



Global Environment Facility

June 9th 2003

**THE NATURE AND ROLE OF LOCAL BENEFITS IN GEF PROGRAM
AREAS**

GEF OFFICE OF MONITORING AND EVALUATION

STUDY COMPONENT: DESK REVIEW OF GEF PROJECTS

International Waters

Study Document Number Four

Lee Alexander Risby

This report has been prepared for the Office of Monitoring and Evaluation of the Global Environment Facility (GEFME). The findings, interpretations, and conclusions expressed in this paper do not necessarily reflect the views of the GEF Secretariat, Implementing and Executing Agencies, donors and Governments.

ACRONYMS

Bank	World Bank
CBO	Community-based Organization
EU	European Union
GEF	Global Environment Facility
IA	Implementing Agency
ICR	Implementation Completion Report
IW	International Waters
MTE	Mid-term Evaluation
NGO	Non-Governmental Organization
PIR	Project Implementation Report
PRA	Participatory Rural Appraisal
PSR	Project Status Report
SAP	Strategic Action Plan
SIDs	Small Island Developing States
TDA	Trans-boundary Diagnostic Analysis
TE	Terminal Evaluation
UNDP	United Nations Development Program
UNEP	United Nations Environment Program

Contents

A. Introduction	4
B. Projects Reviewed	7
C. Intended and Recorded Income and Employment Benefits	9
D. Intended and Recorded Local Empowerment in Governance	18
E. Intended and Recorded Improvements in Health	26
F. Intended and Recorded Improvements in Human Capital	30
G. Summary	30
References	33
Appendix	36

The objectives of this reviews are to: (a) describe types of local benefits projects are designed to deliver; (b) describe type of local benefits that have actually occurred under implementation; (c) describe and analyze methodologies which have been used to measure and assess local benefits and impacts. As this is the preliminary stage, the study only attempts to illustrate the types of local livelihood benefits (intended and recorded) as an entry point for fieldwork phase of the study. Presentation of lessons and recommendations are not made because of lack of data relating to local livelihood benefits.

1. INTERNATIONAL WATERS AND LOCAL LIVELIHOODS¹

1.1 This paper will describe the types of local livelihood benefits², monitoring and evaluation of benefits provided by GEF International Waters projects, based on a sample of thirteen projects. Sampling procedures have been described in accompanying document³.

A. Introduction

“Water itself should be seen as a social, environmental and economic resource, and each of these aspects must be represented in the political discourse ... This discourse should reflect the interests of local communities and peoples, their livelihoods and their water and natural resources.”⁴

“The poor typically suffer most from declining water quality and ecosystem productivity since they are most directly dependent upon these environmental assets for both their food supplies and livelihoods. Therefore, efforts to protect international waters and their biodiversity must be integrated with measures to alleviate poverty in ways that respect the regenerative thresholds of species, habitats and waters.”⁵

1.2 Water is one of the most critical resources in people’s lives. Water is essential for environmental well-being and it plays an important domestic and productive role in peoples’ livelihoods⁶. Globally, water resources are under increasing stress in terms of both quantity and quality⁷. The GEF IW portfolio covers three Operational Programs

¹ “A livelihood comprises the capabilities, assets (including both material and social resources) and activities required for a means of living. A livelihood is sustainable when it can cope with and recover from stresses and shocks and maintain or enhance its capabilities and assets both now and in the future, while not undermining the natural resource base.” (Carney, 1998).

² ‘Local livelihood benefits are interpreted as being elements of project outcomes that directly or indirectly have positive impacts upon people and ecosystems within or adjacent to project areas, and provide tangible gains in the livelihoods of communities and the integrity of ecosystems. This may include for example, local communities who live around a wetland and who are dependent upon it for livelihood activities; or people downstream of an intervention in the upper reaches of a river basin where the quantity and / or quality of water flowing down is enhanced.’ (Soussan et al, 2003).

³ See Risby, L.A. (2003)

⁴ In-depth Evaluation of A Strategic Action Program for the Binational Basin of the Bermejo River. Terminal Evaluation (2000)

⁵ UNDP (2002)

⁶ GEF, 2002b; Moriarty, 2001; Waughray et al., 1998

⁷ GEF, 2002b

(OPs) that seek to mitigate trans-boundary water resource issues (e.g. pollution) and catalyze sustainable development. Council sets out the GEF approach to IW in the *Operational Strategy*. 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 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.”⁸

1.3 GEF’s IW focal area includes projects in marine and freshwater systems and are categorized into OPs:

- OP8 Water-body based interventions are intended to play a catalytic role in assisting groups of countries to make changes in key sectors such as agriculture and industry so that specific water bodies and / or river basins can sustainably support human activities.
- OP9 Integrated Land and Water Multi-Focal Area interventions integrate the use of sound land and water management strategies and changes in sectoral policies that promote sustainable development;
- OP10 Contaminant-based interventions demonstrate barrier removal and best practices that mitigate releases of contaminants in international waters.

1.4 In both OP8 and OP9, the *Operational Strategy* recommends the formulation of SAP as an appropriate initial step in helping countries define priority problems, establish commitments to specific actions, and agree on additional interventions for trans-boundary resources. The SAP should provide for a balance of ‘preventative and remedial actions’ in the following areas:

- Priority preventative and remedial actions;

⁸ GEF (1996)

- Cross-cutting issues and linkages to other focal areas;
- Institutional strengthening and capacity-building needs;
- Stakeholder involvement and public awareness;
- Program monitoring and evaluation;
- Institutional mechanisms for implementation⁹.

1.5 GEF IW interventions (and like those in other focal areas) are targeted at funding the ‘incremental costs’¹⁰ of achieving global environmental benefit, defined as ‘benefits that accrue to the global community’ such as regional cooperation, legislation and policies to improve the management of water resources. Within the incremental cost framework, local benefits cannot be directly financed by GEF. Each GEF project must demonstrate global environmental benefits. Although such benefits often cannot be expressed in a ‘dollar value’, the increment can be expressed in projects through costs of measures required to reduce uncertainty and risk to support demonstration and so facilitate sustainability and replication effects at national and international scales¹¹. It is through demonstration that IW interventions often include local level components that develop links between environmental and livelihood benefit, and through replication produce global environmental benefits. Indeed, the *Second Overall Performance Study*¹² of GEF recognized that “International waters projects have been instrumental in generating economic benefits in various regions” alongside environmental benefits demonstrating the “inseparable nature of economic and environmental values”.

1.6 Despite the frequent reporting of the ‘potential’ for, or ‘intended’ local livelihood benefits in project design documents and recognition of the production of ‘actual’ benefits, there is little substantive analysis available to ‘ground’ comments. For example, the *International Waters Program Study*¹³ was closely focused on the Trans-boundary Diagnostic Analysis (TDA) and Strategic Action Plan (SAP) processes and provided no

⁹ Ibid and GEF (2001: 4 – 5)

¹⁰ Incremental costs are defined as the additional economic costs of choosing an activity, which aims to achieve broader environmental gains than necessary to support the national and local interest.

¹¹ See King (1993)

¹² See GEF (2002a)

¹³ See GEF (2001)

assessment of livelihood benefits, apart from a brief section on community participation in SAP processes. So far, with regard to the local livelihood benefits, the GEF Secretariat has only reviewed ‘income and employment’ benefits based on a small sample of projects, including the IW Lake Victoria Environmental Management project¹⁴.

1.7 The following sections will review the ‘intended’ and ‘actual reported’ local livelihood benefits of IW projects¹⁵, going beyond a narrow focus on income and employment to encompass empowerment in governance, as well as health and education benefits¹⁶. This analysis is based on data drawn from project design documents, project implementation reports (PIRs) and project status reports (PSR)¹⁷, mid-term evaluations (MTE) and terminal evaluations (TE) / implementation completion reports (ICRs). Reporting regimes tend to focus on implementation processes rather than local and global impacts¹⁸. Therefore, review recognizes the data available to the desk review is limited in terms of scope and depth of reporting on local livelihood benefits and the conclusions of this study are tentative and are not *definitive*.

B. Projects Reviewed

1.8 This section will outline key characteristics of the sample of thirteen IW projects that are either completed or under implementation from the GEF pilot phase through GEF-2 replenishment period. The projects selected are from Africa, Asia-Pacific, Europe, Middle East and Latin America regions. These projects were selected out of thirty IW projects scoped, because of their stated intention or high potential to generate local livelihood benefits. Table 1.1 summarizes the sample characteristics.

¹⁴ See DiPerna (2000)

¹⁵ This review recognizes that in assessing the extent to which IW projects have addressed local benefits, it is important to bear in mind that the approach adopted by the GEF recognizes the long-term nature of achieving sustained collaboration and measurable benefits from multi-stakeholder cooperation. The review focuses on immediate intended and recorded benefits from pilot projects that form the basis to catalyze and sustain long-term benefits in the management of international waters.

¹⁶ With the context of the sustainable livelihoods framework.

¹⁷ For ease of understanding annual PIR and PSRs will be referred to as ‘PIR’ through the report.

¹⁸ We recognize that ‘impacts’ are difficult to measure in the short-term.

