ALBANIA
Integrated Water & EcoSystems Management

GEF Project Document

Europe and Central Asia Region
ECSIE

Date: January 14, 2004
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Project ID: P075156
Focal Area: M - Multi-focal area

Team Leader: Andreas Rohde
Sector(s): General water, sanitation and flood protection sector (100%)
Theme(s): Biodiversity (P), Pollution management and environmental health (P), Other environment and natural resources management (S)

Project Financing Data

[ ] Loan [ ] Credit [X] Grant [ ] Guarantee [ ] Other:

For Loans/Credits/Others:
Amount (US$m):

Financing Plan (US$m): Source	Local	Foreign	Total
BORROWER/RECIPIENT	3.98	0.00	3.98
EC: EUROPEAN INVESTMENT BANK	0.00	11.15	11.15
GLOBAL ENVIRONMENT FACILITY	0.00	4.87	4.87
Total:	3.98	16.02	20.00

Borrower/Recipient: ALBANIA
Responsible agency: PIU
World Bank Water PIU
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Estimated Disbursements (Bank FY/US$m):

FY	2005	2006	2007	2008	2009				
Annual	0.98	1.70	1.46	0.50	0.23				
Cumulative	0.98	2.68	4.14	4.64	4.87				

Project implementation period: 5 years
Expected effectiveness date: 06/18/2004 **Expected closing date:** 12/31/2009

OPCS PAD Form: Rev. March, 2000

A. Project Development Objective

1. Project development objective: (see Annex 1)

The proposed GEF/EIB project was part of the IDA-financed Municipal Water and Wastewater Project, but due to an extensive consultation process carried out for the GEF/EIB project, the World Bank proceeded with the approval of the IDA credit in advance of the GEF approval. The IDA-supported project and the GEF/EIB-supported project, although technical separated into two projects, are still together pursuing to achieve an overarching development objective. This overarching development objective of the two projects is to improve the provision of water supply and sanitation services in selected Albanian cities by introducing a new approach to utility management that builds upon private sector participation in the form of a performance and incentive based management contract.

The development objective of the GEF/EIB project is to improve the municipal wastewater services in the coastal cities of Durres, Lezha and Saranda. By achieving this objective the project will also contribute to economic growth, because all three project cities (Durres, Lezhe and Saranda) are tourist areas whose prospering depends heavily on a healthy coastal environment.

The global environmental objective is to improve the health and habitat conditions of globally significant marine and coastal ecosystems along the coastline of Albania in an integrated manner. The objectives will be achieved through: (i) reduction of sewage pollution loads through the development and establishment of low cost water treatment technologies (Constructed Treatment Wetlands) producing environmental incremental benefits; (ii) promoting the establishment and improve the management of the Kune-Vain protected marshland; and (iii) improvement of the dialogue between Public Instutitions and citizens through a public communcation program as well as a program of dissemination and replication of project achievements.

Both projects, the Municipal Water and Wastewater Project and the Integrated Water and Ecosystem Management Project, leveraged financing from the European Investment Bank (EIB). This is the first time the EIB is supporting Albania's water sector which is in dire need of foreign investment especially after the EU, one of the largest donors in the sector, withdraw from supporting the sector.

2. Key performance indicators: (see Annex 1)

Progress towards the project objective will be measured by the following key performance indicators:

Stress Reduction Indicators:

- Nutrient (Nitrogen/Phosphorus) removal in the wastewater discharge: 50 percent for nitrogen and 25 percent for phosphor.
- Removal of organic impurities: 70 percent of unfiltered BOD5.

Environmental Status Indicators:

- Improved health of the Posidonia Oceanica (seagrass) meadows, which are pollution sensitive and instrumental for creating a habitat that fosters biodiversity: Biomass per surface unit; shoot density; epiphyte growth and area covered.
- Biodiversity in the Kune Vain Managed Reserve regarding the following flagship classes: Malachofauna, Herpetofauna, Avifauna, and Mammalia.

Process Indicators:

- Social acceptance of Constructed Treatment Wetlands (CTWs): Number of complains received by the utilities regarding the operation of the CTWs (odor, noise, mosquitos etc.)

- Adoption of the Kune-Vain Management Plan that includes process indicators, stress reduction indicators, and environmental status indicators.
- Implementation of a basic monitoring system of the coastal areas.

B. Strategic Context

1. Sector-related Country Assistance Strategy (CAS) goal supported by the project: (see Annex 1)
Document number: 24189-ALB **Date of latest CAS discussion:** June 20, 2002

The project is included in the CAS of 2002 that emphasized poverty alleviation and social cohesion as the underlying conditions to assure sustainable development in Albania within a stable Southeast European Region. Ensuring environmental sustainability and sustainable management of natural resources are one of the main objectives of Albania's National Strategy for Social and Economic Development (NSSED) that is the foundation for the CAS.

The main emphasis of the CAS is on accelerating poverty alleviation in connection with economic growth, improving governance, building capacity in the institutions, and improving natural resource management. In promoting effective natural resource management, the projects supports the NSSED and CAS goals. Also, in line with the decentralization strategy in the NSSED and CAS, this project will promote environment management at the local level by setting up transparent and inclusive mechanisms at the municipality and community level for decision-making, implementation and management of natural resources.

Also, the Government is making an effort to highlight environmental-poverty linkages in the NSSED, which emphasizes the need to reverse environmental degradation, rehabilitate heavily polluted areas that jeopardize health, and ensure the sustainable use of natural resources. The National Environmental Agency was upgraded in August 2002 into a Ministry of Environment, and an updated National Environmental Action Plan was approved by the Government in January 2002. Within this context, there is an opportunity to strengthen the Government's regulatory capacity, help the Government demonstrate its commitment to the environment through visible actions, and further increase public environmental awareness.

1a. Global Operational strategy/Program objective addressed by the project:

The project is fully consistent with OP 12 - Integrated Ecosystem Management, with linkages with OP2, OP9 and OP10. The project will (i) create an enabling environment for integrated ecosystem management by supporting the implementation of the recently approved Law on Protected Areas in the Kune Vain marshlands; (ii) strengthen the local capacity to manage the constructed wetlands and the coastal lagoon system in an integrated manner and (iii) support investments that address both local and global issues.

The four components that have incremental activities proposed for financing by GEF are: (i) sewage pollution reduction; (ii) environmental management and monitoring; (iii) Public communciation and replication; and (iv) project management, monitoring and evaluation.

2. Main sector issues and Government strategy:

2.1 Background

The Albanian Government is very aware of the poor conditions in which the water sector operates, with its

infrastructure in urgent need of improvement both in terms of physical rehabilitation and management capability. Albania has no wastewater treatment facilities and raw sewage is discharged untreated into seas and rivers. Degradation of the quality of transboundary water resources caused by land-based activities is therefore a very serious problem.

The Adriatic coastal area (the northern part of the Albanian coast) is generally characterized by coastal lowlands (alluvial plains) intersected by rivers, and flanked by hills along its upland boundary. The coast is made of long sandy beaches, deltaic river mouths and lagoons. The coastal waters are shallow, receiving water from the rivers and several drainage canals. At sea, the water depth increases slowly, with first a sandy bottom with the associated biocenosis, which becomes muddy with increasing depth.

On the sandy or muddy bottoms, the marine flora is scarce or occupies specific areas where currents or waves have less action. The extensive seagrass beds of *Posidonia oceanica* are an important part of the Albanian marine ecosystem, often occupying a considerable part of the littoral zone. *Posidonia oceanica* and very well developed marine communities are found along Porto Romano bay (where Durres discharge the wastewater) and Shengjini bay (adjacent to the Kune-Vain marshland). The underwater rocky bottoms at Rodoni and Lagji Capes (Durres), and the eastern side of Vlora bay host patches of *Posidonia oceanica*.

2.2 Main Sector Issues

As identified in the Strategic Action Plan for the Mediterranean Sea, several hotspots along the Adriatic coast are the main cause of pollution of the marine and coastal ecosystems. In Albania, water pollution, mainly generated by an increasing population concentrated along the Adriatic coastline, has caused considerable deterioration of the natural inland ecosystems and the biological productivity of the coastal areas. Indeed, in all towns wastewater is discharged without any treatment, directly into rivers or drainage canals, which convey the untreated sewage directly into globally significant tidal marshlands or to the nearby marine coastal zone. This has extremely negative effects on the biological balance and also increases the eutrophication phenomena of wetlands.

The coastal lagoon system of Albania constitutes one of the most important wetlands of the region, as highlighted also by the GEF-supported "Conservation of Wetland and Coastal Ecosystems in the Mediterranean Region". In particular endangered and endemic species as the Pygmy cormorant (Phalacrocorax pygmaeus), the Mouse-ear bat (Myotis miotis) and the Otter (Lutra lutra) live in these habitats and should be considered as flag species. Coastal water pollution from untreated waste waters heavily affects Posidonia oceanica meadows and the related communities e.g. the endangered species Pinna nobilis.

The tidal marshland of Kune Vain is one of the most significant wetlands in the coastal lagoon system. It suffers, however, of several problems, including lack of an integrated sustainable management strategy based on multiple uses and conservation on the natural resources; progressive spreading and enlargement of building construction, and illegal building; presence of uncontrolled tree cutting and still illegal fishing; inappropriate hydraulic management of the lagoons; lack of appropriate aquaculture techniques; deterioration and degradation of landscape; and lack of financial means for effective management of the protected area.

Given the limited financial resources available for infrastructure development, the increasing pressure on the natural resources from higher concentration of urban settlements along the coastal areas, the limited environmental awareness among the population, and the weak institutional capacity to manage its natural resources, the Government of Albania is facing one of the most challenging tasks in developing a

comprehensive approach to water and ecosystem management. The proposed project would assist Albania in meeting this challenge.

2.3 Government Strategy

The Government of Albania is very concerned with the lack of sustainable management of natural resources and its negative effect on the environment. The National Environmental Action Plan (NEAP), updated and adopted by the Government in January 2002, emphasizes the need to reverse environmental degradation and rehabilitate heavily polluted areas and lists surface water contamination due to lack of proper wastewater treatment and loss of biodiversity due to lack of proper management of natural resources as priority issues. In order to develop an environmental management policy it was recognized that the following areas of intervention are key for the Government of Albania:

- restructuring economic incentives to encourage and improve efficient resource utilization;
- preparing environmental legislation, including general and specific laws, and regulations on the protection of the environment;
- institutional strengthening of the Albanian environmental authorities and line ministries and institutions, both at central and local level;
- developing strategies to reduce the adverse effects of soil erosion and deforestation;
- developing strategies to improve water management and reduce water pollution problems;
- developing strategies to improve coastal zone and natural resource management; and
- developing strategies of environmental education and communication to increase public participation.

Within this overall framework the Ministry of Environment has identified priority actions that can significantly and rapidly contribute to the protection of the environment and control negative environmental impacts. Specifically the measures will be aimed at: (i) developing the institutional and regulatory framework in line with work already progressing on the institutional and legislative framework; (ii) strengthening the institutions responsible for the environment; (iii) evaluating and identifying economic instruments to be implemented in the field of environmental protection and impact mitigation; (iv) assessing and mitigating pollution at severe environmental hot spots; (v) developing demonstration projects; and (vi) developing and implementing public communication program, at both central and local level.

Recognizing the importance of improving the water supply and sanitation sector, the Government of Albania has embarked on preparing a comprehensive Water Supply and Sanitation Strategy focusing on both urgent system repairs and sector reforms. The Government also adopted a Biodiversity Strategy and Action Plan in 2000 that include the Kune Vain marshland as one of the priority areas in the network of protected areas and identifies a lack of adequate management capacity as a key issue for sustainability. The Government recently approved a law on protected areas that supports a more advanced management concept based on long-term sustainability. The proposed project supports the Government's strategy on water and biodiversity by introducing new approaches to integrated wastewater management.

3. Sector issues to be addressed by the project and strategic choices:

The Integrated Water and Ecosystem Management Project will extend and deepen the ongoing Government reforms in the environmental sector. The key strategic choices made during project preparation were to:

- Link the project with the currently ongoing Bank financed Municipal Water and Wastewater Project (MWWP). The project will provide the water utilities of three of the cities targeted by the MWWP

with low cost wastewater treatment facilities. The private operator recruited under the MWWP will be instrumental to develop capacity in the water utilities to use this environmental friendly wastewater treatment technology. It is expected that this will contribute to the introduction of environmentally sustainable wastewater treatment technology in other cities in the region. Furthermore, in order to guarantee an optimal cooperation between the two projects and optimization of resources, a common PIU has been established.

- Address environmental issues in water sector reform by integrating close-to-nature wastewater treatment options with management and monitoring of areas with globally important biodiversity. In the present economic situation with an underdeveloped civil society, lacking of a politically active and environmental conscious elite to actively steer the country toward an environmentally conscious development, it is unlikely that nature conservation will be sufficiently supported in the near future. Therefore it is important that present and future coastal zones and wetland conservation programs in parallel with sanitation measures lay the ground for decentralized and financially self sufficient management units with a strong involvement of local civil society. In this context, the project will explore the possibility of introducing an innovative management scheme for Albanian wetlands by building upon previous studies such as the EU PHARE financed Karavasta Lagoon – Wetland Management Project, and cooperate closely with the proposed GEF medium size project for biodiversity conservation in the Karavasta Wetlands. If successfully implemented, this should provide a model, which can be adapted to particular requirements of other Albanian wetlands and sanitation needs.

- Address environmental issues in tourist areas. By selecting tourist areas for environmental improvements, the acceptance and support from the local governments and the customer of the water and wastewater utilities is much higher. This is due to the fact that environmental improvements benefits also the tourist industry which needs clean beaches to prosper. This makes it also easier for the water utilities to introduce wastewater tariffs which cover the operation and maintenance cost for the constructed treatment wetlands, because the local governments and customers see the additional benefits for the tourist sector which is crucial for the economic prosperity of the selected areas.

C. Project Description Summary

1. Project components (see Annex 2 for a detailed description and Annex 3 for a detailed cost breakdown):

The project will assist the Government of Albania to: (i) reduce sewage pollution loads generated by the three coastal areas of Durres, Lezha and Saranda through the introduction of low cost wastewater treatment technologies; (ii) improve the environmental management and monitoring of coastal areas; and (iii) promote nutrient reduction investments in other parts of Albania and neighboring countries. The project components which will help to achieve these goals are presented in the table below:

Component	Indicative Costs (US$M)	% of Total	Bank financing (US$M)	% of Bank financing	GEF financing (US$M)	% of GEF financing
1. Sewage Pollution Reduction	0.00	0.0	0.00	0.0	0.00	0.0
1.a Wastewater Treatment Facilities	10.93	54.7	0.00	0.0	3.96	81.3
1.b Sewerage Network Rehabilitation	4.86	24.3	0.00	0.0	0.00	0.0
2. Environmental Management and Monitoring	0.70	3.5	0.00	0.0	0.70	14.4
3. Public Communication and Replication	0.13	0.7	0.00	0.0	0.13	2.7
4. Project Management, Monitoring&Evaluation	0.08	0.4	0.00	0.0	0.08	1.6
Taxes and Duties	3.30	16.5	0.00	0.0	0.00	0.0
Total Project Costs	20.00	100.0	0.00	0.0	4.87	100.0
Total Financing Required	20.00	100.0	0.00	0.0	4.87	100.0

The following breakdown by component does not include taxes and duties.

Component 1: Sewage Pollution Reduction (Total: US$15.79 million; GEF: US$3.96 million, EIB: US$11.15 million, GoA: US$0.68 million). This component represents an innovative aspect of the proposed project and has an high replication value throughout Albania and the region. The component consists of two main parts: (i) the establishment of Constructed Treatment Wetlands and related facilities in the areas of Durres, Lezhe and Saranda, (ii) the construction of the sewage main collectors required to connect the current sewerage systems to the new treatment facilities, and (iii) sewerage network rehabilitation and extension.

Component 2: Environmental Management and Monitoring (Total: US$0.70 million; GEF: US$0.70 million). The component will assist the Ministry of Environment and the Ministry of Agriculture and Food to carry out the following tasks: (i) Technical assistance for the development of the Kune Vain Management Plan including a plan for stakeholder participation in management of natural resources and economic incentives for long term sustainability; (ii) Training for Kune Vain administration staff, rangers, staff from the relevant line ministries and members of NGOs on natural resource management and integrated ecosystem management; (iii) Implementation of selected priority measures identified in the Kune Vain management plan and other measures that improve the environmental conditions of the receiving waterways; and (iv) Design and implement a monitoring program for water quality and biodiversity indicators in the Kune Vain Managed Reserve and the coastal areas impacted by the project (including provision of technical assistance and equipment as needed).

Component 3: Public Communication and Replication (Total: US$0.13 million; GEF: US$0.13 million). This component will finance the following activities: (i) Organization of a stakeholder consultations program for the preparation and implementation of the management plan for the Kune Vain Managed Reserve; (ii) Design and implement awareness campaigns on project goals and benefits of an integrated ecosystem management, local communities' role and responsibilities in managing natural resources including payment of environmental services (partly covered by IDA project); (iii) Organization of training and workshops for practitioners and decision-makers on the technical, economic and environmental benefits of constructed wetlands and integrated ecosystem management; (iv) Design and implementation of an environmental education and communication program for local communities; (v) Design and implementation of a pilot teacher's training program in ecology and environmental education in selected schools; and (vi) Technical assistance to develop a replication strategy, including the identification of methods of information dissemination, and of repeater projects. These activities are linked to the undergoing Public Communication program of the MoTAT, financed under the IDA credit, as well as the communication and consumer relation program of the private operator.

Component 4: Project Management, Monitoring and Evaluation (Total: US$0.080 million; GEF: US$0.080 million). This component will support a Project Implementation Unit (PIU) within the Ministry of Territorial Adjustment and Tourism (MoTAT) to implement and monitor the activities under the project. The project will use the current World Bank Water PIU which is already successfully implementing the Water Supply Urgent Rehabilitation Project and the Municipal Water and Wastewater Project. The PIU will have full responsibility for: (i) procurement, financial management and disbursement related to the activities funded by the GEF grant and the EIB loan; (ii) financial management reporting for the overall project; (iii) monitoring-evaluation and reporting for the overall project implementation; and (iv) coordination with local stakeholders. The GEF funds will also be used to complement the PIU with

adequate technical expertise in constructed wetlands, biodiversity conservation and ecosystem management. Possibilities for further integrating the project management into Government structures will be explored during implementation, in line with efforts by the Bank to this end across the broader portfolio. To achieve this, TA and training can be provided to the Ministry of Environment and the Ministry of Agriculture and Food.

A detailed description of the components is provided in annex 2.

2. Key policy and institutional reforms supported by the project:

The Government of Albania, assisted by the World Bank, has developed a comprehensive Water Supply and Sanitation Strategy (official adopted by the Government in October 2003) which calls, among others, for the introduction of wastewater treatment in environmental sensitive areas and areas with tourist potential. The preparation of the Water Supply and Sanitation Strategy (WSSS) is one of the priority measures in the National Strategy for Socio-Economic Development (NSSED). The project will contribute to achieve the NSSED monitoring indicators No. 6 for urban water supply and sanitation services and the WSSS target No. III (b) for wastewater treatment. The project is an important part of the ongoing sector reform because it is helping the Government to implement the WSSS through e.g. (i) introducing low cost wastewater treatment, (ii) strengthening of local authorities which will be fully responsible for wastewater treatment, (iii) deliver sustainable wastewater treatment through the help of a private operator, (iv) strengthening the monitoring and benchmarking of the sector, and (v) invest scares resources for wastewater treatment in places with tourist industry to foster economic growth.

The Government of Albania is investing considerable effort in developing laws and regulations to address environmental issues. The environmental legal framework is covered by a new Law "On Environmental Protection" and the Law "On Environment Impact Assessment", both approved by the Parliament recently. Within the existent institutional framework the overall responsibility for managing and monitoring the natural wetlands and coastal areas lies with the Ministry of Agriculture and Food. This is regulated by the new "*Protected Area Law*" (n°8906 dated 6/6/2002), and "*Protection of Marine Environment from Pollution"* (n°8905 dated 6/6/2002). The very recent approval of the Law "*On Protected Areas*" opens up new interesting opportunities for advanced and integrated management of protected areas all over Albanian. Contacts and consultations are at present in progress between the Ministry for Environment and the Ministry for Agriculture and Food, in order to define and agree on joint rules and procedures for the *Administration of Protected Areas in Albania*, regulated by the Duties, Tasks and Functions. The Law " *On Protected Areas* " will allow the GoA to set up new management structures for protected areas by means of a Decree (By-Law act), which will include a financing plan for the protected area. The present project will assist the Government in developing and piloting theses new management structures which then later can be extended to other protected areas in Albania.

The pilot of these new management structures will also assist the Directorate for the Management of Albania's Protected Areas, which was established recently within the General Directorate of Forests and Pasture (GDFP). This new Directorate in collaboration with other relevant agencies, in particular with the Unit of Environmental Management Forest Project, is working to implement rules and duties regarding management of the Protected Areas in Albania. The improvement of these management structures is one element of the "Biodiversity Strategy and Action Plan (BSAP)", which was adopted by the Government of Albania. This document (financed by GEF) is an important step for Albania towards implementing the Convention on Biological Diversity (CBD).

The project will also help to develop processes in Albania to improve the involvement of the public in the decision-making process for sustainable resource management and the use of natural protected areas.

3. Benefits and target population:

At the global level, benefits will be obtained through the reduction of transboundary pollution into the Adriatic Sea which is currently endangering numerous species hosted in the coastal and marine environment. Based on the technical assessment of the nutrient trapping capacity of the constructed treatment wetlands to be financed under this project, about 147 tons of Nitrogen and Phosphorous and 768 tons of BOD5 could be reduced annually. Significant global biodiversity benefits are expected. The constructed wetlands represent a new natural habitat for flora and fauna and therefore increase the biodiversity of the area. Also, they represent a buffer zone for the natural wetlands in their proximity. Specifically the wetlands will have a positive impact on:

- Endangered marine ecosystems and habitats, in medium and infralittoral level (particularly Shengjini-Lezha area, Porto Romano bay and Saranda bay);
- Endangered coastal ecosystems: sand dunes, delta rivers (particularly Drini-Lezha), alluvial and wet forests, lagoons (Kune and Vaini) and coastal lakes (Kenalla);
- Risks and adverse impacts on biodiversity. Some of the major adverse impacts have been: habitat loss and fragmentation, damage (Porto Romano bay and Saranda bay) and degradation (Kenalla lake) of habitats and ecosystems, loss of species or the threat of their extinction - i.e. the *monk seal* and the *sea turtle* ranked by IUCN respectively as critically endangered and endangered, living in the waters of Corfu Island, Saranda, Ksamili and Kakome bay; the mouse ear bat, the otter, the ferruginous duck, the pygmy cormorant, and the pallid harrier living in Kune-Vain marshland, Durres-Rrushkull-Erzeni River Managed Natural Reserve, Butrinti lake area;
- Protection of the *Posidonia Oceanica* meadows, particularly in the Shengjini- Lezha and Saranda-Ksamili area, but also in the Porto Romano and Lalzi bay. This in turn will have a positive impact in protecting beaches from erosion as well as providing hatchery and nutrients for endangered species.
- Development of some algae populations (*Ulva and Enteromorpha*), particularly in Saranda bay, Shengjini bay and Porto Romano bay;
- Protection from *eutrophication* in the Saranda bay, Shengjini area and Kenalla lake;

At the regional level the project will have a demonstration impact contributing to the creation of additional wetlands and protected areas along the coastlines of Albania and neighboring countries. Additional benefits result from sharing experiences with neighboring countries on the use of constructed wetlands for nutrient treatment, and on protected areas and wetlands management. Also, the project will contribute to developing regional natural resource management strategies and regional eco-tourism opportunities. In addition, at national level there will be progress towards compliance with EU directives and enhanced capacity of central, regional and municipal institutions to preserve and manage protected areas and wetlands.

At the local level the principal beneficiaries from cleaner water resulting from nutrient reduction will be Albanians living in the areas affected by the current damaged environment. In fact the local populations will benefit from reduced health risk and odor nuisance from untreated wastewater. Also, the Albanian population at large will benefit from improved water quality suitable for environmentally sound recreational use at beaches and coastal areas and wetlands. In particular the improved water quality at beaches will contribute to Albania's economic development by laying the foundation for further development of the tourist sector. Apart from the above mentioned benefits to the general population and the population in the area covered by the component (approx. 260,000), the poor will benefit especially from the improvements because more of them than the average of the population, live close to open ditches

conveying untreated wastewater.

4. Institutional and implementation arrangements:

Institutional Arrangements: The private operator, already recruited by the participating water utilities under a management contract, will operate the constructed treatment wetlands as stipulated in the management contract. The operator has extensive experience in wastewater treatment and will, in accordance with the management contract, train the local staff to enable them to successfully and effectively operate the constructed treatment wetlands. In August 2003 the private operator took over the management of the water utilities of Durres, Lezhe and Saranda (and Fier which is not included in the project). He was recruited under a five year management contract financed under the Municipal Water and Wastewater. The operator will be paid a fixed fee and a performance based fee in accordance with the achievements of targets defined in the management contract. The private operator is fully responsible for the utility staff and has the right to hire and fire staff, and make incentive payments for staff performing well. The performance of the operator will be reviewed by the Contract Monitoring Unit, which is part of the PIU, and by an international recruited independent reviewer.

The Ministry of Environment (MoE), the General Directorate of Forestry & Pastures (GDFP) in the Ministry of Agriculture and Food and the Bank's project team agreed upon the following road map for improving the management of the Kune Vain marshland: The Ministry of Environment drafts a decree "On Protected Areas" that would establish the legal basis for the transfer of all “Hunting Reserves”, including the Kune-Vain Hunting Reserve, into “Managed Reserves”. Already during project preparation the Ministry of Environment presented the above mentioned decree to the Council of Ministers (CM) and obtained the CM's approval. Based on this decree, the Minister of Environment and the Minister of Agriculture and Food will issue an order to execute the transfer of the Kune-Vain Hunting Reserve into a Managed Reserve by November 2003. The objective for the Kune-Vain Managed Reserve (KVMR) is conservation and sustainable management of the Kune-Vain wetland and the Kenalla lake, with the goal of integrating the conservation of the important wildlife habitats with the sustainable management of regional tourism and the area’s natural resources, through an innovative management system.

Based on the decree "On Administration of the Protected Areas", which was also already issued by the Council of Ministers during the preparation, the Ministry of Environment and the GDFP will establish a new administration and management board for the KVMR. Consultations are at present in progress between the Ministry of Environment and the Ministry for Agriculture and Food in order to define and agree on joint rules and procedures for the Administration of Protected Areas in Albania. The KVMR Board will include representatives from key ministries, the Lezhe District and the Lezhe and Shengjin Municipalities, Communes near the Kune Vain marshland, users of the KVMR, and local and national NGOs. The KVMR Board will be responsible for creating and implementing the management plan for the KVMR. To do so, the KVMR Board will carry out an intensive public consultation program. It is expected that the area will be separated into different zones with allowable activities defined for each zone. The KVMR Board will receive TA under the project, including funds for goods and works, to prepare and implement the Management Plan.

