

BAY OF BENGAL

SUSTAINABLE MANAGEMENT OF THE BAY OF BENGAL LARGE MARINE ECOSYSTEM

ANNEX 1

COUNTRY AND SECTOR OR PROGRAM BACKGROUND

For the purposes of the Bay of Bengal Large Marine Ecosystem (BOBLME) Program, the Bay of Bengal (BOB) region has been defined as comprising the coastal watersheds, islands, reefs, continental shelves and coastal and marine waters of the Maldives, Sri Lanka, the east coast of India, Bangladesh, Myanmar, the west coast of Thailand, the west coast of Peninsular Malaysia, and the Indonesian provinces of Aceh, Riau, and North and West Sumatra (see Annex 17). This body of water, measuring approximately 3.3 million km² in area, together with the coastal drainage systems, has been identified as one of the world's sixty-four Large Marine Ecosystems (LMEs) sharing a distinct bathymetry, hydrography, productivity, and trophically dependent populations.¹

About one-quarter of the world's population reside in the littoral countries of the BOB of which some 400 million live in the Bay's catchment area alone, many subsisting at or below the poverty level.² An average of 65% of the region's urban population live in large coastal cities and migration towards the coastal regions appears to be on the increase.³

The BOB supports numerous coastal fisheries, many of which are of significant socio-economic importance to the countries bordering the water body; an estimated 2 million fishers who operate primarily in coastal and inshore waters are directly employed in the sector.⁴ Included amongst these fisheries are coastal demersal, shrimp and small pelagic fisheries, as well as offshore fisheries for tuna and similar species.⁵

The distribution of many of the BOBLME's fish stocks extend across the shared national boundaries of adjacent countries and in some cases into waters well beyond the BOB. Large pelagic species such as tuna and billfish range over vast ocean space and pass through the exclusive economic zones (EEZs) of many of the countries in the region. Some smaller pelagics often migrate through the coastal waters of two or more neighbouring countries while other species are distributed through-out the coastal areas of all the BOB countries.

The key issue facing the region's coastal fishing communities is the unsustainable harvesting of certain species, a result of the open access nature of the resource (Attachment 1). Many of the fishery resources in the region are already heavily exploited and if fishing is allowed to continue unregulated the situation will likely worsen with significant adverse impacts on the large number of small-scale fishers dependent on these resources for their livelihoods and as a

¹ Sherman, K., 1994. Sustainability, biomass yields and health of coastal ecosystems: an ecological perspective. *Mar. Ecol. Progr. Ser.*, 112: 277-301.

² The BOBLME countries are ranked by the UN Human Development Index (HDI) as all having reached the Medium Human Development level. Nevertheless in aggregate, these countries are also home to the world's largest concentration of income poor.

³ World Resources Institute, 1990. *World Resources: a guide to the global environment*. World Resources Institute. Oxford University Press, Oxford.

⁴ Preston, G.L., 2004. Review of the status of shared/common marine living resource stocks and of stock assessment capability in the BOBLME Region. Report prepared for the Sustainable Management of the Bay of Bengal Large Marine Ecosystem Program (GCP/RAS/179/WBG). FAO, Rome.

⁵ Tuna are commonly sought in the vicinities of Sri Lanka, the Andaman Islands (India), Indonesia and Thailand.

source of food security.⁶ The socio-economic implications of non-sustainable exploitation of fish stocks is exacerbated further by the illegal incursion of foreign fleets, increased competition and conflicts between artisanal and large-scale fisherman, encroachment by nationals into the territorial waters of neighbouring countries, and an alarming increase in cyanide fishing and other non-sustainable fishing practices.

A second key issue is the continued degradation of highly productive coastal and near-shore marine habitats such as coral reefs, mangroves and estuaries, and marine grass beds, all critical fish spawning and nursery areas. Immediate causes include land conversion and reclamation, direct overexploitation, accelerated sedimentation, and destructive tourism and fishing practices. Sea-based sources of pollution include oil pollution and offshore oil and gas exploration. There is also the possible adverse impacts related to the future development of seabed minerals.

Finally and closely related to the two issues described above, are the accumulative effects associated with land-based sources of pollution that are contributing to the disruption of basic processes and functioning of the marine ecosystem. These include degradation and loss of fish spawning and nursery areas, fish kills and possible changes in trophic structure.⁷ The fate and effect of pollutants have not been studied extensively but there is a growing body of evidence to support the conclusion that most are deposited as estuarine sediments, while a smaller portion is flushed out to deeper waters. While it is argued by some that the ecosystem's assimilative capacity on the whole has not been exceeded and that pollution problems are localised in nature, there remain many uncertainties about the Bay's status and ecological functioning, much of it attributable to the lack of comprehensive, reliable data.

In addition to these long-standing and pervasive issues, the region is strongly influenced by monsoons, storm surges, cyclones and other natural disasters, such as the recent tsunami, that affect coastal populations. As a result of the tsunami, in addition to the massive human tragedy and the subsequent need to rebuild and restore communities' wellbeing, given the socio-economic importance of many of the region's coastal and near-shore marine habitats (coastal lagoons, mangroves, and coral reefs) as sources of livelihood to some of the most heavily impacted sectors of society (namely, poor, rural coastal communities), there is also a need to assess the status of these habitats and ascertain the implications to the future livelihoods of affected populations.

Major root causes underlying these issues include: (i) population growth and changing demographics; (ii) continued demand for increased foreign exchange met, at least in part, by exports based on the primary sector; (iii) a growing and diversifying industrial sector; and (iv) the undervaluing of the natural resources and the environmental "goods and services" provided by the coastal and near-shore marine ecosystems.

⁶ For example, the recent catch per trip of tuna in the Maldives and Sri Lanka has declined to about one-half of the 1980s level. Elsewhere, resource surveys in the coastal areas of Malaysia indicate that trawl harvests in the 1980s were already one-third of the 1970s level while on the Andaman Sea coast of Thailand they appear to be about one-half from previous levels over this same period of time.

⁷ For example, in some regions of the Bay, for example, a change in composition of plankton species has already been noted. See E. S. Holmgren, E.S., 1994, The Impact of the Environmental on the Fisheries of the Bay of Bengal Swedish Centre for Coastal Development and Management of Aquatic Resources. SWEDMAR/BOBP. (Madras 1994).

One major barrier to resolving these issues is the absence of a regional mechanism that would facilitate multi-national collaborative efforts to address these issues. A second major barrier consists of the weak and/or inappropriate policies, strategies and legal measures that characterize much of the region. Where these do exist, they are rarely enforced. Other major constraints include lack of alternative livelihoods, weak institutional capacity, insufficient budgetary commitments, and lack of community stakeholder consultation and empowerment.

The BOBLME countries are well aware of these issues, causal factors and barriers to their resolution and in response have demonstrated significant levels of commitment to address many of them. The 1992 United Nations Conference on the Environment and Development (UNCED) produced five instruments including a blueprint for action to be applied globally from the early 1990s into the 21st Century – Agenda 21.⁸ The principles of Agenda 21 have subsequently influenced changes in other instruments of regional and international environmental law. Of these instruments, the 8 BOBLME countries have demonstrated a high degree of participation (Attachment 2).

Despite these commitments, it is clear a number of the previously identified issues need to be addressed through a more focused, regionally coordinated effort. These include: (i) common property management issues (for example, relating to migratory species and shared stocks); (ii) fishing rights and access within the Bay of Bengal global commons; (iii) trans-boundary issues associated with pollution; and (iv) the management of ecosystems whose boundaries extend beyond one or more national political jurisdictions. Moreover, there are many benefits to be gained from addressing the problems described above through action coordinated at the regional level. For example, issues of a trans-boundary nature in which actions taken by one country may have an adverse impact on another are best tackled through a concerted, harmonized collaborative approach. The countries of the BOB also face a commonality of problems from which they would benefit through sharing experiences and expertise and developing or enhancing regional and/or local solutions. Finally, there are the economies of scale and cost advantages which accrue from addressing certain problems in a collaborative fashion.

