

## CHAPTER FOUR

### INTERNATIONAL WATERS

4.1 The world's water resources are under enormous stress, and the ecosystems, people, and economic development that depend on these resources are facing an unsustainable future. Global environmental concerns relating to international waters include:

- (a) Degradation of the *quality of transboundary water resources*, caused mainly by pollution from land-based activities (toxic chemicals, nutrients, pathogens, oxygen-demanding wastes, sediment, and debris).
- (b) *Physical habitat degradation* of coastal and near-shore marine areas, lakes, and watercourses (for example, wetlands, mangroves, estuaries, coral reefs), as a result of inappropriate management (for example, land conversion, dredging, coastal construction, irrigation).
- (c) *Introduction of nonindigenous species* that disrupt aquatic ecosystems and cause toxic and human health effects (untreated ballast water discharges from ships, for example).
- (d) *Excessive exploitation of living and nonliving resources* due to inadequate management and control measures (for example, overfishing, excessive water withdrawal).

4.2 Degradation in both freshwater and marine systems and in surface waters as well as groundwater resources is causing irreversible environmental effects, hardship for the poor, real losses to the economy, human health concerns, and the need for costly investments to mitigate the damage. Marine and freshwater systems constitute important sources of income and food for a large part of the world's population whose food and water supplies are now at risk. For example, globalization of technological advances in the fishing industry, pollution, and habitat destruction have depleted fish stocks to dangerously low levels and placed food security in jeopardy in many areas. Downstream or transboundary international issues of global significance have yet to be effectively addressed.

4.3 The degradation occurring in international waters represents a warning that the carrying capacity of transboundary freshwater basins, coastal areas, and marine ecosystems has been approached in some places and exceeded in others by inappropriate sectoral development policies and projects as well as unwise use of the water resources. A consensus has emerged that a more comprehensive approach to water resources management is needed -- one that is cross-sectoral, integrates ecological and development needs, and is based on holistic analyses of the carrying capacity of the water environment.<sup>1</sup> In this approach, the river basin, groundwater system, coastal area, or large marine ecosystem typically serves as a management unit on which to base changes in the way that sectoral development activities are carried out and where priority environmental

interventions are made. In many instances, action programs are needed to restore proper functioning of ecosystems or remedy major human health risks. Such a comprehensive approach that integrates actions across sectors is new to most countries, difficult to implement, and even harder to achieve when actions must be coordinated among countries.

4.4 The GEF's objective in the international waters focal area is to contribute primarily as a catalyst to the implementation of a more comprehensive, ecosystem-based approach in managing international waters and their drainage basins as a means to achieve global environmental benefits. The GEF will act as a catalyst to ensure that countries better understand the functioning of their international waters systems, gain an appreciation of how their sectoral activities influence the water environment, and find means for collaborating with neighboring countries to collectively pursue effective solutions. As such, the GEF will primarily fund the transactions costs of these learning processes so that countries may make changes in the ways that human activities are carried out in different sectors and make priority environmental interventions in helping to overcome barriers to action so that the capacity of any particular waterbody to sustainably support human activities is not exceeded.

4.5 The term "international waters" as used for the purposes of the GEF Operational Strategy, GEF includes the oceans, large marine ecosystems, enclosed or semi-enclosed seas and estuaries as well as rivers, lakes, groundwater systems, and wetlands with transboundary drainage basins or common borders. The water-related ecosystems associated with these waters are considered integral parts of the systems. The common global hydrologic cycle dynamically links many watersheds, airsheds, estuaries, and coastal and marine waters through transboundary movement of water, pollutants, and living resources.

4.6 The international waters area includes numerous international conventions, treaties, and agreements. The architecture of marine agreements is especially complex,<sup>2</sup> and a large number of bilateral and multilateral agreements exist for transboundary freshwater basins.<sup>3</sup> Related conventions<sup>4</sup> and agreements in other areas increase the complexity. These initiatives provide a new opportunity for cooperating nations to link many different programs and instruments into regional comprehensive approaches to address international waters. Chapters 17 and 18 of *Agenda 21*<sup>5</sup> broadly capture the spirit of these international agreements and offer particularly valuable guidance to countries. GEF activities undertaken in this focal area will be consistent with *Agenda 21*.

#### SCOPE AND GEF ROLE

4.7 The overall strategic thrust of GEF-funded international waters activities is to meet the agreed incremental costs of: (a) assisting groups of countries to better understand the environmental concerns of their international waters and work collaboratively to address them; (b) building the capacity of existing institutions (or, if appropriate, developing the capacity through new institutional arrangements) to utilize a more comprehensive approach for addressing transboundary water-related environmental concerns; and (c) implementing measures that address the priority transboundary environmental concerns. The goal is to assist countries to utilize the full range of technical, economic, financial, regulatory, and institutional measures needed to operationalize sustainable development strategies for international waters.

4.8 The GEF will play a catalytic role in assisting countries seeking to leverage cofinancing in association with national funding, development financing, agency funding, and private sector action for different elements of a comprehensive approach for sustainably managing international waters. The "precautionary principle," the "polluter pays principle," and policy reforms are most always included as integral elements of international waters projects and programs to foster incentives to use resource-efficient and clean production methods that will help reduce discharges of toxic substances and sustain global environmental benefits. Both business communities and governments have important roles in developing and implementing pollution prevention programs aimed at reducing or eliminating waste generation. The GEF can assist countries in finding ways to harmonize and overcome technical and financial barriers to waste reduction and build the necessary capacity, including human resources development, to facilitate implementation.

4.9 The use of sound science and proven technological innovations can help recipient countries address the imminent threats to international waters. In particular, simulation models and information technology can provide a basis for improving management decisions on complex environmental problems and often provide an opportunity for involving countries' scientific communities in projects. Stakeholder involvement and participation of different sectors in each recipient country also constitute important elements of GEF activities concerning international waters.<sup>6</sup> Through such stakeholder involvement, needed changes in sectoral activities can be made to reduce the stress on international waters. In addition, use of computer-based information systems and computer networking among stakeholders and government organizations can foster broad-based involvement in planning and implementing GEF international waters projects and should help to improve the quality, public awareness, and scientific basis of international waters projects. These technological innovations promote transparency among cooperating nations regarding key information, encourage broader participation by stakeholder groups within country and across countries, and provide a basis for evaluation.

4.10 Given the broad scope of activities in this focal area and the widespread nature of threats to international waters, the GEF's activities will focus mainly on seriously threatened waterbodies and the most imminent transboundary threats to their ecosystems. Consequently, the GEF will place priority on addressing the following imminent threats to international waters:

- (a) Control of land-based sources of surface and groundwater pollution that degrade the quality of international waters. Of special emphasis is the prevention of releases of persistent toxic substances and heavy metals that cannot be neutralized by marine and freshwater ecosystems or that accumulate in living organisms. High priority is also placed on abatement of common contaminants such as nutrients, biological contaminants, or sediments that endanger species or threaten ecosystems.
- (b) Prevention and control of land degradation where transboundary environmental concerns result from desertification or deforestation.
- (c) Prevention of physical or ecological degradation, and hydrologic modification, of critical habitats (such as wetlands, shallow waters, and reefs) that sustain biodiversity, provide shelter and nursery areas for the production of fish protein sources, and

otherwise are important for restoring and maintaining ecosystems associated with international waters.

- (d) Control of unsustainable exploitation of marine living resources as well as nonliving resources resulting from inadequate management measures such as overfishing, excessive withdrawal of freshwater, and resource extraction.
- (e) Control of ship-based sources of chemical washings and nonindigenous species that can disrupt ecosystems or cause toxic and human health effects.<sup>7</sup>

Taking into account lessons learned from pilot phase projects in this focal area, priority will be given to comprehensive approaches to management that emphasize imminent environmental threats and different geographic settings. These broad-based approaches are regarded as a more effective response than narrow, sector-specific interventions such as traditional ship-waste proposals.

#### **BIOLOGICAL DIVERSITY AND CLIMATE CHANGE**

4.11 Wherever appropriate, activities in the international waters focal area will be coordinated with those in other GEF focal areas. GEF projects integrating several focal areas have the potential to multiply global benefits from GEF interventions. For example, wetland restoration and protection initiatives can provide benefits for both biodiversity protection and water quality improvement. Biodiversity protection and carbon sequestration have potential linkages and important roles in restoring damaged transboundary basins. Other, more subtle linkages exist; for example, support for energy conservation and efficiency may help reduce the burning of fossil fuels that emit mercury as a by-product. Long-range transport of the mercury contaminates international waters and the biota consumed by humans. Synergies with biodiversity are particularly strong in coastal and marine areas, as well as in projects addressing small island developing states and will be reflected in programmatic initiatives, as noted in paragraph 4.19. Adoption of integrated coastal area management strategies, a common feature in this focal area, can provide benefits for biodiversity protection as well as for the climate change focal area.

#### **LAND DEGRADATION**

4.12 There are strong and complex linkages among land use policies and practices, land degradation, and the impairment of water-related ecosystems. Land degradation is linked to sediment pollution and salt intrusion in rivers, lakes, and aquifers; vegetation loss; overpumping of ground water; and salination of soil. Heavy sediment loads damage aquatic and marine biodiversity, make rivers more prone to flooding, and result in damage to cropland and therefore lowered food production. Dryland river, lake, and groundwater basins, which are often transboundary in nature, are critical to the well-being of some one billion people who live in areas at risk from desertification.