It is proposed that the administrative entity for the KVMR will be established under the budget of the General Directorate of Forestry and Pasture. The responsibilities of the KVMR Board will be to introduce a new participatory protected area planning approach. This approach aims (i) to build capacity within local user groups and other stakeholders, (ii) to implement protection activities, and (iii) to undertake monitoring and regulatory functions. All these responsibilities will be identified in the Management Plan.

Implementation Arrangements: The overall coordination of the project will be carried out by the Ministry of Territorial Adjustment and Tourism in close cooperation with the Ministry of Environment and the Ministry of Agriculture and Food. The management of the project will be entrusted to the existing Water PIU under the Ministry of Territorial Adjustment and Tourism.

Implementing Entity: The Water PIU was established in 1994. The PIU was created specifically to implement Bank-financed projects and has already established a successful track record in its implementation of these projects. In addition to this new GEF/EIB Project, it is implementing the IDA financed Water Supply Urgent Rehabilitation Project and Municipal Water and Wastewater Project. Before these projects the PIU implemented the IDA funded Durres Water Supply Project. The Water PIU reports to the Ministry of Finance and to the Ministry of Territorial Adjustment and Tourism.

All financial management activities will be carried out by the PIU.

Procurement: All procurement will be carried out by the Water PIU. The Ministry of Environment will be consulted on all procurement to be carried out under the project components for Environmental Management and Monitoring and Public Consultation and Replication, and will have a voting member of the evaluation committees for this type of procurement. The same applies to the KVMR Board for all procurement related to the KVMR.

Funds Flow: Project funds will flow from: (i) the Bank, either via a single Special Account which will be replenished on the basis of SOEs or by direct payment on the basis of direct payment withdrawal applications; or (ii) the Government, via the Treasury at the Ministry of Finance (MOF) on the basis of payment requests approved by the Treasury Department of the MOF directly to the local supplier for VAT and other taxes.

Onlending arrangements: The proceeds of the GEF grant will be forwarded via a Grant Agreement between the Ministry of Finance on behalf of the Government of Albania and the International Development Association (IDA). The proceeds of the loan from the European Investment Bank (EIB) will reach the three water utilities via a Loan Agreement between the Ministry of Finance on behalf of the Government of Albania and the EIB. For reasons of transparency and accountability is was agreed between the MoF and the EIB that the MoF would onlend the proceeds to the water utilities on EIB terms. To allow the water utilities to borrow on these semi-commercial terms, the MoF will provide the water utilities with a transparent subsidy.

Operational and Maintenance Expenditures: Already under the Municipal Water and Wastewater Project, the MOF agreed to cover, for each participating utility, the shortfall between operation and maintenance expenditures and revenue generation, which is expected to gradually decline and to be eliminated over five years of project implementation, i.e., by 2007. The additional operation and maintenance cost for the constructed treatment wetlands will be minor and not change the target date for covering the operation and maintenance expenditures (see financial model in annex 5).

Monitoring and Evaluation Arrangements: The PIU will prepare and provide to the Bank, on a semi-annual basis, consolidated reports on project implementation progress covering the projection for project financing and implementation, and the status of project finances, procurement of goods, works and consultants' services. The reports will describe the compliance with the Environmental Management Plan which is a provision of the Grant Agreement.

The project indicators will be monitored through the monitoring program financed under the project. This

monitoring program will compliment (i) the self-monitoring of the Constructed Treatment Wetlands which will be carried out by the water utilities, which are under the management of the private operator, and (ii) the already ongoing monitoring programs carried out by the Ministry of Environment, the General Directorate of Forestry & Pastures (GDFP), the General Directorate of Fisheries (GDF) and the UNDEP under the umbrella of the Mediterranean Action Plan. The monitoring of of pollution reduction will be executed at several locations in the coastal areas and the Kune Vain Managed Reserve. In all participating areas the project evaluation will also benefit (i) from the Poverty and Social Impact Assessment which is currently ongoing for water sector issues, (ii) from the establishing of Water Consumer Panels in each city, and (iii) from the Water Sector Public Communication Program which is currently under implementation.

D. Project Rationale

1. Project alternatives considered and reasons for rejection:

During project preparation various design alternatives were considered and evaluated. These include:

CTW versus Conventional Wastewater Treatment Systems: The option of conventional wastewater treatment plants was considered. This proved to be unaffordable for the participating water utilities because of their dire financial situation, nor is the Government of Albania in a position that would allow it to provide the needed amount of subsidies for such an expensive scheme. The preferred alternative, constructed treatment wetlands, require significantly lower construction and maintenance costs than conventional wastewater treatment plants and thus offers the opportunity to create a low cost municipal wastewater treatment system relying on natural processes and reducing to a minimum the operational need for mechanical devices and energy supply.

The selected CTW option will contribute to lower operation costs for the water utilities, making the process more affordable for all the other utilities that will want to follow the example of the present project. Moreover, constructed wetlands represent an additional natural habitat for globally endangered species as well as a connecting corridor and buffer zone toward already existing ecosystems, thereby contributing to generate additional global benefits. If in the future conventional wastewater treatment becomes affordable for these Albanian cities, the CTWs could still be used for tertiary treatment. They would then still provide environmental benefits by further reducing the nutrient discharge and still serve as an additional habitat for endangered species.

Selection of Sites: The sites selected for the establishment of the Constructed Treatment Wetlands (CTW) have been carefully considered through an intensive process of public consultation that has involved local authorities, local communities, civil society and several line ministries. In consultation with the Ministry of Environment specific criteria were established and each alternative site weighed according those criteria. Criteria included: potential nutrient reduction capacity, land availability, distance from built-up areas, adequacy of the site in terms of present and future needs, absence of physical constraints and proximity to sites for discharging treated water. Other sites, initially considered to be included in this project, were not selected due to the lack of potential generation of global benefits, conflicts over land use or technical implementation difficulties.

2. Major related projects financed by the Bank and/or other development agencies (completed, ongoing and planned).

Sector Issue	Project	Latest Supervision (PSR) Ratings (Bank-financed projects only)

Bank-financed		Implementation Progress (IP)	Development Objective (DO)
Water Supply	Water Supply Urgent Rehabilitation Project.	S	S
Water Supply and Sanitation	Municipal Water and Wastewater Project.	S	S
Biodiversity	(GEF, World Bank) Albania - Biodiversity Enabling Activity Completed	S	S
Biodiversity	(GEF, World Bank) Macedonia - Lake Ohrid Conservation Project	S	S
Biodiversity	(GEF, World Bank) Karavasta Wetlands Conservation Project		
Other development agencies			
Wetland Conservation	Conservation of Wetland and Coastal Ecosystems in the Mediterranean Region (GEF, UNDP Regional Project) Ongoing		
Capacity building	Strategic Action Program for the Mediterranean Sea (GEF, UNDP Regional Project) Ongoing		
Wetland Management	Karavasta Lagoon - Wetland Management Project (EU PHARE)		

IP/DO Ratings: HS (Highly Satisfactory), S (Satisfactory), U (Unsatisfactory), HU (Highly Unsatisfactory)

3. Lessons learned and reflected in the project design:

Project design reflects the Bank's experience in the preparation and implementation of water and ecosystem management programs in Europe and around the world. Some of the critical lessons learned and applied in this project's preparation are the following:

- The early involvement in project concept design of key stakeholders from across the water, agriculture and environment sector as well as of local communities is essential in order to ensure ownership, build lasting commitment and achieve successful project implementation. A participatory approach has been implemented through a process of consultation that has represented an innovative avenue to arrive to common understanding of the issues related to wastewater management and environmental protection. This approach has, in turn, broadened the public consensus and helped in selecting the most socially/politically/environmentally acceptable sites for the construction of the wetlands in the three cities as well as promoting dialogue within the authorities for the management of the natural protected areas.

- Project design should be kept simple. This was achieved by focusing on management improvements in only one specific Managed Reserve, the Kune Vain Managed Reserve. Although this pilot is expected to serve as a very positive example, it was avoided that the project design becomes to complicated, e.g. by trying to improve the management of Nature Reserves everywhere in the country under a project with limited resources. By focusing on a specific Managed Reserve, project preparation was more thorough and an area could be selected where the Bank has established themselves as a reliant and effective partner, and where a healthy mix of local, national and global benefits are expected.

- Improvements in water utility management are instrumental to achieve sustainability: This was achieved by linking, almost blending, the project with the Municipal Water and Wastewater Project, which focuses on improving water utility management through private sector participation and empowering of local governments.

- It is essential to maintain support from central governments, but also to emphasize the decentralized responsibility for financial and local project management. This was achieved for both, CTWs and Kune-Vain Managed Reserve, by obtaining excellent support from the Ministry of Territorial Adjustment and Tourism, the Ministry of Environment and the Ministry of Agriculture and Food (which also cooperated well among themselves to provide the necessary support), and by building local ownership and understanding for the project design, project benefits and needs for continuous support for the project.

4. Indications of borrower and recipient commitment and ownership:

The Government through the Council of Ministers, the Ministry of Territorial Adjustment and Tourism, the Ministry of Environment, the Ministry of Agriculture and Food including its General Directorate of Forestry and Pastures, and the water utilities and municipalities of Durres, Lezhe and Saranda have all indicated their full support of the project objectives. To this end the above mentioned stakeholders have taken the following actions:

- Enacting the Law "On Environmental Protection" (2002), the Law "On Environment Impact Assessment", the Law "On Protected Areas" (2002), and the Law "On Protection of Marine Environment from Pollution" (2002).
- Enacting decrees (i) which create the legal basis for the transfer of all "Hunting Reserves" into "Managed Reserves" (2003) and (ii) for setting the framework for creating administrative entities for each "Managed Reserve" (2003).
- During project preparation the project team requested the Government to impose an immediate stop on hunting in the Kune Vain marshland. The General Directorate of Forestry and Pastures acted quickly and prohibited hunting in the Kune Vain marshland in April 2003.
- The Government is also moving ahead with the reform of the water supply and sanitation sector. A Rural Water Supply and Sanitation Strategy was prepared by the Government and the final draft of the National Water Supply and Sanitation Strategy is currently undergoing the administrative procedures for Government approval.
- To enable the water utilities to enforce payments for water tariffs the Government has provided the water bills with an executive title will allow the utilities to take swift legal action against non paying customers. In addition the participating municipalities expressed their intention to make the annual renewal of business licenses depending on the prove that the businesses have paid their water bill.
- The Government is commitment to continue the necessary sector reform which has gained speed by enacting the above mentioned laws and decrees.
- The Ministry of Territorial Adjustment and Tourism, and the Ministry of Agriculture have

expressed in writing that they will make available at no cost the land required for the construction of the treatment wetlands, and have provided evidence of the public landownership.

- All the municipalities have enacted a substantial tariff increase for water supply services and have introduced a wastewater tariff in the beginning of 2003 and have frequently repeated their commitment to additional tariff increases in the year 2004 and onwards, with the goal to cover all operation and maintenance cost by 2007, and thereby achieve independence from Government subsidies for operation and maintenance.

5. Value added of Bank and Global support in this project:

The design of the proposed project has been tailored to support sector reforms, while responding to the constraints in Albania. It is quite innovative in its approach and brings into fruition the sector expertise that the Bank has accumulated in Albania and other developing countries. In particular the Bank has:

- broad international experience in integrated water and ecosystem management;
- the experience to coordinate closely with other donors which enabled the European Investment Bank to co-finance the project as part of their first water sector loan to the Albanian Government; and
- policy development expertise and experience in the design of institutional reforms in the water and sanitation sector, as well as in the environment sector.

In addition the Bank is leading the donors water sector dialogue with the Government and has gained reputation by assisting the Government in designing and implementing the reform.

E. Summary Project Analysis (Detailed assessments are in the project file, see Annex 8)

1. Economic (see Annex 4):

○ Cost benefit NPV=US$ million; ERR = % (see Annex 4)
○ Cost effectiveness
● Incremental Cost
○ Other (specify)

The objective of the project is to reduce the sewage pollution load from the three cities of Durres, Lezhe and Saranda in order to protect and improve the environmental conditions of the coastal and marine habitats. The project supports the creation of constructed treatment wetlands for wastewater treatment as well as improved management of the Kune Vain Managed Reserve, which contains globally significant biodiversity.

The detailed Incremental Cost Analysis of the project is provided in Annex 11. This analysis utilizes the typical incremental cost assessment approach. The without-project scenario can be summarized as follows: Water pollution, mainly generated by the increasing population concentrated along the Adriatic coastline, has considerably degraded the natural inland ecosystems and the coastal ecosystems. This in turn represents a serious threat to the biological diversity of the natural habitats of the coastal wetlands, rivers and sea water, as well as a potential risk to public health. Albania has no wastewater treatment facilities and existing raw sewage outfalls are located either directly on the seacoast, on the bank of coastal rivers, or on drainage ditches that after a short distance discharge directly into globally significant tidal marshlands and/or the sea. In the context of the described baseline scenario, at present there are no financial resources allocated by the Government of Albania to create wastewater treatment facilities which would reduce the pollution load of the globally important ecosystems.

The difference between the cost of Baseline scenario (US$ 21,930,000) and the cost with the GEF

Alternative (US$ 33,767,000) is estimated at US$ 11,837,000. This represents the incremental cost for achieving sustainable global environmental benefits. Of this amount, the Government of Albania has committed to finance US$ 680,000, while US$ 6,287,000 is leveraged from the European Investment Bank. The amount requested form GEF is US$ 4,870,000. The incremental cost calculation does not include the expansion of the sewerage system (US$ 4,862,000) that will be funded directly by the European Investment Bank (EIB), but includes the additional EIB funding for the upgraded wastewater treatment (US$ 6,287,000).

	GEF	EIB	GoA	Total
Sewage Pollution Reduction	3,960,000	6,287,000	680,000	10,927,000
Environmental Management and Monitoring	700,000			700,000
Public Communication and Replication	130,000			130,000
Project Management, M & E	80,000			80,000
Total	**4,870,000**	**6,287,000**	**680,000**	**11,837,000**

The expected global benefit of the proposed project is the improvement of the health and habitat of globally significant marine and coastal ecosystems along the coastline of Albania, which will be achieved by reducing pollution from uncontrolled municipal wastewater generated by the urban settlements of the cities of Durres, Lezhe and Saranda, and by improving the management of the tidal marshland of Kune Vain near Lezhe.

2. Financial (see Annex 4 and Annex 5):

NPV=US$ million; FRR = % (see Annex 4)

Financial Rate of Return: A financial rate of return (FRR) has not been estimated for the project since the project benefits are principally in the form of externalities that do not result in a financial benefit to the participating companies in the form of increased sales or operating cost savings. However, as seen in the preceding section on economic analysis, the project has significant economic benefits.

1. Project Financing Plan: The total cost of the project is estimated at US$20 million (including taxes and duties of US$3.3 million). The project will be financed by a GEF grant of US$4.87 million equivalent, an EIB loan of US$11.15 million equivalent, and a central government contribution of US$3.98 million equivalent (covering the cost of land for the project, and taxes and duties on the project investments).

Financial Assessment of the Participating Companies: All three participating companies are also participants under the ongoing Municipal Water and Wastewater Project (MWWP) which was approved by IDA's Board of Executive Directors in January 2003. A detailed financial assessment and analysis of the companies was carried out under the MWWP and reported in the Project Appraisal Document No. 24826 dated December 30, 2002 (the relevant extract from the report is included as Additional Annex 13 in the current PAD). As reported there, all three companies are at present in a weak financial situation as a result of low water tariffs and low collection rates, combined with operating inefficiencies resulting in high operating and maintenance (O & M) expenses. This has required the central government to provide operating subsidies to the companies to meet the payments to their suppliers, principally KESH, the national electricity company. Substantial increases in collection rates, together with progressive increases in tariff levels and a change in the tariff structure will be necessary to turn the three companies into financially self-sustaining entities. This is being addressed through the conditionalities for financial performance improvement that were agreed to in the Credit Agreement under the MWWP and are being

monitored during the implementation of the MWWP. An important feature of the MWWP is the introduction of a new incentive-based multi-city management contract with a reputed international operator to improve water supply and sanitation services and to achieve financial viability in the participating water utilities. The Operator is already in place under a five-year contract. As a result of the remedial actions being pursued under the MWWP, the financial situation of the three companies in expected to improve progressively, resulting in recovery of all cash O & M expenses by 2007 and with full-cost recovery by 2010 at which stage the companies would have positive net income. The wastewater treatment facilities to be financed through the present GEF/EIB operation will be operated and maintained by the three water utilities with the help of the Operator. Since the current project does not provide direct financial benefits to the companies in the form of increased water sales or O & M expense savings, the approach is to cover the incremental expenses on account of the project through corresponding tariff increases. Financial projections for the three companies are presented in Annex 5. It is projected that the financial performance targets set under the MWWP would continue to be met, and the increased tariffs will continue to remain affordable for the population concerned.

Fiscal Impact:

The main benefits under the project are the environmental externalities that would accrue to the economy as described in the cost-benefit analysis section earlier in this PAD. To enable these benefits to be realized, the central government would have to contribute during project implementation an amount estimated at about US$3.98 million equivalent to finance land (US$0.68 million), and taxes and duties on investments (US$3.3 million). In addition, the central government will also provide an interest subsidy to the three companies in respect of the EIB loan (the NPV of the subsidy over the duration of the EIB loan is estimated at US$ 2.4 million equivalent).

3. Technical:

The Constructed Treatment Wetland (CTW) is a low cost water treatment technology requiring minimal maintenance and operation costs. It relies on natural processes in the wetlands which do only need to be supported through a minimum of mechanical devices and energy supply. The mechanisms that occur in these ecosystems (sedimentation, adsorption, flocculation, precipitation, biological decomposition and metabolism) decrease the concentration of impurities steadily over the distance the wastewater flows through the wetlands. Streams, wetlands and lakes all can act as natural treatment systems too, but wetlands, because of plants abundance and shallow depth, are especially effective in this task. Therefore wetlands, whether natural or constructed, have been generally selected as efficient and cost effective means of municipal wastewater treatment. Should in the future a conventional wastewater treatment plant, which could achieve an even better pollution reduction, become affordable for the participating cities, the wetlands could be used as an effective tertiary treatment that will further reduce nutrient levels and continue to act as an additional habitat for endangered species.

In Europe Constructed Treatment Wetlands are rarely used for cities the size of Durres (150,000 inhabitants), mainly because the required space is seldom available or to expensive to obtain. In addition most of the European cities can bear the higher costs of a conventional treatment plan. To minimize the technical risk associated with the size of the CTW, the project team was assisted by an outside consultant which conducted a technical review of the CTW design which led to further optimization. In addition special attention was paid to the pre-treatment of the wastewater before it reaches the CTWs. The design report as well as the design review report are in the project files.

4. Institutional:

4.1 Executing agencies:

Executing agency will be the Water PIU which is already successfully executing the Water Supply Urgent Rehabilitation Project and the Municipal Water and Wastewater Project.

4.2 Project management:

The proposed project will be managed by the Water PIU the Ministry of Public Works and Tourism, in cooperation with the three water utilities, the Ministry of Environment, the Ministry of Agriculture and Food, the local authorities and NGOs.

4.3 Procurement issues:

The PIU will carry out all procurement. Staff from the Ministry of Agriculture and Food, from the Ministry of Environment and from KVMA Board will participate in writing Terms of Reference, evaluation of technical proposals and supervision of environmental management and monitoring activities. All other tasks will be carried out by the procurement experienced PIU staff. Therefore no major issues that requires special attention are anticipated.

4.4 Financial management issues:

The financial management arrangements of the project are acceptable to the Bank.

As of the date of this report, the borrower is in compliance with its audit covenants of existing Bank-financed projects. PIU's previous and current project financial statements and auditing arrangements are satisfactory and it has been agreed that these will be replicated for GEF/EIB Project. The annual audited project financial statements will be provided to the Bank within six months of the end of each fiscal year and also at the closing of the project.

The latest Country Financial Accountability Assessment (CFAA) confirms that improvement is required in the management of public expenditures, including cash management in Treasury and better internal control throughout the public sector. Absence of a solid legal basis for internal audit further hampers the solidness of the internal control. Thus, PIU has developed policies and procedures that operate in addition to those of the current public expenditure management framework to minimize project financial management risks.

The banking sector in Albania is relatively weak and the Bank of Albania where the Special Account will be opened does not provide normal commercial banking services. However, PIU will open all of its projects' second-tier Bank Accounts in a commercial bank acceptable to the Bank whose financial status and statements are reviewed on an ongoing basis by the Bank. As these arrangements have been satisfactory, they will remain in place during GEF/EIB Project implementation.

5. Environmental: Environmental Category: B (Partial Assessment)

5.1 Summarize the steps undertaken for environmental assessment and EMP preparation (including consultation and disclosure) and the significant issues and their treatment emerging from this analysis.

The project will finance the construction of low cost ecologically based wastewater treatment technologies, with the major environmental objective to reduce the amount of nutrients discharged into the Adriatic sea; making the project environmentally beneficial. The project will address global benefits by reducing pollution in coastal areas and protecting the marine ecosystem from destruction. Apart from the constructed treatment wetlands and earth dykes planned to protect the CTW from the floods, no new physical structures of significant size will be built and no major adverse environmental impacts are expected. Any potential negative environmental impacts that might emerge, are expected to be localized or able to be mitigated. Given the nature and location of the areas selected for the establishment of the CTWs

no impact on cultural properties is expected and also the possibility of chance finds during construction activities is assessed unlikely. Nevertheless, the Environmental Management Plan (EMP) and the construction contract(s) will provide appropriate instructions for dealing with the above mentioned events. Due to the nature of the CTW's work, the project has been classified as Environmental Category "B". In accordance with the Bank policy on Environmental Impact Assessment (EIA), the Ministry of Territorial Adjustment and Tourism in collaboration with the Ministry of Environment carried out the Environmental Impact Assessment of the project. A combination of quantitative and qualitative assessment techniques (ranging from desk-based analysis, to water and social survey) have been undertaken. The EIA reflects the environmental guidelines and standards of IDA which are in line with the recently enacted Albanian Law "On Environmental Impact Assessment". The EIA describes existing environmental conditions at the three project sites (including climate, hydrology, soil and water quality, groundwater and biodiversity) and assesses the potential impacts on these conditions from implementation of the project, during the construction and operation phases. As part of the EIA, an Environmental Management Plan (EMP) was prepared to identify mitigation measures and monitoring activities that will address potential impacts and therefore provide an adequate safeguard for the environment. The EIA concluded that the proposed activities are in compliance with the environmental requirements of both the Government of Albania and the Bank.

5.2 What are the main features of the EMP and are they adequate?

An Environmental Management Plan (EMP) was prepared prior to appraisal. The EMP includes monitoring and mitigation activities for the three constructed treatment wetlands during project preparation and implementation. In addition the EMP includes: (i) a contingency plan to address problems that could develop during facilities' construction and operation. The contingency plan includes measures for determining and remediating nuisance conditions, addressing any toxicity observed in the wetland, and dealing with construction, or operational errors, or unpredictable events; (ii) appropriate instructions for dealing with Cultural Property Safeguard; (iii) establishment of a comprehensive monitoring program for potential dangers to the wetland ecosystem, such as bioaccumulation, avian botulism and other avian diseases, vector problems, invasion of non-native plants and animals, debris accumulation, and nuisance conditions; (iv) guidelines for sustainable management of the water regimes in the wetlands, such as procedures in the event of accidental pollution, floods, provision of optimal treatment capacity; (v) soil removal and selection of suitable landfills for waste disposal from the construction phase; (vi) evaluation of flooding risks and implications for ground water protection; (vii) environmental management guidelines for contractors; and (viii) procedures for sludge removal and disposal. Supervision will verify that all these measures are being implemented.

5.3 For Category A and B projects, timeline and status of EA:

Date of receipt of final draft: March 7, 2003

The Environmental Impact Assessment (EIA) for this project was finalized prior to appraisal. It was reviewed and commented on by the ECA Safeguard Compliance Unit and changes this Unit requested were included. The final EIA was disclosed before Negotiations. A final public consultation meeting for the EIA will be held before Board presentation.

5.4 How have stakeholders been consulted at the stage of (a) environmental screening and (b) draft EA report on the environmental impacts and proposed environment management plan? Describe mechanisms of consultation that were used and which groups were consulted?

The preparation of this project built first on the social assessment that was carried out for the Municipal Water and Wastewater Project and included focus group meetings and a stakeholders workshops. In addition a public consultation process involving central and local authorities, municipalities, communities affected by the project, NGOs and local environmental specialists was carried out. As described in other parts of this document, the participatory approach involved all the above mentioned stakeholders. The

consultation process increased awareness of environmental issues and built public consensus to help selecting the most environmentally acceptable solutions/sites for the construction of the wetland in proximity of the three cities.

Also it is expected that consultation with beneficiaries will be on a continuous basis during project implementation through public relations campaigns conducted by the private operator under the Municipal Water and Wastewater Project. The draft EMP was distributed to relevant government bodies, institutions and NGOs. To facilitate access of the EMP, copies were distributed to local municipalities for public review and newspaper announcements were be made to inform about the key issues and the availability of the draft EMPF.

5.5 What mechanisms have been established to monitor and evaluate the impact of the project on the environment? Do the indicators reflect the objectives and results of the EMP?

Environmental indicators will be monitored annually and obligations for implementation, in accordance with the Albanian Law on Environmental Protection and the OP 4.01, were included in the contract with the private operator. Consultants (or/and NGOs) will be engaged to monitor project implementation and conduct periodic environmental audits.

6. Social:

6.1 Summarize key social issues relevant to the project objectives, and specify the project's social development outcomes.

Environmental problems in Albania, like in most other transition countries, still take a secondary place in the order of priorities. The GEF-Integrated Water and Ecosystem Management Project, by reducing land-based pollution from the three cities of Saranda, Lezhe and Durres and introducing low cost ecologically based wastewater treatment technologies to protect, restore and enlarge endangered coastal and marine habitats would put forward the idea of environmental protection as a public good with significant social (health), and economic (eco-tourism) effects. Thus the rationale behind using constructed wetlands for natural wastewater treatment should be well communicated to and understood by the authorities and the public at large, since the long term effects of environment-related activities affect the entire population.

A needs assessment was carried out to analyze the knowledge, attitudes, practices, and barriers to change the views of all relevant stakeholders. This involved segmenting audiences based on their position, understanding actors' interests and framing the issues. This assessment helped design a public consultation program and set the agenda for the discussion on the project activities.

The sanitary and environmental conditions of the communities living near the Chukka channel in Saranda, and those living by the open-air sewerage canal in Durres are very poor. The communities showed interest as they found out that the living conditions might improve as a result of the project. In Durres the project will produce visible and tangible benefits in their livelihood as the channel's water quality will improve and the waste water redirected. A random sample of inhabitants interviewed welcomed the initiative. Those inhabitants, mostly coming from the Kosovo area, established their residence in an area around the wastewater carrying drainage ditches.

During the communication assessment other issues raised by representatives of local authorities were whether the capacity of the CTW would be in line with future population growth and the location in compliance with urban development plans; how the problem of mosquito and odor control would be handled; and what would be the advantages/disadvantages of investing in a constructed treatment wetland system vis-à-vis a conventional system. In Lezhe particular concerns emerged regarding the advantages/disadvantages of the selected alternative; the issue of landownership, the lifespan of the selected system as well as the treatment of the sewage waters of the commune of Shengjin. All the issues identified

during the above mentioned assessment were satisfactorily addressed during the consultation process and taken into consideration in the project design.