There already exist a number of international, regional and sub-regional institutions and programs operating in the Bay (see Attachment 3). Despite their large number, none appear to have the mandate, geographical scope and/or capacity to support an initiative based on a LME approach; particularly one that addresses the shared and common issues and barriers characteristic of the Bay of Bengal.⁹ However, it is equally clear that the BOBLME Program cannot resolve these issues acting in isolation. Rather, it must build on past experience and present institutions and activities in the region, including data and information collected through the numerous national and regional initiatives addressing the coastal and marine environment and fisheries issues in the Bay of Bengal to achieve any significant lasting impact

⁸ The others were the Rio Declaration, a Statement of Principles on Forests, and two international Conventions on Biodiversity and Climate Change.

⁹ Twelve of these institutions were evaluated during project preparation. None were found to be suitable to support a programme with the characteristics of the BOBLME due to failing to meet one or more of the following criteria: (i) their mandate was too broad, (ii) their mandate was too narrow, and/or (iii) they did not cover the region corresponding to the BOBLME. See Lugten, G. 2004. Study on options for regional coordination mechanisms. Report prepared for the Sustainable Management of the Bay of Bengal Large Marine Ecosystem Program (GCP/RAS/179/WBG). FAO, Rome.

The Global Environment Facility (GEF) is in a unique position to build on and strengthen existing programs and partnerships in the region through supporting the development of a trans-boundary perspective and approach. It has already demonstrated its commitment to such an initiative through supporting a number of preparatory activities through provision of Block B and Supplemental Block B grants (see Annex 4).¹⁰ These grants, supplemented by additional co-financing, have been used to: (i) put in place national and regional coordinating mechanisms to ensure broad-based stakeholder participation in the preparation of the project; (b) prepare baseline reports; (c) prepare a framework Trans-boundary Diagnostic Analysis (TDA); and (d) formulate the project document for GEF and other donor financing. Building on this solid foundation, it will now require a concerted, focused, regional effort, one based on a long-term institutional and financial commitment from the BOBLME countries, working in close partnership with other existing institutions and programmes, to achieve any discernible improvement in the ecological health in an ecosystem the size and complexity of the Bay of Bengal.

¹⁰ Additional funding was provided by SIDA.

Attachment 1. Major Threats Root Causes and Constraints in the BOBLME ^{1/}

Priority Trans-boundary Environmental Issues	Priority Threats	Immediate Causes	Root Causes	Major Information Gaps	Constraints
Overexploitation of living marine resources	<ul style="list-style-type: none"> • over-fishing • destructive fishing • pollution • coastal and upstream development 	<ul style="list-style-type: none"> • increasing fishing pressure (e.g., due to growth in commercial fishing, non-sustainable fishing practices, coral mining, etc.) • accumulation of pollution wastes • conversion of coastal lands • siltation and sedimentation • salinization (water diversion) 	<ul style="list-style-type: none"> • population growth • national demand for foreign-exchange • urban growth and poorly planned coastal development • growth and diversification of industrial activities • need to increase agricultural and aquacultural productivity 	<ul style="list-style-type: none"> • fragmentary/unreliable fishery statistics • inadequate fishery-independent data • inconsistent and incomplete taxonomic identifications • existence and relevance of traditional ownership and customary use systems 	<ul style="list-style-type: none"> • lack of alternative livelihoods • under valuing of relevant environmental goods and services • inadequacy in relevant legislation (overlapping and/or conflicting legislation) • inadequacy of existing implementation authority (sectoral approach) • lack of sufficient budgetary commitments • lack of institutional capacity • inadequate enforcement of existing legislation • lack of community stakeholder consultation
Degradation of critical habitats - mangroves - coral reefs - grass beds	<ul style="list-style-type: none"> • conversion and reclamation • direct overexploitation • pollution • siltation and sedimentation • salinization • destructive fishing practices (corals/grassbeds only) • destructive tourist practices (corals only) • sand/coral mining coral/sand mining 	<ul style="list-style-type: none"> • poorly planned aquaculture, agriculture, salt ponds, urban development • sewage, domestic, industrial, and agricultural/aquacultural wastes • dredging • dynamite fishing, cyanide poisoning, etc. • beach replenishment 		<ul style="list-style-type: none"> • existence and relevance of traditional ownership and customary use systems • valuation of “goods and services” provided by critical habitats • areal extent and environmental status of seagrass beds 	
Land based sources of pollution	<ul style="list-style-type: none"> • sewage and other domestic and municipal wastes • agricultural and aquacultural wastes • industrial wastes 	<ul style="list-style-type: none"> • harmful practices leading to the generation and transport of wastes to the coastal and marine environment 		<ul style="list-style-type: none"> • identification and prioritization of pollution “hot spots” and relative importance • fate and affect of pollutants • permissible pollution discharge limits • appropriate and affordable clean production technology and best practices role and economic value of natural pollution attenuation services 	

^{1/} Summary based on the framework TDA and BOBLME thematic reports.

Attachment 2. Selected Relevant BOBLME Conventions and Agreements

Legal Instrument	Conventions							
	Bangladesh	India	Indonesia	Malaysia	Maldives	Myanmar	Sri Lanka	Thailand
Convention on Biological Diversity	R (08/96)	R (02/94)	R (08/94)	R (06/96)	R (11/92)	R (11/94)	R (03/94)	R (01/04)
Selected Mandate/Agreements								
UN Fish Stocks Agreement ¹		08/03			09/00			
Jakarta Mandate on Marine and Coastal Biological Diversity ²	R	R	R	R	R	R	R	R
UNEPs Regional Seas Agreements/ Program ³	A South Asian (1995)	A South Asian (1995)	A East Asian (1981)	A East Asian (1981)	A South Asian (1995)		A South Asian (1995)	A East Asian (1981)
Declaration and Global Programme of Action on Protection of the Marine Environment from Land-Based Activities	P	P	P	P	P		P	P
Committee of Fisheries (COFI) ³	M	M	M	M	M	M	M	M

¹ Under UNCLOS (United Nations Conventions on the Law of the Sea which all BOBLME States except Thailand has ratified)

² Under CBD.

³ Signifies agreement with the following "soft" law instruments: (i) Code of Conduct for Responsible Fisheries, (ii) FAO International Plans of Action, (iii) Rome Consensus on World Fisheries, and (iv) Plan of Action on the Sustainable Contribution of Fisheries to Food Security.

