

Document of  
The World Bank

Report No.:

PARTNERSHIP INVESTMENT FUND BRIEF

ON A

PROPOSED GRANT FROM THE  
GLOBAL ENVIRONMENT FACILITY TRUST FUND

IN THE AMOUNT OF USD 30 MILLION

FOR THE FIRST TRANCHE OF A GEF USD 85 MILLION  
INVESTMENT FUND  
FOR THE MEDITERRANEAN SEA LARGE MARINE ECOSYSTEM PARTNERSHIP

April 28, 2006

## Abbreviations and Acronyms

BOD	Biochemical Oxygen Demand
CAS	Country Assistance Strategy
CEO	Chief Executive Officer
CI	Conservation International
ECA	Europe and Central Asia
EU	European Union
FAO	Food and Agriculture Organization
GDP	Gross Domestic Product
GEF	Global Environmental Facility
GIWA	Global International Waters Assessment
GWP	Global Water Partnership
IBRD	International Bank for Reconstruction and Development
ICM	Integrated Coastal Management
IDA	International Development Association
IFI	International Financial Institution
IW:LEARN	International Waters Resource Center website
IUCN	International Union for the Conservation of Nature (World Conservation Union)
LME	Large Marine Ecosystems
MAP	Mediterranean Action Plan
METAP	Mediterranean Environment Technical Assistance Program
MNA	Middle East and North Africa
MPA	Marine Protected Area
N	Nitrogen
NAP	National Action Plan
NGO	Non-Governmental Organization
OPS3	Third Overall Performance Survey
P	Phosphorus
PAD	Project Appraisal Document
PSC	Project Steering Committee
SAP	Strategic Action Program
SP	Strategic Priorities
SPA	Specially Protected Areas
TDA	Transboundary Diagnostic Analysis
TTL	Task Team Leader
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNIDO	United Nations Industrial Development Organization
WB	World Bank
WHO	World Health Organization
WWF	World Wildlife Fund
WSSD	World Summit on Sustainable Development

Vice-President:	Shigeo Katsu, Christiaan J. Poortman
Sector Manager:	Marjory-Anne Bromhead, Narasimham Vijay Jagannathan
Task Team Leader:	Emilia Battaglini, Dahlia Lotayef

## TABLE OF CONTENT

<b>A. STRATEGIC CONTEXT AND RATIONALE</b> .....	3
Region and Sector Issues .....	3
<i>Environmental challenges of the Mediterranean Sea</i> .....	3
<i>Status of Marine Protected Areas in the Mediterranean Sea</i> .....	5
<i>An integrated, action-oriented response: The GEF Strategic Partnership for the Mediterranean Sea Large Marine Ecosystem</i> .....	6
<i>A long history of collaboration, analysis and planning, but limited implementation</i> .....	6
<i>An opportunity to catalyze a strategic, coordinated and integrated response to the SAPs: the Strategic Partnership for the Mediterranean Sea Large Marine Ecosystem</i> .....	7
<i>Different levels of interventions and impact</i> .....	8
Rationale for World Bank involvement.....	9
<i>World Bank commitment</i> .....	9
Rationale for GEF Involvement.....	10
<i>Country Ownership</i> .....	10
<i>Conformity of the Investment Fund with GEF Priorities</i> .....	11
<b>B. INVESTMENT FUND DESCRIPTION</b> .....	11
Objective of the Fund.....	11
Design of the Fund.....	12
<i>Financing Plan</i> .....	12
<i>Types of Investment Projects</i> .....	13
<i>Project Eligibility Criteria</i> .....	14
<i>Project Selection and Financing</i> .....	15
Projects under Preparation .....	16
<b>C. IMPLEMENTATION</b> .....	18
Implementation Arrangements.....	18
Monitoring and Evaluation .....	18
Replication .....	19
Dissemination .....	20
Sustainability.....	20
Critical Risks and Controversial Aspects .....	21
Stakeholder Consultation .....	21
<b>ANNEXES</b> .....	22

## A. STRATEGIC CONTEXT AND RATIONALE

### Region and Sector Issues

#### *Environmental challenges of the Mediterranean Sea*

The countries of the Mediterranean Sea basin<sup>1</sup> face a variety of shared environmental problems that are transboundary in nature. The coastal areas around the Mediterranean are heavily populated and are undergoing a dramatic process of development. The populations of coastal states have doubled in the last 40 years to 450 million (in 1999) and will reach over 600 million in 2050. In addition, tourism arrival is expected to rise from 135 million in 1990 to 350 million in 2025, doubling the population along the coast during summer. Population load is shifting towards the southern and eastern Mediterranean and about 60% of it lives within 100 km of the coast. Population density in coastal areas ranges from double to ten times the national average due to the more favorable climatic, agricultural and often socioeconomic conditions. As a result of the increased demand for space, water and natural resources, the stress on coastal eco-systems, and the infringement on natural and agricultural land is continuously increasing.

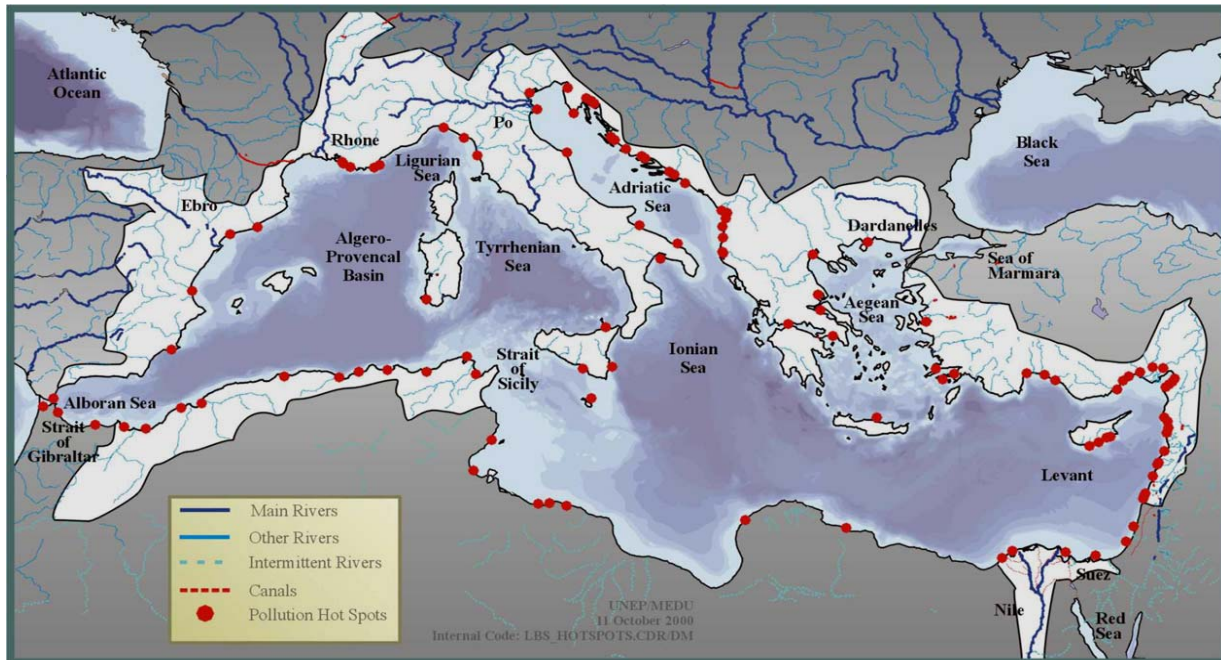
Eighty percent of the pollution load of the Mediterranean Sea originates from land sources, mainly in the form of untreated discharges of urban waste (which includes microbiological, nutrient and chemical contaminants) reaching the sea from coastal sources and through rivers. Lack of sewage collection, treatment and disposal infrastructure is still the greatest problem in many Mediterranean countries. 69 % of coastal cities with more than 10,000 inhabitants have sewage treatment plants, resulting in a large annual discharge of more than 1 billion m<sup>3</sup> of untreated sewage to the sea. Some countries have no treatment plants at all. Overall, 66 million m<sup>3</sup> of untreated industrial wastewater is discharged to the Mediterranean each year. To add to this, agricultural practices cause significant soil erosion and pesticide pollution of surface and groundwater resources, consequently, through rivers and direct runoff, affecting the coastal and marine ecosystems.

Uncontrolled coastal development, population expansion and increasing coastal tourism, unregulated and unsustainable fishing, damming and pollution are the greatest threats to the marine and coastal ecosystems.

---

<sup>1</sup> Albania, Algeria, Bosnia and Herzegovina, Croatia, Cyprus, Egypt, France, Greece, Israel, Italy, Lebanon, Libya, Malta, Monaco, Morocco, Serbia and Monte Negro, Slovenia, Spain, Syria, Tunisia, and Turkey, are riparian countries. Bulgaria, FYR Macedonia and West Bank and Gaza are included as part of the broader Mediterranean basin. SAPs have been endorsed by all riparian countries and the EU. All countries except Cyprus, France, Greece, Israel, Italy, Malta, Monaco, Slovenia and Spain are eligible for GEF support.

## Land-based Pollution Hotspots



The 2005 Transboundary Diagnostic Analysis<sup>2</sup> (TDA) for the Mediterranean Sea identifies the following major transboundary environmental concerns for the Mediterranean basin (Annex 1):

- Decline of biodiversity due to over-fishing, conversion and degradation of critical habitats, introduction of alien species, pollution in the form of excess nutrients, toxic waste, including oil, solid waste and litter, and use of non-selective fishery gears;
- decline in fisheries due to over-fishing, use of harmful fishing practice, loss of shallow-water habitats for some life stages of critical fisheries, adverse water quality from rivers, coastal aquifers, sewage discharges, dredging, and non-point discharges;
- decline in seawater quality due to inadequate sewage treatment, lack of best practices in agriculture use of fertilizers and pesticides, inadequate controls on atmospheric emissions of heavy metals and persistent organic pollutants from European industrial sources, inadequate source controls and discharge control for industries along the sea, and increases in shipping traffic across the Mediterranean with consequent increase in accidental and purposeful discharge of harmful pollutants;

<sup>2</sup> The Transboundary Diagnostic Analysis (TDA) is a scientifically based assessment of the environmental conditions of an internationally shared water-body, which identifies major problems, their causes, possible solutions, and discriminates between those issues requiring international action (transboundary), and those of an exclusively national nature. The first TDA for the Mediterranean Sea was completed in 1997 and then revised in 2005.

- human health risks due to ingestion of seafood, ingestion of water while swimming, contact with contaminated seafood products, and contact with seawater contaminated with pathogens or viral agents;
- loss of groundwater dependent coastal ecosystems due to the contamination, salinization and over-exploitation of coastal aquifers.

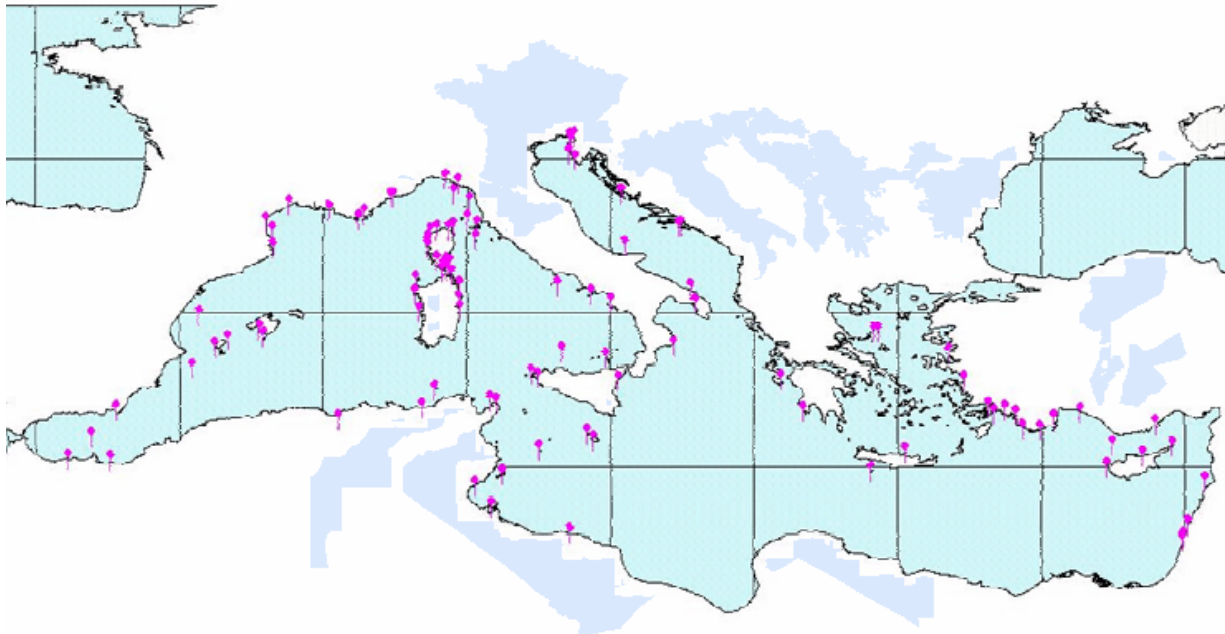
The cost for pollution remedial actions in the Mediterranean Sea was estimated at almost US\$ 10 billion in 1997 - with approximately US\$ 1.3 billion for intervention in the Adriatic Sea. The cost of implementing priority measures for biodiversity protection has been estimated at US\$ 140 million.

### *Status of Marine Protected Areas in the Mediterranean Sea*

In spite of the intensive human use it has experienced for more than two thousand years, the Mediterranean Sea remains a global biodiversity hotspot, listed in the top 15 marine hotspots by Conservation International (CI) and figuring prominently in the WWF Global 200 list.

Marine protected areas in the Mediterranean remains critically weak when measured against a goal of reducing the rate of biodiversity loss by 2010, especially for the countries in the southern and eastern parts of the Mediterranean Sea.

## **Network of Marine and Coastal Protected Areas**



**From:** "Hotspots for Marine Biodiversity in the Mediterranean". Marine Programme Team IUCN Centre for Mediterranean Cooperation, 2003

Although countries have established MPAs, many of these remain “paper parks”. In addition, many were created purely for species protection without giving adequate consideration to the opportunities to capture multiple benefits through the careful consideration of location, size, (multiple-use) zoning/management, and the synergistic effects of networks. At the same time several national reports have identified several common problems affecting the selection, establishment and management of Marine Protected Areas in the Mediterranean basin (Annex 1).

According to the 2003 Strategic Action Program for the Mediterranean Biodiversity there is a critical need to review the existing MPA and coastal PA networks to achieve both conservation and sustainable use benefits (fisheries, tourism, etc.), thus bridging the GEF Strategic priorities for biodiversity BD-1 and BD-2.

### **An integrated, action-oriented response: The GEF Strategic Partnership for the Mediterranean Sea Large Marine Ecosystem**

#### ***A long history of collaboration, analysis and planning, but limited implementation***

The riparian States of the Mediterranean Sea have a long history of commitment to preserving the Mediterranean basin through actions at the local, regional and global levels. They launched an Action Plan for the Protection and Development of the Mediterranean Basin (MAP) in 1975 and signed the Convention for the Protection of the Mediterranean Sea against Pollution (Barcelona Convention) in 1976 and the Protocol for the Protection of the Mediterranean Sea against Pollution from Land-Based Sources (LBS Protocol) in 1980 which was then revised in 1996. The countries also signed the Protocol Concerning Specially Protected Areas and Biological Diversity in the Mediterranean (SPA Protocol) in 1995.

Following the extensive preparatory work carried out with support from the GEF under the first TDA in 1997 (then revised in 2005), the countries adopted a Strategic Action Program to address pollution from land-based activities (SAP MED) that identifies hotspots priority measures and targets in all countries and laid the ground for the preparation and implementation of National Action Plans. In 2003 the Mediterranean countries adopted the Strategic Action Program for the Conservation of Mediterranean Marine and Coastal Biological Diversity (SAP BIO) that identifies priority actions and targets to protect fragile ecosystems and reduce damage to natural habitats (see key SAP targets in Annex 1).

Governments, intergovernmental and non-governmental organizations have undertaken several initiatives in support of the protection of the Mediterranean sea over the years, including the Mediterranean component of the EU Water Initiative, the EC-funded Mediterranean Protected Area Network (MEDPAN) managed by WWF, the Adricosm Project on land and coastal management sponsored by Italy, the Adriatic-Ionian initiative supported by the governments of the Adriatic region, and the initiative for improved management of transboundary basins and aquifers in South East Europe (the Athens Declaration) and the GEF-supported project for the implementation of the SAP MED that is now coming to closure (Annex 1). Several international agencies are very active in the Mediterranean basin: UNEP, UNDP, FAO, UNESCO, WWF, UNIDO, METAP, GWP, the EC and the World Bank. However, many of these interventions are

fragmented: the focus is more on diagnostic and planning than physical investments, the scope is limited to a sector or sub-sector, and investments are constrained by the lack of adequate financing from both public and private sector.

***An opportunity to catalyze a strategic, coordinated and integrated response to the SAPs: the Strategic Partnership for the Mediterranean Sea Large Marine Ecosystem***

The countries of the Mediterranean basin recognize that they need a more coordinated and innovative approach to the implementation of the SAPs that accelerates on-the-ground implementation of priority actions and removes the institutional, financial and technical barriers to investments.

The countries of the Mediterranean basin in collaboration with the GEF, the World Bank, UNEP, and MAP have proposed to establish a **Strategic Partnership for the Mediterranean Sea Large Marine Ecosystem** to leverage reforms and catalyze investments that address transboundary pollution reduction and marine and coastal biodiversity conservation priorities identified in the two SAPs.

The Strategic Partnership will provide a critical mass of financial resources and technical knowledge readily available to countries that embrace the goal of improving the environmental conditions of the Mediterranean Sea through a combination of capital investments, economic instruments, policy and regulatory frameworks and public participation. It will also develop a strategic regional approach to investments for greater benefit to the basin countries.

The Partnership would achieve its objectives through the implementation of two components:

- Regional Component: Implementation of Regional Activities for the Protection of the Environmental Resources of the Mediterranean and its Coastal Areas (US\$ 15 million GEF grant, under preparation and to be implemented by UNEP and partners<sup>3</sup>)
- Investment Fund for the Mediterranean Sea Large Marine Ecosystem Partnership (US\$ 85 million GEF grant, implemented by World Bank).

The key strategic elements of the proposed Partnership are:

- up-front commitment by the GEF and partners to a significant amount of funds that signals the availability of a *predictable envelope* of grant financing for beneficiary countries and co-financiers to access;
- critical mass of investments to promote *higher political visibility* and interest;
- design framework that takes advantage of on-the-ground learning to *replicate* and transfer investment experiences throughout the region;
- *streamlined* financing through simplified GEF approval procedures; and

---

<sup>3</sup> The concept for the Regional component entered the GEF Pipeline in November 2004 (see Annex 2). The project is currently under preparation and will be presented for Council approval by end of 2006.



- a *regional* approach to investments that would benefit the countries individually and collectively.

The regional approach to investments has a number of important advantages. It provides a vehicle for focusing individual country investments on regional objectives (mainly through the Investment Fund) and helps to transfer knowledge, share best practices, promote adoption of policies for replication and scale-up to achieve common objectives (mainly through the Regional component). Stakeholders' ownership and participation in a regional investment program will strengthen as a result of the recognition that they are doing their part to contribute to a wider regional cause. A regional framework provides also a better mechanism for cooperation with diverse partners, for example the EU which has a significant role to play as a political driver for action and co-financier of investments. A strategic approach is a more cost-effective vehicle to demonstrate benefits than a series of individual projects. A strategic approach will also help provide a targeted timeframe to promote action over a shorter period so that more tangible results can be achieved.

### ***Different levels of interventions and impact***

#### Strategic Partnership

The higher goal to which the Strategic Partnership contributes is to reduce the degradation of the Mediterranean Sea large marine ecosystem and its freshwater basins.

The objective of the Strategic Partnership is to leverage reforms and catalyze investments that address transboundary pollution reduction and marine and coastal biodiversity conservation priorities identified in the SAPs for the Mediterranean basin. The expected results of the Partnership – to which both the Investment Fund and Regional component contribute – include<sup>4</sup>:

- More effective collaboration between international and domestic donors and financiers (including the non-GEF Med countries and EU), knitting together the current somewhat fragmented, unfocused and uncoordinated donor efforts
- SAP objectives mainstreamed into national policies
- Leveraged financing from different sources for multiple investments and policy measures that reduce pollution and preserve biodiversity in the Mediterranean basin
- Successful investments replicated or scaled-up above and beyond what achieved by the Investment Fund and Regional component
- Stress reduction achieved at water-body level

#### Regional Component

The objective of the Regional Component is to induce harmonized policy, legal and institutional reforms and fill the knowledge gap aimed at reversing marine and coastal degradation trends and

---

<sup>4</sup> Outcomes and indicators for the Strategic Partnership and the Regional Component will be further defined and confirmed at the time of Council approval of the Regional Component.

living resources depletion, in accordance with priorities agreed by the countries in the SAP MED and SAP BIO. The expected results of the Regional component<sup>5</sup> include:

- Increased capacity of basin countries to implement policies and strategies that address SAP priorities
- Increased knowledge of countries and donors on most innovative projects/technologies that address regional priority objectives
- Replication strategy for scaling-up successful investments within and across countries fully developed
- Stress reduction measures monitored at water-body level
- Increased coordination of donors and governments programs addressing SAPs

The objective and expected results of the Investment Fund are discussed in detail in section B of the Project Brief.

### **Rationale for World Bank involvement**

The proposed Investment Fund fully supports the World Bank strategy for Water Resource Management in South East Europe prepared in 2003. The strategy identifies “partnerships” as an effective model for addressing transboundary problems and fostering cooperation on water sharing, management of water quality, watershed management and ecosystem and biodiversity conservation are the recommended measures. The strategy also recommends supporting full-scale implementation of agreed actions plans and projects.

The GEF Strategic Partnership for the Mediterranean Sea Large Marine Ecosystem and its Investment Fund would also implement some of the recommendations of the Athens Declaration of 2003, an action plan to promote sustainable management of transboundary water resources in South East Europe supported by the EU and the World Bank and endorsed by the countries.

### ***World Bank commitment***

As the GEF Implementing Agency for the Partnership Investment Fund the World Bank commits to

- Promoting the Strategic Partnership objectives and SAP targets in the country dialogues and including them in the World Bank Country Assistance Strategies (CASes) as they are updated;
- Promoting policies that address (transboundary) pollution reduction and biodiversity conservation as part of country dialogues;
- Championing and helping to mobilize funds from countries and donors for pollution reduction;
- Working closely with UNEP, MAP and the other international agencies active in the region to maximize coordination between the regional technical assistance project

---

<sup>5</sup> See footnote 4.

(Regional Component) and individual investment projects and foster replication at a larger scale.

### **Rationale for GEF Involvement**

Through the years GEF has supported extensive analytical work and capacity building in the basin countries to provide the scientific basis and build the public awareness and government commitment needed to address the environmental degradation of the Mediterranean Sea. These efforts culminated with the adoption of the two SAPs (land-based pollution and biodiversity conservation) by all riparian countries and opened the way to the second generation of GEF support targeted to the implementation of the priority actions agreed upon by the countries. The implementation of the SAPs enjoys high-level country commitment but requires significant domestic and foreign investments to achieve even a minimal impact on pollution control and coastal management in the basin.

The Strategic Partnership for the Mediterranean Sea Large Marine Ecosystem - with its Regional Component and Investment Fund pillars - is the most effective financing modality available to catalyze critical investments from public and private sector for pollution reduction, coastal management, biodiversity conservation and promote the institutional, technical and financial innovations needed to accelerate implementation and is the logical next step for GEF intervention.