4.13 Improved water management in dryland transboundary basins is fundamental to enhanced food security, reduction of risks of drought or flood, and better environmental management. In dryland regions, improved management of groundwater supplies is essential to support sustainable

development. Some groundwater systems may be dynamically linked to surface waters through indirect recharge processes, while others contain "older" fossil water that must be carefully managed if future generations are to use them. Sustainable development cannot proceed in these transboundary basins without a cooperative, multicountry water resources management strategy that integrates land and water use decisions, determines the environmental capability of the basin to sustainably support different sectoral water uses, places priority on protection of unique aquatic environments and flows needed to sustain them, explores options for reducing water use to sustainable levels, and contains provision for emergency planning to address variable flows. Recent technological developments in satellite technology and remote sensing should help to ensure access to necessary hydrologic information for preparing needed strategies. Improved watershed and catchment management, sustainable land-use/soil conservation systems, reforestation, and vegetative rehabilitation, accompanied by changes in sectoral, social, and economic policies, can help address transboundary water-related environmental concerns.

4.14 The comprehensive approach utilized in this focal area encourages integrated land and water management activities that assist countries in making the transition to sustainable development. Activities to prevent land degradation and rehabilitate degraded catchment areas will be included as part of an international waters project if they contribute to the resolution of priority transboundary water-related environmental problems. The emphasis will be on (a) facilitating regional and international cooperation, (b) pilot initiatives with demonstration value, (c) a comprehensive approach that integrates the management of land and surface/groundwater systems, and (d) coordinated land use planning and management, relying on technology-based information systems, information networking, stakeholder involvement, extension services, regulatory frameworks, and incentive systems. The intent is to support actions that are undertaken for international, not just national purposes.

#### **OPERATIONAL PROGRAMS**

4.15 The GEF will utilize a programmatic approach in targeting its resources to address the imminent threats outlined in paragraph 4.10 that are transboundary in character. These operational programs will help capture additional programmatic global benefits in a cost-effective manner by linking country-driven needs for international action with the comparative advantage of different Implementing Agencies. Operational programs will be developed to achieve the focal area objectives noted in paragraph 4.4, and as the GEF learns from the initial programs, successive generations will evolve. A comprehensive approach<sup>8</sup> will be followed in designing projects so that complementarities among Implementing Agencies, and additional global benefits in multiple focal areas, will be achieved. The operational programs will ensure that (a) a number of different types of international waters geographic settings are addressed;<sup>9</sup> (b) the land degradation cross-cutting theme and linkages with other focal areas receives attention; and (c) a more complete range of imminent threats is covered. The GEF also will seek a balance between preventive actions and remedial actions necessary to restore impaired uses of international waters; areas facing serious degradation will receive priority attention for technical assistance, institution and capacity building, and investments.

4.16 Three operational programs will initially be prepared:

- (a) Waterbody-based operational program.
- (b) Integrated land and water multiple focal area operational program.
- (c) Contaminant-based operational program.

These initial operational programs are described below and are included with their associated indicative activities in the annex to this chapter to illustrate characteristic types of projects for each program. Although there will inevitably be some overlap among the programs, each has a defining theme and should provide flexibility for truly country-driven initiatives and appropriate Implementing Agency responses to the specific environmental needs.

**4.17 Waterbody-based operational program.** This operational program involves activities that address the priority transboundary environmental concerns that exist in a specific waterbody, such as a transboundary freshwater drainage basin that is regionally significant or a large marine ecosystem. The objective is to help groups of countries to work collaboratively in learning about and resolving priority transboundary water-related environmental concerns. GEF support will help overcome barriers to organizational learning and transactions costs of working together in strengthening or developing a regional institutional framework and in addressing sectoral causes of major water resources problems. Institution building plays a crucial role, and specific capacity-strengthening measures are required to assist countries in finding the appropriate institutional and organizational arrangements. A representative number of freshwater basins (both surface and groundwater transboundary basins) as well as large marine ecosystems (or perhaps limited oceanic areas) will be targeted to ensure balanced coverage of a wide range of geographic and climatic settings.

4.18 Important characteristics of this operational program are: (a) the focus on addressing impairments of the waterbody, such as reducing eutrophication and toxic substances in inland waters; and (b) support for the learning processes for countries to work cooperatively and collectively in addressing imminent threats to their transboundary water resources. As noted in paragraph 4.22, an initial GEF-funded activity to formulate a Strategic Action Program (SAP) is usually an appropriate first step to help countries define priority problems, establish country and Implementing Agency commitments to specific actions, and agree on additional interventions for their priority transboundary concerns. Following this step, the GEF could fund a capacity-building, technical assistance, or investment project to help harmonize regulatory or policy frameworks, build institutional capacity, or demonstrate implementation of needed interventions.

**4.19 Integrated land and water multiple focal area operational program.** These projects involve the integration of land and water resource management as a primary component of addressing the degradation of international waters. They can involve other GEF focal areas as well as the cross-cutting issue of land degradation (desertification and deforestation). Also in this program are international waters projects that address the special conditions and needs of small island developing states (SIDS). These projects are included for two reasons: integrated freshwater basin-coastal area management is essential for a sustainable future for these island states, and this approach can produce

**OPERATIONAL PROGRAMS AND INDICATIVE ACTIVITIES:  
INTERNATIONAL WATERS**

1. The international waters focal area is complex because of the many different types of environmental concerns related to water resources, the variety of geographic situations, the linkages among sectoral activities and the resulting environmental stresses, and the opportunities to multiply benefits through integrated approaches with other GEF focal areas and cross-cutting issues. This focal area relies on cooperation among Implementing Agencies as part of specific projects and as well as a significant commitment from each Implementing Agency to target its regular development assistance programs to the international waters project area along with the GEF. These Implementing Agency commitments to action (including regular agency programs such as capacity building) and individual country commitments to baseline and additional specific actions are often contained in Strategic Action Programs (SAPs) developed with GEF assistance. With this complexity and the need to formulate these commitments, three different types of operational programs are initially proposed to provide flexibility in addressing country-driven needs. The following indicative activities illustrate the operational programs.

**WATERBODY-BASED OPERATIONAL PROGRAM**

2. Projects in this program involve activities that address the priority transboundary environmental concerns that exist in a specific waterbody. They typically begin with support to groups of countries for learning to work collectively and cooperatively in identifying the particular transboundary water-related environmental priorities, reviewing capacity-building needs, and developing an SAP for addressing the priorities. Following formulation of the SAP with its baseline commitments for domestic action, Implementing Agency program commitments, elements funded by other sources, and additional elements for addressing transboundary priorities, the GEF could fund a technical assistance, capacity-building, or investment project (or projects).

**Indicative activities**

*(a) Transboundary freshwater basin projects*

Some projects address surface water systems, others address activities related to interactions among surface water and groundwater systems, and a few others address transboundary groundwater systems. Priorities among pollution, habitat degradation, and overexploitation of living resources should first be established jointly by the cooperating countries as part of an SAP. The GEF might then fund the incremental cost of priority elements of the SAP that address the transboundary priorities. This funding could provide cost-shared incentives for leveraging government, private sector, or donor action in implementing priority solutions on the ground. Examples might include: (1) a modest cost share in supporting establishment of an industrial toxics pretreatment program or physical interventions to separate easily treated municipal wastewater from more dangerous industrial wastewater; (2) incremental cost funding for wetland restoration to provide habitats and to mitigate the effects of pollutants before they reach international waters; (3) innovative approaches such as tradable pollution discharge permit

## PROJECT SELECTION CRITERIA

4.23 Country commitment to a comprehensive, cross-sectoral approach is essential for a project to be included in the international waters portfolio. In addition, transboundary environmental concerns must be identified and a clear baseline alternative determined before a technical assistance or investment project is eligible for GEF funding. Given the transboundary nature of SAPs, countries may incur additional transactions costs to participate in their preparation as well as additional costs for removing barriers to action. Such costs may relate to joint planning activities, additional data collection/analysis tasks and coordination efforts among a number of nations. In order to ensure that a diverse portfolio of different types of projects is developed and that the imminent threats to international waters are addressed, the following criteria will be applied:

- (a) The transboundary concern involves one or more of the imminent threats to international waters (see paragraph 4.10).
- (b) Severity of the transboundary problem (ecological significance of damage, human health implications, extent of critical habitat, spatial damage).
- (c) Threat of irreversible damage to biodiversity and time scale of reversibility (particularly if threatened or endangered species, such as marine mammals are involved, and if the damage will severely harm the livelihoods of affected populations).
- (d) Leveraging of development assistance, international agency cofunding, or private sector or other country commitments to provide associated financing for priority solutions in the baseline as well as for transboundary concerns.
- (e) Capacity for implementation or plans for inclusion of capacity-building components.
- (f) Degree to which the problems are common to other geographic regions and interventions are replicable.
- (g) Consistency with national environmental planning documents and international legal obligations.



## BOX 4.1

### KEY ELEMENTS OF STRATEGIC ACTION PROGRAMS

1. **Transboundary water-related environmental analysis.** The process for cooperatively preparing a Strategic Action Program (SAP) among countries should start with an analysis of priority transboundary environmental problems. Which ones cause actual degradation? What sectoral activities cause the degradation and how serious is it? What are the information gaps, policy distortions, institutional deficiencies? UNEP often provides support in this element, while the UNDP assists with capacity-building needs, and the World Bank with identification of priority investments and policy reforms. Stakeholder analysis and public involvement are essential so that economic and social aspects can be included.

2. **Relationship to national environmental planning and economic development documents.** National environmental documents and plans will provide valuable input in preparing this analysis as well as identifying priorities among environmental concerns. The analysis of the causes of degradation and the needs for capacity building should include examination of national economic development plans and sectoral economic policies (which establish reasonable actions for sustainable development).

