

International Waters Program Study

Final Report

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Acknowledgements

The International Waters Program Study was managed by the GEF Secretariat Monitoring and Evaluation Team, and carried out by a team consisting of an independent lead consultant and representatives of the GEF Secretariat and the three GEF Implementing agencies.

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The main report has been drafted by Michael Bewers and Juha Uitto, assisted by William Faries, drawing upon the various component analyses that are contained in the background documents prepared by the Program Study Team (listed in Annex 2 to this report and available upon request from the GEF M&E Unit). The mode of operation was that the background documents each had a lead author and have been subsequently reviewed by the entire Program Study Team.

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Foreword

The GEF Council, at its meetings in December 1999 and May 2000, requested a review of GEF operations prior to the next replenishment, which begins in 2001.¹ This review, the Second Study of GEF's Overall Performance (OPS2) is being carried out by a fully independent team which is expected to complete its work by the end of 2001. The OPS2 is the third major GEF-wide review to take place since the Facility was created.² Among the broad topics the OPS2 team will assess are:

- Program Results and Initial Impacts
- GEF Overall Strategies and Programmatic Impacts
- Achievements of the Objectives of GEF's Operational Policies and Programs
- Review of Modalities of GEF Support
- Follow-up of OPS1

To facilitate the work of the OPS2 team, GEF's Monitoring and Evaluation team, in cooperation with the GEF Implementing Agencies, decided to undertake program studies in the biodiversity, climate change, and international waters focal areas. The role of these program studies is to provide portfolio information and inputs for the OPS2 team's considerations.

The International Waters Study was undertaken by an interagency team comprised of staff from the GEF secretariat, the three GEF implementing agencies, and the GEF Scientific and Technical Advisory Panel (STAP) with additional support from consultants contracted to undertake detailed studies in different parts of the portfolio as well as to consolidate all the information collected and background documents prepared.

Jarle Harstad
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¹ Joint Summary of the Chairs, GEF Council Meeting, December 8-9, 1999, and GEF/C.15/11.

² The first two studies, respectively, were *Global Environment Facility: Independent Evaluation of the Pilot Phase*, UNDP, UNEP, and World Bank (1994) and Porter, G., R. Cléménçon, W. Ofosu-Amaah, and Michael Philips, *Study of GEF's Overall Performance*, Global Environment Facility (1998).

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Glossary of Terms

ASBP	Aral Sea Basin Program
CBD	Convention on Biological Diversity
GPA	Global Program of Action on Land-Based Sources of Pollution
IA	implementing agency
LME	Large Marine Ecosystem
MSP	medium-size project
OP	Operational Program
OPS1	First Study of GEF's Overall Performance
OPS2	Second Study of GEF's Overall Performance
POPs	Persistent Organic Pollutants
SAP	Strategic Action Program
SIDS	Small Island Developing States
STAP	GEF Scientific and Technical Advisory Panel
TDA	Transboundary Diagnostic Analysis
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
WB	World Bank

Executive Summary

1. This report presents the main findings of the *GEF International Waters Program Study*, conducted from August 2000 to February 2001. The study was undertaken by a team comprising an independent lead consultant, representatives of GEF's monitoring and evaluation unit (M&E), GEF secretariat, the three GEF implementing agencies (UNDP, UNEP, and the World Bank), and the Scientific and Technical Advisory Panel (STAP).

2. At the time of the review, GEF had provided support to 41 full projects and four medium-size projects (MSP) in the international waters focal area, which includes GEF Operational Programs 8, 9, and 10. To date, 11 of these projects have been completed. In addition, PDFs (Project Preparation and Development Facility funds) have been approved for 22 projects which may enter the GEF portfolio upon further development. Not including co-financing, overall GEF funding to international waters efforts from 1991 to December 31, 2000, totals \$444 million.

3. At the request of the GEF Council, an independent Second Study of GEF's Overall Performance (OPS2) has been initiated and is expected to be completed by the end of 2001. The goal of the study highlighted in this report, as well as focal area studies underway in biodiversity and climate change, is a systematic self-assessment that can contribute to the deliberations and work of the OPS2 team.

4. In undertaking this work, the review team used a collection of relevant documents and databases provided by the GEF secretariat and the implementing agencies, broad consultations with GEF stakeholders, participation at the First

GEF Biennial International Waters Conference in Budapest, Hungary, and four field-based reviews.

Conclusions

5. Overall, GEF's projects and PDFs align well with the strategic guidance adopted by the GEF Council. The allocation of projects among the international waters OPs is appropriate. Shifts in emphasis among the OPs since the completion of the GEF Pilot Phase are entirely warranted in the context of changing international perspectives on priority problems in, and threats to, aquatic environments.

6. GEF projects have made, and continue to make, significant contributions to the implementation of existing global and regional agreements that address the protection and restoration of freshwater and marine ecosystems. Indeed, GEF can be considered a major, or possibly *the* major, facilitator of the implementation and increased adoption of international waters laws, action plans, and regional environmental protection agreements.

7. The regional distribution of international waters interventions is relatively well balanced. Overall, Africa has the largest share of GEF international waters funding (\$104.5 million), followed by Asia (\$90.8 million), Latin America and the Caribbean (\$56.6 million), Eastern Europe (\$40.1 million), and Small Island Developing States (\$12.3 million). Another \$20.9 million has been allocated to global projects. In addition, the shifts in emphasis among regions, as evidenced by the balance between projects currently under implementation and the preparatory and pipeline concepts, appear entirely appropriate.

8. Despite these accomplishments, a greater effort should be made to clarify the guidance which directs GEF's international waters portfolio. Among other things, this complicates the process of sharing lessons among projects and may inhibit support for future projects by participating countries with insufficient or unclear guidance.

9. The nature of international waters projects, which often involve joint efforts by the three GEF implementing agencies as well as a number of different countries, highlights the need for a formal mechanism within the GEF to ensure adequate monitoring, coordination, and cooperation.

10. The current emphasis on undertaking a science-based transboundary diagnostic analysis (TDA) prior to the design of a strategic action program (SAP) is appropriate for projects in OP 8 and 9. There does appear, however, to be a need for more GEF guidance regarding the nature of TDAs and the manner in which they lead to, and are distinct from, the development of SAPs.

11. Among individual projects and operational programs, overall project performance varies. With regard to the three levels of indicators—process, stress reduction, and environmental status—most of the impacts could be found at process levels. This is not surprising given the long time required to show actual improvements in the international waters environment. The review of completed projects, however, showed that some present and future reductions in stress on the marine environment can be directly attributed to GEF projects. The degree to which these interventions were effective in reducing stress in the regions concerned, however, is difficult to quantify due to the absence of uniform tools comparing the impacts of several activities and sources of pollution.

12. The review of demonstration projects found that the projects are generally both well conceived and satisfy the criteria for GEF support. The potential incremental benefits that can accrue from both global and regional demonstra-

tion projects continue to justify some allocations of resources under OP 10 to demonstration projects of similar nature. Only limited impacts could be identified from the four project site visits, largely due to the fact that the projects had not yet reached sufficient maturity to produce quantifiable environmental benefits.

13. Efforts to expand the GEF's operational focus, such as creating an operational program on Persistent Organic Pollutants (POPs), and to incorporate greater use of integrated ecosystem management (e.g., OP 12) require additional thought on the roles and definitions of the different operational programs currently in use.

Recommendations

14. Based on these findings, the review highlights the following recommendations for ensuring a more effective and responsive international waters program for the GEF:

- While it is too early to expect much information regarding measured improvements in international waters environments from GEF interventions, as GEF's experience increases, preparations should be made for including more comparable information on process, stress reduction, and environmental status indicators in future project evaluations.
- The use of science-based transboundary diagnostic analyses (TDAs) as a basis for facilitating countries' agreements on joint remedial or preventive actions (in the form of a SAP) should continue. However, where feasible, efforts should be made to shorten the time required for a TDA.
- Given the complex nature of international waters projects, which can involve the cooperation of a large number of countries and implementing agencies, an interagency advisory function within the GEF is needed to help ensure coordination and effective development of the international waters focal area.

- All high-risk projects, or those with high-risk components, should be subjected to a mid-term review. In addition, final or terminal evaluations of projects should only be conducted *after* project implementation has been completed.
- Procedures for feeding back “lessons learned” to the formulation of projects in the international waters focal area have been initiated recently. The first GEF Biennial International Waters Meeting was held in 2000 and IW:LEARN is just getting started. Accordingly, such learning should be formalized as a transparent and effective mechanism within the GEF.
- GEF should consider increased assessments of the suitability of proposed executing agencies to ensure competent project management and the sustainability of any activities (administrative arrangements or organizations) engendered through GEF international waters projects.
- In South America, an evaluation of progress in the development of projects should be conducted with a view to identifying opportunities for accelerating attention and national commitments to the resolution of environmental problems in large multi-country catchments, particularly those on the eastern side of the Andes.
- The intent of OP 8 and OP 9 should be clarified to make them mutually coherent and consistent with the new OP 12. Along these same lines, the emphasis on ship-derived impacts on international waters in OP 10 should be reduced and the emphasis on land-based activities and their effects, including those mediated by atmospheric transport pathways, should be increased.
- A procedure and timetable for the preparation of guidelines on major concepts used within the *Operational Strategy* and the *Operational Programs* should be devised. Specifically, these guidelines should provide clear definitions and examples of the following topics: incremental cost estimation, application of the “ecosystem management” concept, TDAs, and the “Large Marine Ecosystem” concept.
- A streamlined oversight and tracking methodology should be prepared and implemented by the GEF that defines the procedures to be used from project inception through to final review and feedback. This methodology should include appropriate and uniform documentation to ensure transparency and accountability.

Introduction

15. The GEF Council, at its meetings in December 1999 and May 2000, endorsed the conduct of a review of GEF operations prior to the next replenishment, which begins in 2001¹. This review, the Second Study of GEF's Overall Performance (OPS2) is to be carried out by a "fully independent team" which is expected to complete its work by the end of 2001. The OPS2 is the third major GEF-wide review to take place since the Facility was created².

16. Among the broad topics the OPS2 team will assess are:

- Program results and initial impacts
- GEF overall strategies and programmatic impacts
- Achievement of the objectives of GEF's operational policies and programs
- Review of modalities of GEF support
- Follow-up of OPS1

17. To facilitate the work of the OPS2 team, GEF's monitoring and evaluation unit, in conjunction with the implementing agencies, decided to undertake program studies in the biodiversity, climate change, and international waters focal areas. The role of these program studies is to provide portfolio information and inputs for the OPS2 team's consideration. Participating members on the international waters program study team included representatives of the three implementing agencies (UNDP, UNEP, and the World Bank), members of the GEF secretariat, and an independent consultant. A complete list of study team members is provided in the Foreword.

18. At the time of the review, GEF had provided support to 41 full projects and four medium-size projects (MSP) in the international waters focal area. To date, 11 of these projects have been completed. In addition, PDFs have been approved for 22 projects which may enter the GEF portfolio upon further development. Not including co-financing, overall GEF funding to international waters efforts from 1991 to December 31, 2000 totals \$444 million.

¹ Joint Summary of the Chairs, GEF Council Meeting, December 8-9, 1999, and GEF/C.15/11.

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Methodology and Timeline

19. Beginning in August 2000, the program study team agreed on a series of elements required for the study, including specific areas for review, the design of a questionnaire for project managers and others involved in GEF projects in the field, and the locations and procedures for site visits. In addition to an overall portfolio analysis and review of project performance, the following topics were highlighted for in-depth examination:

- Experiences with the use of the transboundary diagnostic analysis approach for preparing SAPs
- Multiple versus single implementing agency efforts
- Regional approaches to complex situations.

20. The review team also participated in the First GEF Biennial International Waters Conference, held in Budapest from October 14-18, 2000, and undertook field visits to four GEF projects:

- *Water and Environmental Management in the Aral Sea Basin* (implemented by the World Bank)
- *Implementation of the Strategic Action Program Toward Achievement of the Integrated Management of the Benguela Current Large Marine Ecosystem* (implemented by UNDP)

- *Brazil: Integrated Management of Land-Based Activities in the São Francisco Basin* (implemented by UNEP)
- *Brazil: Implementation of Integrated Watershed Management Practices for the Pantanal and Upper Paraguay River Basin* (implemented by UNEP).

In addition, the consultant conferred with the headquarters staff of all three implementing agencies and the International Maritime Organization in London, which is the executing agency for GEF's Ballast Water Project³.

21. The program study was intended to examine, in some detail, the portfolio of projects within the international waters focal area. The study's objective was to review the coverage of GEF international waters programs, as well as the results and preliminary impacts.

22. As part of its work, the study team was asked to analyze project data using performance indicators at three levels, considering possible alternatives within each of the following types:

- Process indicators (i.e., the processes that are likely to lead towards a desirable outcome)
- Stress reduction indicators (concrete actions that reduce the environmental stress on the water body)
- Environmental status indicators (actual improvement of ecosystem quality).