Without the catalytic effect of the GEF financing, investments would likely be limited, scattered and not targeted to reduction of transboundary pollution, and governments would likely give only marginal attention to the implementation of the SAPs within their financially constrained development programs.

The Strategic Partnership for the Mediterranean Sea Large Marine Ecosystem follows the model established by the Strategic Partnership for the Black Sea and Danube basins which has been under implementation for about five years. A mid-term evaluation of the Black Sea/Danube Partnership (BSDP) highlighted many positive achievements, some already beyond the original targets: mainstreaming nutrient reduction objectives in policy dialogue; legal and regulatory changes towards more stringent policies, physical investments targeted to nutrient reduction beyond the GEF initial financial support, financing leveraged from other sources, innovation and dissemination of best practices (See Annex 3).

### ***Country Ownership***

The proposed Investment Fund follows the basin-wide approach in addressing transboundary pollution and priority ecosystem conservation in the Mediterranean Sea. Many issues affecting the Mediterranean Sea originate in upstream countries. In this perspective, and conditional to receiving the endorsement of the individual country's GEF Operational Focal Point for each investment project, it is proposed that the Investment Fund be accessible to the following countries: Albania, Algeria, Bosnia and Herzegovina, Bulgaria, Croatia, Egypt, FYR Macedonia,

Lebanon, Libya, Morocco, Serbia and Montenegro, Syria, Tunisia, Turkey and West Bank and Gaza, all of which are eligible for GEF support for International Waters and Biodiversity<sup>6</sup>.

Both SAP-MED and SAP-BIO have been endorsed by the basin countries and are ready for implementation. Representatives of the basin countries endorsed the concept of the Strategic Partnership for the Mediterranean Large Marine Ecosystem, its regional element and the Investment Fund at a meeting convened by MAP in Italy in October 2004.

### ***Conformity of the Investment Fund with GEF Priorities***

The proposed Investment Fund is consistent with the Integrated Land and Water Operational Program (OP9) in the International Waters focal area and its objectives: implementing projects that integrate sound land use and water resource management strategies as a result of sectoral policy changes; facilitating collaboration among IA's and countries and leveraging the involvement of IA programs and donors; developing projects in threatened marine waters in close cooperation with OPs in the biodiversity focal area and with coastal/marine priority. Projects funded by the proposed Investment Fund will address the GEF International Waters Strategic Priority IW-1: Catalyze financial resource mobilization for implementation of reforms and stress reduction measures agreed through the (TDA)/SAP or equivalent processes for particular transboundary systems.

The proposed Investment Fund is also consistent with the Coastal, Marine and Freshwater Ecosystem Operational Program (OP2) in the Biodiversity focal area and its objective: conservation and sustainable use of biological resources in coastal, marine and freshwater ecosystems. Projects funded by the proposed Investment Fund may address any of the following GEF Biodiversity Strategic Priorities: BD-1: Catalyze sustainability of protected areas, BD-2: Mainstream biodiversity in production landscapes and sectors and BD-3: Generation and Dissemination of Best Practices for Addressing Current or Emerging Issues in Biodiversity

## **B. INVESTMENT FUND DESCRIPTION**

### **Objective of the Fund**

The objective of the proposed Investment Fund is to accelerate the implementation of transboundary pollution reduction and biodiversity conservation measures in priority hotspots and sensitive areas of selected countries of the Mediterranean basin that would help achieve the SAP MED and SAP BIO targets. The four main transboundary concerns identified in the Mediterranean Sea LME include: biodiversity loss, pollution hotspots, coastal habitat degradation and loss and fisheries depletion.

---

<sup>6</sup> Bulgaria, FYR Macedonia and West Bank and Gaza have been added to the list of MAP countries as they are part of the Mediterranean watershed but are not receiving related and complementary support from the GEF (such as the Nile Basin Initiative for the African countries).

The expected outcomes of the Investment Fund include:

- Transboundary pollution reduction and biodiversity conservation in priority hotspots and sensitive areas of the Mediterranean Sea identified through the TDA-SAP process are achieved
- In-country replication of pollution reduction and biodiversity conservation investments is initiated
- Investments for pollution reduction and biodiversity conservation in selected countries are catalyzed
- SAPs implementation is addressed in World Bank country dialogues
- Innovative, cost-effective investments in specific country contexts are promoted
- Measurable pollution reduction and biodiversity conservation in support of the SAP targets are achieved
- Knowledge-sharing and cross-fertilization of project achievements among the SP partners are facilitated.

Outcome indicators include:

- 15% of major hotspots/sensitive areas identified in the TDA are addressed
- Replication strategy is adopted and initiated in at least 3 countries
- US\$ 100 million replication investments are leveraged
- US\$250 million of project co-financing is secured
- Measures to address SAP targets are incorporated in at least 7 CASEs
- At least 5 innovative low-cost techniques (such as managed aquifer recharge, engineered wetlands, treated wastewater reuse, etc) are demonstrated
- 1,000,000 population equivalent of wastewater is treated
- 5-7 sensitive areas are under effective management
- Bank IF Coordination team participates in all (100%) SP consultations
- Bank IF Coordination team organizes and/or participates in at least 5 regional conferences and/or technical workshops in support of the SP objectives.

## **Design of the Fund**

### ***Financing Plan***

The overall resource envelope requested from GEF in support of the proposed Investment is US\$ 85 million with a leveraged co-financing of approximately US\$ 250 million.

Project co-financing may be obtained from a combination of national sources, loans and credits from the World Bank or other IFIs, or additional grant funds from the EU and bilateral sources. Eligibility for the Investment Fund does not necessarily require borrowing from the World Bank but it does require counterpart finance which can include in-kind contributions from countries and/or other donor support

The Investment Fund will be open to contributions from donors. These contributions could be applicable to all countries/issues or targeted to specific regions/issues according to the donor's priorities.

The GEF Council is asked to commit to the overall program. However, funding will be made available to the Investment Fund in three tranches (US\$30 million, US\$30 million and US\$25 million), on the basis of the resources available at the time of replenishment and subject to the satisfactory progress in achieving the Fund objectives and targets. The first tranche includes US\$25 million from the International Waters focal area and US\$5 million from the Biodiversity focal area. The allocation for the first tranche requested for approval at the June 2006 Council meeting is for US\$10 million (US\$7 million from the International Waters focal area and US\$3 million from the Biodiversity focal area) with the balance of US\$20 million to be requested as soon as funding becomes available<sup>7</sup>.

Prior to requesting the second and third tranches the following targets should be met:

- At least two projects under the current tranche have been approved by the World Bank Board
- At least three projects planned for funding under the requested tranche have obtained GEF pipeline entry
- A progress report detailing the status of the Investment Fund is prepared for submission to the GEF Council together with the tranche request. The report will detail the progress in achieving the Fund leveraging targets, status of preparation and implementation of projects under the existing tranche; a description of the project pipeline for the requested tranche; a description of the coordination and replication activities carried out by the Fund and the other partners; and any proposed changes in the design or implementation arrangements that may be necessary to improve the Fund performance and the likelihood to achieve its objectives.

The GEF Council would approve subsequent tranches subject to availability of funds. A stock-taking meeting will be held at implementation mid-point to review the progress of the Fund as well as the overall Strategic Partnership.

### ***Types of Investment Projects***

The Investment Fund would finance priority projects that contribute to achieving transboundary pollution reduction targets agreed by the basin countries under SAP MED, and the biodiversity targets agreed by the basin countries under SAP BIO and reflected in National Action Plans. Projects supported by the Investment Fund may include:

---

<sup>7</sup> An allocation of US\$10 million at the June 2006 Work Program inclusion would allow the processing of one of two investment projects that will be ready for World Bank Board approval within the next 6 months.

- *Domestic and industrial wastewater treatment in selected priority hotspots:* demonstration and use of innovative and/or low cost technologies for waste water and sanitation management such as engineered wetlands, enhancement to existing systems to improve efficiency, combined wastewater/septage treatment plants, integrated managed aquifer recharge and wastewater reuse, etc)
- *Coastal ecosystem management:* restoration and preservation of aquatic habitats including wetlands, coastal lakes and lagoons; control of saline intrusion in coastal aquifers; restoration/protection of coastal processes (sediments transport, etc.), promotion of ICM practices
- *Integrated surface and groundwater management in selected watersheds:* promotion of IWRM practices in watersheds draining into the Mediterranean, including groundwater systems and balancing flows, as a mean to protect coastal-marine habitats of transboundary significance and reduce pollution from non point sources and sediment loads
- *Biodiversity conservation:* protection of endangered natural habitats and sensitive areas of transboundary relevance, strengthening/expansion of the marine protected area network, mainstreaming biodiversity conservation in productive seascape and generation and dissemination of best practices for addressing marine and coastal biodiversity issues

Most projects will include a combination of investments, policy and legal improvements, capacity building and replication and may support innovative financing mechanisms and public-private partnerships. Projects will be identified by the proposing country, with assistance from the World Bank and/or other eligible financiers and in coordination with MAP through the coordination mechanism that will be established under the Regional Component of the Strategic Partnership.

### ***Project Eligibility Criteria***

The proposed eligibility criteria include:

- the project focuses on hot spots and sensitive areas and responds to priorities identified by the Mediterranean Sea TDA and the two SAPs;
- the project responds to the priorities identified in the National Action Plan (NAP) or equivalent strategic documents endorsed by the requesting country;
- the project has secured adequate co-financing for non-incremental components;
- the project adheres to the principles of the GEF International Waters and/or Biodiversity Strategies, Operational Programs and Strategic Priorities and is formally endorsed by the country's GEF Focal Point;

- the project includes piloting and testing alternative methodologies and approaches that are innovative in the country context
- the project can demonstrate on-the-ground impact and includes provisions and adequate financial resources for monitoring and evaluation activities, and specific indicators consistent with International Waters and Biodiversity frameworks
- the project demonstrates high potential for replication within the country and the Mediterranean basin;
- the requesting country commits to the policy, legal and institutional reforms related to transboundary pollution reduction and coastal-marine ecosystem conservation supported by the project;
- the requesting country is up-to-date on contributions to the Barcelona convention.

### ***Project Selection and Financing***

No portion of the GEF grant will be earmarked for any individual country or specific project. All eligible countries will have an equal opportunity to benefit from the GEF allocation to the Investment Fund and will be encouraged to submit project proposals. Project proposals submitted by recipient countries will each be considered based on merit. In principle, in the interest of speedy advancement of investments and to trigger demonstration and replication effects on the ground, funds will be made available to countries on a “first come first served” basis.

However, in the medium to long-term, the pipeline of projects put forward for financing under the Fund will need to be managed to some degree, to ensure that the strategic objectives of the Investment Fund are met fully. It is proposed that the rationale for managing the Investment Fund project pipeline include:

- geographical balance, to ensure that the Fund captures the diversity of environmental problems and country conditions typical of the Mediterranean basin and to encourage cross-fertilization;
- diversity of investment typology, to learn from different technologies, approaches and instruments, and increase the demonstration impact across sectors;
- adherence to the priorities identified in the two SAPs and the 2005 TDA;
- leveraging ratio. The target co-financing ratio for the Fund overall is US\$ 1 (GEF) to US\$ 3 (others), with a minimum of 1:1 allowed only on exceptional basis for example for countries with significant resource constraints or for projects addressing priority natural habitats or wetland restoration. Priority will be given to projects with high catalytic impact.



### ***Project Processing Procedure***

Projects for financing under the Mediterranean Partnership Investment Fund would follow the same streamlined review and approval procedures in effect for the Black Sea/Danube Partnership Investment Fund.

Generally GEF co-financing would be requested as part of a larger World Bank project. Following GEF pipeline entry, project preparation would be carried out according to GEF and Bank procedures (including the independent review by STAP) and draft project documents would be submitted directly to the GEFSec for a two-week review prior to GEF CEO endorsement. The GEF CEO would approve projects on a rolling basis until the funding limit of each tranche has been reached. The key milestones of project processing therefore can be summarized as follows:

- Recipient country proposes project concept to World Bank for funding under the Investment Fund
- Investment Fund coordination team reviews concept against IF eligibility criteria and approves for World Bank pipeline
- Investment Fund coordination team consults with Regional Component team to ensure overall consistency, obtain relevant inputs from partners and ensure that replication potential is fully considered during project design
- GEFSec reviews project concept note for pipeline entry
- GEFSec approved PDF-B (if requested)
- World Bank and recipient country teams prepare project according to World Bank policies and standards for WB-GEF projects
- STAP expert reviews and endorses draft project document
- GEFSec reviews draft project document
- GEF CEO endorses the project
- World Bank Board approves the project.

### **Projects under Preparation**

A pipeline of projects has been under development since the Investment Fund concept was approved for pipeline entry in November 2004. Two project concepts have been already reviewed and approved by the GEF Secretariat for pipeline entry (see Annex 4):

*Bosnia/Croatia - Neretva and Trebisnjica River Basin Management:* The Neretva River is the largest river in the Eastern Adriatic watershed and together with the Trebisnjica river (connected by karst hydrogeology) comprises most of the Adriatic watershed of Bosnia and Croatia. The entire valley and delta of the lower Neretva River from Mostar (in Bosnia) to the river mouth (in Croatia) contain the largest and most valuable remnants of the natural Mediterranean wetlands in the Eastern Adriatic coast. Most pollutants generated in the drainage basins of the Neretva and Trebisnjica River are carried to the Adriatic Sea and the Neretva river canyon and delta are identified as priority hot spots and sensitive areas in SAP MED and SAP BIO. Declining water

quantity and water quality, land degradation and loss of wetlands and their associated habitats and biodiversity are the main transboundary problems. Inefficient water allocation and use, municipal, industrial and agricultural pollution, salt water intrusion and conversion of wetlands for agriculture are the main causes. The proposed project supports selected intervention for improved integrated surface-groundwater management of transboundary water resources, improved management and use of wetlands ecosystems and priority investments for water pollution reduction including from municipal and industrial sources..

*Egypt - Alexandria Integrated Coastal Zone Management.* The TDA and SAP MED have identified several hotspots and sensitive areas on the northern coast of Egypt which has been witnessing a continuous increase in population, development and degradation. Three hotspots are located in and around Alexandria: Alexandria, El-Mex Bay and Abu-Qir Bay. Population in Alexandria has increased ten times in the last 100 years with pressing demand for new land development including around Lake Mariout which is now surrounded by urban and industrial development and drains in the hot spot of El-Mex bay. Sewage, industrial wastewater and nutrient loads from agricultural drainage are the main causes of degradation of water quality and coastal biodiversity loss. The proposed project will support small scale investments to reduce industrial and domestic pollution loads in the hot spots of El Mex Bay and Alexandria; and strengthen the national framework for sustainable coastal management.

More recently, other two project concepts were proposed for pipeline entry and are being reviewed by GEFSec:

*Montenegro Tourism Development.* Growing tourism industry and the associated urbanization are causes of increasing environmental degradation along the coast of Montenegro, some parts of which are still in pristine condition. Untreated urban effluents, eutrophication and microbial pollution can be detected in the vicinity of coastal towns. In the southern part of the coast, the Boyana-Buna delta is a migration corridor and unique habitat for endangered and rare water birds, fish and water bound mammals. The Boyana-Buna Delta is situated in the municipalities of Bar and Ulcinj, the two major coastal cities. Port Milena, the waterway that connects the inland lagoon to the sea is the most significant pollution hot spot on the Montenegro coast. The proposed project would pilot low cost waste water treatment alternative methods in Bar and Ulcinj and improve the management and conservation of the wetlands in the Bojana-Buna Delta by extending the protection status from the coastal strip to the hinterland.

*Morocco - Sustainable Development of Nador Lagoon and Al-Hoceima.* After Turkey, Morocco is the country with the greatest number of species and habitat diversity in the Mediterranean region. Unfortunately, the impact of economic activities and inadequate safeguards to address the increasing development has resulted in significant coastal degradation as well as damage on human health and marine biodiversity. The proposed project focuses on two of the four priority hot spots identified in the TDA: Nador Lagoon and the coastal region of Al Hoceima, both areas with highly sensitive ecosystem habitats. It will support restoration of globally significant coastal ecosystem processes; strengthening the capacity of environmental institutions to monitor and mitigate environmental threats to Mediterranean coastal zones; and the development and implementation of a comprehensive and harmonized coastal zone management legislation and management plan.

## **C. IMPLEMENTATION**

### **Implementation Arrangements**

The Investment Fund will be implemented by the World Bank, through its Europe and Central Asia (ECA) and Middle East and Northern Africa (MNA) regional departments<sup>8</sup>. A small Investment Fund coordination team (a representative from each region) would be responsible for coordinating the Investment Fund activities, and liaising with the Regional Component, the GEF Secretariat and the MAP.

Individual eligible projects would be implemented by government and non-government agencies within the recipient countries. World Bank staff would be responsible for appraising and supervising projects according to GEF and World Bank requirements. Bank staff would also be responsible for ensuring coordination, knowledge sharing and replication strategy development at project and country levels and for coordination with the Regional Component regarding regional replication potential.

World Bank staff will participate in the Steering Committee and the Coordination Group for the Strategic Partnership established under the UNEP-led Regional component. Detailed mechanisms, including financial resources for ensuring regular consultations and reporting on progress are being developed as part of the Regional Component

### **Monitoring and Evaluation**

Monitoring and evaluation (M&E) of performance and results will be carried out at level of project, Investment Fund and Partnership (See Annex 4).

#### 1) Project Level

Individual projects will adopt monitoring indicators consistent with the monitoring framework of the IW focal area, which identifies the three categories of Process, Stress Reduction<sup>9</sup> and Catalytic Impact indicators and/or consistent with the monitoring framework for the Biodiversity focal area. Individual project indicators will be consistent with the project objectives and contribute to monitoring the Investment Fund targets. Selected key indicators will be consistent across projects, countries and sectors in order to report achievements at project level, Investment Fund level and also at Partnership level (basin level).

---

<sup>8</sup> The World Bank core team responsible for the preparation and implementation of the proposed Mediterranean Partnership Investment Fund includes: Emilia Battaglini (GEF Regional Coordinator and Task Team Leader, ECSSD); Dahlia Lotayef (GEF Regional Coordinator e co-Task Team Leader, MNSRE); Manuel Mariño (Lead Water Specialist, ECSIE).

<sup>9</sup> See also Key Stress Reduction Indicators at Project Level in Annex 4

Specific M&E arrangements for individual projects including resource requirements and institutional responsibilities will be developed at the time of project preparation.

## 2) Investment Fund Level

The indicators for the Investment Fund will respond to the conceptual framework summarized in Annex 4 (Result Framework). They will fall under the categories of Process, Stress Reduction and Catalytic Impact and will include assessments of the cumulative impacts of replication at the regional level. The Investment Fund coordination team will be responsible for collecting monitoring and evaluations results from individual projects and reporting results to the GEF the Regional Component, MAP and the Barcelona Convention countries on an annual basis.

## 3) Partnership Level

Arrangements for M&E at Partnership level, including the establishment and monitoring of Environmental Status Indicators<sup>10</sup> are being developed as part of the Regional Component and will be under the responsibility of the Partnership coordination team.

## **Replication**

One of the goals of the Strategic Partnership for the Mediterranean is to have the most successful pollution reduction and biodiversity conservation investments implemented under the Investment Fund replicated on a larger scale throughout the basin. Replication potential is therefore one of the eligibility criteria for funding under the Investment Fund.

Individual projects will develop a replication strategy identifying all areas/sites suitable for replication within the country (and the basin when applicable), and estimating the potential impact in terms of the Strategic Partnership's objectives. They will all include communications campaigns, study tours, and other replication activities (dialogue with government agencies, including within the context of CAS negotiations, donor conferences, etc.) within the project country and across the countries receiving support from the Fund.

The Regional component implemented by UNEP will develop and support a replication strategy for the whole LME by reaching out to all recipient countries to ensure the broader dissemination of the lessons learnt and results achieved under the Investment Fund. The information from individual projects will feed into the broader replication and reach-out efforts carried out by the Regional component.

Depending on the nature of the project, replication mechanisms could engage private sector and bilateral donors as financing and technical cooperation partners, as well as mainstreaming

---

<sup>10</sup> Environmental Status indicators are measures of change in the state of the environment (*"Program Performance indicators for GEF IW Programs"*, GEF/C.22/Inf.8 November 11, 2003). They are measures of actual performance or success in restoring and protecting the targeted water body.

investments into government budgets and development plans. This could include opportunity for World Bank and IFC financing in the replicated projects.

## **Dissemination**

Dissemination of project results and lessons learnt throughout the basin would support the Strategic Partnership's replication objectives.

Individual projects will be responsible for providing information on project progress, results and lessons. Dissemination of this information would occur primarily through:

- a website developed for each individual project according to standards established under the GEF IW:LEARN program – the GEF dissemination tool for International Waters projects;
- Strategic Partnership coordination meetings; and
- MAP meetings.

Individual projects will therefore develop a project website, provide information on project progress and results to the IF coordination team, on a regular basis and participate in meetings. The Investment Fund coordination team will be responsible for feeding this information into the overall Strategic Partnership website that should be established under the UNEP project. The IF coordination team would also direct project results to specific target countries identified through the replication efforts managed by the Regional Component. All websites will be linked to the IW:LEARN program and resources will be available in each project to allow participation to IW:LEARN events and activities.

## **Sustainability**

Projects supported by the Investment Fund will address financial, technical, institutional, environmental and social sustainability through the application of World Bank policies and safeguards. Projects will seek the highest level of government commitment and support for policy reforms as a means to ensure long-term sustainability. Also, as projects would be only partially funded by the GEF, recipient countries would have to commit to contribute financially to cover all project costs (on their own or through donor financing). In this regard, a critical goal of the proposed Investment Fund will be to increase GEF grant leveraging against other project financing sources, and to increasingly encourage other partners to take over larger shares of pollution reduction investments. Blending GEF co-financing into larger World Bank operations will ensure implementation sustainability and country ownership. Incorporation of the Strategic Partnership objectives in the World Bank country dialogue will ensure the long-term sustainability of the program.

## Critical Risks and Controversial Aspects

Risks	Risk Mitigation Measures	Risk Rating with mitigation
<b>To Investment Fund objectives</b>		
Regional Component is not approved by GEF and/or cannot undertake the activities assigned to it in support of the Fund	Collaboration by World Bank staff with UNEP, MAP and partners in Regional Component design; continued support and interaction with the Regional Component under its implementation.	L
Sub-projects do not comply with replication and dissemination requirements	Include replication and dissemination requirements as legal covenants under Grant Agreements, encourage close collaboration between the Fund and World Bank teams on the development and implementation of replication and dissemination strategies.	L
<b>To individual project results</b>		
Project level governance issues	Close supervision of fiduciary and safeguard issues	M
Slow implementation due to lack of counterpart funding	Financial analysis during appraisal	L
Sub-project difficult to replicate	Encourage early consultation within region and between sub-projects to ensure maximum information dissemination and experience-sharing	M
Overall risk rating	Modest	<b>M</b>

## Stakeholder Consultation

The Investment Fund is proposed within the framework of the GEF Strategic Partnership for the Mediterranean Sea Large Marine Ecosystem. The Partnership brings together the World Bank, UNEP and a variety of agencies and donors active in the Mediterranean region: UNDP, FAO, UNESCO, WWF, UNIDO, METAP, GWP and the EU. Consultations with all partners and recipient countries were carried out during the preparation of this initiative and extensive feedback was received from GEFSec, UNEP and MAP. The Investment Fund coordination team will continue consultations with Partners and countries through coordination mechanism set up for the Partnership under the UNEP Regional component. World Bank staff will consult with recipient countries on the Partnership objectives and Investment Fund opportunities during the process of developing the CAS.

