakeholder consultation. The STC is also currently involved in the NPP,[10] planning road access, and training villagers in visitor service, without consultation of the Forestry Directorate and/or the NPP personnel who have the legal mandate for the management of the NPP.

Neither the STC nor the IoU have regional representation, nor do they have the authority, mandate and/or capability to provide services for, or guidance on, land use development in general. The GoA has recently delegated some regional planning authority to the districts in an attempt to decentralize. However, at present the districts have no capability whatsoever to comply with this challenging task, neither in terms of skilled planners, nor funding.[11] It may safely be assumed that in the absence of land use policies and a proper legal framework, regional planning will become even more hazardous, driven by profit-oriented entrepreneurs rather than guided by a responsible, multi-stakeholder planning group.

According to Mr. Derwishi,[12] the Albanian Development Fund, The World Bank (WB) and the European Union (EU) are in the process of formalizing a cooperation agreement for the elaboration of regional development plans for two pilot areas that still have to be selected. It is hoped that the pilot projects will serve as models for all of Albania. The same source indicates that planning for the pilot projects will proceed in a participatory manner according to complex land use development guidelines that still have to be developed. No further details are available at this point and it is unknown whether the proposed regional development planning will involve ecological sensitivity assessments and/or land use capability ratings.

[9] Nina Theodosi, Director IoU, pers. comm., 4 Sept., 2000.
[10] Sherif Bundo, Director, and Franka Paloko, Tourism Committee, pers. comm., 4 Sept. 2000.
[11] Nina Theodosi, Director IoU, pers. comm., 4 Sept., 2000.
[12] Ylli Derwishi, Director Infrastructure ADF, pers. comm., 22 Sept., 2000.

3.2.10 International Projects

The Ohrid-Prespa Lake region has attracted diversified donor support in all three countries (see Annex 9). With over DM 100 million, the total investments in this region are comparatively high. Most interventions aim at environmental enhancement and improvement of the water quality of the lakes; many are related to the enhancement of social infrastructure and community development. Donor activities in the region are illustrated by Map 1.

Discussions of these projects with Project Management Units (PMU) indicate that there is very little interaction between the projects and/or the donors. Most projects are implemented in a parallel manner without cooperation or agreements. This lack of cooperation results in wasteful work overlap and loss of synergy, when many project components could complement one other.

In the absence of a regional development plan, most donor projects seem to be somewhat *ad hoc* and result from responses to requests by specific stakeholders without multi-stakeholder consultation. This may lead to direct conflicts of interest. The planned Bilisht and Bitnicka irrigation rehabilitation project that is funded by the World Bank and the Islamic Bank serves as example: this project undermines the rehabilitation of the Maliqi wetlands, as well as the rehabilitation of the Prespa Basin water regime as proposed by this project.

3.2.11 Legal and Policy Framework

There are currently 16 major legal acts regulating different aspects of the management of protected areas (see Annex 10) in Albania. Several more apply to the management of land and resource use/protection in support zones. It is interesting to note that most of the legislation was created between 1993 and 1995 (see Annex 10) and has not been revised to date, except for the Forestry Act -- the only law with direct reference to protected areas. The Forestry Act was implemented 1992 and revised in 1998. It provides the Forestry Directorate with the legal mandate for the management of national parks. According to the same law, however, only forest areas qualify for protection and management under this law. National Parks such as the NPP that include ecosystems other than forests, such as lakes, wetlands and alpine meadows, are actually not covered by this law. This makes the situation even more difficult. The "Law on the Development of Areas with Tourism Potential" gives the State Tourism Committee the right to plan inside the NPP. The same is true of the "Law on City Planning," which gives the Directorate of Urban Planning authority to work inside the NPP.

The National Environmental Agency has taken the initiative to develop a comprehensive policy framework regarding biodiversity conservation in Albania and a framelaw that will govern the creation and management of a protected area system. The same agency developed a "National Environmental Action Plan" in 1995 and a complementary "Biodiversity Strategy and Action Plan" in 1999.

The principal responsibilities of the NEA are the elaboration of national environmental policy concepts and legal frameworks for the protection of the environment, environmental law enforcement (i.e., field inspectors) and international treaties related to wildlife and the environment in general. According to the statutes, the NEA is not an implementing agency like the AFD and other branches of the Ministry of Food and Agriculture. The NEA, however, sees its role differently and would like to assume responsibility for the management of protected areas, not only for their design. This leads to inter-institutional conflicts and wasteful work overlap.

Albania's current legislation does not provide guidelines and/or a framework for "spatial" planning (i.e., land use planning according to land use capabilities). This is reason for great concern since it leaves land use and regional development planning largely uncontrolled. In the absence of inter-institutional cooperation agreements, institutions are currently working according to their own agendas, which are not necessarily in favour of conservation management.

3.2.12 Institutional Framework on National and Local levels

The General Forestry Directorate (AFD) of the Ministry of Food and Agriculture has *inter alia* the legal mandate for the management of Albania's national parks. It is a decentralized agency with representation on district and local levels. Its principal mandate is forest management, but it is also responsible for the management of wildlife and fisheries resources (i.e., hunting and fishing). As such, it is the most important agency relative to the NPP and support zone. The ADF is a well established agency, staffed with qualified and reasonably well equipped personnel. Since its principal function is forest management, senior staff is primarily foresters who have little experience or technical background in the management of protected areas.

Founded in 1991, the National Environmental Agency (NEA) was originally attached to the Council of Ministers and had a staff of five people. In 1992, it was transferred to the Ministry of Health and the staff was increased to 15 people. The current Albanian National Environmental Agency was created in 1997, with ministerial authority and a principal mandate for the elaboration and enforcement of national environmental policies and legislation. It currently employs 32 people on a federal level and 38 inspectors on a district level. The NEA has signing responsibility for international treaties such as

CITES, the Convention on Biodiversity and RAMSAR. It is also responsible for proposing new areas for environmental and biodiversity protection. It is currently involved in the development of a national environmental strategy to be complemented with an action plan. The NEA maintains excellent relations with Greece and Macedonia on environmental issues related to the Prespa Basin[13] and has signed Memoranda of Understanding (MoU) accordingly.

The NEA is in the process of proposing new national framework legislation for protected areas in Albania. The proposal requests transfer of the management mandate for protected areas to the NEA, opposing the legal mandate of the Forestry Directorate. In the proposed framework, the NEA requests the ADF submit forest management plans to the NEA for approval. It is apparent that the NEA's ambitious plans cause problems with the ADF. At present, there is little cooperation between the two agencies and tensions are expected to increase.

The National Tourism Committee (NTC) has the legal mandate for tourism development in the country. It has the status of a full government ministry. The NTC is very interested in protected areas because they are considered prime tourist destinations. On its own, the NTC has developed a tentative tourism plan for the NPP, with little stakeholder consultation, that is independent from the current NPP authorities and the ADF at large.[14] The NTC has embarked on a capacity-building program in the NPP that involves 40 women being trained for tourism services.

The NTC operates mainly from the capital Tirana. The executive body of the NTC is the state-owned enterprise "Albturist," which has a local representative in Pogradec at Ohrid Lake. The NTC has developed good links with neighbouring Greece and Macedonia.

The lack of cooperation between the NTC and the NPP administration, and the obvious failure to incorporate tourism development into overall participatory planning for the NPP and support zone, invites inter-institutional tensions and conflicts rather than optimizing common human and financial resources for the benefit of sustainable use and protection of the NPP. Synergies need to be established.

The unfortunate overlap in mandates between the ADF and the NEA especially with respect to protected areas that include ecosystems other than forests (i.e., wetlands, lakes, shorelines, alpine grasslands, etc.), prevents resource management under one umbrella agency and does not permit the much-needed holistic approach to ecosystem management.

[13] Mr. Deliani, Director NEA, pers. comm., 22 Sept., 2000.

[14] Mr. Bundo, Director NTC, pers. comm., 4 Oct., 2000.

