

## PROPOSAL FOR REVIEW

Project Title	Lake Ohrid Management Project
Country Eligibility	Under 9(b) of the Instrument
Total Project Costs	US\$4.27 million
GEF Financing	US\$3.97 million
Cofinancing	Stand-alone project with parallel financing (for related non-transboundary activities) being sought from Switzerland, the European Union, Austria, Italy, UNDP, the Netherlands, and other international donors (approximately \$4 million in parallel financing virtually certain with additional \$17 million being sought); Government contribution: approximately \$300,000.
GEF Implementing Agency	World Bank
Executing Agencies	Governments of Albania and the former Yugoslav Republic of Macedonia
Local Counterpart Agencies	Ministry of Public Works, Territorial Planning and Tourism (Albania); Ministry of Construction, Urban Planning, and Environment (the former Yugoslav Republic of Macedonia)
Estimated Starting Date (Effectiveness)	April 1, 1997
Project Duration	Three Years
GEF Preparation Costs	Project Preparation Advance US\$285,000 (PDF Block B) US\$ 25,000 (PDF Block A)

**GLOBAL ENVIRONMENTAL FACILITY (GEF)**  
**ALBANIA AND THE FORMER YUGOSLAV REPUBLIC OF MACEDONIA**  
**LAKE OHRID MANAGEMENT PROJECT**

**Lake Ohrid and Its Surroundings**

1. Lake Ohrid is approximately 2-3 million years old, and is one of the world's oldest lakes. Two-thirds of the lake's surface area of 358 square kilometers belongs to the former Yugoslav Republic of Macedonia while the remainder is in Albanian territory, and the lake lies in a valley 695 meters above sea level surrounded by mountain peaks of over 2,000 meters. It has a shoreline of 88 kilometers, maximum length of 30 kilometers, width of 14.5 kilometers and depth of 289 meters.
2. The only surface outflow of Lake Ohrid is the River Crni Drim which accounts for 72% of the outflow (with a mean discharge of 22.2 cubic meters per second), with the remaining 28% accounted for by evaporation. The catchment area of the lake covered 1,042 square kilometers until 1962, when it was artificially enlarged to 1,487 square kilometers after the River Sateska, previously a tributary of River Crni Drim, was diverted into the lake near Struga. However, the effective size of the catchment is substantially larger since several springs along the shore of Lake Ohrid are supplied from Lake Prespa. Lake Prespa, which lies 200 meters higher than Lake Ohrid and is separated from it by a mountain range, provides approximately 46% of the inflow of water to Lake Ohrid. The largest spring, St. Naum, discharges about 8.3 cubic meters per second corresponding to 25% of the total inflow into Lake Ohrid. About 40 rivers and streams drain into Lake Ohrid and provide roughly 26% of its inflow, but only the Sateska, Koselska, and Cereva carry significant discharges. Others are small and dry out during the summer.

**Biological and Environmental Significance**

3. The lake is one of the largest biological reserves in Europe, possessing unique flora and fauna which are extinct elsewhere. Only Lake Ohrid, Lake Tanganyika, Lake Caspi, and Lake Baikal are believed to have been formed during the Tertiary Period some 2-4 million years ago, and hence these lakes are characterized by unique flora and fauna distinct to that period. Due to its age, many of Lake Ohrid's aquatic species are endemic including ten of the seventeen fish species. In addition, there are five particular endemic species which are restricted to small areas of the lake offering special microecological systems. Finally, the reed belts in the littoral zone have a high ecological significance as a biotope for various aquatic birds, as well as for fish spawning grounds. Because of its rich history and unique flora and fauna, Lake Ohrid was declared a UNESCO World Cultural and Natural Heritage Site in 1980.

**Economic Significance**

4. The lake's shores have been populated since antiquity, and, in addition to a number of mostly fishing villages, three cities with a combined population of about 100,000 have grown up around the lake - Ohrid and Struga in the former Yugoslav Republic of Macedonia, and Pogradec in Albania. During the summer tourist season, the population along the Macedonian shore increases from 80,000 to 120,000. In

addition, about 60,000 people live in the lake's catchment area on the Albanian side, and Pogradec is also an important summer destination for Albanian tourists. For the former Yugoslav Republic of Macedonia, Lake Ohrid is the number one tourist destination, and it frequently received foreign tourists before the war in Bosnia-Herzegovina discouraged tourism to the Balkans. In Albania, Lake Ohrid is the second most popular summer tourist destination after the Adriatic Coast, and approximately one thousand fishermen make their living from the lake. Ten of the fish species in the lake have commercial value.

### **Major Transboundary Threats to the Lake**

5. A clear danger exists to maintaining the long-term ecological stability of Lake Ohrid unless action is taken to improve environmental management of the catchment area and the shoreline to prevent the accumulation of pollutants in the lake. These actions are critical since the inflow and the outflow is very small so that the lake's water is exchanged approximately only every 60 years. This long water retention time is the main reason for the slow reaction of the lake to pollution. Box 1 (page 13) summarizes the major transboundary threats to the Lake identified in the feasibility study conducted as part of project preparation. Chief among transboundary threats, and despite a number of remedial measures, is the phosphorous content on the Lake: less than 25% of wastewater in the catchment is treated. After untreated wastewater, the second major source of pollution is the inflow of nutrients from non-point sources (i.e., erosion and agricultural run-off). Industrial pollution, on the other hand, is less of a problem now due to reduced industrial activity.

6. The total phosphorus concentration has increased by about  $0.25 \text{ mg/m}^3$  over the past decade with a mean concentration estimated at between  $7\text{-}8 \text{ mg/m}^3$ . Therefore, it is predicted that the state of the lake will move from its present state (oligotrophic) to mesotrophic or even eutrophic in the next ten years, if measures are not taken to limit phosphorus loading into the lake. The current loading of dissolved phosphorus is approximately 150 tons per year, and this would need to be reduced to 100 tons per year to keep the mean concentration of phosphorus below  $7 \text{ mg/m}^3$ .

7. On the Albanian shore, the main sources of pollution stem from untreated sewage from Pogradec, and sewage from villages. Before the fall of communism, uncontrolled industrial wastewater and mining waste, including toxic substances and heavy metals, were also discharged directly into the lake. In the Albanian catchment area, the main sources of pollution are agricultural run-off and soil erosion due to unsustainable agricultural practices and excessive deforestation. On the Macedonian shore, the main sources of pollution stem from sewage from incomplete secondary collection systems in Ohrid and Struga, sewage from villages, and uncontrolled discharge of pre-treated wastewater from hotels, camp sites and industries. In the Macedonian catchment area, the main sources of pollution are sediment load discharged by the Sateska River, infiltration of contaminated water from widespread septic tanks, rain and groundwater contaminated by disposed solid waste, and agricultural run-off.