The beneficiaries of the projects supported by the Investment Fund are governments, civil societies, economic sectors, including private sector, communities, NGO's and the population of the riparian states. Each project funded under the Investment Fund will carry out stakeholder consultations on the proposed investments and develop a stakeholder participation plan during project preparation, according to World Bank and GEF requirements.

## ANNEXES

ANNEX 1 - Technical Background for the GEF Strategic Partnership for the Mediterranean Sea Large Marine Ecosystem	Page 22
ANNEX 2 - Regional Component of the GEF Strategic Partnership for the Mediterranean Sea Large Marine Ecosystem	Page 30
ANNEX 3 - GEF Strategic Partnership on Nutrient Reduction in the Danube/Black Sea Basin – Preliminary Results	Page 46
ANNEX 4 - Mediterranean Partnership Investment Fund Result Framework and Monitoring	Page 51
ANNEX 5 - Mediterranean Partnership Investment Fund Pipeline: Project Concepts	Page 55

## ANNEX 1

### TECHNICAL BACKGROUND FOR THE GEF STRATEGIC PARTNERSHIP FOR THE MEDITERRANEAN LARGE MARINE ECOSYSTEM

#### Major transboundary environmental concerns in the Mediterranean Sea

Transboundary degradation of coastal habitats and decline of biodiversity arise from the combination of the following factors: Marine living resources are often migratory; coastal habitats provide nursery and feeding grounds to migratory species, thus the degradation of coastal habitats contributes to an overall decline in biodiversity; The sustainability of marine and coastal habitats depends on the integrity and viability of their interlinked, transboundary ecosystems, that support trophic levels in the food chain.

Transboundary aspects in fisheries sustainability and management are of particular importance regarding migratory and shared stocks, which makes it inevitable and essential to address fisheries on an international level. This task is complex in the Mediterranean as there are a high number of riparian states in varying stages of development in the management of fisheries. Future progress in terms of fisheries management however will be based on the ability to build a multilateral dimension into national practices. The number of shared fisheries has increased in several areas of the Mediterranean like the Alboran Sea, the Gulf of Lyons, the Northern Tyrrhenian Sea, the Adriatic Sea, the Ionian Sea, the Aegean Sea, the Sicily Strait and the Gulf of Gabes. The number of shared fisheries identified already at this stage justifies common action to be taken for those stocks at international level.

Transboundary concerns related to marine water quality arise from the fact that pollutants often travel great distances through air, sea currents and rivers, before their effects can be traced. The Mediterranean seawater exchange patterns, persistent toxic substances dispersed by atmospheric circulation, transboundary transport of pollutants such as Polycyclic Aromatic Hydrocarbons (PAHs), eutrophication and the evidence of long-range biological pollution impacts on sea birds and other marine life, are the main focus areas of sea water quality. Pollution hot spots can also affect biodiversity resources of Mediterranean-wide importance in addition to site-specific impacts.

Transboundary elements affecting human health include the trade of contaminated seafood that diffuses health concerns beyond Mediterranean basin and through the transboundary exposures of tourists to potentially contaminated seafood; Risks of adverse health impacts from contaminated seawater such as gastroenteritis, ear, skin and eye infections, viral diseases such as hepatitis A, cholera and superficial or deep mucoses from contact with contaminated beach sand, whilst visiting Mediterranean beaches. Without adequate water resource management, human health issues will continue to degrade. Lack of water and sanitation, inadequate waste and wastewater disposal, potential waterborne diseases, unhealthy seafood and occurrences of eutrophication will increase.

Transboundary threats to coastal aquifers. The groundwater problems in the context of the Adriatic (eastern coast) basin and in selected section of the Levantine and the Southern



Mediterranean coasts are linked to the coastal aquifers freshwater- saltwater interface. The problems are linked to and arise from functions for basin water balance and freshwater discharges, water supplies, control of saltwater intrusion and coastal salinization, nutrient and contaminant transport and SGDs and preservation of fresh-, brackish- and coastal water ecosystems. They are ultimately referred to the lack of policy and sustainable legal and institutional frameworks for coastal aquifer management. The problems vary depending on the vulnerability of the aquifer systems, the hydrogeology and importance of land-based water pollution and are related to (a) sustainable protection and use of shared coastal aquifers, and ultimately to (b) the sustainability of the regional basin including marine water balance and water quality and the impacts on the marine ecosystems.

Transboundary problem of marine litter. Marine litter has been an issue of concern in the Mediterranean since the 1970s. Marine litter is an environmental, economic, health and aesthetic problem. It causes damage and death to wildlife. It threatens marine and coastal biological diversity in productive coastal areas. Plastic litter is a source of persistent toxic substances. Pieces of litter can transport invasive species between seas. Medical and sanitary waste constitutes a health hazard and can seriously injure people. Every year, the presence of marine litter causes damage that entails great economic costs and losses to people, property and livelihood, as well as poses risks to health and even lives. And marine litter spoils, fouls and destroys the beauty of the sea and the coastal zone.

#### *Status of Marine Protected Areas in the Mediterranean Sea*

The Mediterranean Sea is a global biodiversity hotspot, listed in the top 15 marine hotspots by Conservation International (CI) and figuring prominently in the WWF Global 200 list. In such an intensively utilized environment, protected areas established solely for the preservation of biodiversity are almost impossible to create and enforce. As a result of this pressure to both conserve and use, Mediterranean countries have already established some of the most innovative and successful marine protected areas (MPAs) in the world, ranging from small specific areas for critically important biodiversity, such as the MPAs established for protection of the Monk Seal in Greece, Turkey and Morocco, the Port Cros Park in southern France, and the Pelagos Sanctuary for Mediterranean Marine Mammals, a transboundary protected area created by France, Monaco and Italy in the Ligurian Sea.

Despite these innovations, the general situation with regard to marine protected areas in the Mediterranean remains critically weak when measured against a goal of reducing the rate of biodiversity loss by 2010, especially for the countries in the southern and eastern parts of the Mediterranean.

There are more than 150 Marine and Coastal Protected Areas in the Mediterranean under the SPA Protocol, more than 50 of which are open water areas. Among the signatories to the Protocol, only Italy has specific legislation for establishing marine protected areas. Most of the other countries have adopted legislative texts permitting the establishment of such areas, without detailed rules concerning regulation and management. In the case of wetlands, there are 150 Ramsar sites in the region, but this number could be easily doubled applying the Convention on Wetlands criteria.

Although countries have established MPAs, many of these remain “paper parks”. In addition, many were created purely for species protection without giving adequate consideration to the opportunities to capture multiple benefits through the careful consideration of location, size, (multiple-use) zoning/management, and the synergistic effects of networks.<sup>11</sup> At the same time several national reports have identified several common problems affecting the selection, establishment and management of Marine Protected Areas in the Mediterranean basin.

According to the 2003 Strategic Action Plan for Biodiversity in the Mediterranean (SAP BIO) there is a critical need to review the existing MPA and coastal PA networks in the light of an expanding literature<sup>12</sup> on design and monitoring of MPAs to achieve both conservation and sustainable use benefits (fisheries, tourism<sup>13</sup>, etc.), thus bridging the GEF Strategic priorities for biodiversity BD-1 and BD-2. Although mass tourism remains a major threat to Mediterranean biodiversity, there are successful examples of mainstreaming biodiversity; e.g. coastal tourism in Slovenia and southern Albania, green tourism in the Cres-Losinj archipelago in Croatia, integrated management of the coastal areas in the Antalya region of the southern coast of Turkey, and ecotourism and whale-watching off the Balearic Islands in Spain.

### **Common problems affecting the conservation of marine biodiversity through the use of MPA's in the Mediterranean.**

A series of problems have been recurrently identified by the National Reports, although, obviously, the importance of magnitude of each problem differs between the countries bordering on the Mediterranean Sea:

- Insufficient legal system, lack of adequate legislation
- Confusion of competency, or fragmentation of responsibility (leading to problems of implementation of the existing laws)
- Lack of coordination between administrations, competencies overlap
- Interference with other human activities occurring in the coastal zone, mainly tourism
- Low or no participation of stakeholders and other agents in the decision-making process
- Poor effort to improve public awareness on marine conservation issues
- Lack of effective enforcement measures in some cases
- Lack of effective scientific monitoring
- Lack of sufficient economic resources to achieve the protection measures, so that a number of MPAs receive only nominal management and protection (“paper MPAs”)
- Problems of mismanagement and deterioration caused by the limited experience of the people administrating the MPAs

---

<sup>11</sup> Agardy, T. et al. (2003). "Dangerous targets? Unresolved issues and ideological clashes around marine protected areas." *Aquatic Conservation: Marine and Freshwater Ecosystems*; published online in Wiley InterScience ([www.interscience.wiley.com](http://www.interscience.wiley.com)) DOI: 10.1002/aqc.583.

<sup>12</sup> Syms, C. and M. H. Carr (2001) Marine Protected Areas: Evaluating MPA effectiveness in an uncertain world. Scoping paper presented at the Guidelines for Measuring Management Effectiveness in Marine Protected Areas Workshop, Monterey, California, May 1-3, 2001, sponsored by the North American Commission for Environmental Cooperation. [http://www.biology.ucsc.edu/people/carr/Syms/syms\\_download\\_page.htm](http://www.biology.ucsc.edu/people/carr/Syms/syms_download_page.htm)

<sup>13</sup> e.g. Alonissos Marine National Park in the Northern Sporades in Greece combines tourism with conservation of the Monk Seal, one of the 12 most threatened mammals in the world

- Lack of effective conservation measures to protect particular species (monk seal, sea turtles, cetaceans, etc.) and/or communities (e.g. seagrass meadows)
- Need to set up a network of MPAs, and therefore define of goals, mechanisms and management organization for such a network
- Need for integrated coastal zone planning and management.

Other identified problems that affect the selection, installation, management and evaluation of Mediterranean MPAs are the following:

- Need to clearly establish the specific goals of each MPA
- Improved scientific basis for the selection (location, habitats included, depth range, etc.) and design (size, shape, number, proportion of total surface protected, etc.) of MPAs
- Need for appropriate monitoring and evaluation of the effectiveness of MPAs, based on sound sampling designs (e.g. BACIP, beyond-BACI...)
- Lack of empirical evidence for potentially complex effects of MPAs, e.g. spillover, indirect effect on ecosystems (“cascade” effects), effects on larval replenishment of commercially and/or ecologically important species, genetic effects, socio-economic results, etc.
- Need to ascertain the relationship of MPAs with other management tools.

### **History of collaboration among Mediterranean countries, agreements reached and ongoing activities**

The riparian States of the Mediterranean Sea have long since recognized the threat that pollution poses to the marine environment and have committed to preserving the Mediterranean basin through actions at local, regional and global level. To this effect, they agreed to launch an Action Plan for the Protection and Development of the Mediterranean Basin (MAP) in 1975 and to sign a Convention for the Protection of the Mediterranean Sea against Pollution (Barcelona Convention) in 1976 (Box 1).

The main objective of MAP was to improve the quality of the environmental information available to governments as the basis for their policy formulation and strengthen their ability to make environmentally sustainable choices for allocation of resources. The focus of MAP shifted over time from a sector approach to marine pollution to integrated coastal zone planning and management as a way to ensure linkages between environmental protection and social and economic development.

Recognizing that land based activities have the highest impact on the marine environment, the countries signed a Protocol for the Protection of the Mediterranean Sea against Pollution from Land-Based Sources (LBS Protocol) in 1980 which entered into force in 1983 and was revised in 1996. A year later, in 1997, the countries adopted a Strategic Action Program to address pollution from land-based activities (SAP MED) that identifies priority measures and targets to address pollution from land-based activities in all countries and laid the ground for the preparation and implementation of National Action Plans. In November 2003, the Mediterranean countries adopted the Strategic Action Program for the Conservation of Mediterranean Marine

and Coastal Biological Diversity (SAP BIO) that identifies priority actions and targets to protect fragile ecosystems and reduce damage to natural habitats.

**Box 1. Barcelona Convention**

The Barcelona Convention on the “Protection of the Mediterranean Sea against Pollution” which entered into force on 12 February 1978 is a notable instance of regional cooperation. Since 1994, several components of the Barcelona system have undergone significant modifications. In June 1995 the Convention was revised in order to bring it into line with the principles of the Rio Declaration, the philosophy of the new Convention on the Law of the Sea and the progress achieved in international environmental law in order to make it an instrument of sustainable development. The convention was amended to “The Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean”, hereinafter “the Convention” (the amendments are not yet in force).

The Barcelona Convention includes the following Protocols:

- a) The Protocol for the Prevention and Elimination of Pollution of the Mediterranean Sea by Dumping from Ships and Aircraft or Incineration at Sea, (amended 1995, not yet in force);
- b) The Protocol Concerning Co-operation in Preventing Pollution from Ships and in Cases of Emergency, Combating Pollution of the Mediterranean Sea, (2002, entered into force on 17 March 2004);
- c) The Protocol for the Protection of the Mediterranean Sea against Pollution from Land-Based Sources and Activities (LBS Protocol), (amended 1996, not yet in force);
- d) The Protocol Concerning Specially Protected Areas and Biological Diversity in the Mediterranean, (of 1995, entered into force 12 December 1999);
- e) The Protocol Concerning Pollution Resulting from Exploration and Exploitation of the Continental Shelf, the Seabed and its Subsoil, (1994, not yet in force); and
- f) The Protocol on the Prevention of Pollution of the Mediterranean Sea by Transboundary Movements of Hazardous Wastes and their Disposal, (1996, not yet in force).

In addition to the above, the Contracting Parties have adopted, at their last ministerial meeting in Catania, November 2003, the recommendation to draft the text of the Protocol on Integrated Coastal Area Management in the Mediterranean. The text should be prepared and submitted for discussion at the next Contracting Parties Meeting in late 2005.

UNEP/MAP and its marine pollution assessment and control program MEDPOL carried out extensive preparation work in support of the SAP MED, including a Transboundary Diagnostic Analysis for the Mediterranean Sea (TDA MED) prepared in 1997 and revised in 2004. This TDA identifies the major sources of transboundary pollution and hotspots and provide the foundation for interventions at national and regional level that would benefits the individual countries as well the basin as a whole. In addition, UNEP/MAP, through its Regional Activity Center for Special Protected Areas (SPA/RAC), carried out activities on the preparation of SAP BIO, which was adopted by the Contracting Parties to the Barcelona Convention in November 2003.

The **SAP-MED and SAP BIO** outline the specific targets and activities agreed by the member countries to address the Mediterranean Sea environmental degradation. Some of the **key targets** that address transboundary environmental issues, in line with WSSD, include:

- Dispose municipal wastewater in conformity with the LBS Protocol in cities exceeding 100,000 inhabitants by 2005 and in other cities by 2025;
- Dispose 50% of industrial wastewaters which are source of BOD, nutrients and suspended solids by 2010 and 100% by year 2025;
- 50% increase in marine protected areas by 2012;
- Protection of 20% of the coast as marine fishery reserves by 2012;

- Maintain or restore fishery stocks to levels that can produce the maximum sustainable yield with the aim of achieving these goals for depleted stocks on an urgent basis and where possible not later than 2015; and
- Effective protection of endangered species by 2012.

SAP-MED and SAP BIO also identify the Adriatic Sea as one of the top priority areas for protection in the Mediterranean Sea and proposed interventions in liquid and solid waste treatment, water supply and monitoring programs for coastal zone and sensitive areas. Other hotspots include: Haifa Bay in Israel, Abu Qir bay and El'Mex bay in Egypt, Saida (Sidon) Gazieh in Lebanon, Tetouan in Morocco, and Durres and Vlora in Albania, and others (see TDA, 2004)

The cost for pollution remedial actions in the Mediterranean Sea has been estimated in 1997 at almost US\$ 10 billion [with approximately US\$ 1.3 billion for intervention in the Adriatic Sea]. The SAP BIO identified 226 actions at national levels and 30 actions at the regional level for biodiversity protection, with estimated costs of US\$ 100 million and US \$40 million respectively.

### **Some other activities relevant to the protection of the Mediterranean Sea**

Several other activities and initiatives have been undertaken by governments, intergovernmental and non-governmental organizations, some of which have relevance for the Mediterranean Sea Basin. Among recent initiatives, reference should be made to the Adricosm Project on land and coastal management, initiated by the Italian government, as well as the Adriatic-Ionian Initiative supported by the governments of the Adriatic region.

Reference should also be made to the Mediterranean Component of the EU Water Initiative, as well as to efforts being made to improve the management of the many transboundary basins and aquifers of SE Europe by introducing IWRM practices (the Athens Declaration Process). A number of these waters flow into the Mediterranean and have a significant impact on coastal ecosystems and water quality. Box 2 and 3 below summarize these processes.

#### **Box 2. The Athens Declaration Process**

*Jointly coordinated by the Government of Greece and the World Bank*

The Athens Declaration Process was launched during the major International Conference on Sustainable Development for Lasting Peace: Share Waters, Shared Future, Shared Knowledge, 6-7 May 2003, Athens, Greece. The process aims to assist countries of the region, in cooperation with relevant stakeholders, to draft IWRM and water use efficiency plans for major river basins and would include a range of complementary interventions in individual river and lake basins, with a coordination mechanism to allow for exchange of information and experience between activities. The entire program is a building block of the Mediterranean Component of the European Union Water Initiative.

The Athens Declaration of May 2003 has four Recommendations for Action: Recommendation (1) Diplomacy for Environment and Sustainable Development, (2) Southeastern Europe Transboundary River Basin and Lake Basin Management Program, (3) Mediterranean Shared Aquifers Management Program, and (4) Assessment of Regional and National Frameworks to Implement Integrated Water Resources Management.

Recommendations 2, 3 and 4 build on the implementation process of the European Union Water Framework Directive and complement and draw lessons from the ongoing GEF Danube River Basin Program and the Lake Ohrid Conservation Project among others.

**Box3: The Mediterranean Component of the EU Water Initiative (MED EUWI)**

*Led by the Government of Greece*

MED EUWI is an integral part of the overall EU Water Initiative, coordinated by the European Commission. It aims to:

- assist design of better, demand driven and output oriented water related programmes
- facilitate better coordination of water programmes and projects, targeting more effective use of existing funds and mobilization of new financial resources and
- enhanced cooperation for project proper implementation.

MED EUWI, announced during WSSD in Johannesburg, gives particular emphasis to Mediterranean and SEE priorities. Integrated water resources management with an emphasis on management of transboundary water bodies is a defined priority theme of MED EUWI. The current Project will contribute as a pilot for enhancing the MED EUWI objectives in the SEE region.

Political commitment for the development of MED EUWI has been expressed in various fora, *inter alia*, the EU Informal Council of Environment Ministers (May 2003, Athens and December 2003, Brussels), 5<sup>th</sup> Pan-European Ministerial Conference of the “Environment for Europe” process (May 2003, Kiev), Euro-Mediterranean Meeting of the Ministers of Foreign Affairs (May 2003, Crete and June 2004, Dublin), three meetings of the North African Ministers Council on Water (February and October 2003, April 2004, Cairo), etc.

The process is facilitated by a MED EUWI Secretariat, within Global Water Partnership – Mediterranean.

**Initial GEF IW project: Objectives and achievement**

In order to support the efforts of the Mediterranean countries in implementing the SAP MED, in 1998 the GEF Council approved a US\$ 6.3 million grant in support of the project “Determination of priority actions for the further elaboration and implementation of the Strategic Action Programme for the Mediterranean Sea” to be implemented by UNEP together with other agencies (Box 5).

The project supported preparatory actions leading to: the adoption and implementation of regional guidelines and plans; investment in the elimination of regionally prioritized pollution hot spots; development of a strategic action program for biodiversity which identifies targets and estimates costs (SAP BIO); enhancement of public participation and institutional capacity in the region; development and implementation of economic instruments for the sustainable implementation of the SAP MED; and development, adoption and implementation of National Action Plans (NAPs) for the implementation of the SAP MED.

#### **Box 4. Initial GEF IW Project in the Mediterranean**

The main aim of the UNEP-GEF “Determination of priority actions for the further elaboration and implementation of the Strategic Action Programme for the Mediterranean Sea” Project was to create a solid ground for the implementation of the SAP-MED, and to prepare the SAP-BIO, a basic instrument for the protection of marine biodiversity in the Mediterranean. The activities of the Project are numerous and comprised of the following components:

- Revision of TDA;
- Capacity building;
- Development of regional guidelines and plans;
- Adaptation of existing and development of new economic instruments for sustainable implementation of the SAP MED;
- Public participation;
- Preparation of National Action Plans (NAPs) to address pollution of the Mediterranean from land based sources and activities; and
- Preparation of pre-investment studies for selected pollution hot spots.

The revised TDA is at the final stage of preparation and soon to be released.

Within the capacity building component, a series of regional and national training courses were organized. More than 400 national experts were trained on various issues, so far. The majority of them were taught in their mother tongue using training material translated into their national languages. A set of regional guidelines and plans were prepared, which will guide national experts that are preparing NAPs. These guidelines were endorsed by the meeting of MED POL National Coordinators; and then approved by the meeting of the MAP Focal Points. In addition, two regional plans were adopted by the meeting of the Contracting Parties to the Barcelona Convention.

One of the major goals of this Project is the preparation of NAPs. The first phase of this very complex and delicate process has been accomplished by preparing national Baseline Budgets (BBs) of releases and emissions, and a National Diagnostic Analysis. The second phase, the preparation of Sectoral Plans and Integrated NAPs is under implementation. The adaptation of existing and development of new economic instruments for sustainable implementation of NAPs is now under way and will soon be concluded (2005). Testing through pilot projects is being conducted at a national level in numerous countries and the results will be implemented in the NAPs.

A common methodology for public participation in the process of preparing, adopting and implementing has been prepared and distributed to the countries of the region. The countries are also receiving financial support for the public participation. The preparation of pre-investment studies for selected pollution hot spots is now under way in 11 Mediterranean countries. The activities in four countries are directly supported by FFEM.

Finally, the SAP BIO is one of the main outputs of the Project. The SAP BIO document was based on national reports and plans on the state of biodiversity, as well as numerous reports concerning various regional issues. The document, was adopted by the meeting of the Contracting Parties to the Barcelona Convention (2003) and presents the main issues, analyses their causes and proposes priority activities. It also contains, an Investment Portfolio at the regional and national levels.

The two SAPs and the proposed ICM Protocol will help countries to achieve the Millennium Development Goals and the WSSD targets.

**ANNEX 2**

**REGIONAL COMPONENT OF THE GEF STRATEGIC PARTNERSHIP FOR THE  
MEDITERRANEAN SEA LARGE MARINE ECOSYSTEM**

**AGENCY'S PROJECT ID:**

**GEFSEC PROJECT ID:**

**COUNTRY:** Mediterranean (12 countries): Albania, Algeria, Bosnia and Herzegovina, Croatia, Egypt, Lebanon, Libya, Morocco, Serbia and Monte Negro, Syria, Tunisia, and Turkey.

**PROJECT TITLE:** Strategic Partnership for the Mediterranean Large Marine Ecosystem – Regional Component: **Implementation of agreed actions for the protection of the environmental resources of the Mediterranean Sea and its coastal areas.**

**GEF AGENCY:** UNEP

**OTHER EXECUTING AGENCY(IES):**UNEP/MAP

FAO, UNESCO, UNIDO, ICS-UNIDO, METAP/WB, WWF

**DURATION:** 6 Years

**GEF FOCAL AREA:** International Waters and Biodiversity

**GEF OPERATIONAL PROGRAM:** OP 9 AND OP 2

**GEF STRATEGIC PRIORITY:** IW-1 Catalyzing Financial Resources for Implementation of Agreed Actions; BD-1 Catalyzing Sustainability of Protected Areas and BD-2 Mainstreaming Biodiversity in Production Landscapes and Sectors.