The Albanian Development Fund (ADF) is another key player in the region that has great influence at the village and community levels. It was created by the World Bank in 1993 to provide assistance to villages and communities, or rural areas, for social infrastructure development. Other donors have subsequently contributed to this semi-autonomous organization. The ADF is controlled by the central government, which is responsible for loan repayments to the World Bank (funds provided to the ADF by the World Bank are soft loans). Unlike the World Bank, the ADF has the authority to enter into independent agreements with contributing donors.

The ADF has subdivided the country into seven geographic regions, each headed by one civil engineer assisted by one to three inspectors and social workers. The inspectors are responsible for assisting villages with designing priority projects affiliated with social infrastructure development. Village projects are identified by village constituents and submitted to the community -- each community encompasses seven villages -- for approval. The community is responsible for the final selection of priority projects. The ADF finances feasibility studies for the projects and arranges the mandatory 10 % matching contribution with the successful recipient village (to be paid by the villagers, who are the direct beneficiaries).

From 1993 to 1997, the ADF had an operating budget of $3.5 million. In 1998, the budget was increased to $7 million, and it was again increased in 1999 to $8.5 million. It will be doubled in the current year. By 2000 a total of $24 million are expected to be available. This is indicative of the high standing and efficiency of the ADF, which now operates with a total of 70 personnel.

Other key institutions operating in the area are the National Directorate for Urban Development, through its Institute of Urbanistik. Regional planning in the past was a centralized activity implemented by the Directorate of Urban Development, a branch of the Ministry of Public Works, and by the central Institute of Urbanistik (IoU), which reports to the same Ministry. These planning institutions are mostly responsible for urban development on a local level, but not for land use planning and general regional development.

In the absence of clear government guidelines and well established planning authorities, the Institute of Urbanistik (IoU) currently operates relatively independently on regional development issues, but without proper stakeholder consultation or government blessing. It has produced a tentative plan for tourism development inside the NPP, again without the participation of NPP authorities. These activities lead to conflicts because they are not properly embedded into an overall development and management plan for the NPP.

There are several other local authorities who have different mandates associated with land and resource use management in the NPP and support zone. The more important

ones are water management authorities and municipalities. A list of key institutions and government agencies on federal and local levels related to the management of the NPP and support zone is presented in table 3.2.12.

Table 3.2.12: Institutions with Management and Planning Authority for the NPP and Support Zone

Institution	Mandate
General Forestry Directorate of the Ministry of Food and Agriculture*	Responsible for forestry policy and management of national parks
Forestry Directorate in Korca (Korca District) and Bilishti (Devolli District)	The main portion of the NPP belongs to the Korca district and therefore falls under the jurisdiction of the forestry directorate in Korca; the rest falls under the jurisdiction of the forestry directorate Devolli.
National Environmental Agency NEA*	Responsible for policy framework in the fields of biodiversity and nature conservation, monitoring, and environmental impact assessments
Inspectorate Korca of NEA	Responsible for environmental protection EIA and permissions for encroachments and monitoring
Prefecture of Korca, Department of International Relations	Responsible for contacts and co-ordination with both neighbouring countries
National Committee for Tourism Development*	Responsible for tourism planning and development
Albturist regional enterprises	Implementation and co-ordination of tourism activities in the region
National Planning Institute NPI*	Spatial planning at national level
Local planning departments in the Prefecture in Korca	Responsible for spatial planning
Mayors of the 13 villages within the NPP	Members of PAC an will have responsibility for decisions on developments of the NPP
Director of NPP (Park administration)	Executive body for protection measures within the boundaries of NPP and the support zone, and member of PAC
Village and community councils	Decision-making body at the village and community levels
Albanian Development Fund (ADF)*	Social infrastructure development on village level; fund established by the World Bank with contributions by donors
One inspector and one technician/municipality	Planning and implementation of priority social infrastructure development projects at village level
* **operates at the National Level**	

3.2.13 Administration and Proposed Role of the Prespa Advisory Committee (PAC)

At present, the NPP is administered by the local chapters of the Korca and Pogradec forestry districts. Its staff is comprised of one park director and two rangers. The park director is located in Korca, while the rangers live inside the NPP. It is apparent that the park administration is under-staffed, under-equipped and totally insufficient to provide sustainable ecosystem protection. The existing park infrastructure is confined to a building at Gorica e Madhe and a small control station at the park entrance along the access road from Korca.

An Advisory Committee for the Prespa park (PAC) was established during the early planning stages of the NPP. Committee members include the mayors of park villages, teachers, representatives of local NGOs and the Korca municipality. The Committee meets irregularly to discuss park-related matters. The role and functions of the Committee are neither defined nor formalized.

3.2.14 Trans-Boundary Perspective

i) Conservation Opportunities and International Interests

It is important to emphasize that the Prespa and Ohrid Lake region is considered one ecological entity of global significance. The lakes and corresponding terrestrial ecosystems are characterized by a high level of endemism and a comparatively high level of species diversity. The terrestrial ecosystems enclosed by the lakes, as well as larger portions of the lakes, enjoy protection in the form of national parks in all three countries. The three national parks share common boundaries and protect one contiguous unit of terrestrial and lake ecosystem. The protected areas surrounding the lakes are inter-linked, and hence provide ecological connectivity, an important requisite for system integrity. Sustainable protection of the three parks, however, is essential to achieving ecosystem integrity. This may only be achieved through close cooperation between the three countries and through common management guidelines in support of protection.

There is great international interest in synchronized conservation management of the lake region to benefit local people, further the peace treaty and secure global long-term benefits by preserving unique ecosystems. The international concern for this region is evident in comparatively large donor involvement, with financial interventions dedicated to environmental enhancement exceeding $100 million.

ii) The Protected Area System of the Ohrid-Prespa Lake Region

As described earlier (see chapter 3.2.2), the south-western boundary of the NPP follows the height of the land of the Male i Thate mountain. From an ecological perspective, the height of land is a poor boundary choice for a protected area since it cuts a critical ecotone in half, separating the forest and grassland communities of the west-facing slopes from those facing the east. By using the height of the land as boundary, the NPP therefore includes only the northeast facing slopes of the south-north oriented mountain range. Ideally, both sides should have been included in order to cover all ecosystems in a vertical transition.

This has been recognized by neighboring Macedonia, where the entire mountain of Galicica (continuation of the Male i Thate ridge) is protected as one ecological entity through National Park Galicica. Both the east- and west-facing slopes of this prominent ridge in their entire vertical transition (i.e., Ohrid Lake to the west and Macro Prespa Lake to the east) are included inside National Park Galicica (NPG).

The Galicica Male i Thate mountain ridge is one contiguous geological/ecological entity located between the Ohrid and Prespa Lakes. The NPG was created in 1958 as the third national park in Macedonia. It falls under the jurisdiction of the Ministry of Environment. This park protects 22,700 ha of montane broadleaf forest and sub-alpine/alpine grasslands, both of which have sustained livestock grazing and wood extraction for centuries. Unlike in the NPP, forest utilization and livestock use in Galicica is well controlled. The park has been zoned into a 1,000 ha core area, 2,300 ha visitor area and more than 19,000 ha “economic area” that currently is being used for sustainable firewood production, meeting 80 % of local demand and livestock grazing needs (10,000 ha sub-alpine grasslands). The revenue generated from firewood sales covers 90 % of the park's current operating cost (i.e., 6000 m^3/a, generating DM 360,000). Other revenues are generated through fees levied on right-of-ways for transmission lines and grazing leases. The park is totally self-financed. Grazing of alpine grasslands is well controlled and of low impact (2,500 sheep and less than 100 cows). Goats are absent from the park and there is no tree lopping for fodder collection.

Approximately 3,000 people are living inside the NPG in villages concentrated along the shoreline of Ohrid Lake. Most of the park inhabitants work in the city of Ohrid and do not depend on the park's resources for their livelihood. The villages are linked to a centralized wastewater disposal system, enjoy the services of a controlled garbage disposal and good quality potable water supply. They have telephone communication and a continuous supply of electricity. The living standard is very high compared to that of the neighboring villages of the NPP.