3. **Establishment of clear priorities.** The SAP should establish clear priorities that are endorsed at the highest levels of government and widely disseminated. Priority transboundary concerns should be identified, as well as sectoral interventions (policy changes, program development, regulatory reform, capacity-building investments, and so on) needed to resolve the transboundary problems as well as regional and national institutional mechanisms for implementing elements of the SAP. Coordination of priorities with those identified under the climate change and biodiversity focal areas could be done during the SAP process. The SAP should provide for a balanced program of preventive and remedial actions, support both investment and capacity-building activities, and identify key activities in the following areas:

- Priority preventive and remedial actions.
- Cross-cutting issues and linkages to other focal areas.
- Institutional strengthening and capacity-building needs.
- Stakeholder involvement and public awareness activities.
- Program monitoring and evaluation.
- Institutional mechanisms for implementation.

4. **Establishment of a realistic baseline.** The cooperating countries and the GEF should agree on the baseline environmental commitments (which should be funded domestically or through donors or loans) and what activities are additional for solving the transboundary priority problems. It is important for activities included in the SAP to be realistically costed and consistent with projected availability of domestic and international funding.

5. **Determining agreed incremental costs.** The elements of the SAP are strategic in nature and will typically yield domestic as well as agreed global benefits. The activities additional to the baseline scenario could be eligible for GEF funding in accordance with GEF incremental cost guidelines in a subsequent technical assistance (capacity-building) or investment GEF project in the focal area.

the particular waterbody and then formulate a SAP to outline the actions needed to resolve the priority problems. As described in box 4.1, a SAP would contain needed baseline actions (including country commitments for implementation); actions addressing transboundary issues that would be funded in the baseline or by other means such as bilateral assistance, loans, or through regular Implementing Agency programs; and additional actions needed to resolve the transboundary environmental concerns that have incremental costs that the GEF might fund. A key element of the SAP is the well-defined baseline case of needed interventions so that there is a clear distinction between actions with simply national benefits and those addressing transboundary concerns with their global benefits. Another key element involves the institutional mechanisms chosen at the regional and national levels for implementing the SAP.

benefits in other GEF focal areas, especially biodiversity. Key features of each regional SIDS international waters project are improvements in integrated freshwater basin-coastal area management on each island of the regional groupings of SIDS, a multiple GEF focal area approach, and a coordinated, programmatic approach among Implementing Agencies according to the comparative advantage of each agency.

4.20 Some countries may wish to address areas of unique or endangered marine biodiversity in a joint biodiversity/international waters multiple focal area project. Such projects rely on integrated freshwater basin-coastal area management for multiple purposes to address the root causes and sectoral activities that endanger the reefs, wetlands, and mangroves that serve as nursery areas for the ocean's living resources. These multiple focal area projects might be identified as part of the process of developing a SAP. Pristine or unique areas are eligible for these multiple focal area projects (e.g., international waters/biodiversity) if the neighboring countries wish to address current and anticipated imminent threats to prevent damage and if real commitments are made to policy changes or needed investments as part of a SAP.

4.21 **Contaminant-based operational program.** This program will include activities that help to demonstrate ways of overcoming barriers to the adoption of best practices to limit contamination of international waters. A key feature is that there is no requirement that these projects be tied to a particular multicountry collaborative process, as there is for the waterbody-based operational program. However, the projects should be conducted where an imminent threat exists. Measures to address both ship-related environmental concerns and globally significant toxic pollutants that might be transported over long distances in the atmosphere, rivers, or ocean currents will be included. Some projects may include demonstrations and pilot tests of measures to address pollution discharges from land-based sources of marine pollution (particularly persistent organic pollutants); the incremental costs of these measures can also be included in technical assistance or investment projects as part of the waterbody-based operational program. Narrowly focused regional or global projects that can help meet particular technical needs or improve the use of certain measures by several groups of international waters projects (and build capacity to undertake the measures) are also included in the program. Targeted technical demonstration and capacity-building projects can help build awareness in recipient countries of international waters concerns as well as best-practice measures, tools for finding solutions, and policies for innovative institutional approaches. For example, priority is placed on demonstrations of economic policy incentives in transboundary basins (see the Annex).

## STRATEGIC ACTION PROGRAMS

4.22 To produce global environmental benefits, international waters projects must address transboundary water-related environmental concerns. Where these transboundary concerns, additional needed actions, and incremental costs are not adequately defined, an initial international waters project should be undertaken to formulate an agreed Strategic Action Program (SAP) prior to development of a technical assistance, capacity-building, or investment project. In such cases, SAPs become somewhat analogous to enabling activities in other focal areas. A group of countries would work with one or more Implementing Agencies to first identify the priority transboundary water-related environmental concerns and the sectoral policy causes of the problems experienced by

systems or offset programs to cost-effectively improve water quality in shared basins; (4) cost-share best management practice installation for nonpoint source control of land-based pollution in degraded, priority watersheds; and (5) building a human resources capability to strengthen institutions. Hotspots of transboundary degradation may be targeted for funding if information is sufficient to characterize the transboundary nature of the problem and the country (or countries) commit to undertaking the needed measures.

*(b) Large Marine Ecosystem Projects*

International waters projects in this area are among the most complex GEF projects, and each can have a distinctive approach. However, for consistency with the operational strategy, groups of countries wishing to cooperate on coastal and marine resources should undertake an SAP development project to fully assess linkages among marine, coastal zone, and freshwater basin waters and their ecosystems to determine priority transboundary environmental issues, root causes of degradation, and the array of measures needed to address them in an SAP. Integrated freshwater-coastal area management measures are important for protecting large marine ecosystems. In hotspots of transboundary environmental damage, targeted technical assistance or investment international waters projects are encouraged to address serious problems. If only several of a larger number of riparian countries wish to proceed, formulation of an SAP would be a useful, incremental first step. In addition, cooperating countries may wish to jointly address environmental problems of an oceanic area not included in a large marine ecosystem. Technological advances are being introduced that use information technology and computer simulation to help make critical management decisions for marine resources. In addition, institutional tools such as the Code of Conduct for Responsible Fishing consistent with the U.N. Convention on the Law of the Sea are also becoming available.

### **INTEGRATED LAND AND WATER MULTIPLE FOCAL AREA OPERATIONAL PROGRAM**

3. These projects involve the integration of land and water resource management as the primary component of addressing the degradation of international waters and often involve multiple GEF focal areas and the cross-cutting issue of land degradation and desertification. Also in this program are international waters projects that address the special concerns of small island developing states. These projects are included because integrated freshwater basin-coastal zone management is essential for a sustainable future for these island states and because this approach can produce benefits in multiple GEF focal areas. Biodiversity protection considerations are often important elements of these projects because of inherent linkages between the sectoral activities and the status of biodiversity. In this manner, biodiversity protection issues can be integrated into the thinking of sectoral managers (water resources engineers, for example) to ensure that these managers do their part in protecting aquatic and marine ecosystems; and their knowledge, skills, and attitudes can be developed through training elements of each project.

## Indicative activities

### (a) *Small island developing states*

Small island developing states (SIDS) have special conditions and needs that were recently identified for international attention in the Barbados Programme of Action for the Sustainable Development of Small Island Developing States. It is appropriate for the GEF to fund regionally focused programmatic approaches aimed at a specific regional group of SIDS to achieve global environment benefits. Key features of each GEF SIDS project are improvements in integrated freshwater basin-coastal zone management on each island of the regional groupings of SIDS, a multiple GEF focal area approach, and a coordinated Implementing Agency approach according to the comparative advantage of each Implementing Agency. Activities concerning international waters could be targeted at the six major issues that most SIDS have in common (coastal area management and biodiversity, sustainable management of regional fish stocks, tourism development, protection of water supplies, and land and marine-based sources of pollution and vulnerability to climate change). Regional groups of SIDS often share access to marine resources and experience common water-related environmental problems (such as saltwater intrusion into groundwater supplies as a result of rising oceans) that can be addressed through the GEF in the context of altering sectoral activities on each island state to meet sustainable development goals. SIDS share common environmental problems and solutions to those problems that reflect the partnership between their representative regional organizations and the capacity and institutional building needed on each island state to more comprehensively address these problems. One example is oceanic fisheries that are located near groups of SIDS and the additional measures needed to ensure their sustainable management. This is a complex issue because the fish might travel in a particular portion of oceanic waters during one season but rely on coastal waters and wetlands of the SIDS for reproduction and nursery areas in other seasons. Advances in data collection and analysis systems, use of information technology, and involvement of the scientific community to assist in addressing these issues is central to these regional projects.

### (b) *Land degradation cross-cutting area*

A special linkage exists between land degradation in dryland areas and management of both surface and ground water resources in transboundary drainage basins. Rehabilitation of damaged catchments and adoption of sustainable land-use systems will be priorities. In addition, opportunities exist for deriving global environment benefits in other focal areas such as climate change and biodiversity, with reforestation or carbon sequestration projects being an important element of an international waters project designed to address land degradation. Improved watershed and catchment management, sustainable land-use and conservation systems, and changes in sectoral development and economic policies can be essential in addressing transboundary water-related environmental concerns related to land degradation. Especially in arid and semi-arid regions, land degradation can be linked with changes in climate and river flow regimes, which can also result in degraded subsurface water supplies, some of which have transboundary recharge basins. Support for preparation of water resources management strategies by riparian countries for a transboundary dryland basin is a common characteristic of these projects, to allow harmonizing of sectoral water uses among basin countries in an

environmentally sustainable manner. Once the root causes pertaining to sectoral uses of water are resolved, and commitments to take action are made, other environmental issues can be addressed.

(c) *Multiple Focal Area Projects*

GEF projects integrating several focal areas have the potential to multiply global benefits from GEF interventions. For example, wetland restoration and protection initiatives can provide benefits for both biodiversity protection and water quality improvement. Biodiversity protection and carbon sequestration have potential linkages and important roles in restoring damaged transboundary basins. In areas with globally significant biodiversity concerns, especially unique coastal areas, wetlands, and coral reefs, multiple focal areas projects (biodiversity and international waters) might be appropriate for addressing current and anticipated imminent threats in order to prevent environmental damage before it occurs, if country commitments to action are expressed in SAPS. Mechanisms for networking among agencies and institutions with primary interest in different focal areas are essential in this type of program.