8. In the former Yugoslav Republic of Macedonia, measures to abate the environmental degradation of the lake were initiated in the 1980s. Two of the three existing wastewater treatment plants in the former Yugoslav Republic of Macedonia are located in the catchment of Lake Ohrid. About 20,000 population equivalents (pe) in Ohrid and 14,000 pe in Struga are connected to a sewerage system. Wastewater is pumped along the shore through a 25.4-kilometer-long collector with eight pumping stations to a treatment plant near Struga. Treated water is discharged into the River Crni Drim. The plant is designed to treat wastewater of 120,000 pe, although some components (e.g. aerated grit removal tank) are laid out

for 180,000 pe. Construction was suspended in the late 1980s due to the lack of funding. The second treatment plant connects 12,000 pe in Resen on Lake Prespa which accounts for 46% of the water of Lake Prespa draining into Lake Ohrid through underground streams and springs.

9. In Albania, there are no wastewater treatment facilities at present, and only Pogradec has a wastewater collection system serving about 35% of its residents. Wastewater collected in a trunk sewer is pumped by three pumping stations and discharged into Lake Ohrid about five kilometers east of Pogradec near the border with Macedonia. This situation, however, represents a transboundary threat to the health of both residents and tourists in Pogradec due to the lack of treatment before wastewaters are discharged. During the summer of 1995, the Government issued health warnings and many Albanian tourists avoided using the main beach near Pogradec due to unsanitary conditions from wastewater discharge.

## **Project Objectives**

10. The primary objective of the Project is to develop a basis for the joint management and protection of Lake Ohrid by the governments and people of the former Yugoslav Republic of Macedonia and Albania. By establishing a basis for joint management of the Lake Ohrid Basin, the Project will promote cost-effective solutions concerning transboundary natural resources management and pollution issues and prevent and minimize future pollution. This is the foundation upon which the success of the GEF Project and all subsequent efforts will rest since any environmental protection strategy for the Lake Ohrid Basin must be based on the principles of cooperation between Albania and the former Yugoslav Republic of Macedonia, and the joint management of the lake and its surrounding resources. The GEF project will finance the incremental costs associated with this cooperation over the next three years.

11. GEF projects which fall under the Water body-based Operational Program typically contain certain steps in the development of a strategic action plan (SAP). In the case of Lake Ohrid, the following elements of a SAP are already in place: identification of transboundary issues based on a Transboundary Issues Paper prepared under the GEF Project Preparation Advance, a Memorandum of Understanding (signed in December 1996) on cooperation between the two countries, including the intent to establish a suitable organizational framework for cooperation, plus a list of investment priorities determined through a Project Feasibility Study financed by the Swiss Government. The proposed project would deepen and broaden the process of SAP formulation, focusing particularly on an analysis of transboundary issues, and over the next three years result in the formulation and adoption of a Lake Ohrid Strategic Action Plan and Investment Program.

12. Among the transboundary natural resources management issues to be addressed are: (i) joint management and protection of fisheries resources to ensure that these resources are not overexploited; (ii) joint management and protection of biodiversity resources in and around Lake Ohrid; (iii) the implications of the discharge of wastewaters from the Macedonian treatment plant in Struga into the River Crni Drim which flows into Albania; (iv) the potential environmental implications of discharging Albanian wastewaters directly into the lake near Pogradec; and (v) the transboundary effects of improper use of agricultural chemicals and poor land-use practices, and the potential degradation of the springs feeding Lake Ohrid. In light of the importance of economic activities such as tourism and fishing for the local economies on both sides of Lake Ohrid, a primary objective of the Project and subsequent Strategic Action Plan and Investment Program will be to promote integrated analysis and consideration of the

implications of pollution control and development strategies, focussing on the costs and benefits on both sides of the lake.

## Project Description

13. Four components are proposed for the Project: (i) Developing the Institutional, Legal, and Regulatory Framework for Cooperation; (ii) Establishing a Monitoring Framework; (iii) Preparation of a Lake Ohrid Strategic Action Plan and Investment Program; and (iv) Financing Priority "Catalytic" Measures. The GEF project will finance only the incremental costs related to international cooperation. It should be emphasized that the GEF Project is proposed as a stand-alone project which is closely linked to Bank and other donor support in both countries. It thus serves as a catalyst for other donors to provide parallel financing for investments and other measures which are not considered to be incremental. For example, the Government of Switzerland (monitoring equipment and wastewater collection investments) and the European Community (wastewater treatment) are both actively involved in supporting measures which are complementary to the GEF Project and have committed approximately \$2.26 million in parallel financing for 1997. The Government of Switzerland also financed the Project Feasibility Study (\$0.5m) which was completed in December 1995 as part of GEF project preparation.

**Developing the Institutional, Legal, and Regulatory Framework (\$0.640 million).** This component will establish and support a Lake Ohrid Management Board in order to promote permanent cooperation between the two countries. Each country has appointed six high level national and local officials (including representatives of nongovernmental organizations) to be on the Board, and it is proposed that one international specialist also serve on the Board. The Board will meet periodically (about 2-3 times per year) to agree on common objectives, operating rules and procedures, review project implementation, and discuss strategies for raising funds for implementation of the environmental program for the conservation of Lake Ohrid.

This component will support technical training for technical specialists and local staff from the municipalities who would work under the guidance of the Lake Ohrid Management Board. It will also support analytical work leading to the harmonization of the relevant laws, regulations, and standards between the two countries. Other measures supported under this component will include strengthening the environmental management and enforcement capacity of municipalities bordering the lake, and providing limited support (e.g. through training and technical assistance for legal and regulatory reform) to counterpart agencies in Tirana and Skopje. In addition, Project Implementation Units (PIUs) have been established in both countries, and the PIU activities will be supported under this component. The salaries of the members of the Lake Ohrid Management Board will be financed by their respective organizations with the exception of small honoraria to cover expenses to be paid to Board members.