The NPG has no management plan. Its staff consists of one director assisted by four engineers, three technicians, three rangers and five administrative/auxiliary staff. Park headquarters are located in the city of Ohrid. The park is quite well staffed and well equipped. It currently is involved in the development of tourism infrastructure and a visitor program. It has entered agreements with the forestry faculty of the University of Skopje to implement research and monitoring activities needed for its sustainable conservation management. Park staff have embarked on an environmental monitoring program involving schools from the support zone. The NPG is traversed from east to west by a well maintained asphalt road, but also can be accessed from asphalt roads along the shorelines of Ohrid and Prespa lakes.

Pelister National Park is located to the east of Macro Prespa Lake. Created in 1949, it is Macedonia's oldest park and covers 12,500 ha of primarily deciduous and coniferous forest ecosystems and sub-alpine grassland. Its administrative structure is similar to Galicica. Due to its favorable micro-climate, the park has traditionally been an attractive tourist destination for hiking, trekking, and retreats. Like Galicica, the park is self-financing with revenues generated through the sale of pine cones and license fees.

The bird sanctuary Ezerani, located at the northern shore of Macro Prespa Lake, was created in 1997. It is a designated RAMSAR site of great importance for resident- and migratory birds.

The Greek National Park Prespa shares boundaries with the Albanian Prespa park. It was established in 1974 by the Ministry of Agriculture (MoA). The park protects 30,000 ha of wetlands, lake (i.e., Micro Prespa) and forests (23,000 ha). The forests are degraded through overuse by local people, mostly for firewood production. Approximately 1,200 people are living inside the park, concentrated in 10 villages and hamlets. The living standard of the park dwellers is relatively high – most generate their income outside the park area.

The park is a designated RAMSAR site. Although the Greek Ministry of Environment is legally responsible for RAMSAR sites, the legal mandate for the management of the park rests with the Forest Department located in Florina. Overlapping authority continues to cause inter-institutional legal and management problems,[15] although the park has no government personnel and/or budget at present. The MoA received funding from the EU in 1980 for the production and implementation of a management plan for this park. The management plan was completed but never officially approved.

With the introduction of a new environmental law in Greece in 1986, the concept for PAs was broadened, officially introducing new PA categories and providing guidelines for spatial planning. Subsequently, the Ministry of Environment prepared a new

[15] Myrsini Malakou, Director CADIPA, pers. comm., 29 Sept., 2000.

"management plan" for the park. The plan resembled a general land use plan, rather than a management plan for a national park based on recognized guidelines[16] . This plan was recently been approved by the Government of Greece.

The national park is currently being managed by CADISPA a local Greek NGO concerned about the sustainable protection of Micro Prespa Lake and its surrounding wetlands. The NGO's major objective is wetland rehabilitation inside the park. According to Malekou (pers. comm.), CADISPA has very successfully assumed the role of facilitator, negotiating with stakeholders and government authorities for land use rights and protection efforts.

To date, there are no official cooperation agreements between the connected national parks Prespa on the Albanian side, Prespa in Greece and Galicica in Macedonia. Furthermore, there is no international agreement on the water management of Micro Prespa Lake. Greek environmental NGOs strongly oppose the World Bank project that intends to use water from the Micro Prespa to irrigate cultivated lands of the Albanian Korca plain. CADISPA expresses great concern about the destruction of wetlands and meadows adjacent to Micro Prespa Lake on the Greek and Albanian side. These meadows are considered critical feeding areas for birds. Other problems facing the three joining national parks are (a) the lack of a unified control and protection system, (b) the lack of common land and water use policies and (c) the lack of common laws regulating the use of pesticides and fertilizer currently contaminating all three lakes.

It is evident that tri-national management agreements would be highly beneficial for the sustainable protection of the unique ecosystems typifying the Ohrid-Prespa region.

iii) Agreements between Albania, Greece and Macedonia

Macedonia and Albania have signed a MoU, or cooperation agreement, for the protection of Ohrid Lake. This was one of the requirements attached to the approval of the GEF Fund for the "Ohrid Conservation Project" that finances work in both countries.

Encouraged by Macedonian government officials and based on the existing MoU for the Ohrid Lake GEF project, another MoU was prepared by the private sector (Albanian NGOs assisted by Euronatur) in support of a trans-boundary biosphere reserve between Macedonia and Albania. This MoU was submitted to both governments in 1998. The MoU was not signed (see Annex 11).

After the 1998 change of government in Macedonia a new Ministry for Environment was created in that country. The new government adopted a new attitude toward its Greek

[16] *IBID.*

neighbor by opening official communication. Making use of this new development, Macedonia submitted the draft MoU to Greek authorities in an attempt to include Greece in the biosphere reserve proposal as a third partner. After some more preparatory work by the environmental ministries of the three countries, the three prime ministers signed a declaration in February 2000 in support of a trans-boundary Prespa Park shared by Greece and Albania (not a biosphere reserve). This is considered the first step towards an agreement that will create a trans-boundary protected area system that involves all three countries.

A tri-national meeting of the Ministries of Environment is planned for mid-October 2000 in Tirana, in order to follow up on the bi-national agreement and discuss future cooperation. The elaboration of a trans-boundary action plan, priority conservation measures, land and resource use management concerns and the establishment of research centres in the Ohrid-Prespa lake region will be on the agenda. The meeting is expected to provide an excellent opportunity to further the proposal for a tri-national biosphere reserve with one common funding proposal, to be submitted to the GEF.

iv) Tourism Potential

The Macedonian side of Ohrid Lake has traditionally been a prime international tourist destination. During the Yugoslav period overnight stays in this area reportedly exceeded 170,000 during peak times. Macedonia has a well-established tourism infrastructure and high quality service that caters to international tourism. After the breakup of the Federal Republic of Yugoslavia, and as a result of the Kosovo war, the number of visitors to the region decreased dramatically. This also resulted in the deterioration of tourism infrastructure. The recent peace treaties and political stabilization in the Balcans have reversed this pattern. Tourism is increasing, with registered visitors from Greece and Bulgaria, and new hotels and private accommodation are mushrooming. The prospects for tourism development on the Macedonian side of the Ohrid-Prespa region are very promising.

The Macedonian National Park Galicica that borders Ohrid and Prespa Lake is expected to become an attractive destination for tourists. Park personnel are currently developing a tourism plan that includes an elaborate infrastructure. Thanks to its pleasant climate, this region offers excellent opportunities for nature-based tourism programs, especially water sports and hiking. The city of Ohrid has been declared a “world cultural site” and has historically been a favorite tourist destination. Local tourism potential is further enhanced by ancient cultural sites.

The scenario in Albania is quite different. During the communist era tourism was flourishing in the Ohrid-Prespa Lake region on the Albanian side. Albanian workers were

rewarded with summer vacations in state-owned hotels and accommodation along the shorelines of Ohrid Lake. The entire tourism infrastructure, however, was destroyed during the riots of 1997. This destruction, combined with dramatically increasing lake contamination has resulted in a virtual standstill for tourism in the area.

From the breakdown of communism in 1991 up until the present, privately owned restaurants and small-sized hotels of generally low quality and poor service have been built illegally along the shoreline between the peninsulas Lin and Pogradec. None of these structures has any sewage treatment facility; raw sewage is channeled directly into the lake. The lack of sewage treatment plants, poor quality drinking water, disrupted electric power supply, chronic energy crisis and the lack of organized garbage disposal in the region provide little incentive for tourism development. The situation is aggravated by the continual deterioration of neighboring landscapes due to uncontrolled firewood cutting and over-utilization of forests and natural grasslands. It will take a great deal of time and effort to convert the Albanian section of the Ohrid-Prespa Lake area into an attractive tourist destination. The overall potential is lower than in Macedonia.

No data are available on actual tourism and tourism potential on the Greek side of the lake system. It is assumed, however, that potential is relatively high due to the attractiveness of recreational opportunities offered by the lakes and National Park Prespa, especially in light of very high living standards in Greece, compared to its neighbors.