Table 1.1 List of GEF IW Projects Review by the Study

Project	Country / Region	Start year of Implementation / Size of Project	Status (As of July 2002)	Implementing Agency	GEF Financing / Total Cost of Project
OP8					
Gulf of Aqaba Environmental Action Plan	Jordan / MENA	1997 / Full size	Under Implementation	World Bank	3.5 / 12.67M
Lake Victoria Environmental Management Project	Regional / Africa	1995 / Full size	Under Implementation	World Bank	35M / 79.4M
Water Pollution Control and Biodiversity Conservation in the Gulf of Guinea Large Marine Ecosystem	Regional / Africa	1994 / Full size	Completed	UNDP	6M / 6M
OP9					
Implementation of Integrated Watershed Management Practices for the Pantanal and Upper Paraguay River Basin	Brazil / LAC	1999 / Full size	Under Implementation	UNEP	6.6M / 16.4M
Rural Environmental Protection Program	Poland / ECA	2000 / Full size	Under Implementation	World Bank	3M / 14.4M
Pollution Control and Other Measures to Protect Biodiversity in Lake Tanganyika	Regional / Africa	1995 / Full size	Completed	UNDP	10M / 10M
SAP for the Bi-National Basin of the Bermejo River	Regional / LAC	1996 / Full size	Completed	UNEP	3.22M / 5.96M
Implementation of the SAP for the Pacific Small Island States	Regional / Asia-Pacific	2000 / Full size	Under Implementation	UNDP	12.2M / 20.3M
Building Partnerships in Environmental Protection and Management of the East Asian Seas	Regional / Asia	1999 / Full Size	Under Implementation	UNDP	16.2M / 28.54M
Implementation of the Strategic Action Program for the Red Sea and Gulf of Aden	Regional / MENA	1999 / Full Size	Under Implementation	World Bank	19M / 44.99M
OP10					
Integrated Management of Land-Based Activities in the Sao Francisco Basin	Brazil / LAC	1999 / Full size	Under Implementation	UNEP	4.7M / 22.1M
Regional Ship Waste Management	Regional / LAC	1995 / Full size	Under Implementation	World Bank	12.5 / 50.5M
Western Indian Ocean Islands Oil Spill Contingency Planning Project	Regional / Africa	1998 / Full size	Under Implementation	World Bank	3.5M / 4.9M

C. Intended and Recorded Income and Employment Benefits¹⁹

“A major economic benefit for the region will result from the sustainable growth of the tourist industry, which would otherwise be threatened by the worsening condition of the region’s beaches and countryside”²⁰

“The project is expected to lay essential foundations of knowledge, capacity building and establishment of institutions for a wider program of investments which will generate net economic benefits estimated to have a present value to the lake communities of \$275 – 550 million from stabilizing the fisheries.”²¹

Intended Benefits

1.9 Eleven out of the twelve GEF IW projects sampled intended to generate income and employment benefits. These benefits will be either generated directly through ‘pilot demonstration projects’ or indirectly depending on successful replication of activities. Benefits in these ten projects are associated with six activities that are discussed below and illustrated with examples (see Table 1.2 pages 13 – 14 and Appendix I):

1.10 **Eco-tourism:** Four of the projects aim to increase the potential for income and employment opportunities through support for eco-tourism. For example, the Pantanal project proposes to demonstrate new economic opportunities in the indigenous area of Guato (Ilha Insua), in the form of ethno-eco-tourism. The demonstration will seek to preserve both indigenous cultures and economic opportunities by (a) identifying alternatives that ensure the cultural survival of the indigenous communities (b) enhance opportunities for tourists to gain insights into indigenous culture (c) promote eco-tourism and ethno-tourism potential in the area²².

1.11 **Other tourism**²³: Four projects intend to increase and / or sustain income and employment opportunities through direct²⁴ and indirect²⁵ support for tourism. For

¹⁹ Appendix I present a brief summary of the IW project objectives, activities and benefits.

²⁰ Regional Ship Generated Waste Project design document

²¹ Lake Victoria Environmental Management Project design document

²² Implementation of Integrated Watershed Management Practices for the Pantanal and Upper Paraguay River Basin Project design document.

²³ Other tourism denotes that the project is seeking to influence ‘mainstream tourism industry’, or the information provided does not give a clear indication of the type of tourism the project aims to support.

example, the Caribbean SIDs Regional Ship Waste project proposes measures to improve treatment and disposal of solid waste and other pollution from vessels, including tourist cruise liners and land-based sources, to improve environment of the SIDs (e.g. beaches and countryside) and sustain tourism. Similarly, the Western Indian Ocean SIDs Oil Contingency Planning project proposes to develop planning capacity to enable the SIDs to prevent and control oil spills in the future. The potential economic benefits of such risk mitigation are high because of gains to the important tourism and fishing industries.

1.12 Fisheries: Seven projects plan to sustain, stabilize and / or increase income and employment opportunities (and food security) from fishing. For example, the Lake Victoria Environmental Management project proposes activities, which aim to stabilize the lake fisheries (with related other benefits such as aquaculture, tourism, agricultural productivity improvements and handicraft production). The project assumes that it will enable at least five years of appropriate fisheries management thereby providing estimated net export earnings benefit of \$128 million per year (difference between controlled fisheries yield of \$288 million and uncontrolled \$160 million), with an additional \$20 – 40 million per annum from fisheries for local consumption. The project estimates that 0.5 million people benefit directly from lake fishing. Moreover, for every person employed directly there are five employed in post-harvest and support activities (e.g. processing, transport, boat maintenance and building). The Pacific SIDS SAP also intends to implement a oceanic fisheries management component focused on developing new institutional arrangements for Western and Central Pacific migratory fish stocks and an Integrated Coastal Watershed Management component focused on the sustainable use of coastal marine resources to sustain income and employment benefits²⁶.

1.13 Aquaculture: Two projects through promotion of aquaculture aim to increase income and employment activities. For example, the Pantanal project proposes that

²⁴ Direct refers to actions such as planning involving tourism industry such as Integrated Coastal Zone Planning and Environmental Impact Assessment (e.g. see Gulf of Aqaba project)

²⁵ Indirect refers to actions that provide a more conducive environment for tourism such as pollution mitigation activities (e.g. see Western Indian Ocean SIDs Oil Spill Contingency, Regional Ship Waste projects)

²⁶ See Lake Victoria Environmental Management and Implementation of a SAP for the Pacific SIDs Project design documents.

aquaculture should become an alternative economic activity to harvesting fish from the Pantanal and Paraguay River. The Lake Victoria Environmental Management project intends to develop commercial aquaculture activities²⁷.

1.14 Agriculture: Five projects include activities intending to improvements in agricultural productivity, which will bring (implicit and explicit) economic benefits. For example, in Poland the Rural Environmental Protection project includes technical assistance, training to farmers and financial support to invest in facilities that store manure, slurry and silage safely. The project is targeting small farmers and in the first stages it will provide a flat rate 4000\$ grant to farm each participating farm. Each farm will provide a mix of labor, materials and direct payments. The project estimates financial benefits of between \$150 – 200 per year based on savings on chemical fertilizer inputs²⁸.

1.15 Handicrafts: The Lake Victoria Environmental Management project proposes to develop handicraft activities to support income and employment opportunities, linked to the wetlands management component and the provision of papyrus and other materials of commercial value.

1.16 Only the Lake Victoria Environmental Management project and Rural Environmental Protection project in Poland provide estimates of intended economic benefits. These estimates are very broad, acknowledging the imprecise knowledge of the baseline situation. Nine projects did not provide estimates of intended benefits. In the case of the Gulf of Aqaba project, this is said to be because ‘benefits cannot be readily calculated due to their uncertain distributive characteristics as well as speculative nature of tourist development’²⁹.

²⁷ See Implementation of Integrated Watershed Management Practices for the Pantanal and Upper Paraguay River Basin and Lake Victoria Environmental Management Project design documents.

²⁸ See Poland Environmental Protection Project design document.

²⁹ See Lake Victoria Environmental Management and Gulf of Aqaba Environmental Action Plan Project design documents.

1.17 Seven projects³⁰ propose carrying out social assessments³¹ during implementation to measure a range of ‘local’ variables. The Rural Environmental Protection, Lake Victoria Environmental Management and Regional Ship Waste Management provide for the conduct of the social impact studies to monitor and evaluate income and employment generating activities. For example, the Rural Environmental Protection project³² proposes to carry out a study to evaluate the social impacts of on-farm investments. Similarly, the Ship Waste Management project proposes to ‘calculate anticipated savings from improvements in public health such as reduction in infectious disease and possibility of other economic benefits relating to the tourism industry associated with sub-projects’. However, social assessment forms a minor part of project design and it is rarely specified what data such assessments will gather, what methods will be used to collect data and how the project intends to use the information. Only three out of twelve projects provide any evidence of social assessment during project preparation³³. Based on data available to this review it shows that even where projects have activities which aim to increase local level income and employment, they have rarely established baseline data concerning the target population, against which to measure the intended changes.

³⁰ See project design documents: Gulf of Aqaba, SAP Bermejo River, Lake Victoria Environmental Management, Implementation of SAP for Pacific SIDS, Pollution Control and Biodiversity Conservation of Lake Tanganyika, Ship Generated Waste Management, and Rural Environmental Protection projects.