³The full project name is *Removal of Barriers to the Effective Implementation of Ballast Water Control and Management Measures in Developing Countries*, implemented by UNDP.

23. The study team also sought to determine the extent to which current GEF policies agree with the strategic guidance adopted by the GEF Council and recommendations provided by both the Pilot Phase Review and OPS1. In addition, because there is no single, global agreement on international waters like there is in biodiversity (CBD) or climate change (UNFCCC), the review was requested to provide some assessment of GEF's policies and procedures on priority issues in international waters and determine the relative alignment with contemporary intergovernmental

initiatives regarding damage and threats to such environments. A complete initiating memorandum for the study can be found in Annex 1.

24. In completing its work, the study team compiled a number of background documents and raw data which deal in greater depth with a number of the issues raised in this report. A complete list of this background documentation is available in Annex 2 and can be obtained from the GEF M&E Unit.

Background on GEF Approach to International Waters

25. GEF's approach to international waters is set out by the Council in the *Operational Strategy* document. It calls for a comprehensive approach to water resource management, an approach that is:

“...cross-sectoral, integrates ecological and development needs, and is based on holistic analyses of the carrying capacity of the water environment...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 a means for collaborating with neighboring countries to collectively pursue effective solutions.”

26. GEF's international waters focal area includes projects in marine and freshwater systems and are categorized into Operational Programs (OP) 8, 9, or 10. These operational programs are:

- OP 8: Waterbody-Based
- OP 9: Integrated Land and Water Multiple Focal Area
- OP 10: Contaminant-Based

In OP 8, GEF is intended to play a catalytic role in assisting groups of countries to make changes in various sectors (agriculture, industry, etc) so that the particular waterbody and its drainage basin can sustainably support human activities. GEF helps the countries use technical, economic,

financial, regulatory, and institutional measures that are necessary to achieve this goal. The long-term objective is to undertake a series of projects to help groups of countries work collaboratively in achieving changes in sectoral policies and activities so that transboundary environmental issues that cause degradation in shared water bodies can be resolved. OP 8 projects focus on seriously threatened water bodies and the most imminent threats to their ecosystems.

27. OP 9 is broader in scope. Its long-term objective is to achieve global environmental benefits through implementation of projects that integrate the use of sound land and water resource management strategies as a result of changes in sectoral policies and activities that promote sustainable development. Both OP 8 and OP 9 are often multicountry in nature, but OP 9 projects tend to focus on preventive measures rather than remedial, highly capital-intensive measures.

28. In OP 10, GEF projects are intended to help demonstrate ways of overcoming barriers to the adoption of best practices that limit the releases of contaminants causing priority concerns in international waters. This includes demonstration projects for addressing land-based sources of pollution, projects related to contaminants released from ships or persistent toxic substances, and targeted regional or global projects useful in setting priorities for possible GEF interventions. This operational program also aims to involve the private sector in utilizing technological advances for resolving these transboundary concerns. A more complete

⁴ *Operational Strategy*, GEF (1996); *GEF Operational Programs*, GEF (1997).

description of these various OPs and their objectives is available in the GEF *Operational Strategy and Operational Programs*⁴.

29. In both OP 8 and OP 9, the Operational Strategy recommends the formulation of a SAP as an appropriate initial step in helping countries define priority problems, establish commitments for specific actions, and agree on additional interventions for priority transboundary concerns. SAPs are particularly needed where “transboundary concerns, additional needed actions, and incremental costs are not adequately defined.”

30. The *Operational Strategy* states that:

“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.”

31. A key element for preparing a SAP among countries is a scientific transboundary diagnostic analysis (TDA) of priority transboundary environmental problems. Since this process is associated with many of GEF’s international waters projects, it was closely examined in the program study.

Findings

Portfolio Distribution

32. The portfolio analysis of GEF's international waters projects found that the distribution of projects among the various operational programs, both by number and funding, is similar. Regionally, Africa has the largest share of GEF international waters funding (\$104.5 million), followed by Asia (\$90.8 million), Latin America and the Caribbean (\$56.6 million), Eastern Europe (\$40.1 million), and Small Island Developing States (\$12.3 million). Another \$20.9 million has been allocated to global projects. Figure 1 provides information on numbers of projects approved and under development per region. A complete list of the GEF international waters projects included in these figures is presented in Annex 3.

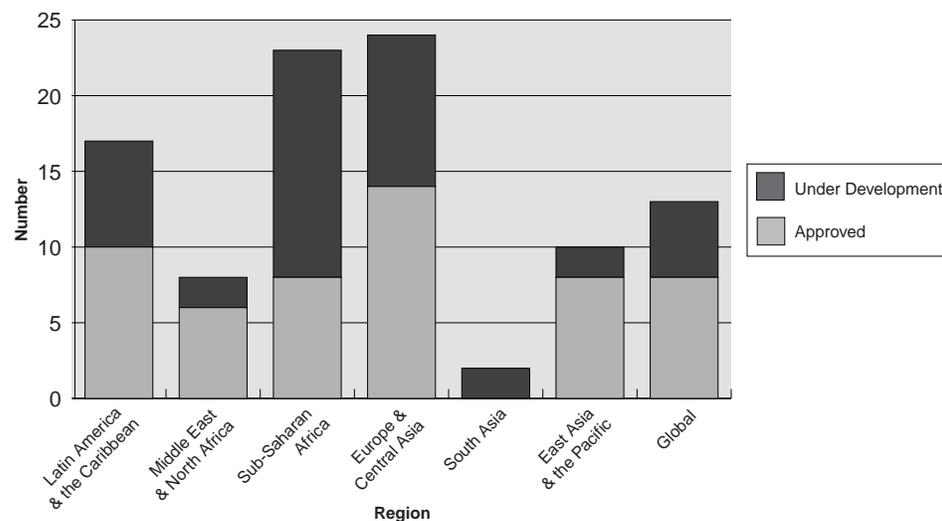
33. While the review finds this regional distribution to be appropriate in light of known environ-

mental threats and needs, there are some imbalances in the distributions at the sub-regional level and among ocean receiving basins.

34. The growth of projects in OP 10 would seem to put to rest criticisms expressed in OPS1 regarding the lack of global projects in the portfolio. The review did find, however, that there may be a disproportionate investment in this operational program to projects in the Latin America and Caribbean which gives undue weight in financial allocations to Caribbean projects.

35. OP 9 projects are predominantly based in Asia, with the smallest allocations in the Middle East/North Africa region and Eastern Europe. However, the 10 projects being prepared with PDF-B funds in Africa will soon give Africa the greatest emphasis. While this may be entirely understandable, the review questions whether the

Figure 1
Number of Approved Projects and Projects Under Development Within Regions



generally lower level of investment in Latin America and the Caribbean is appropriate.

Portfolio Trends

36. In examining the current portfolio of international waters projects, it is helpful to understand the shifts in emphasis in the development of future projects. An analysis of projects receiving PDF assistance from the GEF is also helpful. Regionally, for instance, the review found an enhanced emphasis on projects in sub-Saharan Africa, relative to other areas (Figure 1).

37. From an international waters perspective, it is equally meaningful to examine the distribution of projects among global international waters basins. Each of the international waters areas that are the subjects of international waters projects is connected, ultimately, to a major receiving ocean basin. If the projects are broken down in relation to these basins, it should reflect the degree to which each has received similar levels of investment.

38. The results of this basin analysis (Figure 2) show that, by and large, the Eastern Indian Ocean and the Eastern North and South Pacific are not represented in the current GEF portfolio,

along with the Arctic and Antarctic oceans. An examination of projects in the pipeline or under development, however, suggests that most of these deficiencies are being rectified, though the limited focus on the Eastern Indian and Eastern Pacific oceans will remain.

39. Finally, it is also helpful to examine the GEF portfolio in light of a number of particularly important issues central to international waters (Figure 3). Nine such issues were identified in the initiating memorandum. They are:

- I. Freshwater scarcity and ecosystem conflicts (particularly in Africa and the Middle East)
- II. Freshwater basin and coastal pollution and sedimentation
- III. Degradation of transboundary groundwater systems
- IV. Degradation of wetland ecosystems, particularly transboundary systems
- V. Coastal/marine nutrient over-enrichment
- VI. Persistent toxic substances

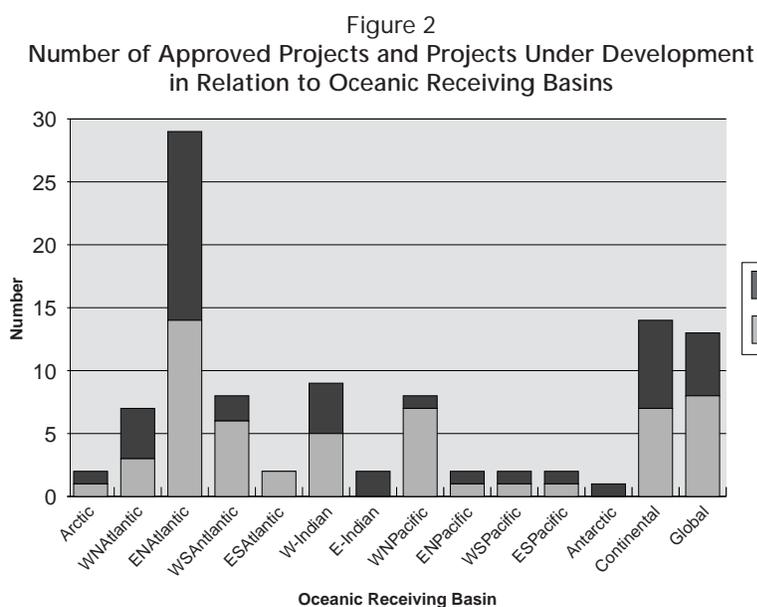
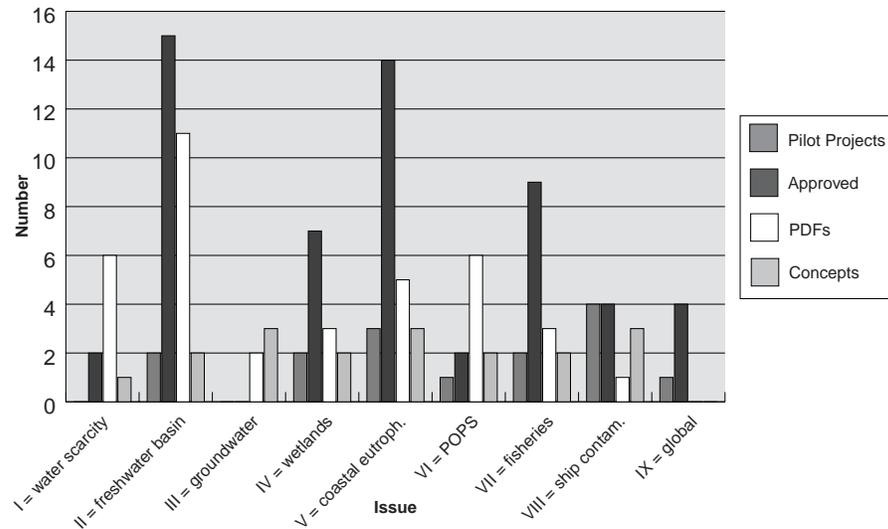


Figure 3
GEF Projects by Issue in International Waters



VII. Coastal and marine fisheries

VIII. Ship-related contaminants

IX. Global issues.

Overall, the study team found a justifiably strong focus in issues II and V, and increased attention in project development to issues I, III, and VI. While the team found minor inequities on a regional basis when looking at these issues, the sample size is essentially too small to draw any concrete conclusions.

Alignment with GEF Guidance and Policies

40. Substantively, the range of projects within the international waters focal area align well with the GEF's Operational Strategy and the Operational Program specifications adopted by the GEF Council. Furthermore, they represent viable vehicles for the promotion of actions to redress damage to international waters environments. In this respect, they have achieved considerable

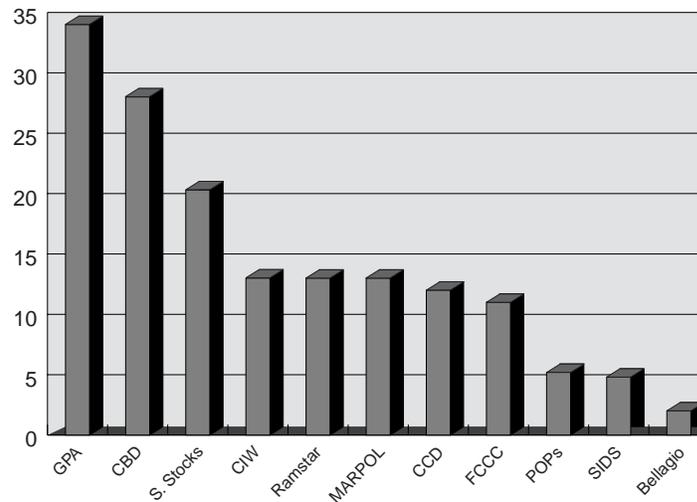
success in fostering national and multilateral commitments to improved environmental protection measures and the implementation of the aims and objectives of a range of international agreements.