**Establishing a Monitoring Framework (US\$1.900 million).** Coordinated monitoring of Lake Ohrid has never been carried out, and thus the Project will support a well-coordinated monitoring program through the purchasing of monitoring equipment and the development of a monitoring system for tracking the quality of the waters of Lake Ohrid, the level and composition of discharges into the lake, and other data relevant for the Ohrid Lake ecosystem. A Monitoring Concept has been prepared and approved by the Monitoring Task Force from each country, and includes: (i) details on data collection, information exchange, and publishing of monitoring information; (ii) the precise points to be monitored in Albanian and Macedonian waters along with the frequency of monitoring and the parameters to be measured at each point; (iii) equipment requirements in both countries; (iv) training and technical assistance requirements; and (v) institutional responsibilities. Clearly, without coordinated monitoring, it would not be possible to

guarantee that the two countries could adequately analyze problems from an "ecosystem" perspective and agree on mutually acceptable solutions for managing transboundary issues. The component will therefore provide financing for initial purchasing of monitoring equipment such as boats, chemical analyzers, and other field equipment required to carry out regular monitoring of the water quality of the lake and effects on flora and fauna, in addition to office equipment, and support for additional staff, training, and technical assistance. The monitoring plan will be formulated during project implementation. However, the key indicators will be identified during project appraisal. A key indicator of stress reduction is a decrease in the discharge of dissolved phosphorous into the Lake. At the end of the Project, a new laboratory will be created on the Albanian side of Lake Ohrid, and a complete monitoring system based on cooperation between the two countries (including for the exchange of data and information) will be established.

**Preparation of a Lake Ohrid Strategic Action Plan and Investment Program (US\$0.895 million).** This component will develop and design a forward-looking Strategic Action Plan and Investment Program which will be responsive to the GEF International Waters Strategy requirements. The Strategic Action Plan and Investment Program will form the long-term basis for both developing and protecting the Lake Ohrid region, addressing transboundary pollution and natural resource management issues, and mitigating the environmental impact of present and expected human activities well into the next century. Preventive solutions will be emphasized, taking into account the data to be collected through monitoring activities supported under the Project. Through workshops, training programs, and the close collaboration of international, Albanian, and Macedonian specialists, the Strategic Action Plan and Investment Program will build on the existing Project Feasibility Study by identifying prospective donors and financiers in addition to proposing a schedule for the phasing of technical assistance and investment measures. The Strategic Action Plan and Investment Program will focus on: (i) tourism and infrastructure development (including management of cultural heritage); (ii) urban and industrial pollution and wastewater management; (iii) solid waste management; (iv) watershed management -- agricultural chemicals, soil quality and erosion, forestry; (v) natural resources management -- biodiversity, protected areas, parks; (vi) fisheries management; (vii) legal/regulatory framework; (viii) institutional strengthening; and (ix) financial sustainability.

Environmental education and public awareness programs in support of local actions identified in the SAP will be conducted by local non-governmental organizations and introduced in schools and in the local communities bordering on the Lake. The preliminary design of the public awareness campaign was financed by the Project Preparation Advance and implemented by local non-governmental organizations.

**Priority "Catalyst" Measures (US\$0.535 million).** This component will finance small investments and other measures to promote community support, test technologies new to the area, and to serve as catalysts for future investments. Only investments and measures with a clear transboundary impacts and high demonstration value for both countries have been selected for financing. Based on the Project Feasibility Study, and agreed to in consultation with the national governments, municipalities, and other local groups, small pilot projects have been selected to address transboundary issues related to: (a) reduction of the nutrient load flowing into Lake Ohrid (including soil erosion control and agricultural management); (b) fisheries management; and (c) a seismic analysis program due to the location of Lake Ohrid in areas sensitive to earthquakes. The reduction of nutrient output (see (a) above) is considered to be the pilot project with the greatest

potential benefit. The funds (\$410,000) will support two activities. First a market and feasibility study for introducing phosphorous-free detergents to reduce waste-water treatment costs. Currently no phosphorous-free detergents are available in either country, yet detergents contribute about half of the total phosphorous in Lake Ohrid on an annual basis. Secondly, the project will finance a public awareness campaign aimed at improving agricultural management to reduce soil erosion and agricultural run-off into the lake. This will be implemented by local NGOs who have worked closely with the Swiss consultants in identifying the needs and target populations for this activity. The demonstration value and lessons learned from these pilot measures will thus complement and contribute to the formulation and design of the Strategic Action Plan and Investment Program to be prepared under the Project, and, at the same time, serve to stimulate donor interest in providing additional support for the activities covered under this component (See the Project Budget in Annex 1 for a more detailed description of this component and each demonstration project).

14. Thus far, a Project Preparation Advance (PPA) of \$285,000 has been awarded to the countries, and this has helped to lay the groundwork for the future sustainability of the Project (See Annexe 2). In addition to financing the design of the public participation and awareness campaign, the PPA has financed meetings of members of the Lake Ohrid Management Board who together drafted the Memorandum of Understanding and the overall framework for project preparation, and meetings of the Monitoring Task Force who have prepared the Monitoring Concept. The PPA is also financing the design of institutional arrangements in both countries to govern day-to-day project implementation through Project Implementation Units (PIUS) which will serve under the direction of the Lake Ohrid Management Board, financed a two day training course on project management and implementation which was held in July, 1996, and partially financed a Donors' Conference held at Lake Ohrid in October, 1996. Approximately eight donors were represented at the Donors' Conference which was attended by about 80 people. The purpose of the Donors' Conference was to clarify the roles of prospective donors during the next three years, and the measures each could finance to support parallel activities associated with the GEF project.

### **Project Cost and Financing**

15. The project is proposed as a grant of \$3.97 million from the GEF. The project will finance only the incremental costs associated with the management of transboundary issues in the Lake Ohrid Basin in accordance with GEF Operational Policies for Water-Body Projects (Annex 5). Preliminary feasibility studies have identified an investment program of approximately \$50 million. This includes investments and activities associated with the development and implementation of a Strategic Action Plan, a public awareness campaign, institutional strengthening, design of a financing mechanism to ensure sustainability, and small-scale, priority pilot projects with a high potential for demonstration and replicability. These incremental costs are proposed for GEF financing. Both the Albanian and Macedonian authorities have demonstrated strong commitment to the proposed Lake Ohrid Management Project, and the salaries of all members of the Lake Ohrid Management Board will be financed by the government agencies or non-governmental organizations which employ the Board Members. In addition, the countries will finance the salaries and overhead costs required to finance the participation of all members of technical task forces and counterpart staff who will be involved in the implementation of the Project (with the exception of PIU staff and consultants), and this total contribution is expected to be on the order of \$100,000 per year.