³¹ Social assessment is the systematic investigation of demographic factors, socio-economic determinants, social organization, socio-political context, needs and values and institutional capacity in order to account for social differences, assess impacts and risks, mitigate adverse impacts and build capacity of institutions and individuals (see Narayan & Rietbergen-McCracken, 1997).

³² See Poland Rural Environmental Protection Project design document.

³³ SAP Bermejo River, Lake Victoria Environmental Management, Implementation of SAP for Pacific SIDS. For example, the Pacific SIDS SAP has published i) a Social Assessment and Community Participation Strategy, ii) a Communication Strategy and iii) an Economic Strategy all aimed at supporting socio-economic and participatory work in the community. In addition, baseline assessments are receiving significant attention at the host community site.

Table 1.2 Income and Employment Opportunities Enabled by GEF IW projects

Projects (Including project start-up date)	Country / Region	Loci	Total Potential Benefic's ³⁴	Income and Employment benefits ³⁵												Negative income and employment impacts	ME ³⁶
				Eco-tourism		Other Tourism		Fisheries		Aqua-culture		Agriculture		Handi-crafts			
				Int ³⁷	Rec ³⁸	Int	Rec	Int	Rec	Int	Rec	Int	Rec	Int	Rec		
OP8																	
Gulf of Aqaba Environmental Action Plan	Jordan	Urban	n.a.v ³⁹	✗	✗	✓ ⁴⁰	n.a. v.	✗ ⁴¹	✗	✗	✗	✗	✗	✗	✗	n.a.v.	✗
Lake Victoria Environmental Management Project	Kenya, Tanzania, Uganda	Rural / Urban	25 – 30M	✗	✗	✓	n.a.v.	✓	n.a.v.	✓	n.a.v.	✓	n.a.v.	✓	n.a.v.	n.a.v.	n.a.v
Water Pollution Control and Biodiversity Conservation in the Gulf of Guinea Large Marine Ecosystem	Benin, Cameroon, Ghana, Ivory Coast, Nigeria, Togo	Rural / Urban	25 – 30M	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	n.a.v.	✗
OP9																	
Implementation of Integrated Watershed Management Practices for the Pantanal and Upper Paraguay River	Brazil	Rural	1M	✓	n.a.v.	✗	✗	✗	✗	✓	n.a.v.	✓	n.a.v.	✗	✗	n.a.v.	✗
Rural Environmental Protection	Poland	Rural	8,000	✗	✗	✗	✗	✗	✗	✗	✗	✓	n.a.v.	✗	✗	n.a.v.	n.a.v
Pollution Control and Other Measures to Protect Biodiversity in Lake Tanganyika	Burundi, Democratic Republic of Congo, Tanzania, Zambia	Rural / Urban	20M	✓	✗ ⁴²	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗	n.a.v.	✗

³⁴ Source: Project design documents and country population statistics³⁵ In project design brief (benefits / objectives and activities) including evidence of implementation in PIRs, MTE, TE and ICR.³⁶ ME = Monitoring and Evaluation³⁷ Int = Intended benefit³⁸ Rec = recorded or actual benefit³⁹ n.a.v. = information not available to answer yes or no⁴⁰ ✓ = Yes – intended benefit / M&E (direct and indirect); ✓ = Yes – recorded implementation of ‘intended’ benefit / ME of components related to local livelihood benefits⁴¹ × = No – project did not intend benefit / No monitoring intended⁴² × = No – project did not produce intended benefit

Local Livelihood Benefits and Impacts Review: Study Document Four

Projects	Country / Region	Loci	Total Potential Beneficiaries	Income and Employment benefits												Negative income and employment impacts	ME
				Eco-tourism		Other Tourism		Fisheries		Aqua-culture		Agriculture		Handi-crafts			
				Int	Rec	Int	Rec	Int	Rec	Int	Rec	Int	Rec	Int	Rec		
SAP for the Bi-national Basin of the Bermejo	Argentina, Boliva	Rural	1.2M	✗	✗	✗	✗	✗	✗	✗	✗	✓	✓	✗	✗	n.a.v.	n.a.v.
Implementation of the SAP for the Pacific Small Island States	Cook Islands, Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, Niue, Papua New Guinea, Samoa, Solomon Is, Tonga, Tuvalu, Vanuatu	Rural / Urban	n.a.v.	✗	✗	✗	✗	✓	n.a.v.	✗	✗	✗	✗	✗	✗	n.a.v.	n.a.v.
Building Partnerships in Environmental Protection and Management of the East Asian Seas	Brunei, Cambodia, China, DPR Korea, Indonesia, Japan, Malaysia, Philippines, Rep of Korea, Singapore, Thailand, Vietnam	Rural / Urban	n.a.v.	✓	n.a.v.	✗	✗	✓	n.a.v.	✗	✗	✗	✗	✗	✗	n.a.v.	n.a.v.
Implementation of the Strategic Action Program for the Red Sea and Gulf of Aden	Djibouti Egypt, Jordan, Saudi Arabia, Somalia, Sudan, Yemen	Rural / Urban	n.a.v.	✓	n.a.v.	✗	✗	✓	n.a.v.	✗	✗	✗	✗	✗	✗	n.a.v.	n.a.v.
OP10																	
Integrated Management of Land-Based Activities in the Sao Francisco Basin	Brazil	Rural / Urban	13M	✗	✗	✗	✗	✓	n.a.v.	✗	✗	✓	n.a.v.	✗	✗	n.a.v.	✗
Regional Ship Waste Management	Antigua & Barbuda, Dominica, Grenada, St Kitts and Nevis, St Lucia, St Vincent & Grenadines	Urban	n.a.v.	✗	✗	✓	n.a.v.	✗	✗	✗	✗	✗	✗	✗	✗	n.a.v.	n.a.v.
Western Indian Ocean Islands Oil Spill Contingency Planning Project	Comoros, Seychelles, Madagascar, Mauritius	Rural / Urban	n.a.v.	✗	✗	✓	n.a.v.	✓	n.a.v.	✗	✗	✗	✗	✗	✗	n.a.v.	✗
Total				4	0	4	0	7	0	2	0	5	1	1	0	0	1

Recorded Benefits

1.18 Only one project recorded increased income and employment (see Table 4.2). The SAP for the Bermejo reported for a pilot project in Yungas, Argentina:

*“... this project developed by a group of small farmers in an area in the vicinity of Los Toldos, drew upon the experience of the laboratory for ecology research in the Yungas. The main objective of this project was to mitigate the human pressure on natural resources. It integrated the farmer's, families into the regional market, generated local employment alternatives and improved education level for the schools in the area ...”*⁴³

The Bermejo TE also implies income and employment benefits:

*“ ... pilot projects for water-soil-vegetation, conducted mostly with public participation and involvement proved to be cost-effective ... benefits included improved quality and quantity of agricultural inputs, increased areas of productivity ... issues related to the retention of sediments in the upstream reaches of the basin were identified that affected income creation opportunities for marginal populations, especially in rural areas ...”*⁴⁴

1.19 However, although the PIR and TE findings are congruent, neither provides much information beyond unsubstantiated observations. Even though the TE states that local benefits are critical for project sustainability, it focuses on technical and planning issues associated with the SAP and does not provide detailed information on income and employment generating activities⁴⁵. The Lake Tanganyika project TE reports that planned pilot projects for eco-tourism and fisheries were not implemented. The TE implies that the project was overly focused on technical and scientific issues⁴⁶, whose uncertainty (“the precautionary principle”) prevented the project from testing livelihood approaches. The TE asserts:

⁴³ See SAP Bermejo PIR (1999)

⁴⁴ See SAP Bermejo Terminal Evaluation (2000)

⁴⁵ See also GEF (2002b: 68)

⁴⁶ Measuring the symptoms of environmental degradation, rather than addressing the root causes that are related to human behavior. See Pollution Control and Other Measures to Protect Biodiversity in Lake Tanganyika: Terminal Evaluation (2000)

“The project management hesitated to launch implementation of the program [pilot projects] before having a clear picture of their scientific and economic value ... the inception report stressed the importance of involving local people at the start of project activities. This involvement took relatively little place in comparison to the attention devoted to technical issues such as biodiversity monitoring.”⁴⁷

1.20 Three of the projects reported delays in implementation of pilot projects⁴⁸ for agriculture and fisheries due to planning difficulties, shortages of key technical staff and / or over ambitious work programs. For example, the Pacific SIDs project reported:

“The assumption that 14 countries would commence implementation of 14 pilot projects simultaneously and progress them over 5 years will not hold (note only 3 project staff are allocated to pilots).”⁴⁹

1.21 Monitoring and evaluation of income and employment benefits is planned by three projects (see 1.14). However, a review of the PIR comments for these projects shows that only unsubstantiated comments are provided to describe income and employment benefits derived from the project. Furthermore, local livelihood benefits are not clearly defined in log frames (baselines and indicators). Although the projects aim to produce livelihood benefits through their pilot projects, the data available to this study indicates that they seem to have no formal system to track and report their attainment under implementation. For example, the Lake Victoria Environmental Management project performance indicators are focused on scientific and technical measures (e.g. reduced nutrient and coliform counts from lake front towns; 50% reductions over five years in significant industrial pollutants entering the lake; Nile perch catch stabilized at least at current levels and increased recovery of other species). Although these measures potentially relate to income, employment and health benefits (see 4.36 – 4.40), they do not directly track, socio-economic and human health changes, which are intended to be

⁴⁷ Pollution Control and Other Measures to Protect Biodiversity in Lake Tanganyika: Terminal Evaluation (2000)

⁴⁸ Implementation of SAP for Pacific SIDs, Pantanal and Sao Francisco Projects PIRs (2001 / 2002).