6.2 Participatory Approach: How are key stakeholders participating in the project?

The project is promoting a participatory approach through a process of consultation that will represent an innovative avenue to arrive at a common understanding of the issues related to wastewater management and environmental protection. This approach will, in turn, broaden the public consensus and helped already during project preparation to select the most socially/politically/environmentally acceptable site for the construction of the wetland in the three cities. It will also promote the dialogue within the management Board for the management of the natural protected areas. Building consensus over these issues ultimately will broaden constituencies support for the water sector reform program currently put in concrete form in the National Water Supply and Sanitation Strategy of the Albanian Government. By increasing public awareness on the issue of environmental protection and ecosystem management, the consultations will make a major contribution to improve environmental governance in Albania.

Three separate consultations - structured in two phases - have been held under the auspices of the municipalities of Saranda, Lezhe and Durres, organized around the following lines: 1) promoting the use of man made wetlands for wastewater treatment; 2) promoting a dialogue among public institutions and an effective collaborative decision making within the framework of the proposed Management Board for the management of the natural protected areas of Lezhe; 3) identifying in a participatory manner the main issues of concern and possible areas of improvements. Participants in the first phase included: a) local authorities (Inspectors of the Ministry of Environment, General Directorate of Forestry and Pasture, Municipal Representatives, Water Utilities) and Albanian experts; b) local communities affected by the project; c) local NGOs and environmental specialists. Participants in the second phase include the self-selected representatives from the three groups and the four level of decision making: 1)Council of Territorial Adjustment, 2) Ministry of Environment, 3) Ministry of Territorial Adjustment and Tourism, 4) local municipal authorities. Furthermore, during the implementation of the project, a consultation process will be established to promote dialogue and build consensus between the Management Board of the natural protected areas of Lezha and all the other involved stakeholders for the preparation and selection of the most suitable Management Plan for the natural protected areas of Lezhe.

6.3 How does the project involve consultations or collaboration with NGOs or other civil society organizations?

In addition to the participation of local NGOs, the National network of Environmental NGOs has been involved in the process in order to guarantee a fair representations of the views and concerns of civil society organizations. A meeting has been convened by the Ministry of Environment, with authorities from the three cities to discuss issues raised by the members of the network and inform the decision making process.

To increase transparency in government/civil society relations the Bank, within the Municipal Water and Wastewater Project, is also assisting the MoTAT to develop a public communication program. The policy dialogue component of the program includes the creation of a public information system for water and wastewater issues as a venue for input and comment by stakeholders. Specifically, this entails a website, an information point in the Ministry as well as in other major cities, support to the central public information center, establishment of a hotline for information on water, and publicizing of tendering procedures.

6.4 What institutional arrangements have been provided to ensure the project achieves its social development outcomes?

The Municipal Water and Wastewater Project will establish a Consumer Panel (CP) in each of the three cities to enable the population, particularly the poor, to interact directly with management of the water

utilities about problems and opportunities. The CPs will help channel constructive suggestions and feedback of consumers' specific needs to the utilities. CPs meetings' findings/recommendations about improvement of service quality, affordability and other issues would be communicated to all service users.

6.5 How will the project monitor performance in terms of social development outcomes?

The three cities under the GEF/EIB project are included in the ongoing Poverty and Social Impact Assessment for the water sector that will gauge public perception and understanding of the government process, to assess what are the major concerns and priorities of the general public, as well as the poor, regarding the involvement of the private sector in the provision of water services in Albania. Currently the baseline is established for a Social Impact Monitoring & Evaluation system.

A series of polling will be carried out throughout the project to evaluate the social impact as well as the public acceptance of the new system. In particular these attitudinal surveys will: 1) identify, evaluate and monitor critical social indicators measuring the social impacts of the project; 2) test and value public awareness, support, satisfaction and concerns towards the project as well as perceptions of water services linked with health and environment (water quality); 3) compare the value of water and wastewater services with other public services (continuity, reliability, etc.)

7. Safeguard Policies:

7.1 Are any of the following safeguard policies triggered by the project?

Policy	Triggered
Environmental Assessment (OP 4.01, BP 4.01, GP 4.01)	● Yes ○ No
Natural Habitats (OP 4.04, BP 4.04, GP 4.04)	○ Yes ● No
Forestry (OP 4.36, GP 4.36)	○ Yes ● No
Pest Management (OP 4.09)	○ Yes ● No
Cultural Property (OPN 11.03)	● Yes ○ No
Indigenous Peoples (OD 4.20)	○ Yes ● No
Involuntary Resettlement (OP/BP 4.12)	○ Yes ● No
Safety of Dams (OP 4.37, BP 4.37)	○ Yes ● No
Projects in International Waters (OP 7.50, BP 7.50, GP 7.50)	● Yes ○ No
Projects in Disputed Areas (OP 7.60, BP 7.60, GP 7.60)*	○ Yes ● No

7.2 Describe provisions made by the project to ensure compliance with applicable safeguard policies.

Environmental Assessment: An Environmental Impact Assessment and Environmental Management Plan (EMP) was completed before project appraisal.

International Waterways: The Government of Albania notified the riparian countries about the project on July 8, 2003. The letter is in the project files.
A careful assessment of the project scope and impact lead to the conclusion that the Project: (i) would only positively affect the quality or quantity of water discharged into the Adriatic Sea; and (ii) would only be positively affected by the other riparians' water use. In that respect, the project is in compliance with the Barcelona Convention for the Protection of the Mediterranean Sea against Pollution, signed 16 February 1976, and revised in Barcelona, Spain, on 10 June 1995 as the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (in particular, Articles 4.2, 8 (a), and 11 of the Convention). Although it is not anticipated that the Project will have any negative impact on the quality or quantity of water in the Adriatic Sea, the riparian countries were provided with relevant details for the proposed Project, pursuant to paragraph 4 of aforesaid Operational Policy.

Cultural Property: Although no impact on cultural property is expected, the possibility of chance finds during construction cannot be completely ruled out. Therefore the EMP and the construction contracts will provide appropriate instructions for dealing with this possibility. During supervision the project team will verify if these measures are implemented properly.

Involuntary Resettlement: This safeguard policy does not apply because the project does not involve land acquisition. All land required for the construction of the treatment wetlands is owned by the Government and will be made available for the project. There is also no resettlement issue because the land is fallow land which is not in use - further, there are no squatters or encroachers on this land who will need to be forcibly removed. The Government confirmed in a letter that the land is owned by the Government, currently not in use and that it will be made available for the project. The sewerage pipes will be laid in public roads only - further, provision will be made in the construction contract to offset any temporary inconvenience caused by obstructions in access to property. Additionally, during supervision the project team will verify that there is no resettlement or land acquisition.

F. Sustainability and Risks

1. Sustainability:

The project will achieve sustainability by promoting an integrated approach to management of wastewaters and natural resources. The main purpose is to optimize the ecological, economic and social benefits of the proposed interventions to better preserve the coastal and marine ecosystems. Environmental sustainability will be achieved by physically reducing the discharges of nutrient into the coastal lagoon system and sea, improving the monitoring of the ecosystem health (water quality and biodiversity status), and implementing a management plan for the Kune Vain Managed Reserve. Institutional sustainability will be achieved by working at local level with a wide range of stakeholders, building capacity of the water utilities to manage the constructed wetlands, strengthening the capacity of the local water quality monitoring institutions and the staff of the Kune Vain Managed Reserve as well as working with the local communities, farmers, and other user groups. Financial and economic sustainability will be achieved by introducing a private sector based management approach to water and wastewater utilities, financial support from the Government to protected areas as foreseen by the new legislation and by exploring other economic instruments for management of the Kune Vain protected areas. The project builds on several ongoing Government programs and donor-supported projects that will help sustain the project activities.

1a. Replicability:

The proposed project has a high demonstration value since it is one of the first projects in the region to promote an integrated approach to water and land management based on constructed treatment wetlands. Other municipalities in Albania are the most likely candidates for replication since the country has no wastewater treatments and a long coastline with several lagoons and wetlands of significant value. The potential for replication in the whole Mediterranean region is quite high. The project therefore will finance the development of a replication strategy that includes identification of potential sites for replication and methods for dissemination of lessons. The project will support knowledge sharing within the country and the region.

The project will also offer the opportunity to implement some of the measures proposed by the recently approved Law on Protected Areas to strengthen the institutional framework for the management of the Kune Vain marshlands. The model for management of the protected area adopted in Kune Vain could be used in other protected areas in the country. As identified in the Strategic Action Plan for the Mediterranean, several hotspots have been identified along the Adriatic coast.

2. Critical Risks (reflecting the failure of critical assumptions found in the fourth column of Annex 1):

Risk	Risk Rating	Risk Mitigation Measure
From Outputs to Objective		
Lack of continuing commitment from the Government of Albania to the project	M	Regarded as modest because the Government has undertaken significant commitments in the environmental sector and has also some ecomomic interest in the project because it deals with tourist areas. The project team will continue the dialogue with the Government on the benefits of pollution reduction and natural areas protection.
Consumers unwilling/unable to pay for water and wastewater services	S	1) Willingness-to-pay study shows that willingness-to-pay is high and tariffs are affordable. Also the willigness to pay for wastewater treatment is higher compared with other cities in Albanai, because of the additional benefits it will bring to the tourist sector. 2) Private Operator is expected to launch public awareness campaign. 3) Metering in combination with adequate tariff policy will allow poor customers to reduce consumption and pay less.
Project not be able to foster economic growth through creating an enabling environment for tourism, if the Government fails to further develop sustainable environmental strategies, including the enforcement of proper urban and coastal zone planning.	S	Ongoing dialogue between the Bank and the Government through ESW work and the entire project portfolio.
From Components to Outputs		
Lack of commitment of local communities and user groups to protected the Kune Vain marschland.	S	A comprehensive Management Plan will be prepared following a participatory planning approach and mechanisms will be established for stakeholders' consultation. Strategies will be developed to prepare local population for new job opportunities arising throughout the project area and any negative impact on existing user groups, e.g. fishermen, will be mitigated.
Inadequate capacity for the management and maintenance of CTWs and the protected areas.	N	The operation and maintenance of the CTWs will be handed over to the private operator involved in the Municipal Water and Wastewater Project, which has suffucient capacity to manage and maintain the CTWs.
Inadequate financial resources for management and maintenance of the protected areas.	S	The Government of Albania is making considerable commitments in addressing environmental issues. Administrations will

		receive support to develop fund-raising plans for long-term financial sustainability.
Possible increased pollution load into wetlands and coastal areas if the project is successful in increasing waterwater collection but not in wastewater treatment.	M	(i) CTW's offer a very robust and resilient form of wastewater treatment that would not fail completely even if badly managed; (ii) the CTW technology has low operation cost and represents one of the most affordable options for the cities; (iii) the design of the CTW was independently reviewed; and (iv) the international operator is capable to operate the CTWs properly.
Overall Risk Rating	S	

Risk Rating - H (High Risk), S (Substantial Risk), M (Modest Risk), N(Negligible or Low Risk)

3. Possible Controversial Aspects:

The project is not considered controversial, since the proposed interventions have the support from local communities and authorities. One possible controversial aspect is the potential indirect impact caused by the community perception of restricted access to resources in the protected areas. To mitigate this aspect, the development of the management plan for the Kune Vain Managed Reserve will be done in close consultation with local stakeholders. The participatory planning approach that started during the preparatory phase will continue during project implementation.

G. Main Conditions

1. Effectiveness Condition

The Grant Agreement has been duly authorized or ratified by Albania.

2. Other [classify according to covenant types used in the Legal Agreements.]

Conditions for Negotiation

- Confirmation from the Ministry of Territorial Adjustment and Tourism and the Ministry of Agriculture and Food, that the land foreseen for the constructed treatment wetlands is owned by the Government and will be made available to the local governments for the construction of the treatment wetlands (confirmed to the Bank in a letter dated Sept. 30, 2003).
- Approval of the National Water Supply and Sanitation Strategy by the Council of Ministers (the Strategy was approved by the Council of Ministers on October 16, 2003).

Financial Covenants

PIU will maintain a financial management system acceptable to the Bank. The project financial statements, SOEs and Special Account will be audited by independent auditors acceptable to the Bank and on terms of reference acceptable to the Bank. The annual audited statements and audit report will be provided to the Bank within six months of the end of each fiscal year.

Dated Covenants

The National Councils of Territorial Adjustment of Albania issues the construction site and construction permission for the construction of the Constructed Treatment Wetlands by March 31, 2005.

Other Covenants

The Recipient shall ensure that all measures necessary for the carrying out of the Environmental Management Plan shall be taken in a timely manner.

The Recipient shall ensure that a qualified operator for the operation of the Constructed Treatments Wetlands shall have been retained in a timely manner to enable their effective operation.

H. Readiness for Implementation

☒ 1. a) The engineering design documents for the first year's activities are complete and ready for the start of project implementation.
☐ 1. b) Not applicable.

☒ 2. The procurement documents for the first year's activities are complete and ready for the start of project implementation.
☒ 3. The Project Implementation Plan has been appraised and found to be realistic and of satisfactory quality.
☐ 4. The following items are lacking and are discussed under loan conditions (Section G):

I. Compliance with Bank Policies

☒ 1. This project complies with all applicable Bank policies.
☐ 2. The following exceptions to Bank policies are recommended for approval. The project complies with all other applicable Bank policies.

Andreas Rohde	Sumter Lee Travers	Orsalia Kalantzopoulos
Team Leader	**Sector Manager**	**Country Director**

Annex 1: Project Design Summary

ALBANIA: Integrated Water & EcoSystems Management

Hierarchy of Objectives	Key Performance Indicators	Data Collection Strategy	Critical Assumptions
Sector-related CAS Goal: ● Improve infrastructure and create institutional environments conducive to infrastructure sustainability. ● Promote environmental sustainability and sustainable use of natural resources	**Sector Indicators:** ● Framework developed for protection of natural resources ● Enforcement of environmental regulations improved ● Concrete decentralization of environmental services to local government - quantified ● Integration of environmental considerations in sectorial policies - number of environmental units established - effectiveness of environmental units	**Sector/ country reports:** ● Project Status reports ● Project's Implementation Completion Report ● Country reports	**(from Goal to Bank Mission)** ● Government committed to environmental sustainability.
GEF Operational Program: OP12: Integrated Ecosystem Management. OP2: Coastal, Marine and freshwater Ecosystem OP9: Integrated Ecosystem Management	**Outcome / Impact Indicators:**		

Hierarchy of Objectives	Key Performance Indicators	Data Collection Strategy	Critical Assumptions
Global Objective: The global objective of the project is to improve the health and habitat conditions of the global significant ecosystems along the coastline of Albania, by significantly reducing uncontrolled wastewater discharged into international waters and improving the management of the tidal marshland of Kune-Vain.	**Outcome / Impact Indicators:** ● Improved health of posidonia oceanica (seagrass) meadows: biomass per surface unit; shoot density, epiphyte growth and area covered. ● Improved biodiversity in Kune-Vain Managed Reserve regarding the following flagship Classes: Malachofauna, Herpetofauna, Avifauna, and Mammalia. ● Decrease nutrient load caused by the wastewater to the marine environment in the project area and the Kune-Vain tidal marshland as follows: Nitrogen: 115t/a Phosphorus: 32 t/a	**Project reports:** ● Project Status reports. ● Project's Implementation Completion report. ● Coastal Monitoring report. ● Kune-Vain Monitoring report.	**(from Objective to Goal)** ● No additional negative environmental impact will occur in the project area, e.g. oil spill from tanker. ● Local and Central Government are continuing their commitment to environmental protection in the area. ● Government honors their commitment to support the water and wastewater utilities in the participating cities. ● Management Contract with Private Operator successfully implemented (under separate IDA project).
	● Integrated Management Plan implemented for Kune-Vain Managed Reserve.	● Project Status reports. ● Project's Implementation Completion report. ● Annual Kune-Vain Report.	● Commitment of all stakeholders to implement Kune-Vain Management Plan continues.
Project Development Objective The Project Development Objective is to improve wastewater services in the cities of Durres, Lezhe and Saranda.	● Wastewater collection and discharge in the participation cities improved.		

Hierarchy of Objectives	Key Performance Indicators	Data Collection Strategy	Critical Assumptions
Output from each Component:	**Output Indicators:**	**Project reports:**	**(from Outputs to Objective)**
Sewage Pollution Reduction Component ● Reduce sewage pollution load into coastal areas and Kune-Vain marshland.	● CTW constructed and operational. ● Removal efficiency of CTWs: 50 percent for Total Nitrogen (unfiltered), 25 percent for Total Phosphor (unfiltered), and 70 percent for BOD5 (unfiltered).	● Project Status reports. ● Project's Implementation Completion report.	● Government Counterpart funds provided in a timely manner. ● No flaws in design of CTW. ● Land provided by Government in a timely manner.
● CTW socially accepted.	● Number of complains received by the utilities regarding the operation of the CTW (odor, noise, mosquitos etc.): less than 3 percent of customers complains.		
Environmental Management and Monitoring Component ● Increase capacity to manage the protected Kune-Vain wetland. ● Improve environmental monitoring capacity in Kune-Vain Managed Area. ● Improve environmental monitoring capacity in coastal areas.	● Adoption of the Kune Vain Management Plan that includes process indicators, stress reduction indicators, and environmental status indicators. ● Implementation of a basic monitoring system of the coastal areas.	● Project Status reports. ● Project's Implementation Completion report.	● Incentives for rangers in place to participate in the training and stay in the job afterwards. ● Sufficient monitoring capacity available in the country, e.g. Tirana University.
Public Communication and Replication Component ● Public communication program carried out. ● Increase awareness for protecting the biodiversity in the project area. ● Increase the level on tranpsarency and public participation on water and envinromental isssues ● Promote replication of the project in other areas of Albania and the	● Stakeholders consultations for the preparation and implementation of the Kune-Vain Management Plan ongoing throughout the lifetime of the project. ● Environmental Education and Communication Program delivered. ● Coordination between the Central, local authorities and private operator communiucation	● Project Status reports. ● Project's Implementation Completion report.	● Replication potential exists. ● Substantial number of interested decision makers can be identified and mobilized.

region. **Project Management Component** ● Project Management, Monitoring and Evaluation established and operational.	activities achieved ● Replication Strategy developed and implemented. ● Information to local communities and decision makers at potential replication sites provided. ● Consensus building program for decision makers implemented. ● PIU operational. ● Project progress reports delivered on schedule.	● Project Status reports. ● Project's Implementation Completion report.	● Operational support from key government agencies provided.
Project Components / Sub-components: **Sewage Pollution Reduction** ● Wetlands ● Main collectors ● Land acquisition **Environmental Management and Monitoring** **Public Communication and Replication Component** **Project Management**	**Inputs: (budget for each component)** **Budgets in US$:** **Incremental Cost:** **GEF**: Wetlands: 3,960,000 Env. Manag./Monit.: 700,000 Replication: 130,000 Project Management: 80,000 **4,870,000** **GoA:** Land acquisition: 680,000 **680,000** **EIB:** Wastewater Treat. 6,287,000 Sewerage: 4,862,000 **11,149,000**	**Project reports:** ● Project Status reports. ● Project's Implementation Completion report.	**(from Components to Outputs)** ● High qualified PIU staff can be maintained at all times.

	Baseline: **IDA:** Management Contract which includes the operation of the sewage systems is financed by IDA under the Municipal Water and Wastewater Project **21,930,000** **Total Project cost:** GEF: 4,870,000 GoA 680,000 EIB: 6,287,000 **11,837,000**		

Annex 2: Detailed Project Description
ALBANIA: Integrated Water & EcoSystems Management

By Component:

Project Component 1 - Sewage Pollution Reduction - US$15.79 million

Total: US$15.79 million; GEF: US$3.96 million, EIB: US$11.15 million, GoA: US$0.68 million)

The sites for the Constructed Treatment Wetlands (CTW) have been carefully selected through a process of public consultation that involved local authorities, local communities, civil society and different line ministries. In consultation with the Ministry of Environment specific criteria were established and each alternative site weighed according those criteria. Criteria included: potential nutrient reduction capacity, land availability, distance from built-up areas, adequacy of the site in terms of present and future needs, absence of physical constraints and proximity to sites for discharging treated water. Other sites, initially considered to be included in this project, were not selected due to the lack of potential generation of global benefits, conflicts over land use or technical implementation difficulties.

The GEF funds will support the creation of altogether 92 ha of Constructed Treatment Wetlands (CTWs) in three already identified sites in proximity of the urban areas of Durres, Lezha and Saranda. Mechanisms that occur in these ecosystems (sedimentation, adsorption, flocculation, precipitation and biological decomposition) will substantially decrease the concentration of polluting substances flowing through the wetlands and reduce the impact of untreated wastewater of urban origin on the international waterways and coastal marshlands. The artificial wetlands offer the opportunity to realize a low cost wastewater treatment systems that relies on natural processes and reduces the need for energy supply. The evaluation of alternatives has been carried out through a multi-criteria approach that included: environmental impacts, project costs, local conditions, institutional framework, training and monitoring requirements, hydro geological and health risks. The construction works will include civil works, equipment and construction of infrastructure which will regulate water flows through the wetlands, which will allow to optimize nutrient trapping and biodiversity restoration.

Financial support from the European Investment Bank (EIB) was identified. It will finance sewage collectors to connect the existing sewerage outflows of the three urban areas of Durres, Lezhe and Saranda to the constructed treatment wetlands, the pretreatment facilities to improve the overall performance of the natural system, and the rehabilitation and extension of parts of the existing sewerage network. The construction of those sewerage infrastructure will halt the uncontrolled sewage discharge directly into the coastal lagoon systems that is currently occurring and constitutes the most relevant threat for the survival of the globally important coastal marine ecosystem and tidal marshlands. Furthermore the EIB will support the connection of the Shengjin area to the CTW in Lezhe. Shengjin represents an important natural ecosystem characterized by the presence of marshlands, the Kanalla Lake and by a long beach with a littoral pine-wood on the coastal dunes. Connecting Shengjin to the CTW will contribute to the protection of this important environment which is located just next to the Kune Vain Managed Area.

The following tables show a more detailed break down of the investment costs for the Sewage Pollution Reduction Component:

Albania - Integrated Water and Ecosystems Management Project

SEWAGE&WWTP SYSTEMS
COST BREAKDOWN

	Cost Estimate	Land, Tax&Duty	Cost without tax&Duties	
	$	**GoA ($)**	GEF **($)**	EIB **($)**
1-SEWERAGE COST				
Sub-Total 1.1 ***Construction Works Cost Estimate***	**4,834,845.70**	**920,130.70**	N/A	**3,914,715.00**
Physical Contingency *(15% of Cost Estimate)*	725,226.85	138,019.60	N/A	587,207.25
Sub-Total 1.2	5,560,072.55	1,058,150.30	N/A	4,501,922.25
Engineering & Consultancy services				
Engineering cost for Final Design (see attached)	-	N/A	N/A	
Supervision of Works (8% of Sub-Total 1.2)	360,000.00	N/A	N/A	360,000.00
TOTAL INVESTMENT COST ($)	**5,920,072.55**	**1,058,150.30**	N/A	**4,861,922.25**
2-WWTP COST				
Sub-Total 2.1 ***Construction Works Cost Estimate***	**10,638,500.00**	**2,386,600.00**	**3,189,800.00**	**5,062,700.00**
Physical Contingency *(15% of Cost Estimate)*	1,595,775.00	357,990.00	478,470.00	759,405.00
Sub-Total 2.2	12,234,275.00	2,744,590.00	3,668,270.00	5,822,105.00
Engineering & Consultancy services				
Engineering cost for Final Design	N/A	N/A	N/A	N/A
Supervision of Works (8% of Sub-Total 2 GEF+EIB)	765,000.00	N/A	300,000.00	465,000.00
TOTAL INVESTMENT COST ($)	**12,999,275.00**	**2,744,590.00**	**3,968,270.00**	**6,287,105.00**
3-TOTAL INVESTMENT COST (1+2)	**18,919,347.55**	**3,802,740.30**	**3,968,270.00**	**11,149,027.25**

Albania - Integrated Water and Ecosystems Management Project

SEWERAGE SYSTEM SUB-COMPONENT
COST BREAKDOWN

	WWTP COST BREAKDOWN			
	Cost Estimate	Land, Tax&Duty	Cost without tax&Duties	
	$	Goa ($)	GEF ($)	EIB ($)
Durres				
1)-GOA (US$)				
1.1)-Land (including tax and duties)	-	-	-	-
2)-Cost for EIB component ($)				
Cost (without taxes and duties):				
2.1)-In-let & out-let main sewage collector	724,500.00			
2.2)-North-Eastern sewage system (Beach area):				
(i)-Main collector extension (KFOR area)	402,500.00			
(ii)-Secondary sewer and house connection (KFOR	241,500.00			
(ii)-Improvement of existing n°6 PS	241,500.00			
(iii)-PS n°6 and PS n° 7 sewage connection	72,450.00			
Total for EIB component	**1,682,450.00**			**1,682,450.00**
2.3)-Taxes and duties EIB component	**381,038.70**	**381,038.70**	-	
Total Cost Sewage system for Durres	**2,063,488.70**	**381,038.70**	-	**1,682,450.00**
Lezha & Shengjin				
1)-GOA				
1.1)-Land (including tax and duties)	-	-	-	-
2)-Cost for EIB component ($)				
Investment cost (without taxes and duties):				
2.1)-Lezhe main sewage collectors (CTW in-let & out-	644,000.00			
2.2)-Shengjin main sewage collector (CTW in-let)	410,550.00			
2.3)-Lezhe/Shengjin secondary system & house conn	563,500.00			
Total for EIB component	**1,618,050.00**			**1,618,050.00**
2.3)-Taxes and duties EIB component	**390,759.08**	**390,759.08**	-	
Total Cost Sewge system for Lezhe&Shengjin	**2,008,809.08**	**390,759.08**	-	**1,618,050.00**
Saranda				
1)-GOA				
1.1)-Land (including tax and duties)	-	-	-	-
2)-Cost for EIB component ($)				
Cost (without taxes and duties):				
2.1)-New main sewage collector to CTW (incl. CTW s	292,215.00			
2.2)-Sewage city system extension	322,000.00			
Total for EIB component	**614,215.00**			**614,215.00**
2.3)-Taxes and duties EIB component	**148,332.92**	**148,332.92**	-	
Total Cost Sewage system for Saranda	**762,547.92**	**148,332.92**	-	**614,215.00**
Sub-Total 1				
Construction Works Cost Estimate	**4,834,845.70**	**920,130.70**	-	**3,914,715.00**
Physical Contingency				
(15% of Cost Estimate)	725,226.85	138,019.60	-	587,207.25
Sub-Total 2	5,560,072.55	1,058,150.30	-	4,501,922.25
Engineering & Consultancy services				
Engineering cost for Final Design (see attached)	-	N/A	-	
Supervision of Works (8% of Sub-Total 2)	360,000.00	N/A	-	360,000.00
TOTAL INVESTMENT COST ($)	**5,920,072.55**	**1,058,150.30**	-	**4,861,922.25**
TOTAL INVESTMENT COST EIB (€) *(1€=1,1 $)*				**4,419,929.32**