16. The project is intended to be a catalyst for other donors to provide parallel financial support for other priority projects for Lake Ohrid in the former Yugoslav Republic of Macedonia and Albania. At this



time, the Government of Switzerland has committed support to the former Yugoslav Republic of Macedonia for priority investments for wastewater collection and monitoring measures (\$1.91 million in 1997), and the EU-PHARE will finance the detailed design work for a wastewater treatment plant in Pogradec, Albania (\$400,000). It is expected that the construction of the wastewater treatment plant in Albania will be financed by the World Bank and other donors on the basis of the recommendations of a Project Feasibility Study financed by Switzerland. In addition, the United Nations Development Program (UNDP), the World Bank, and the Governments of Italy, Austria, Finland, and the Netherlands are considering parallel activities which would complement the proposed GEF Project (See Annex 4).

## **Project Implementation**

17. The entire GEF Project will be implemented over a three-year period, with the intention that the wider Strategic Action Plan and Investment Program for the protection and management of the Lake Ohrid region would form the foundation for future technical assistance and investment activities. During the course of the implementation of the GEF Project, the Governments of the former Yugoslav Republic of Macedonia and Albania, the World Bank, and other donors will more fully develop ideas for follow-on projects and investments which would be included in the Strategic Action Plan and Investment Program to be developed towards the end of project implementation.

18. The Lake Ohrid Management Board would oversee project implementation through Project Implementation Units (PIUs) which have been established in both countries. Each PIU would consist of a project manager, an accountant, and support staff, and report directly to the Lake Ohrid Management Board. The PIU would involve the municipalities of Pogradec, Ohrid, and Struga, and other institutions such as the Hydrobiological Institute in Ohrid and the Hydrometeorological Institute in Albania. For the public awareness and environmental education work, the PIU would also coordinate with local nongovernmental organizations (NGOs) which are working together with the Regional Environment Center (REC) (headquartered in Budapest, and with offices in Albania and Macedonia) on raising public awareness and promoting public participation.

## **Rationale for GEF Involvement**

19. The project is consistent with the GEF Operational Strategy approved in November, 1995 and specifically falls under the Water-Body Operational Program. The GEF would support measures required to promote and facilitate communication and collaboration, the development of a Strategic Action Plan and Investment Program, joint monitoring, and limited investment in demonstration/pilot projects which would help to reduce the potential for damage to Lake Ohrid, especially in border areas. Because Albania was closed for over forty years, and the former Yugoslav Republic of Macedonia only recently achieved independence, the Project would afford the first real opportunity for cooperation in management of natural resources and investment planning between the two countries. In the absence of the GEF Project, it is doubtful that joint management of Lake Ohrid would take place since there is little history of cooperation between the two countries in this area. Moreover, the Project will also have the added benefit of promoting international cooperation in an area where there is some existing political tension. Finally, because there are other border lakes between Greece, Albania, and the former Yugoslav Republic of Macedonia (Lake Prespa), Greece and Macedonia (Lake Dojran), and Albania and Yugoslavia (Lake

Shkoder), the Lake Ohrid project would serve as a precedent and model to follow for these other transboundary initiatives.

20. Officials from both countries have underscored that the lake itself has no borders, and therefore that project design and implementation must be carried out jointly to be successful. The project beneficiaries submitted official requests for a joint project to the World Bank in the fall of 1994 shortly after initial discussions were held with World Bank staff working on both countries, and requests were resubmitted by the GEF Focal Points (Annex 5). In July 1996 the countries reached substantive agreement on a Memorandum of Understanding concerning the Protection of Lake Ohrid, and this was signed in December 1996. Both countries appointed teams of approximately fifteen technical specialists from each country (representing about ten ministries, institutes, and the local municipalities in each country) who have been working together with the World Bank and the team of Swiss consultants to prepare the Project.

### **Lessons Learned and Technical Review**

21. Much of the preparation of the project has been done by national and local staff in Albania and the former Yugoslav Republic of Macedonia, so that the lessons learned during project preparation can be applied during project implementation. A copy of the Technical Review of the Project is included as Annex 6. The revised project design has responded to the review by ensuring that these comments were taken into account during the preparation of the Project Feasibility Study which was completed some four months after receipt of the Technical Review comments. Specifically, the complex ground water/surface water system associated with the connection between Lake Ohrid and Lake Prespa, the hydrogeologic karst system, and the inflow of water from natural springs was taken into account in project preparation and design. All of these issues were examined along with the water balance and water currents of Lake Ohrid and Lake Prespa (which are part of one system since the latter accounts for 46% of the inflow to Lake Ohrid) in the Project Feasibility Study. The issue of data collection and assessment will be addressed through the monitoring component of the project which will establish a framework for data collection and information exchange between the two countries.

### **Sustainability and Participation**

22. Assuming successful implementation of the Project over the next three years, it will be proposed towards the end of project implementation that the international donor community help endow a Lake Ohrid Foundation or Lake Ohrid Development Corporation which would have responsibility for developing policies and programs for the protection of Lake Ohrid and its environment into the next century. The Lake Ohrid Management Board could become the Board of Directors for such a Foundation/Corporation, and the Project Implementation Units would form the staff. Without long-term commitment, there is some danger that the resources to continue international cooperation and monitoring would be inadequate, so it will be necessary to create a focal institution to sustain future efforts. In addition, a small portion of tourism revenues, wastewater charges, and other fees associated with the use of the lake could be earmarked by both countries for the proposed Lake Ohrid Foundation/Development Corporation, and for supporting cooperative management of Lake Ohrid. Joint ventures with foreign investors after the GEF Project is completed would be another possible mechanism for financing a Foundation/Corporation.

23. Both countries have invited the participation of national and local nongovernmental organizations (NGOs) to encourage public participation and improve public awareness, responsibility, and ownership of the Project. These include the Regional Environment Center which has offices in both countries and local NGOs around Lake Ohrid such as Perla and Kadmi/Harmonia in Albania, and Lihnidos, Enhalon, and Natura in Macedonia. These NGOs all had major responsibility for helping to organize the Donors' Conference held at Lake Ohrid in October. In addition, in connection with the conference, a film was produced by the NGOs on the management of Lake Ohrid, an NGO roundtable was held in both countries, and numerous other public awareness activities were carried out under the Project Preparation Advance such as children's programs ("clean the lake day"), environmental education activities, and distribution of leaflets and other public materials promoting the protection of Lake Ohrid.