⁴⁹ Implementation of SAP for the Pacific SIDs PIR (2001). Furthermore, It is not only the low number of staff but also their capacity that is a constraint to implementation. Add to that, the original design made no provision for building capacity among those staff (UNDP CTA person comment).

sustainable benefits. Moreover, the project aide-memoir reports that even monitoring of technical components such as water quality is experiencing implementation difficulties:

“Tributary monitoring also encountered some delays and missing surveys because of slow procurement ... this is no longer acceptable. It is absolutely essential that the monitoring cruises, atmospheric deposition sampling and sampling of the tributary network be conducted on a regular basis.”⁵⁰

1.22 Furthermore, in Tanzania in this project, intended socio-economic research, which includes analysis of nutritional status, health and social amenities of communities around the lake, has not been initiated⁵¹. In Uganda for the same project the aide memoir (2002) reports that monitoring of impact of pilot projects is ongoing, and that baseline data collection was ongoing⁵².

D. Intended and Recorded Local Empowerment⁵³ in Governance

“The two most important elements of sustainability are stakeholder ownership and provision for fiscal continuance. They have been addressed in a highly participatory mode of project preparation and will be addressed in project implementation by special efforts to involve local communities ... during preparation communities were involved in generation and discussion of project proposals, along with information – gathering to ensure project proposals addressed the needs of local communities ... the project has community participation woven into virtually every component, funding for micro-project, community training, financing for hundreds of stakeholder workshops, and provision for community involvement in everything from scientific studies to water hyacinth control ...”⁵⁴

“Community participation will be an integral part of each demonstration project.”⁵⁵

⁵⁰ Lake Victoria Environmental Management Project PIR (aide memoir) (2002)

⁵¹ Pollution Control and Other Measures to Protect Biodiversity in Lake Tanganyika: Terminal Evaluation (2000)

⁵² Lake Victoria Environmental Management Project PIR (aide memoir) (2002)

⁵³ Empowerment is defined as ‘the expansion of assets and capabilities of poor people to participate in, negotiate with, influence, control and hold accountable institutions that affect their lives.’ Empowerment broadly consists of four elements access to information; inclusion / participation; accountability and local organizational capacity (see Narayan et al, 2002).

⁵⁴ Lake Victoria Environmental Management Project design document.

⁵⁵ Implementation of SAP for the Pacific SIDs Project design document.

Intended Benefits

1.23 Local empowerment in governance is an area in which the all sampled projects with the exception of the Western Indian Ocean SIDs project proposed activities (see Table 1.3 page 21). Four major components are discussed below and illustrated with examples from project design documents:

1.24 National policy and legal frameworks to facilitate local resource control: Five out of thirteen projects propose activities that seek to either develop and / or support national frameworks for public participation in the management of natural resources (see Table 1.3). For example, both the Pantanal and Sao Francisco projects in Brazil aim to support the new Federal Law (9433/97) for public participation in water resource management. The projects plan to establish pilot projects to demonstrate stakeholder participation through ‘sub-basin committees’ to decentralize local water resource management (e.g. mitigation and control of household and industrial pollutants and agricultural sources of sediment). Both projects have budgeted over \$1 million for stakeholder participation components and plan to involve NGOs and CBOs in activities.

1.25 Creation and / or strengthening of local institutions for resource management: Seven projects out of twelve plan components to create and / or strengthen local institutions for the management of resources. For example, the Gulf of Aqaba project intends to set a up a Park Management Committee involving local community representatives to assist with the planning and management activities of the Marine National Park component. The Lake Victoria Environmental Management project proposes to establish Beach Management Committees with the involvement of local NGO and CBOs, for the decentralization of fisheries regulation enforcement to local communities allowing them to control fisheries resources. The Pacific SIDs also plans to create local ‘project committees’ to assist in planning, implementation of local action plans and M&E activities⁵⁶.

⁵⁶ See Gulf of Aqaba Environmental Action Plan, Lake Victoria Environmental Action Plan, Implementation of a SAP for the Pacific SIDS Project design documents.

1.26 Local community stakeholder participation: Eight projects out of thirteen propose to involve local communities in decision-making through stakeholder participation. The types of mechanisms proposed include setting up committees and utilizing local NGO and CBO organizations. Methods encompass conducting survey and holding meetings, PRAs and stakeholder workshops during implementation. Projects that propose particularly strong stakeholder participation components include the Pantanal and Sao Francisco, Lake Victoria Environmental Management project and the Pacific SIDS. The Pantanal project organized participatory public meeting during project preparation that produced over one hundred project concepts. The project also proposes sub-committees to assist pilot project implementation with participation of NGOs. However, the project does not specify what types of NGOs and whom they represent. The Pacific SIDS project proposes to create a community assessment and participation advisory committee to review the current state of public participation and support the development of appropriate participation strategies during implementation⁵⁷.

1.27 Access to information and knowledge: Twelve projects include proposals to increase local access to information and knowledge through public awareness and dissemination campaigns. Types of information being disseminated range from ‘traditional’ environmental education and outreach to information related to potential income and employment opportunities. For example, the Rural Environmental Protection project includes proposals for outreach to raise farmer awareness of issues concerning environmental management and monitoring of pollution control in agriculture. Similarly, the Pacific SIDS project includes a component for a communication strategy to develop awareness and information dissemination components through such mechanisms as newsletters, meetings and the use of the inter-net⁵⁸ services. These components are tied

⁵⁷ See Lake Victoria Environmental Management, Implementation of Integrated Watershed Management Practices for the Pantanal and Upper Paraguay River, Integrated Management of Land-Based Activities in the Sao Francisco Basin, Implementation of a SAP for the Pacific SIDS Project design documents.

⁵⁸ Lake Victoria Environmental Management and Pollution Control and Biodiversity Conservation for Lake Tanganyika projects also utilize the internet to disseminate project documents. Although the percentage of beneficiaries who have access to the ‘net’ is probably quite small, the activities probably increase national and international dissemination of lessons and good practice.

closely to the development of community participation strategies for pilot projects and building human capital⁵⁹.

1.28 Involvement of Vulnerable groups: Four projects plan to involve vulnerable groups during implementation such as indigenous communities and women. As already stated (see 1.8) the Pantanal project will implement an eco-tourism pilot project for indigenous groups; the Pacific SIDS project intends to work closely with traditional leaders and groups respecting ‘customary tenure’ arrangements that are prevalent in resource management within indigenous Micronesian and Melanesian societies, whilst the Lake Victoria Environmental Management project intends to involve women in pilot projects⁶⁰.

1.29 Although eight projects outline broad local community empowerment components for implementation (see Table 1.3), their project design documents are not specific on how benefits will be attained and measured. Based on data available to this study it is difficult to assess to what extent community interests were actually incorporated into decision-making in project design, in regard to who was involved in decision-making during gestation of the project and what types of methodologies were used. Moreover, there is no ‘standard’ classification for types of participation. For example what the Bank refers to as ‘collaboration’, the UNDP call ‘active participation’ or just ‘community participation’ – whilst the GEF policy on participation refers to three types of involvement – information dissemination, consultation and stakeholder participation. The importance of transparent approaches towards participation has been raised in recent GEF documentation⁶¹.

⁵⁹ See Poland Rural Environmental Protection and Implementation of a SAP for the Pacific SIDS Project documents.

⁶⁰ See Lake Victoria Environmental Management, Implementation of Integrated Watershed Management Practices for the Pantanal and Upper Paraguay River and Implementation of a SAP for the Pacific SIDS Project design document.