Albania - Integrated Water and Ecosystems Management Project WASTEWATER TREATMENT PLANTS SUB-COMPONENT COST BREAKDOWN				
	WWTP COST BREAKDOWN			
	Cost Estimate	Land, Tax&Duty	Cost without tax&Duties	
	$	Goa ($)	GEF ($)	EIB ($)
Durres				
1)-GOA (US$)				
1.1)-Land (including tax and duties)	**293,900.00**	**293,900.00**		
2)-Cost for GEF component (US$)				
Cost (without taxes and duties):				
2.1)-Free Water Surface Wetland	2,030,300.00			
Total cost for GEF component (US$)	**2,030,300.00**		**2,030,300.00**	
2.2)-Taxes and duties GEF component	**406,100.00**	**406,100.00**		
3)-Cost for EIB component ($)				
Cost (without taxes and duties):				
3.1)-WWTP				
(i)-Flow measurement & Bar racks	79,800.00			
(ii)-Aerated grit chamber	54,800.00			
(iii)-Division unit	56,400.00			
(iv)-Aeration tank (two-line)	2,455,800.00			
(v)-Secondary settlement tank (two-line)	1,863,200.00			
(vi)-Operational Building	69,300.00			
Total for EIB component	**4,579,000.00**			**4,579,000.00**
3.2)-Taxes and duties EIB component	**926,800.00**	**926,800.00**		
Total Cost WWTP for Durres	**8,235,900.00**	**1,626,800.00**	**2,030,300.00**	**4,579,000.00**
Lezha & Shengjin				
1)-GOA				
1.1)-Land (including tax and duties)	**193,300.00**	**193,300.00**		
2)-Cost for GEF component (US$)				
Investment cost (without taxes and duties):				
2.1)-CTW "Fully natural solution"	603,900.00			
Total Cost for GEF component (US$)	**603,900.00**		**603,900.00**	
2.2)-Taxes and duties GEF component	**120,800.00**	**120,800.00**		
3)-Cost for EIB component ($)				
Investment cost (without taxes and duties):				
3.1)-Pre-treatment facilities & Aerated oxidation pond:				
(i)-Flow measurement & Bar racks	36,300.00			
(ii)-Aerated grit chamber	20,200.00			
(iii)-Aerated Oxidation Pond	161,100.00			
(iv)-Operational Building	24,200.00			
Total for EIB component	**241,600.00**			**241,600.00**
3.2)-Taxes and duties EIB component	**70,900.00**	**70,900.00**		
Total Cost WWTP for Lezhe&Shengjin	**1,230,300.00**	**385,000.00**	**603,900.00**	**241,600.00**
Saranda				
1)-GOA				
1.1)-Land (including tax and duties)	**193,300.00**	**193,300.00**		
2)-Cost for GEF component (US$)				
Cost (without taxes and duties)				
2.1)-CTW "Fully natural solution"	555,600.00			
Total cost for GEF component (US$)	**555,600.00**		**555,600.00**	
2.2)-Taxes and duties GEF component	**111,200.00**	**111,200.00**		
3)-Cost for EIB component ($)				
Cost (without taxes and duties):				
3.1)-Pre-treatment facilities & Aerated oxidation pond:				
(i)-Flow measurement & Bar racks	52,400.00			
(ii)-Aerated grit chamber	28,800.00			
(iii)-Aerated oxidation pond	128,900.00			
(iv)-Operational Building	32,300.00			
Total for EIB component	**242,100.00**			**242,100.00**
3.2)-Taxes and duties EIB component	**70,300.00**	**70,300.00**		
Total Cost WWTP for Saranda	**1,172,300.00**	**374,800.00**	**555,600.00**	**242,100.00**
Sub-Total 1 ***Construction Works Cost Estimate***	**10,638,500.00**	**2,386,600.00**	**3,189,800.00**	**5,062,700.00**
Physical Contingency *(15% of Cost Estimate)*	1,595,775.00	357,990.00	478,470.00	759,405.00
Sub-Total 2	12,234,275.00	2,744,590.00	3,668,270.00	5,822,105.00
Engineering & Consultancy services				
Engineering cost for Final Design	N/A	N/A	N/A	N/A
Supervision of Works (8% of Sub-Total 2 GEF+EIB)	765,000.00	N/A	300,000.00	465,000.00
TOTAL INVESTMENT COST	**12,999,275.00**	**2,744,590.00**	**3,968,270.00**	**6,287,105.00**

Project Component 2 - Environmental Management and Monitoring - US$0.70 million

(Total: US$0.70 million; GEF: US$0.70 million)

The component will assist the Ministry of Environment and the Ministry of Agriculture and Food to carry out the following tasks: (i) Technical assistance for the development of the Kune Vain Management Plan including a plan for stakeholder participation in management of natural resources and economic incentives for long term sustainability; (ii) Training for Kune Vain administration staff, rangers, staff from the relevant line ministries and members of NGOs on natural resource management and integrated ecosystem management; (iii) Implementation of selected priority measures identified in the Kune Vain management plan and other measures that improve the environmental conditions of the receiving waterways; and (iv) Design and implement a monitoring program for water quality and biodiversity indicators in the Kune Vain Managed Reserve and the coastal areas impacted by the project (including provision of technical assistance and equipment as needed).

The project indicators will be monitored through the monitoring program financed under the project. This monitoring program will compliment (i) the self-monitoring of the Constructed Treatment Wetlands which will be carried out by the water utilities, which are under the management of the private operator, and (ii) the already ongoing monitoring programs carried out by the Ministry of Environment, the General Directorate of Forestry & Pastures (GDFP), the General Directorate of Fisheries (GDF) and the UNDEP under the umbrella of the Mediterranean Action Plan. The monitoring of of pollution reduction will be executed at several locations in the coastal areas and the Kune Vain Managed Reserve. In all participating areas the project evaluation will also benefit (i) from the Poverty and Social Impact Assessment which is currently ongoing for water sector issues, (ii) from the establishing of Water Consumer Panels in each city, and (iii) from the Water Sector Public Communication Program which is currently under implementation.

Project Component 3 - Public Communication and Replication - US$ 0.13 million

(Total: US$0.13 million; GEF: US$0.13 million)

This component will finance the following activities: (i) Organization of a stakeholder consultations program for the preparation and implementation of the management plan for the Kune Vain Managed Reserve; (ii) Design and implement awareness campaigns on project goals and benefits of an integrated ecosystem management, local communities' role and responsibilities in managing natural resources including payment of environmental services (partly covered by IDA project); (iii) Organization of training and workshops for practitioners and decision-makers on the technical, economic and environmental benefits of constructed wetlands and integrated ecosystem management; (iv) Design and implementation of an environmental education and communication program for local communities; (v) Design and implementation of a pilot teacher's training program in ecology and environmental education in selected schools; and (vi) Technical assistance to develop a replication strategy, including the identification of methods of information dissemination, and of repeater projects. These activities are linked to the undergoing Public Communication program of the MoTAT, financed under the IDA credit, as well as the communication and consumer relation program of the private operator.

The GEF funds will also finance the dissemination of the project's findings to other cities of the region and investigations to expand the project's approach. The proposed project design has a high potential for replication in Albania. Natural wastewater treatment using Constructed Treatment Wetlands may become a demonstration area for similar projects in Albania as well as other developing countries of the Mediterranean region.

Project Component 4 - Project Management, Monitoring and Evaluation - US$0.08 million

(Total: US$0.080 million; GEF: US$0.080 million)

This component will support a Project Implementation Unit (PIU) within the Ministry of Territorial Adjustment and Tourism (MoTAT) to implement and monitor the activities under the project. The project will use the current World Bank Water PIU which is already successfully implementing the Water Supply Urgent Rehabilitation Project and the Municipal Water and Wastewater Project. The PIU will have full responsibility for: (i) procurement, financial management and disbursement related to the activities funded by the GEF grant and the EIB loan; (ii) financial management reporting for the overall project; (iii) monitoring-evaluation and reporting for the overall project implementation; and (iv) coordination with local stakeholders. The GEF funds will also be used to complement the PIU with adequate technical expertise in constructed wetlands, biodiversity conservation and ecosystem management. Possibilities for further integrating the project management into Government structures will be explored during implementation, in line with efforts by the Bank to this end across the broader portfolio. To achieve this, TA and training can be provided to the Ministry of Environment and the Ministry of Agriculture and Food.

Annex 3: Estimated Project Costs

ALBANIA: Integrated Water & EcoSystems Management

Project Cost By Component	Local US $million	Foreign US $million	Total US $million
1. Sewage Pollution Reduction	0.00	0.00	0.00
1.a Wastewater Treatment Facilities	0.58	9.02	9.60
1.b Sewerage	0.00	4.27	4.27
2. Environmental Management and Monitoring	0.00	0.62	0.62
3. Public Communication and Replication	0.00	0.09	0.09
4. Project Management, Monitoring & Evaluation	0.00	0.07	0.07
Taxes and Duties	3.30	0.00	3.30
Total Baseline Cost	3.88	14.07	17.95
Physical Contingencies	0.07	1.30	1.37
Price Contingencies	0.03	0.65	0.68
Total Project Costs[1]	3.98	16.02	20.00
Total Financing Required	3.98	16.02	20.00

Project Cost By Category	Local US $million	Foreign US $million	Total US $million
Goods	0.00	2.14	2.14
Works	0.00	12.60	12.60
Services	0.00	1.15	1.15
Training	0.00	0.05	0.05
Incremental Operating Costs	0.00	0.08	0.08
Lands	0.68	0.00	0.68
Taxes and Duties	3.30	0.00	3.30
Total Project Costs[1]	3.98	16.02	20.00
Total Financing Required	3.98	16.02	20.00

[1] Identifiable taxes and duties are 3.3 (US$m) and the total project cost, net of taxes, is 16.7 (US$m). Therefore, the project cost sharing ratio is 0% of total project cost net of taxes.

Annex 4
STAP Review
ALBANIA: Integrated Water & EcoSystems Management

STAP Review of the GEF Project component

GOVERNMENT OF ALBANIA: INTEGRATED WATER & ECOSYSTEMS MANAGEMENT

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Scientific and technical soundness

The detail provided on the operational design of constructed treatment wetlands was limited, but the scientific and technical basis of using wetlands to reduce the level of sewage pollution contaminants flowing through to environmental waterways is sound. The project is linked with the Bank's Municipal Water and Wastewater Project and addresses the critical issue of reducing nutrient pollution resulting from untreated discharges from the cities of Durres, Lezha and Saranda.. It makes an important environmental linkage by also addressing the preparation and implementation of an effective Management Plan for Kune-Vain natural reserve.

The basic premise is to implement environmentally sustainable natural wastewater treatment and link this with improved management and monitoring of areas with globally important biodiversity. If successful it will address an important element of the environment/poverty linkage and should contribute to building national awareness of the importance and benefits of addressing environmental issues.

The proposal is also linked with the EU PHARE financed Karavasta Lagoon – Wetland Management Project and the UNDP GEF project on Conservation of Wetland and Coastal Ecosystems in the Mediterranean Region. It also links with the Mediterranean Action Plan (MAP) funded and coordinated by the United Nation Environment Program (UNEP) and within MAP to the Program for the Assessment and Control of Pollution in the Mediterranean Region More broadly, it builds upon and should extend the practical demonstration of implementation and benefits of comparable pollution reduction projects being undertaken in catchments draining into the Baltic and Black Seas.

Global environment benefits and costs

Nutrient pollution of enclosed seas has been identified as an environmental issue of global significance. Major changes in the Adriatic Sea have been attributed to very high levels of eutrophication with impacts on the habitats of endangered species and biological diversity generally. If this project achieves its objectives it will have clear benefits in addressing a significant source of nutrient pollution of the Adriatic Sea from Albania.

The context of GEF goals and guidelines

The project clearly addresses the issues of surface water contamination within the context of environmental-poverty linkages. It should bring early benefits through improvements to public health and the living conditions of some of the poorest people. With adequate attention to information and education it should help to generate understanding of the social and economic importance of the benefits of good environmental management.

The project is consistent with the objectives GEF Operational Programs No.2 *Coastal, Marine, and Freshwater Ecosystems*; Number 8, "*Waterbody Based Operational Program"*, which focuses "on seriously threatened water-bodies and the most important trans-boundary threats to their ecosystems". No.9 *Integrated Land and Water Multiple Focal Area*; No.10 *Contaminated-Based* and No.12 *"Integrated Land and Water Multiple Focal Areas Operational Program"*. It applies the guidelines with respect to incremental costs and the log-frame.

Regional Context

The project is important in the context of addressing eutrophication and other pollution related threats to the **Adriatic** and **Ionian** Seas.

Replicability

This project builds on experience of projects addressing conservation and management of wetlands in catchments draining into the Black and Mediterranean Seas. It is replicating and extending this experience in the socioeconomic context of the development of Albania. The clearly stated intention in the design concept is that this will develop experience and capacity to replicate similar practices in other catchments draining into the Adriatic and Ionian Seas. The proposal addresses survey and selection of sites for replication.

Sustainability

The use of constructed treatment wetlands is part of a longer term strategy of progressing from the current situation of discharge of untreated sewage into marine and riverine waterways to advanced water treatment. It will bring some immediate environmental improvements.

In the longer term as the financial situation of the water cycle companies is stabilized the strategy envisages investment in secondary treatment facilities with the constructed and natural wetlands operating to provide advanced tertiary treatment with an increasing range of benefits from flows of unpolluted waters. Progress beyond this project to the complete treatment cycle will depend on community willingness to pay the consequent water and sewage charges. This in turn will depend upon demonstration to the community and continuing appreciation by decision-makers of the economic, environmental and social benefits of high quality management of water and sewage, and of the Kune-Vaine protected wetland.

Contribution to future strategies and policies

As discussed above, success with this project should contribute to the broader adoption of high quality water and sewage management and protection of environmentally significant wetlands in Albania.

Involvement of stakeholders

The project proposal recognizes that at this stage of its development:

"*environmental problems in Albania, like in most other transition countries, still take a secondary place in the order of priorities "*

and that Albania:

"*lacks a politically active and environmental conscious elite to actively steer the country toward an environmentally conscious development".*

To achieve extension needed to secure the long term benefits of this project will require:

"*decentralized and financially self sufficient management units with a strong involvement of local civil society."*

A key element for the future is willingness to pay. In this case that will depend on awareness of the social, economic and environmental benefits of water treatment and wetland management and of the costs of failure to manage.

The proposal indicates that

"the rationale, benefits and objectives of the project should be made known to all stakeholders through effective public awareness programs. The benefits of sustainable wastewater treatment need to be demonstrated and the results widely disseminated."

There is no discussion of approaches to achieve this beyond:

" it is expected that consultation with beneficiaries will be on a continuous basis during project implementation through public relations campaigns conducted by the private operator under the Municipal Water and Wastewater Project."

There is no provision for community or school based education in this process and this is a significant issue given the critical importance of developing the necessary understanding to achieve long term willingness to pay. Other environmental projects have demonstrated the benefits of accelerating the acceptance of information into communities through school children having good information and discussing it within family groups and through encouragement of discussion through local activities in the media, cultural and community groups.

Risk assessments

To the extent that I can judge, being unfamiliar with the field operating situation, the risks seem to be reasonably discussed and I generally concur with the assessments. In particular the identification of willingness to pay as a substantial risk suggests that, as discussed above, a more deliberate and costly education strategy would strengthen to the proposal.

Costs

I have insufficient operational experience in the target area to make substantial comment on the detail of funding allocations. However the budget for replication is very small $100K out of $5.5 million GEF or

almost $13 million total. Given that replication funding will in any case be used for identifying and surveying additional sites for replication there is no effective provision for education in this item. It may be subsumed under another heading but that is not apparent. In the light of comments above on the role of school and community education in development of willingness to pay I would suggest that the design team consider making clear provision for an education component of the program.

Conclusion

This is an important project addressing the issues of sewage pollution, wetland in ways that reasonably reflect the operating constraints of the transitional status of Albania. Subject to adequacy of provisions for education as a means to address immediate and longer term willingness to pay I recommend that it should proceed.

R A Kenchington
RAC Marine Pty Ltd
1 March 2003

World Bank Response to STAP Reviewer Comments

The STAP Reviewer recognizes the importance of the project in addressing the issues of sewage pollution in coastal areas and the Kune-Vain tidal marshland. He further concludes that the project reasonably reflects the operating constraints of the transitional status of Albania. He points out the important environmental linkage aimed to promote and improve the management of the natural protected area of Kune-Vain. Also, he judges the risks assessment reasonably discussed and evaluated.

Nevertheless, the STAP reviewer emphasizes the critical importance of developing the necessary willingness to pay which in turn represent a key element for the future sustainability of the project. In particular he points out the lack of an education component in the project that would help to develop the necessary understanding towards the concepts of environmental protection and cost recovery and therefore to strengthen the willingness to pay of the communities.

As correctly noticed by the STAP Reviewer this project is linked with the Bank's Municipal Water and Wastewater Project (MWWP) of which is an integral part. The project benefits from the results of the socio-economic analysis carried out and the institutional and implementation arrangements established under the MWWP. The MWWP aims to increase the sustainability of water supply and sanitation services through the involvement of the private sector and the associated improvements in financial and operational management. On the other hand the presence of a knowledgeable international operator will contribute to create the local capacity in operating and managing the constructed treatment wetlands. According to the social assessment the willingness to pay is high. Most households are willing to pay the new tariff. In addition, almost all households are willing to pay the monthly fee to connect to the central sewage system and to receive septic-tank cleaning service. Preliminary financial calculations show that the wastewater treatment will increase the sewage tariff by only 2-5 cents/m3 and therefore will not have a negative impact on the willingness to pay. Furthermore the MWWP pays attention in establishing mechanisms that increase public awareness. Public communications activities, awareness campaigns on water and sanitation services and the need to pay for them are part of the contractual obligations of the operator. The project will also sponsor the establishment of a Consumer Panel (CP) to enable those who use water to interact directly with the management and to channel constructive suggestions back to the utilities.

The measures taken in the MWWP are to be considered a sufficient direct contribution to create the required public awareness and to guarantee the understanding of the principles of sustainability also for this project. Nevertheless the recommendations of the STAP Reviewer have been taken in consideration and the PAD has been revised and, subject to the GEF approval, the replication promotion component has been expanded to incorporate an education program aimed to accelerate the acceptance of the new concept of sustainable management into communities through dissemination of information in the schools and encouragement of discussion through local activities in the media, cultural and community groups.

The STAP Reviewer questioned on the implementation of a basic monitoring system of the coastal areas. Albania is among the contracting parties to the Barcelona "Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean", which revised in 1995 the "Convention for the Protection of the Mediterranean Sea against Pollution" , of 1977, still in force. Albania and the other contracting parties to the Barcelona Convention are also part of a comprehensive Mediterranean Action Plan (MAP) funded and coordinated by the United Nation Environment Program (UNEP) which, among others, has the objective to protect the Mediterranean Sea against chronic or accidental pollution. Under the responsibility of the Secretariat of the Mediterranean Action Plan one of the activities implemented under the MAP is the Program for the Assessment and Control of Pollution in the Mediterranean Region

(MED POL) for which a program to monitor marine pollution is carried out on regular basis for identified pollution "hot spots". For Albania the Faculty of Natural Science of the University of Tirana is implementing the program of collecting and analyzing environmental indicators. In addition the project will finance the establishment of a monitoring program for water quality, biodiversity and socio-economic indicators within the protected areas and the coastal zones involved in the project.

The STAP Reviewer asked clarifications on the criteria and budget for the decision making mechanism for the management of natural resources at the municipality and community level. According to the action plan that the Government is implementing towards an integrated and sustainable management of the protected areas, the Ministry of Environment and the General Directorate of Forestry and Pastures will establish a new administration and management board for Kune-Vain. This Board will include among others representatives of the Municipalities and Communes, civil society and a formal representation of the users of the KV Managed Area. It is proposed that the administrative entity for the KVMA should be established under the budget of the General Directorate of Forestry and Pasture.

Annex 5: Financial Summary

ALBANIA: Integrated Water & EcoSystems Management

ANNEX 5, TABLE 1: PROJECT COST AND FINANCING
(US$ million)

	2004	2005	2006	2007	Total
Project Costs					
Investment costs	2.28	6.84	6.84	6.84	**22.79**
Technical assistance	0.11	0.33	0.33	0.33	**1.09**
Total Project Costs	**2.39**	**7.16**	**7.16**	**7.16**	**23.88**
Total Project Financing Required	**2.39**	**7.16**	**7.16**	**7.16**	**23.88**
Project Financing Provided					
GEF grant	0.49	1.46	1.46	1.46	4.87
EIB	1.37	4.12	4.12	4.12	13.73
Central Government	0.53	1.58	1.58	1.58	5.28
Total Project Financing	**2.39**	**7.16**	**7.16**	**7.16**	**23.88**

ANNEX 5, TABLE 2: SUMMARY OF FINANCIAL PERFORMANCE INDICATORS

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
	Actual		Projected							
DURRES										
Domestic water tariff (Lek/m3)	21.0	21.0	35.0	43.5	53.3	65.0	70.0	77.2	77.2	77.2
Billed revenues (Lek million)	205	211	297	439	590	794	879	1083	1058	1028
Collected revenues (Lek million)	70	95	160	263	384	548	695	899	910	915
Collection ratio (%)	34	45	54	60	65	69	79	83	86	89
Cash operating expenses (Lek million)	464	400	394	477	530	569	618	598	591	601
Operating subsidy required (Lek million)			214	130	40	0	0	0	0	0
Net income before subsidy (Lek million)	-458	-392	-116	-191	-224	-130	-60	96	131	137
Working ratio	6.7	4.2	2.5	1.8	1.4	1.0	0.9	0.7	0.6	0.7
Current ratio	0.3	1.2	1.0	2.7	6.8	14.6	20.7	27.5	27.7	25.7
Receivables/collected revenues (months)	9.4	7.8	5.3	3.7	2.9	2.3	2.0	1.7	1.7	1.8
Payables/Cash operating expenses (months)	28.6	4.0	6.0	2.1	1.7	1.6	1.6	1.5	1.6	1.6
LEZHA										
Domestic water tariff (Lek/m3)	15.0	15.0	28.0	37.1	41.2	50.9	60.7	66.1	72.8	80.0
Billed revenues (Lek million)	19	19	33.8	61	81	104	129	142	157	178
Collected revenues (Lek million)	6	6	15.2	34	49	72	102	118	135	160
Collection ratio (%)	33	34	45	55	60	69	79	83	86	89
Cash operating expenses (Lek million)	43	43	62	76	79	83	88	93	95	100
Operating subsidy required (Lek million)			45	31	19	1	0	0	0	0
Net income before subsidy (Lek million)	-43	-55	-21	-32	-37	-44	-27	-26	-11	6
Working ratio	6.9	6.7	4.1	2.3	1.6	1.2	0.9	0.8	0.7	0.6
Current ratio	0.6	0.7	0.9	1.0	1.3	1.7	4.0	6.8	9.3	12.6
Receivables/sales revenues (months)	11.0	11.9	5.7	3.1	2.5	2.0	1.5	1.5	1.4	1.2
Payables/Cash operating expenses (months)	1.5	1.1	1.2	1.0	1.0	1.0	1.0	1.0	1.1	1.1
SARANDA										
Domestic water tariff (Lek/m3)	15.0	15.0	30.0	31.8	34.9	37.3	40.3	46.8	51.5	56.7
Billed revenues (Lek million)	13	13	27	48	68	75	85	101	115	130
Collected revenues (Lek million)	4	5	10	24	40	52	67	84	99	116
Collection ratio (%)	33	34	39	49	59	69	79	83	86	89
Cash operating expenses (Lek million)	27	27	53	64	73	78	85	91	94	91
Operating subsidy required (Lek million)	0	0	41	32	21	16	0	0	0	0
Net income before subsidy (Lek million)	-27	-27	-46	-45	-38	-32	-25	-19	-7	13
Working ratio	6.2	6.1	5.0	2.7	1.8	1.5	1.3	1.1	0.9	0.8
Current ratio	0.6	0.6	0.7	0.9	1.4	2.1	2.6	3.1	3.5	5.4
Receivables/revenues (months)	4.7	5.1	2.7	1.7	1.4	1.5	1.5	1.4	1.3	1.2
Payables/cash operating expenses (months)	5.0	5.4	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0

ANNEX 5, TABLE 3: DURRES W & S COMPANY - PROJECTED FINANCIAL STATEMENTS
(000 Lek)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
	Actual			Projected							
INCOME STATEMENTS											
Revenues											
Water - domestic metered	14862	15722	16324	36551	84762	214108	436156	593635	734948	712610	688127
Water domestic - unmetered	128509	135944	140840	203684	243788	227811	170687	73566	71279	50732	31979
Water - industry and institutions	37756	39940	39940	47260	55458	61863	71740	72017	70549	57372	44308
Water - bulk supply and other	12762	13500	13500	2700	27801	17029					
Sewerage - domestic				1356	15838	53210	93859	118811	178616	210250	238609
Sewerage - industry and institutions				5661	11026	16151	22053	21442	27797	27352	24813
Total billed revenues	**193889**	**205107**	**210604**	**297213**	**438674**	**590171**	**794495**	**879471**	**1083189**	**1058317**	**1027836**
Collection ratio (%)	33	34	45	54	60	65	69	79	83	86	89
Total collected revenues	**63983**	**69736**	**94772**	**160495**	**263204**	**383611**	**548202**	**694782**	**899047**	**910152**	**914774**
Expenses											
Electricity	142270	168500	177950	188679	196216	205967	228212	254758	254277	253311	249825
Personnel	73583	92951	101539	106616	79181	81172	83020	85359	89740	94305	99050
Chemicals and materials	28450	29871	32809	31165	32887	35757	36953	37589	35855	33596	32856
Repairs & maintenance	12624	13299	20259	27356	34625	44168	53926	54921	55915	56560	57204
Management fees				18700	42000	88700	93300	102700	70000	70000	70000
Severance payments				0	41933	18612	11281	13477	15425		
Contingencies and other cash expenses	14663	16000	17600	21120	50000	56114	62727	69213	76305	83626	91678
Total cash operating expenses	**271590**	**463953**	**400498**	**393637**	**476842**	**530490**	**569419**	**618016**	**597517**	**591398**	**600612**
Depreciation	60000	60000	60000	62181	69693	93835	121189	145816	162757	166818	168714
Provision for bad debt	228266	126653	130048	172235	212538	229872	233979	175454	164645	110594	68351
Total operating expenses	**559856**	**650606.5**	**590546**	**628053**	**759072**	**854197**	**924587**	**939286**	**924919**	**868810**	**837678**
IDA debt interest and financial charges (at 1.50%)	12180	12180	12180	29851	31357	35122	39196	42440	43086	39711	34423
Less: capitalized amount			-12180	-29851	-31357	-35122	-39196	-42440			
Net charges on IDA debt	12180	12180	24360						43086	39711	34423
EIB loan interest and financial charges to the Government (at 4.85%)					1036	15538	34183	52829	62151	62151	62151
Interest subsidy from Govt. to DWSC					715	10732	23611	36490	42929	42929	42929
EIB subloan interest charges to DWSC (at 1.50%)					320	4806	10572	16339	19222	19222	19222
Less: capitalized amount					-320	-4806	-10572	-16339			
Net interest charges on EIB subloan									19222	19222	19222
Non-operational income	4103										
Net income before operational subsidy	**-374044**	**-457680**	**-392122**	**-330839**	**-320398**	**-264026**	**-130092**	**-59816**	**95963**	**130574**	**136513**
Operational subsidy				214442	129704	39567					
Net income after operational subsidy	**-374044**	**-457680**	**-392122**	**-116398**	**-190694**	**-224459**	**-130092**	**-59816**	**95963**	**130574**	**136513**
BALANCE SHEETS											
Assets											
Gross accounts receivable	276398	409717	546610	727910	951634	1193604	1439897	1624586	1797896	1914311	1986260
Less: Provisions for bad debt	228266	354919	484967	657202	869740	1099611	1333590	1509045	1673689	1784284	1852635
Net accounts receivable	48132	54798	61643	70708	81894	93992	106307	115541	124207	130028	133625
Inventories	137185	141301	145540	149906	154403	159035	163806	168720	173782	178995	184365
Other current assets					307160	962727	1616443	2296326	2333784	2141724	1958553
Total current assets	**185317**	**196099**	**207182**	**220613**	**543457**	**1215754**	**1886556**	**2580587**	**2631773**	**2450747**	**2276543**
Gross fixed assets	4126032	4126032	4126032	4155883	4724492	5728571	6659556	7571106	7805776	7932227	8058677
Less: Accumulated depreciation	1375344	1435344	1495344	1557525	1627218	1721053	1842242	1988058	2150814	2317632	2486347
Net fixed assets	2750688	2690688	2630688	2598358	3097275	4007518	4817314	5583049	5654962	5614594	5572331
Total assets	**2936005**	**2886787**	**2837870**	**2818971**	**3640731**	**5223273**	**6703870**	**8163636**	**8286734**	**8065341**	**7848874**
Liabilities and equity											
Accounts payable	646430	154651	200249	68401	68123	70911	77293	79734	80504	80979	80594
Other payables	8069	13784	11899	12193	12144	12641	13778	14214	14351	14435	14367
Other current liabilities											
Total current liabilities	**654499**	**168435**	**212148**	**80594**	**80267**	**83552**	**91072**	**93948**	**94855**	**95414**	**94960**
IDA subloans (including capitalized interest)	1624000	1624000	1636180	1681456	1980247	2367806	2664602	2921083	2823667	2471141	2118615
EIB subloan (including capitalized interest)					128468	517715	912728	1313508	1313508	1313508	1313508
Total liabilities	**2278499**	**1792435**	**1848328**	**1681456**	**2108715**	**2885520**	**3577331**	**4234591**	**4137176**	**3784650**	**3432124**
GEF grant					31200	124799	218398	311998	311998	311998	311998
Capital and reserves	1031550	1926075	2213388	2397165	2951488	3884798	4702557	5468404	5592048	5592048	5592048
Retained earnings	-374044	-831724	-1223846	-1223846	-1340243	-1530937	-1755397	-1885488	-1945304	-1849342	-1718768
Current year profit/loss				-116398	-190694	-224459	-130092	-59816	95963	130574	136513
Total equity	**657506**	**1094351**	**989542**	**1056922**	**1451750**	**2254200**	**3035467**	**3835097**	**4054704**	**4185277**	**4321790**
Total liabilities and equity	**2936005**	**2886787**	**2837870**	**2818971**	**3640731**	**5223273**	**6703870**	**8163636**	**8286734**	**8065341**	**7848874**
SOURCES AND APPLICATIONS OF FUNDS											
Sources											
Net income (before subsidy, mgmt. fees, sev. pmts, & interest)				-312139	-236465	-156714	-25511	56361	243695	259507	260158