4. Proposed Interventions

4.1 Introduction

The proposed interventions are grouped into three categories: (a) development and protection of the NPP, (b) development of the support zone and (c) trans-boundary conservation. The activities proposed for the three categories are organized by priority and placed into appropriate time frames, or “milestones.” They form an integral part of the overall planning matrix (see Annex 12). Funding for the proposed support zone activities should be obtained through the ADF. Financing the implementation of the proposed NPP management plan should ideally be part of the proposed GEF funding support for a tri-national biosphere reserve. At this point no practical solution has been found for the sustainable financing of NPP operating costs. Trans-boundary activities would be covered under the proposed GEF grant.

It is recommended that the NPP Advisory Committee be strengthened and that its proposed functions and responsibilities be clearly defined and formalized. It is apparent that the proposed interventions can only be successful if the major stakeholders are committed to cooperating.

4.2 Recommendations

4.2.1 National Park Prespa

i) Participatory Preparation of an Integrated Management Plan

A practical management plan for the national park, structured according to international guidelines, should be elaborated The process should be participatory, involving key stakeholders from the park and support zone. Activities identified in participatory workshops and the community consultation process should be organized into key management programs, embedded in a five-year implementation period followed by a four-year monitoring phase.

A vision statement for the park and support zone that identifies the long-term view and the overall goals to be achieved through successfully implemented management programs should precede the description of the management programs. The vision statement has to be developed by stakeholders in a participatory fashion.

The existing preliminary zoning of the park should be replaced by more commonly used, practical zones that allow for better implementation of the proposed management programs. It should be noted that zoning is a management tool and only sets the framework for infrastructure development and the individual management programs. The following management programs are recommended for the NPP: (a) administration and maintenance, (b) protection, (c) public use, (d) research and monitoring, (e) environmental education, (f) infrastructure development and (g) the support zone program. The management plan should become a legally binding formal document and should specify the composition, functions and responsibilities of the NPP Advisory Committee.

The management plan should be complemented by a practical and transparent operational plan based on the recommendations of the management plan. The management plan serves as the basis for the elaboration of annual work plans and budgets and provides overall guidance to the PAC and the iterative development of the park.

It is recommended that the management plan for the NPP be synchronized with the management plan for the neighboring Greek and Macedonian national parks. Synchronized elaboration of management plans for the three national parks would enhance the planning process and foster trans-boundary agreements and cooperation. One fringe benefit would be shared training opportunities for park personnel and other stakeholders in all three parks.

Park management plans provide development guidelines and a management prescription; activities are listed by priority and program. The management plan should be complemented by a practical and transparent operational plan based on the recommendations of the management plan. The management plan serves as the basis for the elaboration of annual work plans and budgets.

ii) Proposed Infrastructure Development by Management Program

The following proposed action plan for the NPP is organized by management program. The proposed needs for infrastructure development were identified in close collaboration with NPP staff and the Prespa Advisory Committee. Map 2 shows the location of the proposed infrastructure.

Administration

NPP headquarters should be established at Goriza e Vogel (see Map 2) because of its strategic location. It controls the transit road to Macedonia and facilitates the control of the most ecologically important sections of Macro Prespa Lake on the Albanian side. Furthermore, the park already owns a building at this location and a site that would suit the purpose. The building requires insignificant upgrading in order to meet specifications. At present, the recently remodeled building has seven offices, one kitchenette, bathroom facilities and a storage area. A meeting room that accommodates 35 people is needed, and will have to be added to the existing building. The building has basic furnishings, a solar hot-water system, water supply and a septic field. It is connected to the central power net but has no telephone connection. Equipment needs are:

- basic furnishings and equipment for seven offices;
- eight computers, power-stabilizers and printers;
- one base station telephone with three mobile units;
- one back-up generator of 15 kv with a 1,000-litre diesel holding tank;
- one photocopier;
- kitchen and bathroom equipment. There should be basic carpentry, electrical and other tools at headquarters, including one chainsaw. Three 4x4 vehicles should be provided for headquarter staff.

Park staff will be comprised of one park director and one program coordinator each for the (a) protection, (b) research and monitoring, (c) environmental education, (d) public use and (e) support zone programs. The professional staff will be assisted by one personnel/financing officer, one secretary/bookkeeper, two drivers, one caretaker/guard and 10 park rangers. An infrastructure development coordinator should be hired for the duration of the infrastructure development program (three years). It is believed that the NPP can be sustainably protected and managed by the proposed 21 persons.

Protection Program

Priority action is required for park boundary survey and boundary demarcation to facilitate the control and enforcement program. Survey and demarcation is only necessary for the southwest boundaries of the NPP because the eastern and northern boundaries coincide with international boundaries, which are easily recognized.

It is recommended that the boundary issue be revisited prior to the proposed surveys. The possibility of a park expansion to the west should be investigated. As mentioned earlier, the height of the land was not the best choice for a boundary from an ecological perspective. It would be advisable to expand the park west to include all of the sub-alpine meadows and adjacent montane forests on both sides of Male i Thate. The southwestern boundary is divided by priority into three sections, independent of the potential expansion. Section 3 currently experiences the greatest pressure from the support zone and should be surveyed and demarcated first, followed by section 1 and 2 respectively. All survey and demarcation activities should be completed within three years, and should be outsourced and supervised by park rangers.

Four ranger stations, with two rangers assigned to each, should be established in strategic locations. The design of three of the stations should be the same. Each building should have three rooms, a small kitchen, a storage room and a bathroom. They should be furnished and equipped with a radio-base station and two mobile radios each, for rangers to use while on patrol. In addition:

- Ranger station Lajthisa should be equipped with two motorbikes.
- Ranger station Shueci should receive one boat, as well as two motorbikes. The boat is needed to control the outflow of Micro Prespa Lake.
- The station Gorica e Madhe should be equipped with one 4x4 vehicle instead of motorbikes. The vehicle may be shared with other stations as needed.
- The proposed Gorica e Vogel headquarters will accommodate the fourth station. This should be supplied with a boat and a 25 hp outboard engine in order to effectively control the offshore part of the park. A docking facility must be constructed at the lakeshore.

The existing Zvedza control post should be upgraded. The post needs a heating source, furnishing and a radio-base station. The operation of the control post will become a shared responsibility that includes rangers, police and a municipal inspector from Korca.

Two rustic emergency shelters should also be constructed in the mountains for the benefit of rangers on patrol. Patrolling the mountain region will be done on foot or horseback. Horses, mules, donkeys and corresponding gear will be rented as needed.

Each ranger will receive personal basic gear as part of the park's standard equipment. This includes a sleeping bag, a tent, a lantern, a compass, an altimeter, a packsack and an emergency kit.

Public Use

A cautionary approach to the infrastructure development of the park visitor program is recommended, due to the park's current limitations as a tourist destination. The establishment of the following three low-cost and low-maintenance hiking trails is recommended:

- "Cerko" circuit of 9 km providing an opportunity to demonstrate the results of over-utilization of foothill-forests and to pass by the high elevation core area and sub-alpine grasslands.
- "Pussiihajduti" circuit of 11 km traversing the park's ecosystems to the west of Prespa lake in a vertical transition.
- "Sanojne" circuit of 15 km.

Other recommended infrastructure include: two picnic areas located close to the lakeshore with parking facilities, tables, garbage disposal and outhouses; three viewpoints with billboards and one platform/bird observatory in the vicinity of Goriza e Vogel. In addition, an information booth should be attached to the Lajthisa ranger station.

Recommended equipment for this program includes a complete exhibition booth to be used in public presentations, one slide projector, one television set, one video player and one video camera.

Research and Monitoring

The only infrastructure needs for this program are two meteorological stations – one at Lojhizo and the other at Goriza e Madhe. It may be useful to establish a data bank for the park and support zone under the auspices of this program. This would involve additional computer equipment and software, including a small plotter and scanner.

Environmental Education and Public Awareness

Equipment allocated to the public use program should be shared with this program. There is no need for any other investments under this program.

iii) Funding Proposal

The preparation of a funding proposal for the elaboration and implementation of the NPP proposed management plan should receive priority. The funding proposal should be submitted to the Project Management Unit (PMU) of the Forestry Sector Loan. As mentioned previously, preliminary discussions regarding funding of the management plan through the loan were well received. This issue was also addressed in discussions with the FAO representative,[17] who promised to give full support by lobbying the Forestry Directorate with the idea.