Key:

R = Ratified

P = Participant

A= Adopted

M=Member

Washington Declaration*

Attachment 3. International Institutions with BOB Mandate

Body	Objective	Countries								Mandate
		Bangladesh	India	Indonesia	Malaysia	Maldives	Myanmar	Sri Lanka	Thailand	
IOTC	Fishery Management		x		x			x	x	To promote cooperation between members for management, conservation and optimum utilization of tuna and tuna like species.
APFIC	Fishery Advisory	x	x	x	x		x	x	x	To promote utilization of living aquatic resources by development of fishing and culture operations.
BOB-IGO	Fishery Advisory	x	x			x		x		A small scale fisheries development programme
SEAFDEC	Fishery Advisory			x	x		x		x	To develop fishery potentials in the Region.
INFOFISH	Fishery Advisory	x	x	x	x	x		x	x	To provide marketing information and technical advisory service to the fishery industry of the Asia-Pacific region.
NACA	Fishery Scientific	x	x	x	x		x	x	x	Promotion of rural development through sustainable aquaculture.
APEC	Economic			x	x				x	To give trade liberalization and economic cooperation further impetus and high-level commitment, to develop a spirit of community in the region and to promote sustainable growth and equitable development.
ASEAN	Economic			x	x		x		x	To accelerate economic growth, social progress and cultural development.
BIMSTEC+2	Economic	x	x				x	x	x	To foster socio-economic cooperation amongst member states.
SAARC	Economic	x	x			x		x		Economic and social development for people of South Asia.
IOMC	Economic			x				x		To enhance the economic and social development of Indian Ocean states
The Colombo Plan	Economic	x	x	x	x	x	x	x	x	An international economic organization for the strengthening of economic and social development in developing states in Asia and the Pacific.
SACEP	Environmental	x	x			x		x		To protect and manage the marine environment and related coastal ecosystems of the region
SAS	Environmental			x	x	x			x	To create an environment at the regional level, in which collaboration and partnership in addressing environmental problems of the South Asian Seas, between all stakeholders, and at all levels is fostered and encouraged; and to enhance the capacity of the participating governments to integrate environmental considerations into national development planning.
IOCINDIO	Research	x	x	x	x	x	x	x	x	To promote and coordinate programmes that demonstrates and enhances the value of marine scientific research and systematic observations of the ocean in resolving the needs of member states.
WFC/Gofar*	Research		x	x	x			x	x	An ecosystem multidisciplinary partnership approached to fisheries research and development: improved productivity, environmental protection, saving biodiversity, improving policies and strengthening national programmes.

* International Mandate

IOTC	Indian Ocean Tuna Commission
APFIC	Asia-Pacific Fisheries Commission
BOB-IGO	Bay of Bengal Programme Inter-Governmental Organization
SEAFDEC	South East Asian Fisheries Development Centre
INFOFISH	Intergovernmental Organization for Marketing Information and Technical Advisory Services for Fishery Products in the Asia – Pacific Region
NACA	Network of Aquaculture Centres for Asia
APEC	Asia-Pacific Economic Cooperation
ASEAN	Association of South East Asian Nations
BIMSTEC	Bangladesh, India, Myanmar, Sri Lanka and Thailand Economic Cooperation
SAARC	South Asian Association for Regional Co-operation
IOMC	Indian Ocean Marine Affairs Co-operation
The Colombo Plan	Colombo Plan for Cooperative Economic and Social Development in Asia and the Pacific
SACEP	
SAS	South Asian Seas
IOCINDIO	IOC Regional Committee for the Central Indian Ocean
WFC/Gofar	World Fish Centre, The Asia group of Fisheries and Aquatic Research

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ANNEX 2

MAJOR RELATED PROJECTS FUNDED BY THE BANK AND/OR OTHER AGENCIES

Sector Issue	Project	Status	Latest Supervision (Form 590) Ratings (Bank-financed projects only)	
			Implementation Progress (IP)	Development Objective (DO)
Bank-financed				
	Coral Reef Rehabilitation and Management Project (global)	On-going	S	S
	Conservation and Sustainable Use of Mesoamerican Barrier Reef (regional)	On-going	S	S
	Gulf of Aquaba Environmental Action Plan (regional)	Closed	S	S
	Coral Reef Monitoring Network in Member States of Indian Ocean Commission with Coral Reef Monitoring Network (regional)	On-going	S	HS
	Coastal and Marine Biodiversity Management (Mozambique)	Active	S	S
	Coastal and Marine Conservation (Philippines)	Active	S	S
	Marine Biodiversity Protection and Management (Samoa)	Active	S	S
	Hon Mun MPA Pilot Project, (Vietnam)	Active	HS	S
	CORALINA Project (Colombia)	Active	HS	HS
	Strategic Action Program for Red Sea and Gulf of Aden	Active	S	S
	Lake Victoria Environmental, Management Project (regional)	Closed	S	S
	Coastal Contamination Prevention and Marine Management Project (Mozambique)	Active	U	S
	Integrated Coastal Management (Georgia)	Active	S	S
	Mekong River Water Utilization (regional)	Active	S	S
	Coral Reef Rehabilitation and Management program (II) Indonesia	Active	S	S
	Baltic Sea Regional Project	Active	S	S
	Nile Transboundary Environmental Action Project (regional)	Active	S	S

HS: Highly Satisfactory

S: Satisfactory

US: Unsatisfactory

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ANNEX 3

RESULTS FRAMEWORK AND MONITORING

Results Framework Global Environment Objective(GEO)/Project Development Objective (PDO)	Outcome (Process) Indicators	Use of Results Information
<u>Global Environment Objective</u> To formulate an agreed on SAP whose implementation over time will lead to an environmentally healthy BOBLME.	- A SAP, supported by permanent institutional arrangements and funding, is put in place to support regional collaborative activities, policy reforms, and sustainable management activities in the BOBLME.	- Creation and use of an effective regional consultative mechanism by PY 1.
<u>Project Development Objective</u> To support a series of strategic interventions that will provide critical inputs into the SAP whose implementation will lead to enhanced food security and reduced poverty for coastal communities.	- Proposed actions in the SAP address the wellbeing of rural fisher communities through promoting regional approaches to resolving resource issues and barriers affecting their livelihood.	- Public consultations of national SAPs completed by PY 5
Intermediate Results (one per component)	Results Indicators for Each Component	Use of Outcome Monitoring
Component One: Long-term sustainability of the BOBLME Program ensured.	Component One: - TDA finalized - Permanent institutional arrangements agreed to and established (%). - Financial mechanism established (%). - SAP completed and agreed to (%).	Component One: - Development of the post-tsunami environmental baseline by PY2. - Regional analysis completed by PY 2 - Financial study completed by PY 3 and final donor meeting held by PY 6. - Establishment of regional SAP team by PY 2
Component Two: Regional and sub-regional collaborative management approaches applied to priority issues and barriers affecting coastal/marine living natural resources in the BOBLME and the livelihoods of dependent fisher communities.	Component Two: - 6 policy reforms in support of community-based fisheries management (ICM) achieved. - <i>Establishment of conditions leading to the creation of a permanent Regional Fishery Body (%)</i> . - <i>Regional statistical data protocols signed</i> . - Fishery management plans developed and applied to the management of regional/sub-regional fish stocks. - <i>Establishment of conditions leading to the creation of permanent bi-national commissions to manage critical trans-boundary ecosystems</i> - Development of bi-national management plans developed for critical trans-boundary ecosystems (%).	Component Two: - Ascertain if "lessons learn" advocate meaningful policy reform by PY 2. - Confirm if mechanisms are in place to support policy reforms by PY 4. - <i>Interim Regional Fishery Task Force created by PY2</i> . - <i>Regional statistical sub-committee established in PY1</i> . - Joint data collection /sharing for respective fisheries occurring by PY 3. - <i>Bi-national committees created by PY2</i> . - Sector plans developed by PY PY 4 and PY5, respectively