ANNEX 5, TABLE 4: LEZHA W & S COMPANY - PROJECTED FINANCIAL STATEMENTS
(000 Lek)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
	Actual			Projected							
INCOME STATEMENTS											
Revenues											
Water - domestic metered				1216	14021	32017	58392	93092	112079	128917	148405
Water domestic - unmetered	11597	10940	10940	20861	28921	27615	21121	8533	3765	3139	2337
Water - industry and institutions	7895	7448	7448	9140	11666	11797	12894	13882	11576	9970	10967
Water - bulk supply and other	232	219	219	1480	1480	1500	1520	1540	1540	1560	1580
Sewerage - domestic				189	2649	5956	7530	9216	10617	11050	12513
Sewerage - industry and institutions				906	2258	2475	2561	2621	2278	1972	2191
Total billed revenues	**19724**	**18607**	**18607**	**33793**	**60995**	**81360**	**104019**	**128883**	**141854**	**156609**	**177992**
Collection ratio (%)	32	33	34	45	55	60	69	79	83	86	90
Total collected revenues	**6312**	**6140**	**6327**	**15207**	**33547**	**48816**	**71773**	**101818**	**117739**	**134684**	**160193**
Expenses											
Electricity	17142	21450	22828	30960	32384	34343	36823	38897	42476	46397	50269
Personnel	15872	16700	17321	17754	17754	17754	17754	17754	18286	18835	19400
Chemicals and materials	1019	1720	1933	2789	2789	2789	2789	2789	2873	2959	3048
Repairs & maintenance	400	440	490	1018	3119	4448	5923	7341	7676	7909	8041
Management fees				1679	3712	7866	8219	9103	9103	9103	9103
Severance payments				0	7756	3313	2187	2738	3229		
Contingencies and other cash expenses				8000	8400	8759	9197	9434	9672	9836	9927
Total cash operating expenses	**34433**	**42509**	**42572**	**62200**	**75913**	**79271**	**82892**	**88056**	**93314**	**95038**	**99788**
Depreciation	8735	7415	19842	19851	22023	27824	34900	41688	45274	45508	45508
Provision for bad debt	0	11844	11667	17657	26076	30917	30633	25712	22909	20829	20291
Total operating expenses	**43168**	**61767**	**74080**	**99708**	**124011**	**138012**	**148426**	**155456**	**161497**	**161376**	**165587**
IDA debt interest and financial charges (at 1.50%)				470	576	885	1227	1496	1807	1966	1993
Less: capitalized amount				-470	-576	-885	-1227	-1496			
Net charges on IDA debt				0	0	0	0	0	1807	1966	1993
EIB loan interest and financial charges to the Government (at 4.85%)				0	693	3466	7624	11783	13862	13862	13862
Interest subsidy from Govt. to LWSC				0	479	2394	5266	8139	9433	9369	9305
EIB subloan interest and financial charges to LWSC (at 1.50%)				0	214	1072	2358	3644	4429	4493	4557
Less: capitalized amount				0	-214	-1072	-2358	-3644			
Net interest charges on EIB subloan				0	0	0	0	0	4429	4493	4557
Net income before operational subsidy	-23444	-43160	-55473	-65915	-63016	-56652	-44407	-26573	-25879	-11225	5855
Operational subsidy				45314	30898	19276	713				
Net income after operational subsidy	**-23444**	**-43160**	**-55473**	**-20601**	**-32118**	**-37375**	**-43694**	**-26573**	**-25879**	**-11225**	**5855**
BALANCE SHEETS											
Assets											
Gross accounts receivable	5016	17483	29764	48350	75798	108342	140588	167653	191768	213694	235053
Less: Provisions for bad debt	0	11844	23510	41167	67243	98160	128793	154505	177415	198244	218535
Net accounts receivable	5016	5639	6253	7183	8555	10182	11795	13148	14354	15450	16518
Inventories	223	339	381	571	886	1013	1133	1216	1266	1304	1331
Other current assets				3371	4029	6691	12341	46743	93610	143259	209923
Total current assets	**5239**	**5979**	**6634**	**11125**	**13471**	**17886**	**25268**	**61107**	**109230**	**160013**	**227772**
Gross fixed assets	170021	268056	558410	558880	666970	848932	1020788	1188332	1200066	1200066	1200066
Less: Accumulated depreciation	34004	41419	61261	81112	103135	130959	165859	207547	252820	298328	343837
Net fixed assets	136017	226637	497149	477768	563835	717973	854929	980785	947246	901738	856230
Total assets	**141256**	**232616**	**503783**	**488893**	**577305**	**735860**	**880198**	**1041892**	**1056476**	**1061751**	**1084002**
Liabilities and equity											
Accounts payable	6309	7789	7095	10087	10741	11349	12081	12703	13497	14323	15114
Other short term payables	1953	2411	2415	2985	2825	2612	2383	2506	2662	2825	2981
Other current liabilities											
Total current liabilities	**8262**	**10200**	**9510**	**13071**	**13566**	**13961**	**14464**	**15208**	**16159**	**17148**	**18096**
IDA debt (including capitalized interest)				2149	27449	61414	87670	110876	130109	131965	133821
EIB subloan (including capitalized interest)				0	28796	115613	203716	293105	297392	301679	305966
Total liabilities	**8262**	**10200**	**9510**	**15221**	**69811**	**190987**	**305850**	**419189**	**443660**	**450792**	**457883**
GEF grant				**0**	**9280**	**37119**	**64958**	**92798**	**92798**	**92798**	**92798**
Capital and reserves	132994	245860	560877	560877	617538	664451	709782	756870	772863	782232	791537
Retained earnings	0	-23444	-66604	-66604	-87205	-119323	-156698	-200392	-226965	-252844	-264070
Current year profit/loss	-23444	-43160	-55473	-20601	-32118	-37375	-43694	-26573	-25879	-11225	5855
Total equity	132994	222416	494273	473672	498215	507753	509390	529905	520019	518162	533321
Total liabilities and equity	**141256**	**232616**	**503783**	**488893**	**577305**	**735860**	**880198**	**1041892**	**1056476**	**1061751**	**1084002**
SOURCES AND APPLICATIONS OF FUNDS											
Sources											
Net income (before subsidy, mgmt. fees, sev. pmts, & interest)				-63766	-50973	-44588	-32774	-13236	-11739	-157	16951
Add: Depreciation				19851	22023	27824	34900	41688	45274	45508	45508
Add: Provision for bad debt				17657	26076	30917	30633	25712	22909	20829	20291

ANNEX 5, TABLE 5: SARANDA W & S COMPANY - PROJECTED FINANCIAL STATEMENTS
(000 Lek)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
	Actual			Projected							
INCOME STATEMENTS											
Revenues											
Water - domestic metered				908	10648	26870	43382	64197	82443	94738	108989
Water domestic - unmetered	6538	6731	6731	17597	27068	27937	18454	6760	3180	2647	1966
Water - industry and institutions	3494	3450	3450	5620	5559	5578	5381	5272	5235	5836	6425
Water - bulk supply and other	2600	3099	3099	1960	1960	1980	2000	2020	2040	2060	2100
Sewerage - domestic				202	1871	4226	5099	6132	7428	8410	9541
Sewerage - industry and institutions				574	958	1037	1017	1012	1030	1134	1268
Total billed revenues	**12632**	**13280**	**13280**	**26861**	**48064**	**67627**	**75332**	**85392**	**101355**	**114825**	**130290**
Collection ratio (%)	32	33	34	39	49	59	69	79	83	86	89
Total collected revenues	**4042**	**4382**	**4515**	**10476**	**23551**	**39900**	**51979**	**67460**	**84125**	**98749**	**115958**
Expenses											
Electricity	5926	8081	8081	21285	22922	26122	29302	31860	33564	34394	30836
Personnel	10880	17406	17406	17841	17841	17841	17841	17841	18387	18947	19421
Chemicals and materials	2082	1889	1889	5417	5417	5417	5417	5417	5942	6480	6642
Repairs & maintenance				671	2362	3614	4961	6414	6845	7205	6804
Management fees				1679	3712	7866	8219	9103	9103	9103	9103
Severance payments				0	5277	3675	1972	2175	2353		
Contingencies and other cash expenses				6000	6630	8083	10043	12415	15006	17623	17800
Total cash operating expenses	**18888**	**27376**	**27376**	**52894**	**64162**	**72617**	**77756**	**85225**	**91201**	**93753**	**90605**
Depreciation	4700	4700	4700	4700	5282	6555	7694	8464	9022	9257	9257
Provision for bad debt	0	8452	8326	15566	23287	26341	22185	17036	16369	15272	13615
Total operating expenses	**23588**	**40529**	**40402**	**73159**	**92731**	**105514**	**107635**	**110725**	**116592**	**118282**	**113478**
IDA debt Interest and financial charges (at 1.50%)				13	214	652	1095	1454	1795	1927	1927
Less: capitalized amount				-13	-214	-652	-1095	-1454			
Net interest on IDA debt				0	0	0	0	0	1795	1927	1927
EIB loan interest and financial charges to the Govt. (at 4.85%)				0	106	1596	3511	5425	6383	6383	6383
Interest subsidy from Govt. to SWSC				0	73	1102	2425	3747	4409	4409	4409
EIB subloan interest and financial charges to SWSC (at 1.50%)				0	33	494	1086	1678	1974	1974	1974
Less: capitalized amount				0	-33	-494	-1086	-1678			
Net interest on EIB subloan to SWSC				0	0	0	0	0	1974	1974	1974
Net income before operational subsidy	**-10957**	**-27249**	**-27123**	**-46298**	**-44666**	**-37887**	**-32303**	**-25333**	**-19006**	**-7357**	**12912**
Operational subsidy				40739	31621	21177	15585				
Net income after operational subsidy	**-10957**	**-27249**	**-27123**	**-5560**	**-13045**	**-16710**	**-16718**	**-25333**	**-19006**	**-7357**	**12912**
BALANCE SHEETS											
Assets											
Gross accounts receivable	5157	14054	22819	39204	63717	91444	114797	132729	149959	166035	180367
Less: Provision for bad debt		8452	16779	32345	55632	81972	104158	121193	137562	152834	166449
Net accounts receivable	5157	5602	6040	6859	8085	9471	10639	11536	12397	13201	13917
Inventories	550	1446	1446	3044	3890	4515	5189	5915	6394	6843	6723
Other current assets						5125	15559	24495	34197	42689	71031
Total current assets	**5707**	**7048**	**7486**	**9903**	**11975**	**19112**	**31387**	**41945**	**52988**	**62733**	**91672**
Gross fixed assets	198306	198306	198306	198293	276114	392618	496945	595044	606779	606779	606779
Less: Accumulated depreciation	39661	44361	49061	53761	59651	68449	80433	95237	111623	128244	144864
Net fixed assets	158645	153945	149245	144533	216463	324169	416512	499807	495156	478535	461915
Total assets	**164352**	**160993**	**156731**	**154436**	**228437**	**343282**	**447898**	**541753**	**548144**	**541269**	**553587**
Liabilities and equity											
Accounts payable	10528	11370	12280	8816	10694	12103	12959	14204	15200	15626	15101
Other short term payables	8451	630	604	1167	1416	1602	1716	1880	2012	2068	1999
Other current liabilities				4017	1227						
Total current liabilities	**18979**	**12000**	**12884**	**13999**	**13336**	**13705**	**14675**	**16084**	**17212**	**17694**	**17100**
IDA debt (including capitalized interest)				2149	27453	61426	87696	110926	128434	128434	128434
EIB subloan (including capitalized interest)				0	13193	53169	93736	134896	134896	134896	134896
Total liabilities	**18979**	**12000**	**12884**	**16149**	**53982**	**128299**	**196107**	**261906**	**280542**	**281024**	**280429**
GEF grant				0	8537	34149	59762	85374	85374	85374	85374
Capital and reserves	145373	159950	182053	182053	222728	254353	282268	310044	316805	316805	316805
Retained earnings	0	-10957	-38206	-38206	-43766	-56811	-73521	-90238	-115571	-134577	-141934
Current year profit/loss	-10957	-27249	-27123	-5560	-13045	-16710	-16718	-25333	-19006	-7357	12912
Total equity	145373	148993	143847	138287	165918	180833	192030	194473	182229	174871	187783
Total liabilities and equity	**164352**	**160993**	**156731**	**154436**	**228437**	**343282**	**447898**	**541753**	**548144**	**541269**	**553587**
SOURCES AND APPLICATIONS OF FUNDS											
Sources											
Net income (before subsidy, mgmt. fees, sev. pmts, & interest)				-44607	-35463	-25694	-21017	-12600	-5755	3672	23942
Add: Depreciation				4700	5282	6555	7694	8464	9022	9257	9257

Annex 5, Table 6: AFFORDABILITY IMPACTS

	Unit	2004	2005	2006	2007	2008	2009	2010
Durres								
monthly water consumption at 100 lpcd	m3	12.8	12.8	12.8	12.8	12.8	12.8	12.8
less: free consumption at 20 lpcd	m3	2.6	2.6	2.6	2.6	2.6	2.6	2.6
chargeable water consumption	m3	10.2	10.2	10.2	10.2	10.2	10.2	10.2
average combined water & wastewater tariff	lek/m3	52.1	67.2	85.0	90.6	107.6	111.8	115.1
monthly combined water & wastewater bill	lek	532	686	867	924	1098	1140	1174
average household affordability limit	lek	1000	1030	1061	1093	1126	1159	1194
Lezha								
monthly water consumption at 100 lpcd	m3	12.8	12.8	12.8	12.8	12.8	12.8	12.8
less: free consumption at 20 lpcd	m3	2.6	2.6	2.6	2.6	2.6	2.6	2.6
chargeable water consumption	m3	10.2	10.2	10.2	10.2	10.2	10.2	10.2
average combined water & wastewater tariff	lek/m3	43.1	49.1	60.8	71.2	77.8	84.5	91.7
monthly combined water & wastewater bill	lek	440	501	620	726	793	862	935
average household affordability limit	lek	1000	1030	1061	1093	1126	1159	1194
Saranda								
monthly water consumption at 100 lpcd	m3	12.8	12.8	12.8	12.8	12.8	12.8	12.8
less: free consumption at 20 lpcd	m3	2.6	2.6	2.6	2.6	2.6	2.6	2.6
chargeable water consumption	m3	10.2	10.2	10.2	10.2	10.2	10.2	10.2
average combined water & wastewater tariff	lek/m3	36.8	40.8	44.4	48.1	55.1	59.9	65.1
monthly combined water & wastewater bill	lek	375	416	453	490	562	611	664
average household affordability limit	lek	1000	1030	1061	1093	1126	1159	1194

Annex 6(A): Procurement Arrangements
ALBANIA: Integrated Water & EcoSystems Management

Procurement

Procurement of goods and works financed by the project will be done in accordance with World Bank Guidelines: Procurement under the IBRD Loans and IDA Credits (issued in January 1995, revised in January and August 1996, September 1997, and January 1999). Consulting services, technical assistance and training financed by the project will be procured in accordance with the Guidelines - Selection and Employment of Consultants by World Bank Borrowers, issued in January 1997, revised in September 1997, January 1999 and May 2002.

The components of the proposed Project, their estimated cost and procurement methods are summarized in Table A of this annex. The procurement methods are presented in Table B of this annex. Procurement of major contracts will be subject to prior review. Table B1 summarizes the capacity of the executive agency for this project, "MoTAT", the Ministry of Territorial Adjustment and Tourism in procurement, and the proposed arrangements for procurement and monitoring. Project coordination and management including procurement will be handled by the existing World Bank Project PIU (created under a previous IDA-supported project). The PIU was created specifically to implement IDA-financed projects and has already established a successful track record in its implementation of these projects. In addition to the current project, the PIU is implementing the IDA-financed Water Supply Urgent Rehabilitation Project and the Municipal Water and Wastewater Project. Prior to these projects, the PIU implemented the IDA-funded Durres Water Supply Rehabilitation Project. The PIU reports to the MoF and the MoTAT.

Procurement methods (Table A)

The project includes procurement of civil works, goods, and consultant services. A detailed procurement plan has been prepared and included in the Project Implementation Plan (PIP).

Procurement of Works. Civil works contracts including the supply and installation of water treatment equipment estimated to cost US$500,000 equivalent or more will be procured by International Competitive Bidding (ICB) with post qualification based on the Bank Standard Small Civil Works Document. Contracts estimated to cost less than $500,000 equivalent per contract may be procured under National Competitive Bidding (NCB) procedures [with the specific conditions added to ensure compliance with World Bank Guidelines, as described in Schedule 3, Section I Part C.1 (b) of the Draft Grant Agreement]. Other smaller contracts, with a threshold of less than US$100,000 equivalent, will be procured under Minor Works (MW) procedures.

Procurement of Goods. Goods, including equipment, estimated to cost over US$75,000 equivalent, will be procured by ICB in accordance with the Bank Standard Goods Procurement Documents. International Shopping (IS) procedures may be used for readily available goods of standard specifications estimated to cost less than US$75,000 equivalent per contract. IS procedure will require quotations from at least three (3) suppliers from two different countries. Goods, including office supplies, estimated to cost less than US$50 ,000 equivalent per contract may be procured using National Shopping procedure.

Selection Procedures for Consulting Services. Selection of Consulting Firms for services including engineering and protected area management plan elaboration estimated to cost US$150,000 equivalent or more per contract, will be done through QCBS. Selection of Consulting Firms for services including the

monitoring of the biodiversity in the Managed Reserve and the coastal environment, estimated to cost less than US$200,000 equivalent, will be done through SFB. Consultant services for technical assistance, including communication campaign and replication or dissemination services, estimated to cost less than US$100,000 equivalent, will be contracted out under CQ procedures. Consultant services estimated to cost less than US$150,000 equivalent, will be contracted out under QBS procedures. Auditing or similar standard services, estimated to cost less than US$100,000 equivalent, will be procured through LC procedures. Individual Consultants for Project management support services will be procured in accordance with the procedures set up in Section V, 5.1 to 5.4., of the Guidelines.

Table A: Project Costs by Procurement Arrangements
(US$ million equivalent)

Expenditure Category	Procurement Method[1]				
	ICB	NCB	Other[2]	N.B.F.	Total Cost
1. Works	11.55 (3.66)	0.18 (0.15)	0.06 (0.05)	3.34 (0.00)	15.13 (3.86)
2. Goods	0.00 (0.00)	0.00 (0.00)	0.26 (0.20)	2.22 (0.00)	2.48 (0.20)
3. Services	0.00 (0.00)	0.00 (0.00)	1.20 (0.68)	0.36 (0.00)	1.56 (0.68)
4. Land	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.68 (0.00)	0.68 (0.00)
5. Incremental Operating Costs	0.00 (0.00)	0.00 (0.00)	0.10 (0.08)	0.00 (0.00)	0.10 (0.08)
6. Training	0.00 (0.00)	0.00 (0.00)	0.06 (0.05)	0.00 (0.00)	0.06 (0.05)
Total	11.55 (3.66)	0.18 (0.15)	1.68 (1.06)	6.60 (0.00)	20.01 (4.87)

[1/] Figures in parentheses are the amounts to be financed by the Bank Grant. All costs include contingencies.

[2/] Includes civil works and goods to be procured through national shopping, consulting services, services of contracted staff of the project management office, training, technical assistance services, and incremental operating costs related to (i) managing the project, and (ii) re-lending project funds to local government units.

Prior review thresholds (Table B)

Contracts of a significant amount wholly or partially financed by IDA will be prior reviewed, although the PIU has extensive practical experience about the World Bank procurement. The reason for the prior review is that from a procurement angle, the country is rated as high risk. (See Table B1: Capacity Assessment). All contracts awarded through ICB will be subject to prior review by the Bank. For works, the first two NCB and the first two minor works packages will be subject to prior review. For goods, the first two IS packages will be subject to prior review. With respect to services, Bank prior review will be required of all terms of reference, irrespective of the contract value. For each contract with a consulting firm estimated to cost US$100,000 or more, the technical evaluation report will be submitted to the Bank for its review prior to the opening of the priced proposals. For contracts with individual consultants costing US$50,000 or more the qualifications, experience, terms of reference and terms of employment shall be furnished to the Bank for review prior to contract signature. All other contracts will be subject to ex-post review by the Bank.

Table B: Thresholds for Procurement Methods and Prior Review[1]

Expenditure Category	Contract Value Threshold (US$ thousands)	Procurement Method	Contracts Subject to Prior Review US$ Million
1. Works	Over 500 less than 500 less than 100	ICB NCB (3/) MW	(3.66) 11.55 (0.150) (0.05)
2. Goods	Over 75 Up to 75 Up to 50	ICB IS NS	 (0.17)
3. Services (local and foreign firms)	Over 150 Up to 200 Up to 150 Up to 100 Up to 100 less than 50	QCBS SFB QBS CQ LCS IC	(0.450) 1.2 (0.100) (0.130) (0.050)
4. Miscellaneous			
5. Miscellaneous			
6. Miscellaneous			

Total value of contracts subject to prior review: 12.38MUS$

Overall Procurement Risk Assessment: **High**

Frequency of procurement supervision missions proposed: One every twelve months (includes special procurement supervision for post-review/audits)

3/ Borrower has confirmed that Works under NCB procedures shall be launched using IDA 's ECA Regional Sample Bidding Documents.

Table B1: Capacity of the Implementing Agency in Procurement and Technical Assistance Requirements

The PIU, under the Ministry of Territorial Adjustment and Tourism, was first established in 1994 under the Durres Water Supply Rehabilitation Project, which continued (1999) in its official capacity for the on-going Water Supply Urgent Rehabilitation Project, and in 2001 the ongoing Municipal Water and Wastewater Project was added. The above mentioned PIU will be in charge also for the overall coordination of this GEF project. The PIU has one full time procurement and contract coordination officer under the supervision of the PIU Director and one additional technical staff. They will be assisted by international technical and financial auditors. This PIU have gained international experience with the Bank procurement procedures through the above mentioned Bank financing operations. The overall risk assessment is rated as high risk although the PIU has been working in the on going projects, taking into account the overall risky environment for procurement in the country. It is recommended that all major contracts should be prior reviewed.
The first procurement capacity assessment of the PIU was carried out by the Bank for the Water Supply Urgent Rehabilitation Project in October 1999. A second capacity assessment of the PIU was carried out in July 2001 for the Municipal Water and Wastewater Project. ***Are the bidding documents for the procurement actions for the first year ready by negotiations*:** No
Training Information and Development on Procurement
Estimated Date of Project Launch Workshop: March 2004 *Date of publication of General Procurement Notice:* April 2004 *Indicate if there is procurement subject to mandatory SPN in Development Business: Yes* *Domestic Preference for Goods:* N.A. *Domestic Preference for Works, if applicable: .*
Retroactive Financing: No ***Advance Procurement:*** No
***Explain briefly the Procurement Monitoring System**:* The PIU will have the responsibility for all procurement activities and for installation and management of the procurement monitoring system for its respective component described above. All procurement documentation will be prior reviewed by a PAS and the relevant technical staff. Procurement information will be collected and recorded by PIU and submitted to the Bank in the quarterly progress reports. This information would include (a) revised cost estimates for individual contracts; (b) revised timing of procurement actions including advertising, bidding, contract award and completion time for individual contracts; and (c) compliance with aggregate limits on specific methods of procurement. Procurement training is not envisaged under the Project, since there are only small contracts and major contracts will be prior reviewed.
Co-financing. Explain briefly the Procurement arrangements under co-financing: The procurement of the co-financed components will be carried out according to the Bank guidelines.
Procurement Staffing: All procurement will be carried out by the Water PIU. The Ministry of Environment will be consulted on all procurement to be carried out under the project components for Environmental Management and Monitoring and Public Consultation and Replication, and will have a voting member of the evaluation committees for this type of procurement. The same applies to the KVMR Board for all procurement related to the KVMR.
Explain briefly the expected role of the Field Office in Procurement: No procurement service support is currently envisioned from the Resident Mission.

[1\] Thresholds generally differ by country and project. Consult "Assessment of Agency's Capacity to Implement Procurement" and contact the Regional Procurement Adviser for guidance.