#### **CONTAMINANT-BASED OPERATIONAL PROGRAM**

4. Projects in this program help to demonstrate ways of overcoming barriers to adoption of best practices that can address transboundary environmental concerns. Measures for addressing ship-related environmental concerns and for addressing globally significant toxic pollutants that might be transported over long distances in the atmosphere, rivers, or ocean currents are involved in these projects. While some projects include demonstrations and pilot tests of measures to address pollution discharges from land-based sources of marine pollution, many of these measures can also be included in technical assistance or investment projects as part of the waterbody-based operational program. Narrowly focused global or regional projects that can help meet the technical needs of groups of international waters projects or build awareness and capacity are also included in this program. Demonstration projects or project elements that test the use of innovative policies or economic instruments such as tradable pollution reduction allocation systems would be a priority for the GEF.

#### **Indicative activities**

(a) *Global pollutant projects*

Some toxic pollutants that are persistent in nature can be considered as "global pollutants" because they are transported long distances in ocean currents or through the atmosphere before falling to earth. They can accumulate in living organisms and can pose human or ecosystem health risks. Some of these pollutants are associated with certain industrial sectors or processes across the world. Individual international waters cannot be cleaned up through regional action because this would place the countries or enterprises at an economic disadvantage in world markets. Substances such as mercury, dioxin, PCBs, persistent organic pollutants, and some pesticides that can disrupt human endocrine systems might be candidates for global action in global pollutant projects.

(b) *Threats related to shipping*

Activities related to abatement of pollution from ship-based chemical washings and interventions against the transfer of noxious, nonindigenous species in ballast water are priorities for the GEF because they are virtually unaddressed problems. Although GEF support for oil-related interventions could continue in priority waterbodies designated as part of the International Convention for the Prevention of Pollution from Ships as special areas, the GEF would require that these projects lead to self-financing of capital and operating costs on the polluter-pays principle through full cost recovery schemes and innovative mechanisms for private sector financing. GEF participation could then have a catalytic effect on such self-financing schemes.

(c) *Regional or global technical support projects*

The complexity of international waters projects raises technical questions about how and what contaminants to monitor, how to analyze complex sets of data, where to get help, and how to involve the public in decisionmaking. Targeted regional or global capacity-building projects may be necessary to help increase awareness on how to address these contaminant problems. Countries would benefit from an iterative approach if activities took place in one country after another. In addition, these projects may improve the GEF project success rate and the sustainability of interventions by giving personnel the skill, awareness of best practices, and knowledge necessary to solve problems that may be common to countries, regions, and GEF projects. Demonstration or pilot projects may be tested in this operational program, in which case the projects will be consistent with paragraph 1.19.

GEF

GLOBAL  
ENVIRONMENT  
FACILITY

SCOPE AND PRELIMINARY OPERATIONAL  
STRATEGY FOR INTERNATIONAL WATERS

GEF Council Meeting  
Washington, D.C.  
February 22 - 24, 1995



RECOMMENDED DRAFT COUNCIL DECISION

The Council is invited to review this document and to consider adopting the following decision:

The Council, having reviewed *Scope and Preliminary Operational Strategy for International Waters*, document GEF/C.3/7, approves the scope and preliminary operational strategy presented therein. The Council invites the Secretariat and the Implementing Agencies to initiate the development of operational activities in 1995 consistent with the approved scope and strategy.

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## I. INTRODUCTION

1. This paper describes the scope of work for GEF in activities concerning international waters based on discussions occurring at the November, 1994 Council meeting. This revised scope details the type of activities and measures eligible for GEF support. The paper also presents a preliminary operational strategy for 1995, including priorities for funding and criteria for project selection. During 1995, consultations will be held as part of formulating a longer term operational strategy.

## II. INTERNATIONAL WATERS

2. STAP has defined the extent of international waters to include "the oceans, enclosed and semi-enclosed seas and estuaries, rivers, lakes, aquifers and wetlands, their living and non-living resources, shared by more than one country. 'Sharing' means the sharing of the use of waters, and associated resources, including shared access."<sup>1</sup> The common global hydrological cycle dynamically links and unifies freshwater watersheds, estuaries, coastal, marine and open ocean waters, while the sharing gives them an international significance often reflected in conventions, treaties, and agreements. *Consequently, this holistic view of international waters inextricably linked to their watersheds is appropriate for GEF activities.* Piecemeal efforts to manage these waters and their watersheds have not been successful.

### Significance of Adverse Effects

3. Pollution of freshwater and marine ecosystems (including their linked subsurface waters) as well as degradation, exploitation, and scarcity of freshwater resources are caused by unsustainable development practices. Environmentally damaging policies and unsustainable development projects have caused degradation of international waters on every continent and addressing these adverse effects has become a global concern. The crucial roles and functions of water for the life support of human populations and ecosystems and for economic development are only now beginning to be fully appreciated. The concerns about international waters are much wider than simply pollution. Building upon the conclusions from STAP, the major concerns for GEF in this focal area include:

- degradation of the quality of coastal and marine waters, the waters of enclosed and semi-enclosed seas, lakes, rivers, and transboundary groundwater basin systems, mainly caused by pollution from point and nonpoint land-based sources (toxic chemicals, nutrients, pathogens, oxygen demanding wastes, sediment, and litter);
- physical habitat degradation of coastal and near-shore marine zones, lakes and watercourses, including physical damage to their ecosystems (e.g., wetlands, mangroves, coral reefs), due to inappropriate coastal zone or watershed management (e.g., land reclamation, dredging, coastal construction, large scale irrigation schemes);
- introduction of nonindigenous species that can seriously disrupt aquatic ecosystems and cause toxic and human health effects (by e.g., untreated ballast water discharges from ships and introduction into freshwater systems); and

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<sup>1</sup> STAP Analytical Framework for International Waters, section 4.1.1.

- excessive exploitation of living and non-living resources due to inadequate management and control measures (e.g., over-fishing, fishing with dynamite or poisons, and excessive withdrawal of freshwater).

4. The world's water resources are under enormous stress and the ecosystems, human populations, and economic development that depend on these troubled resources are facing pressing challenges. The damage causes hardship for the poor, injury to human health, real losses to the economy, often irreversible environmental effects, and the need for costly investments to mitigate the damage. Both marine and freshwater systems constitute the foremost sources of income and food for a very large part of the world's population (particularly the world's poor), and degradation to these systems now poses real threats to these communities. Annex A describes the complex problems facing countries in the international waters area. Essentially irreversible damage is occurring in both freshwater and marine systems, in surface waters as well as invaluable groundwater supplies. The natural capital that sustains man's existence on earth is being reduced, and increasingly, less development assistance is available to support the basic needs of people because more assistance has to be devoted to addressing these environmental problems caused by inappropriate development policies and projects. While investments in water projects and capacity building have been undertaken by countries in their national self-interest, much still remains to be done nationally, and downstream or transboundary international issues have not been adequately addressed up to now. *This represents an enormous impediment to sustainable development activities and must be addressed.* In addition, as land degradation becomes more widespread and climate changes occur, rainfall and flow patterns change. Preparing for and adapting to these changes in vulnerable basins, especially in arid regions, present additional challenges.

#### A More Comprehensive Approach Needed

5. The serious damage to international waters represents a warning that the carrying capacity of transboundary freshwater basins, coastal zones, or large marine ecosystems has been exceeded by haphazard, uncoordinated, sectoral development policies and projects as well as unwise use and degradation of the water resources. While "open access" to fisheries resources and sectoral uses of water remain a national problem to be addressed in many countries, there is even greater need for movement toward sustainable development policies and coordinated action if benefits from shared international waters are to be restored and then sustained. Upstream nations see little benefit from stopping pollution or maintaining river flow regimes, coastal nations see little incentive in protecting coastal wetlands that sustain ocean fisheries caught by other nations, and countries that share recharge areas for transboundary groundwater supplies see little benefit in protecting recharge zones from physical degradation and from releases of toxic and hazardous chemicals. This transboundary degradation has become so widespread and complex that international attention is now warranted. *Indeed, these transboundary problems involve so many nations, so many sectoral interests, so many donor nations and so many international institutions that solutions to the regional conflicts must come not only from country-driven commitments for action but also from coordinated, global commitment and involvement to solve the problems.*

6. From the Mar del Plata Conference in the 1970's to the Law of the Sea Convention<sup>2</sup> in the 1980's and the Dublin Statement and UNCED in the 1990's, water resources specialists have identified

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<sup>2</sup> The Preamble to the 1982 Convention on the Law of the Sea states that "the problems of ocean space are closely interrelated and need to be considered as a whole".

that a more comprehensive approach to water resources management is needed that is cross sectoral in nature, that integrates ecological and development needs, and that is based on holistic analyses of the carrying capacity of the water environment. In this approach, the river basin, shared groundwater system, coastal zone, or large marine ecosystem becomes a management unit upon which to base changes in how sectoral development activities are carried out and where priority environmental interventions are required. *Actions to combat existing problems and prevent future transboundary degradation must focus on changing the way human activities in different sectors are carried out depending on the capacity of the particular water environment to sustainably support that activity.* In many instances, this capacity to support sectoral activities has already been exceeded and action programmes to restore the functioning of ecosystems or to remedy human health risks need to be addressed through a more comprehensive approach. Interventions will be different in different regions and the myriad of priority concerns raised in paragraph 3 will need to be addressed as part of operationalizing sustainable development policies within different sectors and different government ministries. This integrated, cross sectoral management challenge becomes even harder to achieve when more than one country is involved. However, sustainable management of the international commons is not achievable without these changes.