<p>Component Three: Increased understanding of large-scale processes and ecological dynamics and inter-dependencies characteristic of the BOBLME.</p>	<p>Component Three:</p> <ul style="list-style-type: none"> - Agreed to plan of studies needed to address key data gaps serving as barriers to improving understanding of large-scale oceanographic and ecological processes controlling BOBLME living marine resources. - FSP in support of improved management of existing and creation of new MPAs approved and implemented. - establishment of regional MPA monitoring program - development of a regional network of MPA managers - Geo-referenced data base established 	<p>Component Three:</p> <ul style="list-style-type: none"> - Completion of data inventory by PY 1. - FSP proposal prepared and submitted by PY 2. - design of monitoring program and candidate sites identified by PY 2. - 1st planning meeting of regional MPA managers held by PY2. - GIS data base inventories completed by PY 1.
<p>Component Four: Institutional arrangements and processes established to support a collaborative approach to ascertain and monitor the health of the BOBLME and priority coastal water quality issues.</p>	<p>Component Four:</p> <ul style="list-style-type: none"> - Establishment of agreed to system-wide environmental health indicators. - <i>Strategy and action plan for regional pollution monitoring.</i> - BOBLME countries agree to water quality criteria (%). 	<p>Component Four:</p> <ul style="list-style-type: none"> - National workshops completed by end of PY 2 - National task forces created by end of PY 1 and data bases inventoried by PY 2. - Initial list of water quality parameters formulated by end of PY 2.
<p>Component Five: Institutional capacity established to co-ordinate regional interventions, monitor project impacts, and disseminate and exchange information.</p>	<p>Component Five:</p> <ul style="list-style-type: none"> - Regional cooperation promoted through 6 meetings of the PSC. - Project monitoring program established and under implementation. - Project results and “lessons learned” disseminated (%). 	<p>Component Five:</p> <ul style="list-style-type: none"> - Determine by PY 2 level of participation of fisheries and environmental agencies of 8 countries in PSC meetings.

Arrangements for Results Monitoring

Outcome Indicators	Baseline	Target Values						Data Collection and Reporting		
		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Frequency and Reports	Data Collection Instruments	Responsibility for Data Collection
- A SAP, supported by permanent institutional arrangements and funding, is put in place to support regional collaborative activities, policy reforms, and sustainable management activities in the BOBLME.	None	-	-	-	-	-	1	Annual Regional Work Plan (ARWP)	M&E reports from project Management Information System (MIS)	RCU
								Report from mid-term review (MTR)	MTR	WB
								WB Implementation Completion Report (ICR)	ICR	WB
- Proposed actions in the SAP address the wellbeing of rural fisher communities through promoting regional approaches to resolving resource issues and barriers affecting their livelihood.	To be completed in PY 1	-	-	-	-	-	1	ARWP	MIS	RCU
								MTR	MTR	WB
								ICR	ICR	WB

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Annex 3: Results Framework and Monitoring

Results Indicators for each Component	Baseline	Target Values						Data Collection and Reporting		
		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Frequency and Reports	Data Collection Instruments	Responsibility for Data Collection
Component One: - TDA finalized. -BOBLME permanent institutional arrangements agreed to and established. - Financial administrative mechanism established. - SAP completed and agreed to.	FTDA	25%	50%	100 %	-	-	-	ARWP TDA	MIS	RCU
	None	-	-	50 %	-	-	100 %	ARWP PSC report	MIS	RCU PSC
	None	-	-	-	-	1	-	ARWP Legal document	MIS	RCU
	None	-	-	-	-	50%	100%	ARWP SAP	MIS	RCU
Component Two: - 6 policy reforms in support of community-based fisheries management (ICM) achieved. - <i>Establishment of conditions leading to a permanent Regional Fishery Body</i> - <i>Regional statistical data protocols signed.</i> - Fishery management plans developed and applied to the management of regional/sub-regional fish stocks. - <i>Establishment of conditions leading to the creation of permanent bi-national commissions to manage critical trans-boundary</i>	None	-	-	-	2	2	2	ARWP Policy documents	MIS	RCU Consultants
	None	10%	20%	50%	70%	90%	100%	ARWP Legal documents	MIS	RCU Consultants
	None	-	-	-	-	3	-	ARWP Protocols	MIS	RCU BOBLME countries
	None	-	-	-	-	-	3	ARWP Management Plans	MIS	RCU Fishery TForces
	None	10%	20%	50%	70%	90%	100%	ARWP Bi-national agreements	MIS	RCU Commissions

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Annex 3: Results Framework and Monitoring

<i>ecosystems</i> - Bi-national management plans developed for critical trans-boundary ecosystems.	None	-	-	-	-	-	2	ARWP Management Plans	MIS	RCU Commissions
Component Three: - Agreed to plan of studies needed to address key data gaps serving as barriers to improving understanding of large-scale oceanographic and ecological processes controlling BOBLME living marine resources. -FSP in support of improved management of existing and creation of new MPAs/fish refugia approved and implemented. – establishment of regional MPA monitoring program - development of a regional network of MPA managers - Geo-referenced data base established.	None	-	-	1	-	-	-	ARWP Study plan	MIS	RCU Consultants RCU BOBLME countries
	None	-	-	1	-	-	-	ARWP Approved proposal	FSP MIS	RCU
	None	-	-	-	1	-	-	ARWP	MIS	RCU
	None	-	1	-	-	-	-	ARWP	MIS	RCU Consultants
	National programs	-	1	-	-	-	-	ARWP GIS outputs	MIS	RCU

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Component Four: - Establishment of agreed to system-wide environmental health indicators. - <i>Strategy and action plan for regional pollution monitoring.</i> - BOBLME countries agree to water quality criteria (%).	None	-	-	-	1	-	-	ARWP System-wide plan	MIS	RCU Consultants
	None	-	-	-	-	-	-	ARWP Technical report	MIS	RCU Consultants
	None	-	-	-	30 %	60 %	100 %	ARWP Regional agreement	MIS	RCU BOBLME countries
Component Five: - Regional co-operation promoted through meetings of the PSC. - Project monitoring program established and under implementation. - Project results and “lessons learned” disseminated.	None	1	1	1	1	1	1	ARWP PSC reports	MIS	RCU PSC
	None	1	-	-	-	-	-	ARWP	MIS	RCU
	None	10%	20%	50%	70%	90%	100%	ARWP Press releases Videos Website (# of “hits”)	MIS	RCU

Monitoring Arrangements

Monitoring of project progress and outcomes would be a central function of the Regional Coordinating Unit (RCU) and will be the responsibility of one of the three internationally recruited RCU staff (who will also be responsible for IT issues). He/she will be supported at the regional level by a database/IT clerk and at country level by National Coordinators. Resources are provided in the project budget for the finalization of a monitoring system upon project start-up.

Indicators for monitoring purposes will be drawn from the Results Framework, adjusted where necessary and justified. Specific monitoring tasks will be defined in the context of technical and disbursement plans contained in the Annual Regional Work Plan (ARWP), broken down by quarter. Each ARWP will contain a monitoring program for the proposed activities, indicating which activities would require field interventions to gather data, and whether the task would be undertaken by the RCU staff member, the relevant National Coordinator or, in some cases, outside consultants.

Monitoring information may also be obtained from the independent scientific reviews conducted by members of either the Regional or National Scientific Advisory Panels (RSAP and NSAP, respectively), although this would largely be limited to assessment of research quality.

Each ARWP will contain a monitoring report, detailing the results of the previous year's monitoring activities.

Monitoring of Project Progress

Project progress will be monitored largely through the recording and verification of inputs, including financial disbursements and technical levels-of-effort. Financial inputs (disbursements) will be largely drawn from the Executing Agency financial management system, while technical inputs will be drawn from reports from National Coordinators and regional sub-contractors. The monitoring system will specifically compare financial disbursements to technical activities programmed in the ARWP and identify and assess any significant discrepancies between the two.

Monitoring Activity Outcomes

The monitoring of activity outcomes will constitute the second major output of the monitoring system. In some cases outcomes will be identifiable through evidence of training sessions, workshops or other activities. In others, the independent scientific review panels will provide confirmation of satisfactory results from studies etc. In some instances, however, it is anticipated there will be the need for physical inspection and/or surveying of activity sites and participants in order to confirm appropriate outcomes and assess their congruence with ARWP objectives. This latter task would often be undertaken by the relevant National Coordinator, or the RCU Monitoring and Information specialist (the latter particularly for regional activities), but may sometimes require the use of external consultants, and provision is made in the budget for their recruitment.