**ESTIMATED STARTING DATE OF PDF-B:** 2005

**ESTIMATED WP ENTRY DATE:** FY 2008

**PIPELINE ENTRY DATE:** November 2004

<b>FINANCING PLAN (US\$)</b>	
<b>GEF ALLOCATION</b>	
Project ( <i>estimated</i> )	\$15 million
Project Co-financing ( <i>estimated</i> )	it is expected that at least an equivalent amount of grant funding will be leveraged from other agencies, donors and recipient countries.
PDF A*	
PDF B**	700,000 from IW 300,000 from BD
PDF C	
<i>Sub-Total GEF PDF</i>	TBD

<b>PDF CO-FINANCING (details provided in Part II, Section E – Budget)</b>	
GEF Agency	TBD
National Contribution	TBD
Italy	100,000
Others	TBD
<i>Sub-Total PDF Co-financing:</i>	



## Country ownership

### 1. COUNTRY ELIGIBILITY

Twelve riparian countries (listed on the first page) are eligible for GEF support for International Waters (IW) under paragraph 9(b) of the GEF Instrument: Albania, Algeria, Bosnia and Herzegovina, Croatia, Egypt, Lebanon, Libya, Morocco, Serbia and Monte Negro, Syria, Tunisia, and Turkey.

### 2. COUNTRY DRIVENNESS

As mentioned above, the Mediterranean Action Plan (MAP) was established in 1975, as the first Regional Seas Programme of UNEP. The Convention for the Protection of the Mediterranean Sea Against Pollution (the Barcelona Convention), which was adopted in 1976 and related protocols are legal instruments for the implementation of MAP. All Mediterranean Countries participating in this project have ratified the Barcelona Convention. Strategic Action Programme to Address Pollution from Land-Based Activities (SAP MED), prepared under a GEF PDF-B Grant, was adopted by the Contracting Parties in 1997. The SAP MED is related to the LBS Protocol. A Strategic Action Programme for the Conservation of Biological Diversity in the Mediterranean Region (SAP BIO) was developed under the current GEF Project and was adopted in 2003. It is related to the Protocol Concerning Specially Protected Areas and Biological Diversity in the Mediterranean.

Both the SAP-MED and SAP-BIO are ready for implementation in consistence with GEF Operational Program 9 (OP) in the International Waters Focal Area and Operational Program 2 (OP 2) in Biodiversity Focal Area.

A Stocktaking Meeting for the development of the GEF Strategic Partnership for the Mediterranean Large Marine Ecosystems was held in Trieste, Italy, on 11-12 October 2004 with the support of the Italian Government (the minutes of the meeting are provided in Annex 2). The representatives of the Mediterranean countries expressed their full support to the GEF initiative. They stressed the need for assistance for the full implementation of their NAPs in order to fulfill the goals of the two SAPs. To achieve that, the representatives suggested to tailor the project's activities according to the specific needs of each country. At the meeting the countries have adopted the following recommendations:

“The representatives of Mediterranean countries approved the proposed Strategic Partnership as a whole. They also considered that the effective initiation of the SAP MED activities and the recent adoption of the SAP BIO provided an excellent opportunity to apply the integrated approach involving pollution reduction and biological diversity proposed in the Strategic Partnership.

In addition, the representatives of countries emphasized that, at present, the implementation of the SAP BIO called for additional resources under the “biodiversity” component of the GEF in order to enable practical implementation of the activities at the national and regional levels. Consequently, several representatives considered that the GEF funds for biological

diversity should be increased in order to provide a substantial contribution to the launching of the SAP BIO in the region.”

## **Program and Policy Conformity**

### 1. PROGRAM DESIGNATION AND CONFORMITY

The proposal is consistent with the GEF Operational Programme #9 which states: “these projects focus on integrated approaches to the use of better land and water resource management practices on an area-wide basis. The goal is to help groups of countries utilize the full range of technical, economic, financial, regulatory, and institutional measures needed to operationalize sustainable development strategies for international waters and their drainage basins (para 9.2).”

The Proposal is consistent with the BD OP 2: The objective of this Operational Program is the conservation and sustainable use of the biological resources in coastal, marine, and freshwater ecosystems generally (including lakes, rivers and wetlands, and island ecosystems).

(a) **Conservation** can be ensured by ecosystem functioning through the establishment and strengthening of systems of conservation areas. The scope will be tropical and temperate coastal, marine, and freshwater ecosystems areas at risk; and

(b) **Sustainable use** can be ensured by systems, which combine biodiversity conservation, production, and socio-economic goals. The scope, as set out in the Operational Strategy, includes strict protection on reserves, various forms of multiple use with conservation easements, and full scale use.

As indicated in the GEF Operational Strategy, this Operational Program will be implemented in conjunction with those in the International Waters focal area. The project is also consistent with the new GEF International Waters Strategic Priority IW-1: Catalyze financial resource mobilization for implementation of reforms and stress reduction measures agreed through the (TDA)/SAP or equivalent processes for particular transboundary systems. The project is also consistent with the new GEF Biodiversity Strategic Priorities BD-1: Catalyzing Sustainability of Protected Areas, and BD-2: Mainstreaming Biodiversity in Production Landscapes and Sectors.

### 2. PROJECT DESIGN

The main objective of this Regional Component under the Strategic Partnership is to promote and induce policy, legal and institutional reforms aimed at reversing marine and coastal degradation trends and living resources depletion, in accordance with what had been agreed by the countries in the SAP MED and SAP BIO to be reflected in their NAPs. In doing so, the Project will also strengthen the enforcement, assessment and monitoring capabilities of the national and local institutions; and establish technical mechanisms for supporting transboundary pollution prevention and abatement originating in the coastal areas of the Mediterranean Sea towards the Environmental Quality Objectives (EQO's) identified in the Mediterranean TDA, which broadly are:

- Reduce the impacts of LBS of pollution on the Mediterranean marine environment and human health;
- Reach sustainable productivity from fisheries; and

- Preserve the coastal and marine biodiversity (ie. habitats, ecosystems, biological taxa and genetic resources).

Long Term Objectives of the Regional Project and relevant Success Indicators are listed in Annex 1 as well as Immediate objectives, actions, outputs and related Project's Success Indicators. The proposed Project will focus on and assist the countries:

1. To implement legal, institutional and policy reforms, which are necessary for the implementation of NAPs, in order to achieve the targets, set by the two SAPs.
2. To develop an adequate human capacity for legal/institutional set up, reforms and harmonization of policies needed to reverse pollution degradation trends, biodiversity and living resources depletion, by following the priorities established by the SAP MED and SAP BIO, by providing a required technical assistance.
3. To provide technical and financial support in implementing selected priority actions identified in NAPs in accordance with priorities set up by the SAP MED and SAP BIO.
4. To address groundwater issues in coastal regions, particularly in arid and karst areas, through use of demonstrations projects and vulnerability assessments; this should include the adoption of hydrologic basins as key management units (particularly in Balkan and Eastern Mediterranean countries, including coastal groundwater units near hot spots in arid and karst regions).
5. To develop a long term sustainable financing capacity of countries through increased integration of environmentally related economic instruments and innovative use of financing mechanism into mainstream environmental financing in order for sustainable implementation of the SAP MED including and launch of the SAP BIO implementation to achieve sustained global environmental benefits. Establish a potential regional network on environmental sustainable financing and innovative financing practices/methods.
6. To respond to the SAPBIO targets related to Marine Protected Areas in the Mediterranean (by 2012, increase by 50% the coverage of marine protected areas, in relation to 2003, and protect 20% of the coast as marine fishery reserves;

This Regional Project will be implemented by UNEP and executed by UNEP/MAP, through MED POL and associated Regional Activity Centers (CP/RAC, PAP/RAC, REMPEC, SPA/RAC), with inputs from UNEP/GPA.

Some actions will be co-executed by relevant international organizations. Thus, the Food and Agricultural Organization of the United Nations (FAO) directly and through the General Fisheries Commission for the Mediterranean (GFCM) could co-execute the actions addressing fisheries management and their eventual integration into ICM frameworks. The groundwater actions would be co-executed by UNESCO/IHP. The habitat and biodiversity conservation actions will be implemented by the World Wildlife Fund for Nature (WWF). WWF will specifically contribute with its technical expertise in biodiversity conservation, its ability to mobilize the civil society, build capacity and raise public awareness. The Mediterranean Environment Technical Assistance Program (METAP) will provide technical assistance to countries in integrating environmental and social components into targeted sectoral projects. Activities related to cleaner technologies and pollution reduction could be co-executed by the United Nations Industrial Development Organization (UNIDO) and by the International Centre

for Science and High Technology (ICS-UNIDO). Other organization, as well as NGOs could execute some activities too. This broad regional alliance of institutions around a common project through the Regional Component of the Partnership will strengthen the commitment and capacity of all stakeholders to address the identified main transboundary concerns, identified in the Transboundary Diagnostic Analysis (TDA).

The full fledged Project Implementation Strategy, including specific activities, outcomes and outputs of the Full project will be developed during PDF-B implementation. The proposed activities of the Regional Project could be clustered as follows:

### **Component I. Facilitation of policy and legislative reforms (UNEP/MAP through MED POL, CP/RAC, PAP/RAC, REMPEC and SPA/RAC)**

The development and implementation of policies and legislation aimed at addressing transboundary causes of environmental degradation of the Mediterranean Sea, as established in the SAP MED and SAP BIO, will be one of the objectives of the Regional Project. Adequate capacity will be developed in the countries for legal/institutional set up, reforms and harmonization of policies needed to reverse degradation trends and living resources depletion, by following the priorities established by the SAP MED and SAP BIO. During further elaboration of the project, the needs for reforms and the commitments emerging from each country's National Action Plan and SAP BIO National Action Plans, National Biodiversity Strategy and Action Plans (NBSAPs) and other relevant protected areas planning documents, will be identified and specific indicators will be set in the context of the project's M&E Plan.

Activities will include:

- Assisting the countries to implement the legal, institutional and policy reforms, which are necessary for the implementation of NAPs, in order to achieve the targets, set by the two SAPs.
- Assisting the countries in the development and implementation of policies and legislation aimed at addressing sectoral causes of environmental degradation of the Mediterranean Sea.
- Promoting countries coordination to develop and implement international and national Action Plans, including fisheries IPOAs and NPOAs.
- Assisting the countries to improve legislation, reinforce the human resources and exchange of information on monitoring illegal oil discharges and prosecution in the Mediterranean Sea.
- Strengthening of public awareness, participation (including NGO networks) and education, to support public participation in the implementation of NAPs and focus on transboundary environmental issues;
- Assessing the applicability of regional and sub-regional flexibility mechanisms for the achievements of pollutant emission reductions, e.g. as a market-oriented means of controlling nutrient introduction;
- Strengthening of planning and management capacities for Integrated Coastal Management –(ICM) at national and local levels in the Mediterranean countries and the development of demonstration projects for effective management of coastal areas, and identification and management of MPAs.

- Revise the 2004 TDA in year three of the project with follow up revision of SAPs, if needed.

Outcomes:

- Legal, institutional and policy reforms in order to achieve the targets, set by the two SAPs, implemented.
- Policies and legislation aimed at addressing sectoral causes of environmental degradation of the Mediterranean Sea developed and implemented.
- Multi-stakeholders participation in the implementation of the NAPs and SAPs strengthened.
- Improvement of long term sustainable financing for the implementation of the Sap-MED
- Strengthened planning and management capacities for Integrated Coastal Management – (ICM) at national and local levels in the Mediterranean countries and the development of demonstration projects for effective management of coastal areas, and identification and management of MPAs.
- A management regime capable of coordinating regional actions to overcome the key transboundary issues facing the Mediterranean Sea.

**Component II. Replication Strategies. (UNEP/MAP – WORLD BANK)**

This Component of the Regional Project will develop and support a replication strategy to ensure the replication of successful demonstrations, and the broader dissemination of the lessons learnt and results achieved under the Investment Fund and the overall Strategic Partnership. The replication Strategy, to be fully developed during the PDF-B, will consist of two major elements:

1. Replication of Investment Demonstration Projects. Since the Investment Fund will provide only a small portion of the investment needs to achieve significant reductions in pollution loads or coastal/marine ecosystem improvements, the proposed fund will specifically finance project components that promote wider replication of each investment project. Each demonstration project will in fact have its own replication strategy built in the project design. The World Bank, in collaboration with UNEP/MAP, will provide for each project under the Fund:

- the replication context for each demonstration, i.e.: the number, location, areas/sites in the Mediterranean where the specific technology/practice could apply;
- based on the above, a strategy aimed at promoting actual replication of each demonstration implemented under the Investment Fund Element of the Strategic Partnership, including ad hoc dissemination programs, site visits and exchanges, etc;
- Assessment of the value of demo projects replication
- Evaluation of the overall expected impact should full replication occur.

2. The UNEP/MAP executed Regional Project will (i) promote replication of its own activities and (ii) support regionally the replication strategy of the Fund's projects. This will be achieved largely through an intensive monitoring, learning, outreach and evaluation process. In parallel, the project will promote replication of its successes, and particularly its more innovative initiatives, during its own lifetime. A key element of its replication strategy that will serve both these objectives will be an aggressive and systematic awareness and results dissemination program. The main mechanism to achieve this will be an Annual Replication Workshop, to be

conducted in coincidence with Steering Committee Meetings. Other mechanisms will also be employed (regional and global conferences, project and sub-project websites, printed materials, etc.) involving multiple partners. Through these multiple mechanisms and partnerships, information on successful investment and policy reform promotion strategies, innovative financing modalities and new partnerships will be widely disseminated. This will promote replication of individual Investment Fund demonstration projects and the Regional component activities as well as the Strategic Partnership itself.

Outcomes:

- Regional replication strategies for each demonstration under the Fund component defined and implemented;
- Replication strategies for the Regional Project activities and the Strategic Partnership itself defined and implemented.
- Sectoral environment assessment for full replication at the country and regional level;
- Demonstration projects successfully replicated in several Mediterranean countries.

### **Component III. Technical Assistance**

**Sub-Category 1. Implementation of the SAP MED and related NAPs (pollution reduction strategies). (UNEP/MAP through MED POL and CP/RAC, UNIDO, ICS-UNIDO, UNEP/GPA, METAP).**

Under this Sub-category of actions a variety activities will be developed during the PDF-B phase, according to countries' needs and commitments, such as:

- Promoting an integrated approach to improve industrial environmental performance by introducing environmentally sound technologies in order to meet objectives and targets of the SAP MED;
- Strengthening existing institutions which could play a major role in the implementation of the SAPs such as: Cleaner Production Centers etc.;
- Developing a long term sustainable financing capacity of countries through increased integration of environmental/environmentally related economic instruments and innovative use of financing mechanism into mainstream environmental financing including building networks between ministries of finance, economy and environment at national and regional level and demonstrate and/or adapt existing economic instruments for the sustainable implementation of the SAP MED;
- Development and implementation of an Action Plan on Marine Litter which will be based on the Guidelines prepared by MED POL as part of previous GEF MED Project to prevent environmental and socio-economic harmful effects and damages caused by marine litter;
- Assisting the countries in introducing BATs as well as BEPs, following the Guidelines developed as part of the GEF/UNEP/MAP Project;
- Monitoring the compliance to the SAP MED and report on the overall progress and achievements of the project and establish harmonized environmental status indicators to meet the SAP MED and SAP BIO 2010 and 2015 targets.

Outcomes:

- Strategies of pollution prevention and reduction addressing the issues identified in the SAP MED introduced in the plans and policies of the Mediterranean countries;
- Regional pool of well trained experts capable of addressing successfully the pollution prevention and reduction objectives of the SAP MED in the national plans and policies;
- Reduced impacts of LBS of pollution on Mediterranean Marine Environment and Human Health;
- Enhanced capacity of the participating countries to address industrial pollution reduction in an integrated manner;
- Increased use of environmentally sound technology at demonstration hot spots resulting in reduction of pollution loads from industrial hot spots in accordance with SAP-MED objectives;
- Improved sharing and dissemination of information on industrial best environmental practices in the Mediterranean Region.

**Sub-Category 2. Implementation of the SAP BIO and related NAPs (biodiversity protection strategies). (UNEP/MAP, SPA/RAC, FAO/GFCM, IUCN, EIFAC, WWF)**

As described in section 2, although Mediterranean countries have established MPAs, many of these were created without giving adequate consideration to the opportunities to capture multiple benefits through the careful consideration of location, size, (multiple-use) zoning/management, and the synergistic effects of networks.

Existing Marine and Coastal Protected Areas need to be enhanced, in terms of (i) devoting sufficient resources to funding the management of current Protected Areas; (ii) improving methods of management planning, implementation and monitoring of Marine and Coastal protected areas; and (iii) integrating specific protection measures at particular locations within wider management plans, as well as into large-scale networks of Coastal and Marine Protected Areas.

Further benefits can be obtained from networking existing and future protected areas at regional level. Although on a local scale Marine Protected Areas can be effective conservation tools, on a regional scale MPAs can only be effective if they are substantially representative of all habitats, also taking into account the biological and ecological particularities of protected species and habitats. An additional benefit of such a network is that it acts as a buffer against the vagaries of environmental variability and provides significantly greater protection for marine communities than a single reserve.

Activities to be developed in the PDF-B phase of the proposed project will build on and complement ongoing regional and national knowledge<sup>14</sup> and activities in accordance with the countries' priorities and commitments and will be grouped around the following priorities actions and objectives:

---

<sup>14</sup> CIESM (1999) Scientific design and monitoring of Mediterranean marine protected areas; Porto Cesareo (Italy), 23-26 October 1999; CIESM Workshop Series volume n°8; Italy's *Sistema Aphrodite* programme; Arturo López & Elena Correás (2003) Assessment and Opportunities of Mediterranean Networks and action plans for the Management of Protected Areas. IUCN, Gland, Switzerland and Cambridge, UK. ISBN: 2-8317-0734-X.

- Strengthening and assisting the existing MPAs, especially with regard to monitoring management effectiveness to measure impact and derive lessons to apply to the replication component of the project<sup>15</sup>.
- Strengthening of the network of priority marine and coastal protected areas identified by countries and improvement of existing MPAs; to contribute to achieving the WSSD targets concerning the establishment by 2012 of Marine Protected Areas, consistent with international law and based on scientific information, representative networks and time/area closures for the protection of nursery grounds and periods, proper coastal land use<sup>16</sup>.
- Implement inventorying, mapping and monitoring programmes on the effectiveness of marine and coastal protected areas: to contribute to achieving the WSSD<sup>17</sup> targets concerning the establishment by 2004 of a regular process under the United Nations for global reporting and assessment of the state of the marine environment, including socio-economic aspects, both current and foreseeable, building on existing regional assessments<sup>18</sup>.
- Assessing and mitigating the impact of threats to biodiversity, especially in the existing MPAs: to contribute to achieving the WSSD targets concerning significant reduction by 2010 in the current rate of loss of biological diversity<sup>19</sup>.
- Improve understanding of Med. Coastal and marine sensitive habitats and filling in gaps in biodiversity: to improve the scientific understanding and assessment of marine and coastal ecosystems<sup>20</sup> and MPAs.
- Capacity-building, stakeholders involvement and awareness raising: to strengthen cooperation and coordination of all stakeholders, increase stakeholders participation in conservation initiatives and increase awareness raising on marine and coastal biodiversity conservation and MPAs.

#### Outcomes:

- Fully functioning system of marine biodiversity conservation through the network of MPAs
- Biodiversity protection through the development of marine and coastal protected areas identified by countries and improvement of existing MPAs;
- Improved understanding of Med. Coastal and marine sensitive habitats;
- Implemented monitoring programmes on the effectiveness of marine and coastal protected areas
- Improved methods of MPAs implementation, management and monitoring;

---

<sup>15</sup>The MPA Management Effectiveness Initiative (MEI) guidebook “How is your MPA Doing? A Guidebook of Natural and Social Indicators for Evaluating Marine Protected Area Management Effectiveness” has been applied to the Miramare Natural Marine Reserve, Trieste, Italy; see <http://effectivempa.noaa.gov/cases/Miramare.pdf>

<sup>16</sup> Extract from Paragraph 31c, Plan of Implementation“ of the World Summit on Sustainable Development - 4 September 2002, Johannesburg

<sup>17</sup> World Summit on Sustainable Development, “ Plan of Implementation “ - Johannesburg, September 2002

<sup>18</sup> Extract from Paragraph 34b, Plan of Implementation of the World Summit on Sustainable Development – Johannesburg, September 2002

<sup>19</sup> Extract from Paragraph 42, Plan of Implementation of the World Summit on Sustainable Development - 4 September 2003 – Johannesburg

<sup>20</sup> From paragraph 34 of “ Plan of Implementation “ of the World Summit on Sustainable development – Johannesburg, September 2002



- Legislation updated to conserve sensitive habitats;
- Developed and coordinated protection actions for priority coastal and marine sites;
- Improved conservation of threatened and endangered (coastal and marine) Med species;
- Facilitated access to information for managers and decision-makers, as well as stakeholders and the general public and increased Mediterranean-level stakeholders awareness

**Sub-Category 3. Implementation of the SAP BIO related to the conservation and sustainable management of vulnerable or endangered fish and invertebrates, including IUCN/CITES lists, including sustainable related fisheries (living resources strategies) (FAO/GFCM, SPA/RAC)**

Conservation and sustainable management of vulnerable or endangered fish and invertebrates requires the implementation of numerous actions, which should be undertaken at the regional and national levels, as prioritized in the SAP BIO and relevant NAPs. Specific actions, which would be developed during the PDF-B phase in accordance with the countries' needs and commitments, may be grouped into the following:

- Assisting the countries to implement fisheries and living resources reforms and programs to meet GFCM, ICCAT, SAP BIO and WSSD 2010/2015 sustainable fisheries targets;
- Improve single-species and multi-species selectivity of gear and fishing practices, addressing particularly the problems of multi-species catch, discards and ghost-fishing
- Assisting the countries to develop and implement the Mediterranean Strategy to reduce fishing-related mortality of marine mammals, turtles and sea birds
- Mediterranean Strategy to eliminate particularly harmful fishing practices, building on the SAP BIO regional report: "Effects of fishing practices on the Mediterranean sea: Impact on marine sensitive habitats and species, technical solution and recommendations."
- Develop new fisheries management techniques (fishing rights, economic incentives)
- Improve coordination between fisheries and environmental commissions and institutions

Outcomes:

- Fisheries and living resources reforms and programs to meet GFCM, ICCAT, SAP BIO and WSSD 2010/2015 sustainable fisheries targets;
- Mediterranean Strategy to reduce fishing-related mortality of marine mammals, turtles and sea birds;
- Mediterranean Strategy to reduce the impact of trawling and other towed gear on critical habitats;
- Mediterranean Strategy to eliminate particularly harmful fishing practices (dynamite, chemicals, etc.);
- New fisheries management techniques (fishing rights, economic incentives);
- Improved coordination between fisheries and environmental commissions and institutions.

**Sub-Category 4. Regional Strategies to manage and protect coastal aquifers. (UNESCO)**

This sub-category will identify and develop regional, national and sub-national actions and pilot demonstrations aimed at reversing aquifer related degradation trends, such as:

- the growing salinization of coastal aquifers;
- the contamination due to polluted sub-marine aquifer discharges (e.g.: karst systems);
- the loss of ground-water dependent coastal ecosystems and wetlands.

Activities will also be developed to introduce the systematic assessment of aquifer vulnerability along the Mediterranean coastal regions, so that priorities maybe addressed in the revised SAP.

Outcomes:

- Improved knowledge on the status of coastal aquifers and their vulnerability;
- Agreed Regional Actions for Coastal Aquifer Management;
- Legal, institutional and policy reforms for Coastal Aquifer Management.