As mentioned earlier, the preparation of one combined GEF funding proposal that covers the overall development and conservation management of the proposed trans-boundary biosphere reserve Ohrid-Prespa should be considered. GEF funding could then be tapped to cover the implementation of the proposed NPP management plan.

Upon approval of funding for the elaboration and implementation of the NPP management plan, the plan should be implemented in close collaboration with local stakeholders, NP Galicica and the Greek authorities responsible for the Greek Prespa National Park.

4.2.2 Proposed Support Zone Program

i) Introduction

Interventions in the support zone should focus on thematic and geographic priority areas in order to achieve maximum impact. Further, synergies should be established within this process through formalized cooperation agreements with ongoing and planned donor activities in the Ohrid-Prespa region. Of particular importance in this context are: (a) component C (watershed management) of the ongoing Ohrid Lake GEF project, (b) the World Bank Forestry Sector loan to Albania, (c) the proposed Korca basin irrigation project to be co-financed by the World Bank and the Islamic Bank for Development, (e) EU funding for trans-boundary conservation activities (on Greek side), and (d) the Albanian Development Fund.

The principal funding source for proposed support zone activities, however, is the ADF. It provides a unique opportunity to combine the promotion of conservation goals with financial assistance to villages, in support of the sustainable protection of the NPP and its support zone. This will be a crucial prerequisite for winning the support of the villages for forest rehabilitation and the sustainable protection of the NPP. There is consensus that

[17] Hilmar Foellmi, FAO forestry representative, pers. comm., 4 Oct., 2000.

without the assistance by people from the support zone the sustainable protection of the NPP will remain unrealized.

As a first step in this process, the area to be included in the support zone of the NPP should be agreed upon in order to identify villages and communities that are associated with the NPP, either through loss of traditional use rights – sacrifices – or through benefits – for example, sustainable supply of water or tourism. As a second step, framework conditions for conservation-oriented project proposals to be funded through the ADF have to be established. This entails: (a) the establishment of the NPP Advisory Committee (PAC) as the formal body responsible for the screening, selection and quality control of qualifying proposals, (b) the identification and description of the range of activities that may qualify for ADF support under this regime, (c) capacity building for proposal preparation under this program, and (d) proper dissemination of this information amongst stakeholders. The current list of priority projects earmarked for ADF funding involving villages inside the NPP and the support zone concentrates mainly on road construction and enhancement, water supply, support to schools and wastewater disposal (see Annex 13). It does not yet cover the broad spectrum of project ideas in support of conservation management as those proposed for the KfW intervention.

The following thematic priority areas have been identified for recommended support zone intervention:

- Rehabilitation and sustainable management of forests in the NPP and support zone with priority given to critical watersheds originating in the NPP (see Map 2).
- Rehabilitation of the Maliqi wetlands associated with the proposed Micro Prespa Lake and Korca basin irrigation project (see Map 2).
- Assistance with the elaboration of a regional development plan based on optimum land use and resource allocation, on a landscape level compatible with overall biodiversity conservation objectives for the region.
- Assistance with the integrated development of a regional tourism master plan.

ii) Proposed Interventions

Forest Rehabilitation and Sustainable Forest Management

The rationale for this first priority is self-evident. The following initiatives are recommended:

- The stratification of the forest area of the NPP and support zone in terms of priority intervention needs, with respect to rehabilitation/protection and sustainable use.

- The classification of micro-watersheds originating from the park according to their importance to downstream villages in terms of water supply, wood and other forest products.
- The selection of one or two priority watersheds to serve as models for proposed interventions (if proposed interventions prove successful).
- The development of an integrated participatory management plan for the model watersheds that includes designated community forest and state-owned forest areas. The management plan should address *inter alia*: the demand for and supply of firewood in participating villages; restrictions on, and in some cases prohibition of, livestock use in designated forest areas; a permit and licensing system for the use of minor forest products; the prohibition of tree lopping; the certification of forests and forest products.
- The securing of co-financing and technical cooperation for the implementation of the model watershed management plans through the Forest Sector Loan (community forest component), the GEF Ohrid project if applicable and other available funding sources in order to establish and optimize synergies.
- The establishment of a local management committee for each model forest.

In parallel, a feasibility study that addresses energy alternatives, with a focus on solar energy and the potential for acceptance of fuel-efficient stoves by the local population, should be implemented. If solar energy proves economically viable, a solar-use program should be designed that concentrates support on villages and hamlets participating in conservation-oriented projects, especially with respect to forest protection and rehabilitation. Should fuel-efficient stoves be acceptable and desirable to local people, a finance and distribution program that focuses on priority villages participating in forest protection programs should be designed.

A range management feasibility assessment with emphasis on mountain grasslands in the NPP and support zone should be conducted. This should lead to the development of a sound and practical range management plan in close collaboration with key stakeholders. This entails range classification/stratification and carrying capacity estimates for designated range-lands. At the same time, guidelines for more efficient and ecologically compatible livestock management should be developed in collaboration with appropriate stakeholders and local authorities. Livestock grazing of forest land and the keeping of goats should gradually be terminated. As can be shown in Galicica, forests will regenerate rapidly after livestock removal.

Maliqi Wetlands and Irrigation of Korca Basin

A feasibility study that covers (a) the entire complex of irrigation and seasonal drainage of the Korca basin, (b) the impact of seasonal water extraction on the water table of the

Prespa lakes and (c) impacts on the water table of the of the Korca basin through seasonal draining should be conducted.

Pending a proper feasibility assessment of the Maliqi rehabilitation and irrigation complex, the current system of channelling Devolli river water into Micro Prespa Lake should be maintained, especially in light of the high water demand on the Greek and Macedonian side. However, ecological concerns on the Greek side[18] suggest that no changes to the water inflow should be made in winter and spring.

To prevent sediment load siltation, settling ponds should be constructed in the area of Tren/Shuec. There is already a digger in action on the Albanian side working to remove siltation from the channel, and it is strongly recommended that this activity continue. Moreover it must be assessed in a feasibility study whether the already-silted sediments in the lake itself can even be extracted from the Albanian part of Micro Prespa Lake.

A series of settling ponds should be established to prevent further siltation of Micro Prespa Lake. Sediments should be removed periodically and sold for construction purposes. Revenues from the sale would be expected to cover the operating cost for the maintenance of the settling ponds.

The former Maliqi Lake should be rehabilitated. This would serve a dual purpose: it would supply irrigation water for the Korca basin (in lieu of water extracted from Micro Prespa Lake) and turn the area back into a productive wetland and critical link in the lake region. A restored Maliqi would provide local people with alternative environmentally friendly sources of income such as fishing and the use of swamp meadows and marshes for livestock management. Valuable lessons in livestock management could be learned from a project currently in operation on the Greek side of Little Prespa, where water buffalo are successfully being used in a wetland rehabilitation project. Rehabilitation of the Maliqi wetland is expected to require little input since the shallow depression of the former lake is naturally inundated once a year during the rainy season. The only measure required seems to be proper control of the artificially established drainage channels.

A management plan for the operation of the weir between the Prespa lakes that regulates their water table should be prepared. The management plan should be based on a comprehensive environmental impact assessment that takes into consideration the breeding grounds of the resident pelican population, which is currently affected adversely by untimely operation of the weir.

A comprehensive environmental impact assessment of the Islamic Bank proposal (a grant of $7 million) to rehabilitate three existing irrigation channels in order to extract water from Micro Prespa Lake to irrigate the Bilisht agricultural lands should also be

[18] Myrsini Malakou, Director CADISPA, pers. comm., 28 Sept., 2000.

implemented. To date, no proper feasibility assessment has been carried out, nor has there been any inter-institutional consultation or formalised co-operation agreement on this matter.

Regional Tourism Master Plan

It is recommended that a participatory, multi-stakeholder and inter-institutional regional tourism development plan be elaborated under the leadership of the National Committee of Tourism. This plan should replace and/or amalgamate existing planning efforts regarding tourism development for the NPP and support zone. The proposed regional tourism development plan should take the entire Ohrid-Prespa lake region into consideration.