Evaluation of Project Impact

The project will not directly attempt to evaluate project impact, as this is more appropriately undertaken by external assessors during project mid-term and final evaluations. However, the availability of base-line data may be critical for subsequent impact evaluation, and in the annual monitoring work program the RCU will nominate those activities believed to be of particular significance and for which, as a result, base-line assessment is considered cost-effective. The

collection of base-line data would normally be contracted to an independent consultant not involved in project execution, working under the guidance of the National Coordinator and the RCU Monitoring and Information specialist.

Ex-post data gathering may also occur where this is specifically requested by the Executing or Implementing Agencies or, more commonly, by the project mid-term or final evaluation mission prior to their arrival or during their mission.

Dissemination of Project Activities and Results

During the preparation of the BOBLME Project a number of the BOB governments emphasized their view that particular attention should be given to improved dissemination of knowledge concerning the Bay of Bengal Large Marine Ecosystem and the activities of the project itself. As a result, the dissemination of general information as well as project activities and results is considered to be an important element of the Project.

This task will be the second major responsibility of the Monitoring and Information Specialist and a communications program will be appended to the Annual Regional Work Plan, as well as a report summarizing communications activities over the past year. The specialist will be supported by an assistant trained in desk-top publishing/website maintenance. Three specific target audiences are envisaged: national governments (in all BOBLME member countries); the regional and international scientific community, and the general public. Specific strategies and products will be developed to ensure that all three groups are reached.

Communications and dissemination tools will include a dedicated BOBLME web site, press releases, and promotional materials (e.g. brochures, posters). Periodic bulletins will be circulated to all NTF member institutions, research organizations, and relevant NGOs. During the course of the project a number of major communications efforts, for example the preparation of videos and similar materials for use on television and in schools, will be prepared using external specialists. Resources are provided in the project budget for the design and start-up of the website which will contain reports, news and public relations material, as well as for publishing costs for bulletins etc.

BAY OF BENGAL

SUSTAINABLE MANAGEMENT OF THE BAY OF BENGAL LARGE MARINE ECOSYSTEM

ANNEX 4

DETAILED PROJECT DESCRIPTION

General Aspects

A great majority of the peoples of the world are dependent on coastal and marine resources for their food, livelihood and security. However, most of these resources are components of larger trans-boundary marine ecosystems which require multi-country approaches to their sustainable management and conservation. In this regard, the Bay of Bengal (BOB) is of particular importance given that some 400 million people live in its catchment, many subsisting at or below the poverty level. Key issues include: the unsustainable harvesting of certain species, continued degradation of highly productive coastal and near-shore marine habitats, and the accumulative effects associated with land-based sources of pollution contributing to the disruption of basic processes and functioning of the marine ecosystem. In addition to these long-standing and pervasive issues, the Bay of Bengal is strongly affected by storm surges, cyclones and other natural disasters, including the recent tsunami, that can devastate coastal populations. In addition to the massive human tragedy and the subsequent need to rebuild and restore communities' wellbeing, given the socio-economic importance of many of the region's coastal and near-shore marine habitats (coastal lagoons, mangroves, and coral reefs) as sources of livelihood to some of the most heavily impacted sectors of society (namely, poor, rural coastal communities), there is also a need to assess the status of these habitats and ascertain the implications to the future livelihoods of affected populations.

The existing and further degradation of the coastal and marine resources of the Bay will have a severe impact on quality of life and growth prospects in the region; an impact that is likely to be disproportionately felt by the poor who, directly or indirectly, depend on these aquatic systems for income generation and are least able to adapt to adverse changes in water quality, fish catch and other aquatic resources. Major root causes underlying these issues include: population growth and changing demographics, unabated pressure on the primary sector to feed exports due to continued demand for increased foreign exchange, a growing and diversifying industrial sector, and the undervaluing of the natural resources and the environmental "goods and services" provided by the coastal and near-shore marine ecosystems.

One of the key barriers to resolving these issues is the lack of regional institutional arrangements to facilitate a coordinated approach among the BOBLME countries to address the previously identified issues. Other major constraints include: the weak and/or inappropriate policies, strategies and legal measures that characterize much of the region; lack of alternative livelihoods; weak institutional capacity; insufficient budgetary commitments; and lack of community stakeholder consultation and empowerment. While there already exist a number of international, regional and sub-regional institutions and programs operating in the Bay, none appear to have the mandate, geographical scope and/or capacity to support an initiative based on

an LME approach; particularly one that addresses the shared and common issues and barriers characteristic of the BOB (see Annex 1 for more detail).

Four key principles were adopted by the BOBLME countries at the onset of project preparation that have guided the development of the full-scale project. These were:

- (i) Unanimous agreement that the BOBLME countries would work together, on a regional, ecosystem approach, rather than at a sub-regional level (South Asia, Southeast Asia) in developing the Trans-boundary Diagnostic Analysis (TDA) and Strategic Action Program (SAP);
- (ii) An action-oriented approach would be adopted, and on-the-ground activities that address identified priority trans-boundary issues would be initiated during the implementation of the full-scale project, concomitant with the completion of the TDA and the development of the SAP. The activities to be undertaken would complement and directly feed into the TDA and SAP process. The BOBLME countries wanted to ensure that the SAP would not end up as just another shelf document.
- (iii) The SAP, the Project's principal output, should initially focus on the management of living marine (fisheries) resources and the environmental threats to those resources. This approach in turn, could serve as a "stepping stone" to achieving eventual cooperation on a more comprehensive scale.
- (iv) The BOBLME initiative should be envisaged as a long-term, 10-15- year, program consisting of two implementation phases. The first implementation phase project, as conceived in the draft Project Brief, would culminate in the development of a Strategic Action Program (SAP) and agreed institutional collaborative arrangements that could be put in place by the end of the 6-year project.

A key input into project preparation were the findings, recommendations, and consensual agreements reached stemming from a process that supported the development of the Project's draft Framework TDA (FTDA). Using PDF-B funding, this process involved: (i) the establishment of a Project Steering Committee; (ii) the establishment of national task forces and national steering committees, (iii) a comprehensive literature review, (iv) preparation of national reports, (v) national consultations, (vi) regional thematic papers, (vii) international peer review, and (viii) experts' meetings. This process provided the opportunity for country participants to break down complex trans-boundary situations into smaller, more manageable components and activities; it was critical because the process served to identify the previously mentioned priority issues, barriers, and needed measures to address the issues and subsequently guided the development of the proposed project structure and activities. A list of key documents, chronology, and major findings of the FTDA can be found in Annex 12. Selected documentation in support of the BOBLME Project preparation process has been posted on the website (<http://www.fao.org/fi/boblme/website/index.htm>).

The three issues identified as priorities by the countries through the FTDA process, capable of being analyzed through scientific, quantifiable, and politically neutral analyses of trans-boundary environmental problems scientifically were: (i) overexploitation of living resources, (ii) critical

habitat degradation, and (iii) land-based sources of pollution. These were identified by the countries from the longer list of trans-boundary concerns that may have environmental effects but were not viewed as environmental problems per se (i.e., livelihoods, food security, absence of legal mechanisms and inadequate enforcement). These latter concerns were viewed as more appropriately analyzed as causes of the three aforementioned environmental concerns, and would be better addressed accordingly under their respective category for each of the three overarching environmental concerns in the TDA.