Annex 6(B): Financial Management and Disbursement Arrangements
ALBANIA: Integrated Water & EcoSystems Management

Financial Management

1. Summary of the Financial Management Assessment

The project's financial management arrangements are acceptable to the Bank.

Country Issues

The latest Country Financial Accountability Assessment (CFAA) from May 2002 confirms that improvement is required in the management of public expenditures, including cash management in Treasury and better internal control throughout the public sector. Absence of a solid legal basis for internal audit further hampers the solidness of the internal control. Thus, PIU has developed policies and procedures that operate in addition to those of the current public expenditure management framework to minimize project financial management risks.

Strengths and Weaknesses

The significant strengths that provide a basis of reliance on the project financial management system include: (i) the experience of PIU and its accountant of implementing Bank-financed projects and satisfying Bank financial management requirements; and (ii) the unqualified audit reports and positive management letters issued by PIU's project auditors.

There are no significant weaknesses of the project financial management system.

Implementing Entity

The Water PIU was established in 1994. The PIU was created specifically to implement Bank-financed projects and has already established a successful track record in its implementation of these projects. In addition to this new GEF/EIB Project, it is implementing the IDA financed Water Supply Urgent Rehabilitation Project and Municipal Water and Wastewater Project. Before these projects the PIU implemented the IDA funded Durres Water Supply Project. The Water PIU reports to the Ministry of Finance and to the Ministry of Territorial Adjustment and Tourism.

All financial management activities will be carried out by the PIU.

Funds Flow

Project funds will flow from: (i) the Bank, either via a single Special Account which will be replenished on the basis of SOEs or by direct payment on the basis of direct payment withdrawal applications; or (ii) the Government, via the Treasury at the Ministry of Finance (MOF) on the basis of payment requests approved by the Treasury Department of the MOF directly to the local supplier for VAT and other taxes.

Staffing

PIU staffing includes one accountant with considerable experience of implementing Bank-financed projects. Terms of Reference for the PIU with detailed descriptions of duties and staffing have been finalized. The

PIU has demonstrated that it is fully capable of fulfilling the accounting and reporting needs of the projects it has been implementing earlier.

Accounting Policies and Procedures

The accounting books and records are maintained on a cash basis and project financial statements are presented in United States dollars and the local currency Lek. PIU has instituted a set of appropriate accounting procedures and internal controls including authorization and segregation of duties as far as possible.

The policies and procedures are further elaborated in the Financial Management Manual.

2. Audit Arrangements

Internal Audit

PIU has no internal audit function and none is considered necessary given the size of the organization.

External Audit

No significant issues have arisen in the audits of previous Bank-financed projects implemented by PIU.

PIU's previous and current auditing arrangements and audit findings are satisfactory to the Bank and it has thus been agreed that similar audit arrangements will be adopted for the GEF/EIB Project, to include the GEF/EIB Project's project financial statements, SOEs and Special Account. The auditor will be appointed by the Ministry of Finance as part of an overall agreement for the audit of the non-revenue earning Bank-financed portfolio in Albania. Specific terms of reference is used for the projects covered by this agreement. Despite the MOF's arrangements, the PIU is responsible for delivering to the Bank, within six months of the closing of each fiscal year, the audited financial statements.

The annual cost of the audits will be covered by the Government of Albania.

In addition the country's supreme audit institution, performs ad hoc external audits of the PIU.

Reporting and Monitoring

PIU produces all financial reports and SOEs for the Bank with the project accounting software, Alpha. PIU has demonstrated in its previous projects that it is able to report satisfactorily on project expenditures with this system.

Project management-oriented Financial Monitoring Reports (FMRs) will be used for project monitoring and supervision and the indicative formats of these are included in the PIU Financial Management Manual. PIU will produce a full set of FMRs every three months throughout the life of the project. Draft formats of these FMRs were agreed during negotiations.

Information Systems

The accounting system for the GEF/EIB Project has been fully computerized, adopting a locally developed software that is able to produce the reports required by the Bank (FMRs). The system has been tailored to

the project documents utilizing the work made for the Municipal Water and Wastewater Project.

Based on the financial management system of the Municipal Water and Wastewater Project, the PIU has prepared a comprehensive Financial Management Manual for the project. The Manual set out the financial management and internal controls policies and procedures and is intended to guide staff and minimize the risk of errors and omissions, as well as delays in transactions, recording and reporting. These written standards also clarify responsibilities, including level of authority, clear control over assets, cash and bank accounts and timely and accurate financial reporting. In addition to the Financial Management Manual, the PIU will have to follow the procedures set out in the Project Implementation Manual. The accounting for the project is cash basis.

Specific procedures for the part of the project financed by EIB will be included through consultations with the relevant EIB staff.

3. Disbursement Arrangements

Bank funds will be disbursed under the Bank's transactional procedures including SOEs and direct payments. Supporting documentation for SOEs, including completion reports and certificates, will be retained by the Borrower and made available to the Bank during project supervision. Disbursements for expenditures above the SOE thresholds will be made against presentation of full documentation relating to those expenditures. There is no plan to move to periodic disbursements.

As soon as the project becomes effective the PIU will open and manage a Special Account specifically for this project, in the Bank of Albania to which the GEF funds will be transferred. Since the Bank of Albania does not execute commercial transactions with third parties, the PIU will transfer the funds from the Special Account to a second-level account opened by the project in a commercial bank acceptable to the Bank from which it pays eligible expenses related to the project. Counterpart funds are transferred, in Lek, to a specific bank account. Withdrawal applications for the replenishments of the SA will be sent to the Bank at least every three months, or when the balance of the SA is equal to about half of the initial deposit or the authorized allocation, whichever comes first.

Supervision Plan

During project implementation, the Bank will supervise the project's financial management arrangements in two main ways: (i) review the project's quarterly financial management reports as well as the project's annual audited financial statements and auditor's management letter; and (ii) during the Bank's supervision missions, review the project's financial management and disbursement arrangements (including a review of a sample of SOEs and movements on the Special Account) to ensure compliance with the Bank's minimum requirements. As required, a Bank-accredited Financial Management Specialist will assist in the supervision process.

Allocation of grant proceeds (Table C)

Table C: Allocation of Grant Proceeds

Expenditure Category	Amount in US$million	Financing Percentage
Goods	0.20	100% of foreign expenditures and 100% of local expenditures (ex. factory cost) and 50% of local expenditures for other items procured locally
Works	3.86	85%
Services	0.68	85%
Incremental Operating Costs	0.08	75%
Training	0.05	100%
Total Project Costs with Bank Financing	4.87	
Total	4.87	

Use of statements of expenditures (SOEs):

Project funds will be initially disbursed under the Bank's established procedures, including SOEs. Disbursements made on the basis of SOEs will be as follows for each expenditure category: (a) goods under contracts costing less than US$100,000 each; (b) works under contracts costing less than US$ 500,000 each; (c) services under contracts less than US$100,000 each for consulting firms, and less than US$50,000 each for individual consultants; and (d) recurrent costs, under such terms and conditions as the Bank shall specify. Supporting documentation for SOEs will be retained by the Borrower, be made available to the Bank during project supervision, and be audited annually by independent auditors acceptable to the Bank. Disbursements for expenditures above these thresholds will be made against presentation of full documentation relating to those expenditures.

The Operator, as part of the services to be provided under the management contract, will consolidate project information for all components and prepare quarterly PMRs including financial report, project progress report and procurement management report, for project monitoring and reporting for submission to the Bank through the CMU. The reporting system would support the application of the PMR-based disbursements, to be made at the mutual agreement of the Government and the Bank.

Special account:

To facilitate disbursements against eligible expenditures, a Special Account (SA) will be established in the National Bank to be maintained and operated by the PIU under terms and conditions satisfactory to the Bank.

The IDA would, upon request, make authorized allocation of US$0.5 million into the SA. Applications for the replenishment of the SA would be submitted on a monthly basis, or when about 20 percent of the initial deposit has been used, whichever comes first. The replenishment applications will be supported by the necessary documentation, in accordance with Bank guidelines, including the SA bank statements and a reconciliation of the bank statements to the project's accounting records. The PIU, with the support of the

Operator, will be responsible for the appropriate accounting of project funds provided under the Credit, for reporting on the use of these funds, and for ensuring that audits of the financial statements are submitted to the Bank. Accounting for Special Account transactions and for all other project-related accounts will be maintained in accordance with the World Bank Financial Accounting Reporting and Auditing Handbook, January 1995. The SA would be audited annually by independent auditors acceptable to the Bank.

Annex 7: Project Processing Schedule
ALBANIA: Integrated Water & EcoSystems Management

Project Schedule	Planned	Actual
Time taken to prepare the project (months)		
First Bank mission (identification)	10/15/2001	
Appraisal mission departure	10/17/2003	09/17/2003
Negotiations	12/03/2003	11/17/2003
Planned Date of Effectiveness	04/18/2004	

Prepared by:
Benouniche, Calabrese, Cestti, Christensen, de Soto, Dias, Nadkarni, Purificato, Rohde

Preparation assistance:
PDF Block B for US$350,000

Bank staff who worked on the project included:

Name	Speciality
Andreas Rohde, ECSIE	Task Team Leader / Sanitary Engineer
Claudio Purificato, ECSIE	Water and Sanitation Engineer
Arben Bakllmaja, ECSIE	Consultant
Takao Ikegami, ECSIE	Senior Sanitary Engineer
Manuel Marino, ECSIE	Water and Sanitation Specialist
Juderica Dias	Program Assistant
Rita Cestti, ECSSD	Environmental Specialist
Hermine De Soto, ECSSD	Social Specialist
Olav Christensen, ECSCS	Financial Management Specialist
Junko Funahashi, LEGEC	Counsel
Rohit Mehta, LOAG1	Finance Officer
Salim Benouniche, ECSPS	Procurement Specialist
Ahmet Jehani, LEGEC	Counsel
Artan Guxho, ECSIE	Project Officer
Daniele Calabrese, EXTCD	Communication Associate
Grazia Atanasio, EXTCD	Communication Officer
Ede Ijjasz-Vasquez, ENV	Peer Reviewer, Sr. Environmental Specialist
Phillip Brylski, ECSSD	Peer Reviewer, Sr. Biodiversity Specialist
Paul Mitchel, EXTCD	Peer Reviewer, Manager
Maria Teresa R. Lim, ECSIE	Program Assistant
Susanne Szymanski, ECSIE	Consultant

Annex 8: Documents in the Project File*

ALBANIA: Integrated Water & EcoSystems Management

A. Project Implementation Plan

- Albania - Integrated Water and Ecosystem Management Project, Draft Project Implementation Plan - July 2003

B. Bank Staff Assessments

- Project Concept Document - February 2002 (under Albania - Municipal Water and Wastewater Project)
- Project Executive Summary - GEF Council Work Program Submission - March 2003
- Aide Memoire - November 2001, February 2002, May 2002, August 2002, February 2003, May 2003, July 2003

C. Other

- Technical Assessment and Final Design for Construction and Management of Constructed Treatment Wetlands - Technical Assessment Report (SWS-TEI, October 2002)
- Technical Assessment and Final Design for Construction and Management of Constructed Treatment Wetlands - Technical Review Report (Hydro Ingenieure, July 2003)
- PAD - Municipal Water and Wastewater Project
- Environmental Impact Assessment (EIA)
- Environmental Management Plan (EMP)
- Government letter on international water
- Government letter committing land for CTWs

*Including electronic files

Annex 9: Statement of Loans and Credits

ALBANIA: Integrated Water & EcoSystems Management

27-Oct-2003

Project ID	FY	Purpose	Original Amount in US$ Millions IBRD	IDA	Cancel.	Undisb.	Difference between expected and actual disbursements[a] Orig	Frm Rev'd
P077739	2004	PRSC 2	0.00	18.00	0.00	18.28	0.00	0.00
P041442	2003	MUN WATER/WW	0.00	15.00	0.00	16.27	0.78	0.00
P077297	2003	COM WRKS 2	0.00	15.00	0.00	15.56	0.00	0.00
P066260	2002	ROAD MAINT	0.00	17.00	0.00	29.54	0.31	0.31
P069479	2002	FISHERY DEVT	0.00	5.60	0.00	4.93	0.35	0.00
P074905	2002	PWR SECT REHAB/RESTRCT'G	0.00	29.90	0.00	33.17	-0.12	0.00
P057818	2002	FSAC	0.00	15.00	0.00	8.41	-7.94	0.00
P055383	2001	SOC SERV DEVT	0.00	10.00	0.00	10.37	-0.66	0.00
P054736	2001	AG SERVICES	0.00	9.90	0.00	8.44	0.99	0.00
P070078	2001	TRADE & TRANS FACIL IN SE EUR	0.00	8.10	0.00	2.05	3.33	0.00
P069939	2000	PUB ADM REF	0.00	8.50	0.00	7.15	7.61	-0.25
P069120	2000	EDUC REF	0.00	12.00	0.00	5.78	2.13	0.00
P069079	2000	FIN SEC IBTA	0.00	6.50	0.00	3.00	2.42	0.00
P068853	2000	EMG ROAD REPAIR	0.00	13.65	0.00	0.58	1.15	1.15
P057182	2000	LEG/JUD REF	0.00	9.00	0.00	6.60	4.05	1.99
P066491	2000	WS URG REHAB	0.00	10.00	0.00	1.97	1.99	0.78
P051310	1999	MICROCREDIT	0.00	12.00	0.00	0.60	-2.12	0.83
P043178	1999	IRRIG & DRAIN II	0.00	24.00	0.00	1.11	-1.92	0.00
P045312	1998	HEALTH RECOVERY	0.00	17.00	0.00	12.56	12.01	0.00
P040818	1998	DURRES PORT	0.00	16.99	0.00	2.24	2.43	2.23
P040975	1998	LAND DEVT	0.00	10.00	0.00	4.09	3.76	0.00
P008271	1996	FORESTRY	0.00	8.00	0.00	0.36	0.93	0.32
		Total:	0.00	291.14	0.00	193.06	31.48	7.36

ALBANIA
STATEMENT OF IFC's
Held and Disbursed Portfolio
June 30 - 2003
In Millions US Dollars

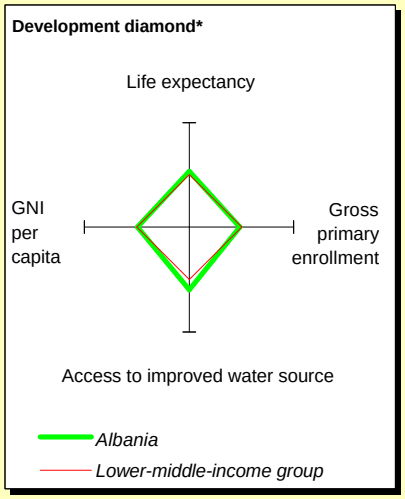
		Committed				Disbursed			
		IFC				IFC			
FY Approval	Company	Loan	Equity	Quasi	Partic	Loan	Equity	Quasi	Partic
1998	AAP	0.00	28.50	0.00	0.00	0.00	13.53	0.00	0.00
2000	NCBank	0.00	2.00	0.00	0.00	0.00	2.00	0.00	0.00
1999	SEF Eurotech	0.60	0.00	0.00	0.00	0.60	0.00	0.00	0.00
1999	SEF FEFAD Bank	0.00	0.98	0.00	0.00	0.00	0.98	0.00	0.00
	Total Portfolio:	0.60	31.48	0.00	0.00	0.60	16.51	0.00	0.00

		Approvals Pending Commitment			
FY Approval	Company	Loan	Equity	Quasi	Partic
2002	INSIG	0.00	0.00	0.01	0.00
1998	Patos Marinza	0.03	0.00	0.00	0.05
2001	Patos Marinza In	0.01	0.00	0.00	0.00
2002	Savings Bank	0.00	0.00	0.02	0.00
2003	Vodafone Albania	0.05	0.00	0.00	0.01
	Total Pending Commitment:	0.09	0.00	0.02	0.06

Annex 10: Country at a Glance

ALBANIA: Integrated Water & EcoSystems Management

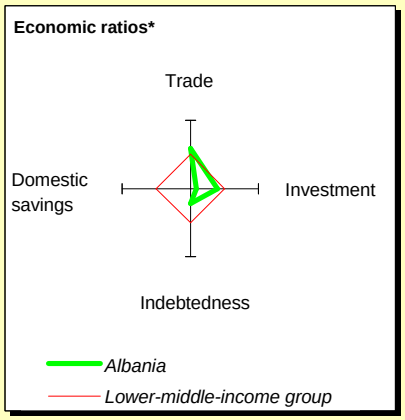
POVERTY and SOCIAL	Albania	Europe & Central Asia	Lower-middle-income
2002			
Population, mid-year *(millions)*	3.2	476	2,411
GNI per capita *(Atlas method, US$)*	1,380	2,160	1,390
GNI *(Atlas method, US$ billions)*	4.4	1,030	3,352
Average annual growth, 1996-02			
Population *(%)*	0.3	0.1	1.0
Labor force *(%)*	0.7	0.4	1.2
Most recent estimate (latest year available, 1996-02)			
Poverty *(% of population below national poverty line)*	..	..	..
Urban population *(% of total population)*	44	63	49
Life expectancy at birth *(years)*	74	69	69
Infant mortality *(per 1,000 live births)*	23	25	30
Child malnutrition *(% of children under 5)*	14	..	11
Access to an improved water source *(% of population)*	97	91	81
Illiteracy *(% of population age 15+)*	14	3	13
Gross primary enrollment *(% of school-age population)*	107	102	111
Male	107	103	111
Female	107	101	110



KEY ECONOMIC RATIOS and LONG-TERM TRENDS

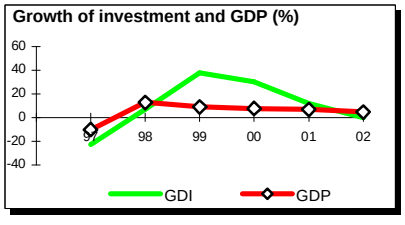
	1982	1992	2001	2002
GDP *(US$ billions)*	..	..	4.3	4.8
Gross domestic investment/GDP	..	..	27.0	19.7
Exports of goods and services/GDP	..	..	19.7	18.9
Gross domestic savings/GDP	..	..	4.6	-4.4
Gross national savings/GDP	..	..	20.9	12.7
Current account balance/GDP	..	..	-6.1	-9.1
Interest payments/GDP	..	..	0.2	0.5
Total debt/GDP	..	..	25.7	27.2
Total debt service/exports	..	0.9	2.4	3.5
Present value of debt/GDP	..	..	17.9	..
Present value of debt/exports	..	..	49.4	..

	1982-92	1992-02	2001	2002	2002-06
(average annual growth)					
GDP	..	6.2	6.8	4.7	5.0
GDP per capita	..	5.9	5.8	3.7	4.0

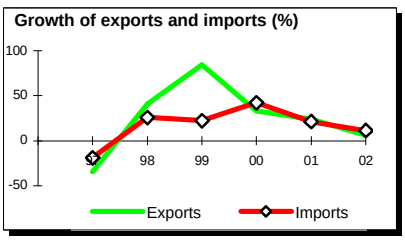


STRUCTURE of the ECONOMY

	1982	1992	2001	2002
(% of GDP)				
Agriculture	..	..	34.2	33.3
Industry	..	..	23.5	23.5
Manufacturing	..	..	13.2	12.8
Services	..	..	42.3	43.2
Private consumption	..	..	86.2	93.5
General government consumption	..	..	9.2	10.9
Imports of goods and services	..	..	42.0	43.1

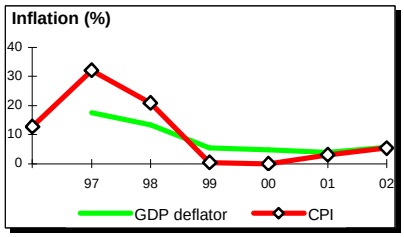


	1982-92	1992-02	2001	2002
(average annual growth)				
Agriculture	..	1.2	1.4	2.0
Industry	..	11.1	10.7	8.0
Manufacturing	..	9.6	6.5	7.0
Services	..	8.2	8.9	19.9
Private consumption	..	7.5	9.5	10.9
General government consumption	..	6.1	15.7	-3.2
Gross domestic investment	..	14.6	11.9	-0.1
Imports of goods and services	..	20.5	21.1	11.3



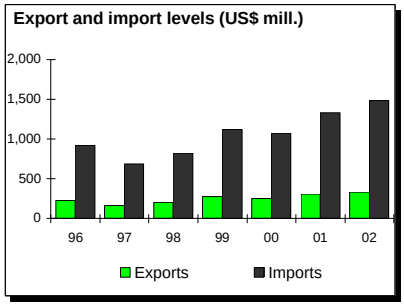
PRICES and GOVERNMENT FINANCE

	1982	1992	2001	2002
Domestic prices				
(% change)				
Consumer prices	..	226.0	3.1	5.4
Implicit GDP deflator	..	..	3.9	5.8
Government finance				
(% of GDP, includes current grants)				
Current revenue	..	..	22.2	22.7
Current budget balance	..	..	-1.2	-0.1
Overall surplus/deficit	..	..	-8.2	-6.3



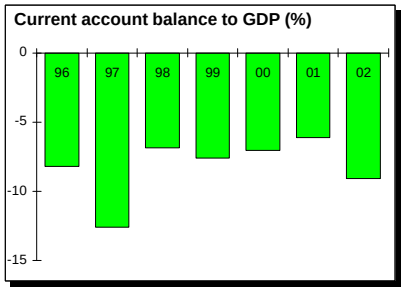
TRADE

	1982	1992	2001	2002
(US$ millions)				
Total exports (fob)	360	70	305	330
Agriculture	..	14	28	40
Mineral products	..	16	6	9
Manufactures	..	..	215	206
Total imports (cif)	438	524	1,332	1,485
Food	..	224	256	286
Fuel and energy	..	35	184	206
Capital goods	..	103	602	672
Export price index *(1995=100)*	..	..	..	..
Import price index *(1995=100)*	..	..	..	..
Terms of trade *(1995=100)*	..	..	..	..



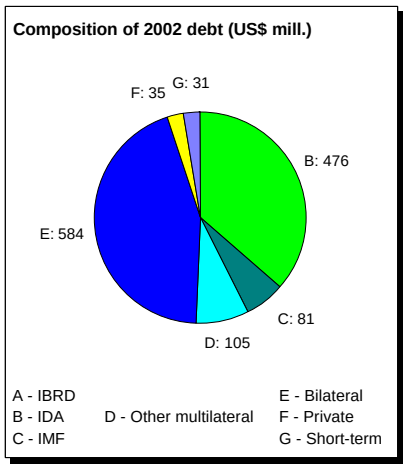
BALANCE of PAYMENTS

	1982	1992	2001	2002
(US$ millions)				
Exports of goods and services	374	82	840	915
Imports of goods and services	460	628	1,791	2,080
Resource balance	-87	-547	-951	-1,165
Net income	13	-29	148	130
Net current transfers	..	148	543	597
Current account balance	-67	-428	-260	-438
Financing items (net)	54	485	395	553
Changes in net reserves	13	-57	-135	-115
Memo:				
Reserves including gold *(US$ millions)*	..	..	737	866
Conversion rate *(DEC, local/US$)*	..	75.0	143.5	140.2



EXTERNAL DEBT and RESOURCE FLOWS

	1982	1992	2001	2002
(US$ millions)				
Total debt outstanding and disbursed	..	633	1,094	1,312
IBRD	..	0	0	0
IDA	..	2	366	476
Total debt service	..	2	37	58
IBRD	..	0	0	0
IDA	..	0	3	3
Composition of net resource flows				
Official grants	..	334	137	121
Official creditors	..	49	94	130
Private creditors	..	3	-4	1
Foreign direct investment	..	20	207	135
Portfolio equity	..	0	0	0
World Bank program				
Commitments	..	41	20	88
Disbursements	..	2	34	79
Principal repayments	..	0	0	0
Net flows	..	2	34	79
Interest payments	..	0	3	3
Net transfers	..	2	32	76



Additional GEF Annex 3: Incremental Cost Analysis
ALBANIA: Integrated Water & EcoSystems Management

Project Background

The aim of this project is to reduce the sewage pollution load from the 3 cities of Durres, Saranda, Lezhe in order to protect and improve the environmental conditions of coastal and marine habitats. The great part of the ecosystems considered by the project have been ranked at international level according with the Ramsar convention. The project will support an integrated approach to ecosystem management based on the reduction of nutrients through the construction of artificial wetlands for wastewater treatment, as well as improved management of the protected area of Kune-Vain.

Sector Context and Baseline Scenario

Albania's water infrastructure is in urgent need of improvement, in technical short term rehabilitation and in medium and long term technical and managerial improvements. Water quality could be improved significantly with a reliable supply of chemicals. Under existing conditions excessive water losses have resulted from lack of maintenance and repair and lack of metering and operational control. Wastewater treatment facilities do not exist in Albania and raw sewage is discharged untreated into sea and rivers.

Several causes for these conditions of Albania's water sector are:

Lack of revenues: Tariffs below the true cost of water and lack of tariff collection enforcement in the last decade have significantly reduced the income of the water supply companies. Water and sanitation systems have received virtually no maintenance in the last ten years.
Over consumption: Flat rates rather than metered consumption resulted in massive water waste and also the collapse of the irrigation system has contributed to a sharp increase in water demand in the last ten years. On top of this, a massive migration to urban centres, with illegal tapping and no incentive to reduce water consumption, augmented the water sectors problems.
Inadequacy of the physical infrastructure: Due to the lack of appropriate materials/equipment and insufficient consideration of the economic aspects in the design, the existing systems are expensive to run and to maintain.

The Government of Albania (GoA) has embarked on a water sector strategy, that involves a two-tier approach focusing in the short term on urgent repairs to the systems and on medium term program to support sector reforms. Within this medium term program, the World Bank recently approved a US$ 21.9 million Municipal Water and Wastewater Project aiming at improving the water and sanitation services in Albania.

Albania is characterized by the presence of very relevant coastal and marine ecosystems (lagoons, hygrophilous forests, Posidonia meadows) where the biodiversity value is menaced by the presence of urban settlements in the surroundings and the associated environmental impacts (in particular the eutrophication of water due to the existing raw sewage outfalls). The coastal lagoon system of Albania constitutes one of the most important wetlands of the Mediterranean Region. In particular endangered and endemic species as the Pygmy cormorant (Phalacrocorax pygmaeus), the Mouse-ear bat (Myotis miotis) and the Otter (Lutra lutra) live in these habitats and should be considered as flag species.

Water pollution mainly associated with the flow of untreated sewage is one of most relevant threats of these ecosystems which has considerably deteriorated the natural inland ecosystems and the biological productivity of the coastal areas. Albania lacks of any wastewater treatment facilities and existing raw sewage outfalls are located either directly on the seacoast, on the bank of coastal rivers or on drainage ditches that after a short distance discharge directly into globally significant tidal marshlands and/or the sea. This has the effect of upsetting the biological balance and also increases the subsequent eutrophication phenomena of wetlands. It is also known that coastal water pollution with particular reference to the untreated waste waters heavily affects Posidonia oceanica meadows and the related communities (e.g. the endangered species Pinna nobilis).

The Government is committed to biodiversity conservation and the water sector is one of priorities at national level in line with the Strategic Principles of the Albanian Biodiversity Strategy. However, urban population is growing rapidly with increased pressure on the quality of the surrounding water ecosystems (sea, wetlands). The Government of Albania has very limited financial resources to create wastewater treatment facilities.