7. The complex problems occurring in international water systems can and must be broken down into simpler, more manageable elements by examining the waterbody and its drainage basin and then taking specific actions to correct existing problems and prevent new ones. Sectoral activities on the land are inextricably linked to effects in water and must be included as part of this comprehensive approach. Priorities must be set for altering activities that adversely affect the water environment, and then the appropriate sectors should adjust planned activities and develop new ones to resolve the priority problems (including implementation of remedial actions). These individual pieces can only be put together on a supra-national or regional basis. Joint, country-driven commitments for building institutions are needed to accomplish this. While numerous laws, conventions, and plans exist, implementation of needed actions is often poor because the necessary institutions have not been established or action is hampered by internal dynamics. As noted in Annex A, the pilot phase of GEF supported several international waters projects that: (1) focused on the building of regional institutions to more comprehensively manage the environment of a shared regional sea or shared river basin, (2) leveraged associated financing for the establishment of the programme and other forms of development assistance for priority interventions, and (3) resulted in preparation of draft action programmes to sustain regional networks of institutions and develop human resource capacity to jointly plan and manage shared water environments.

8. Institutional arrangements are needed at different levels -- from transnational governance and improved cross ministerial cooperation to local activities that involve participation by community groups, NGOs, and the private sector in decisionmaking. This includes the important roles played by planning, regulatory, research, and educational institutions. The environmental awareness of sectoral ministries needs to be improved so that administrative units coordinate efforts and cooperate in making needed policy changes to respond to international needs. If existing bodies and institutions are not able to respond to these international needs or to formulate sustainable policies, new institutional arrangements should be built. *Global action and support can help to catalyze the necessary regional actions and the resulting national and local actions needed to address international water problems. The aim is to help decisionmakers in groups of countries make the necessary decisions to change sectoral development policies and projects so that they are consistent with the principles of sustainable development and the capacity of the water environment to support them.* The institutions needed to accomplish this have not received sufficient support, yet sustainable water resources management can not be achieved in international basins without these institutional arrangements. The GEF has a key role to play in

promoting collective action to address the issues codified or otherwise articulated in this large body of international agreements and policy instruments, and to help ensure, to the extent possible, that international efforts are coordinated and not duplicative.

### III. INTERNATIONAL LEGAL/POLICY FRAMEWORK

9. International waters constitute a very broad focal area, covered by numerous international conventions, treaties, and agreements. In fact, the international and legal policy framework for this focal area is more elaborated than in climate and biodiversity; and in addition to the legal agreements, there are numerous non-binding policy documents, action plans, and strategies that have been adopted by various global and regional organizations. These offer guidance to governments as they formulate laws and strategies and implement programs. They can also be utilized by regional and global entities in the development of programs and instruments. The Mar del Plata Action Plan, the Dublin Statement, and Agenda 21 are representative of these documents. In addition, piecemeal or sectoral programs are sometimes not coordinated among organizations, and many specialized U.N. agencies often have their own interests in international waters issues.

10. The architecture of marine agreements, in particular, is more complex than a single framework convention because of regional differences around the world. The marine agreements are consistent with and operate within the legal framework of the 1982 U.N. Convention on the Law of the Sea (UNCLOS), which entered into force in November 1994. It provides, *inter alia*, a global framework for the protection and management of the marine environment and its living and non-living resources. It is reinforced by a web of global and regional agreements, including those on regional seas, pollution from land-based sources, wetlands, protected areas and species, fisheries, hazardous substances, biodiversity, and climate. Agenda 21 recognized UNCLOS as "the international basis upon which to pursue the protection and sustainable development of the marine and coastal environment and its resources". A Draft Code of Conduct For Responsible Fisheries has been formulated through the efforts of FAO to be consistent with UNCLOS. Following a scheduled 1995 adoption, it should provide an additional tool for achieving sustainable yields of coastal zone fisheries as well as straddling fish stocks and highly migratory fish stocks.

11. With respect to international freshwater basins (including rivers, lakes, reservoirs, and international groundwater systems), no single binding legal instrument articulates a global consensus on sound use, conservation, and development of the resources. However, a large number of bilateral and multilateral agreements and management authorities exist. In addition, the nonbinding Dublin Statement and draft articles undertaken by the International Law Commission on the Law of Non-Navigational Uses of International Watercourses represent a large measure of international consensus, and the draft Bellagio Treaty for Transboundary Groundwater Protection provides an acknowledged framework for protecting the sustainability of international groundwater systems. Various country-driven, international action plans have been prepared to help foster more comprehensive management of international lake and river basins. Examples include the Zambezi River System Action Plan and the Lake Chad Basin Action Plan recently developed with assistance from U.N. agencies.

12. A brief description of conventions and agreements relating to international waters is included in Annex B. As can be seen, this legal and policy framework is quite complex. Not only are marine or freshwater management issues addressed, but also, land-based sources of pollution, port reception

facilities, coastal dumping, offshore facilities, emergency response, marine fisheries, protected areas designations and protocols (World Heritage Convention and UNESCO Man and the Biosphere Programs), hazardous substance transport and disposal, international trade, endangered species (CITES), and, of course, the biodiversity and climate change conventions all play a role in achieving sustainable use of international waters. Three new initiatives and their associated action programs also have special linkages to this focal area. The Programme of Action for the Sustainable Development of Small Island Developing States, the Intergovernmental Conference on the Protection of the Marine Environment From Land-Based Sources of Pollution (currently under preparation pursuant to Part XII of UNCLOS and scheduled for adoption in late 1995), and the U.N. Convention to Combat Desertification, all have action programmes associated with them. *These initiatives and their objectives provide a new opportunity for linking many different programs and instruments for piecemeal management of international waters into regional comprehensive approaches aimed at operationalizing sustainable development and protecting the global environment.*

#### Policy Guidance: GEF Role

13. As noted in the GEF Instrument, GEF activities in the focal area of international waters should fund the agreed incremental cost of measures to achieve agreed global benefits. Programs and projects that are funded should be country-driven and consistent with national priorities and development plans/action plans within a framework of sustainable development. GEF works with other organizations to promote better management of international waters and plays a catalytic role with its own program priorities and eligibility criteria for its activities. Like other focal areas, it provides a basis for development of national programs aimed at addressing priority international waters issues facing groups of nations and can help guide international technical and financial assistance. As part of its catalytic role, GEF will help integrate international waters issues into national development plans, will encourage the transfer of environmentally sound technology and knowledge, and will help strengthen the capacity of developing countries to play their full part in implementing needed interventions relating to international waters. GEF projects can also pave the way for cross sectoral management through cofinancing by U.N. specialized agencies for projects consistent with the principles of sustainable development and the capacity of the water environment to support them. *In essence, the GEF catalytic role is aimed at helping nations put together the different pieces of a more comprehensive approach in managing international waters and their drainage basins as a means to operationalize sustainable development and achieve global environmental benefits.*

14. In its catalytic role, GEF could:

- coordinate with existing sources of financing for activities affecting international waters; and leverage potential sources;
- broker regional agreements for cost sharing where mainly regional interests are involved (e.g., sharing the costs and benefits of protecting an international lake or inland sea);
- help devise and implement innovative sources of financing;
- help mobilize private sector sources of funds. Opportunities exist for the private sector to construct and operate different types of facilities or to contribute to revolving funds for environmental improvement;
- provide links to other GEF focal areas (climate change, biodiversity, and land degradation) to help countries set priorities and achieve multiple benefits of GEF interventions;

- provide an incentive for neighboring countries to update and strengthen existing regional conventions, to enact new agreements/protocols relating to international waters, or to develop national institutions for responding to international needs.

The last item is particularly important. While there is a vast web of international agreements and many of them are constituted on a regional level, some have only general provisions related to environmental protection or restoration and priority setting is often absent. For those agreements that are aimed at the type of comprehensive approach advocated by GEF, some funding may be needed by countries to assist them in achieving sustainable use of waters. In other cases, existing agreements may benefit from the addition of commitments involving joint management institutions, increased transparency, and involvement of NGO and stakeholder participation in helping make the transition to policies that protect the global commons. The Regional Seas Programme provides an example of where such incremental assistance to countries combined with an existing programme could catalyze implementation of additional measures.

### Financial Policy Considerations

15. In the area of international waters, the apportionment of global/national/local benefits is not as clearcut as in other focal areas. GEF would be utilized to cofinance many of the activities in association with other domestic or ODA resources to reflect this uncertainty in apportionment of benefits. A simple test for financing would be whether the country or group of countries would have undertaken the measures in the absence of the problem existing in international waters. Both grant and loan finance modalities could be utilized:

- **Grant financing**

**Grant financing** is for incremental costs agreed between GEF and the recipient and is the special modality of the GEF. The same general principles apply to international waters as to any other focal area. In particular, it will be necessary to establish a baseline in order to estimate the incremental cost. Most GEF activities will yield important domestic benefits. Incremental costs would constitute those costs additional to baseline expenditures for technical assistance and investment that are needed to facilitate planning, institution and capacity building, as well as demonstration of innovative techniques to resolve the priority international waters problem. In addition, the eligible expenditures would be for actual measures undertaken in developing countries and not for administrative costs associated with the implementation of international agreements.

- **Loan Financing**

Subject to Council policy on non-grant modalities and provided the proposed measures are otherwise eligible and part of a Council-approved Strategic Program, GEF could provide *concessional finance*. After facilitating finance to the greatest extent possible and satisfying itself that without additional finance the measure would not be implemented, GEF could consider providing *concessional finance*.