24. The municipalities along Lake Ohrid have all demonstrated active interest and participation in project preparation so far and have worked together with the NGO and PIU staffs. In addition, there has been television and news media coverage, public conferences, including town meetings chaired by the local mayors special films and other promotions concerning the management of Lake Ohrid. By working together with the Regional Environment Center (REC) and local NGOs, the GEF Project Preparation Advance has begun to plant the seeds for sustained public awareness and involvement. A more detailed public participation plan will be developed during project appraisal, and be finalized before project implementation begins.

25. Approximately \$250,000 of the GEF Grant will be allocated for public awareness activities, and the NGOs (led by the Regional Environment Center) will prepare a detailed proposal for the use of the money before project implementation begins. Many of the specific activities are already identified, such as the public awareness campaign to reduce nutrient load and introduction of phosphorous-free detergents (para. 13). It is expected that the participation of all stakeholders will be continuous throughout the Project, and that the NGOs which will be responsible for public awareness activities will prepare a public participation plan based on the inputs of the various stakeholders (i.e., local government, local business, fishermen, farmers, environmental and nature organizations, and the general public in the towns and cities around the lake). Under the GEF Project, financing will be provided to establish "Green Centers" in both countries which will promote environmental education and awareness for the general public, and ensure that local involvement in, and awareness of, the Project is maximized.

## **Project Issues and Benefits**

26. This project would be the first of its kind in Central and Eastern Europe, and the first between the two countries, and will address a complex set of managerial, scientific/technical, and institutional issues, and aim to provide both Governments with the necessary skills, information, technical and financial resources, and a proper legal and institutional framework. It will develop the capability of the two countries to work together in the management and protection of Lake Ohrid, and also provide the basis for preparing a regional development strategy which will serve the needs of both countries.

27. The primary benefit of the Project would be the protection of the Lake Ohrid basin by establishing an effective international framework for long-term basin management, and by undertaking priority actions to control the major sources of pollution. Involvement of the GEF would leverage financing for parallel projects identified in the Project Feasibility Study, and follow-on projects expected to be identified under

the Lake Ohrid Strategic Action Plan and Investment Program. By investing now in preventive measures to protect Lake Ohrid, both countries will save millions of dollars which would likely be required for future clean-up and corrective measures.

28. Another benefit of the Project is that it has served to stimulate consider donor interest in financing the protection of Lake Ohrid. A Donors' Conference was held at Lake Ohrid in October, and was attended by representatives of the World Bank, UNDP, GEF, European Bank, European Union, and Governments of the Netherlands, Switzerland, Italy, and Finland. So far, approximately \$2.31 million of the baseline costs have been committed to be financed by the European Union and the Government of Switzerland in 1997, with an additional \$1.7 million highly likely from the other donors. Of the total of \$24.865 million being sought, both countries are optimistic that most of this amount will be committed before completion of the GEF Project. Follow-up is being coordinated through the Project Preparation Committee (PPC) of the Environmental Action Program for Central and Eastern Europe since the Lake Ohrid Donors' Conference was the first ever Sub-Regional PPC meeting.

29. Finally, the Project would also establish the basis for cooperation between the two countries in other areas. Finally, the Project would provide additional benefits by developing a framework for management of three other border lakes in the region -- Lake Shkoder (Albania and Yugoslavia), Lake Dojran (Greece and the former Yugoslav Republic of Macedonia), and Lake Prespa (Albania, the former Yugoslav Republic of Macedonia, and Greece). Future projects for each of these lakes could be considered by the GEF, World Bank, and other donors, and benefit from the lessons learned in the design and implementation of the Lake Ohrid Project.

## **Risks**

30. This is a complex project from a political and administrative viewpoint. Project design will therefore have to address a number of factors. These include: (i) Expected development of the Lake Ohrid Region and the technical, social, economic, and institutional measures which will be needed to reconcile urban, industrial, agricultural, and tourism development with concerns for the environment; (ii) Sensitivity analysis examining the response of the Lake Ohrid ecosystem to both present and projected pollution loads in order to ascertain the minimum level of protection required; (iii) Protection requirement standards to determine priorities and specific protection measures based on the results of the sensitivity analysis; (iv) Monitoring efficiency of protection measures to provide feedback for adjustment of measures undertaken and planning of future development of the region; and (v) Institutional strengthening and education of the public to sustain environmental protection efforts.

31. The primary risk is the possible difficulty of ensuring adequate cooperation between the two countries in executing the Project. Many of the Albanian technical specialists are located in the capital city three hours from Lake Ohrid since there is no technical institute on the Albanian side of the lake, and this makes organizing meetings and collaborating with their Macedonian counterparts more difficult. In addition, the mechanisms for telecommunications and border crossing procedures are antiquated. To ensure a balanced involvement of the two countries in project implementation, it will be necessary to strengthen the institutional capacity in Pogradec, Albania.

32. Finally, without effective training of the technical and policy specialists in both countries, there is a risk that the project would not be successful due to inadequate institutional capability to support its

implementation. To this end, the Project will support institutional strengthening at the local and national level, focusing on: (i) training for technical specialists who will work on developing the Strategic Action Plan; (ii) project management training for the staff of the Project Implementation Units; and (iii) training for the monitoring specialists. In all cases, a key aspect of the training will be to promote that staff from both countries work closely together.

33. In any event, a promising start for cooperation has been made with the establishment of Project Implementation Units in both countries, agreement on a Memorandum of Understanding between the two countries, and the establishment of the Lake Ohrid Management Board. By adhering to the GEF Guidelines for Monitoring and Evaluation of International Waters Projects, environmental and performance indicators will be agreed upon during appraisal and a methodology for minimizing and addressing project risks will be developed before project implementation begins. This project monitoring is in addition to the lake monitoring (discussed in para. 13) which focussed on identifying key indicators for assessing the health of Lake Ohrid.