### **Sub-Category 5. Regional Integrated Water Resources Management (IWRM) (UNEP/MAP, GWP, METAP)**

The sub-category will facilitate the incorporation of the basins draining into the Mediterranean Barcelona Convention framework and thus establish the needed strong linkages with the GPA on Land Based Sources of Pollution. Through this component the Project will link with ongoing initiatives related to the Athens Declaration Process and the EU Water Initiative.

Actions within this sub-category will include the adoption of hydrologic basins as key management units - particularly in Balkan and Eastern Mediterranean Countries. Particular emphasis would be put on including biodiversity in WRM and issues related to vulnerable habitats such as wetlands. The component would also include institutional reforms and policy dialogue, legal and regulatory coordination and private sector participation in water resource management and water quality. This effort, that will be supported through demonstration projects and *ad hoc* training, will aim amongst others at reducing the release of contaminants, both point and non-point sources, and at maintaining environmental flows and functioning of water related coastal ecosystems and habitats/sensitive areas. The component would also identify investment needs related to water resource management and water quality, and assist countries to prepare pre-feasibility studies and investment proposals which could be considered by the Investment Fund. One pillar of this sub-category, would build on the work METAP is already undertaking on water quality policy coordination and monitoring and information dissemination. The objective of the activities proposed is to encourage and enable the Mashreq and Maghreb countries to advance the process of addressing their priority water quality challenges and issues through a systematic, coordinated approach to water quality management.

Outcomes:

- Regional Integrated Water Resources Management (IWRM) strategies;
- National WRM and water quality programme of actions and instruments for their implementation;
- Biodiversity concerns included in national WRM plans;
- Investments in WRM and improved water quality.

### **Sub-Category 6. Regional Integrated Coastal Management (UNEP/MAP through PAP/RAC, METAP)**

This sub-category will support countries to take the necessary steps to strengthen their policy and institutional framework to address key issues in ICM, such as coastal urbanization, biodiversity protection, water pollution, waste and litter management, erosion and climate change. The sub-category would contribute to the implementation of the ICM Protocol being negotiated upon recommendation of the Barcelona Convention Contracting Parties. The component would consist of three pillars: (i) a regional pillar in support of the priority actions identified in the ICM protocol which would be implemented by UNEP/MAP through PAP/RAC; (ii) a pillar which would support the individual countries to evaluate the cost of environmental degradation in coastal areas, develop necessary policy and implementation tools at national level, which would be implemented by METAP; and (iii) a pillar that would provide a linkage to the Investment Fund component of the Partnership, by identifying potential investment opportunities for the protection and restoration of valuable coastal areas and assist the countries in the development of pre-feasibility studies and project proposals, which would be implemented jointly by UNEP/MAP-PAP/RAC and METAP.

Outcomes:

- Regional ICM Protocol developed and implemented;
- National strategies for ICM including programme of action and instruments for its implementation;
- ICM plans with institutional systems in place aimed at their implementation;
- ICM tools, instruments and approaches, such as Cost of Environmental Degradation (COED) and Strategic Environmental Assessments (SEA);
- Use of ICM for coastal and marine biodiversity conservation;
- Investments in the protection and rehabilitation of valuable coastal areas

**Component IV. Overall Coordination and Monitoring Arrangements for the Strategic Partnership**

The Project Steering Committee

The Steering Committee for the Strategic Partnership (SPSC) will be established to provide overall decision-making at the policy level. The SPSC will be comprised of one National Focal Points (appointed by the participating governments), the Implementing Agencies (UNEP and WB) and the executing agencies (UNEP/MAP) as well as the President of the Bureau of the Contracting Parties of the Barcelona Convention. All principal partners (particularly major co-funders) will also be represented on the SPSC.

The SPSC will act as the main policy body overseeing the project execution. The PSC will make decisions on major issues such as the reviewing and endorsing status reports from the Investments Fund demonstration projects and reports from the Regional Project, adoption of and revisions to the workplan or budget and endorsement of the Regional Project and Investments Fund Coordinator's/PCU's reports.

Specific functions of the Steering Committee will include:

- Endorsement of Investment Fund Demonstration Project Status Reports
- Annual review of the Regional project and Investment Fund budgets
- Annual review of projects activities to assess projects development

The SPSC will be expected to meet formally at least once every 12 months. The SPSC will also communicate and coordinate closely between meetings (as and when required) to ensure effective and appropriate project implementation and to agree on any proposed amendments to activities or budget requirements.

The SPSC is especially responsible for evaluation and monitoring of project outputs, outcomes and achievements. In its formal meetings, the SPSC will be expected to review the project work plan and budget expenditure. The SPSC is responsible for endorsing any changes to the work plan or budget, and is responsible for ensuring that the Strategic Partnership remains on target with respect to its outputs (or, where necessary, approves new targets in coordination with, and approval from, the Implementing Agencies).

### Coordination Group

A Coordination Group, established under the Strategic Partnership, will be responsible for the overall coordination of the Strategic Partnership, in particular ensuring effective exchanges and synergies between its two Components (Regional Project and Investment Fund). It will be formed by:

The MAP Coordinator (chair)

- Representatives of the GEF Secretariat
- Representatives of MED POL and RACs
- The Project Manager of Component 1 (Regional Project),
- UNEP/GEF Coordination Office Representative
- The World Bank-GEF Regional Coordinators (ECA and MENA),
- The World Bank Task Managers responsible for the Fund's projects
- Representatives of co-executing agencies
- Representatives of co-funding partners and donor countries.

The Coordination Group will monitor the needed systematic linkage between the two Components, so that synergies will not be missed, and consistency with agreed rules, targets, and indicators would be achieved throughout. It will oversee the design and implementation of replication strategies and provide advice on the Fund's pipeline.

The Group will meet once a year at the office of MAP in Athens, in conjunction with regular MAP meetings of the parties. In addition to the World Bank Task Managers of the projects under the Fund, project personnel as well as representatives of the countries involved and of external experts and Executing Agencies representatives will be invited to attend the meetings according to advancements and needs.

An independent expert will perform an assessment of the Strategic Partnership advancements every year. The Coordination Group at its inception meeting will define the TORs for this task. The relevant Annual Performance Assessment will be presented and discussed at the meeting of the Coordination Group. This Coordination & Monitoring component of the Partnership will be funded under Regional Project. A mid-term stocktaking meeting of all nations and partners will

be held after three years of implementation to review progress and adopt mid-course corrective measures, if needed.

A project website will be developed in coordination with the World Bank Investment Fund in consistency with IW:LEARN guidance.

Outcomes:

- Strong overall coordination of the two Elements of the Partnership;
- Effective monitoring and evaluation mechanism;
- Effective project information and lessons learned dissemination
- Enhanced replication of demonstration projects.

### 3. SUSTAINABILITY OF THE PROJECT (INCLUDING FINANCIAL SUSTAINABILITY)

The project falls under the broad policy guidance of the Barcelona Convention through the MAP. It coordinates its objectives and activities with the mandated institutions in place (e.g. fisheries commissions). The commitments of the Mediterranean countries have been demonstrated in the previous GEF IW project: “Determination of priority actions for the further elaboration and implementation of the Strategic Action Programme for the Mediterranean Sea”, the resulting SAP MED and SAP BIO showing a variety of regional and national actions, with related investments. Thus, the countries have made the commitment to contribute to a significant portion of the expense of developing Mediterranean-wide biodiversity conservation and pollution stress reduction measures. The project will focus on developing a strong legal/regulatory framework from which other ongoing activities can be launched and will foster existing frameworks. The project will also concentrate on the development of sustainable financing mechanisms and economic instruments to help achieve sustainability of environmental interventions in the Mediterranean region. The project will also ensure the long-term financial sustainability of the initiative through: the involvement, right from the start, of the private sector; the creation of a good environment for external investments; the creation of innovative financial tools.

### 4. REPLICABILITY OF THE PROJECT

The project under Component II will develop Replication strategies for actions supported by the project within the region, including successful investment demos implemented under the Investment Fund component. Sectoral environment assessment will also be developed for full replication at the country level. The full fledged replication strategy for the project will be developed during the PDF-B.

### 5. STAKEHOLDER INVOLVEMENT/INTENDED BENEFICIARIES

The beneficiaries of this project are governments, civil societies, industry associations and chambers of commerce, NGO’s and the population of the riparian states. The full stakeholders participation and involvement plan will be developed during the PDF-B.

## **Financing**

### **1. FINANCING PLAN**

The indicative figure for the GEF allocation to the Regional Project is \$15 million. The full flagged financial plan and budget will be developed during the PDF-B phase.

### **2. CO-FINANCING**

The co-financing, at least in 1:1 ratio, will be sought during the implementation of the PDF-B.

## **Institutional Coordination and Support**

### **1. CORE COMMITMENTS AND LINKAGES**

The riparian States of the Mediterranean Sea, fully aware of their responsibility to preserve and develop the entire area in a sustainable way and recognizing the threat posed by the pollution of the marine environment agreed in 1975, to launch a Mediterranean Action Plan for the Protection of the Mediterranean Basin (MAP) and, in 1976, to sign a Convention for the Protection of the Mediterranean Sea against Pollution (Barcelona Convention), which entered into force in 1978. The Convention was amended in 1995 and the amendments entered into force in 2004.

As the result of the MAP, a large number of concrete actions were taken by many countries in conformity with the requirements and provisions of the MAP, thus influencing the environmental policies and practices of the Mediterranean countries. The MAP has been a significant instrument for change and progress concerning environmental matters in the Mediterranean.

In spite of numerous regional and national efforts and successes achieved by the MAP, other regional actors (European Union, WB, international NGOs), national and local authorities, there are still many barriers to more effective ecosystems management that need to be removed. Thus stronger emphasis on the promotion of ICM is needed; national environmental legislation and its effective enforcement should be strengthened; institutional structures must be improved and more human resources allocated for these type of activities; more financial resources need to be mobilized; and strong political commitment to solve the existing problems should be expressed.

Based on the achievements and shortcomings of the Initial Phase of the MAP, as well as the results of the United Nations Conference on Environment and Development, the "Action Plan for the Protection of the Marine Environment and the Sustainable Development of the Coastal Areas of the Mediterranean (MAP Phase II)" was prepared and adopted in 1995, followed by the adoption of MED POL Phase III.

A Strategic Action Programme (SAP MED) to address pollution from land-based activities, which represents the regional adaptation of the principles of the GPA, was adopted by the Contracting Parties to the Barcelona Convention in 1997. SAP MED identifies the major

pollution problems of the region, indicates the possible control measures, shows the cost of such measures and establishes a work plan and timetable for their implementation.

A Strategic Action Programme for the Conservation of Mediterranean Marine and Coastal Biological Diversity (SAP BIO) was adopted by the Contracting Parties in 2003. The Programme, prepared on the basis of national reports, presents the current status of the marine and coastal biodiversity, identifies the major threats, establishes priorities for action and indicates a time frame for their implementation. In addition, it estimates the cost of the implementation of the priority actions both at the regional and national levels.

## 2. CONSULTATION, COORDINATION AND COLLABORATION BETWEEN AND AMONG IMPLEMENTING AGENCIES, EXECUTING AGENCIES, AND THE GEF SECRETARIAT

A Strategic Partnership Steering Committee will be established during PDF-B (as described in Component IV above), which will include National Focal Points (appointed by the participating governments), technical advisors (nominated from cooperating national institutions), President of the Bureau of the Contracting Parties of the Barcelona Convention, UNEP/DGEF, UNEP/MAP (MED POL and MAP-associated RACs), UNEP/GPA, WB, METAP, UNESCO IHP, UNIDO, ICS-UNIDO, IUCN, FAO, GEF, WWF and any other major donors to the project. The Project Coordinator will serve as Secretary to the Steering Group. Two active regional NGOs will also be included in the Steering Group to ensure public participation and dissemination of project information to the relevant stakeholders.

## 3. IMPLEMENTATION/EXECUTION ARRANGEMENTS

The Regional Component of the Strategic Partnership will be implemented by UNEP and executed by UNEP/MAP through MEDPOL and MAP's associated RACs (CP/RAC; SPA/RAC; PAP/RAC, REMPEC); UNEP/GPA, and other co-implementing agencies, as appropriate. So far, the following Organizations have indicated their full support and interest for participation:

- FAO – activities related to fisheries;
- UNESCO IHP – activities related to the groundwater issues;
- UNIDO and the ICS-UNIDO – activities related to industrial pollution and cleaner production technologies;
- METAP (World Bank) – activities related to capacity building, economic and financial mechanisms, ICM as well as linkages with the Investment Fund; and
- WWF – activities related to biodiversity protection.

## ANNEX 3

### GEF STRATEGIC PARTNERSHIP ON NUTRIENT REDUCTION IN THE DANUBE/BLACK SEA BASIN – PRELIMINARY RESULTS

The *World Bank-GEF Investment Fund for the Mediterranean Sea Large Marine Ecosystem Partnership* has been, in large part, modeled on the *Danube/Black Sea Basin Strategic Partnership on Nutrient Reduction*. With the aim to replicate the unprecedented successes of the D-BS Program and its catalytic role in leveraging non-GEF investments for reduction of nutrient pollution levels and other hazardous substances, the proposed Mediterranean Partnership has been designed as a similar vehicle for catalyzing investments and accelerating urgent actions that are necessary for reducing pollution of the Mediterranean Sea, and the Adriatic Sea in particular.

Actions under all three components of the D-BS Strategic Partnership: Danube Regional Project (DRP), Black Sea Ecosystem Recovery Project (BSERP) and the World Bank Investment Fund for Nutrient Reduction (IFNR), have had, and continue to have, a tremendous impact on reversing the documented dead zone of oxygen depletion in the Black Sea by reducing nitrogen and phosphorous loads to the Danube and Black Sea. An impact analysis reveals that Program interventions have already led to a decrease in nitrogen emissions by 20% and phosphorous by almost 50% in the Danube basin over the last 15 years. No where has such nitrogen and phosphorous reduction, and concomitantly demonstrable water quality and ecosystem improvements, been observed in a large river and adjacent sea as in the Danube River/Black Sea system over the last decade. In fact the EU has highlighted the Danube Program as a model for transboundary waters governance in its report to the UN Commission on Sustainable Development in April 2005.

With strong linkages to the EU Water Framework Directive, projects under the Partnership are playing a lead role in facilitating nutrient-reduction related legal, policy and institutional reform in the basin and to mainstreaming these strategies for transboundary pollution reduction into national strategies and plans. The World Bank IFNR is in the process of financing 14 demonstration nutrient reduction investments in 10 GEF-eligible countries totaling US \$83.27 m. in GEF financing and US \$496 m. in co-financing (ratio 6:1). Currently, the IF portfolio includes seven Agricultural Pollution Control (APC) Projects (in Croatia, Moldova, Romania, Russia Krasnodar, Serbia, Turkey and Ukraine); one wetland restoration project (in Bulgaria), one ICZM project (in Ukraine) and five municipal wastewater treatment projects (in Hungary, Bosnia, Moldova, Russia Rostov and Ukraine). Overall completed and ongoing nutrient reduction investments in the basin total US \$3.294 billion and represent total nitrogen and phosphorus emissions reductions of an estimated 25.85 kt/yr and 4.131 kt/yr, or 6 % and 33%, respectively, of recent (2000-2002 average) estimates of N and P loads to the western Black Sea. These data also underscore significant progress towards achieving and even exceeding (for P) the intermediate objective of stabilizing Black Sea nutrient loads at 1997 levels, the latter estimated at 415 and 20 kt/yr for N and P respectively.

The D-BS Strategic Partnership has successfully tested a new mechanism for harnessing interagency collaboration to meet country-driven needs while streamlining the GEF project cycle and facilitating more rapid disbursement for agreed priority investments. The continuing success



of the Program has emphasized GEF's important catalytic role in bringing all 16 riparian and littoral countries together to focus on national actions needed for the transboundary water system and in calling for attention as part of EU Accession on the needed transboundary reduction of nitrogen and phosphorus pollution. GEF-funded demonstration investments are complementing those of the EU and calling attention to mainstreaming agriculture sector and wetland restoration measures into policies on all levels in order to sustain the improvements.

Similar actions as those supported by this GEF partnership on nutrient reduction are now needed elsewhere in both GEF and non-GEF recipient nations to restore and protect coastal waters as noted by the GEF-funded Global International Waters Assessment. The Mediterranean Partnership is one such effort in this direction, and its concept, design, organizational structure and operational strategy have been based in large measure on the D-BS Partnership with the aim of achieving similar successes in the Mediterranean Sea basin. The mid-term review of the six objectives of the Danube–Black Sea Strategic Partnership Program, indicate varying degrees of success, with all objectives meeting at least 50% of their targets:

#### Partnership Objective 1: Legal, Policy and Institutional Reform for Nutrient Reduction

Progress Estimate: 100%

With DRP support, all countries in the Danube River Basin and around the Black Sea have implemented or are in the process of implementing one or more new policies and legislation which support nutrient reduction; eight or 57% of the GEF-eligible countries have introduced multiple measures. Three countries (CZ, SK, SI) have declared all surface water resources sensitive, thus requiring N and P removal for wastewater plants in communities of over 10,000 inhabitants. Within the Danube River Basin, three countries have already imposed voluntary bans on phosphorus-containing detergents (DE, AT and CZ). With the assistance of the GEF DRP, the ICPDR is actively encouraging a wider introduction of such a ban. Within the DRB, several non-accession countries have also expressed willingness to comply with specific directives, most notably the Water Framework Directive (WFD) and to cooperate with other countries within the frame of the ICPDR. The key relevant directives under the WFD include the Nitrates Directive, Urban Wastewater Treatment Directive, Integrated Pollution Prevention and Control Directive, and Common Agricultural Policy (CAP) reform.

#### Partnership Objective 2: Investments in Nutrient Reduction

Progress Estimate: 100%

Significant investment opportunities for nutrient reduction have been identified and carried out throughout the Danube and Black Sea basins; 100% (16 of 16) of the participating countries have made one or more investments in nutrient reduction during the first 3 years and 10 countries have accessed the World Bank's IFNR. The GEF/World Bank IFNR has supported identification and preparation of 14 demonstration investments in 10 eligible countries totalling \$83.27 m. in GEF financing and \$496 m. in co-financing (ratio 6:1). Investments leveraged by GEF through the Partnership Investment Fund concentrate on non-EU member countries, and are focused on less well addressed nutrient control measures including agricultural nutrient reduction, tertiary elements of wastewater treatment (WWT), and wetland restoration. Non-GEF investments cover almost exclusively baseline WWT, and are largely concentrated in (new and pre-existing) EU member countries. This demonstrates the incremental and complementary nature of GEF/World

Bank investments. The GEF interventions have called attention to important agricultural sources of nutrient pollution and the importance of removing embankments so that floodplains may function properly in sequestering nutrient pollution.

To date, a total of 211 investment projects (all financing sources), representing a combined total investment of US\$3,294 million and estimated N and P reductions of 25.85 and 4.131 kt/a respectively have been implemented or are scheduled for completion in the Danube/Black Sea basin within the next few years. Roughly half of these investments are situated within the DRB EU member countries: Austria, Germany, Czech Republic, Hungary, Slovakia and Slovenia. Municipal sector projects account for the majority of the fully financed projects, and national co-financing provided over 50% of total municipal investments; external sources of investment financing include EU, World Bank, EIB, EBRD and others. 12 projects involved wetland restoration with associated nutrient reduction and habitat protection, and another 13 projects totaling US \$78 m. have been undertaken in the industrial sector. The GEF-UNDP-UNIDO Danube TEST programme has also been very effective at promoting nutrient and other pollution reduction through transfer of cleaner production technologies/strategies, while simultaneously enhancing profitability and reducing resource consumption. Investments in Russia and Ukraine have also considerably increased in recent years, with 9 municipal projects due for completion in 2006 in Russia and 46 smaller projects in Ukraine.

Partnership Objective 3: Sustainable Multi-Country Institutions and Development of Indicators.  
Progress Estimate: 50%

The Danube River Protection Convention, the International Commission for the Protection of the Danube River (ICPDR), its Permanent Secretariat (PS) and its various permanent and ad hoc Expert Groups have now been fully operationalized entities for a number of years and are considered institutionally and financially fully sustainable. All countries are current in their pledged contributions to the ICPDR except Bosnia and Herzegovina which only recently joined (and ratified December 2004) and Ukraine for which 2003, 2004 and 2005 payments remain due. Regarding payments of contributions to the Black Sea Commission by all countries, only one of the six countries party to the Bucharest Convention, Georgia, is still behind in their dues (5 pending payments). A strategy for securing continued country and other contributions to the BSC is presently under development.

Both Commissions have initiated development of International Waters indicators following or closely adapted from the GEF M & E Indicators framework issued by the GEF M&E Unit in 2002. The Joint Technical Working Group (JTWG), formed to facilitate implementation of the Memorandum of Understanding between the BSC and ICPDR, has agreed upon ecological status indicators and reporting formats, taking into account implementation of the EU WFD in coastal waters. The Danube basin has a fully operational monitoring station network (TNMN) and protocols in place as well as an emissions database (EMIS). The ICPDR closely monitors and tracks progress in investments in stress reduction through the Joint Action Programme and monitored by its Emissions Expert Group (EMIS EG). The current BSERP includes further development of a comprehensive monitoring program based on relevant chemical and biological indicators, and establishment of an emissions/state database for point and non-point pollution sources within the coastal zone; these represent significant progress towards establishment of both stress reduction and environmental status indicators in the Black Sea.

Partnership Objective 4: Incorporating Nutrients and Toxics Reduction into Conventions and their Action Programs. Progress Estimate: 50-75%

In the Danube, specific country commitments to nutrient reduction are being prepared within the framework of the revision of the ICPDR Joint Action Programme (JAP, the follow-up to the GEF-supported SAP). Approval of the EU WFD Roof Report at the December 2004 Ministers Meeting confirms the commitment from the 13 Danube River Basin countries in adopting binding actions in reducing pollution to the Danube River in support of the ICPDR's JAP. In the context of legislative reform, the four recent EU member states (CZ, HU, SI, SK) are projected to be in full compliance with the EU Nitrates Directive by 2008 (and Romania soon thereafter).

With assistance from UNEP, the BSERP has supported development and negotiation of a Land-Based Activities Protocol to the Bucharest Convention which is presently under consideration by the Black Sea Commission and proposed for adoption as early as 2007; a Work Program to Enhance Implementation of the Black Sea LBA Protocol has been developed and is ready for implementation. In addition, the BSERP has advanced the development and negotiation of a regional fisheries convention for the Black Sea.

Partnership Objective 5: Implementing Agency and Partner Mainstreaming of Nutrient Reduction. Progress Estimate: 75%

Each agency participating in the Partnership has taken a number of steps to mainstream the objectives of the Partnership into its core programmes and activities.

*UNDP* is mainstreaming and promoting replication of Black Sea and Danube programmes through its Bratislava Regional Service Centre; several UNDP Country Offices are supporting integrated water resources management, river basin management, and EU WFD approximation processes in a number of Danube/Black Sea basin programme countries as well as in countries outside the Danube/Black Sea basin addressing similar water resources management challenges. UNDP's Regional Bureau for Europe and the CIS (RBEC) is presently developing a new strategic approach for its water governance practice in Europe/CIS, building on UNDP's extensive experience through the GEF with promoting transboundary waters management in this region. The strategy will include knowledge management, community and capacity development, regional and national-level programme development, partnership development and resource mobilization. As part of this mainstreaming, RBEC has committed to fund the UNDP-GEF Regional Technical Advisor (RTA) for International Waters & Land Degradation, and has also mobilized external resources (LEAD) for a Water Governance Advisor who will support development and oversight of GEF IW portfolio in the region.