41. Nevertheless, as observed by OPS1, not all the criticisms and suggestions made in the Pilot Phase evaluation have been addressed to date, and there remains room for improvement in the guidance provided by the GEF at both strategic and operational levels. Specifically, the Pilot Phase evaluation referred to the need for guidance with respect to concepts such as "participation," "incremental costs," and "global benefits," as well as appropriate approaches to promoting sustainability, innovation, and the development of global dimensions of national environmental policies and strategies and their linkage to GEF projects. The need for guidance on these topics is still evident for all GEF focal areas.

42. In the context of international waters, the topics for which additional guidance could prove useful include the utility of the "large marine

⁵The review of this OP (Integrated Ecosystem Management) was not in the purview of the program study and would have been premature given that the operational program only became operational in 2000.

Figure 4
Numbers of GEF International Waters Projects Correlating with Specific International Agreements



ecosystem” and “ecosystem management” concepts that assume prominence in the new OP 12⁵.

43. The Pilot Phase evaluation also advocated streamlining review mechanisms. The present study found the current plethora of GEF review mechanisms to be unwarranted. It places a heavy burden on resources that are not compensated for by improved project oversight. A more structured and formalized review system is needed, solely from GEF perspectives, that leads to much greater effectiveness and transparency in the processes of feedback to new project conception and design.

Agreement with Regional and International Treaties

44. GEF projects contribute significantly to the implementation of the provisions of a variety of international environmental agreements (Figure 4). The projects within the international waters focal area promote the implementation of a large number of international agreements at the global level including:

- Global Program of Action for the Protection of the Marine Environment from Land-Based Activities (GPA)
- MARPOL 73/78 Convention
- Convention on Non-Navigational Uses of International Watercourses (CIW)
- United Nations Agreement on Straddling Fish Stocks and Highly Migratory Fish Stocks
- Draft global Convention on Persistent Organic Pollutants (POPs)
- Convention to Combat Desertification
- Ramsar Convention
- Convention on Biological Diversity (CBD).

Furthermore, a number of the GEF’s international waters efforts also contribute to the implementation of the United Nations Treaty on the Law of the Sea. The fact that the majority of international waters interventions relate to more

than one such agreement is an inherent advantage as it results in more comprehensive, or holistic, projects and SAPs that focus national activities on objectively defined priority issues.

45. In addition to these global agreements, GEF interventions in international waters have made, and continue to make, contributions to the implementation of a range of existing regional agreements that address mutual protection and restoration of river drainage basins and marginal sea areas.

46. As seen in Figure 4, the main focus is on land-based activities that degrade marine waters (under the GPA) followed by loss of biodiversity (CBD), fisheries over-exploitation (Straddling Stocks), loss of wetlands (Ramsar) and hazards associated with shipping (MARPOL).

47. Thus, for instance, through GEF action to reduce nutrient pollution in the Black Sea basin, the provisions and objectives of the GPA, as translated into regional commitments by the Danube and Bucharest conventions, are strengthened by compliance with the Ramsar Convention, and *vice versa*. At the same time, beneficial consequences also accrue with respect to the preservation of biodiversity.

48. Furthermore, many GEF projects in different regions address the fragile ecosystems of coastal environments where marine and freshwater systems interact, hydrodynamic processes are more intense, and the impact of human activities is increasingly manifest. All these projects enhance synergies between the Jakarta Mandate of the Convention on Biological Diversity and the GPA, and in some instances MARPOL, as is the case with projects in the Yellow Sea, the Patagonian coast and shelf, and the southern Mediterranean. Where freshwater scarcity represents the major transboundary threat to ecosystems, the interplay of the Ramsar, CIW, and desertification conventions have provided a basis for the design of a number of GEF projects, such as the Okavango and the Niger Basin projects.

49. The GEF has also been instrumental in achieving country commitments to establish new multicountry agreements for the management of shared water bodies, such as Lake Tanganyika and the Caspian Sea. Many multicountry institutions are weak, however, both politically and financially, and frequently limited to advisory functions⁶. These findings are of particular importance because the study authors believe that the role of regional conventions and international river and lake basin organizations is of critical importance for the success and sustainability of GEF initiatives.

50. Despite important successes, the study finds that several global conventions and their secretariats have not taken full advantage of the opportunities arising from GEF projects to advance their sectoral goals and foster their translation into national legislation and policies. In addition, a satisfactory level of synergy has yet to be achieved with existing international convention mechanisms, such as their Consultative Meetings of Contracting Parties and their secretariats, that would further strengthen the catalytic role of the GEF, the replication of successful demonstrations, and global awareness of, and compliance with, international agreements.

51. The holistic approach that underlies the GEF international waters strategy and the majority of its projects is tangibly demonstrating how the effectiveness of international environmental law can be enhanced through collective arrangements and responses. Indeed, one of the strengths of GEF interventions is that they allow countries to address issues in a way that deals not only with national concerns and the internal effects of national activities, but also external effects of national activities and the effects of activities by other countries sharing the same water body.

52. The GEF can thus be seen as a major, or possibly *the* major, facilitator of the implementation and increased adoption of international water laws, action plans, and regional environ-

⁶ The prevalence of environmental or water ministries and the lack of interministerial committees at national levels are additional elements undermining the effectiveness of these organizations.

mental protection agreements. The sustenance and promotion of such regional agreements and their environmental protection activities is one of the measurable and concrete benefits of GEF international waters activities.

The TDA Approach to Preparing SAPs

53. As discussed earlier in this report, OPs 8 and 9 place emphasis on the need to formulate SAPs for interventions to address the degradation of, or threats to, international waterbodies based on sound scientific analysis (the TDA).

54. Such scientific and technical assessment is needed to identify and quantify the environmental issues and problems in the international waters area and identify their immediate, intermediate, and fundamental causes. The analysis involves an identification of causes and impacts of environmental disturbances and/or threats and assesses the scale and distribution of impacts at national, regional, and global levels, predominantly in socio-economic terms. The identification of causes specifies practices, sources, locations, and human activity sectors from which environmental degradation arises or is threatened.

55. A TDA thus provides the basis for the formulation of a SAP embodying specific actions or interventions that can be adopted nationally,

usually within a harmonized multinational context, to restore or preserve from further degradation a specific international waters area. Although such analyses can be conducted by, and within, single countries, the need to identify *transboundary* effects and causes makes it desirable that the analyses be conducted on a multilateral basis involving all riparian states to an international water body.

56. The review finds that there are a variety of ways in which a TDA is conducted. Some are more resource-intensive than others, but these usually offer advantages in providing greater insight and specificity, thereby providing an improved information base for the formulation of SAPs. They also improve the objectivity of the process. Since SAPs are inherently political instruments agreed to by a number of countries, objectivity is not a mandatory foundation for a SAP but it usually improves the effectiveness of concomitant actions to resolve environmental problems. In sum, the TDA is used to objectively determine the facts, while the politics of addressing those facts are undertaken as part of the SAP.

57. The study focused on four examples taken from GEF preparatory activities as a basis for subsequent observations on their advantages and drawbacks. The four examples chosen, which differ considerably in approach and content, are

Box 1
Creating a Transboundary Diagnostic Analysis
for the South China Sea

One of the more detailed and well-structured TDAs examined by the study concerned the South China Sea, which involved the cooperation of seven countries (Cambodia, China, Indonesia, Malaysia, Philippines, Thailand, and Vietnam).

The development of the South China Sea TDA began with the establishment of national committees in each of the seven participating countries. Each of these national committees prepared a country report that contained a national analysis of water-related problems and concerns. These country reports were then considered at a meeting of national coordinators and invited regional scientists. At this meeting, each of the issues raised within the country reports was collectively assigned a weight so that an initial list of major concerns could be defined.

The process of ranking issues in the South China Sea differs considerably from the one

Box 1, *continued*

undertaken for the Lake Tanganyika project, where priorities were assigned partly on the basis of considerations such as “feasibility” and “additional benefits,” which would normally be considered at a later stage.

In the South China Sea, the analyses in the national reports and in the TDA itself identify a series of root causes of current environmental problems and threats in the region of which the most important are: rapid growth in coastal populations, rapid economic growth over the last decade, the pace of industrialization, and the influence of globalization of trade.

The resulting GEF project in the region, *Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand*, contains four major components, three of which (habitat degradation and loss, over-exploitation of fisheries in the Gulf of Thailand, and land-based pollution) correspond to categories of issues identified in the TDA. The full project implemented by UNEP will derive specific national actions in relation to each of these categories, leading to a high-level intergovernmental meeting at which these actions will be adopted within a SAP.

for the Red Sea and Gulf of Aden, the South China Sea, Lake Tanganyika, and the Yellow Sea. While a summary of the study team’s findings is presented here, greater detail on this aspect of the review can be found in Box 1 below.

58. All the TDAs examined bring the process of SAP development to its starting point. In this sense, they can be regarded as valuable examples of a logical sequence of activities leading to the formulation of an effective and credible SAP. This is the real value of transboundary diagnostic analysis. It permits the logical development of a strategic action program that is based on a reasoned, holistic, and multisectoral consideration of the problems associated with the state of, and threats to, international waters. Furthermore, it is a valuable vehicle for multilateral exchanges of perspectives and constraints as a precursor to the eventual formulation of a SAP.

59. Nevertheless, the TDA/SAP process has been criticized for unnecessarily delaying action that addresses problems in international waters areas. This is particularly the case in areas where countries or other concerned bodies have sufficient reason to believe that the environmental threats and priorities are already known.

60. In these cases, the study concludes that it would be desirable for TDAs to be part of the preparative process leading to project design. This would require resource requirements for the conduct of TDAs to be satisfied from PDF-B budget allocations. The TDAs examined in the study clearly demonstrate that it is possible to conduct relatively comprehensive TDAs within the PDF-B budget limits. The increased PDF-B allocations for multicountry projects, adopted by the GEF Council, should be adequate to ensure that more PDF-Bs include convincing scientific bases for the actions proposed. More recommendations on this issue are included later in the report.

61. Overall, the case studies examined by the study adequately demonstrate TDAs’ utility as a means of allowing regions to approach problem resolution in international waters areas in a pragmatic and coherent manner. The conduct of TDAs provides a vehicle for multilateral consultation in the early stages of the development of SAPs, thereby reducing the risk of having to make *a posteriori* revisions of SAPs and, more importantly, ensuring the devotion of resources to issues of substance rather than perception. Grappling with priorities at early stages in the SAP development process offers greater long-term benefits in ensuring that multilateral action

is focused on issues of key importance that are likely to offer the largest net benefits.

62. The study finds that encouraging an organized, strategic identification of priority issues in regional areas has been an important ancillary benefit of international waters interventions. In this context, the GEF deserves credit for fostering science-based assessments that help define SAPs. Through this process, scientific, technical, social, and political considerations are all brought to bear on identifying priorities for the adoption of harmonized and coherent multilateral action. Attention is thereby focused on issues of substance conceived from comprehensive perspectives rather than matters of perception.

63. In many cases, the challenge is to achieve a shared vision and commitment among countries sharing a water resource regarding addressing priority transboundary environmental issues concerning the water body. Therefore, the development and endorsement of a SAP, and hence political commitment to its implementation, is in itself often the major achievement. Even in cases where the problems appear to be known (e.g., the Aral Sea basin), the lack of an agreed SAP can hamper joint action by the countries to address the transboundary environmental issues. On the other hand, addressing all priority issues identified in a comprehensive SAP is frequently beyond the abilities of GEF and requires coordinated efforts by the countries and donors. Therefore, completing an agreed SAP is itself commonly an important process indicator for GEF.

Project Performance and Review of Completed Projects

64. Among individual projects and operational programs, overall project performance varies. In general, projects within OP 10 were clearly successful. Among OP 9 projects, the *Strategic Action Program for the Binational Basin of the Bermejo River* and *Prevention and Management of Marine Pollution in the East Asian Seas* projects were found to be the most productive in

terms of meeting their originally conceived objectives and in fostering concrete progress on multilateral action to address prevailing problems. In general, the performance of OP 8 projects is something of a mixed bag. In the final evaluation, all OP 8 projects received criticism on some major aspects of their performance. However, it should be noted that only two of the completed projects were designed after the adoption of the operational programs. The remainder, retroactively assigned, did not strictly follow the OP guidance, except for the three ship-related projects.