Regional Development Plan

An ecological sensitivity assessment of the NPP and support zone should be implemented in preparation for a regional development plan. The sensitivity assessment will identify areas to be excluded from development and areas with special protection/management needs. The sensitivity map (with a preferred scale of 1 : 20 000) should form part of a thematic map series, to be produced as the basis for the regional development plan.

Opportunities for cooperating with the ADF in the participatory, multi-stakeholder and inter-institutional elaboration of the proposed regional development plan should also be assessed. As mwentioned earlier, the ADF, with funding from the World Bank and in cooperation with the EU, is in the process of selecting two model areas suitable for the elaboration of a regional development plan in Albania. The potential for using the NPP/Korca region as one model area has been discussed with the ADF. The idea was received positively,[19] due in large part to existing baselines and planning networks in the area and the opportunity to capitalize on synergies in an area of special donor interest.

In this context the feasibility of developing regional GIS capability with a centralized data bank in Korca should be investigated.

Establishment of an Eco-village

The feasibility of establishing an “eco-village” to serve as a model for the region should be assessed. Two potentially suitable villages are Alarupi, located outside the boundaries of the NPP, and Gorica e Vogel, which is located inside the NPP (see Annex 6). An

[19] Dr. Mitrojorgji, Director ADF, pers. comm., 6 Sept., 2000.

important requisite of such a model village would be willingness to participate. If a suitable village could be selected, several of the recommendations that have been made for the support zone could be tested. The model village would make the best use of synergies and produce results that are high-impact because they are concentrated in one location. Some of the support zone recommendations that could be implemented in the model village are:

- introduction of eco-agriculture focusing on organically grown fruit trees, vegetables and other valuable cash crops; for example, grapes and kiwis;
- certification of organically grown agricultural products;
- organizing and communal marketing of products;
- use of solar energy, especially for hot water production and fruit drying;
- use of energy-efficient stoves;
- environmentally friendly sewage disposal system (a three "chamber" system combined with a reed bed water filtering system);
- creation of organised solid waste disposal with a recycling option, if feasible;
- enhancing village infrastructure and village beautification (i.e., village square, alley trees etc.);
- capacity development for sustainable management of community forest;
- rehabilitation of watersheds important to the village;
- enhancement of telephone service and the electrical system;
- provision of central drinking water system and/or individual wells;
- capacity building for village hygiene;
- environmental education in village school and awareness building within villagers;
- capacity development for the tourism sector (setting standards, catering services etc.);
- assistance with the development of "green beds" for local visitors;
- organisation of visitor activities such as hiking, trekking, horse-rides, boating and fishing;
- training of eco-guides if feasible;
- establishment of a small loan system for entrepreneurs with project ideas compatible with conservation objectives;
- organisation of cultural and sport-oriented village events that attract visitors and members of neighbouring villages;
- dissemination of lessons learned.

4.2.3 Proposed Trans-Boundary Program (Biosphere Reserve Ohrid-Prespa)

The feasibility of converting the entire Ohrid and Prespa lakes region into one single biosphere reserve should be assessed (see Map 3). In ecological terms, this would be the most sensible and desirable solution for sustainable conservation management and the

development of a globally unique ecological entity – one comprised of inter-linked lakes, marshes, wetlands and terrestrial mountain ecosystems of global significance. There is little doubt that this would strengthen the international standing of the area and decisively add to trans-boundary cooperation and international peace movements.

This would in turn likely attract the interest of the international donor community. Unlike the current split-and-splinter efforts in the border areas, a biosphere reserve would help solve common management problems and strengthen the elaboration of conservation needs for the mutual benefit of the three participating countries. Specific recommendations for initiating the process are as follows:

- implement a feasibility assessment and prepare a scientifically sound justification;
- present the findings to the three governments and initiate a dialogue in favor of a biosphere reserve;
- assist the three governments in preparing the technical submission of the proposal to UNESCO;
- create a tri-national Steering Committee with clearly defined functions and responsibilities;
- produce an action program for the proposed reserve with priority based on a proper multi-stakeholder, tri-national need assessment;
- prepare one common fund-raising GEF proposal to implement the action program. The preparation and implementation of the proposed management plan for the NPP should be included as an integral part of the GEF biosphere funding proposal;
- KfW should spearhead all activities in support of the preparation of a biosphere reserve.

4.2.4 Counterpart Agencies

The Albanian Directorate of Forestry (ADF) has the legal mandate for the management of the NPP and the management of the forests in the support zone. As such it is one of the key stakeholders in the area and one of the proposed official counterparts to the project. The AFD has a well-established infrastructure on a national, district and local level, is well represented in the NPP region and has a vested interest in sustainable forest management, forest rehabilitation and sustainable management of protected areas.

One of the major weaknesses of the ADF is its limited experience with planning and the management of protected areas in accordance with international standards. Another weakness is the limited expertise of ADF staff in the ecosystems other than forests (ie., alpine grassland, wetlands, aquatic, etc.) that form part of Albania's protected area system. These shortcomings have to be addressed in the proposed intervention package. Capacity development is also needed in the area of landscape level ecosystem planning and should therefore become an important component of the proposed intervention package.

It is recommended that the AFD, as the institution responsible for the management of the NPP and the forests of the support zone, be chosen as counterpart agency for all interventions related to the AFD's legal mandate.

The Albanian Development Fund Agency (ADF) should be a second counterpart of equal importance. The ADF is well represented in the region and has established a valuable village-level network inside the NPP and its support zone. It has supported several projects related to social infrastructure and collected valuable experience during this process.

It is recommended that ADF be given the mandate to finance projects that are screened and approved by the Park's Advisory Committee (PAC) in accordance with guidelines established, formalized and agreed upon by KfW, the PAC, the ADF and the AFD as project partners. The responsibility for supervision and quality control of these projects will be shared between the supervising agencies, spearheaded by a lead agency to be elected depending on the nature of the project.

4.3 Replicability of Proposed Interventions

It is expected that the proposed management plan and operational plans for the NPP will serve as a model for the expanding network of protected areas in Albania. Of particular importance in this context is capacity development for PA planning, associated with the elaboration of the proposed management plan for the NPP, and the experience to be gained from inter-institutional, multi-stakeholder and multi-national participatory planning. It is hoped that the lessons learned in this process may be gainfully applied to other projects.

All project components of “model” character are expected to have potential for replicability. This applies in particular to projects associated with watershed rehabilitation, sustainable forest management, community forest development, range management and many of the activities proposed for the “eco-village.”

It is recommended that “lessons learned” from the proposed interventions be properly documented and disseminated to achieve replicability. It is further recommended that an exchange and demonstration component be included in the intervention package in order to give maximum exposure to lessons learned.

4.4 Budget and Funding for Proposed Interventions (Financial Plan)

The financial spreadsheets prepared for the proposal are grouped into investment costs and operational costs, and are organized by management program. They cover the park and support zone (see Annex 14). The operational costs do not reflect depreciation of equipment and/or replacement costs. Wage increases, inflation, etc., have not been considered for the calculation. The operational costs expected on completion of the proposed park infrastructure should be taken as "informed guess" only.

The summary table of the investment costs show that nearly half of the estimated $1 million total investments would be spent on the protection program (Table 4.4). This is in line with standard conservation management goals for a protected area. A relatively modest investment is proposed for visitor-related infrastructure, reflecting the suggested cautionary approach to tourism development for the NPP. Very little funding is earmarked for the research and monitoring program. This reflects the international approach taken that prefers research and monitoring be implemented by specialized institutions under formalized Memoranda of Understanding. The total investment cost of approximately $1 million is comparable to similar PAs in other parts of the world.

The estimated recurring costs for the NPP are proportionate to the proposed investment costs. The maintenance of vehicles is the most costly annual expense. However, the proposed vehicles are needed to implement the activities specified for the management programs. No recurring costs have been identified for the support zone, except expenses related to capacity building of specific target groups in the support zone. Most recurring support zone costs will be absorbed by budgets of co-financed projects or provided for as counterpart contributions by stakeholders participating in these programs. The overall operating cost of approximately $100,000 compares favorably to similar protected areas in other parts of the world.