*World Bank.* Since the start of the Partnership, Black Sea / Danube pollution issues have been well integrated in the World Bank Country Assistance Strategies (CASs) that lay out the country's priorities for investment and policy operations that it would like to accomplish with World Bank assistance over the next three years. Since 2000, ten out of twelve new CAS that were prepared in the Black Sea/Danube countries included a discussion of projects to be implemented under the WB GEF Investment Fund.

European Union. The EU ISPA, EIB and EBRD have been instrumental in helping to promote investments in nutrient reduction throughout the region; for example, EIB has extended several loans for tertiary treatment of municipal wastewater in CZ, and EBRD is working with EU ISPA on improvements to the municipal sector. Other relevant EU mainstreaming initiatives include TACIS (MO, UK, Black Sea), PHARE (cross-border environmental issues between HU, SK, BG, RO), CADSE (land use, river basin management, infrastructure in Danube tributaries) and SAPARD (agricultural reform in new/accession countries). Also, in 2001, the DABLAS Task Force was established by the Environment Ministers of the Danube-Black Sea region together with the EU, to facilitate coordination and prioritization of pollution reduction investments needs within the region. The TF identified 354 known/planned investment projects as part of its 2004 assessment, including 191 municipal, 77 industrial, 32 agro-industrial, 40 wetland restoration and 14 land use projects.

Partnership Objective 6: Integrated Management of Land and Water Resources in Sub-basins.  
Progress Estimate: 50%

Sub-basin river basin management programmes have been developed or are under development in the Sava and Tisza River basins for more detailed implementation of basinwide approaches. The linked GEF-UNDP Dnipro River Basin programme has prepared a Transboundary Diagnostic Analysis, Strategic Action Programme and draft legal agreement. The SAP is in the process of being adopted by each riparian country and is expected to be designated as the ‘action programme’ under the river basin ‘Agreement’. Nutrient and industrial toxics pollution are included as priority issues and actions in the Dnipro TDA and SAP.

The Danube Regional Project is providing input to assist countries in developing policies aimed at Best Agricultural Practices and is supporting wetland managers in the basin with evaluation of nutrient removal capacities in wetlands. Both the DRP and BSERP have implemented small grants programs targeting nutrient reduction in agriculture, land use, industry and households; to date the DRP has supported 63 projects totaling \$600k and the BSERP has approved 17 projects totaling \$320k. These programs are essential for harnessing community participation as part of the water quality improvement process. Integrated Coastal Zone Management policies for the Black Sea were developed in 1999 with GEF support as well. Based on this, the BSERP has made significant progress in assisting the countries in developing a regional Integrated Coastal Zone Management Strategy which was approved by the BSC in November, 2004. UNDP is also supporting implementation or development of five wetlands conservation projects within the Danube/Black Sea basin under the GEF Biodiversity focal area.

Based on the successes of the ongoing D-BS Program as outlined above, the World Bank-GEF has developed the Mediterranean Partnership Investment Fund, drawing on its tested combination of capital investments, economic instruments, policy and regulatory frameworks and public participation that will, in large measure, provide a critical mass of financial resources and technical knowledge readily available to countries that embrace the goal of improving the environmental conditions of the Mediterranean Sea.

## ANNEX 4

### MEDITERRANEAN PARTNERSHIP INVESTMENT FUND RESULT FRAMEWORK AND MONITORING

#### Results Framework

Monitoring and Evaluation of performance and results are carried out at different levels: at Strategic Partnership level, Investment Fund and Regional Component level, and at individual investment project level. The Result Framework and Monitoring Arrangements described below refer only to the Investment Fund.

The Investment Fund is a demand-driven mechanism in support of the Strategic Partnership objectives. It finances investment projects that will be identified and developed after its approval by the GEF Council. Indicators at Investment Fund level are therefore mostly catalytic and process indicators. Only individual projects funded by the IF will have pollution reduction targets specific to the sectors and processes used (nutrient load reduction, BOD reduction, water flows, etc.) Individual projects will measure baseline and subsequent reduction for pollutant discharges and report them annually in their project progress report.

The Investment Fund will be responsible for monitoring, aggregating and reporting on project specific stress reduction and biodiversity conservation indicators and their impact as indicated in the Monitoring Arrangements table.

The Investment Fund has one stress reduction indicator (15% of priority hotspots and sensitive habitats with improved environmental conditions) which is also an indicator of country compliance with the targets adopted under the SAP MED and SAP BIO. The Investment Fund has also two aggregate stress reduction indicators for pollution reduction and biodiversity conservation. They are provided as measurable, comprehensive parameters of impact of the Fund and are linked to the specific pollutant reduction and biodiversity conservation targets achievable by the individual projects. They are also directly linked to the SAP MED and SAP BIO targets.

The target of 1,000,000 population equivalent of waste water treated is linked to the SAP MED targets of disposing municipal and industrial wastewater in conformity with the LBS Protocol by 2025. The TDA identified 30 coastal cities with population between 50,000 and 900,000 with no waste water treatment with the great majority of cities below 150,000 inhabitants. The assumption is that projects under the Investment Fund will address pollution in mid-size coastal cities.

The target of 5-7 sensitive habitats under effective management is linked to the SAP BIO targets of effective protection of endangered species by 2012 and protection of 20% of the coast as marine fishery reserve by 2012. The assumption is that several projects under the Investment Fund will address pollution hotspots as a major threat to sensitive habitats and improve the effectiveness of more traditional biodiversity conservation measures.

Objective of the Fund	Outcome Indicators <sup>21</sup>	Use of Fund Outcome Information
Accelerate the implementation of transboundary pollution reduction and biodiversity conservation measures in priority hotspots and sensitive areas of selected countries of the Mediterranean basin that would help achieve the SAP MED and SAP BIO targets	<ul style="list-style-type: none"> <li>• Hotspots and sensitive habitats of national priority identified in NAPs and SAPs with improved environmental conditions (15 % of major hotspots/sensitive areas identified in TDA) (SR)</li> <li>• Replication strategy adopted and initiated (3 countries) (C)</li> <li>• Replication investment leveraged (US\$100 million) (C)</li> </ul>	Evaluate the Investment Fund contribution to Strategic Partnership objectives
Intermediate Outcomes	Intermediate Outcome Indicators	Use of Intermediate Outcome Monitoring
Investments for pollution reduction and biodiversity conservation in selected countries catalyzed	<ul style="list-style-type: none"> <li>• Co-financing leveraged (US\$ 250 million) (C)</li> </ul>	Evaluate the Investment Fund's progress in achieving its objective and provide inputs and feedback to Investment Fund Coordination Team for project pipeline management
SAPs implementation addressed in World Bank country dialogues	<ul style="list-style-type: none"> <li>• Measures to address SAP targets incorporated into CASes for eligible countries (7 countries) (C)</li> </ul>	
Innovative, cost-effective investments in specific country contexts promoted	<ul style="list-style-type: none"> <li>• Innovative, low cost techniques such as managed aquifer recharge, engineered wetlands, treated wastewater reuse, etc. demonstrated (5 techniques) (P)</li> </ul>	
Measurable pollution reduction and biodiversity conservation in support of the SAP targets achieved	<ul style="list-style-type: none"> <li>• Organic pollution (in waste water) treated (1,000,000 population equivalent<sup>22</sup>) (SR)</li> <li>• Sensitive habitats under effective management (5-7 sites) (SR)</li> </ul>	
Knowledge-sharing and cross-fertilization of project achievements among the SP partners facilitated	<ul style="list-style-type: none"> <li>• Participation of Bank IF coordination team in SP consultations (100% of meetings) (P)</li> <li>• Regional conferences/technical workshops participated in/organized by the IF (5 events) (P)</li> </ul>	

<sup>21</sup> (C) Catalytic indicator; (SR) Stress Reduction indicator; (P) Process indicator

<sup>22</sup> Population equivalent (p.e.) is a measure of pollution representing the average organic biodegradable load per person per day. It is used here as a comprehensive parameter of for the aggregate wastewater pollution treated by investments initiated by the Investment Fund.

Individual projects supported by the Investment Fund will adopt monitoring indicators consistent with the project objectives and will comply with the GEF International Waters and Biodiversity requirements for monitoring project progress and results (Tracking Tools). Specific M&E arrangements including resource requirements and institutional responsibilities will be developed at the time of project preparation.

Selected key indicators will be consistent across projects, countries and sectors in order to report achievements at project level, Investment Fund level and also at Partnership level (basin level). The table below summarizes key stress reduction and biodiversity conservation indicators that will be included in the M&E plan of individual projects.

Type of Investments supported by the Fund	Key Stress Reduction and Biodiversity Conservation Indicators at Project Level	Use of Project Indicator Monitoring
<i>Domestic and industrial wastewater treatment in selected priority hotspots:</i> demonstration and use of innovative and/or low cost technologies for waste water and sanitation management such as engineered wetlands, enhancement to existing systems to improve efficiency, combined wastewater/septage treatment plants, integrated managed aquifer recharge and wastewater reuse, etc)	<ul style="list-style-type: none"> <li>• Municipal and industrial pollutant discharge (BOD, N, P, Cr, etc.) reduction</li> </ul>	<p>Contribute to measure the aggregate reduction of land-based pollution discharges and improvement in management effectiveness of biodiversity sensitive areas in the Mediterranean Sea</p> <p>Evaluate country progress in achieving objectives of NAP, IF and Strategic Partnership</p>
<i>Coastal ecosystem management:</i> restoration and preservation of aquatic habitats including wetlands, coastal lakes and lagoons; control of saline intrusion in coastal aquifers; restoration/protection of coastal processes (sediments transport, etc.), promotion of ICM practices	<ul style="list-style-type: none"> <li>• Wetland water volume increase</li> <li>• Wetland/coastal lagoon area under protected/improved management</li> <li>• Sites with coastal aquifer saline intrusion under control</li> <li>• Reduction of sediment loads and lagoon siltation</li> </ul>	
<i>Integrated surface and groundwater management in selected watersheds:</i> promotion of IWRM practices in watersheds draining into the Mediterranean, including groundwater systems and balancing flows, as a mean to protect coastal-marine habitats of transboundary significance and reduce pollution from non point sources and sediment loads	<ul style="list-style-type: none"> <li>• Point source pollution reduction</li> <li>• Reduction of non point source pollution runoff</li> <li>• Increase in flows to coastal freshwater ecosystems</li> <li>• Area with improved land-water management practices and sediment load reduction</li> <li>• Surface of aquifer recharge areas under protection/effective management</li> </ul>	
<i>Biodiversity conservation:</i> protection of endangered natural habitats and sensitive areas of transboundary relevance, strengthening/expansion of the marine protected area network, mainstreaming biodiversity conservation in productive seascape and generation and dissemination of best practices for addressing marine and coastal biodiversity issues	<ul style="list-style-type: none"> <li>• MPA surface increase</li> <li>• MPAs and coastal wetlands/lagoons under effective management</li> <li>• Area of production systems that contribute to biodiversity conservation or its sustainable use</li> </ul>	

### Arrangements for results monitoring at the level of the Fund

Outcome Indicators			Projects reporting to Fund			Fund Reporting to GEF	
	2011	2016	Frequency and Reports	Data Collection Instruments	Responsibility for Data Collection	Frequency and Reports	Responsibility for Data Collection
Hotspots and sensitive habitats of national priority identified in NAPs and SAPs with improved environmental conditions (# of hotspots/sensitive areas identified in TDA)	5%	15%	Annual Project Progress Review (PPR)	Government data; Regional Project reports; Project progress report	UNEP/MAP, PIU, Bank task team, Investment Fund coordination team	Report annually to GEFSEC; Report to GEF Council at time of request for subsequent tranche	Fund Management Team with data derived from Bank project task team reporting
Replication strategy adopted and implementation initiated (# of countries)	-	3	Annual PPR				
Replication investment leveraged (US\$)	-	100M					
<b>Result Indicators</b>							
Co-financing leveraged (US\$)	75M	250M	Annual PPR	Project team reports; Bank supervision missions;	Bank task team; Investment Fund coordination team	Report annually to GEFSEC; Report to GEF Council at time of request for subsequent tranche	Fund Management Team with data derived from Bank project task team reporting
Measures to address SAP targets incorporated into CASes for eligible countries (# of countries)	3	7	Annual PPR	CASes			
Innovative low-cost techniques such as managed aquifer recharge, engineered wetlands, treated wastewater reuse, etc. demonstrated (# of techniques)	2	5	Annual PPR	Project team reports; Bank supervision missions;			
Organic pollution (in waste water) treated (p.e.)	250,000	1,000,000	Annual PPR				
MPA and coastal wetland/lagoons under effective management (# of sites)	2	5-7	Annual PPR				
Participation of Bank IF coordination team in SP consultations (% of meetings)	100%	100%	SP meeting minutes				
Regional conferences/technical workshops participated in/organized by the IF (# of events)	2	5	Workshop/conference proceedings				
Key stress reduction and biodiversity conservation indicators at project level (see description in Result Framework)	Individual project will comply with GEF IW and Biodiversity tracking tools requirements and will report monitoring results in annual implementation progress reports and PPR						



## **ANNEX 5**

### **MEDITERRANEAN PARTNERSHIP INVESTMENT FUND PIPELINE:**

#### **PROJECT CONCEPTS**

- Bosnia & Herzegovina and Croatia: Neretva and Trebisnjica River Basin Management Project
- Egypt: Alexandria Integrated Coastal Zone Management Project

**BOSNIA & HERZEGOVINA AND CROATIA  
NERETVA AND TREBISNJICA RIVER BASIN MANAGEMENT PROJECT**

**AGENCY'S PROJECT ID:** P084608  
**GEFSEC PROJECT ID:**  
**COUNTRY: BOSNIA & HERZEGOVINA AND CROATIA**  
**PROJECT TITLE:** Neretva and Trebisnjica River Basin Management Project (under the Mediterranean Sea Partnership Investment Fund.  
**GEF AGENCY:** World Bank  
**OTHER EXECUTING AGENCY(IES):**  
**DURATION:** 5 Years  
**GEF FOCAL AREA:** IW and B  
**GEF OPERATIONAL PROGRAM:** OP9; OP2  
**GEF STRATEGIC PRIORITY:** IW-1; BD-2  
**Pipeline Entry Date:** 06/13/2003  
**ESTIMATED STARTING DATE:** October 1, 2006

<b>FINANCING PLAN (US\$)</b>	
<b>GEF PROJECT/COMPONENT</b>	
Project	8,000,000
PDF A	
PDF B	430,000
PDF C	
Subtotal GEF	8,430,000
<b>CO-FINANCING</b>	
<b>IBRD/IDA/IFC</b>	
Government	8,355,000
Bilateral	3,925,00
NGOs	
Others	500,000
<i>Sub-Total Co-financing:</i>	12,780,000
<i>Total Project Financing:</i>	21,210,000
<b>FINANCING FOR ASSOCIATED ACTIVITIES IF ANY:</b>	
<b>LEVERAGED RESOURCES IF ANY:</b>	

\*Details provided under the Financial Modality and Cost Effectiveness section

**CONTRIBUTION TO KEY INDICATORS OF THE BUSINESS PLAN:**

The project supports priority investments identified in the Strategic Action Plans for the Mediterranean basin that reduce water pollution and increase biodiversity conservation effectiveness in the hot spots of the Neretva/Trebisnjica river basin and its wetlands.

**RECORD OF ENDORSEMENT ON BEHALF OF THE GOVERNMENT(S):**

Minister Jadranko Prlic, Minister of Foreign Trade and Economic Relations, Bosnia and Herzegovina:	June 2, 2003
Minister Bozo Kovacevic, Ministry of Environmental Protection and Physical Planning , Croatia	July 10, 2003

Approved on behalf of the World Bank. This proposal has been prepared in accordance with GEF policies and procedures and meets the standards of the GEF Project Review Criteria for work program inclusion	
Steve Gorman Executive coordinator, The World Bank	Emilia Battaglini, ECA Regional Coordinator
	Tel. and email: (+1-202)473-3232, Ebattaglini@worldbank.org
	Usaid El Hanbali, Task team Leader
	Tel. and email: (1-202) 473-4186; uelhanabali@worldbank.org

## 1. Project Summary

### a) Project rationale, objectives, outputs/outcomes and activities

**Project Rationale.** The Neretva and Trebsijnica River Basin (NTRB) lies within both Bosnia and Herzegovina (BiH) and Croatia (HR) and encompasses approximately 10,000 km<sup>2</sup>. Within BiH, the NTRB has additional transboundary characteristics as it is shared by the two entities which comprise BiH – the Federation of Bosnia Herzegovina (FBiH) and the Republika Srpska (RS). The Neretva River (220 km) is the largest river in the Eastern Adriatic watershed. Its average annual flow is 11.9 BCM. The Trebisnjica River (99 km) is located entirely in the RS and is hydraulically linked to the Neretva River. Its average annual flow is about 2.5 BCM. Taken together, these two rivers comprise most of the Adriatic watershed of BiH and Croatia. The rivers are used for transport, recreation, fisheries, fishing, abstraction for drinking water for the 430,000 residents in the region, irrigation, and energy production. The entire valley and delta of the lower Neretva River from Mostar municipality (in FBiH) to the river's mouth (in Croatia) contain the largest and most valuable remnants of the natural Mediterranean wetlands in the Eastern Adriatic coast, as evidenced by designation as a Ramsar Wetlands site. The transboundary wetlands serve a number of functions important to water resource management including; water purification, nutrient reduction, sedimentation sink, flood management, and prevention of shoreline erosion. They also provide critical habitats and support local economic activities.

A transboundary environmental analysis based on assessments of land and water management, biodiversity, social, and economic conditions in the NTRB was conducted during preparation and identified the key environmental problems related to water resources in the NTRB as follows: declining supplies for municipal and agricultural purposes; declining water quality; as well as land degradation and loss of wetlands and their associated habitats and biodiversity. The causes of these problems are inter-related and include inefficient water allocation and water use amongst competing users; pollution from municipal, industrial and agricultural sources, and salt water intrusion; and conversion of wetlands for agricultural purposes, illegal hunting, and other economic activities. Demands for water resources are not balanced through any comprehensive and coordinated strategy on the national or international level. The existing water management system is characterized by: lack of legal and institutional mechanisms for transboundary water resource management; lack of river basin level management or planning lack of basin-wide management tools including hydrological and biological monitoring and water information management systems; insufficient understanding of river basin dynamics and water balance to assess and manage supply and demand; limited consideration of ecological issues; and limited public participation in decision making processes

To address these issues, the project will focus on select interventions, including improved transboundary water resource management, improved management and use of wetlands ecosystems, priority investments for water pollution including municipal wastewater treatment and industrial pollution control, as well as promoting public participation in decision making processes. Thus the proposed project qualifies for support under the GEF Partnership for the Mediterranean Sea Large Marine Ecosystem Investment Fund as proposed activities meet the Partnership's eligibility criteria: industrial wastewater treatment, wetland restoration, and improved management of watersheds for habitat conservation and pollution reduction. The project will be the Bank's first efforts in implementing the objectives of the Mediterranean Strategic Action Program (SAP) to Address Pollution from Land-Based Activities (MED POL, 1997) and the Mediterranean SAP for Biodiversity (MED BIO, 2003). Both SAPs identify the Adriatic Sea as one of the top priority areas for protection in the Mediterranean Sea and have as their goals reduced land based sources of marine pollution and protection of the biodiversity and habitats of the Mediterranean. The project targets hot spots and sensitive areas included in the SAPs - the Neretva River Canyon and the Neretva River Delta. The project also supports the objectives of the proposed GEF Strategic Partnership for the Mediterranean Sea Large Marine Ecosystem by promoting policy, legal and institutional reforms; strengthening monitoring and assessment capabilities on a local and national level; and reducing land based sources of pollution. BiH and Croatia support the Barcelona Mediterranean Convention of 1976 for

the Prevention of Pollution of the Mediterranean, and have signed and ratified all its protocols, as well as the Ramsar Convention on Wetlands of International Importance.

Also, Government strategies for water resource management in both BiH and Croatia are driven by the EU's Water Framework Directive (WFD) requirements which calls for river basin management plans (RBMPs) based on integrated water resource management. The WFD provides the legislative framework EU member states must follow to protect and improve the quality of water resources within the EU. International rivers must have transboundary RBMPs which reflect environmental concerns including the hydrological and ecological interactions between wetlands, the riverine zone and the quality of ecosystems in the basin. The project fully supports the objectives of the EU WFD and supports the countries' commitment to meet its requirements.

Without GEF support, both countries may continue to approach water resource management from different perspectives. Both countries might undertake a series of small ad-hoc activities, in different sectors, on different administrative levels, with no synergistic effect. Relevant legal, policy and institutional frameworks in each country need to be enacted in coordination to prevent the possibility of a clash of competing interests that could potentially exacerbate political and social tensions in Southeast Europe.

**Project Objectives.** The project *development objective* is to improve management of transboundary water resources in the NTRB thereby laying the basis for efficient and equitable water allocation amongst users and for improved health of the water dependent ecosystems.

The *global objective* is to reduce water pollution in the Adriatic Sea which is a hot spot within the Mediterranean Sea basin.

**Project Outputs/Outcomes:** Outputs would include a comprehensive transboundary river basin management plan; trained river basin management authorities with resources to implement the RBMP; a strengthened interstate water commission for the implementation of the RBMP; an effective hydrological measurement and monitoring system; a transboundary water information system; improved use and management of wetlands ecosystems; new techniques for salt water intrusion prevention and mitigation; cost effective municipal and industrial pollution prevention investments; and increased opportunities for civil society involvement in water resource management. The overall outcome of the project is improved water quality and quantity flowing into the Adriatic and Mediterranean Seas.

### **Project Activities**

The project to be implemented over five years, will include the following components:

**Component 1: Strengthened capacity for transboundary water resource management (US\$6.14 of which GEF US\$2.4).** The objective of this component is to strengthen the institutional capacity for the comprehensive management of the NTRB's water resources and environment. Activities to be financed under this component include:

#### *1.1 Institution and capacity building*

- Support and equipment for the river basin management authorities
- Support for operations of the ISWC and the Adriatic sub-committee
- Training on preparation of river basin management plans and implementation of the EU WFD, to include study tours
- Design of a set of appropriate regional coordination procedures for transboundary water resource management
- Identification of necessary additional policy and institutional reforms to facilitate enhanced transboundary management actions

#### *1.2 Measurement, monitoring and information management*

- Equipment and expansion of the existing network of water measurement and monitoring stations in the NTRB
- Develop basin-wide water information system including GIS system, equipment and training

### *1.3 River basin management planning*

- Preparation of background studies for development of the NTRB RBMP
- Identification of protected areas in NTRB, sensitive ecosystems, and ecological management objectives for the NTRB
- Conduct an economic analysis of water use in the NTRB
- Develop river basin management plan

**Component 2: Improved management and use of wetlands ecosystems (US\$2.41 million of which GEF US\$1.5 million).** The Transboundary Diagnostic Analysis (TDA) of the Mediterranean Partnership has identified degradation of coastal habitats as contributing to an overall decline in biodiversity in the Mediterranean basin. Activities under this component will help to maintain and conserve water dependent ecosystems and their associated biodiversity in the NTRB by focusing on improved management of wetland ecosystems. These interventions will be designed in accordance with the requirements of the EU WFD. The activities to be financed under this component are as follows:

*2.1 Improved wetlands management.* Activities under this sub-component will promote improvements in sites, services, and management tools for the existing nature park in the NTRB in BiH and protected areas in Croatia; mitigation of tourism-related environmental impacts; refurbishing of scientific and educational facilities for wetlands biodiversity conservation & financing of the transboundary newsletter “NASA Neretva.