Completed Projects

65. The performance of the 10 completed projects* for which final reports exist shows considerable variability (Table 1). Some projects, however, have clearly been more successful than others. The two projects on ship waste handling in the southwestern Mediterranean (*Oil Pollution Management Project for the Southwest Mediterranean Sea*) and in China (*China: Ship Waste Disposal*) can be regarded as very successful in meeting their objectives. Some present and future reductions in stress on the marine environment can be directly attributed to these projects. Moreover, in the case of the *China: Ship Waste Disposal* project, these reductions in stress are quantifiable.

66. Despite these successes, the degree to which these projects were effective in reducing stress in the regions concerned, however, remains an open question in the absence of any uniform tool for comparing the relative severity of impact among a number of activities and sources. This is the value of the TDA approach, especially if it is conducted holistically and objectively.

67. In addition, as has been pointed out in the earlier GEF reviews, there is a continuing need for strong and sustainable political commitment for projects to fulfill their objectives. This was clearly demonstrated in the *Water Pollution Control and Biodiversity Conservation in the Gulf of Guinea Large Marine Ecosystem* project, which was plainly overambitious. There remains doubt, based on the final evaluation report, that

*N.B. The Pilot Phase Caribbean “project” was actually a Pre Investment Facility (PRIF) grant that never matured into a full project.

the degree of political commitment is as strong or as sustainable as it would have been if the project had been based on more modest ambitions.

68. Among these completed projects, the importance of the mid-term review in helping turn around an underperforming project is clear. The *Pollution Control and Other Measures to Protect Biodiversity in Lake Tanganyika* project, for instance, accomplished a great deal in the face of considerable difficulties. An important part of this success was due to the timeliness and effectiveness of the mid-term review, which could then be used to redirect the project.

69. Other lessons learned from completed projects include:

- The need to ensure adequate funding for communication functions among relevant national institutions, NGOs, managers, policy makers, experts, and even implementing agencies
- The critical role of management actions or interventions that are community-based
- The need to evaluate capacity building measures following project completion

Table 1
Terminal Evaluations of International Waters Projects

#	Country/Region	Project	IA	OP #	Evaluation Date	Project Dates
1	Eastern Europe	Environmental Management and Protection of the Black Sea	UNDP	8 (pilot phase)	1997	1993-1996
2	Africa	Water Pollution Control and Biodiversity Conservation in the Gulf of Guinea Large Marine Ecosystem	UNDP	8 (pilot phase)	1999	1994-1999
3	Caribbean	Planning and Management of Heavily Contaminated Bays and Coastal Areas in the Wider Caribbean	UNDP	8 (pilot phase)	undated	1995-1998
4	Eastern Europe	Developing the Danube River Basin Pollution Reduction Program	UNDP	8	1999	1997-1999
5	Africa	Pollution Control and Other Measures to Protect Biodiversity in Lake Tanganyika	UNDP	9 (pilot phase)	2000	1995-July 31, 2000 (scheduled to terminate)
6	South America: Argentina and Bolivia	A Strategic Action Program for the Binational Basin of the Bermejo River	UNEP	9	2000	1997-1999
7	Asia	East Asian Seas Prevention and Management of Marine Pollution	UNDP	9 (pilot phase)	1998	1994-1999 (extension)
8	Western Mediterranean	Oil Pollution Management	WB	10 (pilot phase)	2000	1994-2000
9	China	Ship Waste Disposal	WB	10 (pilot phase)	1997	1992-1997
10	Caribbean	Wider Caribbean Initiative on Ship-Generated Waste	WB	10 (pilot phase)	1999	1994-1998

- The importance of political commitment exemplified by national agency leadership and a positive legislative environment
- The benefits of clearly defined roles for implementing agencies prior to project implementation.

Demonstration Projects

70. The study contained an examination of the degree to which the projects designated as demonstration projects represent appropriate demonstrations of consultative processes, of riparian or regional arrangements for environmental protection, or of technology that can subsequently be applied to advantage in other areas than the geographical focus of the project concerned. Two projects that comprise demonstrations predominantly were reviewed: *Egypt: Lake Manzala Engineered Wetlands* and *Removal of Barriers to the Effective Implementation of Ballast Water Control and Management Measures in Developing Countries*.

71. The study also examined other projects that have demonstration components. To qualify for consideration, projects in this category should have the potential for replication elsewhere, but such replication would occur through other mechanisms (i.e., in future projects by other agencies). An example of a PDF project containing components that might be considered for replication elsewhere is *Support for the National Plan of Action in the Russian Federation for the Protection of the Arctic Marine Environment from Anthropogenic Pollution*. This project includes the definition and application of procedures for the identification and characterization of hot-spots that might be considered suitable for replication in other areas.

72. The list of projects examined under these two categories are:

Operational Program No. 10

Egypt: Lake Manzala Engineered Wetlands (UNDP); pilot phase

Global: Removal of Barriers to the Effective Implementation of Ballast Water Control and Management Measures in Developing Countries (UNDP)

Operational Program No. 8

Hungary-Slovenia: Building Environmental Citizenship to Support Transboundary Pollution Reduction in the Danube (UNDP)

Operational Program No. 9

Integrating Management of Watersheds and Coastal Areas in Small Island Developing States in the Caribbean (UNEP/UNDP)

Although not initially included in the characterization process, an additional project likely to be designated as largely demonstration has been submitted for Council approval. This is the project entitled *Global: Removal of Barriers to the Introduction of Cleaner Artisanal Gold Mining and Extraction Technologies* in OP 10. This project, although as yet not designated a demonstration project, was deemed worthy of inclusion in this analysis.

73. The review by the study team found that, by and large, these projects are both well conceived and satisfy the relevant criteria for GEF support. The potential incremental benefits that can accrue from both global and regional demonstration projects continue to justify some allocation of resources under OP 10 to demonstration projects of a similar nature.

Findings from Site Visits

74. Only limited impacts could be identified from the four project site visits undertaken as part of the study. This was largely due to the fact that the projects had not yet reached sufficient maturity to produce quantifiable environmental benefits. The two UNEP-implemented projects visited in Brazil, *Implementation of Integrated Watershed Management Practices for the Pantanal and Upper Paraguay River Basin* and *Integrated Management of Land-Based Activities in the São Francisco Basin*, had been under

Box 2

Review of the *Removal of Barriers to the Effective Implementation of Ballast Water Control and Management in Developing Countries* Project

The *Removal of Barriers to the Effective Implementation of Ballast Water Control and Management Measures in Developing Countries* project implemented by UNDP is centered on the need to minimize the risks of alien species transfer by ballast water shipments. The importance of this topic has been widely recognized and has resulted in the formulation of *Guidelines for the Control and Management of Ships Ballast Water* published by the International Maritime Organization (IMO) in 1998. Furthermore, there is a plan to develop a new international agreement to address the ballast water issue being developed under the auspices of the MARPOL 73/78 Convention.

Currently, the only basis for the development of systems for minimizing the risks of alien species transfer by ballast water is the IMO guidelines. Moreover, the GEF project will be completed prior to the formulation of the new convention. This could be viewed as a severe limitation of the current series of demonstration activities within the project. However, the countries that are the focus of the six demonstration port sites in the GEF project are actively involved in the negotiations leading to the formulation of the new convention, and will likely use their experience to affect the development of appropriate guidelines. These participating countries and project sites include Brazil (Port of Sepetiba), China (Port of Dalian), India (Port of Mumbai), Iran (Kharg Island), South Africa (Port of Saldanha), and Ukraine (Port of Odessa).

In addition to providing valuable lessons learned, this will help ensure that any developments applicable to the nature of the management and compliance systems for alien species transfer by ballast water be identified early on, thereby enabling them to be addressed in project implementation before the project ends.

Overall, the study team found that this project appears to be a well-founded and, at the early stages in project execution, a well-managed demonstration project. It ideally fits the aims and objectives of demonstration projects within the GEF international waters portfolio. Recipient countries have greatly benefited from contacts and the exchange of information with countries already having national mechanisms for addressing ballast water issues. In addition, project managers are informed of the limitations of a strict focus on ballast water transfers of alien species. This is particularly important if, as currently proposed, tributyltin (TBT) coatings and paints are ultimately prohibited from use on all vessels. Such a change could make it likely that hull transport of alien species by commercial vessels will exceed the transport of biological material in ballast water, forcing some rethinking in project priorities.

To date, however, the indicators of success are positive and some additional actions taken by the project coordination unit in the IMO has increased the broader benefits of the project beyond those intended.

implementation for 13 and 15 months, respectively, at the time of the visit.

75. Furthermore, the original design of the Pantanal/Upper Paraguay project had assumed the existence of a SAP prepared with World Bank support. However, it was evident that there was no full SAP with priority actions, targets, and schedules but only a diagnostic inventory of the broad priority areas that could be used as a strategic framework. The task of the present project is, thus, to produce a SAP that will articulate the detailed action program for the region. In the present project, all components are geared towards preparing a SAP. The São Francisco Basin project also employs the TDA/SAP approach. Collaborative work towards this goal has commenced and both projects can demonstrate process indicators based on the organization of planning workshops and establishment of work programs bringing together broad categories of actors, including federal and state agencies, local universities and research institutions, and NGOs.

76. Similarly, the *Implementation of the Strategic Action Program Toward Achievement of the Integrated Management of the Benguela Current Large Marine Ecosystem* project implemented by UNDP displayed significant process indicators based on the successful Block B preparation phase. The preparation process resulted in completion of a TDA/SAP only 17 months after the initial workshop for stakeholders in August 1998. No other projects in OP 8 have accomplished this effort during preparation or so quickly. While several projects in OP 9 have produced SAPs during Block B preparation, they were for preventive actions associated with OP 9 rather than the complex situations characteristic of OP 8. During the course of preparation, four management committee meetings were held with an average of three participants from Angola, five from Namibia, and four from South Africa, and including an average of six others from the

implementing agencies and other institutions. Two well-attended workshops were held nine months apart to conduct the consultation processes necessary to undertake the strategic work, and small groups collaborated during the interim to polish the strategic products (TDA and SAP). The project brief that the GEF Council approved for the full project contains the TDA (establishing several top priorities for activity among all the different environmental and transboundary concerns), the SAP (signed by several sectoral ministers from each of the three countries detailing joint commitments), and a list of country-specific policy/legal/institutional reforms the ministers pledge to implement in each country during the project addressing the few priorities and are responsive to the SAP.

77. The *Water and Environmental Management for the Aral Sea Basin* project deals with the world's most dramatic case of environmental collapse and land degradation: the progressive drying up of the Aral Sea, the extinction of most forms of its aquatic life, and the contamination of huge land areas with salts and toxic substances. This environmental tragedy was brought about in a relatively 30-year period by excessive water abstractions (90%) from the two rivers which feed the Aral (the Amu Darya and the Syr Darya) for irrigation purposes. Against a scenario of political, social, and economic complexity, the efforts and support of the donor community have been generally unsuccessful in improving basin management, including interstate institutional arrangements. Most major development assistance institutions are presently downsizing their commitments⁷, or considering discontinuing their programs (EU-Tacis, UNDP, bilaterals). The environmental and social objectives which at least partly inspired the institution of IFAS (to save the Aral, and its riparian populations), have been lost, if not totally forgotten (see Box 3). The short-term focus is now on preventing the further collapse of the irrigation system while efforts to support agreement on a joint vision/

⁷Technical assistance programs have generally focused on treating the symptoms and meeting the basic needs of the affected populations, rather than addressing the root causes of the disaster.

Box 3
The Challenge of Changing Priorities:
The Case of the Aral Sea

Few projects better exhibit the importance of solidifying an agreed and strategic approach to international waters problems than the GEF's *Water and Environmental Management in the Aral Sea Basin* project, implemented by the World Bank. The project was selected to be one of the four sites visited by the study team.

The objective of the project is to address the root causes of the overuse and degradation of the basin by assisting the participating countries in implementing a mutually agreed SAP. This effort is intended to stimulate and achieve substantive and concrete progress towards the four objectives of the Aral Sea Basin Program (ASBP):

- Stabilizing the environment
- Rehabilitating the disaster zone around the Sea
- Improving the management of international waters
- Building the capacity of the regional institutions.

In particular, the GEF project is focused on the first and third objectives with the target of “effectively reducing water consumption in the productive sectors, mainly irrigation, of at least 15 percent” by the end of the project. This approach corresponded to the priorities and needs perceived by the riparian countries: restoring some level of ecosystem functioning in areas surrounding the Aral, and stabilizing the sea itself while optimizing upstream irrigation.

Later, however, these priorities changed, and concern was mounting about the management of the salt mobilized by drainage waters, and the maintenance and sustainability of the irrigation system itself. While the Council-approved project document maintains the 15-percent reduction in water abstractions from the two rivers as a major project objective, the study believes this objective is not realistic. Moreover, it is no longer considered a priority given the new scenario of growing land degradation within the irrigated lands, among other problems. Compounding this problem, basin-wide multicountry arrangements on water and environment are apparently losing political support in the region, as indicated by the lack of activity, initiatives, and even formal meetings, of IFAS (the project's executing agency).

commitment for water sharing among riparians, and the establishment of multisectoral and multicountry management structures, are ongoing.