Once priorities were agreed to by BOBLME countries, a 3 day participatory logical framework workshop provided the basis for identifying a series of relevant activities to be supported under the Project.¹¹ The common features among these activities were to: (i) promote the development of regional and sub-regional collaborative approaches among the 8 BOBLME countries to address one or more issues identified as trans-boundary priorities (either shared or common)¹²; and (ii) provide critical inputs in the form of experience and “lessons-learned” and “products” to inform the SAP formulation process and “enrich” and strengthen the SAP itself (see below).

Based on the previously described project preparation activities, the Project’s development objective is to support the development of a Strategic Action Program (SAP) whose implementation will lead to enhanced food security and reduced poverty for coastal communities in the BOB region. Global benefits will accrue from the SAP’s implementation which over time will lead to an environmentally healthy BOBLME.

The Project has been structured into the following five interlinking components. At the national and regional workshops and Project Steering Committee meetings, the BOBLME countries stressed the need to initiate some of the priority trans-boundary activities to address critical issues that had been identified throughout the PDF-B process. The activities selected would furthermore contribute to the finalization of the TDA and the development of the SAP. The five components are described below, followed by a roadmap illustrating the inter-linkages between the technical components and the TDA/SAP process, and their timing as critical inputs into the finalization of the TDA and development of the SAP. The five components are:

1. Strategic Action Program (SAP)
 1. TDA Preparation
 2. BOBLME Institutional Arrangements
 3. Sustainable Financing Strategy
 4. SAP Formulation and Adoption
2. Coastal/Marine Natural Resources Management and Sustainable Use
 1. Community-based Integrated Coastal Management (stock-taking)
 2. Improved Policy Harmonization (mainstreaming)
 3. Collaborative Regional Fishery Assessments and Management Plans
 4. Collaborative Critical Habitat and Management

¹¹ See summary of 1st Technical Meeting held in Bangkok 27 -29 April, 2004 on the BOBLME website (<http://www.fao.org/fi/boblme/website/index.htm>).

¹² “Shared” issues are trans-boundary issues between two or more states while common issues are similar, occurring among all the 8 BOBLME countries but not necessarily trans-boundary in nature.

3. Improved Understanding and Predictability of the BOBLME
 1. Large-scale Processes and Dynamics affecting the BOBLME
 2. Marine Protected Areas in the Conservation of Regional Fish Stocks
 3. Improved Regional Collaboration
 4. Establishment of a Geo-referenced Data Base
4. Maintenance of Ecosystem Health and Management of Pollution
 1. Indicators of a Healthy BOBLME
 2. Coastal Pollution Loading and Water Quality Criteria
5. Project Management
 1. Establishment of the RCU
 2. Monitoring and Evaluation System
 3. Project Information Dissemination System

Project outcomes will include: (i) a finalized Trans-boundary Diagnostic Analysis (TDA), including the establishment of a new environmental baseline following the recent tsunami, that would provide, *inter alia*, a location-specific assessment of critical transboundary concerns and the identification of “hotspots”; (ii) an agreed Strategic Action Program (SAP); (iii) the establishment of permanent, partially financially-sustainable institutional arrangements that will support the continued development and broadening of commitment to a regional approach to BOBLME issues; (iv) creation of conditions leading to improved wellbeing of rural fisher communities through incorporating regional approaches to resolving resource issues and barriers affecting their livelihoods into the SAP and future BOBLME Program activities; (v) support for a number of regional and sub-regional activities designed to: (a) promote collaborative approaches leading to changes in sources and underlying causal agents contributing to trans-boundary environmental degradation (defined both as shared and common issues), and (b) provide critical inputs in the form of “lessons-learned” and “products” into the development of the SAP; (vi) development of a better understanding of the BOBLME’s large-scale processes and ecological dynamics; (vii) establishment and monitoring of basic health indicators in the BOBLME; (viii) increased capacity; and (ix) long-term commitment from the BOBLME countries to collaborate in addressing complex situations confirmed through adoption of an agreed institutional collaborative mechanism.

The Project's principle output will be a Strategic Action Program (SAP) whose objective would be to protect the health of the ecosystem and manage the living resources of the Bay on a sustainable basis to improve the food and livelihood security of the region’s coastal population. The SAP will provide a comprehensive framework and include well defined institutional and financial arrangements required to ensure the long-term sustainability of the BOBLME Program. It will also identify specific actions building on a number of demonstration activities supported under the 1st phase Project, required to address the priority trans-boundary problems in the region. Potential investment, technical assistance and capacity-building interventions, both national and regional, will be proposed.

A key input into the SAP formulation process will be findings and recommendations from the TDA to be finalized in Project Year 3 (PY 3). While there is much work to be done to complete the TDA, particularly with respect to establishing a new “baseline” following the tsunami (see below), the FTDA process clearly identified what the main priorities and root causes were in the BOBLME and initial activities needed to address same. The steps leading to the formulation of the SAP are provided in Attachment 1.

During the preparation of the FTDA, the occurrence of natural hazards generally and tsunamis specifically, were not identified as a priority. This situation changed dramatically on 26 December 2004. In response to the changed circumstances in the region, the BOBLME proposal, which had been prepared and endorsed by the countries pre-tsunami, was reassessed to ascertain where meaningful and compatible contributions could be made in a timely manner. The first and perhaps most significant contribution is the establishment of permanent institutional arrangements which will facilitate future BOBLME-wide collaborative actions to plan for and respond to future natural hazards affecting rural coastal populations. A second contribution is to establish a new, post-tsunami environmental “baseline” under the TDA sub-component through a comprehensive assessment of critical coastal habitats. This will provide a key input into other on-going and proposed coastal community and livelihood assessments to ascertain impacts on future income and well-being of affected populations. A third contribution, dependent on the priorities of the countries, could be the possible inclusion of a second tier Early Warning System (EWS), designed to expedite the transfer of hazard relevant information from national information nodes (typically located in the capital cities) to vulnerable rural coastal communities. Beyond these contributions, there exist a number of Project activities that provide additional opportunities to equip rural coastal communities in the BOBLME Region to better anticipate and respond to the occurrence storm surges, cyclones and other natural hazards, including future tsunamis. Examples are included in Attachment 2.

In light of the number of current activities and the rapidly changing situation in the tsunami-affected areas, flexibility has been built into the project so as to allow further definition of BOBLME-supported activities as the situation evolves. What is important, however, is early action on the approval of the Project to ensure that BOBLME plays a meaningful role in the future assessment and rehabilitation and management effort. An operational BOBLME would also provide the framework of an ecosystem approach and sustainable fisheries management, a framework in which many donors that are providing emergency and rehabilitation relief are interested in collaborating. Once approved and operational, a regional workshop proposed under the TDA sub-component (sub-component 1.1) would provide a means to better assess how the Project can better contribute to other on-going and planned activities.

A second critical input will be the results of a series of demonstration activities identified through the previously described FTDA and Logical Framework processes. Activity design, projected outcomes (“lessons-learned” associated with past experiences and/or processes and “products”), and the timing of outputs will directly “feed” into and “enrich” the SAP formulation process. Illustrative of projected “lessons-learned” supported under project activities of particular relevance to the SAP include the experience associated with: (i) promoting policy change and harmonization among BOBLME countries (sub-component 2.2); (ii) achieving agreement on a coordinated, regional pilot pollution monitoring program (sub-component 4.2);

and (iii) development of bi-national approaches to the management of trans-boundary critical habitats (sub-component 2.4). Examples of particularly SAP relevant “product” outcomes include: (i) a program of proposed studies to address critical data gaps impeding further understanding of BOBLME large-scale processes and dynamics (sub-component 3.1); (ii) regional and sub-regional plans to achieve the sustainable management of trans-boundary fish stocks (sub-component 2.3); and (iii) regional water quality monitoring strategy and action plan (sub-component 4.2).