## **LIST OF ANNEXES**

1. Provisional budget for Lake Ohrid Management Project (1997-2000)
2. Lake Ohrid Management Project -- Project Preparation Advance (Summary Data)
3. Project Components and Responsible Authorities
4. Calculation of Incremental Costs
5. Letters of Request for GEF Project from Governments of Albania and Macedonia
6. Scientific and Technical Advisory Panel Comments
7. Memorandum of Understanding signed by both Countries in December 1996

GLOBAL ENVIRONMENT FACILITY (GEF)

BUDGET FOR LAKE OHRID MANAGEMENT PROJECT (1997-2000)

No.	COMPONENT	MACEDONIA	ALBANIA	TOTAL
<b>1</b>	<b>DEVELOP INSTITUTIONAL/LEGAL/REGULATORY FRAMEWORK</b>	<b>\$350,000</b>	<b>\$290,000</b>	<b>\$640,000</b>
1.1	Meetings/Local Travel/Honoraria for Lake Ohrid Management Board	\$ 20,000	\$ 20,000	\$ 40,000
1.2	Preparation/Harmonization of Laws and Regulations	\$ 15,000	\$ 15,000	\$ 30,000
1.3	Preparation/Harmonization of Local Standards	\$ 15,000	\$ 15,000	\$ 30,000
1.4	Local Monitoring and Enforcement	\$ 35,000	\$ 25,000	\$ 60,000
1.5	Project Implementation Units -- Staff/Equipment/Operating Expenses	\$150,000	\$125,000	\$275,000
1.6	Training -- National Level Officials	\$ 20,000	\$ 20,000	\$ 40,000
1.7	Training -- Local Level Officials	\$ 45,000	\$ 25,000	\$ 70,000
1.8	International Consultants' Fees and Travel A/	\$ 30,000	\$ 30,000	\$ 60,000
1.9	National Consultants' Fees and Travel	\$ 20,000	\$ 15,000	\$ 35,000
<b>2</b>	<b>ESTABLISH MONITORING FRAMEWORK</b>	<b>\$1,000,000</b>	<b>\$900,000</b>	<b>\$1,900,000</b>
2.1	Monitoring Equipment, Boats, and Supplies	\$750,000	\$600,000	\$1,350,000
2.2	Office Equipment and Supplies	\$ 50,000	\$100,000	\$150,000
2.3	Local Training	\$ 20,000	\$ 15,000	\$ 35,000
2.4	Foreign Training, Travel, and Study Tours	\$ 20,000	\$ 25,000	\$ 45,000
2.5	Data and Information Management and Exchange	\$ 50,000	\$ 50,000	\$100,000
2.6	Four-Wheel Drive Vehicle and Operating Costs	\$ 45,000	\$ 45,000	\$ 90,000
2.7	Meetings and Travel of Monitoring Task Force	\$ 5,000	\$ 15,000	\$ 20,000
2.8	New Staff to be Hired	\$ 30,000	\$ 20,000	\$ 50,000
2.9	International Consultants' Fees and Travel A/	\$ 30,000	\$ 30,000	\$ 60,000
<b>3</b>	<b>PREPARE LAKE OHRID STRATEGIC ACTION PLAN B/</b>	<b>\$520,000</b>	<b>\$375,000</b>	<b>\$895,000</b>
3.1	Technical Task Force Meetings	\$ 30,000	\$ 20,000	\$ 50,000
3.2	Training Programs for Technical Task Forces	\$ 80,000	\$ 40,000	\$120,000
3.3	Interim Local Workshops and Conferences	\$ 30,000	\$ 20,000	\$ 50,000
3.4	Office Equipment/Supplies for Technical Task Forces	\$ 75,000	\$ 50,000	\$125,000
3.5	Local Travel	\$ 30,000	\$ 20,000	\$ 50,000
3.6	International Consultants' Fees and Travel A/	\$ 80,000	\$ 80,000	\$160,000
3.7	Public Participation and Awareness	\$150,000	\$100,000	\$250,000
3.8	Financial Sustainability Study A/	\$ 25,000	\$ 25,000	\$ 50,000
3.9	Donor Conference for Final Strategic Action Plan A/	\$ 20,000	\$ 20,000	\$ 40,000
<b>4</b>	<b>FINANCE PRIORITY "CATALYST" MEASURES C/</b>	<b>\$320,000</b>	<b>\$215,000</b>	<b>\$535,000</b>
4.1	Fisheries Management D/	\$ 20,000	\$ 45,000	\$ 65,000
4.2	Reduce Phosphorous Load and Improve Agricultural Management E/	\$260,000	\$150,000	\$410,000
4.3	Seismic Analysis Program	\$ 40,000	\$ 20,000	\$ 60,000
	<b>GRAND TOTAL F/</b>	<b>\$2,190,000</b>	<b>\$1,780,000</b>	<b>\$3,970,000</b>

- A/ These sub-components will require joint implementation by the two Project Implementation Units (PIUs) in each country
- B/ For preparation of the Lake Ohrid Strategic Action Plan and Investment Program, the following task forces are proposed to be formed (in addition to those already formed for monitoring and public awareness):
- (i) tourism and infrastructure development (including management of cultural heritage)
  - (ii) urban and industrial pollution and wastewater management
  - (iii) solid waste management
  - (iv) watershed management -- agricultural chemicals, soil quality and erosion, forestry
  - (v) natural resources management -- biodiversity, protected areas, parks
  - (vi) fisheries management
  - (vii) legal/regulatory framework
  - (viii) institutional strengthening
  - (ix) financial sustainability
- C/ Priority "catalyst" measures refers to small investment and other measures which are intended and required to plant the seeds for future more substantive investment which will be required to protect and develop the Lake Ohrid region during and after the completion of the GEF Project. Specifically, the measures to be financed under the GEF Project and based on the Project Feasibility Study are:

Sector	Macedonia -- Pilot Project Description	Albania -- Pilot Project Description
4.1 Fisheries Management D/	Demarcation and protection of important spawning grounds to improve fisheries management (Module 16 of Project Feasibility Study)	Demarcation and protection of important spawning grounds to improve fisheries management (Module 16 of Project Feasibility Study)  Establishment of fish hatchery for autochthonous species (Module 17 of Project Feasibility Study)  Strengthening of regional branch of General Directorate for Fisheries to improve regulation of fishing (Module 57 of Project Feasibility Study)
4.2 Reduction of Nutrient Load (Phosphorous) and Improved Agricultural Management E/	Promotion of sale of phosphorous-free detergents to reduce phosphorous load into the lake (Module 65 of Project Feasibility Study)  Education/awareness programs and demonstration projects to improve the use of manure, agricultural chemicals, and crop rotation to reduce soil erosion (Modules 5, 6, 8 and 9 of Project Feasibility Study)	Promotion of sale of phosphorous-free detergents to reduce phosphorous load into the lake (Module 65 of Project Feasibility Study)  Education/awareness programs and demonstration projects to improve the use of manure, agricultural chemicals, and crop rotation to reduce soil erosion (Modules 5, 6, 8, and 9 of Project Feasibility Study)  Soil erosion protection program through greening of unused land and improved control of grazing access (Module 10 of Project Feasibility Study)
4.3 Seismic Analysis Program	Evaluation of investment requirements (e.g. for wastewater collection and treatment) to ensure that investment planning takes into account the risk of damage from earthquakes	Evaluation of investment requirements (e.g. for wastewater collection and treatment) to ensure that investment planning takes into account the risk of damage from earthquakes