As a consequence of the current course of action coastal areas will likely continue to be under the growing pollution effects of uncontrolled and increased urban wastewater which can be described as follows:

endangered marine ecosystems and habitats, in medium and infralittoral level (particularly Shengjini-Lezha area, Porto Romano bay and Saranda bay);
endangered coastal ecosystems: sand dunes, delta rivers (particularly Drini-Lezha), alluvial and wet forests, lagoons (Kune and Vaini) and coastal lakes (Kenalla);
risks and adverse impacts on biodiversity, and some of the major adverse impacts have been: habitat loss and fragmentation, damage (Porto Romano bay, Shengjini and Saranda bay) and degradation (Kenalla lake) of habitats and ecosystems, loss of species or the threat of their extinction etc.;
reduction of the *Posidonia oceanica* meadows populations, particularly in the Shengjini- Lezha and Saranda-Ksamili area, but also in the Porto Romano and Lalzi bay;
development of some algae populations (*Ulva and Enteromorpha*), particularly in Saranda bay, Shengjini bay and Porto Romano bay;
observation of some ***eutrophication*** in the Saranda bay, Shengjini area and Kenalla lake;
probability to affect reproduction of the fish species (*e.g. sea bass*) in the marine ecosystems of Shengjini bay (particularly northern part-Rana e hedhun), in Porto Romano and Lalzi bay and near the Saranda and Ksamili bay, etc.
negative consequences **on the eco-tourism development;**
delay for the implementation of the **Coastal Zone Integrated Management and of the economic development;**
difficulties in **implementing institutional strengthening measures** in order to implement the sustainability and biodiversity maintenance policies.

Regional GEF projects have focused part of their activities on the conservation of biodiversity of Albanian wetlands and lagoons, like in the case of the Conservation of Wetland and Coastal Ecosystems in the Mediterranean Region Project (Karaburun, Orikumi, and Narta habitats) and the Lake Ohrid Conservation Project. Taking into consideration the international relevance of these habitats, other GEF projects have been planned on other Albanian wetlands as on the lake Prespa, and on the Karavasta lagoon. Very few activities have been planned for the Albanian marine habitats. This is probably associated with to the scarcity of data and information on these areas, although live endangered species as the Monk seal (Monachus monachus) and the Sea turtle (Caretta caretta) do occur in these areas.

Global Environmental Objective

Based on the present economic situation and the lack of active environmental pressure groups, it is likely that biodiversity conservation will not be sufficiently promoted in the near future. This project promotes and expands the use of CTW's in areas where existing pollution loads are threatening natural wetland systems critical for biodiversity. The coastal cities of Durres, Lezhe, Saranda do not have any wastewater treatment facilities, as such the project aims to capture global benefits by reducing land-based pollution from the three cities and protect and restore endangered coastal and marine habitats by introducing low cost ecologically based wastewater treatment.

The global objective of the GEF alternative is to improve the health and habitat conditions of globally significant marine and coastal ecosystems along the coastline of Albania in an integrated manner by significantly reducing pollution from uncontrolled municipal wastewater generated by human settlements of the three coastal cities of Durres, Lezha and Saranda that are discharging into international waters and improving the management of the tidal marshland of Kune Vain (near Lezha).

In order to achieve its objectives the GEF alternative will implement four main activities: (i) Sewage pollution reduction through construction of low cost environmentally-friendly waste water treatment facilities (CTW); (ii) environmental management and monitoring through improved monitoring of water quality and biodiversity indicators and institutional strengthening of the Kune-Vain protected area management administration; (iii) public awareness and replication and (iv) project management, monitoring and evaluation.

The CTW provides a noticeable reduction of the pollution loads into the receiving water bodies, which represents the major contribution to the protection and restoring actions in the endangered coastal zone and marine habitats. According the analytical calculation, the following Removal Efficiency (RE%) are expected: BOD 70%, and fecal coliform removal of 95%, studies show the CTW are effective at removing nutrients such as nitrogen (Re=50%) and phosphorous (Re=25%). Tab. 1/a and 1/b provides an estimation on the quality of waste water in case of implementation of the constructed wetlands according with Project Preliminary Design. In Tab. 1/a are shown the Removal Efficiency (RE%)((*) RE% is the ratio of the out-let concentration versus the in-let concentration of the wastewater pollutant.*) of the CTW according to the *"fully natural"* wastewater treatment system (i.e. oxidation ponds interconnected with a Free Water Surface system). Whereas in Tab.1/b are shown the Removal Efficiency (RE%)20.3/a according CTW wastewater treatment option with *"mechanical aerated ponds"* (i.e. aerated ponds interconnected with a Free Water Surface system).

Table 1/a-Quality of wastewater in Durres, Lezhe, Saranda after project intervention on Project *CTW basic scheme-fully natural solution*

Main Parameter	*Assumed Sewage Inlet concentration (mg/l)*	*Expected median of RE%*	*Expected median Outlet concentration (mg/l)*
BOD	250-200	70%	75-60
N-total	60-50	50%	30-25
P-total	27-20	25%	20-15

Table 1/b-Quality of wastewater in Durres, Lezhe, Saranda after project intervention on Project *CTW option with aerated ponds*

Parameter	*Assumed Sewage Inlet concentration (mg/l)*	*Expected median of RE%*	*Expected median Outlet concentration (mg/l)*
BOD	250-200	85% (range 30%-95%)	50-30
N-total	60-50	75% (range 20%-80%)	15-10
P-total	27-20	65% (range 20%-70%)	15-10

In addition, the GEF alternative is designed to improve management of wetlands and possibly restoring precious habitats by strengthening the management of the Kune Vain protected area. The conservation measures of the proposed GEF alternative are actions which are 'additional' to the baseline. These additional actions will complement existing and planned activities consistent with the Strategic Principles of the Albanian Biodiversity Strategy and the implementation of the constructed wetlands.

Costs: The total cost of the GEF alternative is estimated at US$ 11,837,000.

Table 2 - Financing Plan

	GEF	**EIB**	**GoA**	**Total**
Sewage Pollution Reduction	3,960,000	6,287,000	680,000	11,026,000
Environmental Management and Monitoring	700,000			700,000
Public Communication and Replication	130,000			130,000
Project Management M&E	80,000			80,000
Total	**4,870,000**	**6,287,000**	**680,000**	**11,837,000**

Benefits: The implementation of the GEF Alternative would provide the means to protect unique coastal landscape and marine habitats, as well as restoring high priority wetlands (Kune-Vain) and several habitats for important bird species. Benefits generated from the project would include those of local nature such as protection of local and regional environmental resources and increased public awareness of environmental issues as well as those of global nature such as reduction of nutrients in flow waters and the protection of rare and unique ecosystem. The GEF grant has helped leverage funds from other donors for additional activities.

Incremental Costs

The difference between the cost of Baseline scenario (US$ 21,930,000) and the cost with the GEF Alternative (US$ 33,767,000) is estimated at US$ 11,837,000. This represents the incremental cost for achieving sustainable global environmental benefits. Of this amount, the Government of Albania has committed to finance US$ 680,000, while US$ 6,287,000 is leveraged from the European Investment Bank. The amount requested form GEF is US$ 4,870,000

Table 3 - Incremental Cost Matrix

Component	US $	Domestic Benefit	Global Benefit
Sewage Pollution Reduction (through construction of artificial treatment wetlands)	Baseline: US$ 21,800,000	Improvement in water and wastewater services, including improved management of water utilities and rehabilitation of existing water infrastructure. Improvement in wastewater collection will have no significant impact on nutrient reduction and therefore environmental deterioration of water and land and their ecosystem will continue.	
	With GEF Alternative: US$ 32,826,000		Waste water treatment through artificial wetlands will yield significant nutrient reduction and will help restore endangered coastal and marine habitats and protect globally significant biodiversity
	Incremental Benefit: US $ 11,026,000		
Environmental Management and Monitoring (through capacity building for water quality and biodiversity monitoring and protected area management)	Baseline: US$ 100,000	Some capacity to monitor water quality as part of improved management of water utilities; limited capacity to plan and implement protected area management in wetlands and protected areas	
	With GEF Alternative: US$ 800,000	Increased capacity to monitor water quality and biodiversity indicators; increased capacity to manage a protected area; effective management structure for the Kune Vain protected area	Sustainable integrated management of marine and coastal ecosystems and globally significant wetlands; meaningful participation of stakeholders in protected area management activities
	Incremental Benefit: US$ 700,000		
Public Awareness and Replication	Baseline: US$ 30,000	Increased awareness of consumers about efficient use of water resources	
	With GEF Alternative: US$ 160,000	Creation of opportunities for public education	Increased local, national and international understanding of threats to globally significant ecosystems and strategy for replication of project achievements

	Incremental Benefit: US$ 130,000		
Project Management, Monitoring and Evaluation	Baseline:	Not applicable	
	With GEF Alternative: US$ 80,000	Increased local capacity to manage projects	Information dissemination and knowledge sharing within the country and region
	Incremental Benefit: US$ 80,000		
TOTAL	**Baseline: US$ 21,930,000 With GEF Alternative: US$ 33,767,000 Increment: US$ 11,837,000**		

Additional GEF Annex 4: Project Area Ecosystems
ALBANIA: Integrated Water & EcoSystems Management

1. Global Significance of the Project Area

The Integrated Water Management Project concerns the water treatment by "naturalistic methods" in three well identified areas, which experience high naturalistic values. Their peculiar features can be express as follows:

Lezhe/shengjin (Kune-Vaini lagoon): The endangered species living in the proposed Managed Nature Reserve are: (i) the globally threatened *Phalacrocorax pygmaeus* (Pygmy cormorant); (ii) *Myotis-myotis* (Mouse-ear bat); (iii) *Rana balcanica and Rana lessonae* (Frogs); (iv) *Lutra-lutra* (Eurasian river otter).

Durres (Rrushkull lagoon): The area has been identified as Important Bird Area (IBA) for over 10,000 waterbirds.

Saranda Bay and Butrinti lake: 96 endangered species do occur in this area that are included in the IUCN Red List of Threatened Animals.

Furthermore, these areas, already affected by pollution problems, represent the territories for further residential settlement, agricultural activities and mainly potential touristic development. These are factors to be taken into account in the project analysis and alternatives set up and selections, mainly concerning the impact on the environment.

In particular, **Durres area** is progressively affected by a noticeable urban settlement, which is experienced by an uncontrolled expansion. Former use of the plain had a prevailing agricultural destination and a regular network of surface natural canals was built in order to allow surface run-off to drain into a central main channel. This channel finally discharges at sea by means of a hydrovore, to keep the plain dried during and after important rainfalls, due to the presence of a surface aquifer. The central open channel is now the final receptor of all sewage waters of the Durres District, whose discharge at sea can provoke pollution effects and damages to the marine environment in the area of Porto Romano. The plain is limited eastward by the Erzeni River, westward by the system of coastal hills and northward by the rather complex system of coastal wetlands and dunes of the Lalzi bay. All natural district is threatened by the direct and indirect impacts provoked on all environmental components by the advancing spreading of the uncontrolled urban settlement. The western side of the plain is characterized by the older urban as well as industrial settlement, now completely idle, but land and surface aquifer contamination represent major problems not yet solved. In the middle part of the plain embankments of an old fishing pond still remain, which represent a physical constraint to the chaotic expansion of the urban settlement. Being not the settlement advances suitably planned , the required infrastructures in terms of roads, energy and water supply, sewage water collection, etc are completely lacking, which implies a strong impact on soil, surface and underlying waters and a threat to the natural resources of the marine as well as wetland ecosystems.

Saranda bay represents the most attractive coastal area of Albania , where eco-tourism potential is higher and strategies of sustainable development can be profitably implemented in the short and medium term, with an interesting return for the local economics. Coastal Zone Integrated Management (CZIM) of Saranda District, extending to Butrinti Lake, Bistrica Spring and hydrographic catchments and existing wetlands, can be put forward and implemented only if sanitation problems and waste water treatment and protection of the natural and marine environment are accomplished. As a consequence an action plan

combining main sewage water trunk line (covered by PHARE Funds) with a waste water treatment by naturalistic processes is highly envisaged, to preserve the marine environment from existing pollution effects. The area identified for the construction of the artificial wetland is located in the proximity of the Ceka canal, where several solutions can be proposed.

Lagoon of Kune-Vaini is an important Protected Area, of great naturalistic value. City of Lezhe, the intensive agricultural activity developed in the alluvional area as well as the progressive population increase and future settlements, represent potential threats to the natural equilibrium and to the biodiversity preservation of the aquatic ecosystems. Indeed, the sewage waters of Lezhe directly discharge into the surface waters of the Drini River, whose spreading at sea can affect the environmental conditions of all the coastal zone surrounding the river mouth, and consequently the lagoon. Direct effects of contamination of the lagoon waters can also occur by surface run-off of the agricultural fields and a hydrovore, installed to keep the fields dried after rainfall events, can increase the contaminant's flow. As a consequence the eutrophication process can arise sometime in the lagoon waters. A coordinated intervention, combining the waste waters treatment of Lezhe sewage waters by an artificial wetland, with the accomplishment of a network of natural "filter streep", in order to intercept the surface drainage of waters of agricultural origin into the lagoon, should provide positive results for the preservation and protection of the natural resources.

It is also necessary to mention the **naturalistic site of Kanalla Lake**, being a natural spring of karstic waters existing at the toe of the hills, within the lagoon. This a typical transitional water body, highly polluted for the direct discharge of sewage waters coming from the village of Shengjin. In such a case the solution cannot adopt the peculiarities of the natural wetlands, being the lagoon itself a protected area and therefore no artificial ponds can be built inside. Conventional water treatment plants have to be proposed.

2. General Description of the Albanian Marine Ecosystem

The Albanian coastal region contains two geographic entities: the Adriatic and the Ionian Sea coastal areas. The total length of coastline is about 429 km and the national waters confined to territorial waters of 12 miles width. The continental shelf lies entirely within the exclusive zone. The shelf is wider in the north (Adriatic sea), up to 25 miles across, and narrower in the south (Ionian sea), 2-3 miles width. Beyond 25 miles, sea depth exceeds 1000 m in the international channel.

There is no particular wind that prevails in the coastal plain. In winter, the most frequent one blows from the Southeast and in the summer season, the prevailing wind blows from the north-western direction. There are three types of rather low currents in the Adriatic sea: continuous currents, tidal currents, and wind-driven currents. Strong winds persisting for a couple of days may create temporary currents running in the opposite direction with respect to steady and tidal currents.

The Adriatic coastal area (the northern part of the Albanian coast) is generally characterized by coastal lowlands (alluvial plains) intersected by rivers, and flanked by hills along its upland boundary. The coast is made of long sandy beaches, deltaic river mouths and lagoons. The coastal waters are shallow, receiving water from the rivers and several drainage canals. At sea, the water depth increases slowly, with first a sandy bottom with the associated biocenosis which becomes muddy with increasing depth.

On the sandy or muddy bottoms, the marine flora is scarce or occupies specific areas where currents or waves have less action. The extensive seagrass beds of *Posidonia oceanica* are an important part of the Albanian marine ecosystem, often occupying a considerable part of the littoral zone. *Posidonia oceanica* and very well developed marine communities are found along Porto Romano bay and Shengjini bay. The underwater rocky bottoms at Rodoni and Lagji Capes (Durres), and the eastern side of Vlora bay host

patches of *Posidonia oceanica*.

Porto Romano and Rrushkull-Erzeni River Outlet (Durres Area)

The area of Porto Romano and Lalzi bay is a narrow, reclaimed part of the coastal plain. There are some natural habitats left along the coastline, such as a belt of pine trees, temporary marshes, roadbeds and salt marshes. In addition to the loss of large wetland parts by land reclamation, the quality of natural environment of that area continues to deteriorate due to the input of the polluted Erzeni river (contaminated mainly by sewage disposed upstream), direct discharge of untreated urban and industrial wastewater in the Porto Romano bay, excessive felling of trees for fuel, and uncontrolled hunting and fishing. The underwater rocky bottoms at Rodoni and Lagji Capes host patches of *Posidonia oceanica*.

The Lalzi bay with the Erzeni river mouth is an environmentally sensitive area. The coastline of the Rodoni-Bishti i Palles Capes, of which 35 % are cliffs exposed to mild erosion stretching along both capes. The remaining parts of this unit are alluvial beaches (actually, the Lalzi bay) of which 18 % is exposed to erosion and 47 % to deposition. Any intervention altering the quantity of the material carried by the Erzeni river will affect the littoral, generating new erosion processes. The Porto Romano bay also is a section attacked by erosion.

Drini Outlet (Lezhe-Shengjin Area)

This unit has about 15 km of the coastline, from Shengjini harbour to the southern part of Vaini lagoon (including the Drini river), oriented in N-S direction. The shore are sandy and sediment is coming both from the Buna and Drini rivers transported by the longshore currents. The marine slope is gentle reaching the 20 m isobath at average of 2.0 km offshore. Kenalla, Kune and Vaini lagoons are separated from the shallow coastal waters by the narrow sandbars, low and mobile dunes, and the planted pine tree belt (*Pinus halepensis, Pinus pinea*).

Posidonia oceanica meadows and *Penaeus kerathurus* populations are reduced due to the polluted industrial and urban discharges into this area((1) Albania Coastal Zone Management Plan : Final Report - Phase One, 1995.1). The breeding grounds of *Posidonia oceanica* have also deteriorated because of changes in the structure of the fishing fleet((2) Albanian Convention on Biological Diversity -1999. (2). Fishing activities occur in the coastal waters including the trawlers from Shengjini and small local fishing boats. As in other places, the local population is collecting *Bivalves* along the shores.

The coastal wetlands of Drini river (Kenalla-Kune-Vaini lagoons) are a part of an environmentally sensitive area. Inland of the Shengjini beach lies the Kenalla lake surrounded by a dike with the open lake and a dried-up part with salinity tolerant vegetation. Through a pipeline, the urban sewage of Shengjini is directly drained into the lake. Further south lies the Kune lagoon extending up to Drini river mouth. The coastal reach in the northern part of Shengjini has presented an coastal erosion phenomena. After that, until some 2.5 km south of Shengjini, the coast is relatively stable or slightly receding.

Saranda Bay and Ksamili Bay (Saranda Area)

The coastline of Saranda bay to Ksamili bay can be divided into several sections: the area including the town of Saranda shows a recent development on the northern bluff near the entrance to the harbour; the area south of Saranda where the cliffs are steep and cut with caves and intermittent sandy beaches; the abandoned citrus plantations and deforested areas in the vicinity of Ksamili; the Ksamili islands, with small sandy beaches, wind-sculpted maquis forests, and extensive *Posedonia oceanica* meadows covering the

shallow areas of the bay of Ksamili. The whole area from Ksamili Islands to Stillo bay could be integrated in a protected and managed area with interconnected areas. In Ksamili bay and inlets, a marina and environmentally sound resort place could be settled.

3. General Description of Natural Wetlands Ecosystems

3.1 Kune–Vain Wetland and Kenalla Lake

The Kune–Vain wetland and Kenalla Lake or complex Kune–Vain lagoon represent one of the important coastal Albanian wetland. Area of Kune–Vaini wetland and Kenalla lake represents a wetland area of multiple ecological and economic values and uses, as provide fish and wildlife habitats, support complex food web, absorb water to reduce flooding and damage from storms, provide erosion control, improve the quality of water in particular provide open space & aesthetic value. The Drini River is the longest river of Albania, and the Kune-Vain lagoon complex has been built by the accumulation of the river sediments. This area is comprised in the network of Albanian Protected Areas, as described in the document "Biodiversity Strategy and Action Plan (BSAP)", approved by Government of Albania in the year 2000. The delta of Drini is recognized internationally as an Important Bird Area (IBA) and a Specially Protected Area (SPS) and represent the area of Kune-Western part of Kune lagoon, defined in the network of Albanian Protected areas as Scientific Reserve, according to the 1st category of IUCN. The site of delta of Drini is one of the most important areas of Albania for wintering waterbirds; the most important site for the nesting of herons (Ardeidae), and potential breeding site for the cormorants. including pygmy cormorant (Phalacrocorax pygineus). The other two parts of this lagoon complex, Kenalla–Eastern part of Merxhani lagoon and Drini River Outlet with Ceka (part of Vain wetlands) and Vaini wetlands are defined as Managed Nature Reserve, in according to the 4th category of IUCN.

Ecological Description of the Kune Lagoon and Kenalla Lake

The lagoon of Kune presents rich floristic and faunistic values. In the group of fauna are included: vertebrates (animals, birds, reptiles, amphibian, fish) and non-vertebrates (mollusks, crustaceans). The macrobenthos of this lagoon is characterized mainly by an intense growth of Annelids, Tubuliferae, Hydroids and *Carcinus aestuarii.* Also this area is rich of the birds as *Rallus aquaticus*, *Gallinula chloropus*, *Nycticorax Ardeola ralloids*. Besides the main other bird species are present (see Annex 10 and 17). The diversity of the species is higher compared with the other part of the ecosystem (Kune-Vain lagoon and Kenalla lake). The micro algae biomass level indicates high quantity of phytoplankton with a relatively great number of species). Some of the diatoms are determined Dinoflagellates are presented in few species (see Annex 10 and Annex 17). Regarding flora and vegetation, they mainly consist of: aquatic vegetation; hydro-hydrogrophylic vegetation; halophyl vegetation; the psamophyl or sandy-dune vegetation; forest vegetation. The amphibian are represented mainly by *Rana lessonae, Rana dalmatina, Triturus vulgaris, Rana balcanicaetc*. Different kinds of reptiles, usually threatened, can be mentioned, like Sea turtle and Earth tortoise. The observation of fishery catches and hypoeutectic salinity gradient divide Kune lagoon in three main sub areas corresponding to fish species in these sub area (see Annex 10). The main fish specie are the eurohaline species: (*Sparus aurata*) gilthead seabream, *Dicentrarchus labrax*, Mugilidae spp., *Anguilla anguilla* etc.

Ecological Description of the Vain Lagoon

The lagoon of Vain presents rich floristic and faunistic values. In the group of fauna are included: vertebrates (mammals, birds, reptiles, amphibian, fish) and non-vertebrates (mollusks, crustaceans). The zooplankton was found on low quantity in general. The lagoon of Vain has vegetation similar to the lagoon

of Kune. More than half of the water surface is covered by flooded *Phragmites communis* beds with *Thypha latifolia,* the banks are composed of sedge communities, riparian woods of black alder galleries with *Alnus glutinopsa, Populus alba, Ulmus campestris, Fraxinus angustifolia, Salix alba* and *Quercus sp.* which are replaced over time by pine plantations. Maquis is composed mainly of: *Tamarix parviflora, Cornus mass, Juniperus macrocarpa, Rubus ulmifolium, Ruscus aculeatus;* the herbaceous vegetation of the marshland is characterized by *Cynadon dactylon, Dactylis glomerata, Agrostis sp., Phragmites communis, Juncus acutus, Salicornia fructicosa*. The birds species observed in the lagoons are: *Phalocrocorax carbo sinensis, Nycticorax nycticorax, Egretta garzetta, etc (*see Annex 10). Regarding the mammals can be found in the area: *Mustela nivalis, M. putorius* and *Vulpes vulpes*. The dominant fish species are *Anguilla anguilla* and *Mugil cephalus,* and this lagoon presents lower salinity than Kune lagoon. Also are present in this lagoon, in the low quantity the other eurohaline species as: (*Sparus aurata)* gilthead seabream, (*Solea vulgaris*) common sole, *(Liza aurata*) golden grey mullet, (*Liza saliens*) leaping mullet, (*Chelon labrosus*) thicklipped grey mullet, (*Dicentrarcus l*abrax) european seabass, etc.

3.2 Rrushkulli–Erzeni River Outlet

The Rrushkulli-Erzani River Outlet area is situated in Lalzi bay, the central part of the Adriatic coast of Albania, between Rodoni cape in the north and Bishti Palles cape in the south. It is boarded in the north and east by a hilly ridge reaching a maximum height of 225 m, while in its south-east it continues with the drained fields of Qerreti and Durresi, formerly salt marshlands. The catchments area of the Lalzi bay is estimated at about 250 km2. Some parts of the area, close to the coast, are depressions reaching up to - 1.5 m. They are kept dry by the actively pumping water through the pumping station near Hamalla village. The most of the area is occupied by the agricultural land, while the once well developed hygrophilic flood plain forest has almost disappeared; some small spots of it are still present only along the coastline north of Erzeni river mouth. Sand dunes relatively well developed, halo-phyte and hygro–phyte vegetation, and a planted pine forest can be found in this area. Waterbird and waterfowl censuses of the last two years have identified this area as an important IBA (over 10000 waterbirds and wetlands birds have been counted here). The Erzeni River Delta is important for migratory fish species breeding in freshwater. Posidonia meadows, *Posidonia oceanica*, and very well developed marine communities are found along the rocky littoral and Porto Romano Bay.

Ecological Description of the Area

The area of Rrushkull-Erzeni River outlet is originated from the alluvial sediments of the Erzeni river, which meanders across the area.. The sub area Rrushkull–Hammalla lays in the Lalzi bay, from outlet (mouth) of Erzeni river in the South to the overflow of the Tarini stream in North and in the East in some cases, it lays for many kilometres, and it is limited from the agricultural land of the ex state agriculture farm Sukth (Hamallaj, Rrushkull, Jubë). The terrestrial environment of this area presents these types of habitats: sand dunes, salt tolerant vegetation, flood plain and pine forests, and wetlands/marshlands. Sand dunes occupy a belt from 10 to 50 m in width along the entire coastline. There are two main types of the dune vegetation: Plant community dominated by *Cakile maritima*, in the form of isolated spots, 4-5 m distant from each other, closer to the shoreline. Plant community dominated by *Elymus farctus*, on the well developed dunes, in which apart from the Dominant species, are present other species like; *Eryngium maritimum. Echinophora spinosa, Euphorbia paralias*, etc. Salt tolerant vegetation is mainly present in the left hand side of the Erzeni river mouth. This type of vegetation is characterized by succulent plants like: *Arthrocnemum fruticosum, A. perenne, Salicornia europaea, Halimione portulacoides, Limonium vulgare, Inula crithmoides* etc. The dominant species are *Pinus pinaster* and *P. halepensis*. This formation is generally not so dense and rather young. The area contains also some rare and endangered plant species as: *Quercus robur, Fraxinus excelsior, Juniperus oxycedrus, Matthiola tricuspidata,*

Pancriatium maritimum, Quercus ilex, Adiantium capillus-veneris, Butomus umbellatus, Salix triandra. The coastal area presents the important fishing site for *Mugil sp., Liza sp., Dicentrachus labrax, Umbrina. cirrosa, Lichia amia, Sparus sp., Alosa phalax, Anguila anguila* and for crustaceans *Paeneus ceraturus* and for bivalves *Venus galina* and *Donax trunculus*.