The relative schedules between the SAP process and selected component/sub-component milestones have been mapped in Attachment 3.

The BOBLME Project is a six year project with a total estimated budget of US\$ (30.5 M). Project costs distributed by funding source are: (i) GEF (US\$ 12.1M), (ii) BOBLME Member States (US\$ 6.3M), (iii) Co-financiers (US \$ 11.3M), and (iv) FAO (US \$0.8M). Funds would be allocated among the components as follows: (i) 12.7 % Strategic Action Program (Component 1); (ii) 42 % for Coastal/Marine Natural Resources Management and Sustainable Use (Component 2); (iii) 14.5 % for Improved Understanding and Predictability of the BOBLME (Component 3); (iv) 4.3 % for Maintenance of Ecosystem Health and Management of Pollution (Component 4); and (v) 27 % for Project Management (Component 5).

All project-supported interventions are designed to act as catalysts to promote the implementation of a more comprehensive approach to the management of the BOBLME. The Project will support interventions at four levels: (i) regional, (ii) sub-regional (defined as two to seven countries), (iii) national (inter-ministerial), and (iv) sub-national (at the level of the community).

At the regional level, key activities/outputs will include: (i) Trans-boundary Diagnostic Analysis (TDA); (ii) Strategic Action Program (SAP); (iii) development of a regional shark management plan; (iv) a harmonized system of fish data collection and data/information sharing; (v) a process leading to the eventual establishment of a regional system of marine protected areas and fish refugia; (vi) a study identifying key data gaps and research priorities leading to an increased understanding of large-scale oceanographic and ecological processes in the BOBLME; (vii) closer collaboration with other regional and global environmental monitoring programs; (viii) a geo-referenced data base; (ix) a process leading to an agreed set of environmental indicators to measure the health of the BOBLME; (x) a regional pollution assessment and process leading to the development of water quality criteria; (xi) permanent institutional arrangements and development of a financial sustainability mechanism and strategy; and (xii) a Regional Coordinating Unit (RCU).

At the sub-regional level, key activities supported under the project will be the development of: (i) fishery management plans for selected shared fish stocks, and (ii) collaborative approaches to manage coastal/marine ecosystems shared by two or more countries. At the national level, key interventions include shared: (i) capacity building and training, (ii) improved policy framework, and (iii) information dissemination. At the level of the community, key interventions include participation in sub-regional and national activities (e.g., pilots, alternative livelihoods, etc.).

Detailed Description of Components

Component 1: Strategic Action Program (US\$ 3.8M, GEF US\$ 2.5M).

Objectives:

The objective of the component is to prepare a Strategic Action Program (SAP) whose implementation will ensure the long-term institutional and financial sustainability of the BOBLME Program.

Geographic scope:

The scope of the component will be regional for all sub-components.

Activities:

The component's activities are described below by sub-component.

Sub-component 1.1 TDA Preparation:

Objectives: The objective of the sub-component is to build on the BOBLME's existing draft Framework Trans-boundary Diagnostic Analysis (FTDA) and complete the Program's TDA.

Activities: To achieve these objectives, the sub-component would support the following activities: (i) finalize the existing draft FTDA (currently being reviewed by BOBLME countries), (ii) address critical data gaps identified by the FTDA, (iii) complete a post-tsunami assessment of critical coastal/marine habitats affected by the event, (iv) prepare a draft TDA, (v) public consultations, (vi) finalization of the TDA, and (vii) government adoption of the TDA.

Target populations: The primary target groups are the national public stakeholders, existing and future partners, and individuals who would receive benefits over the long-term from a financially-sustainable BOBLME.

Expected results: The expected results will be: (i) a TDA; and (ii) a post-tsunami, environmental baseline of critical habitats suitable to provide the basis to ascertain if Program-supported activities are contributing to a healthy BOBLME.

Sub-component 1.2 BOBLME Institutional Arrangements:

Objectives: The objective of the sub-component is to identify and establish agreed to permanent institutional arrangements ensuring the long-term management of the BOBLME.

Activities: To achieve these objectives, the sub-component would support the following activities: (i) comprehensive national and regional institutional analyses, (ii) consultative workshops, (iii) regional meetings, and (iv) an inter-ministerial conference.

Target populations: The primary target groups are national stakeholders, existing and future partners, and individuals who would receive benefits over the long-term from a more comprehensive approach to the management of the BOBLME.

Expected results: Agreed to institutional arrangements to manage the BOBLME Program.

Sub-component 1.3 Financial Sustainability

Objectives: The objectives of the sub-component are to: (i) design and establish a financing mechanism to fund the annual recurrent costs of agreed on BOBLME management structure ensuring the continued beneficial impact of the BOBLME Program; and (ii) assist BOBLME countries to prepare for the mobilization of financial resources and development of financial mechanisms for implementing specific actions that will be developed, agreed and included under the SAP (see below).

Activities: To achieve these objectives, the sub-component would support the following activities: (i) establish an ongoing dialogue and relationship with potential partners and stakeholders, (ii) establish appropriate regional and national institutional mechanisms to generate and administer program-related funds, and (iii) the testing of activity-specific financing mechanisms designed to cover their respective recurrent costs.

Target populations: The primary target groups are existing and future partners, stakeholders, and individuals who would receive benefits over the long-term from a financially-sustainable BOBLME.

Expected results: A financially-sustainable BOBLME.

Sub-component 1.4 SAP Preparation

Objectives: The objective of the sub-component is to support the process leading to the formulation of an agreed Strategic Action Program (SAP).

Activities: To achieve these objectives, the sub-component would support the following activities: (i) establishment of national (and a regional) SAP teams, (ii) review of previous experiences associated with SAPs, (iii) reaching consensus on ecological quality objectives (EcoQOs), (iv) political consultations, (v) preparation of national SAPs, (vi) preparation of the draft regional SAP, (vii) regional consultations, (viii) finalization of the SAP, (ix) national endorsements, (x) adoption of BOBLME governments, and (xi) publication and dissemination. The expected results: are a comprehensive framework and plan of action whose implementation will lead to a more healthy BOBLME and management of the living resources on a sustainable basis to improve the food and livelihood security of the region's coastal population (additional detail on the SAP preparation process can be found in Attachment 1).

Target populations: The primary target groups are the national public stakeholders, existing and future partners, and individuals who would receive benefits over the long-term from a financially-sustainable BOBLME.

Expected results: A comprehensive framework and plan of action whose implementation will lead to a more healthy BOBLME and management of the living resources on a sustainable basis to improve the food and livelihood security of the region's coastal population.

Component 2: Coastal/Marine Natural Resources Management and Sustainable Use (US\$ 12.8M, GEF US\$ 2.7M).

Objectives:

The objective of this component is to promote the development and implementation of demonstrative regional and sub-regional collaborative approaches to common and/or shared issues which affect the health and status of BOBLME.

Geographic scope:

The scope of the component will be at the regional level for sub-components 2.1, 2.2, and one fishery management plan (sharks) proposed under 2.3. Sub-regional activities under sub-component 2.3 are proposed for the Indian mackerel and Hilsa sub-regional fishery management plans. Sub-regional activities under 2.4 are the development and implementation of sustainable management plans for the Mergui Archipelago (Myanmar and Thailand) and the Gulf of Mannar (India and Sri Lanka).

Activities:

The component's activities are described below by sub-component.

Sub-component 2.1: Community-based Integrated Coastal Management

Objectives: The objective of the sub-component is to identify and evaluate the large and diverse body of information and experience associated with promoting: (i) community-based, fisheries and habitat management; (ii) co-management; and (iii) the creation of alternative livelihoods among fisher communities in the region; activities designed for purposes of reducing impact on coastal resources.¹³ Specifically this sub-component will complete a "stock-taking" exercise of the extensive experience in the BOBLME region and distil "lessons learned" to be used as a basis for supporting their "mainstreaming" through activities supported under sub-component 2.2 below.