- D/ As catalyst to larger project for Albanian fish hatchery, and improved Albanian and Macedonian joint fisheries management
- E/ As catalyst to larger transboundary project for reduction of nutrient input into Lake Ohrid and improve agriculture management practices
- F/ Government contributions to be more precisely specified but will include: (i) salaries of all counterpart staff not employed by the Project Implementation Units; and (ii) overhead and office space for government employees involved in technical task forces. These expenses are expected to be borne by the national and local governments of each country, and are estimated at \$150,000 for Macedonia (\$50,000 per year), and \$120,000 for Albania (\$40,000 per year). Total government contributions are estimated at \$300,000.



Annex II

**LAKE OHRID MANAGEMENT PROJECT -- PROJECT PREPARATION ADVANCE (SUMMARY DATA)**

No.	COMPONENT	MACEDONIA	ALBANIA	TOTAL
1	LEGAL AND INSTITUTIONAL FRAMEWORK	\$57,960	\$51,680	\$109,640
2	LOCAL INSTITUTIONAL STRENGTHENING	\$48,795	\$31,323	\$80,118
3	PUBLIC PARTICIPATION AND AWARENESS	\$37,050	\$28,000	\$65,050
4	PROJECT MANAGEMENT/IMPLEMENTATION	\$15,070	\$15,070	\$30,140
	GRAND TOTAL	\$158,875	\$126,073	\$284,948

Note: The distribution of this Advance to each country was agreed upon by both parties in late-January 1996

## LAKE OHRID MANAGEMENT PROJECT

### PROJECT COMPONENTS AND RESPONSIBLE AUTHORITIES

Component	Responsible Organization in Albania	Responsible Organization in Macedonia
Institutional, Legal, and Regulatory Framework	Ministry of Public Works, Territorial Planning, and Tourism	Ministry of Urban Planning, Construction, and Environment
Monitoring	Hydrometeorological Institute	Lake Ohrid Hydrobiological Institute
Strategic Action Plan and Investment Program	Committee for Environmental Protection	Ministry of Urban Planning, Construction, and Environment
Priority Catalyst Investments	Ministry of Public Works, Territorial Planning, and Tourism	Ministry of Urban Planning, Construction, and Environment

**Notes:**

- (i) Local municipalities to be actively involved in the implementation of all components except for monitoring
- (ii) Under the direction of the Lake Ohrid Management Board, the Project Implementation Units (PIUs) will be responsible for project administration on a day-to-day basis, and working together with each of the above institutions, the municipalities, and nongovernmental organizations (NGOs)
- (iii) Nongovernmental Organizations (NGOs) to be responsible for Public Awareness aspects of Strategic Action Plan and Investment Program

## CALCULATION OF INCREMENTAL COST

### Broad Development Goals

1. The development goal of the project is to create a framework for the joint management and protection of Lake Ohrid which will: (i) mitigate the impacts of previous environmental damage; and (ii) minimize future environmental damage so that expensive corrective solutions will not be required. Specifically, this will entail developing the institutional, legal, and regulatory framework required for joint management, establishing a monitoring framework which both countries will use to guide monitoring activities, preparing a Strategic Action Program and Investment Program, and initiating some high priority demonstration/pilot projects. By preparing the way for investments aimed at reducing pollution through improved wastewater treatment and solid waste management, and improving natural resources management (fisheries, agricultural, forestry, and biodiversity), the GEF Project will help to conserve the unique biodiversity of the Lake Ohrid region, and enhance its long-run development potential, especially in tourism.

### Baseline Scenario

2. The Baseline Scenario consists of those activities which each country could reasonably be expected to undertake in the absence of a regional framework for collaborative management. These include major investments related to wastewater collection and treatment which were identified in the Project Feasibility Study, and measures aimed at improving forestry management and biodiversity management on each side of the lake. Of the total of approximately \$50 million in investment identified in the Project Feasibility Study, approximately \$46 million are considered baseline and are proposed for non-GEF financing from multilateral and bilateral sources. Table 1 below presents a detailed breakdown of the incremental costs of \$3.97 million and the additional \$20.865 in baseline costs proposed to be financed by other donors as agreed by both Governments. The total amount is \$24.835 million in financing which is being sought for the 1997-2000 period to initiate the investments identified in the Project Feasibility Study with the remaining 50% identified in the Project Feasibility Study to follow in the next century. So far, approximately \$2.31 million of the baseline costs have been committed to be financed by the European Union and the Government of Switzerland in 1997, with an additional \$1.7 million highly likely.

### GEF Alternative Scenario

3. The GEF Alternative Scenario consists of the Baseline Scenario plus those measures which need to be taken to promote sustainable management of the Lake Ohrid region, and to capture the resulting global environmental benefits. To capture these benefits, a sustained effort is required to establish a strong foundation for joint management of the lake and its resources. Consequently, the GEF Alternative Scenario

includes those measures required to bring the two countries to work together (i.e., institutional strengthening, a cooperative monitoring program, preparation of a Lake Ohrid Strategic Action Plan and Investment Program, and small pilot and demonstration projects), without which the support of the international donor community for parallel measures included in the Baseline Scenario would not be realized. These costs are clearly additional to what each government could reasonably be expected to finance if only national benefits were included in the economic analysis.

4. Because the two countries have never worked together before on such a project, it is estimated that approximately \$3.435 million will be required to establish this basis for working together. This figure is considered to be covered entirely by incremental cost financing, given that an additional \$0.535 million is estimated for catalytic pilot and demonstration projects to promote community awareness, test technology and ideas new to the region and to catalyze future investments.