3.3 Butrinti Lake and Related Wetland Environment

This area includes Butrinti lagoon, Ksamil Island and Stillo Island and cape in the zone from Cape Qefali to the Greek border. This area belongs to the District of Saranda and covers 35 km of coastline. The relief is not very important with an altitude of 363 m at about 4.5 km of the coast east to Butrinti lake. In Butrinti area, grey herons, gulls, egrets, ducks and snipes are seen on the mudflats and saltmarshes bordering the mouth of the Butrinti canal and river up to 4 km inland. The phytoplankton population of the lagoon is abundant and mainly composed of diatoms *Cheatoceros sp., Cyclotella sp.* and Peridinates *Prorocentrum sp.* and *Peridinium sp.*. The accumulation of phanerogam *Zostera noltii* foliage is an indication of its extensive presence within the lagoon. Balanidae are very common among Crustacea and *Mytilus galloprovincialis* among Molluscs. The birds seen in the area are: *Larus cachinnans, L. argentatus*, sparrows *Passer hispaniolensis, P. montanus* on the lake. While in marshland and the mudflats at the estuary are reported marsh harriers *Circus aeruginosus, Acrocephalus scirpaceus,* etc. Great concentrations of migratory birds occur in fall and winter, waders on the mudflats, saltern and in the estuary of the channel while Anatids assemble in large colonies on the lake during the coldest months. This area is also the richest of Albania for amphibians and reptiles. Otters have been recorded in the lagoon. The terrestrial vegetations are characterized by associations of *Caxilo xanthum italici* (*Caxile maritima, Xanthium stumerium*), *Crithmo-Limonictum anfract.* (*Crithmum maritimum, Limonium anfractus),* associations of *Crithmetum (Crithmum maritimum),* associations of *Ammophiletum arundinaceae (Ammophila arerrari, Medicago marina, Echinophora spinosa),* of *Salicornictum fructicosae (Arthrocnemetum fructicosum), Salicornictum radicentis (Arthrocnemum perenne), Juncetum maritimi (Juncus maritimus), Juncetum acuti (Juncus acutus)* and of *Sporoboletum (Sporobolus pungeus)*.

4. Surface Water Quality and Pollution Loads

During the study a water/wastewater and seawater quality examinations have been performed, in order to confirm or adjust available water quality data. The examination mainly concerned raw sewage and receptor water-bodies quality. The sea water quality have been investigated in terms of indices on water, sediments and biota. The analyzed sewage samples taken at project's sites wastewater facilities can be characterized as *strong-moderate* with typical domestic composition. The analyses and assessment of existing studies, as well as the analyses performed during the study, show the degradation of the quality of water resources by pollution from land-based activities (nutrients, pathogens and oxygen demanding wastes), in the all coastal cities of Durres, Lezhe and Saranda. The results of the water/wastewater and sea quality examinations are fully described in Annex 4. The expected wastewater pollution effects on the marine environment are described in following paragraph 5.

5. Wastewater Pollution Effects on the Ecosystem

Environment is an end user of water resources which poses therefore sometimes severe restrictions particularly on the emission of wastewater from other water use sectors. High BOD loads and suspended materials may influence biochemical and light conditions in the marine environment; industrial micropollutants may be directly toxic for aquatic life and fish; and pollution from excess agrochemicals may have similar effects.

The marine ecosystem, though almost certainly damaged by uncontrolled wastewater emission of coastal urban concentrations, industry and polluted rivers, is still generally in a reasonable condition and its ecological and economic value may be considerable. Unfortunately, studies about the value and eventual degradation of the marine ecosystem are rare and an overall inventory has never been executed. The Biodiversity Action Plan has as a priority the mapping of the sea meadows with *Posidonia oceanica* and the study of animal groups and plants, because of lows scale of knowledge of a considerable part of these plants.

Little is known in Albania about marine environment along the Adriatic Coast and the effects of the considerable pollution of the last 30 years, both by discharge into the sea of polluted river water and by direct discharge of untreated urban and industrial wastewater. Except for smaller areas along the coast in the vicinity of cities and industrial concentrations, inspection shows in general visually clear and unaffected waters. However, systematic research on marine ecosystems and the effect of pollution has never been executed.

The problem of pollution in the marine environment becomes ever more serious. Adriatic Sea is easily exposed to pollution because of restricted water exchange and long shore lines. Areas with stagnant or partly stagnant conditions are especially sensitive to pollution due to slow water exchange. Organic wastes from communities and industries will cause an oxygen reduction process in the water. Oxygen is utilized for oxidation of the organic matter and nutrients bound in the matter will be released. This process will cause an increase of the primary plankton production in the area. This again will increase the oxygen utilization. A secondary oxygen reduction process will begin, where the new organic matter is oxidized. This secondary oxygen reduction may require two to five times more oxygen than the primary process. This secondary process is not accounted for in the conventional BOD techniques.

The enrichment of natural waters by nytriens (eutrophication), primarily nitrogen in marine waters but also phosphorus, has been associated with increased primary productivity and nuisance algal growth in coastal zones and semi-enclosed and enclosed areas of seas. Increased loads of nutrients to coastal waters have caused increasing eutrophication and the major sources of nutrients to coastal waters are from sewage disposal. The primary production increases until the light penetration limits it. The consequences of eutrophication can be increased frequency of algal blooms (sometimes toxic), increased water turbidity, slime production, oxygen depletion in deep waters and mass fish and benthic fauna kills. Signs of such *eutrophication* can be observed in the Saranac bay, Shengjini and Kamala. The relatively low concentrations of dissolved oxygen in Saranda bay (approx. 7.63 mg/l), in Shengjini bay, Kenalla Lake (approx.8.46 mg/l) and Drinit river (9.70 mg/l), are to be related to pollution by organic matter. Also the results of the chemical analysis into the sea near the points of sewage discharge (see Annex 4) demonstrate the presence of nitrites. Particularly in Saranda bay, Shengjini bay and Porto Romano bay, it was observed((3) Kashta L. and Mio A., 1992-Tirana University.3) the development of some nitrofile algae populations (*Ulva rigida and Enteromorpha spp.)*, and this is an other demonstration of eutrophication in this waters. Ammonia can be converted to organic nitrogen by these resident algae *(Ulva, Enteromorpha).* *Ulva* blooms can become so luxuriant that the algal decay products are more unpleasant than the sewage itself. Sewage pollution is directly responsible for the closure of many *molluscan shellfish* growing areas in Europe. Shellfish can accumulate and retain pathogenic organisms and toxic organic and inorganic substances present in the growing areas. During the last years mussel breeding was practically stopped, both for internal organizational reasons, but above all because of the block on exports imposed by the EC for sanitary reasons, in October 1994 for all living products of the fishery sector. The main requirement for the export of live mussels to the EU is the setting up of a shellfish monitoring system to guarantee the safety of bivalves harvested from water bodies. Currently Albania faces a ban due to a previous outbreak of cholera in live molluscs. This issue is now being addressed through the development of a monitoring

system to certify the areas on the Albanian coastline and the marine waters that can harvest and export mussels. This is covered by EC/91/492 on placing live bivalves on the EU market.

Posidonia oceanica meadows populations are reduced due to the polluted industrial and urban discharges into this area, particularly in the Shengjini- Lezha and Saranda-Ksamili area, but also in the Porto Romano and Lalzi bay. This has been associated with an increase in water turbidity (Secchi disc. 1.25-1.50 m, Annex 4) reducing the amount of light exposure on the sea bed and this caused reduction in the *Posidonia oceanica* beds over the last decades (Kashta L., 1998). In sea areas with a low nutrient content a release of organic wastes may cause eutrophication of the surface water in the whole area. The increased biological production may be beneficial to the surface water by increasing the fish yield, but it can have serious effects on conditions in the deep water. Increased decaying organic matter there may lead to oxygen deficiency and can destroyed bottom fauna. It seems to be very difficult for nature to restore oxidizing conditions when such a fertilization cycle has started.

In Albania, the major types of endangered ecosystems and habitats are not only coastal (sand dunes, river deltas, alluvial forests, lagoons, and coastal lakes), but also marine ecosystems at medium and infralitoral level ((1) Albania Coastal Zone Management Plan : Final Report - Phase One, 1995.1). The *Posidonia* meadows represents an important ecosystem in the Adriatic Sea. The fundamental role played by the marine phanerogam meadows and in particular by Posidonia, can be summarized in the following points: stabilization of the sea-bed through the development of an effective radical and stoloniferous apparatus; reduction of the intensity of movements of water with consequent maintenance of coastal balance, thanks to the softening effect of the “matte” and the layer of vegetation; high production of oxygen and organic material by means of photosynthesis; direct and indirect source for numerous organisms and starting point for a complete food web; habitat of choice for numerous commercially important species, such as fish, cephalopods and crustaceans.

Information from all three project areas gives quite a clear picture of the organic load of the respective coastal zones. In all the project areas the urban centres discharge sewage directly into the sea (Saranda, Porto Romano-Durres and Shengjini bay) or into the wetlands (Kenalla) or into the river (Drini-Lezhe) at short distances from the sea and discharged sewage is not treated. The situation is particularly severe in Saranda, Shengjini and Kenalla. In the city of Saranda, urban and industrial waste is discharged directly in the central part of Saranda bay, and through the Cuka channel ((2) According EU Phare Program-“Emergency Measures-Saranda Water Supply and Sanitation”-see Annex 92) into the sea. The waste plume spreads across the bay of Saranda, in a northern direction, polluting waters in front of Saranda.

These discharges of untreated domestic sewage can significantly add to the total loads of contaminants. Due to the breakdown of organic matter, such discharges can cause immediate problems to marine life from high oxygen demands in the water column and sediments and through toxic effects of ammonia. Of immediate concern to humans is the presence of large numbers of pathogens that can cause illness and disease. Also associated with the presence of pathogens is the potential contamination of seafood, particularly shellfish, which in Saranda bay and Butrinti lagoon (mussel *Mytilus galloprovincialis) and* in areas like Porto Romano, Lalzi and Shengjini (clams *Chamelea gallina, Ruditapes decussatus* etc) are commercially very important for Albanian fishery.

Pollutants may affect *reproduction* in many different ways. Teratological development of embryos may result in deformed or malfunctioning larvae which do not survive hatching. Reproduction may be influenced by behavioral changes of the adults during the mating season. Their behavior, the production of eggs and sperm, the secretion of egg membranes, eggshells and production of egg nutrients, may be all

affected by changes of hormone function and enzyme activity. Changes in the ecosystem may influence reproductive success when vitellogenesis is directly influenced by the availability of food. In the coastal area of Shengjini bay (particularly northern part-Rana e hedhun), in Porto Romano and Lalzi bay and near the Saranda and Ksamili bay there are very important areas for reproduction of some fish species, first of all for sea bass (Dicentrarchus labrax).

6. Synthesis of the Pollution Effects in the Project Areas

According the available data and observations, the pollution effects by uncontrolled and increased urban wastewater discharges into the marine environment can provide negative consequences both at the environmental level and to the institutional and economic ones.

A list of potential problems is put forward in the following:

endangered marine ecosystems and habitats, in medium and infralittoral level (particularly Shengjini-Lezha area, Porto Romano bay and Saranda bay);
endangered coastal ecosystems: sand dunes, delta rivers (particularly Drini-Lezha), alluvial and wet forests, lagoons (Kune and Vaini) and coastal lakes (Kenalla);
risks and adverse impacts on biodiversity, and some of the major adverse impacts have been: habitat loss and fragmentation, damage (Porto Romano bay, Shengjini and Saranda bay) and degradation (Kenalla lake) of habitats and ecosystems, loss of species or the threat of their extinction etc.;
reduction of the *Posidonia oceanica* meadows populations, particularly in the Shengjini- Lezha and Saranda-Ksamili area, but also in the Porto Romano and Lalzi bay;
development of some algae populations (*Ulva and Enteromorpha*), particularly in Saranda bay, Shengjini bay and Porto Romano bay;
observation of some ***eutrophication*** in the Saranda bay, Shengjini area and Kenalla lake;
probability to affect reproduction of the fish species (*e.g. sea bass*) in the marine ecosystems of Shengjini bay (particularly northern part-Rana and hedhun), in Porto Romano and Lalzi bay and near the Saranda and Ksamili bay, etc.;
negative consequences **on the eco-tourism development;**
delay for the implementation of the **Coastal Zone Integrated Management and of the economic development;**
difficulties in **implementing institutional strengthening measures** in order to implement the sustainability and biodiversity maintenance policies.

Additional GEF Annex 13:
ALBANIA: Integrated Water & EcoSystems Management

FINANCIAL ASSESSMENT OF THE THREE PARTICIPATING COMPANIES
EXTRACT FROM THE PAD (REPORT NO. 24826) FOR THE MWWP

NPV=US$ 5 million; FRR = 15 %

Project Financing Plan: The total cost of the MWWP is estimated at US$21.93 million (including taxes and duties of US$2.65 million). The IDA credit of US$15 million equivalent will account for about 68% of the Project cost. The entire balance of US$6.93 million (or 32%) will come from the central government as grants since all four utilities would not be in a position to generate funds for investment purposes from internal sources throughout the Project implementation period. With the help of the Operator, all four utilities are projected to break-even on a cash flow basis (i.e., collected cash revenues covering all cash operating expenses) in 2007, the penultimate year of project implementation, and to reach full-cost recovery, including depreciation, not later than 2010.

Financial System and Tariffs: Water companies in Albania follow financial regulations, and accounting and tax rules, issued by the central government. These rules and regulations deviate substantially at present from international accounting standards (IAS) for similar revenue-earning entities. This affects the presentation of financial information by the utilities. In the case of the Durres Water and Sewerage Company (DWSC), some improvements in its financial management systems, as well as external audits, were introduced under the earlier Bank projects; nevertheless there is scope for further strengthening as identified by the auditors. One of the key tasks of the Operator, therefore, would be to develop and implement appropriate improvements for each utility that would provide adequate, relevant and accurate information for management decision-making and external financial reporting.

Until 1993, the water supply utilities were under the central government's Ministry of Territorial Adjustment and Transport (MoTAT). In that year, responsibility for operation of the utilities was transferred to the local governments. However, the central government still owns the utilities, and with the exception of the four participating utilities, continues to review and approve all investment decisions. Wastewater services were provided by departments of the municipalities. They were entirely dependent on the budget for their revenues. In the case of Fier, Lezha, and Saranda, the water supply and wastewater services have now been merged. A decision to merge in the case of Durres has been taken and is expected to be implemented soon.

Until 1998, all decisions in regard to potable water tariffs were centralized and subject to the central government's approval. In 1998, under a policy of liberalization of water tariffs, water supply enterprises were required to make an assessment of the costs of providing the services and to propose tariff structures to their local authorities. Upon the approval of the authorities, the proposed structure is then presented to the NWRC for approval. The decentralization law, which came into effect in January 2002, transferred the tariff setting function to the local governments alone.

Past and Present Financial Position: Historical financial statements for each of the four utilities are presented in Annex 5. With the exception of DWSC, the financial statements have not been the subject of independent external audits since these were not required under the governing local regulations (for DWSC, the audits were required under the Project Agreement with IDA). During the three-year period 1998 to

2001, the financial situation of each utility worsened. All four utilities incurred annual losses in each of the years. In 2001, losses for Durres, Fier, Lezha and Saranda were Lek 314 million, 136 million, 43 million and 27 million, respectively for a combined loss of about Lek 520 million (US$3.7 million equivalent). Collected revenues have not been adequate to cover the utilities' cash operating expenses (not taking into account depreciation and other non-cash charges). The increasing cash deficits have been met through a combination of direct and indirect subsidies from the government's budget -- direct subsidies include payments made directly to KESH, the electricity company which is the utilities' principal creditor, and to the water utilities themselves, and the indirect subsidies, the accumulation of tax and other payables.

The main issues and problems affecting the utilities' financial performance are the following: On the revenues side, (i) low percentage of billed water: For each utility, the share of billed water consumption out of total water production is low, which reduces the revenue base; (ii) low tariff levels and distorted tariff structures: The tariffs, particularly for residential consumers, have been kept at low levels on political considerations. The levels currently in force are not adequate to cover the utilities' cash operating expenses even if the utilities were able to enforce 100% collection of billed revenues. The situation is further exacerbated by the fact that residential consumption accounts for the bulk of water consumption for each utility. Although tariffs for the other consumers are currently higher, the utilities are unable to enforce collections, including from institutional and budgetary agencies; and (iii) low collections: Collected revenues have generally ranged between 30% to 35% of the billed revenues for the four utilities. Although nominally the utilities can enforce collection by discontinuing service to non-paying consumers, in practice it has proved difficult to enforce due to political interference and influence which in effect discourage disconnections. Collections have also been problematic in the case of supply to villages where a tradition of non-payment has evolved over time.

On the expenses side, (i) operating inefficiencies: The physical facilities and equipment have progressively deteriorated due to the lack of adequate funds for replacement and maintenance. Repairs and maintenance are undertaken on an ad hoc basis in response to day-to-day needs, and are severely limited by the resources available. Break-downs and make-shift fixes increasingly have taken the place of planned maintenance, and contributed to rising operating expenses. Specific consumption of electricity per unit of water produced has also been increasing due to inefficient pumping and other equipment; (ii)overstaffing: Productivity ratios (employees per 1,000 connections) are lower by a factor of three to four as compared to well-run Western European utilities. Although salary levels are low in comparison with Western Europe, the overstaffing results in the share of personnel expenses in total expenses equaling or exceeding Western European levels; and (iii) rising input prices: Electricity expense is a major item for each utility accounting for 30% to 50% of total expenses. Electricity tariff levels in Albania have been rising as KESH, the electricity company, progressively achieves full-cost recovery, as required under the Action Plans agreed with IDA and bilateral donor agencies.

Overall, in addition to these problems related to revenues and expenses, the utilities' financial management systems are in need of substantial improvement. The existing systems, particularly for Fier, Lezha, and Saranda, do not provide adequate, timely, and relevant information to the utilities' management, including for monitoring and controlling of receivables and payables, or for external financial reporting.

Recent Actions Taken by the Central Government, the Municipalities and the Utilities: As part of its Action Plan for the recovery of KESH, the electricity enterprise, the central government compensated KESH in the amount of Lek 1.1 billion (US$7.9 million equivalent) in 2001 for its arrears from the water companies. Since KESH was the water companies' main creditor, this has provided substantial relief to the water companies. Under a program agreed with the IMF to foster greater transparency and discipline in the settlement of inter-enterprise arrears and arrears towards the budget, the Government has required all

state-owned companies, budgetary agencies, and water companies to prepare jointly agreed statements as to their respective collectibles and obligations. Thereafter the MoF intends to enter into agreements with the companies seeking subsidies from the central budget which will specify the undertakings and obligations of the enterprises in return for the subsidies. These agreements are expected to reduce uncertainty and provide greater stability in the financial planning of the entities.

The local governments of Durres, Fier, Lezha, and Saranda have approved water supply tariff increases for the year 2003 and the introduction of a sewerage tariff. The approved levels are in line with those discussed by Bank staff with the utilities as part of the first year of the overall recovery program during the period of Project implementation. These initial increases will be followed by further progressive increases during Project implementation, keeping in view affordability considerations.

Future Finances: Projections of the four utilities' financial statements, including the main assumptions made, are provided in Annex 5. A key assumption in the projections is that the selected Operator would be in place by early 2003 so that the expected improvements in operating and financial performance would progressively be achieved thereafter. To determine the respective levels of contribution by the utilities and the local/central governments, financial analysis was carried out during Project preparation (available in Project Files) examining the implications and impacts of alternative scenarios as to the speed of full-cost recovery by the utilities from their current low positions. Conclusions from this analysis, discussed with the utilities, the municipalities, and the MoF, were that, given the current low levels of tariffs, collections, and cost-recovery, and taking into account affordability and social impact considerations, the most realistic scenario is to require the utilities to target to achieve a cash break-even (collected revenues not less than cash operating expenses) by 2007, the penultimate year of the project implementation period. Furthermore, the on-lending of the IDA credit to the utilities would have to be close to IDA terms if the utilities are to be able to make the minimum level of investments needed after 2007 from internally generated funds. Thus, the IDA credit would be onlent to the four utilities for the same grace and maturity periods (10/20 years) but at a higher interest rate of 1.5% per annum. However, during the period 2003 to 2007, since the utilities will continue to incur operating deficits, the interest payable by them on their subloans will be capitalized and added back to their subloans. Starting 2008, the utilities will begin paying in full the interest on the subloans (including the capitalized interest). The Government and the utilities will review the situation in 2008, the last year of project implementation, to determine if any change in the terms (e.g., a higher interest rate) is feasible and warranted.

The financial projections carried out for this alternative indicate that: For the utilities,

- cash operating break-even (i.e., a working ratio not greater than 1.00) would be achieved not later than 2007;
- full-cost recovery (including depreciation and adequate provisioning), would be achieved not later than 2010;
- domestic tariffs would need to be progressively increased in real terms during the implementation period by an estimated 168% for Durres, 120% for Fier, 263% for Lezha, and 200% for Saranda;
- collection ratios would need to be progressively doubled from the current low levels; and
- the utilities would have to start servicing the debt on the subloans (including the capitalized interest for the period 2003 to 2007) starting in 2008.

For the central government, during the implementation period, 2003 to 2008, the Government would need to contribute an estimated amount of Lek 2,060 million (US$14.73 million equivalent) to cover both Project investment-related financing as well as subsidies to cover operating cash deficits and debt service, as follows:

Local counterpart financing (including taxes and duties) for the project (US$3.16 million);
Technical assistance (US$4.05 million);
Operating subsidy (on a declining basis, expected to be eliminated by 2007) to cover electricity and other operating expenses (US$5.65 million); and
Debt service towards IDA on the existing and new debt in the case of Durres, and the new debt in the case of the other three utilities (US$0.68 million).

In addition, the central government would also have to provide financing, through the social security funding sources, for the severance payments to the employees rendered redundant when the Management Contract is implemented (US$1.19 million).

The net fiscal impact on the central government's budget is discussed in the relevant section below.

The respective obligations and undertakings on the part of the central government and the utilities/local governments are reflected in the Credit Agreement between IDA and Albania, and will be reflected in the Subsidiary Loan Agreements between the MoF and each utility.

Affordability: The scope and size of the Project have been based on affordability considerations. The rate of tariff increases over the implementation period has taken into account the impact on household water and sewerage bills. The socially acceptable rate of tariff increases has also been used to determine the relative contributions of the utilities and the central government during the Project period. To provide relief to low-income households, the utilities and their municipalities have accepted that an amount of 20 lpcd will be supplied free of charge to all metered consumers. Any consumption over this level would be charged at the tariff rate for metered consumption. If a metered household consumes amounts higher than 20 lpcd and fails to pay the dues, it will be subject to disconnection. The estimated affordability impacts are summarized in Annex 5, Table 9. The estimates show that the projected higher water and sewerage tariffs will remain affordable (less than 4% of monthly income) for average income households (monthly income of Lek 45,000) at consumption levels of up to 150 lpcd. With the progressive introduction of metering, as planned, households would have both the ability and the incentive to further limit their consumption and eliminate wastage. Consumption of the poorer households tends to be lower, and will remain affordable (3% of monthly income) for levels of up to 40 lpcd. For the extreme poor households, in case they are unable to pay, it will be ensured that they have reasonable access to standpipes for their water supply. The municipalities, in cooperation with the Operator, will monitor the success of the affordability approach.

Financial Rate of Return and Risk Analysis: The financial viability of the Project depends critically on the anticipated improvements from the management contract. The Operator is expected to be able to progressively improve the collection performance as indicated while at the same time enabling cash O & M expense savings through improved techniques and practices. The utilities' experience has proved that such improvements would not be possible without the assistance of the Operator. The Project's FRR is therefore based upon the incremental benefits (incremental collected revenues plus incremental O & M expense savings) to be derived from the management contract. The assumptions and the analysis are summarized in Annex 5, Tables 7 and 8. The FRR is estimated at 15% with a Net Present Value (NPV) of Lek 752 million (US$5 million equivalent) at a discount rate of 10%.

The main financial risks are: (i) the Operator is not effective in securing the necessary improvements due to either (a) inadequate performance, or (b) lack of the required support from the utilities, the municipalities, and the central government. This would affect the Project through:

lower than anticipated revenues due to lower than projected tariffs or lower than projected collection ratios or both; and lower than estimated O & M expense savings; this includes delays in the planned staff reduction.

(ii) failure on the part of the central government to provide the required financial contributions in a timely and adequate manner which could adversely affect Project implementation and entity performance.

The risk in regard to the Operator's performance is sought to be mitigated through:

selection of an internationally reputed firm with experienced staff assigned to the Project;
performance incentives built into the management contract where a substantial part of the overall compensation would be determined by performance in achieving agreed targets; and
establishment of an appropriate oversight arrangement composed of municipal and utility representatives to monitor progress and provide required support.

The risk in regard to the Operator obtaining the required support from the local/central governments would be mitigated through the establishment of the Executive Committee consisting of representatives of the central and local governments which would periodically meet with the Operator to review progress and address issues. IDA would have to remain involved in the process through proactive and diligent supervision to anticipate problems to the extent possible and to help in expediting solutions.

The risk in regard to the timely and adequate financial contributions by the central government is mitigated to some extent by the fact that the key ministries (MoF, MoTAT) have been involved in the Project preparation process which has included joint reviews of the Project objectives, the financial constraints and alternatives, and the sharing of the financial burden between the central government and the municipalities/utilities. In addition, the central government would participate in the Executive Committee responsible for contract supervision. The central government's obligation to financially support the Project is reflected in the Credit Agreement. Nevertheless, the risk cannot be entirely eliminated, and needs to be viewed in the context of IDA's exit strategy in case of non-performance by the central/local governments and/or the utilities.

Sensitivity analysis for the FRR is presented in Annex 5, Table 8. The collection rate is the most significant variable for the FRR; a shortfall of 10% in the collection rate would drive the FRR from 15% to 9%.

Financial Conditionality: The enabling of successful performance by the Operator, and timely and adequate financial contributions by the central government, would be critical for the success of the Project. To ensure this, under the Credit Agreement, the central government is required to:

confirm that it would provide, annually during project implementation, in a timely and adequate manner the funds required by each utility to cover (i) local counterpart financing of the Project cost; (ii) import duties, VAT and other applicable taxes on Project investments; (iii) operating subsidies to cover all operational expenses which cannot be covered by revenues collected, including but not limited to, expenses for operations and maintenance cost, social security payments, VAT payments, and profit tax; and (iv) debt service towards IDA in respect of the subloans from the existing and new IDA credits;
enable the municipalities and the utilities to put into effect the tariffs proposed by them during the implementation of the project; and
ensure that budgetary institutions and agencies timely and fully meet their payment obligations

towards the utilities.

Under the Subsidiary Loan Agreements, each utility would be required to:

> review with IDA on a semi-annual basis its financial performance, including revenues and expenditures for the preceding and following semesters, and annually its projected performance for the following two years, on the basis of forecasts prepared by it, and to take steps as necessary, including but not limited to tariff increases and improved collections, to ensure the adequacy of the revenues to meet the projected financial requirements; and not incur any new debt unless the forecasts show that debt service coverage can be maintained at a level of not less than 1.5.

Fiscal Impact:

Over the implementation period, the MWWP would have a net positive impact on the central government's budget through progressive reduction and elimination of subsidies. Although the central government would have to contribute to Project financing through coverage of the local counterpart financing requirements, the applicable taxes and duties on the investments, and the debt service on the IDA credit (during 2003 to 2007), this would be more than offset by the progressive elimination of the operating deficits of the four utilities with the help of the Operator. In the absence of the Project, the present situation of major drain on the central government budget through direct and indirect subsidies would continue and likely progressively worsen; under the Project, the need for operating subsidies is expected to be eliminated by 2007. Beyond the implementation period, the improvements in revenues generated under the Project would yield increased VAT net transfers to the budget.