⁶¹ See also GEF (2002b: 68 – 72)

Table 1.3 Local Empowerment benefits enabled by GEF Financed IW Projects

Projects	National Policy & Legal frameworks facilitate increased local control over resources		Creating / strengthening capacity of local institutions		Increased local stakeholder participation and inclusion		Improved access to information / knowledge and awareness		Inclusion of vulnerable stakeholders		Monitoring and Evaluation
									Indigenous and / or women / youth		
	Int	Rec	Int	Rec	Int	Rec	Int	Rec	Int	Rec	
OP8											
Gulf of Aqaba Environmental Action Plan	✗	✗	✓	✓	✓	n.a.v.	✓	✓	✗	✗	n.a.v.
Lake Victoria Environmental Management Project	✓	✓	✓	✓	✓	✓	✓	✓	✓	n.a.v.	n.a.v.
Water Pollution Control and Biodiversity Conservation in the Gulf of Guinea Large Marine Ecosystem	✗	✗	✗	✗	✗	✗	✓	✓	✗	✗	✗
OP9											
Implementation of Integrated Watershed Management Practices for the Pantanal and Upper Paraguay River	✓	✓	✓	✓	✓	n.a.v.	✓	n.a.v.	✓	✓	✓
Rural Environmental Protection	✗	✗	✗	✗	✓	n.a.v.	✓	✓	✗	✗	✓
Pollution Control and Other Measures to Protect Biodiversity in Lake Tanganyika	✗	✗	✗	✗	✗	✗	✓	✗	✗	✗	✗
SAP for the Bi-national Basin of the Bermejo	✓	✓	✓	n.a.v.	✓	✓	✓	✓	✗	✗	n.av.
Implementation of the SAP for the Pacific Small Island States	✗	✗	✓	n.a.v.	✓	n.a.v.	✓	n.a.v.	✓	n.a.v.	✓
Building Partnerships in Environmental Protection and Management of the East Asian Seas	✓	✓	✓	✓	✓	✓	✓	✓	✓	n.a.v.	✓
Implementation of a Strategic Action Plan for the Red Sea and the Gulf of Aden	n.a.v.	n.a.v.	✗	✗	✓	n.a.v.	✓	✓	✗	✗	✓
OP10											
Integrated Management of Land-Based Activities in the Sao Francisco Basin	✓	✓	✓	✓	✓	n.a.v.	✓	✓	✗	✗	✓
Regional Ship Waste Management	✗	✗	✗	✗	✗	✗	✓	✓	✗	✗	✗
Western Indian Ocean Islands Oil Spill Contingency Planning Project	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
Total	5	5	7	5	8	4	12	9	4	1	6

Recorded Benefits

1.30 Five projects reported implementation of participatory frameworks. For example, the Bermejo SAP TE reported that:

*“The project resulted in a momentum among stakeholders to create a new participatory and legal water resources planning and management paradigm ... Public participation in Argentina, introduced as part of the SAP formulation project, has allowed the development of an inter-jurisdictional coordination mechanism. The Governmental Working Group has proven to be a forum for hearings, participation and decision-making ...”*⁶²

1.31 Both the Pantanal and Sao Francisco are in the process of forming sub-committees to implement the Federal Law on public participation in water resource management. The Lake Victoria Environmental Management project reported uneven results of decentralization of fisheries management, with success in Tanzania⁶³, slower progress in Uganda and lack of implementation in Kenya (said to be due to disbursement problems and possibly corruption)⁶⁴. Five projects reported creation and / or strengthening of local institutions. The Gulf of Aqaba project reports that a Marine Park Board was formed with members from an NGO, scientific community and investor (private sector) groups. The Pacific SIDs project has selected community institutions / groups for involvement in the design of pilot projects. The project has reported that it is also planning an assessment of the benefits of community participation⁶⁵.

1.32 Reporting of participation in projects was weak in four of the projects that had stated ‘stakeholder participation’ as a goal or as integral to implementation. For example, the Pantanal and Sao Francisco projects state that they are catalyzing bottom-up approaches but do not provide further information concerning the mechanisms used or who is being engaged in these approaches. In contrast, both the Bermejo and Lake Victoria Environmental Management projects provide substantial descriptions of stakeholder participation, in which NGOs / CBOs have played a substantial facilitating role. The Bermejo TE links stakeholder participation to sustainability:

⁶² SAP Bermejo Terminal Evaluation (2000)

⁶³ See Lake Victoria Environmental Management Project PIR (aide memoir) (2002). For example, over 500 beach management units have been implemented in Tanzania compared to approximately 14 – 20 in Uganda and 0 in Kenya.

⁶⁴ The project presents a potentially interesting opportunity for a comparative case-study given that implementation activities are identical across countries.

⁶⁵ Personal comment from UNDP CTA.

“Workshops proved to be an excellent means of promoting participation. The workshops revealed possible objections to projects and decisions proposed for adoption and generated ample feedback relation to the needs, viewpoints, ideals and fears of the basin communities ... public participation provides a mechanism through which stakeholders may achieve a greater degree of influence over choice of actions and investments. It also facilitates consensus for proposed solutions and empowers decisions made not only by ... experts but by the community at large ensuring that a desirable future will actually be achieved.”⁶⁶

1.33 In the Lake Victoria Environmental Management project the role of NGOs has been specified in pilot projects for fisheries management (3 NGOs), fisheries research (3 NGOs) and wetlands management (5 NGOs). However, the project’s PIR (2002) states that more local community participation is needed in pilot / micro project planning (although specific problems are not detailed)⁶⁷.

1.34 Nine projects reported implementation of information and knowledge dissemination activities. The Gulf of Guinea TE reported that local NGOs had been closely involved in the successful implementation of environmental education activities on pollution prevention and ‘obeying’ fishing regulations. However, projects do not report on the ‘impact’ of awareness activities in terms of changes in attitudes or behavior of target communities⁶⁸. Furthermore, the Lake Tanganyika project, which only partially implemented an environmental awareness campaign, cited the obvious limitation of such activities, when they are not linked to the provision of benefits:

“The current fishing practices on the lake cannot be perceived merely as results of ignorance or absence of awareness. They should be considered as an optimum achieved by a farmer or fishermen given his situation. Change in behavior should be perceived not as an act of good will that will follow an awareness building campaign, but as a result of a decision that will leave the farmer or fishermen better off.”⁶⁹

⁶⁶ SAP Bermejo Terminal Evaluation (2000)

⁶⁷ Lake Victoria Environmental Management Project PIR (2001, 2002).

⁶⁸ Water Pollution Control and Biodiversity Conservation in the Gulf of Guinea Large Marine Ecosystem. Terminal Evaluation (1999);

⁶⁹ Pollution Control and Other Measures to Protect Biodiversity in Lake Tanganyika: Terminal Evaluation (2000)

1.35 Only the Pantanal project reported involvement of vulnerable ‘indigenous’ groups. The Pacific SIDS project had yet to report the development and implementation of intended pilot projects involving indigenous groups⁷⁰.

1.36 Although the results reported indicate some progress with empowerment activities within the sample of IW projects, the documentation also suggests that many of these projects are predominantly top-down in design and implementation. The initial implementation experience of the Pacific SIDS project seems to indicate that there are lines of fracture between local and global objectives:

“This is an issue that we are particularly sensitive to the Pacific SIDS. As much as we go out of our way to promote a bottom up approach with genuine community empowerment we face a continual struggle reconciling that with the more global interests in the project. Local capacity to accommodate the intent of the Project Design Document is quite weak with the result there are significant compromises, particularly in relation to recording, assessing and documenting information ... at least the intent of extensive community participation is there.”⁷¹

1.37 Moreover, the Review shows that, even where projects propose empowerment activities, the monitoring and evaluation of empowerment in PIRs and TEs is limited and tends to consist of unsystematic⁷² comments with little supporting quantitative or qualitative findings, or stakeholder analysis that could form the basis of a structured approach to empowerment. This supports earlier findings in IW and other focal areas:

“... while many projects are indeed addressing participation, ... and in many instances, doing so meaningfully, there has as yet been no systematic collection of baseline data (both quantitative and qualitative) on participation against which progress can be monitored through assessment against agreed indicators. It is by no means evident either that stakeholder analysis routinely informs the participation approach and thus identifying appropriate, inclusive approaches to project implementation.”⁷³

⁷⁰ Implementation of Integrated Watershed Management Practices for the Pantanal and Upper Paraguay River and Implementation of a SAP for the Pacific SIDSs PIRs (2001, 2002).

⁷¹ UNDP CTA Personal comment. The project is developing monitoring and evaluation of community participation

⁷² And repetitive comments. Both the Pantanal and Sao Francisco projects contained identical results (see PIRs 2001, 2002)

⁷³ GEF (2002a: 72)

1.38 Interestingly, the Lake Victoria Environmental Management project appointed a ‘community participation officer’ to increase the level of participation in the project and to develop a participation strategy. The project PIR states ‘community participation needs to be clearly seen as an objective whose activities are well spelt out and the indicators to measure the intended result are identified.’⁷⁴ This suggests that if projects are serious about empowerment as a process to facilitate benefits, sustainability and replication, then appropriate indicators need to be factored into project design and implementation. Only four projects included indicators to monitor participation during implementation⁷⁵ (see Table 1.3).

E. Intended and Recorded Improvements in Health

*“By addressing the problems of marine pollution through the provision of facilities for reception of ship generated waste and improvement in treatment facilities and disposal on-shore, it is envisaged that considerable health ... benefits will be realized”.*⁷⁶

*“Deteriorating water quality will have a number of direct effects, the avoidance of which can be counted as potential benefits of the program ... (a) additional water treatment costs to deal with increasing levels of algae (b) impacts on water available for cattle, algal blooms can render water unsuitable for cattle ... (c) loss of potential tourist revenue: polluted or foul smelling water would prevent the expansion of present (low) level of tourism to the lake; and (d) health effects of increased malaria and bilharzia as a result of stagnant and polluted water.”*⁷⁷

Intended Benefits

1.39 All of the projects reviewed include components that have direct or indirect health benefits (i.e., the project does not claim health benefits but proposed activities could generate benefits) (see Table 1.4 page 28). Four components are discussed below:

⁷⁴ See Lake Victoria Environmental Management Project PIR (2002).

⁷⁵ These projects were developed during GEF-2 and after the development of the GEF public involvement guidelines.

⁷⁶ Ship Generated Waste Management Project design document.