### **Incremental Cost Project Component Breakdown**

5. Legal/Regulatory Framework and Institutional Strengthening: the incremental costs of \$0.640 million primarily reflect the costs of: (i) harmonizing national laws, regulations, and standards; (ii) financing regular meetings and travel for the Lake Ohrid Management Board and Project Implementation Units; and (iii) carrying out joint training courses at which local and technical specialists will learn together and exchange information based on their own experiences.

6. Monitoring Framework. The incremental costs of \$1.900 million reflects: (i) monitoring equipment which will be required for a well-coordinated monitoring program for Lake Ohrid; (ii) establishing a system for data collection and information exchange between the two countries; (iii) meetings and travel for the monitoring task force and (iv) training courses and technical assistance.

7. Strategic Action Plan and Investment Program. The incremental costs of \$0.895 million reflect a number of items including: (i) the costs of hiring international consultants to assist the two countries in preparing the Strategic Action Plan and Investment Program; (ii) training programs for technical task forces; (iii) joint efforts in environmental education and public awareness; (iv) study of the feasibility of establishing a financially sustainable mechanism, i.e., a corporation, foundation, trust fund; and (v) organization of a Donors' Conference at the end of the GEF Project to present the Strategic Action Plan and Investment Program.

8. Priority Pilot Activities Addressing Transboundary Issues. The \$0.535 million for priority demonstration and pilot projects which address transboundary issues is sought so that the benefits of environmental investments can be demonstrated to the countries and to prospective donors and private investors. The nutrient load study accounts for 80% of these funds. The study will identify key actions and impediments to introducing phosphorous-free detergents in the two countries. The priority measures identified were

selected on the basis of the Project Feasibility Study, and should receive financial support in order to demonstrate potential benefits and stimulate donor interest in financing follow-up support.

### **Additional Domestic Benefits**

9. Additional national benefits would accrue in the form of improved fisheries management, and especially in protecting the long-run potential for developing Lake Ohrid and promoting it as a tourist destination. Without first making the effort to create a framework for protecting and managing the lake, it will not be possible to promote and encourage tourism in a way which would be sustainable and beneficial to the local economy. Improved environmental management is the sine qua non for developing and promoting tourism, and all of the national and local officials in Albania and Macedonia are fully aware of this. Although it might take 5-10 years before any sizable tourism benefits would accrue to either country, the foundation must be laid by the GEF Project in order that this potential can be realized through future cooperative efforts. In addition, domestic benefits might accrue since the Lake Ohrid Project would provide a basis for similar transboundary lakes management project which could be developed in the future between Albania, Macedonia, and Greece (Lake Prespa), Macedonia and Greece (Lake Dojran), and Albania and Yugoslavia (Lake Shkoder). Thus, it is not possible to estimate what the long-run benefits of the GEF Project might be, or whether these benefits should be deducted from incremental costs.

**TABLE 1**  
**INCREMENTAL COST MATRIX**

Component Sector	Cost Category	USD Million	Domestic Benefit	Global Benefit
Institutional, Legal, and Regulatory Framework	Baseline	0.100	Improved framework for enforcement of environmental regulations and project implementation	
	With GEF Alternative	0.740	(same as above)	Harmonizing of laws, regulations, and standards will enhance protection of biodiversity, fisheries management
	Incremental	0.640		
Monitoring Framework	Baseline	0.700	Some equipment needs for monitoring on Macedonian side can be met	
	With GEF Alternative	2.600	(same as above)	Establishment of monitoring framework for well-coordinated monitoring is required to ensure adequate information for protecting and managing the lake's resources
	Incremental	1.900		
Strategic Action Plan/Investment Program	Baseline	0.300	Improved framework for management of Lake Ohrid and its watershed, and greater potential for attracting investment financing and international donor support	
	With GEF Alternative	1.195	(same as above)	Integrated management of all of the lakes resources and its protection as a UNESCO cultural heritage site and tourist attraction
	Incremental	0.895		
Wastewater	Baseline	16.210	Improved wastewater management and treatment and reduced health impacts to local populations	
	With GEF Alternative	16.210	(same as above)	Reduced impacts of sewerage on fisheries and biodiversity
	Incremental	0.000		
Forestry	Baseline	1.100	Improved forestry management and reduced erosion in Albania	
	With GEF Alternative	1.100	(same as above)	Reduced sedimentation and nutrient input into Lake Ohrid
	Incremental	0.000		

Fisheries	Baseline	0.255	Improved livelihood and security of income for local fishermen	
	With GEF Alternative	0.320	(same as above)	Improved protection and management of endemic species
	Incremental	0.065		
Industrial Waste Management	Baseline	0.500	Inventory of industrial pollution in Macedonia to provide basis for targeted waste reduction programs	
	With GEF Alternative	0.500	(same as above)	Reduce impacts of industrial wastewater and hazardous and solid waste on discharges into Lake Ohrid
	Incremental	0.000		
Solid Waste Management	Baseline	0.260	Improved solid waste collection/disposal, health and aesthetic benefits	
	With GEF Alternative	0.260	(same as above)	Reduce negative impacts of solid waste on aesthetics of shoreline and impacts on biodiversity in Lake Ohrid
	Incremental	0.000		
Reduction of Nutrient Input (Phosphorus) and Improved Agricultural Management	Baseline	0.540	Improved land-use practices to promote sustainable agriculture and more efficient use of agricultural chemicals	
	With GEF Alternative	0.950	(same as above)	Reduced input of phosphorous into Lake Ohrid to guard against eutrophication and protect natural habitat
	Incremental	0.410		

Seismic Analysis	Baseline	0.100	Improve planning in both countries for earthquakes to ensure minimal damage to structures and surrounding habitat	
	With GEF Alternative	0.160	(same as above)	Increase likelihood that environmental investments and cultural heritage on both sides of the lake can withstand any future earthquakes
	Incremental	0.060		
Tourism	Baseline	0.800	Improved framework for marketing Lake Ohrid as a domestic and international tourist attraction	
	With GEF Alternative	0.800	(same as above)	Benefits derived from visiting unique natural and cultural heritage of Lake Ohrid
	Incremental	0.000		
<b>Totals</b>	<b>Baseline</b>	<b>20.865</b>		
	<b>With GEF Alternative</b>	<b>24.835</b>		
	<b>Incremental</b>	<b>3.970</b>		

ie: Follow-up with various donors is being coordinated through the Project Preparation Committee (PPC) of the Environmental Action Program for Central & Eastern Europe.