*2.2 Water Management Infrastructure:* This sub-component will include: preparation of a monitoring network for salt water intrusion and improvements in irrigation and groundwater management to address saline intrusion in the Neretva delta; wetlands restoration in Hutavo Blato; rehabilitation of Bunica river gate and wooden irrigation wheels; and restoration of select river banks.

*2.3 Improved operation of reservoirs, HPPs, and dams:* Proposed activities include a study to determine the minimum biological flow in the Neretva and Trebisnjica Rivers; training program for optimal management of HPP reservoirs; management models for reservoir operations; as well as provision of equipment for seismic monitoring.

**Component 3: High Priority Investments for Water Pollution Control (US\$9.87 million of which GEF US\$3.0 million)** The TDA for the Strategic Partnership for the Mediterranean Sea indicates that eighty percent of the pollution load of the Mediterranean Sea originates from land sources, mainly in the form of untreated discharges of urban waste (which includes microbiological, nutrient and chemical contaminants) reaching the sea from coastal sources and through rivers. The objective of this component therefore is to reduce water pollution to the NTRB through high priority investments in low cost, appropriate wastewater technology improvements in three municipalities and one industrial sector in BiH. The municipalities and industries will contribute a minimum of 50% of the investment costs. The activities to be financed under this component are:

*3.1 Municipal wastewater treatment improvements in BiH .* Water pollution from municipal sources is one of the main threats to the water resources of the NTRB. This sub-component will finance improvements to wastewater treatment in five municipalities in BiH – Bileca, Konjic, Ljubuski, Nevesinje and Trebinje - to reduce pollution in the Neretva and the Trebisnjica Rivers. Project investments would include, inter alia, upgrades to secondary treatment and expansion and rehabilitation of the collection system, provision and installation of equipment for secondary biological treatment, sludge de-watering, rehabilitation of the sedimentation tanks, etc.

*3.2 Industrial Pollution Control in BiH.* Two metallurgy companies (UNISGAL and “SurTec Eurošjaj”) in Konjic have been identified as particularly “dirty” industries by local authorities. The project will

finance equipment, capacity building for monitoring and enforcement of industrial wastewater effluents by upgrading the municipal water quality laboratory (see below) and by developing effluent standards; developing enforcements guidelines; and training. . The two companies will finance a minimum of 50% of the costs.

*3.3 Strengthening of Water Quality Monitoring Laboratories.* Water quality laboratories are either poorly equipped or non-existent. The project will finance equipment for three water quality laboratories in BiH which can then more broadly serve the region for purposes of monitoring wastewater effluent.

**Component 4: Public Participation and Management of Project Implementation (US\$2.33 million of which GEF US\$1.1 million).** The objective of this component is to increase civil society participation in the decision making process for water resource management and to establish an incentive mechanism for responsible, local level resource management. It also finances project management. The activities to be financed are:

*4.1 Scientific Community Involvement:* Establishment of a basin wide working group with representatives from principal universities and resource institutes to facilitate transboundary and cross-sectoral scientific exchange and four annual workshops to disseminate results of scientific community to a broad range of stakeholders

*4.2 Civil Society participation:* Training and facilitation to support community participation in preparation of the RBMP; supporting grants for NGOs transboundary partnerships and projects which address the NTRB objectives; and community based demonstration projects through matching grants of practices which conserve water resources, promote improved water quality, reduce pollutant loads, and maintain wetlands.

*4.3 Management of Project.* Project management would include monitoring of the project; and training for national and local government officials on project implementation, during the five-year period of the project implementation; office equipment and vehicles; operating costs; and project management staff in BiH (for procurement and financial management only), and Croatia, as needed.

Table 1: Project Costs – US\$ millions

<i>Component</i>	<i>GEF</i>	<i>Other donors</i>	<i>GoBiH</i>	<i>GoC</i>	<i>Beneficiaries</i>	<i>Total</i>
I. Improved Transboundary Water Resource Management	2.4	3.50	0.20	0.04		6.14
II. Improved Management and use of wetlands ecosystems	1.5	0.10	0.07	0.54	0.20	2.41
III. High priority investments for water pollution control	3.0	0.30	3.02	3.25	0.30	9.87
IV. Public participation and Management of Project Implementation*	1.1		0.73	0.50		2.33
<u>Total including physical and price contingencies</u>	8.0	3.90	4.02	4.3	0.50	20.75

## **b) Key indicators, assumptions, and risks**

**Key Indicators.** Key indicators to measure project impact would include:

- A transboundary river basin management plan completed and agreed upon by both countries
- A functioning comprehensive hydrological measurement and monitoring program, linked to a transboundary water information system
- Improved water quality
- Increased water volume in wetlands

- Reduced discharge through wastewater effluents of municipal and industrial pollutants to international waterways
- Establishment of a mathematical simulation model for water management (quantity and quality) in the Neretva Delta
- Implementation of a pilot irrigation scheme to address salt intrusion in the Neretva Delta.

Increased number of civil society activities which engage stakeholders in river basin management planning and improved use of water resources.

Critical risks and mitigation measures:

<b>Risk</b>	<b>Mitigation Strategy</b>	<b>Risk Rating after Mitigation</b>
Reforms in the water sector may not proceed as planned	Both entities in BiH are committed to bringing water and environment legislation in line with the EU WFD	M
Cooperation between BiH and Croatia may not be forthcoming	The project supports the role of the Inter-State Water Committee which forms the nucleus of the TWG.  The two country SC will ensure the key decision making is done cooperatively	H
Given tight government budget conditions; counterpart financing to project activities may not materialize	Most project activities for RBM planning are already part of the water ministries budgeted activities  Counterpart financing for wastewater treatment investments has already been committed in municipal budgets.	M
Project management may not have enough capacity to implement the project	In both countries PMTs will build on existing implementation structures for other WB projects and sector work	M
<b>Overall Risk Rating</b>		<b>M</b>

## 2. COUNTRY OWNERSHIP

### a) COUNTRY ELIGIBILITY

Both BiH and Croatia support the Barcelona Convention (Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean) and have signed and ratified all its protocols. BiH and Croatia are party to the Convention on Biodiversity Conservation, and the Ramsar Convention on Wetlands of International importance.

### b) COUNTRY DRIVENNESS

The BiH PRSP identifies improved water resource management as a key environmental priority requiring action and proposes water management reform to improve the water sector legal and institutional framework. It recommends establishing river basin management authorities per the EU WFD. The 2003 BiH National Environmental Action Plan (NEAP) identified improved water resource management as essential for sustainable growth and river basin level management as a priority. Activities in the project address hot spots for pollution control of international waterways as identified in the BiH NEAP. Similarly, the Croatia NEAP identifies water resource management as a top priority. The Croatia Biodiversity Strategic Action Plan (BSAP 2000) identifies the Neretva Delta wetlands as the most

threatened ecosystem in the country. The Interstate Water Committee (ISWC) established by a treaty between the two countries (July 1996) created a framework for transboundary water management. BiH and Croatia have also jointly identified protection of the Neretva Delta and improved transboundary and river basin level management of the Neretva River as priority actions through the Regional Environmental Reconstruction Program (REReP) of the South East Europe (SEE) Stability Pact.

### **3. PROGRAM AND POLICY CONFORMITY**

#### **(a) Fit to GEF Operational Program and strategic priority**

The project is in conformity with the objectives of the World Bank GEF Strategic Partnership for the Mediterranean Sea Large marine Ecosystem (the “Partnership”) and the proposed activities meet the Partnership’s eligibility criteria: industrial wastewater treatment, wetland restoration, improved management of watersheds for habitat conservation and pollution reduction, protection of endangered natural habitats and sensitive areas, and strengthening of marine protected areas. The NTRB Project is consistent with the Partnership’s objective of implementing the top transboundary priority pollution reduction and habitat protection measures by each basin country, agreed upon under the Mediterranean Strategic Action Program (SAP) to Address Pollution from Land-Based Activities (MED POL) and the Mediterranean SAP for Biodiversity (MED BIO). The project also supports the objectives of the Partnership by promoting policy, legal and institutional reforms; strengthening monitoring and assessment capabilities on a local and national level; and reducing land based sources of pollution. The SAPs identify Mediterranean pollution hot spots and sensitive areas and these include the Neretva River Canyon and the Neretva River Delta. BiH and Croatia are party to the Convention on Biodiversity Conservation. Both countries support the Barcelona Mediterranean Convention of 1976 for the prevention of pollution of the Mediterranean, and have signed and ratified all its protocols, as well as the Ramsar Convention on Wetlands of International Importance

#### **(b) Sustainability (including financial sustainability)**

The project design includes elements that will contribute to the sustainability of project interventions. By building on the existing structure and initiatives agreed upon for national and transboundary water management, the project will strengthen the new Adriatic Basin Authority in BiH and support the water sector reform initiatives already in motion. Working with the existing ISWC, the project will link itself to broader transboundary water resource management which includes the Danube Basin, to which both countries are already committed. Thus the project sets itself within a larger initiative to which the governments of both countries are committed and which receives donor support. Furthermore, since both the national level and international level institutions are financially supported by budget allocations already in place there are no additional recurrent costs. Application of the EU WFD requirements to guide water resource planning and management on both the national and transboundary level is another sustainability mechanism under the project. By utilizing the approaches laid out in the WFD, and producing a RBMP that meets the WFD requirements, the project is receiving strong support and commitments from state and entity levels in both the water and environment sectors. Furthermore, both countries recognize that regional cooperation activities such as those supported by the project will enhance their chances for future EU grants thus increasing their commitment to fully implementing the project. Developing local level mechanisms for increased public participation in water resource management decision making, and creating incentives for alternatives to water intensive or polluting activities as designed under the project would ensure local beneficiary ownership and commitment to the project.

#### **(c) Replicability**

The project will be designed to promote replication of sustainable water resources management on a national scale within BiH and Croatia as well as the Mediterranean basin as a whole. The proposed activities will serve as models for the two countries and will provide benchmarks for good practices. The



project will develop and implement a replication strategy in consultation with the UNEP-led regional project. Funds will be allocated for developing and maintaining a website focusing on the project's objectives, activities, progress and impact as well as clearly demonstrating how it is achieving the objectives of the Partnership Program. Knowledge dissemination will be an integral part of the project. Towards this, funds will be earmarked for participation in IW-Learn workshops as well as other regional and international meetings and conferences where project exhibits will be presented/demonstrated for the benefit of participants undertaking or embarking on similar pollution reduction projects. The project will also provide funds for travel of country official(s) to participate in biannual GEF International Waters conferences to brief participants on project progress and learn from their experiences.

Although 90% of the land in Southeast Europe is in international river basins, there is relatively little regional experience in transboundary management of water resources on the river basin level in accordance with the EU WFD. Project activities, that re being designed to comply with relevant measures of the EU WFD, will also serve as examples for other countries in the region for replication.

#### (d) Stakeholder Involvement

A broad range of stakeholders was identified in the Social Assessment conducted as part of project preparation and they were actively involved in preparation. As a multi sectoral project, a wide range of national and local government authorities, e.g. water, environment, energy, agriculture, were engaged in the preparation early on. The creation of a joint technical working group which included government authorities, local experts, citizens, and NGOs, early in the preparation process has ensured a high level of involvement. There is strong evidence of broad support within government and local communities for the implementation of this project. . The project develops local level mechanisms for increased public participation in water resource management decision making and provides direct benefits to local communities.

#### (e) Monitoring and Evaluation

The monitoring and evaluation of outcomes and results during implementation would follow standard Bank practice. During project preparation, a monitoring system will be designed to measure both stress reduction and process indicators. During project implementation, at agreed intervals, data on pollutants entering the water bodies will be recorded and measured against the baseline. A well-designed monitoring and evaluation system will be critical for ensuring the project's timely and successful implementation, and enhancing its impact by a systematic analysis of lessons learned and their effective dissemination. Project monitoring and evaluation would be the responsibility of the Project Management Team (PMT) under guidance of the Interstate Water Committee (ISWC). M&E will be based on the results of the baseline surveys undertaken during preparation of the project as well as on the agreed targets set forth in Annex B. The results of M&E activities will be fed back into the implementation process as improved practices.

The project will design a simple Management Information System for M&E, reporting formats for each component, including targeted annual performance objectives and monitoring indicators using Annex B details as the basis. These indicators include evaluating the project's impact by monitoring soil and water quality. Quarterly reports will cover progress in physical implementation, the use of project funds and project impact. The Quarterly reports will be consolidated by the PMTs into half-yearly progress reports to be submitted through the Ministries to the Bank within two months of the end of each six-month reporting period. These half-yearly progress reports will also include an implementation plan and work program for the next six months following the reporting period. The format of reports will be agreed with the Bank.

A mid-term review will be carried out to assess overall progress. Lessons learned, with recommendations for any improvements, would be used in restructuring the project, if necessary.

#### 4. FINANCIAL MODALITY AND COST EFFECTIVENESS

The Global Environment Facility is requested to co-finance the project's incremental costs estimated at US\$8 million through two grants – one to each country. The Governments of BiH and Croatia will provide the bulk of the co-financing in a combination of cash and in-kind services. Other donors will provide additional and substantial aid to the project area and objectives.

Table 3: Co-financing Funds

<b>Co-financing Sources</b>				
Name of Co-financier (source)	Classification	Type	Amount (US\$ m)	Status*
Government - BiH	cash/in kind	Counterpart funding	4.02	Approved in principle
Government - Croatia	Cash/in kind	Counterpart funding	4.30	Approved in principle
Beneficiaries	Cash/in kind	Counterpart funding	0.50	Approved in principle
Other Donors	cash	Grant Funds	3.90	approved
Sub-Total Co-financing			12.75	

#### 5 INSTITUTIONAL COORDINATION AND SUPPORT

##### CORE COMMITMENTS AND LINKAGES

The Bank has a commitment to improved water resource management in Southeast Europe (SEE) in general, and country specific projects which support objectives of the project in both BiH and Croatia. The project is consistent with the World Bank Water Resources Sector (2003) and the SEE Water Resource Strategy (2002). The project complements and builds on activities and projects which are already under implementation at the national and local level and other regional GEF international waterways initiatives including the Lake Ohrid project (completed) and the Lake Skodar project (in preparation). In BiH, the proposed project would be closely linked to the World Bank Bosnia Small Scale Commercial Agricultural (SSA) Development Project which has just become effective. The SSA Project is rehabilitating irrigation structures and introducing environmentally sound agricultural practices within the project region. In BiH, the project would also build on the accomplishments of the World Bank financed Mostar Water Supply and Sanitation Project (US\$12 million) which seeks to reduce municipal pollution to the Neretva River. The project was designed in coordination with the BiH GEF Water Quality Project (WQP), 2004, which will finance further improvements to wastewater treatment in the largest city on the Neretva River, Mostar, and preparation of a wastewater strategy for the Neretva River. While the WQP addresses one specific threat at one site to the NTRB, the project addresses the issues of overall management of the water resources. The project will benefit from the GEF project Bosnia Forest and Mountain Protected Area Management Project, in preparation, which will finance improvements the protected area management sector.

In Croatia, the project has direct linkages to two existing World Bank projects in implementation; the Karst Ecosystem Conservation (KEC) Project and the Coastal Cities Water Pollution Control Project (in implementation). The project would further develop the Bank's contribution to pollution control in the Adriatic through the Coastal Cities Pollution Control Project which finances improvements to wastewater treatment in those municipalities which contribute the most to pollution of the Neretva River – Metkovic and Opuzen. The Croatia Cadastre Project will also contribute to the project by improving land tenure issues in the Neretva Delta which currently exacerbate issues related to conversion of wetlands for agricultural production.

The Bank's primary advantage is that it could serve as a broker in supporting the dialogue on transboundary water resource management. The Bank could catalyze improved communication between the countries, which would need to reach agreement on water resource management issues.

### **Project Implementation Arrangements**

The project will be implemented during FY 2007-2012. The lending instrument would be two separate grants from GEF. One GEF grant of \$7.14 million will go to the state government of BiH through the Ministry of Finance and Treasury. The other grant of \$1.96 million will go to the Government of Croatia also through the Ministry of Finance. Although there are two GEF grants, the recipients intend to implement the project jointly, e.g. joint contracts, tendering, TORS, to fully ensure the inter-state quality and objectives of the project. On the transboundary level, overall coordination of project implementation will be the responsibility of the ISWC. The ISWC will be supported by the joint Steering Committee (SC), established during project preparation and consisting of authorized representatives (8 from BiH and 4 from Croatia) of relevant ministries from both countries (ministries responsible for environment, water management, cultural heritage, energy, communal infrastructure) and the Technical Working Group (shown as one body in the organizational figure because members overlap). The TWG will consist of experts in water, environment, agriculture, and energy sectors; HPP authorities; municipal representatives; and NGOs. It is already functional and fully financed by the countries. The TWG significantly contributed to, and supervised, project design. It is proposed to establish sub-groups of the TWG to provide sector specific assistance on specific issues and project activities. This is a model used by both countries in other similar river basin commissions, e.g. the Sava River Commission.

In BiH the overall project implementation is the responsibility of the two entity ministries of Agriculture, Forestry and Water Management. The two entity ministries of environment will be responsible for implementation of those project activities under their mandate. The BiH State level Ministry of Foreign Trade and Affairs (MOFDA) will coordinate the activities of the implementing agencies across sectors and entities and will serve as the liaison with Croatia. A project management team (PMT) will be established with the members delegated from the ministries of water and environment and financed as part of the government contribution. The project manager will be from MOFDA. Procurement and financial management assistance may be required and would be financed by the grant. Upon the establishment of the two offices of the Adriatic River Basin Authority in Mostar and Trebinje, which report to the MAFWM, it is expected that project implementation activities would be managed from these locations.

In Croatia the project implementation is the responsibility of the Ministry of Agriculture, Forestry and Water Management through Croatia Waters. The Ministry of Culture and the Ministry of Environmental Protection and Physical Planning will have responsibility for implementation of project activities within their scope. A project management team would be established within Croatia Waters with the support of experts from the three Ministries (Ministry of Agriculture, Forestry and Water Management; Ministry of Environmental Protection, Physical Planning and Construction; and Ministry of Culture). The project management team will be financed by government contribution. Procurement and financial management assistance may be required and would be financed by the grant. During project preparation, the project management teams in each country have developed strong working relationships with each other and across sectors and it is expected this will continue. The Operations Manual (to be completed by appraisal) spells out the implementation arrangements and clear roles and responsibilities for each agency.

**EGYPT**  
**ALEXANDRIA INTEGRATED COASTAL ZONE MANAGEMENT PROJECT**

**AGENCY'S PROJECT ID:**  
**GEFSEC PROJECT ID:**  
**COUNTRY:** Egypt  
**PROJECT TITLE:** Alexandria Integrated Coastal Zone Management Project (Investment Fund for the Mediterranean Sea LME partnership)  
**GEF AGENCY:** World Bank  
**Other Executing Agency(ies):**  
**DURATION:** 5 years  
**GEF FOCAL AREA:** IW  
**GEF OPERATIONAL PROGRAM:** OP9  
**GEF STRATEGIC PRIORITY:** IW-1 Catalyzing financial resources for implementation of agreed actions  
**ESTIMATED STARTING DATE:** July 2007  
**ESTIMATED WP ENTRY DATE:**  
**PIPELINE ENTRY DATE:** MAY 2006

<b>FINANCING PLAN (US\$)</b>	
<b>GEF ALLOCATION</b>	
Project ( <i>estimated</i> )	7,500,000
Project Co-financing ( <i>estimated</i> )	70,000,000
PDF A*	
PDF B**	350,000
PDF C	
Subtotal GEF PDF	350,000

**PDF CO-FINANCING** (details provided in Part II, Section E – Budget)

IBRD/IDA/IFC Government Contribution Others	
<i>Sub-Total PDF Co-financing:</i>	
<i>Total PDF Project Financing:</i>	350,000

\* Indicate approval date of PDF A:

\*\* If supplemental, indicate amount and date of originally approved PDF:

**RECORD OF ENDORSEMENT ON BEHALF OF THE GOVERNMENT:**

	Date
Ms. Fayza Aboul Naga Minister of International Cooperation	09/28/2004

This proposal has been prepared in accordance with GEF policies and procedures and meets the standards of the GEF Project Review Criteria for approval. Approval is being sought for pipeline entry only at this stage.

Steve Gorman   
 GEF Executive Coordinator, World Bank  
 Date: May 13, 2005

Project Contact Person  
 Dahlia Lotayef  
 GEF Regional Coordinator  
 Middle East and north Africa  
 Tel. and email (202) 473-5439  
 dlotayef@worldbank.org

## **A – SUMMARY**

### **1. PROJECT RATIONALE**

The proposed project is consistent with and will contribute to the ground implementation of the goals of the Strategic Action Programme (SAP) for the Mediterranean Sea in Egypt. The pollution discharge from land-based sources in the “hot spot” areas of Alexandria and El-Mex Bay, Egypt, will be addressed by targeted investments for pollution reduction, new financing mechanisms and local coastal management bodies, and technology transfer. Experiences from the demonstration project in Alexandria will be upstreamed to the national level to mainstream pollution reduction strategies, integrated coastal zone management (ICZM) and environmental objectives into sectoral and national planning in other similar highly degraded lagoon systems in Egypt and elsewhere in the region.

The project is blended with the Egypt: Pollution Abatement Project 2 (EPAP2), which will address industrial pollution in the Alexandria area. The GEF project and EPAP2 will promote environmental integration with the Lake Mariout component of the City Development Strategy (CDS) for Alexandria as well as the CDS-related Bank-financed project, Alexandria Growth Pole Project (AGPP). It will also be closely linked to the potential World Bank Water Supply and Sanitation Project which has received the green light from the Ministry of Housing to address the sewage situation in Alexandria with the new holding company.

*Project development objective is:* a) to reduce the load of land-based sources of pollution (industrial and domestic) entering the Mediterranean Sea in the “hot spots” of El-Mex Bay and Alexandria; and b) to protect/restore globally significant coastal heritage and ecosystem processes by supporting the Government of Egypt’s efforts to develop and implement a National Coastal Zone Management Plan ..

*Project global environment objective is:* to implement the Strategic Action Plan (SAP-MED) towards the targets set for the discharge of municipal and industrial wastewater and contribute towards the GEF Partnership for the Mediterranean large Marine Ecosystem

### **B - Country ownership**

#### **3. COUNTRY ELIGIBILITY**

Egypt is eligible for GEF assistance in the International Waters Focal Area through the World Bank.

Egypt has had several successful GEF projects under the Biodiversity Focal Area, but is generally underrepresented in terms of GEF International Waters funding. The GEF/UNDP Lake Manzala project will be taken into consideration during the preparation of this project, as a good successful model for replication in Egypt and other countries in the region with similar conditions.

#### 4. COUNTRY DRIVENNESS

The proposed project is an important block in the ongoing Environmental Dialogue between the Government of Egypt and the Bank. It is blended with the Egypt: Pollution Abatement Project II (EPAP II) which is addressing industrial pollution reduction in Lake Mariout and will be linked to a potential World Bank project on sewage in the City of Alexandria. It is closely coordinated with the City Development Strategy (CDS) for Alexandria which has identified the restoration of Lake Mariout as the main environmental priority for the city. It is also linked to a World Bank Project to implement the CDS action plan, Alexandria Growth Pole Project (AGPP), whose objective is to support Alexandria Governorate in its efforts to attract private investment, address high priority investment needs in infrastructure, land development around Lake Mariout, urban upgrading and creation of economic opportunities. The Governor of Alexandria, in a letter to the World Bank dated 9 of May 2004, has requested the Bank to apply for coastal zone funding for the city upgrading. Also, the Egyptian Government, through its Environmental Affairs Agency, which has since 1996, taken positive steps towards Integrated Coastal Zone Management (ICZM) has expressed its interest in an ICZM project in Alexandria. All resources and expertise of the Egyptian Environmental Affairs Agency (EEAA) will be made available to the project and the Egyptian government will provide a counterpart contribution to the project to facilitate its operation and implementation.