⁷⁷ Lake Victoria Environmental Management Project design document.

1.40 Improved disposal of solid waste: Nine projects propose activities that may reduce, control and / or improve the disposal of solid waste to reduce pollution of rivers, coastal areas and groundwater supplies. The Regional Ship Waste Management project proposes to control and improve disposal of ship generated and domestically generated solid waste in the Caribbean SIDs. The project plans to implement cost recovery incentives such as an ‘environment tax’ on cruise ships and also to improve organization and management of landfill sites to reduce pollution risks both to coastal areas (on which regional tourism depends), and scarce groundwater resources⁷⁸.

1.41 Improved sanitation: Four projects propose activities that will improve control and treatment of sanitation and reduce local water pollution. The Lake Victoria Environmental Management project intends to rehabilitate three sewerage treatment plants in priority pollution ‘hot spots’ of Kisumu (Kenya), Mwanza (Tanzania) and Kampala (Uganda). The project estimates a reduction in water supply costs of \$3.5 million per annum as result of improved water treatment. Moreover, there are considerable benefits associated with the reduction in waterborne diseases such as dysentery, cholera and typhoid. The project asserts:

“... Investments will include urgent rehabilitation and / or extension of urban sanitation systems which are currently discharging untreated waste directly into the lake. Under this component the project will rehabilitate waste water treatment works at Kisumu (Kenya), construct a community based simplified sewage scheme in a portion of Mwanza (Tanzania) to complement an expansion of the water supply system financed by the EU, and improve a sludge disposal site in Bukoba (Tanzania) and assist the National Water and Sewage Corporation in Uganda develop a long-term pollution reduction strategy, and modify effluent discharge into the lake at the Bugolobi Treatment works.”⁷⁹

1.42 Reduced pollution of water resources: All the reviewed projects propose activities that will attempt to control and mitigate urban and / or agricultural and / or industrial effluent pollution of water resources. The Pantanal project proposes the formulation of plans for mitigation of mining waste products in the Rio Apa and Miranda sub-basins and

⁷⁸ See Regional Ship Waste Management Project design document

⁷⁹ Lake Victoria Environmental Management Project design document

the development of financial incentives through cost-recovery mechanism to address industrial water pollution. It also proposes urban ‘good housekeeping measures’ to reduce household wastes. The Sao Francisco and Rural Environmental Protection projects plan components to reduce agricultural run-off from chemical fertilizers. The Gulf of Aqaba project proposes to develop and implement a framework of regulations for control of phosphate wastes and sewerage effluents in trans-boundary areas to reduce impacts on scarce ground waters and marine areas in order to secure and improve the quality water supplies in an area of high water stress. The Western Indian Ocean SIDs Oil Spill Contingency Planning project ignores possible health benefits accruing from oil spill risk mitigation⁸⁰.

1.43 Reduced incidence of waterborne diseases: One of the reviewed projects proposes activities that may lead to a reduction in the incidence of waterborne diseases, such as malaria and bilharzia. The Lake Victoria Environmental Management project proposes to control and reduce water hyacinth on the lake. Water hyacinth is a weed that chokes watercourses and creates perfect conditions for malarial and bilharzia parasites to breed. Therefore, removing the weed from areas close to human habitation could reduce malarial and bilharzia infections. Furthermore, project proposes to treat sewerage in key ‘hot spot’ pollution areas (e.g. Mwanza, Murchison Bay and Kisumu) could reduce the incidence of diseases such as dysentery and cholera, which are associated with water contaminated by fecal matter⁸¹.

⁸⁰ See Implementation of Integrated Watershed Management Practices for the Pantanal and Upper Paraguay River, Integrated Management of Land-Based Activities in the Sao Francisco Basin, Western Indian Ocean Islands Oil Spill Contingency Planning Project design documents.

⁸¹ See Lake Victoria Environmental Management Project design document.

Table 1.4 Health benefits enabled by GEF IW Projects

Projects	Improved disposal of solid waste		Improved sanitation		Reduced pollution of water resources		Reduced incidence of waterborne disease vectors		Monitoring and Evaluation
	Int	Rec	Int	Rec	Int	Rec	Int	Rec	
OP8									
Gulf of Aqaba Environmental Action Plan	✓	n.a.v.	✓	n.a.v.	✓	n.a.v.	✗	✗	✓
Lake Victoria Environmental Management Project	✓	n.a.v.	✓	n.a.v.	✓	n.a.v.	✓	n.a.v.	✓
Water Pollution Control and Biodiversity Conservation in the Gulf of Guinea Large Marine Ecosystem	✗	✗	✗	✗	✓	n.a.v.	✗	✗	✓
OP9									
Implementation of Integrated Watershed Management Practices for the Pantanal and Upper Paraguay River	✓	n.a.v.	✗	✗	✓	n.a.v.	✗	✗	✓
Rural Environmental Protection	✓	n.a.v.	✗	✗	✓	n.a.v.	✗	✗	✗
Pollution Control and Other Measures to Protect Biodiversity in Lake Tanganyika	✓	✗	✗	✗	✓	✗	✗	✗	✗
SAP for the Bi-national Basin of the Bermejo	✗	✗	✗	✗	✓	n.a.v.	✗	✗	✗
Implementation of the SAP for the Pacific Small Island States	✓	n.a.v.	✗	✗	✓	n.a.v.	✗	✗	✓
Building Partnerships in Environmental Protection and Management of the East Asian Seas	✓	n.a.v.	✓	n.a.v.	✓	n.a.v.	n.a.v.	n.a.v.	✓
Implementation of a Strategic Action Plan for the Red Sea and the Gulf of Aden	✗	✗	✗	✗	✓	n.a.v.	✗	✗	✓
OP10									
Integrated Management of Land-Based Activities in the Sao Francisco Basin	✓	n.a.v.	✗	✗	✓	n.a.v.	✗	✗	✗
Regional Ship Waste Management	✓	n.a.v.	✓	n.a.v.	✓	n.a.v.	✗	✗	✓
Western Indian Ocean Islands Oil Spill Contingency Planning Project	✗	✗	✗	✗	✓	n.a.v.	✗	✗	✓
Total	9	0	4	0	13	0	1	0	9

Recorded Benefits

1.44 Based on data available to this review no IW projects have recorded direct improvements in human health. No human health indicators are included in project PIR reporting. Furthermore, three completed project TEs did not mention human health benefits resulting from planned or implemented project activities. Monitoring and evaluation tends to concentrate on scientific and technical issues, with a predominant quantitative approach towards modeling, with little attention to the evaluation of human impacts (as end users of the resource). For example, the Lake Victoria Environmental

Management project is carrying out public outreach activities in urban pilot areas on water pollution and health. The project states clearly that it will provide health benefits, yet there are neither baselines nor indicators against which to measure progress⁸². In other projects reviewed, it is too early to say what the impact of pollution control on health will be, since information in this area is absent, as shown by ‘not available’ ratings above in Table 1.4.

F. Intended and Recorded Improvements in Human Capital

“NGOs, institutes or private firms will work with farmers, farmers families and rural communities to discuss options for and demonstrate benefits of environmental management on farms. This will include cropping, tilling, manure spreading, buffer strips, fertilizer application processes and wetland construction.”⁸³

Intended Benefits

1.45 Twelve out of thirteen projects sampled propose activities that will improve the local human capital base through training and skills transfer, to support environmental and livelihood opportunities (see Table 1.5 page 30). Training and skills transfer tend to be integrated into pilot / demonstration projects. The Pacific SIDs project, for example, intends to support pilot projects the through transfer of techniques for protecting freshwater resources, including devising assessment of water capacity and quality, building capacity to assist local communities in establishing Marine Protected Areas (fish reserves) and community education activities. The project is also offering one post-graduate scholarship for each participating country to address an issue related to that country’s pilot project and developing local facilitator capacity in participatory processes to backstop the national coordinator during pilot project implementation⁸⁴. The Lake Victoria Environmental Management project includes training and technical assistance to communities for micro / pilot projects, demonstration units to facilitate better fishing, soil and land management techniques and training in assessment and scientific monitoring

⁸² Lake Victoria Environmental Management Project PIR (2001, 2002)

⁸³ Poland Rural Environmental Protection project design document

⁸⁴ Implementation of a SAP for the Pacific SIDS Project design document

techniques. The project also has an education and skills training component for technical staff at local government and national level⁸⁵.

Recorded Benefits

1.46 Four projects recorded improvements in human capital. The Rural Environmental Protection project reported that farmers were satisfied with field lectures and advisory services provided by the project to transfer knowledge and skills on improved environmental farming⁸⁶. The Bermejo TE, reported that communities drew upon scientific and technical advice through extension services to implement improved agricultural techniques and improvements in productivity.