Table 4.4: Summary of Investments and Operating Costs for the NPP and SZ

Program	Investments In USD	Operational Costs In USD
Protection	412,800	43,840
Research and Monitoring	20,000	7,300
Public Use	32,000	5,000
Environmental Education	1,000	1,700
Administration	139,600	36,600
Support Zone	309,000	10,000
Trans-boundary	50,000	0
Total	***964,600***	***104,440***

4.5 Sustainability of Intervention Package

Recurring costs for the NPP will have to be covered by the annual budget of the AFD until more sustainable funding can be located. At this point, potential sources of revenue generation for the NPP cannot be identified. This problem must be addressed at an early stage of the planning process for the NPP. One source of revenue could be fees levied on resource extraction from designated park areas; another could be fees levied on water originating from the NPP and Micro Prespa Lake. Water from the Micro Prespa and the rights to channel drainage water into the Prespa should be taxed for the benefit of the park budget, since the NPP is responsible for the sustainable protection of park and lake waters. Other revenue may be generated through fees charged in connection with grazing leases linked to the NPP and the support zone, or revenues generated through sustainably managed forests in designated priority watersheds that are supported through the project.

The possibility of establishing a revolving fund or creating a foundation was not investigated by the FAT within this assignment. Although a fund or foundation may be one option for sustained financing, the preferred option should always be revenue generation from inside the NPP and its support zone in order to develop stakeholder ownership. Funds and foundations typically seem to foster a “sugar-daddy” mentality amongst stakeholders. The biggest obstacle to funds and foundations is always the question of where to find sufficient seed money.

The financial sustainability of interventions in the support zone does not present a problem because most projects will be self-financing and may not be open-ended. It is recommended that successful project proponents qualifying for ADF support within the framework of the proposed interventions provide co-financing and/or in-kind contributions that directly benefit the conservation goals. Agreements should be formulated accordingly and will have to be formalized. Of special interest in this context may be voluntary relinquishment of forest use, voluntary reduction of livestock numbers or relinquishing of goat-keeping, etc. It is recommended that good use of a wide range of options for the benefit of ecosystem conservation be made.

If certain projects require sustainable financing that cannot be generated immediately through revenues, the recurrent cost should be financed by project funds during the implementation phase until alternative financing has been identified.

There always is the possibility of augmenting the NPP budget through license fees and fines resulting from law enforcement. A model that gives rangers incentives, such as part of the revenues or a bonus for effective control, could increase revenues and cover some costs. Another potential future source of revenue is charging gate fees for NPP visitors or commercial traffic using the park access road to and from Macedonia.

4.6 Planning Matrix

4.6.1 Project Goal, Objectives and Outputs

The project is expected to provide the basis for the sustainable conservation management of the NPP and its support zone. It will assist in stabilizing the ecological integrity of a representative sample of the globally unique terrestrial and aquatic ecosystems of the Ohrid-Prespa lake region. It is expected that as a result of the implementation of the park's management plan the ecological integrity of the NPP will be safeguarded. Furthermore, it is expected that as a result of the proposed interventions sustainable economic development inside the NPP and its support zone will become compatible with overall biodiversity conservation goals.

Project objectives, results and activities, as well as respective indicators, means of verification and assumptions/risks, are summarized in the Logframe Matrix (see Annex 12). Indicators that cannot be quantified on the basis of existing information should be quantified within the first year of the project on the basis of the work program established by the PMU.

4.6.2 Project Activities

Project activities are grouped into intervention packages proposed for (a) the NPP, (b) the support zone and (c) the trans-boundary complex. Proposed activities are set into a time frame by priority, which forms part of the Logframe Matrix (see Annex 12).

The lifespan of the project will be nine years. It is suggested that all park personnel be recruited within the first three years, the same amount of time allotted for the completion of infrastructure proposed for the NPP. The project is divided into two phases: a first phase of five years to be used for the participatory elaboration and implementation of the NPP management plan. The design and inception of support zone feasibility studies and pilot projects should also take place in phase one. The second phase will be used for the stabilization of the NPP management programs, the application of lessons learned during the first phase, the continuation of long-term pilot projects in the support zone and the monitoring of results from phase one.

4.6.3 Project Risks

The project’s success depends on the continued willingness of all stakeholders to establish and manage the NPP and its support zone according to conservation guidelines to be defined in the management plan. Undoubtedly, the biggest threat to project success

is the poverty that characterises the Albanian side of the Prespa region. A high risk is the expected slow economic development of the region, especially with respect to the very poor villages located inside the NPP and support zone. The prospects for a rapid improvement of the currently desolate economic conditions of these villages, in the absence of viable alternatives, are not good. Removal of economic constraints would mitigate major project risks.

The risks to the sustainable protection of the NPP and the sustainable development and management of its support zone are summarised in table 4.6.3. The table reflects concerns expressed by participants of the multi-stakeholder SWOT analysis implemented for this feasibility assessment. The numerical rating of risks is arbitrary but may assist in better gauging the importance of specific risks and the degree to which they may be influenced by the project.

The presence of communities inside the NPP is one of the biggest threats to achieving sustainable ecological integrity in the park. Moreover, it is a risk that may not be easily diminished, short of relocating the park villages, which is not a viable option. It may safely be assumed that villagers will only be motivated to cooperate in conservation efforts if they derive economic benefits from the project and enjoy a rise in living standards. Environmental education and awareness-building may contribute to improvement of environmental conditions in the NPP but are not expected to be successful without tangible economic assistance. Most other risks with a high rating identified on table 4.6.3 can be mitigated and managed more easily.

Table 4.6.3: Risk Assessment

Risks to the Sustainable Protection of Prespa National Park	Rating*[1]	Influence*[2]
NP under-staffed and poorly equipped	3	10
Insufficient funding for NP	3	9
Poorly trained NP personnel	3	9
Poor knowledge of ecologically sound agriculture	1	6
Low level of public environmental awareness	4	8
Insufficient and unclear legislation for protected areas	5	8
Poor social infrastructure within region	3	7
Lack of management plan for NP	2	9
Lack of water treatment systems	1	6
Lack of organised solid waste disposal	1	6
Poor management agreements between three countries	3	7
Weak institutional standing of the NP in the region	3	6
Chronic water shortage within region	4	2
Lack of support by support zone communities	3	7
Chronic energy shortage in region	2	5
Poor political commitment on local level	6	5
Illegal logging inside core areas of the NP	6	9
Illegal firewood cutting inside NP and support zone	8	7
Illegal tree lopping inside NP and support zone	8	6
High goat populations in support zone	8	8
Illegal grazing inside forests	8	8
Over-utilization of alpine grasslands	8	8
Illegal housing developments inside NP	5	6
Poaching	4	7
Lack of fire management/control	5	8
Destruction of micro-watersheds	7	7
NP boundaries not demarcated and/or surveyed	9	9
Uncontrolled disposal of solid waste	9	4
Regional energy shortage	9	5
Population and communities inside the NP	8	2
Unsound water management of Micro Prespa/Devolli	8	7
Unsound agricultural practices inside and outside the NP	8	4

*[1] risk rating: 1=lowest risk, 10=highest risk
*[2] degree to which risk can be influenced or reduced by the project: 1= low chance, 10= very high chance

To mitigate the risks, political and institutional commitments to the project concept and proposed interventions should be made by key stakeholders prior to its start. As lead

agencies, the Directorate of Forestry and the Albanian Development Fund have given their approval in principle by signing the attached Ayuda Memoria. Most other government institutions and agencies have indicated their willingness to cooperate and to assist in the establishment of synergies by pooling resources.

The outlook for international co-operation with regard to this project is positive. The same applies to support for the general concept of creating a tri-national biosphere reserve from key political institutions and private society in the three countries involved.

The social sustainability of the project and the conservation management of the NPP would be enhanced by the participatory approach of the project. The population's existing rights to land and resource use must be guaranteed and negative impacts due to project activities must be avoided through consultation and mitigating activities. The project would provide employment and training during its implementation and would finance the identification and implementation of activities for self-help, job creation and improvement of social infrastructure. An important contribution of the project would be to take a lead role in the development of the proposed regional development plan in close collaboration with the ADF and other key players.