#### IV. SCOPE OF GEF ACTIVITIES

16. *GEF activities concerning international waters constitute a distinct and significant component of GEF.* Activities in this focal area should be consistent with the relevant objectives of global or regional conventions. However, in so far as GEF has not been designated as the agreed financial mechanism for conventions concerning international waters, GEF will undertake its catalytic role with its own program priorities and eligibility criteria. Because of the web of interacting conventions as well as the complex nature of international waters issues and sectoral programs that affect them, *GEF focuses on institution-building, on the capacity needed to enable the existing or new institutions to function more effectively, and on the cost-sharing of interventions that address priority international waters issues.* In essence, the overarching goal of GEF in this focal area is to assist nations in pulling together and implementing different elements of a more comprehensive approach needed to achieve sustainable development in international waters and their drainage basins, with GEF funding incremental costs and other entities funding the non-incremental costs. Of course, consultations among riparian nations about the problem being experienced in the international waters and dialogue on regional actions needed to provide the solutions constitute important objectives of each project.

17. In meeting the agreed incremental costs of measures to achieve agreed global environmental benefits, *GEF focuses on a broad but holistic delineation of international waters.* As noted in paragraph 2, the geographic extent of international waters reflects the unity of marine and freshwater environments that are shared among nations with linkages to land-based activities conducted in their basins. Consequently, GEF activities concerning international waters address the environment of the world's oceans, shared coastal zones, shared freshwater river and lake basins, and shared transboundary groundwater basins (comprising recharge, storage, transmission, and discharge zones).

18. International waters form a dynamically-linked whole with waters under national jurisdiction. It is recognized that global problems in this focal area initially express themselves on a regional basis and that awaiting emergence of threats to large bodies of international waters equates to encouraging the ecological and economic impairment of those waters. A more cost effective strategy is to address these adverse effects on a regional scale in a timely manner in order to prevent the reduction of global benefits humankind expects from international waters. In the interim, until additional experience provides clarity on the apportionment of global/national/local benefits, *GEF will seek to leverage cofinancing in association with domestic funding, development financing, agency program funding, and private sector action to reflect this situation.* In addition, the "precautionary approach" and the "polluter pays principle" are to be incorporated as integral elements of GEF projects in this portfolio to foster incentives for the private sector to use resource-efficient and clean production methods that will help sustain global benefits resulting from GEF interventions.

19. GEF activities concerning international waters must necessarily have a broad scope because the challenges facing these waters are so broad and the interventions needed to reverse the expanding degradation are so comprehensive. Given the fundamental importance of international waters issues and the sizeable costs associated with needed interventions, limitations must be placed on the types of incremental costs that will be funded. The guidance regarding country-driven commitments and the need to incorporate associated financing for the project to address incremental cost issues should narrow the range of opportunities for projects somewhat. In addition, the Council has determined that activities in this focal area will address the highest priority concerns facing marine and shared freshwater ecosystems and their linked basins. Pursuant to the concerns highlighted in paragraph 3, GEF will place priority

during 1995-1997 on addressing the following imminent threats to international waters (not arranged by priority order):

- Control of land-based sources of surface and groundwater pollution that degrade the quality of international waters in accordance with the precautionary principle. Of special emphasis is the prevention of releases of persistent toxic substances and heavy metals that can not be neutralized by marine and freshwater ecosystems or that accumulate in living organisms. High priority is also placed on abatement of more common contaminants such as nutrients or sediments in basins of international waters where rare and endangered species or unique ecosystems are threatened.
- Prevention of physical and ecological degradation of critical habitats (such as wetlands, shallow waters, reefs, etc.) that sustain biodiversity; provide shelter and nursing areas for threatened and endangered species; and otherwise are important for maintaining the structure and function of ecosystems associated with international waters as well as restoration of priority damaged ecosystems.
- Control of excessive exploitation of living resources.
- Control of ship-based sources of chemical washings and nonindigenous species which are transferred in ballast water and can disrupt ecosystems or cause toxic and human health effects.

20. As noted in paragraph 16, *GEF activities concerning international waters address the above four types of imminent threats by focusing on : (1) institution-building, (2) developing the capacity needed to enable existing or new institutions to function more effectively, and (3) cost-sharing of interventions for implementing focused, priority elements of comprehensive solutions that have been adopted.* The GEF funds the incremental costs while others fund the associated non-incremental costs. This reflects the comparative advantage of GEF in discovering, building, supporting, and strengthening institutions to effectively address these imminent threats and then disseminating the institutional lessons. Project proposals for activities concerning international waters should consider inclusion of action plans indicating how the building or strengthening of institutions will take place and how the instruments and measures for capacity building/training will contribute to sustainability of project interventions.

21. A key feature of successful programs and organizations is their ability to learn from experience. The capacity to absorb information, assess performance, and respond flexibly is vital for achieving progress. This element of evaluating lessons learned, facilitating the sharing of experiences among different GEF international waters projects, and disseminating results will be an integral part of work in this focal area. Consequently, special attention will be paid to including a monitoring and evaluation framework in each GEF project with appropriate environmental and other types of indicators that can be tracked to determine progress, relative success, and project completion. Of course, baselines must be established early in project planning so that monitoring can detect changes in the environment.

22. Stakeholder participation and involvement of different sectoral ministries in each participating country also constitute important elements of GEF activities concerning international waters. There are numerous stakeholders involved in the design and implementation of international waters projects, and their involvement will differ at each level of planning and administration (e.g., international, national,

sub-national, local). Participation of these various stakeholders in a country, and across different countries, can improve the quality, effectiveness, and sustainability of projects and of interventions needed to restore and protect the integrity of international waters. Likewise, measures needing implementation as part of action programmes will fail unless there is stakeholder ownership and accountability over actions which each country is responsible for. These actions reinforce agreements that are binding over the sharing of international water resources and other instruments for sustaining cooperation, such as in financing of these actions. In general, broad-based participation of stakeholder groups with an interest in the international waters project is to be encouraged. However, there is a need to identify the key stakeholders (through some form of stakeholder analysis across affected countries), the levels at which their involvement will be critical, and means to ensure involvement.

23. The use of computer-based data management systems (such as geographic information systems with properly georeferenced environmental data) is recommended for projects in this focal area. Specifically, informed decision making through shared environmental data management is encouraged to promote: (1) transparency among cooperating nations regarding key information; (2) broader participation by stakeholder groups within-country and across countries; and (3) a basis for tracking and evaluation activities that could be done collaboratively across countries. Utilization of computer networks and information systems to link such broad-based stakeholder participation in planning and implementing GEF international waters projects should improve the quality of projects. Pilot projects demonstrating how to accomplish this and training manuals that apply lessons from past experiences will be essential in promoting stakeholder involvement, and South-to-South linkages will be particularly encouraged. The challenge is to (1) establish GEF project components that provide incremental support to the necessary infrastructure and databases which can be used on existing computer systems, and (2) disseminate knowledge from use of this information to improve the quality of cross-ministerial and stakeholder involvement in design and implementation.

#### **Indicative Activities**

24. An indicative list of activities that would be appropriate for support under this focal area is included to help in clarifying the intended scope of GEF activities for 1995-1997. This list will be narrowed somewhat for 1995 by the priority-setting criteria included in paragraphs 32 and 33 of the Preliminary Operational Strategy. The following paragraphs include a wide variety of indicative activities grouped into several different categories:

25. **Waterbody - Focused Projects.** These projects typically involve support to groups of countries for building institutions to more comprehensively manage the environment of shared reservoirs/lakes, inland seas, rivers, deltaic zones, aquifer systems, coastal zones or large marine ecosystems and their associated drainage basins. Once joint commitments have been made to address priority issues affecting the waterbody in a remedial action plan, the capacity of the institutions to work effectively could be strengthened or single-nation projects could be formulated to fund agreed incremental costs of priority interventions needed to restore and protect aquatic ecosystem integrity and function for sustainable use. Typical projects:

- Support for groups of countries wishing to more comprehensively address management of freshwater and marine systems. Support provided to: (1) develop initial institutional arrangements for riparian collaboration and networking; (2) prepare assessments of environmental problems facing the waterbody, causes or sources of the problems, and action plans to address priority elements of comprehensive approaches for appropriate

land and water use; (3) identify policy deficiencies and harmonize regulatory and policy frameworks; (4) strengthen the capacity of the institutions to more comprehensively address priority water issues; (5) harmonize water and environmental monitoring programs, laboratory and data quality assurance programs, data analysis/reporting/information systems, (6) leverage other sources of funding to support ecosystem restoration measures or remedial action plan implementation.

- Support for groups of countries sharing use of transboundary groundwaters or sharing transboundary recharge areas to accomplish the same activities highlighted in the above bullet item that would be aimed at protecting water recharge areas from contamination, encouraging improved aquifer management, reducing the potential for subsidence, and providing a better understanding of subsurface-surface water linkages.
- Support for a group of countries to: (1) develop a more comprehensive convention with updated commitments for priority actions aimed at operationalizing sustainable development policies in basins draining to international waters, or (2) develop a new convention or protocol to address one or several of the specific imminent threats identified by GEF in paragraph 19. The conservation and management of straddling and highly migratory fish stocks requires action to be taken on a regional basis and could be addressed as an integral part of managing large marine ecosystems through the Code of Conduct for Responsible Fisheries that is currently under formulation. Priority can be placed on highly threatened waters to restore and protect the ecological structure, function, and sustainability of fish yields.
- Once an action plan has been formulated with the appropriate comprehensive approach, identification of priorities and country commitments for action, support could be provided to an Individual country for agreed incremental costs of initiatives for integrated management of the drainage basin, coastal zone and any associated large marine ecosystem. GEF assistance would be predicated on integration with an agreed ICZM strategy and should address linkages between freshwater and marine systems management.
- GEF incremental cost financing might be utilized to support a focused element of an action plan once commitments have been made to strengthening or building institutions and action plans have been prepared with priorities for a particular shared waterbody. This funding could provide cost-shared incentives for leveraging government, private sector, or ODA action in implementing priority solutions on the ground. Examples include: (1) perhaps a modest cost share in supporting establishment of an industrial toxics pretreatment program or physical interventions to separate easily treated municipal wastewater from more dangerous industrial wastewater, (2) incremental cost funding for wetland restoration to provide habitats and to mitigate the effects of pollutants before they reach international waters, (3) innovative approaches such as implementing tradeable pollution discharge permit systems or offset programs to cost effectively improve water quality in shared basins, or (4) cost-share best management practice installation for nonpoint source control of land-based pollution in degraded, priority watersheds, (5) building a human resources capability to strengthen the institutions.