Table 1.5 Improvements in Human Capital enabled by GEF IW Projects

Projects	Improved Local Human capital: skills and training		Monitoring and Evaluation
	Int	Rec	
OP8			
Gulf of Aqaba Environmental Action Plan (1997)	✓	n.a.v.	n.a.v.
Lake Victoria Environmental Management Project (1995)	✓	n.a.v.	n.a.v.
Water Pollution Control and Biodiversity Conservation in the Gulf of Guinea Large Marine Ecosystem (1994)	✓	n.a.v.	n.a.v.
OP9			
Implementation of Integrated Watershed Management Practices for the Pantanal and Upper Paraguay River (1999)	✓	n.a.v.	✓
Rural Environmental Protection (2000)	✓	✓	✓
Pollution Control and Other Measures to Protect Biodiversity in Lake Tanganyika (1995)	✗	✗	✗
SAP for the Bi-national Basin of the Bermejo (1996)	✓	✓	✓
Implementation of the SAP for the Pacific Small Island States (2000)	✓	n.a.v.	✓
Building Partnerships in Environmental Protection and Management of the East Asian Seas	✓	✓	✓
Implementation of a Strategic Action Plan for the Red Sea and the Gulf of Aden	✓	✓	✓
OP10			
Integrated Management of Land-Based Activities in the Sao Francisco Basin (1999)	✓	n.a.v.	✓
Regional Ship Waste Management (1995)	✓	n.a.v.	✓
Western Indian Ocean Islands Oil Spill Contingency Planning Project (1998)	✓	n.a.v.	✓
Total	12	4	9

⁸⁵ Lake Victoria Environmental Management Project design document

⁸⁶ See Poland Rural Environmental Protection PIR (2002)

G. Summary

1.47 In summary, the review of GEF IW projects has revealed a significant range of ‘intended’ local livelihood benefits. These are predominantly local empowerment in governance and health benefits, and to lesser extent income and employment. The Lake Victoria Environmental Management project intends to provide the most comprehensive range of local livelihood benefits.

1.48 Projects rarely assess the likelihood of negative impacts of their activities⁸⁷.

1.49 Recording of the achievement of intended benefits is low across all livelihood categories, and there is a lack of qualitative and quantitative data. Based on information available to the review, it was not possible to assess livelihood benefits accurately. However, there may be more information available at the field level and / or held by the IAs.

1.50 A review of monitoring and evaluation plans and of PIRs revealed that local livelihood benefits are not substantially addressed, with the exception of participation issues. Moreover, social assessment and stakeholder analysis in project design and implementation is not clearly articulated. The majority of projects reviewed provide little detail on stakeholders involved, why they are involved or how. Often ‘local communities’, ‘women’ and ‘indigenous communities’ are mentioned, but rarely disaggregated. Present reporting systems in project design briefs allow approval based on minimal social analysis. Furthermore, during implementation the systems of reporting to the GEF do not provide (and are not designed to provide) sufficient information on local livelihood benefits and impacts. This desk review is consistent with an earlier GEF report’s assessment that ‘clearer lines of accountability, and common reporting systems across all IAs / EAs’ need to be established with regard to local livelihoods and participation⁸⁸.

⁸⁷ For example, the Pacific SIDs has considered the economic implications of ‘no-take’ fishing zones on the livelihoods of communities.

⁸⁸ See GEF (2002a).

1.51 Based on data available to this review, there is little evidence that projects have established social baselines against which to measure change and thereby attainment of their stated local livelihood benefits goals, whilst plans for monitoring and evaluation of these aspects were not found. Most projects report local livelihood benefits in an unsystematic fashion. Neither quantitative nor qualitative information is systematically presented in PIRs, MTEs or TE reports⁸⁹. At present, those TEs that do refer to local benefits (e.g. Bermejo SAP) do so without quantitative or qualitative justification.

⁸⁹ In part because some of these reporting mechanisms (e.g. PIR and ICR) are not designed to provide qualitative and quantitative information (which calls into question their usefulness as systems for reporting project implementation progress)

References

- Carney, J. (1998) *Sustainable Livelihoods*. DFID. London.
- DiPerna, P. (2000) *Creating Income and Local Employment in a Selection of GEF Projects*. Working Paper 18. GEF Secretariat. Washington DC.
- GEF (1996) *Operational Strategy*. GEF Secretariat. Washington DC.
- GEF (2001) *International Waters Program Study*. Evaluation Report #1-01. GEF Secretariat. Washington DC.
- GEF (2002a) *Second Overall Performance Study of GEF*. GEF Secretariat. Washington DC.
- GEF (2002b) *The Challenge of Sustainability*. GEF Secretariat. Washington DC.
- King, K. (1993) *The Incremental Costs of Global Environmental Benefit*. Working Paper 5. GEF Secretariat. Washington DC.
- Moriarty, P (2001) Water in Rural Livelihoods. 27th WEDC Conference. Zambia
- Narayan, D. & Rietenbergen-McCracken, J. (1997) *Participatory Tools and Techniques: A Resource Kit for Participation and Social Assessment*. Social Policy and Resettlement Division. World Bank. Washington DC.
- Narayan, D (ed). (2002) *Empowerment and Poverty Reduction. A Sourcebook*. World Bank. Washington DC.

Local Livelihood Benefits and Impacts Review: Study Document Four

Risby, L.A. (2003) *Sample of Projects Selected for Desk Review and Protocol for Examination of Local Livelihood Benefits and Impacts*. Study Document Three. GEF Secretariat.

Soussan, J. et al. (2003) *Study Component: Desk Review of International Experience*. Study Document Eight. GEF Secretariat and Stockholm Environmental Institute. Washington DC & Stockholm.

UNDP (2002) *Preserving International Waters – Sustaining Livelihoods. Experiences from GEF-UNDP International Waters Projects*. UNDP-GEF. New York.

Waughray, D.K. (1998) Developing Basement Aquifers to Generate Economic Benefits. A Case Study from Southeast Zimbabwe. *World Development*. 26, 10: 1903 – 1912.

Project Documents and Evaluations

GEF (1994) Water Pollution Control and Biodiversity Conservation in the Gulf of Guinea Large Marine Ecosystem. Unpublished project design document.

GEF (1996) SAP for the Bi-National Basin of the Bermejo River. Unpublished project design document

GEF (1995) Ship Generated Waste Management. Unpublished project design document.

GEF (1995) Lake Victoria Environmental Management Project. Unpublished project design document.

GEF (1995) Pollution Control and Other Measures to Protect Biodiversity in Lake Tanganyika. Unpublished project design document.

GEF (1996) Gulf of Aqaba Environmental Action Plan (Jordan). Unpublished project design document.

Local Livelihood Benefits and Impacts Review: Study Document Four

GEF (1998) Western Indian Ocean Islands Oil Spill Contingency Planning Project. Unpublished project design document.

GEF (1999) Integrated Management of Land-Based Activities in the Sao Francisco Basin (Brazil). Unpublished project design document.

GEF (1999) Implementation of Integrated Watershed Management Practices for the Pantanal and Upper Paraguay River Basin (Brazil). Unpublished project design document.

GEF (1999) Implementation of a Strategic Action Program for the Red Sea and Gulf of Aden. Unpublished project design document.

UNIDO / UNDP (1999) Water Pollution Control and Biodiversity Conservation in the Gulf of Guinea Large Marine Ecosystem (LME). EG/RAF/92/G34. Report of the Final in-depth Evaluation Mission: Findings and Recommendations.

GEF (2000) Rural Environmental Protection. Unpublished project design document.

GEF (2000) SAP Implementation for the Pacific SIDs. Unpublished project design document.

UNDP (2000) Pollution Control and Other Measures to Protect Biodiversity of Lake Tanganyika Project RAF/92/G32. Terminal Evaluation.

UNEP / GEF (2000) In-depth Evaluation of the Project GF/1100-97-07: A SAP for the Bi-National Basin of the Bermejo River. Unpublished. UNEP.

Project Performance Reports

PIR (2000 / 2001) International Waters Projects (*Included in sample*)

Appendix I Summary of GEF International Waters Projects Sample.

Project	Intended Benefits	Objectives / Activities and Components
Gulf of Aqaba Environmental Action Plan (OP8)	- Reduction in existing point sources of pollution - Improvement in efficiency of water use - Increase in water quality through reduction of oil, industrial and solid waste pollution - Potential tourism revenue from Marine National Park - Eco-tourism development for fishermen around Marine National Park	Objective: Enable Jordan to take lead in establishing and implementing regional collaborative framework for sustainable management and protection of the Gulf of Aqaba and its unique coral reefs. Components: - Development of regulatory and institutional framework for environmental protection - Emergency assessment of pollution hazards and pollutants contained in ballast and bilge water - Safeguarding trans-boundary groundwater resources and assessment of waste water seepage of quality and level of groundwater - Development of a solid waste (marine and land-based) management strategy - Development and implementation of a marine park (tourism component)
Lake Victoria Environmental Management Project (OP8)	- The project estimates the current economic value of the lake basin at \$3 – 4 billion annually, including fisheries and agriculture. The project assumes five years of appropriate fisheries management and estimates a net export earnings benefit of \$128 million per year (difference between controlled fishery yield of \$288 million and uncontrolled \$160 million) representing revenue to communities of between \$240 – 520 million. - In addition to this the local fishery is worth between \$20 – 40 million per annum to local communities. - The project also estimates that close to 0.5 million people gain direct employment from the fisheries. For each person employed directly a further five are employed in post-harvest and support activities (e.g. fish processing, transport, boat building and maintenance). - Reduction in water supply costs arising from treating water of deteriorated quality, these costs estimated at \$3.5 million per annum - Diminished disease incidence among riparian communities as a result of improved water quality and sanitation - Increased productivity from wetlands and degraded areas - Potential eco-tourism benefits	Objective: LVEMP aims to rehabilitate the lake ecosystem for the benefit of riparian communities who live in the catchment, the national economies of which they are part and global community. The project is working to maximize sustainable benefits, supply of safe water, generate food, employment and income and sustain a disease free environment Components: - Management of fisheries, including establishment of a Lake Victoria Fisheries Organization and improvement of fisheries research - Strengthening monitoring, extension and enforcement of fisheries regulations - Management and control of water hyacinth - Management of lake pollution and water quality including strengthening of regulatory and incentive framework and establishing water quality monitoring network - Pilot investments in municipal and industrial waste treatment and priority waste management investments (sewerage) - Management of land use in the catchments - Wetland management