4.7 Expected project impacts

4.7.1 Ecological Impacts

International borders have divided ecosystems, river basins and wildlife habitats. The project can re-establish key ecological functions disrupted by the artificial divisions imposed by borders. The project would promote biodiversity conservation over internationally shared ecosystems and would safeguard ecosystems and biodiversity patterns bisected by national borders through integrated biodiversity management.

The project would also contribute to the development and ecologically sustainable utilisation of forests, grasslands and water resources of global importance. It would greatly enhance wetland conservation through the rehabilitation of Maliqi Lake and proper management of the water resources of Micro Prespa Lake.

4.7.2 Social Impacts

The project would improve the living conditions of the local population through the creation of employment in conservation and tourism, through training and capacity building and through the improvement of infrastructure (roads and social infrastructure) in the project region.

The project supports cultural ties and traditions – a fact that might improve the willingness of the ethnic groups and the people of the area at large to participate in conservation activities. The project could enhance the self-help capacity of the communities, toward community-based natural resource management.

4.7.3 Economic Impacts

Aside from conservation, the achievement of sustained economic benefits for the local population is the principal objective of this project. The project would create opportunities for regional economic development. Expected economic and socio-economic benefits include: the improvement of infrastructure for NPP and support zone communities, the development of tourism, increased income through improved agriculture and agricultural techniques, the promotion of private sector companies and job creation during and on termination of the project and the establishment of an effective law enforcement system. The most important economic impact would be guaranteed long-term sustainable conservation management and development of the region through the participation of the private sector.

5. Milestones

Management Plan NPP, Option 1: Funding through forestry sector loan : This requires approval by the Project Management Unit (PMU) of the Forestry Sector Loan and the Forestry Directorate. As a first step, a brief justification for the elaboration of the management plan has to be prepared with focus on protection and rehabilitation needs of degraded forests inside the NPP and support zone. The proposal should also include a basic outline of the plan's structure and briefly describe the steps in the planning process. Component IV of the Forestry Sector Loan is dedicated to protected areas (USD 1 million). The majority of these funds is still available and has to be spend within the next two years. The PMU is searching for suitable projects and has responded positively to the suggestion of financing the elaboration of the management plan. The PMU has worked together with WWF Italy on protected areas and likes to continue this cooperation. This is of importance since Italy co-finances the forestry sector loan with a donation of USD 10 million.

KfW has to negotiate financing with the PMU and the Forestry Directorate. Both have responded positively in principal to the suggestions, as has Hilmar Foellmi, the FAO advisor of the forestry sector loan to the Forestry Directorate. Mr. Foellmi should be included in the negotiations. He actually should be the facilitator.

Action: KfW negotiates funding with PMU, Forestry Directorate and FAO. PMU contacts WWF Italy to design and supervise planning process to provide co-financing through in-kind contributions. ASAP. The management plan should be ready within 8 months.

Management Plan NPP, Option 2: Funding through GEF: This is expected to be a more lengthy and rather complex process. To speed up the process it therefore is suggested to finance the elaboration of the management plan through the forestry sector loan; the subsequent implementation of the plan to be financed as integral part of a larger GEF grant covering the proposed biosphere reserve Ohrid-Prespa.

The original concept of a GEF grant for the NPP only does not seem feasible, simply because the NPP on its own is not -and never can be- a viable ecological entity of global importance. The NPP as such does not meet GEF grant selection criteria. Biological diversity of global importance can only be justified from a regional perspective that includes the entire Ohrid-Prespa lake system and the neighbouring terrestrial ecosystems. Against this background it is recommended to prepare a GEF funding proposal for a biosphere reserve that includes the three countries and addresses biodiversity conservation of the entire lake region.

KfW's current involvement in the region covers both, Macedonia and Albania. This provides an opportunity to establish synergies. It therefore is suggested that KfW takes the initiative for the creation of the proposed biosphere reserve that also should include Greece as important partner in conservation management of the Ohrid Prespa Lake system. A tri-national biosphere reserve could address common environmental problems more efficiently than each country on its own.

It is time that Germany, as a major contributor to GEF (12% of total budget!), should become proactive and take a more decisive role in the process. Although a grant request itself and the request for interim financing for project preparation has to originate from the recipient country (Albania and Macedonia), KfW should make its voice known at the GEF Council. There is no reason why Germany cannot do what France has been practicing for several years, that is: influence the choice on how to spend its own contributions to GEF.

Action:

- Prepare a brief justification for the proposed biosphere reserve to be submitted to and negotiated with the three Governments of Albania, Macedonia and Greece,. The assignment should be out-sourced to an international consultant. Duration of contract: 6 weeks involving one international consultant to be assisted by one local expert. Due date: February, 2001.

- Simultaneously, prepare the required paper work for the application with UNESCO and conduct dialogue with UNESCO. To be done by the same consultant. Time requirement: 3 weeks. Due date February, 2001.

- On approval (in principle) of the proposed tri-national biosphere by the three countries and UNESCO, prepare a brief funding request for the preparation of the GEF grant proposal and submit to UNDP/GEF. By February 2001.

- In parallel, KfW enters negotiations with GEF Council regarding funding the action plan designed for the biosphere reserve in order to speed up the process. KfW suggests to finance proposal through German Government contributions to GEF.

- KfW insists to shorten the lengthy and costly process of the typical GEF proposal in favour of spending the funds on the implementation process of the action plan for the biosphere reserve.

- The requested grant should be approximately USD 15 mio to cover the sustainable development/conservation of the three lakes, the rehabilitation of the Maliqui lake and Micro Prespa/ Korca plain water regime and the terrestrial ecosystems/protected areas that connect the lake system. Grant to be available by December 2001.

ADF and support zone projects: KfW signaled the availability of approximately DM 500,000 for support zone activities through KfW contributions to the ADF. Also this may be a good start for the implementation of selected pilot projects, an overall fund increase is recommended if the general response to the proposed biosphere reserve and the elaboration of the NPP management plan is positive.

Action:

- KfW initiates dialogue regarding the expanded responsibilities of the Prespa National Park Advisory Committee (PAC) with respect to its screening, approval and supervision functions of proposals prepared by NPP and support zone communities for ADF funding. ASAP.

- In close collaboration with ADF and the Forestry Directorate KfW prepares an MoU that details the membership, functions and responsibilities of the PAC as related to the selection and approval process of ADF projects. Emphasis to be placed on the wide range of options qualifying as in-kind contribution by the successful proponent. ASAP.

- KfW enters a formalized agreement with the ADF on projects and project proponents that qualify under the expanded range of conservation oriented activities inside the NPP and support zone and on the process of fund approval. Due date: mid-2001.

- ADF to widely advertise amongst support zone communities procedural changes, grant application opportunities under the ADF and the role of the PAC by using its own extension service, the local NGO network and local television. Due date: mid-2001.

- The MoUs should be operationalized by February 2001.

- In parallel, KfW to negotiate with the ADF the possibility to select the project area as a model for the proposed regional development plan in cooperation with the World Bank and the EU. Option for KfW co-financing under ADF should be assessed. ASAP.

- In parallel, KfW to negotiate cooperation and co-financing opportunities for NPP and SZ forest/micro-watershed rehabilitation efforts with the PMU of the Forestry Sector Loan, the Forestry Directorate and the FAO representative. Corresponding projects to be implemented under leadership of the local offices of the Forestry Directorate in close collaboration with qualifying communities. ASAP

- KfW to discuss and coordinate with representatives from the World Bank and the Islamic Bank the proposed Maliqui/Prespa irrigation and Maliqui rehabilitation project (in order to prevent conflict of interest). ASAP.

- KfW to maintain close contact with EURONATURE regarding the development process of the NPP and support zone and to use the NGO as facilitator in negotiations with third parties from the private sector. Continuing.

- KfW to officially propose to pertinent Albanian agencies feasibility studies recommended in this assessment (range management, alternative energy, Maliqui rehabilitation, eco-village etc.) and negotiate financing (i.e., forestry sector loan, EU, etc.)