Geographically Based Approaches

78. The *Operational Strategy* recognizes that a series of international waters projects in a given region may be needed over time to: (a) build capacity and political commitment of countries to work together; (b) jointly acknowledge and set priorities based on assessments of environmental

conditions in waterbodies; (c) identify actions to address the highest priority transboundary problems; and (d) implement both agreed regional and national policies, and legislative and institutional reforms, in turn attracting the investments needed to address them.

79. In essence, this comprehensive approach requires a set of relatively straightforward projects that collectively cover complex situations and activities. This breaks complex challenges up into manageable pieces and fosters action at three

institutional levels: multilateral, national (i.e., inter-ministerial), and sub-national (i.e., essentially provincial and community) levels.

80. The Danube River and Black Sea region was chosen by the former GEF International Waters Task Force, in collaboration with the countries, as a test geographic region for this approach. The results to date of this approach demonstrate a number of lessons learned. Among these, considerable involvement—and funding—by lending institutions such as the World Bank may be needed to accelerate or intensify activities in the international waters focal area. In addition, the very broad consultation process was a tool for developing common understanding among not only the recipient countries, but other interested organizations. Such understanding facilitates joint action and collaboration and prevents duplication and the creation of gaps.

81. In addition to work in the Danube/Black Sea basins, there are other regions where geographical approaches are being undertaken, including the Mekong River-South China Sea region (four projects), as well as the Paraná/Paraguay/Plata River basin systems and Patagonian Shelf Large Marine Ecosystem (seven waters projects).

82. In the Mekong River-South China Sea region, for instance, there are strong links in the relationship between the *Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand* project and the *Mekong River Basin Water Utilization Project*. Both projects are implemented by the World Bank. The projects were not, however, conceived together. Nevertheless, the relevant GEF project briefs were reviewed to determine the extent of mutual recognition as well as the extent and nature of any consultative arrangements proposed for exchanging information and experience and ensuring that issues of mutual interest were considered in concert. Both explicitly refer to the other project. There is concern, however, about the low level of coordination between the Mekong River project and the Cambodia-based *Integrated Resource Management and Develop-*

ment in the Tonle Sap Region project, implemented by UNDP with the Asian Development Bank.

83. In the *Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand* project brief, the summary of activities includes “regional harmonization.” Thus, there is a clear reflection of the need and means of consultation between the South China Sea project and the Mekong River project. The fact that the project is being executed partly by the secretariat for the Action Plan for the Seas of East Asia (EAS/RCU) and the Coordinating Body for the Seas of East Asia (COBSEA) is directly involved means that there are broad regional bodies involved in the project that have a diversity of regional interests.

84. The review also reveals a clear recognition of the need for mutual consultation in a regional context. Not only are such inter-project and regional consultations specifically referred to in the relevant project briefs but the funding requirements to ensure such consultation are included in the two project’s projected allocations. There would thus appear to be an adequate basis for ensuring coherence between the two projects and also an enhanced likelihood of post-project collaboration with the possible consolidation of future mutual interests into a regionally comprehensive umbrella.

85. The review found that the implementing agencies have a mixed record when it comes to collaborating on a series of projects in the Paraná/Paraguay/Plata River basins and Patagonian Shelf. UNEP’s *Strategic Action Program for the Binational Basin of the Bermejo River and Integrated Watershed Management Program for the Pantanal and Upper Paraguay River Basin* projects, for example, have so far failed to establish effective means of cooperation with other projects in the wider basin. UNDP’s *Plata Maritime Front* project and the World Bank’s *Argentina Coastal Contamination* project, however, are essential for fostering collaboration among countries, implementing agencies, and provincial governments.

86. In addition, the World Bank has three relevant, non-GEF initiatives in the region, including a pollution reduction effort in Buenos Aires that should be linked to the UNDP *Plata Maritime Front* project. Two other initiatives involve loans for addressing Patagonian Shelf issues (one for pollution abatement and the other to restructure fisheries management to stop the most important cause of overfishing in the large marine ecosystem). The review also found a number of other linkages between projects and implementing agencies in the region, all positive developments to ensure effective coordination and use of limited resources.

87. In some cases, the study found that good intentions regarding collaboration at the start of projects may not be realized for many reasons, including turnover in implementing agency staff or GEF institutional task forces, changes in governments, and disputes among nations over shared areas of marine ecosystems such as those associated with fishing and oil exploration rights. In general, however, the review found some very good examples of agency coordination and effectiveness in collaboration.

Single Versus Multiple Implementing Agency Projects

88. The GEF Operational Strategy in international waters emphasizes implementing agency cooperation according to each agency's respective comparative advantage. The Operational Strategy states that:

“[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...* A comprehensive approach will be followed in *designing projects so that complementarities among Implementing agencies... will be achieved*” (italics added).

89. Within the international waters portfolio, there is only one full project and no PDF-Bs that are formally implemented by all three IAs. There are, however, two full projects and seven PDF-Bs in which two agencies cooperate (three with UNDP and UNEP and four with UNDP and the World Bank). These nine projects are:

Full Projects

- *Implementation of the Strategic Action Program for the Red Sea and Gulf of Aden* (UNDP/WB/UNEP)
- *Addressing Transboundary Environmental Issues in the Caspian Environment Program* (UNDP/UNEP/WB)

PDF-Bs

- *Control of Eutrophication, Hazardous Substances and Related Measures for Rehabilitating the Black Sea Ecosystem* (UNDP/UNEP)
- *Nile Basin Initiative – Basin-Wide Shared Vision Program* (WB/UNDP)
- *Development of a SAP for the Guinea Current LME* (UNDP/UNEP)
- *Baltic Sea Regional Project* (WB/UNDP)
- *Integrating Management of Watersheds and Coastal Areas in Small Island Developing States in the Caribbean* (UNEP/UNDP)
- *Senegal River Basin Water and Environmental Management Project* (WB/UNDP)
- *Reversing Land and Water Degradation Trends in the Niger Basin* (UNDP/WB).

In addition, *Integrated Management of the Lake Chad Basin* consists of a full project implemented by UNDP and a complementary PDF-C by the World Bank that is intended to contribute to the full project.

90. In undertaking this comparison, there were two basic sources of information. First, the team analyzed the results of a questionnaire sent to project participants and proponents. Second, an in-depth analysis of project experiences was carried out through documents and site visits.

91. Several respondents to the questionnaire highlighted the benefits of involving several implementing agencies in developing a project. It was recognized that more could be achieved through a comprehensive approach and collaboration between the agencies. In line with the Operational Strategy, the respondents recognized the advantages of each implementing agency contributing according to their respective comparative strengths. It was also mentioned that ideally a project should be prepared in consultation with as many stakeholders as possible. The development of the SAP for the Red Sea in which all implementing agencies participated, as well as the *Nile Shared Vision* (PDF-B implemented in collaboration by the World Bank and UNDP) were mentioned as positive examples.

92. However, virtually all respondents had experienced instances where implementation by multiple implementing agencies created additional burdens. It was mentioned that this had resulted in longer project preparation times and higher transaction costs and coordination costs. This is partly due to the differing procurement rules and other administrative procedures between the agencies. But it was also felt that agencies had competing interests that did not necessarily translate into the project focusing on its objectives. It was emphasized that the willingness to cooperate must come from the agencies themselves and not be imposed by GEF. Similarly, an opinion was expressed that having two or three implementing agencies may lead to an unclear division of responsibility and accountability.

93. Another issue highlighted in the survey was the lack of communication and coordination between the implementing agencies. It was noted that better communications existed upstream at the concept stage but this communication between projects and agencies deteriorated later.

In general, there appears to be little communication and exchange of experiences between GEF projects, even those that operate in the same geographical area and would thus be the greatest beneficiaries of collaboration that incorporated lessons, prevented duplication, and ensured efficiency. Lessons from earlier projects and projects from other implementing agencies are insufficiently channeled into new project designs. The reasons for this state of affairs were identified as competition between the implementing agencies and consequent unwillingness to cooperate, as well as the lack of a comprehensive database on GEF projects.

94. More positively, the study found that the implementation of UNDP's *Strengthening Capacity for Global Knowledge Sharing in International Waters* project (IW:LEARN) and the organization of the First GEF International Waters Conference in October 2000 were promising steps taken to address these deficiencies. Similarly, the PIR process is intended to ensure that feedback of lessons to new projects takes place. In the particular case of the Black Sea-Danube-Dnieper basins, significant progress has been made in coordinating the efforts of the implementing agencies.

95. Overall, the consensus from the questionnaire was that, while harnessing the comparative advantages of the various implementing agencies was desirable and the projects benefited from leveraging expertise and experiences vested in the various agencies, there should normally only be one implementing agency in charge of a project. Good communication and coordination between all implementing agencies during project preparation and implementation was seen as a necessity and preferred over multiple-agency implementation.

96. The study team selected projects for closer examination on the basis of different implementation arrangements and varying levels of implementing agency coordination (see Box 4). While it is hard to draw definitive conclusions on the information available, the study finds that the experience of using multiple implementing

agencies, according to their comparative advantages, has been positive. This is the case whether the implementing agencies are working together jointly, in parallel on similar efforts, or in sequence on a project (i.e., one agency prepares a SAP while another implements follow-up projects). For this to occur, however, it appears beneficial to clearly define the co-implementation arrangements and to outline the comparative advantages of each implementing agency at the outset in a memorandum of understanding or similar agreement.

97. On the other hand, the consensus emerging from the questionnaire survey with the project coordinators and proponents suggests that joint implementation arrangements unduly complicate project management and add to the bureaucracy through increased and often conflicting reporting requirements and administrative procedures of the agencies. It appears that the initial costs of implementation partnerships are indeed higher but the expectation is that there would be net benefits at the end of the process. It is, thus, clearly necessary to assess the benefits vis-à-vis the costs at the design stage before deciding on joint implementation between agencies.

Community-Based Approaches to Managing Transboundary Waters

98. Typically, stakeholders in international waters projects range from the implementing agencies and executing agencies, which are often regional institutions or a consortium of national water and infrastructure ministries, to national and sub-national counterparts, private firms involved in shipping, service providers in ports and harbors, tourism agencies, large-scale fishing fleets, and, to some extent, coastal communities and non-governmental organizations.

99. While this multi-country set-up is necessary to bring together decision makers bordering a common water resource, the study found some projects that creatively blend community-based approaches with regional cooperation. Three such approaches that may provide lessons or models for replication in other projects are: (a) application of the integrated coastal zone management approach; (b) development of in-country and local outreach programs; and (c) establishment of working groups and local committees.

Box 4 Differing Approaches

The international waters program study team selected several projects for closer examination on the basis of different implementation arrangements and varying levels of Implementing Agency coordination. The *Integrated Management of Land-Based Activities in the São Francisco Basin* and *Determination of Priority Actions for Further Elaboration and Implementation of the Strategic Action Program for the Mediterranean Sea* projects, for example, represent a model where a single agency is implementing the present project stage, but where interagency collaboration took place or is foreseen at different stages. The *Water and Environmental Management in the Aral Sea Basin* project, on the other hand, was developed under the umbrella of the Aral Sea Basin Program (ASBP) established by UNDP, UNEP, and the World Bank in the early 1990s.

In some cases, one implementing agency is best positioned to carry out a project. In the *Implementation of the Strategic Action Program Toward Achievement of the Integrated Management of the Benguela Current Large Marine Ecosystem* project, for example, UNDP has been the only implementing agency involved. According to the completed TDA and agreed

Box 4, *continued*

SAP, policy, legal, and institutional reforms and capacity development to facilitate their implementation appear to be the key interventions to address the transboundary environmental issues. Assisting the countries with these issues falls within UNDP's comparative advantage in GEF. Therefore, not having the other implementing agencies involved was not seen as a problem. Linkages are being developed with other implementing agency projects proposed for GEF support in the area.

The Aral Sea Basin Program, on the other hand, is more complex. Implemented through the World Bank, the project currently suffers from the lack of a multisectoral or interministerial coordinating body. As originally conceived, the GEF project was intended to catalyze efforts of the international community to build a coherent common strategy in the region. Substantial co-financing was negotiated with several multilateral and bilateral donors. Since the approval of the project document, however, the country priorities have shifted, making environmental assistance a lower priority. Most of the other major programs, including that of UNDP, are being downsized or cancelled, leaving the World Bank- implemented GEF project isolated. The World Bank is concerned about the fragmentation of efforts and is taking steps through the project to facilitate alternative arrangements and enhance cooperation. GEF actions in the Aral Sea basin would clearly benefit from a broader collaboration among the implementing agencies. This is, however, difficult in the context of the current situation in the region.