Local Livelihood Benefits and Impacts Review: Study Document Four

Project	Intend Benefits	Objectives / Activities and Components
Water Pollution Control and Biodiversity Conservation in the Gulf of Guinea Large Marine Ecosystem (OP8)	- People of the countries bordering the Gulf of Guinea will be assured of an environment that is more conducive for their health and well being (from reduction in pollution from industrial sources) and of the sustained productivity of the waters of the Gulf of Guinea. - Improvement in health - Reduction in pollution (industrial and urban effluents) - Increased public awareness (NGO participation)	Objectives: The project will formulate a plan for pollution control and prevention in the Gulf of Guinea and set up demonstration sites Components: - Strengthening regional capacities to prevent and remedy pollution - Developing integrated information management and decision making support system - Establishing a national and regional sustainable program for coordinated monitoring - Preventing and controlling land based pollution (through demonstration pilot projects to control industrial and urban pollution) - Developing national strategies and regional strategies for long term management
Implementation of Integrated Watershed Management Practices for the Pantanal and Upper Paraguay River Basin (OP9)	- Eco-tourism demonstration projects (for indigenous groups) - Industrial and municipal pollution control - Reduced soil loss and improved flood forecasting - More sustainable use of water resources benefiting local populations - Promotion of community-based land rehabilitation	Objective: To assist Brazil to promote the sustainable development of the Upper Paraguay River Basin and the Pantanal integrated them into a watershed management program Components: - River basin environmental analysis and monitoring - Conservation of the Pantanal - Land degradation control and rehabilitation of natural vegetation cover - Stakeholder involvement and sustainable development through demonstration pilot projects - Integrated watershed management program implementation
Rural Environmental Protection Program (OP9)	- Improving environmental practices on farms is also likely to result in benefits to individual farmers over the long run. - Improve access to safer drinking water, cleaner local streams and lakes and reduced need of fertilizer. - Farmers investing manure storage can use the manure as fertilizer and thus can save 150-200US\$ per year on chemical fertilizer. - Over the long run, the farmers may see productivity improvements. - Improved health for families by reducing nitrates entering groundwater.	Objective: To improve water quality in the Baltic Sea by decreasing non-point sources of nutrient pollution from agriculture Components: - On-farm improvements including technical assistance and advice - Infrastructure investments (jointly with participating farmers) - Outreach and management

Local Livelihood Benefits and Impacts Review: Study Document Four

Project	Intended Benefits	Objectives / Activities and Components
Pollution Control and Other Measures to Protect Biodiversity in Lake Tanganyika (OP9)	- Reduced pollution of the lake which they depend (drinking water and domestic purposes) - Development of sustainable methods of income generation and local resource management - Better resource management use will benefit people depending on fisheries, agriculture, forestry and other natural resource uses - Increased income generation from eco-tourism (nature based)	Objective: Improve understanding of the lake and the effects of stresses on the system; and take action to maintain the health and biodiversity of the system and coordinate efforts in the four countries. Components: - Establishing a regional framework for cooperation, including endeavors to harmonize legislation - Investigation pollution, including sources, effects and control - Investigating conservation measures
SAP for the Bi-National Basin of the Bermejo River (OP9)	Through several pilot demonstration projects: - Improved range management (Tarija valley – this project is for the zoning of natural grazing in accordance with their potential, It will establish sustainability criteria and limit the number of cattle allowed in each grazing field.) - Improved management of forage in the humid Chaco (the objective is to determine the costs of utilizing practices for the control of vinal under farm conditions and establishing economic benefits to the farmer of the recuperation of productive levels of cattle ranching)	Objective: Promote environmentally sustainable development in the river basin Components: - Conducting a Trans-boundary Diagnostic - Formulating a SAP - Public participation and pilot demonstration projects designed to test the feasibility of large scale remedial measures
Implementation of the SAP for the Pacific Small Island States (OP9)	- Sustainable income and employment benefits from tuna and near shore fisheries with contribution to food security - Reduced pollution (industrial and household) - Improved groundwater quality - Improving community management for sustainable use of resources	Objectives: to achieve global benefits by developing and implementing measures to conserve and sustainably manage and restore coastal resources Components: - Create enhanced trans-boundary management regimes - Action to achieve the sustainable development of coastal living and non-living resources including protection of groundwater and support for Marine Protected Areas and demos in sustainable fisheries and waste reduction (through pilot demonstration projects) - Maximize benefits from effective community assessment, monitoring, participation and education - Building community capacity to effectively manage fisheries

Local Livelihood Benefits and Impacts Review: Study Document Four

Project	Intended Benefits	Objectives / Activities and Components
Implementation of a SAP for the Red Sea and the Gulf of Aden	- Reduction of risk of marine pollution - Develop suitable financing for MPAs including eco-tourism - Alternative livelihoods in demo sites to local fishing communities - Improve opportunities for sustainable use of fisheries resources	Objective: Project focuses on preventative and curative measures required to maintain the health of coastal and marine ecosystems and ensure the sustainable use of marine resources. Components: - Institutional strengthening and enhancing regional co-operation - Reducing navigation risks and marine pollution incidents - Promoting sustainable use and management of resources - Promote conservation of marine habitats through MPAs - Support ICZM - To enhance public awareness
Building Partnerships in Environmental Protection for East Asia Seas (OP9)	- Reduction in pollutants and improvements in water quality - Improved management of coastal resources for fisheries, and tourism / eco-tourism - Improved local involvement in resource management through ICM - Public awareness and education.	Objective: Project aims to enable the sustainable use and management of coastal and marine resources through intergovernmental, interagency and intersectoral partnerships Components: - To establish six national demonstration sites covering the application of ICM - Application of environmental risk assessment and risk management process - Develop and reinforce regional networks and task forces - Develop human resource capacities in countries - Create investment opportunities and mechanisms for coastal and marine resource development - Improve collaboration with NGOs, CBOs and communities
Integrated Management of Land-Based Activities in the Sao Francisco Basin (OP10)	- Reduction in pollutants and improvements in water quality - Improvement in agricultural productivity and practices - Improved fisheries along river - Public awareness, stakeholder participation and education	Objective: formulation of an integrated watershed management program: Involvement public participation processes in the design and implementation of the water basin management plan Components: - River basin and coastal zone environmental analysis - Public and stakeholder participation (including demonstration projects) - Watershed management program formulation including information sharing and dissemination - Quantification of water use and conflicts

Local Livelihood Benefits and Impacts Review: Study Document Four

Project	Intended Benefits	Objectives / Activities and Components
Western Indian Ocean Islands Oil Spill Contingency Planning Project (OP10)	▪ Potential benefit to fisheries and tourism industries through avoidance and mitigation of oil spills. (Allow government agencies to respond to and mitigate any oil spill and so avoid and contain damage to fisheries and tourism (on which many local communities in the islands depend). ▪ Reduced risk of contamination of tourist beaches (in some countries tourism contributes up to 20% of GDP and employs 10% of workforce; and fisheries (4% of GDP and substantial food resources). ▪ Avoidance of social upheaval that may accompany the loss of employment and income opportunities and food resources.	Objective: to protect the environmental integrity and biodiversity of the Western Indian Ocean SIDS from the risks and consequences of oil spills Components: ▪ Establish appropriate legal and regulatory frameworks ▪ Develop national and regional contingency planning processes ▪ Set appropriate national and regional oil spill response capacity ▪ Establish sustainable financial agreements ▪ Build awareness and preparedness
Regional Ship Waste Management (OP10)	▪ Reduction of marine pollution through the provision of facilities for reception of ship generated waste and improvement in treatment facilities and disposal on-shore, it is envisaged that considerable health and economic benefits will be realized. ▪ Reduction in amounts of marine debris found on beaches and significant improvements in landfill sites. ▪ Health benefits will accrue to OECS beneficiary countries. ▪ In addition, major economic benefit as a whole in terms of maintaining tourism industry that was threatened by deterioration of beach conditions.	Objective: to reduce public health risks and protect the environmental integrity of the OECS islands and their coastal and marine systems by improving domestic solid waste management facilities and compliance. Components: ▪ Institutional strengthening and improved policy and regulatory frameworks for managing solid and ship wastes ▪ Provision of facilities to receive wastes ▪ Improvement in domestic solid waste collection and disposal systems ▪ Provision of technical assistance to develop sewerage master plans and conduct feasibility studies in sewage collection, treatment and disposal ▪ Identify opportunities for recycling