26. **Small Island Developing States.** These States have special needs that have recently been identified for international attention. While "global" projects addressing all small island states may seem attractive, regionally focused programs aimed at institution building for more comprehensive, integrated management might leverage more international benefits. GEF assistance for activities concerning international waters could be targeted at the five major issues that most Small Island Developing States have in common (coastal zone management/biodiversity, **tourism development**, protection of drinking water supplies, land and marine-based sources of pollution and vulnerability to adverse effects of climate change). It is clear that **extensive participatory programmes for citizens and stakeholders will be necessary to adequately address these issues.** Typical projects:

- Support to regional groups of States to strengthen or develop institutional arrangements necessary to implement integrated drainage basin-coastal zone management programs on each Island State aimed at achieving sustainable development goals. Once these institutional arrangements are identified and established by Governments, their capacity to work effectively could be strengthened and agreed incremental costs of projects could be shared with other national and international funding sources. Joint contingency planning and spill response institutions can help prevent, reduce, and control degradation of the coastal environment from land and marine-based activities.
- Support to regional groups of States to develop protection programs for groundwater supply recharge and discharge zones or for measures to facilitate adoption of clean technology, waste minimization disposal, and strategies to prevent pollution from land or marine-based activities for the regional groupings of states. The agreed incremental costs of pilot programs and demonstration projects would be eligible for support.
- Support to countries to help them identify possible effects of climate change and as appropriate, to assist them in planning for responding to those possible effects.<sup>3</sup> Complex ecological interactions can result from changes in climate and sea level rise. Adaptation to these changes can be facilitated through studies of possible impacts of climate change to identify particularly vulnerable countries or regions, policy options for adaptation, and appropriate capacity building. Supporting these activities as part of a regional project could utilize funding from both climate change and international waters portfolios.

27. **Multiple Focal Areas.** GEF projects integrating several focal areas have the potential to multiply global benefits from GEF interventions. For example, wetland restoration and protection initiatives can have benefits for both biodiversity protection and water quality improvement.<sup>4</sup> Biodiversity protection, carbon sequestration, and land degradation/desertification are covered here. Indeed, a special linkage exists between land degradation in arid areas and proper management of both surface and ground water resources in international basins. Typical projects:

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<sup>3</sup> See GEF/C.2/11, Response to Decision 10/3 of the Intergovernmental Negotiating Committee For A Framework Convention on Climate Change At Its Tenth Session.

<sup>4</sup> Annex A provides a good illustration from the pilot phase of how GEF can be utilized to assist nations in adopting a more comprehensive approach to priority problems facing international waters by establishing GEF projects in several focal areas that are located in a common drainage basin.

- GEF international waters projects could contain components for identifying highest priority wetland habitat sites for restoration or protection as well as habitats with rare or endangered species. While a water quality component of a GEF project concentrates on implementing measures to combat land-based sources of pollution, a biodiversity component could leverage protective actions for wetland habitats that are most important for sustaining that particular body of international waters. Projects that protect mangroves and wetlands from air, land, and water pollution or from overexploitation enhance their essential functions as carbon sinks.
- The GEF project addressing land based sources of pollution might identify areas of the drainage basin needing reforestation for sedimentation control, biodiversity protection, freshwater retention and even reduction of downstream costs from sedimentation (water supply reservoirs filling with sediment contribute to water shortages and the shortages might be exacerbated by climate change). Further downstream into the coastal zone, this sedimentation interferes with primary production and the remainder of the food chain in consequence and smothers organisms in sensitive marine ecosystems. A carbon sequestration project redirected from one region to this basin could then have benefits in several focal areas.
- In arid regions, groundwater supplies are invaluable during years of drought and may be dynamically linked to surface waters through indirect recharge processes. Other groundwater supplies contain "older" fossil water that must be carefully managed if future generations are to use them. Sustainable development can not proceed in these basins without a joint water resources management strategy that: (1) links land and water use decisions, (2) places priority on protection of unique aquatic environments and flows needed to sustain them, and (3) has provisions for emergency planning during droughts and floods. While joint management institutions might be built under a GEF project linking these focal areas in shared arid zone basins, other activities are also needed to operationalize the linkages. A water resources management strategy (including sectoral water use needs) could be developed with a component linking land and water use interactions and a drought management component. Recent technological developments in satellite technology and remote sensing could be used to ensure access to necessary hydrologic information and to identify reserves of water for drought years. This technology can identify morpho-structural features that are useful in determining where detailed evaluations of reserves should be made. Of course, protection of groundwater recharge zones would also receive attention as an integrated component.

28. **Pollutant - Focused Projects.** Some toxic pollutants that are persistent in nature can be considered as "global pollutants" because they are transported long distances in the atmosphere before falling to earth or in rivers or ocean currents. They can accumulate in living organisms and can pose human or ecosystem health risks. Some of these pollutants are associated with certain industrial sectors or processes across the world; and individual international waters can not be cleaned up through regional action because this would place them at an economic disadvantage in world markets. Substances such as mercury, dioxin, PCB's, persistent organic pollutants and some pesticides that can disrupt human endocrine systems might be candidates for global action in pollutant-focused projects. Typical projects:

- Needed assessments of global ecosystem impairment or human health risk from certain persistent toxic substances as well as estimates of loading, sources, or pathways could be

supported for priority "global pollutants". The results could: (1) catalyze creation of global management regimes, (2) lead to priority investments or T/A projects for GEF support, or (3) the assembled information might be referred to another global forum for appropriate action.

- Activities to support widespread participation in conducting analyses of options for reducing worldwide releases of particular noxious toxic pollutants (cap on production or use; sunsetting production; bans; use of best practices or clean technology to reduce emission or treat deposits in the environment). GEF support might leverage other global interest, such as from international trade organizations, initiatives under the U.N. (such as the GESAMP program), or industry associations. It might also lead to concessional terms for multilateral support replacing older, polluting, technology with modern clean technology or pollution prevention measures in targeted regions or continents.

29. **Threats Related to Shipping.** Pilot phase projects addressed formulation of contingency plans, pilot investments in port facilities for oily ship wastes, and training. While GEF support for these oil-related interventions could continue in priority waterbodies noted in the MARPOL convention, chemical washings and transfer of noxious, nonindigenous species in ship ballast water appear to constitute a more significant and virtually unaddressed ecosystem threat.

Typical projects:

- In priority designated seas, extension of pilot phase activities would have a particular emphasis on projects which lead to self-financing of capital and operating costs on the polluter pays principle through full cost recovery schemes and innovative mechanisms for private sector financing. GEF participation could have a catalytic effect on such self financing schemes.
- GEF assistance could be provided to encourage the adoption of already existing volunteer guidelines under MARPOL for noxious species in ballast water and for chemical washing wastes to illustrate demonstrations of the interventions, to evaluate practical utilization, and to implement remedial action plans in areas where noxious species have invaded and caused ecosystem damage. There would be an obligation to ratify MARPOL before assistance could be provided.

## V. PRELIMINARY OPERATIONAL STRATEGY FOR 1995

30. During the pilot phase GEF, 13 projects received funds from the GET under the international waters portfolio. These 13 projects constitute 11 percent of total projects and 16 percent of pilot phase funding. Two other projects received PPA funds at the end of the pilot phase and are currently under preparation. While some projects such as UNDP's Danube Basin project are nearing completion, many have just initiated their work and lessons will need to be drawn from their accomplishments over the next several years.

31. Lessons from the existing portfolio on international waters should be incorporated in the strategic approach that is recommended to Council. The implementing agencies and the GEF Secretariat will develop a long-term operational strategy, supported by analytic work and consultations during 1995. Meanwhile, the challenges in this focal area remain great and the composition of the portfolio needs to be expanded to include a number of different types of important interventions that did not receive attention in the pilot phase. Also, many of the imminent problems facing international waters have not been addressed in different types of settings. For example, in spite of their obvious international importance, shared freshwater basins (both surface and subsurface systems) have not received much attention nor have land-based sources of pollutants. **The following sections articulate a preliminary strategy for the year 1995 that is aimed at addressing the four imminent types of problems facing international waters:**

### Program Priorities For 1995

32. GEF activities for 1995 in the area of international waters will be aimed at addressing a number of priorities that require a more comprehensive approach to achieve restoration and protection goals. The goal is to develop projects and programs so that a more complete range of priority issues for this focal area receives attention as part of the learning process and that the projects will collectively demonstrate a range of geographic and climatic settings. **With overlaps among various portfolios and the opportunity to multiply agreed global benefits, the combination of GEF projects in several focal areas is encouraged and should receive combined support from the different portfolios.** For 1995, GEF will place special priority on the following types of activities related to international waters and the imminent problems they face:

- Integrated management of shared freshwater basins, particularly lakes, reservoirs, and transboundary groundwater systems;
- Land-based sources of pollution and land-based activities that pose imminent threats to freshwater and marine ecosystems, endangered species (especially freshwater and marine mammals), and human health;
- Integrated management of freshwater and coastal zone ecosystems of Small Island Developing States and control of land or marine-based sources of pollution that degrade those waters;
- Comprehensive approaches that integrate projects in multiple GEF focal areas, including measures to prevent mis-management of biological resources (overharvesting) and to address land degradation.