A third example is that of the São Francisco Basin project, which is aimed at supporting an integrated approach to the planning and management of the São Francisco River Basin and its coastal zone. Its main components include the development of a diagnostic study (TDA) to provide a sound scientific and technical basis for strategic remedial actions to protect the marine environment from land-based sources. Based on this, the project is intended to formulate a Watershed Management Program (i.e., a SAP) for the basin. GEF assistance to Brazil in this work is implemented through UNEP.

In light of UNEP's comparative advantages, this is an appropriate role for the agency. The intention is that once the SAP is completed and investment needs are identified, the World Bank—either through its regular program or with GEF—can assist the country in implementing these. Similarly, if the needed actions identified include legal, policy or institutional reforms, these would fall under the purview of UNDP. GEF implementing agency cooperation in this case would thus be sequential. It is still too early to assess whether this model will work in practice. Promising signs include the regular communication mechanisms that have been established between the project and the World Bank, and the coordination of all regional water projects in the area by the same person in the Brazilian government.

100. In the *Building Partnerships for the Environmental Protection and Management of the East Asian Seas* project, for example, the implementation of integrated coastal zone management at pilot sites in China and the Philippines has had positive impacts in the establishment of coastal and marine legislation to

protect small-scale fishermen, enhanced awareness of coastal zone management issues among local people, and cooperation with the private sector on reducing coastal pollution.

101. In general, the study found a number of innovative mechanisms for stakeholder participa-

tion built into several international waters projects (Table 2). Among other things, these mechanisms clearly facilitated the creation of local and regional bodies, the participation of the private sector, and measurable improvements in environmental indicators.

Portfolio-Wide Observations and Responses to Previous Review Efforts

102. The study found a number of issues within the GEF international waters portfolio which may hinder the effectiveness and understanding of the GEF. Many of these issues were previously identified in the Pilot Phase evaluation and the OPS1, though they may not have been considered “major recommendations” at the

time. These outstanding recommendations are augmented by additional observations by this study and have been collectively itemized within three categories: strategic, operational, and administrative.

Strategic Issues

103. In general, the study team found that the approach embodied in the Operational Strategy continues to be valid as a basis for further development of the international waters focal area. In its work, however, particularly at the Budapest conference, it became evident that much of the terminology and requirements associated with the preparation of international waters projects is either ambiguous or unclear.

Table 2
Institutional Mechanisms for Stakeholder Participation

Classification of Projects	Institutional Mechanisms for Stakeholder Participation	Examples of Projects
Water Body Based	<ul style="list-style-type: none"> Regional NGO Forum with international and regional NGOs providing advisory services and small grants given to local NGOs on water management sub-projects 	Danube River Black Sea
	<ul style="list-style-type: none"> Multilevel project execution set-up with NGO and private sector representatives 	Caribbean
	<ul style="list-style-type: none"> Joint management set-up of government with NGOs and private sector 	Lake Ohrid
Integrated Land and Water	<ul style="list-style-type: none"> Regional body for project management, including scientific and academic institutions 	Aral Sea
	<ul style="list-style-type: none"> Local implementation teams formed; composed of farmers and NGOs to carry out project outreach 	Poland
	<ul style="list-style-type: none"> Periodic consultations through public meetings for feedback to project steering committee involving private sector 	Brazil Pantanal Argentina
	<ul style="list-style-type: none"> Multi-sectoral project coordination committees formed in pilot sites, including agreements with end-users in communities 	East Asian Seas, SIDS
Contaminant Based	<ul style="list-style-type: none"> Creation of Advisory Panel representing NGOs, academic institutions, local governments, private sector, and coastal communities 	Global Knowledge Sharing
	<ul style="list-style-type: none"> Local committee composed of port authorities, fishery operators, shipping companies, and scientific institutions formed to assist project management unit 	China Ship Waste
	<ul style="list-style-type: none"> Intercountry project steering committee formed with NGO and private sector representatives 	Wider Caribbean, Southwest Mediterranean

This is despite the fact that the preparation of guidance on several of these topics had previously been recommended by earlier GEF reviews. Clarifications could improve understanding of, and support for, ongoing and future GEF projects.

104. In light of the emphasis on indicators for judging the performance of GEF interventions in international waters, the review found that there are tools, such as the estimation and utilization of net benefits, which could further help measure the effectiveness of GEF's efforts.

Operational Issues

105. The study found that the current operational programs contain ambiguities and opportunities for misinterpretation. Moreover, as the GEF's experience grows, and its mandate expands to incorporate concerns like integrated ecosystem management (OP 12) and persistent organic pollutants, there may be a need to revisit the original operational programs in international waters. For example, clarifying OP 8 and 9 to make them mutually coherent, consistent, and distinct in relation to the new OP 12 may be necessary. Similarly, the description of OP 10 warrants revision to reflect the transfer of certain contaminants to the proposed operational program to address the new POPs Convention.

106. The danger that funding may be assigned to immediately tractable issues that are of less significance in a given region was also noted. The likelihood of such approaches is heightened in the absence of a preparatory TDA as a basis for the formulation of a SAP. Ideally, support for specific project activities should be provided on the basis of a comparative evaluation of all causes of the damage or threat concerned, thereby ensuring that a dominant cause or source is being addressed and that limited funding is spent most effectively. Nevertheless, the study also acknowledges the desire by many recipients to see concrete action occurring on important issues where the relative impact of different environmental concerns are better known.

107. The study found a need to improve the efficiency of project assessment and review procedures used within GEF focal areas, particularly when examined in the context of the implementing agencies' review practices. This is highlighted further in the "Recommendations" section of this report.

108. The team found that little attention appears to have been given to the qualities (e.g., sustainability) of prospective executing agencies in the review of proposed projects. There is evidence that weaknesses on the part of executing agencies have, in some instances, resulted in substantial problems during project implementation. Accordingly, the team found that steps need to be taken to incorporate reviews of the suitability of executing agencies at the project submission stage.

109. Finally, a major finding of the study is the effectiveness of coordination and programmatic planning in international waters achieved through interagency coordinating mechanisms, such as the task force. This is particularly important in light of the multiagency, multinational character of the international waters portfolio.

Administrative Issues

110. Complementing comments made earlier, the study found considerable confusion or lack of understanding regarding the following: incremental cost calculations; application of the "ecosystem management" concept; transboundary diagnostic analysis; and the "Large Marine Ecosystem" concept. These observations are consistent with ones made by the two previous GEF-wide performance reviews.

111. The review also found a number of other issues of GEF-wide relevance that made assessment of the portfolio more challenging—and less efficient—than should be expected. These problems relate to:

- Lack of uniformity in project titles and numerical coding (The names of projects

often change as they progress from development through implementation. Added to this is the proliferation of abbreviated names for projects, and it becomes difficult to have any certainty about the project to which a reference is being made.)

- Lack of uniformity in length and formats of project documents and evaluations, particularly terminal evaluations
- Difficulty in determining whether lessons learned are being channeled back into ongoing projects or the project development process
- Lack of increased monitoring for high-risk projects, the need for improved efficiency in review procedures, and better follow-through of lessons learned
- Need for quantifiable indicators of performance at project proposal stage and increased attention to those indicators in terminal evaluations.

Recommendations

112. Based on its conclusions, the study team's recommendations follow.

113. The review found that much more could be done to clarify the role of the various operational programs, particularly in light of the expansion of GEF's mandate to address persistent organic pollutants and integrated ecosystem management (OP 12). For instance, OP 8 and OP 9 should be clarified to make them mutually coherent and consistent with the new OP 12.

114. Along these same lines, the definitions in OP 10 should be revised to reduce the emphasis on ship-derived impacts on international waters and increase the emphasis on land-based activities and their effects, including those mediated by atmospheric transport pathways. Concurrently, the classes of priority contaminants should be reconsidered and revised to reduce the emphasis on metals, hydrocarbons, and those persistent organic pollutants of primary relevance to the new POPs Convention.

115. The use of science-based transboundary diagnostic analyses as a basis for the formulation of strategic action programs should continue. This will increase confidence that priority threats are being effectively addressed in SAPs. It will also ensure that in cases where land degradation is a priority issue, appropriate resources are provided to meet that threat in subsequent GEF interventions.

116. A procedure and timetable for the preparation of guidelines on major concepts used within GEF's Operational Strategy and the Operational Programs should be devised. Specifically, these

guidelines should provide clear definitions and examples of the following topics: incremental cost estimation; the application of the "ecosystem management" concept; transboundary diagnostic analysis; and the "Large Marine Ecosystem" concept, assuming these concepts will continue to be of relevance to the international waters focal area.

117. Consider increasing assessment of the suitability of proposed executing agencies to ensure competent project management and the sustainability of any activities (administrative arrangements or organizations) engendered through GEF international waters projects. Such evaluations would reduce the prospects of implementation delays and other problems attributable to executing agencies. There is a need to ensure, at the project proposal stage, that appropriate measures are incorporated into projects to maintain the viability of any basin or regional organizations used or established for the purposes of executing GEF international waters projects beyond the life of the project.

118. All high-risk projects, or those with high-risk components, should be subjected to a mid-term review. Most projects, in fact, would benefit from mid-term reviews. The clear benefits exemplified by the influence of the mid-term review of the Lake Tanganyika project suggest that such reviews can significantly improve project performance. However, the costs associated with mid-term review of all projects would consume too large a proportion of project implementation costs. Therefore, mid-term reviews could be confined to those projects exhibiting high risks of failure to deliver on the

major objectives as judged during the Project Implementation Review process.

119. In addition to increased use of mid-term reviews, final or terminal evaluations of projects should only be conducted *after* project implementation has been completed. Moreover, GEF should insist on uniformity for these final evaluation reports. This will require GEF to define and adopt a common format for these reports and insist on adherence to it. Such a step would enable easier comparison of performance among projects and streamline feedback processes, leading to improvements in the quality of project proposals.

120. Given the complex nature of international waters projects, which can involve the cooperation of a large number of countries and Implementing agencies, there is a need for an inter-agency advisory function within the GEF to help ensure the coordination and effective development of the international waters focal area. In addition to providing advice on overall portfolio development, this also could ensure that demonstration projects are replicable in a global context and focus on priority problems for which solutions are needed beyond the project area.

121. Procedures for feeding back “lessons learned” to the formulation of projects in the international waters focal area have been initiated through the IW:LEARN project and the GEF Biennial International Waters Conference, held for the first time in October 2000. Accordingly, there is a need to formalize this process in a transparent and effective mechanism within the GEF.

123. While it is too early to expect much information regarding measured improvements in international waters environments from GEF interventions, as GEF’s experience increases, preparations should be made for including more comparable information on process, stress reduction, and environmental status indicators in future project evaluations. Process indicators, for instance, are already available in most cases, but it is also extremely difficult to make coherent and objective comparisons among the process indicators for individual projects.

123. In South America, an evaluation of progress in project development should be conducted with a view to identifying opportunities for accelerating attention and national commitments to resolving environmental problems in large catchments, particularly those on the eastern side of the Andes. Consideration should also be given to opportunities for developing country-driven projects that address dominant problems in the smaller catchments draining regions to the west of the Andes. Such projects could be the basis for projects in all western South American countries.

124. A streamlined oversight and tracking methodology should be prepared and implemented by the GEF defining the procedures to be used from project inception through final review and feedback. This methodology should include appropriate and uniform documentation to ensure transparency and accountability. The methodology should be reviewed by an independent group of management and technical experts prior to its adoption within the GEF. By eliminating the redundant and ineffective procedures currently in use, the costs of such an exercise should be more than recovered.

125. The reviews of GEF projects should concentrate increasingly on those offering the greatest potential benefit to international waters activities. Reviews at the concept/PDF and project submission and completion phases, plus the PIR, are the most valuable to the program. Other forms of GEF review, including mid-term reviews of high-risk projects and reviews periodically carried out by the M&E unit for specific purposes of overall focal area alignment and performance, should be carried out as need arises.

126. The GEF secretariat should take immediate steps to ensure that all documents pertaining to GEF projects produced by the secretariat are amenable to proper citation and accessible through a single website. Furthermore, in view of the lack of universal access to the Internet, hardcopy and electronic (diskette or CD-ROM) copies of all documents should be maintained in

a central facility within the secretariat for distribution on request.

127. A unique alphanumeric identifier for each project should be assigned by the GEF secretariat to avoid confusion among projects and to obviate the current widespread practice of using diverse short form or truncated titles for the same project, a problem not limited to international waters projects. This should be complemented by guidelines defining the length, structure, and

formats of all project documents both to enhance transparency and facilitate comparative evaluations of projects and project reviews. It is understood that the implementing agencies have their own procedures, requirements, and documentation regarding project formulation, administration, and management. This recommendation applies only to the documents collated and assembled by the GEF secretariat, for which greater uniformity, simplicity, and transparency is warranted.