The Country Environmental Assessment (CEA) for Egypt shows that the high rate of urban development, expanding industrial and tourism activities, adversely affect the marine and coastal environment. The CEA suggests some urgent actions to strengthen ICZM in Egypt.

### **C – Program and Policy Conformity**

#### 6. PROGRAM DESIGNATION AND CONFORMITY

The proposal is consistent with the IW OP 9: Integrated Land and Water Multiple Focal Area Operational Programme and its objectives to undertake a series of projects that involve helping countries to address transboundary environmental concerns degrading specific water bodies; and is consistent with the GEF's International Waters Strategic Priority I *'Catalyze financial resource mobilization for implementation of reforms and stress reduction measures agreed through TDA-SAP or equivalent processes for particular transboundary systems'* by building and strengthen institutional capacity for reducing land based sources of pollution, implementing coastal zone management at local and national levels, and provide support for targeted investments.

The Alexandria Integrated Coastal Zone Management project described herein is the first project from the MNA region proposed for GEF co-financing under the proposed World Bank/UNEP/GEF Strategic Partnership for the Mediterranean Sea Large Marine Ecosystem to assist countries in implementing policy reforms and priority investments that address transboundary pollution reduction and biodiversity conservation priorities identified in two Strategic Action Plans (SAP) for the Mediterranean Sea. The Partnership would support capital investments, economic instruments, implementation of policy reforms, strengthening of public

institutions and public participation through two elements: a regional technical assistance project, implemented by UNEP and an Investment Fund, implemented by the World Bank

The Investment Fund under the GEF partnership would primarily finance investments that support achieving the pollution reduction and biodiversity conservation targets agreed by the basin countries under SAP MED and SAP BIO, including domestic and industrial wastewater treatment; wetland restoration and/or construction; improved management of watershed and aquifers for habitat conservation and pollution reduction; protection of endangered natural habitats and sensitive areas.

The Alexandria Coastal Zone Management Project would assist the Government of Egypt and the Governorate of Alexandria towards meeting selected SAP MED targets. For municipal wastewater the target is to “By the year 2005, to dispose sewage from cities and urban agglomerations exceeding 100,000 inhabitants and areas of concern in conformity with the [LBS] Protocol”. The proposed targets for industrial development are “ By the year 2025, point source discharges and air emissions into the Protocol Area from industrial installations to be in conformity with the Protocol and other agreed international and national provisions; Over a period of 10 years, to reduce by 50% discharges, emissions and losses of substances that are toxic, persistent, and liable to bioaccumulate from industrial installations; Over a period of 10 years, to reduce by 50 % discharges, emissions, and losses of polluting substances from industrial installations in hot spots and areas of concern.”. Targets for physical alterations and destruction of habitats are “to safeguard the ecosystem function, maintain the integrity and biological diversity of species; and where practicable, to restore marine and coastal habitats that have been adversely affected by anthropogenic activities”.

The SAP MED targets would be achieved by activities at national level such as:

- by 2005, coastal cities and urban agglomerations of more than 100,000 inhabitants to be connected to a sewer system and dispose all waste water in conformity with a national regulation system:
- locate coastal outfalls of sewage so as to obtain and maintain agreed environmental quality criteria and avoid exposing shell fisheries, water intakes, bathing areas, and sensitive environments
- to promote the primary, secondary and where appropriate and feasible, tertiary treatment of municipal sewage discharge to rivers, estuaries and the sea;
- to promote the reuse of treated effluents for the conservation of water resources;
- to reduce discharges and emission of industrial pollutants as much as possible;
- to support programmes for integrated coastal zone management

## 7. PROJECT DESIGN

### Problem Statement

The SAP MED has identified several “hot spots and sensitive areas” on the northern coast of Egypt, which for several decades has been witnessing a continuous increase in population,

development and environmental degradation. Three of these “hot spots” are located around Alexandria (Alexandria, El-Mex Bay, Abu-Qir Bay).

In 1905, the 370,000 inhabitants of Alexandria lived in an area of about 4 square kilometers between the two harbors. Today, population is ten times higher and occupies an area of about 300 square kilometers, with an ever-increasing demand for new land development, including planned development of some 100 hectares of vacant land around lake Mariout .Due to the expansion of the City of Alexandria, Lake Mariout has been divided into five main basins by road infrastructure and is surrounded by urban and industrial development. The demand for new land around the low laying lake is extremely high and coastal areas are constantly encroached. The lake area today is only a fraction of what it used to be. Sewage and industrial wastewater, in addition to the inflow of nutrient-rich agricultural drainage water, have contributed to the degradation of water quality and biodiversity in the lake which suffers from serious eutrophication. Seven million cubic meter of water per day – almost equivalent to the flow of the Rosetta branch – is being pumped from Lake Mariout into the hot spot El-Mex Bay in the Mediterranean with impact on coastal biodiversity, cultural heritage and tourism in the whole Alexandria area.

With its combination of an incredible cultural heritage, thriving urban community, and one of the highest pollution loads to the Mediterranean, a GEF intervention in Alexandria offers unique opportunities to make a regionally significant a reduction of the pollution load reaching the Mediterranean Sea. The value added of GEF co-financing is essential for securing the estimated USD70 million investments foreseen under EPAP2 and a strong incentive for the implementation of the CDS action plan and potential World Bank project on Water Supply and Sanitation. At the same time, improved environmental quality in the coastal areas would strengthen Alexandria’s competitiveness as a tourist destination as well as improve the livelihood for a large number of marginalized user groups such as fishing communities.

### Project Components

To secure these global, national and local,benefits three components are suggested a) strengthening the national framework for sustainable coastal management; b) pilot demonstration projects on reducing land-based pollution sources in the Alexandria area; and c) monitoring and evaluation.:

*Component 1: Policy, Planning and Implementation Tools for Integrated Coastal Zone Management at national and local level.*

This component would strengthen the capabilities of the Environmental Agency (EEAA) to undertake Integrated Coastal Zone Management by:

- develop a national vision for the coastal zone of Northern Egypt, based on Strategic Environmental Assessments (SEA) and Cost of Environmental Degradation Assessments (COED);
- a demonstration activity on the establishment of a management committee composed of local stakeholders of Lake Mariout;



- replication strategies to extend the experiences in Lake Mariout to other similar coastal areas.

The proposed project will, based on a participatory process engaging a broad range of local, regional, and national level stakeholders in identifying management and investment needs to ensure a sustainable development of Egypt's Mediterranean coastal areas. The national vision would put in place the enabling conditions to advance ICZM in Egypt such as building a constituency for promoting ICZM, strengthening the existing institutional and policy frameworks, conclude the work on a national ICZM plan and impose the necessary authority for implementation and enforcement. Particular focus would be put on supporting the participation of weaker user groups such as fishermen and local communities in this process.

Lake Mariout is one of four major northern delta lakes in Egypt (Mariout, Edku, Burollus, and Manzalah). This lake is one of the major sources of land based pollution to the El-Mex Bay and surrounding areas identified as a "hot spot" in the SAP. Traditionally, these lakes have produced about half of the total fish landings and income from fisheries in Egypt, but are now in different states of degradation.. As a consequence of the environmental degradation, Lake Mariout has changed from being the most productive fisheries resource of the four lakes, to the least productive in a couple of decades As a demonstration project on improving management in coastal lakes and lagoons in the Mediterranean, the GEF intervention would support an innovative local management approach in Lake Mariout. . The project would support the establishment of a inter-agency management body for Lake Mariout involving the major stakeholders under the leadership of the Governor of Alexandria. This management body would ensure the integration between the EPAP 2, the CDS, AGPP and the proposed GEF ICZM project.

The experiences from Alexandria will provide good replicable strategies for upstreaming environmental objectives in development planning in coastal areas with similar environmental conditions (coastal lakes, heavily polluted closed or semi-closed coastal lagoons with multiple uses such as fisheries, recreation, biodiversity, etc.) which are common both in Egypt and elsewhere in the region. The replication of the following components will be of particular relevance: a) a forum for developing a local vision for coastal management, b) decentralization of natural resources management responsibilities (technical and financial) and decision making from central to regional and local level, c) defining roles and responsibilities of national, regional, and local authorities in the ICZM process, d) involvement, role and contribution of non-governmental stakeholders such as industry, private sector entities, and NGOs e) institutional strengthening and capacity building,

*Component 2: Targeted investments to reduce the pollution reaching the Mediterranean Sea through Lake Mariout and improved management for the protection/recovery of valuable coastal systems.* The second component will reduce the discharge of selected pollutants (to be defined under PDF B) in the hot spots of Alexandria and El-Mex Bay by X % (to be defined during PDF B) towards the targets of SAP-MED and the restoration of the Lake Mariout and adjacent coastal ecosystem.

It will include:

- A local ICZM action plan pollution reduction and environmental improvement;

- Demonstration projects to reduce the discharges of BOD, COD, TSS, and nutrients to the Mediterranean Sea using innovative technologies for enhanced primary treatment of sewage such as “beneficial microorganisms”, engineered wetlands and the re-use of treated sewage water.;

The management body established under component I will develop an ICZM plan for Lake Mariout, the Mariout Valley, and adjacent coastal areas consisting of a) an urgent action plan to reduce the load of pollutants to the Mediterranean and restore some basic functions which will allow Lake Mariout to maintain its own self-cleaning capacity to reduce pollutants (e.g. to function as an engineered wetland with improved efficiency for pollutant trapping and improved dilution by increased circulation of water); and b) a medium-term vision of improving the function of the lake and adjacent coastal systems. During the project preparation, a detailed circulation model and mass balance of the major pollutants will be done (based on the Adricosm project) for the Lake and surrounding coastal areas to define how much BOD, COD, TSS, and nutrients can be reduced by different management and investment alternatives.

The GEF component would mainly target sewage-related pollutants identified in the SAP which are being discharged via Lake Mariout to the Mediterranean hot spot of El-Mex Bay. Priority actions will consist of enhanced primary treatment in existing sewage treatment plants, including new biotechnology such as the use of “Beneficial Microorganism” developed by the EM Research Organization in Japan which will be tested on pilot scale to improve sewage treatment. Other actions would include the re-use of treated sewage water for irrigation purposes, which would have the dual benefit of reducing the large volumes of sewage water to be disposed of and reducing the pollution loads entering the Mediterranean. Investments for addressing major pollution reduction measures will be provided by EPAP2 (industrial sources) and are discussed within the Alexandria Growth Pole Project (AGPP) and Water Supply and Sanitation Project.

The medium-term action plan will identify investment opportunities focusing on projects and activities for pollution reduction, conservation and sustainable use of biodiversity and cultural heritage in lake and its surroundings. An important issue is to restore the lake ecosystem and water circulation pattern. Technology developed by the Adriatic Sea Integrated Coastal Areas and River Basin Management System – ADRICOSM – has successfully implemented near real time planning and management systems for urban drainage and wastewater utilities, and developed interfaces between river basin and coastal systems. This modeling of the lake system will be undertaken during the project preparation to test pollution reduction options, including the use of the vegetation cover in the lake as engineered wetlands for improving the self-cleaning capacity of the lake, and the impact on water quality, shorelines, and cultural heritage along the coastline of Alexandria.

### *Component 3: Project Management and Performance Monitoring.*

This component will:

- Strengthen the capacity and improve the infrastructure of the EEAA at national and regional levels to undertake environmental monitoring; and
- provide EEAA with the necessary tool for performance monitoring, evaluation of project progress, and M&E reporting.
- Develop the necessary tools, including but not limited to a project website, for the dissemination of findings and results and replication at the national level as well

as the regional level, feeding into the Regional Component of the Strategic Partnership. These results will also be presented at the regional meetings of MAP, the GEF Partnership and annual portfolio meetings.

The EEAA is responsible for Egypt's Sea and Coastal Zone policies, while different national authorities are responsible for their implementation. The Ministry of Defense and the EEAA are the main controlling and monitoring agencies, the Ministry of Water resources and Irrigation with its Shoreline Protection Authority is responsible for shoreline management, Ministry of Transport is responsible for shipping. The Tourism Development Authority and the Fisheries Development Authority are among the main users of the coastal areas. The Governorates also have an important role in managing coastal areas at the local level.

During project preparation the EEAA will be developing an monitoring and evaluation framework based on its governmental mandate. The Monitoring and Evaluation Framework would include a Results Framework, GEF IW M&E indicators, an assessment of the M&E capacity of the stakeholders and implementing parties, definition of clear responsibilities for monitoring and evaluation.

*Baseline scenario (without the GEF involvement):* According to the Transboundary Diagnostic Analysis for the Mediterranean Sea, the pollution load reaching the Mediterranean Sea via the three hot spots in the Alexandria area are significant with more than a third of the total BOD and COD loads as well as significant loads of heavy metals.

Lake Mariout is a significant source of pollution to the El-Mex Bay. Seven million cubic meter of water per day – almost equivalent to the flow of the Rosetta branch – is being pumped from the lake to the Mediterranean Sea. According to the Environmental Technical Report 8: Chemical and Biological Characterization of Lake Maryout which was part of the 1997 Final Report on the Alexandria Wastewater Project –Phase II, the Lake Mariout receives inflow from three sources: the Kalaa Drain (750,000 m<sup>3</sup>/day of discharges from the Eastern Treatment Plant, agriculture drainage and untreated sewage), the Omoum Drain (6.00million m<sup>3</sup>/day of agricultural irrigation drain) and the Western Treatment Plant, and West Noubaria Drain (1.54 million m<sup>3</sup>/day of agricultural irrigation drain). Groundwater may also enter the main basin. The Fisheries basin receives little direct inflow. The Northwest Basin receives direct discharge from several industries, while the Southwest Basin, the biggest basin receives inflow from the Omoum Drain. The lake also receives industrial waste, either directly or indirectly from some 194 industrial establishments surrounding the lake.

Although pesticides and heavy metals are found in water, sediments and biota in the lake, the final report for the Alexandria Wastewater project – Phase II (Environmental Technical Report 8: Chemical and Biological Characterization of Lake Mariout), suggest that these priority pollutants are not a major concern for the ecological function of Lake Mariout. Instead, the ecological community of the main basin is regulated by the sewage discharge which creates stressful condition for higher taxonomic groups. Sewage related pollutants (nutrients, BOD, COD, coliforms) in the main basin are considerably higher than in other basins. Also metal concentrations in sediments are higher. The sewage discharge into the lake is also reducing the oxygen levels and causing odors due to the release of hydrogen sulfide and methane.

Currently, the lake is only a small remnant of what it has been as large portions of the lake has been drained and converted to land. The remaining part of the lake is split up into several hydrologically separated basins. Lake Mariout has suffered severe ecological damage which has considerably reduced its value as a bird area and its potential for recreation, tourism, fishing, fishfarming as well as the livelihoods of fishermen communities whose income and health are severely affected by the environmental degradation.

Since the late 1970s, the City of Alexandria has been studying different wastewater alternatives, such as: a) disposal to Lake Mariout of secondary treated sewage; b) secondary treatment with lake by-pass; c) secondary treatment with polishing ponds in the main basin and sea disposal to the Mediterranean of primary treated sewage; and d) two land-based effluent disposal alternatives with reuse options. Identification of a final discharge location has been a major hurdle to overcome. During a first phase to upgrade the Alexandria sewage system, the Eastern Treatment Plant (ETP) and the Western Treatment Plant (WTP) are in operation since 1993 discharging to Lake Mariout. Actions toward a more sustainable and stable sanitary drainage service under a Second Phase II have started and several studies have been carried out. The cost for upgrading the primary treatment to secondary treatment at the WTP is estimated to at least USD200 millions. Present investment projects are limited to expanding Phase I activities, such as upgrading the capacity of ETP from 410 to 607 cubic meters per day, and the WTP from 186 to 460 cubic meters per day.

The Egypt: Pollution Abatement Project EPAP 2 would provide a financial mechanism and incentives for reducing industrial pollution in Lake Mariout by providing attractive loans to financially viable industrial enterprises for pollution reduction measures in the Alexandria area. EPAP 2, however, does presently not have a mechanism to address non-industrial pollutants, coastal management and protection/restoration of valuable coastal heritage and ecosystems or the use of biotechnology such as engineered wetlands and beneficial microorganisms..

*Alternate scenario (with GEF involvement):* The combined impact of the GEF component and EPAP 2 would reduce the pollution load reaching the hot spots El-Mex Bay and Alexandria through Lake Mariout. Improved quality of the 6 million cubic meter/day of water pumped from the lake into the El-Mex Bay (by far the largest point source of pollution in the Alexandria area and a very significant point source at regional level) will also have positive impact on marine biodiversity. The GEF project would preliminary target sewage-related pollutants (BOD, COD, TSS, and nutrients) by enhancing primary treatment, and use of beneficial microorganisms and engineered wetlands.

The GEF project will also develop an institutional framework for ICZM in Egypt and test an innovative management approach to reduce coastal degradation in Lake Mariout and surrounding areas. The management body for Lake Mariout, under the leadership of the Governor of Alexandria would have widespread authority in planning and executing actions to protect the lake and surrounding coastal areas. It would also have its own budget allocation from involved stakeholders and test economic incentives (such as user fees, tariffs, etc) to stimulate investments in pollution reduction. Based on the experiences from the GEF project in Lake Manzala, the project would support targeted investments in engineered wetlands for in pollution

reduction (sewage), and other application of biotechnology such as beneficial microorganisms.. The protection/restoration of globally significant biodiversity, ecosystems and cultural heritage implemented by the established management committee for Lake Mariout, would complement the pollution reduction measures towards restoring the Lake. By the active involvement of the EEAA, the experiences of the local management body for Lake Mariout will be upstreamed to be used in national ICZM policy development and replicated elsewhere.

#### 8. SUSTAINABILITY (INCLUDING FINANCIAL SUSTAINABILITY)

The environmental degradation of Lake Mariout and surrounding coastal areas is the major environmental concern for the Governorate of Alexandria.

The Governor of Alexandria has decided to address the issue of managing Lake Mariout by the establishment of one single body to be responsible for improving the environmental conditions. Today, about 14 different authorities have a role in the management of the lake and the formal establishment of this body, supported by the necessary authority and financial resources is a promising step and the composition and legal/management/financial authority will be supported by the project. Supplemented by the technical and financial assistance from the EPAP 2 and the proposed GEF project, the political support and public demand for improved environmental management guarantees the sustainability of this process beyond the life of the GEF project

#### 9. REPLICABILITY

This project, as part of the GEF Partnership Investment Fund, will contribute to the design and implementation of replication strategies expected for each demonstration project which are :

- a. Define the replication context for each demonstration, i.e.: the number, location, areas/sites in the Mediterranean where the specific technology/practice could apply;
- b. Outline a strategy aimed at promoting actual replication of each demonstration implemented under the Investment Fund Element of the Strategic Partnership, or the Regional Element, identify and implement ad hoc dissemination programs, including site visits and exchanges, etc;
- c. Evaluate the overall expected impact of the full replication.

The World Bank , as the lead agency for the EPAP 2, the CDS and the proposed GEF project will be well placed to ensure that the pollution reduction measures, Strategic Environmental Assessments, management models and other experiences developed under the project will be disseminated through a website consistent with IW:Learn guidelines, and presented at regional meetings of MAP, the GEF Partnership and annual portfolio meetings can be replicated elsewhere and upstreamed to policy development at national/regional level. The pollution of coastal lakes, lagoons and other valuable habitats is common both in Egypt (other coastal lakes) and other countries in the region. Within the SAP, several hot spots (Lagoon of Nador, Morocco; coastal areas of Ghazaouet, Algeria; and Bizert Lagoon in Tunisia) were identified with similar environmental problems. The comprehensive approach to address

multiple pollution sources demonstrated in this project can therefore be of relevance to other polluted hot spots or historically significant sites in the Mediterranean as well as in the Red Sea.

The proposed project will make use of the experiences of the UNDP-GEF Medwet Coast Project and in particular the activities in Lake Burulus (another Egyptian Northern Lake that is open to the Mediterranean) where the MedWet Coast Project is developing a management plan for the Lake and an institutional set up for implementation and overall management of the Lake has been established with various level of committees that include all stakeholders, similar to what is suggested in this proposal. Also, the experiences of technology demonstrated by the UNDP-GEF project on Engineered Wetlands in Lake Manzala will be used in issues related to improving the self-cleaning capacity of the wetlands in Lake Mariout.

#### 10. STAKEHOLDER INVOLVEMENT/INTENDED BENEFICIARIES

The GEF project will support innovative implementation approaches for environmental protection in coastal areas. It will support the establishment of local multi-stakeholder management committees which will identify investments in environmental improvements which will benefit local environmental agencies, local community groups and other stakeholders. The management of Lake Mariout is presently split under up to 14 different authorities, and the number of stakeholders is far wider involving fishermen communities, private sector enterprises and NGO's.

During project preparation, a comprehensive stakeholder identification will be completed and options for their involvement in the management of the lake will be identified.

Since Lake Marriout Development is one of the CDS three component, all proposals, including this GEF initiative, has been discussed during the meetings of the CDS Partnership Forum, which gathers key city stakeholders to reach a shared vision of the city development and priorities until 2020.

#### **D – Financing**

##### 1) FINANCING PLAN

Component 1: Policy, Planning and Implementation Tools for Integrated Coastal Zone Management – USD3,500,000

Component 2: Targeted investments for urgent actions needed to restore the self-cleaning capacity of Lake Mariout and the protection/recovery of valuable coastal systems – USD5,000,000

Component 3: Project Management and Performance Monitoring – USD1,000,000

##### 2) CO-FINANCING

The GEF project will be blended with the Egypt: Pollution Abatement Project 2 which consist of USD20 from IBRD, USD40 million from Japan and USD10 million from the Carbon Fund.

## **E - INSTITUTIONAL COORDINATION AND SUPPORT**

### **1) CORE COMMITMENTS AND LINKAGES**

During the Annual Meetings of the World Bank/IMF, the representatives of the Egyptian Government reconfirmed their commitments to the parent programme, EPAP2, which together with the proposed GEF project form a perfect “blended operation”.

At the implementing side, the Egyptian Environmental Affairs Agency (EEAA) and the Governorate of Alexandria have been working together to produce the Concept Note. EEAA has designated its Alexandria Regional Branch Office to become the key counterpart during implementation.

### **2) CONSULTATION, COORDINATION AND COLLABORATION BETWEEN AND AMONG IMPLEMENTING AGENCIES, EXECUTING AGENCIES, AND THE GEF SECRETARIAT, IF APPROPRIATE.**

The PCN has been discussed and received inputs from the Egyptian Environmental Affairs Agency and the Governorate of Alexandria during a working group meeting of the City Development Strategy (CDS) the 21<sup>st</sup> of September 2004 and discussed with the Governorate of Alexandria and the EEAA 23 September 2004. Further discussions on preparatory work and implementation arrangements will be held with the EEAA and the Governorate 20-25 may 2005.

The project is submitted to the GEF to be implemented within the framework of the GEF Strategic Partnership for the Mediterranean Sea Large Marine Ecosystem. It was included in the Concept paper for the World Bank-GEF investment Fund for Pollution Reduction in the Mediterranean Sea discussed at the Stocktaking meeting in Trieste, Italy, 11 – 12 October 2004.

### **3) IMPLEMENTATION/EXECUTION ARRANGEMENTS**

The project will be implemented by the Governorate of Alexandria in close collaboration with the Egyptian Environmental Affairs Agency through the Management Committee established for Lake Mariout.

A detailed framework for Monitoring and Evaluation will be developed during project preparation.