- Interventions against transfer of nonindigenous species to freshwater and marine systems;

### Project Eligibility Criteria

33. Many nations share international waters that are experiencing imminent threats to their freshwater and marine ecosystems and that are in need of support for the priority activities outlined in paragraph 30. Given the situation of limited funding for 1995, the range of potential projects will be limited by the following eligibility criteria:

- Severity of the problem being addressed (ecological significance of damage, socio-economic importance, spatial extent of damage);
- The problem involves several of the imminent threats noted in paragraph 19;
- Threat of irreversible damage and timescale of reversibility (particularly if threatened or endangered species are involved such as marine mammals and if the damage will severely affect the livelihoods of affected populations);
- The degree to which the problems are common to other geographic regions and interventions are transferable (greater priority accorded to innovative approaches with high demonstration value);
- Country-driven project with commitments to utilize more comprehensive approaches that address sectoral activities causing the degradation;
- Leveraging of development assistance, international agency cofunding, private sector action, or other country commitments to provide associated financing;
- Consistency with National Environmental Action Plans and legal obligations (particularly being a party to conventions or agreements associated with the particular activity).

## SIGNIFICANCE OF ADVERSE EFFECTS ON INTERNATIONAL WATERS

1. Pollution of surface and subsurface freshwater basins, coastal zones, and marine waters is a pressing worldwide problem. Eutrophication, sedimentation from land degradation, and discharges of toxic chemicals present particularly widespread problems. The global build-up of persistent toxic substances in finfish, shellfish, mammals, and birds is virtually unassessed, yet health risks can be shouldered by those consuming contaminated food. The effect of land-based activities and sources of pollution extends to the ocean, where about three quarters of the pollution comes from freshwater basins draining to the coast.
2. Most nations located in arid and semi arid regions are already facing water crises that promise only to get worse with time, and this will place pressure on neighboring countries to divide shrinking supplies. Land degradation in these basins reduces low flows even further and contributes to developing conflicts over shared water resources. Overwithdrawal of water from rivers for agricultural and industrial purposes and overpumping of groundwater can leave little water to sustain aquatic ecosystems—especially in deltas and coastal zones—resulting in reduced fisheries, can result in permanent intrusion of saltwater into valuable aquifers and damage to infrastructure through subsidence. It also results in conflicts in downstream economic development associated with reduced flows. In fact, the amount actual development assistance available to help the poor seems to be decreasing as a larger portion of that aid is being devoted to fixing environmental problems caused by environmentally unsustainable policies and development projects.
3. Haphazard sectoral development in the coastal zone, where about 70 percent of the world's people live, destroys valuable wetlands and habitat for fish. Use of sand and coral for building takes a further economic toll as coastal areas become more vulnerable to erosion and storm damage—and expensive protection projects are needed. Both freshwater and marine fisheries are in serious trouble from overharvesting, wetland destruction, sedimentation, and eutrophication. Some fisheries are essentially permanently ruined. Overinvestment in modern fishing fleets, use of inappropriate small mesh nets, and ineffective institutions are causing a large loss of fish stock and are destroying the livelihood of artisanal fishing communities which represent 90% of the world's fishers and are usually from the poorest sectors of their society. These unsustainable practices cost over \$100 billion in operating costs yearly with a net return of only \$70 billion in fish revenues—much of it earmarked not for human consumption but for fish meal and oil. This has large ramifications for food security issues in the future. The Yellow Sea, Gulf of Thailand, and Northeast North American Continental Shelf large marine ecosystems (LMEs) have been the most overfished and are in need of remedial action. Other LMEs have greatly fluctuating fish stocks and are in need of precautionary action to maintain sustainability. LMEs such as the Baltic Sea, the Black Sea, North Sea, and parts of the Mediterranean are seriously impaired by pollution, while more moderate pollution effects appear in the Agulhas and Somalia Currents in African, Bay of Bengal, South China Sea, and the Arabian Sea.
4. Small Island Developing States face special challenges in protecting invaluable freshwater supplies and coastal zones upon which life and the economy of the islands depend. Contamination of groundwater supplies with toxic chemicals and protection of freshwater and coastal zone habitats represent common problems that small island developing nations face. This coastal groundwater contamination often

discharges into nearshore marine waters to contaminate finfish and shellfish and to degrade marine ecosystems. Consequently, activities that protect groundwater recharge areas from toxic wastes or other important pollutants and practical implementation of integrated management strategies linking freshwater and marine systems are high international priorities.

5. While oily wastes from ships have received a great deal of attention, disposal of chemical waste washings and control of non-indigenous species of aquatic life discharged in ballast water have received less attention. Voluntary guidelines exist under MARPOL, but they have not been adopted by many nations. The result has been enormous ecological and economic damage as nuisance species from one nation are transported by ballast water of ships to other nations. Examples range from billions of dollars of economic loss caused by Zebra mussels in the North American Great Lakes from Europe, Asian grasses in the Mediterranean, North American jellyfish in the Black Sea, cholera from South America brought to North American estuaries and toxic "red tide" organisms from Asia transported in ballast water to Australia and other nations.

6. The Black Sea Large Marine Ecosystem represents the most highly polluted LME on earth and one of the most complex ecosystem problems along with Lake Victoria, the Aral Sea, and the North American Great Lakes. The GEF-supported Programme for Environmental Protection of the Black Sea has much in common with the Danube Basin GEF project with regard to its focus on institution building and UNDP management with the World Bank as an executing agency for certain components. Moreover, the focus of at least five existing GEF projects in the Basin provide an illustration on how GEF can be utilized to catalyze the building of institutional arrangements among riparian nations and how projects in multiple GEF focal areas can be combined to more comprehensively address these complex problems in internationally-shared water environments.

7. UNEP played a vital role in facilitating adoption of the Odessa Declaration by the Black Sea riparian nations—an action that represented a first commitment by the countries to take regional action. The three GEF implementing agencies, UNDP, UNEP, and the World Bank then fielded joint missions to the six riparian nations to assist them in GEF project preparation. The project focused on defining the most serious problems affecting the Sea, identifying the causes or sources, and creating management institutions. Priorities are being identified and the complex problems are being broken down into smaller, more manageable and more sectorally focused elements. The responsibility for management of the commons is being transferred to coastal countries through a sustainable mechanism of task-sharing, which embraces institutions, facilities, financing of incremental costs, and fostering a sense of ownership and responsibility for actions. The excessive loads of nitrogen and phosphorus from the Danube basin upriver from the Sea and the loss of wetland habitat due to conversion were known to be priority problems. GEF helped catalyze action on these priority elements of a comprehensive approach by supporting the Danube River Basin Project and several priority biodiversity protection projects (Danube Delta, the Colchic Forests and Kizilmuk delta projects on the Black Sea coast of Turkey and Georgia). The potential exists for institutions strengthened or built as part of international waters projects to identify priority needs in the areas of biodiversity protection, land degradation, or climate change for GEF and to facilitate coordination among GEF projects addressing shared ecosystems. Such coordination among projects would help to multiply the benefits of GEF interventions in several focal areas.

## INTERNATIONAL CONVENTIONS AND AGREEMENTS IN INTERNATIONAL WATERS

1. The 1982 *United Nations Convention on the Law of the Sea* (UNCLOS), establishes a comprehensive, legal framework of obligations on which basis actions at the global, regional and national level must be taken. Under this Convention, all parties have a fundamental duty to protect and preserve the marine environment. There also is a network of more specific international legal instruments on the protection of the marine environment, including the *Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter* (the "London Convention"), the *Convention for Prevention of Pollution from Ships* (MARPOL 73/78), the *International Convention of Pollution Preparedness, Response and Co-operation* (scheduled to enter into force in May, 1995), and the nine Regional Seas Conventions and their Protocols (concerning for example, protection from the spillage of oil and other harmful substances, the protection of special areas, and the control of land-based sources of pollution). In addition to the Regional Seas Conventions, UNEP sponsors and three other Regional Seas Programs.
2. There are also numerous regional agreements concerning freshwater resources, including the *La Plata Basin Agreement*, the *Treaty for Amazonian Cooperation*, and other international programs on the integrated management of international river and lake basins, such as the Ganges River, Mekong River, Niger River, Nile River, Senegal River, Zambezi River, Aral Sea and Lake Chad. The U.N. Convention to Combat Desertification provides an additional instrument for integrating the management of land and water resources.
3. The legal instruments typically provide for financial and institutional arrangements to assist their implementation. There is considerable variation in the financial arrangements supporting such agreements: some operate as trust funds, others through direct funding. Many programs, though, remain severely under funded with regard to project assistance for developing country parties.
4. Other instruments containing provisions that affect international waters include the *Basel Convention*, the *Bamako Convention*, the *Convention on Wetlands of International Importance Especially as Waterfowl Habitat* (the "Ramsar Convention"), the *Convention on Biological Diversity (CBD)*, the *United Nations Framework Convention on Climate Change (FCCC)*, and the *World Heritage Convention*.
5. Three other recent initiatives provide opportunities for improving the management of waters. The Programme of Action for the Sustainable Development of Small Island Developing States, the U.N. Convention to Combat Desertification, and The Intergovernmental Conference on the Protection of the Marine Environment From Land-Based Sources of Pollution currently under preparation pursuant to Part XII of UNCLOS (and scheduled for adoption in late 1995) have action programmes associated with them that will be critical for achieving sustainable use of international waters. In addition, the Draft Code of Conduct For Responsible Fisheries developed through FAO is intended to take into account the outcome of the U.N. Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks in 1995. Once finalized, the issue of overexploitation of fisheries can be addressed.