Annexes

Annex 1: Initiating Memorandum

Annex 2: Background Documents

Annex 3: Complete List of Projects Included in the Program Study

Annex 1: Initiating Memorandum

I. Background

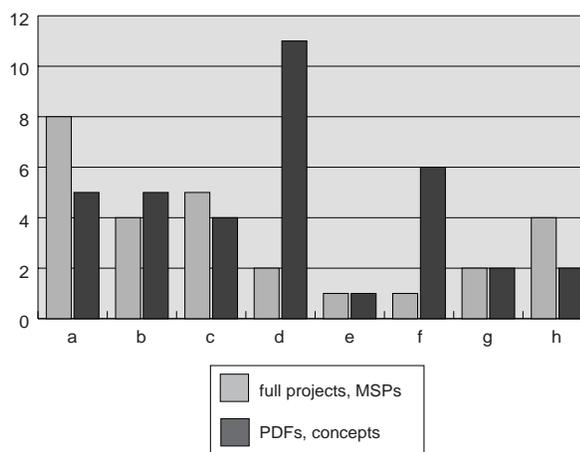
The International Waters Focal Area

1. Since the Pilot Phase, GEF has supported 41 full projects and 4 medium-size projects (MSP) in the International Waters area. Eleven of these have been completed to date. In addition, 22 project development funds (PDFs) have been approved.
2. Twelve projects were approved during the Pilot Phase (1991-1994) for a total GEF allocation of \$117 million. Leveraged co-financing was \$100 million. The major geographic focus was in Africa (\$41.5 million), followed by Asia (\$38 million), the Caribbean (\$18 million) and Europe (\$17.8 million). The main issue addressed by Pilot Phase projects was ship-related contamination with emphasis on remediation measures and contingency planning. All other projects represented attempts to address marine/freshwater pollution with a variety of approaches.
3. After the adoption of the GEF Operational Strategy, a total of 27 projects for a cumulative allocation of \$212 million were approved during the period of FY1995-1999. The anticipated co-financing ration is slightly over 1:1. Africa has had the largest share of fund allocation (\$63.4 million; 4 projects), followed by Asia (\$52.8 million; 5 projects), Latin America and the Caribbean (\$38.6 million; 6 projects), Eastern Europe (\$22.3 million; 6 projects), and Small Island Developing States (SIDS) (\$12.3 million; 1 project). Another \$20.9 million has been allocated to global projects.
4. In 1997, GEF adopted three Operational Programs (OP) for the International Waters focal area¹. The OPs provide the objectives, scope, expected outcomes and outputs for each program to achieve during the FY1998-2000 (Annex 1). The OPs are:
 - OP 8: Waterbody-based Operational Program;
 - OP 9: Integrated Land and Water Multiple Focal Area Operational Program;
 - OP 10: Contaminant-based Operational Program.
5. The projects that have been undertaken within the OPs 8–10 have been grouped according to the type of intervention/objective into the following categories in the 1999 Program Status Review (PSR)²:
 - a. OP 8 – Diagnostic priority-setting projects embracing entire LMEs or watersheds (remediation);
 - b. OP 8 – “Action oriented” projects involving demonstrations of remediation measures (pollution, focus on nutrients);

¹ *GEF Operational Programs*. Global Environment Facility, Washington, DC, 1997.

² *GEF International Waters Program Status Review*, September 1999.

- c. OP 9 – Diagnostic priority-setting projects embracing entire LMEs or watersheds (prevention);
- d. OP 9 – Prevention of land degradation, water scarcity, adaptation to climate change, integrated land/water management (freshwater resources only), underground waters management;
- e. OP 10 – Global Plan of Action (GPA) demonstrations, freshwater-marine interface;
- f. OP 10 – Global contaminants;
- g. OP 10 – Ship-related pollution/environmental hazards;
- h. OP 10 – Regional/global technical support (assessments, training, targeted research).



6. The distribution of full projects and MSPs into the above categories is seen in the following figure³. The figure also includes the PDFs and new project concepts. This reveals a shift over time in the emphasis of the portfolio from priority-setting/diagnostic to action-oriented projects thus reflecting the maturing of the portfolio. We may also note the expected increase in global contaminant related projects which in turn reflects the emerging global concerns on persistent toxic substances.

Thematic Review of Multicountry Project Arrangements

7. The Thematic Review of Multicountry Project Arrangements with a focus on Interna-

tional Waters projects, carried out by the M&E Team jointly with the implementing agencies in FY2000, will provide inputs to and will be made available for the Program Study. The objective of the review was to identify emerging lessons about what kinds of multi-country approaches have worked, what have not, why, and under what circumstances⁴.

II. The Task

Relationship with the OPS2

8. The Second Study of GEF's Overall Performance (OPS2) will focus on the assessment of the GEF's program results and initial impacts. It will evaluate the GEF's overall strategies and programmatic impacts, achievement of the objectives of GEF's Operational Policies and Programs, and review the modalities of GEF support. OPS2 will be carried out by a fully independent team appointed in consultation with the GEF Council.

³ Source as 2 above.

⁴ The results of the review suggest the importance of addressing the environmental issues at all levels. In a multicountry setting, regional cooperation arrangements at the shared waterbody level are needed. At the country level, inter-ministerial committees should provide inputs to the multicountry process, as well as to ensure coordinated implementation at the sub-national level. At the same time, local level actions in each basin country are necessary. Carrying out a transboundary diagnostic analysis (TDA) and preparing a strategic action program (SAP) have proven helpful in fostering a shared vision, political commitment, and a framework for addressing the transboundary environmental problems. Demonstrations and pilot projects that start to address concrete problems on the ground have been found to be a useful means of moving towards action oriented projects while completing the strategic work.

9. The focal area Program Studies are intended to contribute to the OPS2 through a systematical critical self-assessment of the portfolio. The International Waters Program Study will focus on the coverage of GEF international waters programs, as well as the results and preliminary impacts. The Program Study will be undertaken internally by the GEF M&E Team together with the GEF Secretariat Land and Water Team and the implementing agencies.

Response to Global International Waters Issues

10. The GEF Operational Strategy (OS) for ⁷ Technical assistance programs have generally focused on treating the symptoms and meeting the basic needs of the affected populations, rather than addressing the root causes of the disaster. International Waters⁵ was developed to respond to the main global environmental issues that threaten transboundary water resources. The OPs 8–10 further defined the issues. The Program Study will assess whether the GEF is addressing the priority issues in each geographical setting and to evaluate how well it is responding to the threats.

11. The global transboundary issues that form the priority areas of action for the GEF have been identified in the GEF OS as follows. Each one of these issues is a subject of an international treaty or agreement, or an intergovernmental process intended to lead to one.

- I) Freshwater Basin Scarcity and Ecosystem Conflicts (in particular, but not exclusively, in Africa and the Middle East) (Convention on the Law of the Non-Navigational Uses of International Watercourses);
- II) Freshwater Basin and Coastal Pollution and Sedimentation (Convention on the Law of the Non-Navigational Uses of International Watercourses);

III) Degradation of Transboundary Groundwater Systems (Bellagio Draft Transboundary Groundwater Treaty);

IV) Degradation of Wetland Ecosystems, particularly Transboundary Ones⁶ (Ramsar Convention; Convention on Biodiversity);

V) Coastal/Marine Nutrient Overenrichment (Global Plan of Action for the Land-based Sources of Pollution);

VI) Persistent Toxic Substances (POPs Convention);

VII) Coastal and Marine Fisheries (Law of the Sea);

VIII) Ship-Related Contaminants (MARPOL).

Analysis of Expected Results and Impacts of the GEF International Waters Focal Area

12. Due to the long-term nature of ecological changes in international water bodies it is expected that the impacts of GEF International Waters programs on the environmental status will be difficult to detect in a global context. Nevertheless, it is assumed that results may be measurable in specific waterbodies in which GEF programs and projects have been active.

13. The Program Study will analyze the available data utilizing performance indicators at three levels, considering possible alternatives within each of the following types:

- Process indicators (focusing on the processes that are likely to lead towards a desirable outcome);
- Stress reduction indicators (focusing concrete actions that reduce the environmental stress on the water body); and,
- Environmental status indicators (focusing on actual improvement of ecosystem quality).

⁵ GEF Operational Strategy. Global Environment Facility, Washington, DC, 1996.

⁶ Linkage to OP 2 in biodiversity focal area.

14. Based on the analysis of the relevant data, the Program Study will attempt to draw likely or plausible linkages between GEF International Waters project interventions and observed changes in all three types of indicators, taking into account known or likely contributions of other actors to the observed changes.

15. These data will be aggregated for all project results and impacts, with regard to each indicator where it is relevant in order to arrive at measures of overall global impacts in regard to that indicator.

16. The Study will formulate overall conclusions on GEF International Waters project influence on the processes that reduce stress on the international water environment, the reduction of these stresses at the sectoral source, and the state of the international water environment.

III. Methodology

17. The Program Study will utilize a variety of methodologies tracking down the coverage, results and initial impacts. These methodologies cover quantitative analyses of project documentation, review of evaluation reports, interviews with task managers in the implementing agencies, questionnaires and interviews with project personnel, and selected field visits. Agreed indicators will be used for the Study (cf. paragraph 13).

Levels of Portfolio Analysis

18. The Program Study will focus on assessing the results of the International Waters focal area in relation to the above priority areas of action (cf. paragraph 11). This will be done through an analysis of the portfolio from three different perspectives. The portfolio subject to the review will include all projects completed, ongoing and under preparation. The three perspectives for portfolio analysis are:

I. Global transboundary issues addressed;

II. Types of project interventions/design features; and,

III. Projects organized into a geographically-based programmatic approach.

19. **Level I:** The Program Study will assess the coverage, expected results and impacts of the projects addressing each specific issue. It will also relate the program performance to the short-term objectives stated under each OP. The Program Study will address, *i.a.*:

- Numbers of projects addressing each of the priority issues;
- Geographical coverage;
- Resources allocated and leveraged;
- Implementing agency collaboration;
- Extent of stakeholder participation; and,
- Expected results and impact.

20. **Level II:** The Program Study will focus on the types of projects as defined by different design approaches. The basic dichotomy reflects whether they are: (i) strategic priority-setting projects, like those utilizing primarily the TDA/SAP⁷ approach; or (ii) action-oriented projects, utilizing primarily replicable demonstrations, capacity development, and resource assessments.

21. The Study will, *i.a.*, assess the effectiveness of the two categories of projects in part drawing from the Multi-Country Project Arrangements Thematic Review. Emphasis will also be placed on the following aspects:

- The types of interventions and institutional arrangements, including cooperation mechanisms between countries and implementing agencies;
- Implementing agency collaboration;

⁷Transboundary Diagnostic Analysis/Strategic Action Program.

- Demonstration effects and replication potential/modality;
- Institutional sustainability.

22. **Level III:** The assessment will focus on the experiences gained with the Programmatic Approaches, defined as the strategic organization of countries' requests in a specific geographical region and transboundary issue. The Programmatic Approach is also seen as an opportunity to achieve multiple global benefits and to build upon the synergies and complementarities between the various GEF focal areas.

23. The programmatic framework for Addressing Transboundary Priorities in the Danube/Black Sea Basin is the first attempt to develop a full-fledged GEF Programmatic Approach to a geographic area and issue in the International Waters focal area, as called for in OP 8 short-term objective (e). It establishes a common agreement among the countries and GEF implementing agencies for objectives and programmatic indicators that will be utilized to measure progress over the five-year program.

24. In addition to the Danube/Black Sea Basin program, other emerging programmatic approaches will be included in the Program Study. Regions where there is a framework in place or emerging to link the freshwater catchment areas to the receiving marine ecosystem in an integrated manner include, i.a.:

- South China Sea, Mekong;
- Paraná-Plata-Patagonian Shelf Large Marine Ecosystem;
- Western Africa;
- East African Great Lakes;
- The Baltic Sea.

Collection of Relevant Data and Creation of Databases

25. Basic documents informing the Study include the *GEF Operational Strategy*, *GEF Operational Programs*, and documents relevant to work on performance indicators for the International Waters focal area, including the *Multicountry Project Arrangements Thematic Review and Addressing Transboundary Environmental Problems in the Black Sea Basin: A Programmatic Approach*.

26. The Program Study shall identify and collect all project documents on GEF international waters projects available in the GEF Secretariat, implementing agencies, and the STAP, including GEF Secretariat project reviews, project mid-term review and completion reports, other evaluation documents, and STAP selected reviews.

27. The Thematic Review of Multicountry Project Arrangements will be used to inform the Program Study concerning the experiences with different kinds of institutional and organizational arrangements and processes used in International Waters projects. In some case, further analysis building upon the review will be carried out in the Program Study.

28. The First GEF Biennial International Waters Conference, October 14-18, 2000, will be used as an opportunity for data collection, interviews and discussions with project proponents and personnel.

29. The Program Study will identify any gaps in data that could be filled later. The task of filling the data gaps, however, goes beyond the scope of the present Study.

Field-Based Reviews

30. A limited number of field visits will be undertaken to selected projects to verify and

supplement reported on-the-ground results and impacts, focusing on process and stress reduction indicators. The selection of projects for in-depth study and visits will be based on carefully crafted analytical questions that will lead to specific criteria. Additional criteria that will influence the selection of the projects include:

- Cluster of global transboundary priority issue;
- Type of project (priority-setting vs. action-oriented/demonstration);
- Duration of implementation;
- History of PIR (Project Implementation Review) ratings;
- Implementing agency; and,
- Geographical region.

IV. Mode of Work

31. The Study Team for the International Waters Program Study will consist of one full-time staff member of the GEF Monitoring and Evaluation Team, members of the GEF Secretariat Land and Water Team, implementing agencies, a representative of STAP, and one senior external consultant.

32. The Study Team at the Inception Meeting on August 24-25, 2000, prepared an initial work

plan showing when specific tasks need to be underway or accomplished.

33. The Program Study will engage in extensive collection of data and information through the implementing agencies, as well as directly from projects at country level. The Study Team will travel to selected countries as determined necessary. In other cases, local consultants will be hired and thoroughly briefed for country level work.

Expected Outputs

34. The Program Study will result in a report covering the three levels of analysis (I, II, III) with regard to the achievement of results and impacts, as measured through the process, stress reduction, and environmental status indicators. The report will consist of an executive summary, a concise main report, and detailed annexes. The report and background documents will be made available to the OPS2 team.

Timeframe

35. The Program Study will be undertaken from July 2000 to February 2001, with early results fed to the OPS2 team, which is expected to begin work around January 2001. The First GEF Biennial International Waters Conference will be held in October 2000. Country-level fieldwork will be carried out during September–December 2000. Final completion of the Program Study will take place in January–February 2001.

Annex 2: Background Documents

The main report was drafted by Michael Bewers and Juha Uitto drawing upon the various component analyses reported in the background documents. The mode of operation was that the background documents each have a lead author and have been subsequently reviewed by the entire Program Study Team.

The background documents and principal authors were as follows:

1. Initiating Memorandum – J.I. Uitto
2. Inception Meeting Decisions – J.I. Uitto
 - 2a Component Analyses – J.M. Bewers
 - 2b Questionnaire for GEF International Waters Project Principals – J.M. Bewers
 - 2c Process for the Detailed Examination of Projects Used for the Purposes of Component Analyses and for the Selection of Site Visits – J.M. Bewers
 - 2d Aide-Memoire for Site Visits – J.M. Bewers
 - 2e Monitoring and Evaluation Indicators for GEF International Waters Projects – A.M. Duda
3. Analysis of Composition and Trends within the International Waters Portfolio – J.M. Bewers and S. Leloup
 - 3a Full and Medium-Size Project Characterizations
 - 3b PDF Characterizations
 - 3c Overall Project Characterization
4. Strategic and Operational Analysis of the International Waters Focal Area – J.M. Bewers
5. Surveillance and Advisory Functions in the International Waters Focal Area – J.M. Bewers
6. Project Performance: Analysis of Terminal Evaluations of International Waters Projects – J.M. Bewers
7. Review of the Transboundary Diagnostic Analysis (TDA) Approach to the Preparation of Strategic Action Programs (SAPs) – J.M. Bewers

8. Analysis of the Land Degradation Linkage Study from International Waters Perspectives – J.M. Bewers
9. Review of Geographic-Based Programmatic Approaches – A.M. Duda
10. Analysis of International Waters Demonstration Projects – J.M. Bewers
 - 10a Review of the Ballast Water Project – J.M. Bewers
 - 10b Strategic Issue Bearing on the GEF Full Project: *Removal of Barriers to the Effective Implementation of Ballast Water Control and Management Measures in Developing Countries* – J.M. Bewers and J. Pernetta
11. Review of Contributions to Global and Regional Agreements – A. Merla
12. Single v. Multiple Implementing Agency Project Review – J.I. Uitto
13. Community-Based Approaches to Managing Transboundary Waters – M.C.J. Cruz
14. Analysis of Questionnaire Results – J.M. Bewers
15. Mission Reports
 - 15a Water and Environmental Management in the Aral Sea Basin – A. Merla
 - 15b Integrated Management of the Benguela Current Large Marine Ecosystem – C. Crepin and A.M. Duda
 - 15c Brazil: Integrated Management of Land-Based Activities in the São Francisco Basin – J.I. Uitto
 - 15d Brazil: Integrated Watershed Management Program for the Pantanal and Upper Paraguay River Basin – J.I. Uitto

These background documents are available upon request from the GEF Secretariat Monitoring and Evaluation Team.

Annex 3: Projects Included in the Program Study

Project Title	Project Type	IA	OP
Africa: Industrial Water Pollution in the Gulf of Guinea Large Marine Ecosystem	UNDP	FP	8 (PP)
Africa: Pollution Control and Other Measures to Protect Biodiversity in Lake Tanganyika	UNDP	FP	8 (PP)
Africa: Lake Victoria Environmental Management	WB	FP	8
Africa: Implementation of the Strategic Action Program Towards the Achievement of the Integrated Management of the Benguela Current Large Marine Ecosystem	UNDP	FP	8
Africa: Canary Current Large Marine Ecosystem	UNEP	PDF-B	9
Africa: Reversal of Land and Water Degradation Trends in the Lake Chad Basin Ecosystem	UNDP	FP	9
Africa: Integrated Management of the Lake Chad Basin	WB	PDF-C	9
Africa: Western Indian Ocean Islands Oil Spill Contingency Planning	UNEP	PDF-B	9
Africa: Integrated Management of the Okavango Basin	UNDP	FP	9
Africa: Support to the Nile Basin Initiative - Basinwide Shared Vision Program	WB/UNDP	PDF-B	9
Africa: Reversing Land and Water Degradation Trends in the Niger Basin	UNDP	PDF-B	9
Africa: Integrated Management of the Volta River Basin	UNEP	PDF-B	9
Africa: Development of a SAP for the Guinea Current LME	UNDP/UNEP	PDF-B	9
Africa: Senegal River Basin Water and Environmental Management Program	WB	PDF-B	9
Africa: Oil Pollution Management Project for the Southwest Mediterranean Sea	WB	FP	10 (PP)
Africa: Western Indian Ocean Islands Oil Spill Contingency Planning	WB	FP	10
Argentina: Coastal Contamination Prevention and Sustainable Fisheries Management	WB	FP	8
Asia/Pacific: Reducing Environmental Stress in the Yellow Sea Large Marine Ecosystem	UNDP	FP	8
Asia/Pacific: Prevention and Management of Marine Pollution in the East Asian Seas	UNDP	FP	9 (PP)
Asia/Pacific: Mekong River Basin Water Utilization	WB	FP	8
Asia/Pacific: Reversing Degradation Trends in the South China Sea	UNEP	FP	8

Project Title	Project Type	IA	OP
Asia/Pacific: Bay of Bengal Large Marine Ecosystem	WB	PDF-B	8
Asia/Pacific: Building Partnerships for the Environmental Management of the East Asian Seas	UNDP	FP	9
Asia/Pacific: Implementation of the Strategic Action Program of the Pacific Small Island Developing States	UNDP	FP	9
Brazil: Integrated Watershed Management Program for the Pantanal and Upper Paraguay River Basin	UNEP	FP	9
Brazil: Integrated Management of Land-Based Activities in the Sao Francisco Basin	UNEP	FP	10
Bulgaria: Wetlands Restoration Project	WB	PDF-B	8
CE Europe/FSU: Danube River Basin Environmental Management	UNDP	FP	8 (PP)
CE Europe/FSU: Developing the Danube River Basin Pollution Reduction Program	UNDP	FP	8
CE Europe/FSU: Preparation of a Strategic Action Program for the Dnieper River Basin and Development of SAP Implementation Mechanisms	UNDP	FP	8
CE Europe/FSU: Addressing Transboundary Environmental Issues in the Caspian Environment Program	UNDP/UNEP/-WB	FP	8
CE Europe/FSU: Lake Ohrid Management	WB	FP	8
CE Europe/FSU: Strengthening Implementation of Nutrient Reduction Measures and Transboundary Cooperation in the Danube River Basin	UNDP/WB/UN-EP	PDF-B	8
CE Europe/FSU: Water and Environmental Management in the Aral Sea Basin	WB	FP	9
China: Ship Waste Disposal	WB	FP	10 (PP)
Egypt: Lake Manzala Engineered Wetlands	UNDP	FP	8 (PP)
Georgia: Agricultural Development II	WB	FP	8
Global: Regionally-based Assessment of Persistent Toxic Substances	UNEP	FP	10
Global: Development of National Implementation Plans for Persistent Organic Pollutants	UNEP	PDF-B	10
Global: Removal of Barriers to the Effective Implementation of Ballast Water Control and Management Measures in Developing Countries	UNDP	FP	10
Global: Regional Oceans Training Program	UNEP	FP	10 (PP)
Global: World Water Vision - Water for Nature	WB	MSP	10
Global: Global International Waters Assessment (GIWA)	UNEP	FP	10
Global: The Role of the Coastal Ocean in the Disturbed and Undisturbed Nutrient and Carbon Cycles	UNEP	MSP	10
Global: Strengthening Capacity for Global Knowledge-Sharing in International Waters	UNDP	FP	10
Global: Tropical Shrimp Trawling	UNEP	FP	10
Jordan: Gulf of Aqaba Environmental Action Plan	WB	FP	8
Latin America/Caribbean: Environmental Protection of the Rio de la Plata and Its Maritime Front - Pollution Prevention and Control and Habitat Restoration	UNDP	FP	8

Project Title	Project Type	IA	OP
Latin America/Caribbean: Strategic Action Program for the Binational Basin of the Bermejo River	UNEP	FP	9
Latin America/Caribbean: Formulation of a Strategic Action Program for the Integrated Management of Water Resources and the Sustainable Development of the San Juan River Basin and its Coastal Zone	UNEP	FP	8
Latin America/Caribbean: Integrating Management of Watersheds in Caribbean SIDS	UNEP/UNDP	PDF-B	9
Latin America/Caribbean: Environmental Protection and Sustainable Integrated Management of the Guarani Aquifer	WB	PDF-B	9
Latin America/Caribbean: Demonstration of Innovative Approaches to the Rehabilitation of Heavily Contaminated Bays in the Wider Caribbean	UNDP/UNEP	FP	10
Latin America/Caribbean: Reducing Pesticide Runoff in the Caribbean	UNEP	PDF-B	10
Latin America/Caribbean: Ship-Generated Waste Management	WB	FP	10 (PP)
Latin America/Caribbean: Wider Caribbean Initiative for Ship-Generated Waste	WB	FP	10 (PP)
Latin America/Caribbean: Environmental Protection of the Gulf of Honduras and Maritime Transport Control		PDF-B	10
Latin America/Caribbean: Strategic Action Program Implementation for the Bermejo River Basin	UNEP	FP	9
Latin America/Caribbean: Comprehensive Action Program to Phase Out DDT and Reduce the Long Term Effects of Exposure in Mexico and Central America	UNEP	PDF-B	10
Poland: Rural Environmental Project	WB	FP	9
Regional: Black Sea Environmental Management	UNDP	FP	8 (PP)
Regional: Developing the Implementation of the Black Sea Strategic Action Plan	UNDP	FP	8
Regional: Determination of Priority Actions for the Further Elaboration and Implementation of the Strategic Action Program for the Mediterranean Sea	UNEP	FP	8
Regional: Building Environmental Citizenship to Support Transboundary Pollution Reduction in the Danube	UNDP	MSP	8
Regional: Preparation of a Strategic Action Program and Transboundary Diagnostic Analysis for the Tumen River Area, Its Coastal Regions and Related Northeast Asian Environs	UNDP	FP	9
Regional: Implementation of the Strategic Action Program for the Red Sea and Gulf of Aden	UNDP/WB/UNEP	FP	9
Regional: Baltic Sea Regional	WB/UNDP	PDF-B	9
Romania: Black Sea Agricultural Pollution Control	WB	PDF-B	8
Russian Federation: Support to the National Plan of Action in the Russian Federation for the Protection of the Arctic Marine Environment from Anthropogenic Pollution	UNEP	PDF-B	10
Russian Federation: Persistent Toxic Substances, Food Security, and Indigenous Peoples of the Russian North	UNEP	MSP	10
Yemen: Protection of Marine Ecosystems of the Red Sea Coast	UNDP	FP	8