Activities: To achieve these objectives, the sub-component will support the following activities: (i) a literature review and synthesis of findings, (ii) stakeholder consultations through focus group encounters and facilitated workshops, (iii) site visits and development of pre-selected case studies, and (iv) completion of the analysis.

Target populations: The primary target groups are the fisher and other rural coastal communities who have participated in the past and/or will benefit in the future from sound ICM policies.

¹³ By convention, these three activities have been collectively termed "community-based integrated coastal management."

Expected results: The expected results at the end of the sub-component will be an up-to-date overview of community-based ICM projects and activities supported in the BOBLME region supported by detailed analysis and “lessons learned” and accompanying specific policy recommendations.

Sub-component 2.2: Improved Policy Harmonization

Objectives: The objectives of the sub-component are to: (i) promote better understanding of the policy processes in the BOBLME region, (ii) enhance capacity in the formulation of policy, (iii) promote the “mainstreaming” of selected policy recommendations stemming from sub-component 1.1, above, and (iv) facilitating exchange of information on policy and legislation among regional institutional stakeholders. The outputs of the sub-component will support existing and future mainstreaming activities and provide critical inputs into the Strategic Action Plan (SAP).

Activities: To achieve these objectives, the sub-component will support the following activities: (i) policy studies, (ii) national technical workshops, (iii) regional policy meetings, (iv) strengthening of capacity in local policy formulation, (v) selected national policy interventions, and (vi) creation of a normative documents portal.

Target populations: The primary target groups are the national and local policy makers. Secondary target groups include the people whose lives would benefit from improved policies (mostly rural coastal communities) and the research community.

Expected results: Improved environment and capacity to formulate policies supportive of sustainable community-based integrated coastal management.

Sub-component 2.3: Collaborative Regional Fishery Assessments and Management Plans

Objectives: To introduce and promote collaborative fisheries management approaches for selected key trans-boundary species through the development of regional and sub-regional management plans and harmonization of data collection and standardization.

Activities: To achieve these objectives, the sub-component would support the following activities: (i) development of a regional fishery management plan for sharks; (ii) development of sub-regional fishery management plan for Indian mackerel (Bangladesh, India, Indonesia, Malaysia, Myanmar, and Thailand); (iii) development of sub-regional fishery management plan for Hilsa (Bangladesh, India, and Myanmar); and (iv) design and implementation of a common fishery data/information system in the BOBLME.

Target populations: The primary target groups are the coastal fishers whose livelihoods depend on the shark, Indian mackerel, and Hilsa fisheries. Secondary target groups include commercial fishing interests and fishery managers.

Expected results: Improved management of selected trans-boundary fish stocks through the development of regional and multi-national fishery management plans, an improved data base, and more effective institutional arrangements.

Sub-component 2.4: Collaborative Critical Habitat Management

Objectives: To promote multi-national approaches to manage and address issues affecting trans-boundary coastal/marine eco-systems within the broader BOBLME region. To achieve these objectives, two candidate sites have been selected and initially prepared for inclusion under this sub-component. These are the Mergui Archipelago (Thailand and Myanmar) and the Gulf of Mannar (India and Sri Lanka). The specific objectives for each site are to support a series of activities that will lead to the development of a bi-national collaborative institutional approach and system-wide master plan to facilitate the joint management of the respective ecosystems.

Activities: To achieve these objectives, the sub-component will support the following activities: (i) contribute to the updating of the existing environmental baselines; (ii) address major data gaps in the baselines associated with basic oceanography, fish larval patterns, rare and endangered species, and the prevailing current regime; (iii) develop a systematic monitoring programme based on current “best practices” in the region; (iv) develop and pilot alternative livelihood activities designed to mitigate existing non-sustainable fishing practices; (v) increase public awareness of the existence and significance of the ecosystems; and (vi) increase planning capacity and the development of bi-national management plans.

Target populations: The primary target groups in the two selected sites are the rural community coastal fishers whose livelihoods are based on healthy fish stocks and the underlying ecosystem on which the latter depend. Secondary groups include dive tour operators, tourists, coastal aquaculturalists, and researchers.

Expected results: The expected results at the end of the sub-projects are: (i) conditions leading to the establishment of a permanent bi-national institutional arrangements supporting the sustainable management of the ecosystems, (ii) updated management plans, (iii) increased awareness among the public and decision-makers of the significance of these areas, and (iv) improved understanding of alternative livelihood opportunities for reducing pressure on the fishery resource.

Component 3: Improved Understanding and Predictability of the BOBLME Environment (US\$ 4.3M, GEF US\$ 3.6M).

Objectives:

The objective of the component is to support activities and participate and share information with other regional and global environmental monitoring programmes which will lead to better understanding of the BOBLME ecological functions and processes.

Geographic scope:

The scope of the component will be regional for all sub-components.

Activities:

The component's activities are described below by sub-component.

Sub-component 3.1 Improved Understanding of Large-scale Processes and Dynamics affecting the BOBLME

Objectives: The objective of the sub-component is to contribute to an improved understanding of large-scale oceanographic and ecological processes controlling BOBLME living resources.

Activities: To achieve this objective, the sub-component would support: (i) an inventory and collection of relevant data sets that measure past variability in the BOBLME and its links to system productivity (e.g., data on monsoonal related phenomena, meteorology, oceanography, ocean color, and primary productivity); (ii) completion of 8 national retrospective studies; and (iii) regional workshops to identify and assemble datasets, identify data gaps, and plan relevant studies.

Target populations: The primary target groups include the research community (primarily oceanographers and fishery scientists) involved in activities leading to an improved understanding of large-scale processes in the BOBLME.

Expected results: Stocktaking of existing data sets and updating of existing knowledge of large-scale processes characterizing the BOBLME and identification of critical data gaps and needed studies to obtain a better understanding the relationships between large-scale BOBLME environmental variability and its effect on living resources.

Sub-component 3.2 Marine Protected Areas in the Conservation of Regional Fish Stocks

Objectives: The objective of the sub-component is to develop a better understanding of and promote a more comprehensive approach to the establishment and management of marine protected areas and fish refugia for sustainable fish management and biodiversity conservation objectives.

Activities: To achieve these objectives, the sub-component would support the following activities: (i) establishment of a working group of regional experts in MPAs/fish refugia; (ii) review and updating of MPA/fish refugia classification criteria; (iii) inventory and updating of status of existing MPAs/fish refugia in the BOBLME; (iv) a gap analysis to assess effectiveness of existing system of MPAs in: (a) conserving biodiversity of global importance, and (b) providing critical habitat for priority trans-boundary fish stocks; (v) field-based case studies; (vi) establishment of common regional data requirements and protocols to promote national efforts to establish MPAs/fish refugia; (vii) mapping existing and potential MPA/fish refugia sites with GIS technology; (viii) development of a regional action plan that would lead to the strengthening of existing and creation of new priority MPAs/fish refugia under a separate FSP; (ix) training and capacity building; (x) awareness and outreach activities; (xi) supporting studies and (xii) preparation of a full sized project proposal for management of existing and creation of new MPAs.

Target populations: The primary target groups are the public bodies and/or rural fishing communities responsible for the creation and management of marine protected areas and fish refugia in the BOBLME region.

Expected results: Establishment of the necessary enabling conditions that will lead to the creation of one or more sub-regional/regional systems of MPAs/fish refugia in a subsequent BOBLME phase.

Sub-component 3.3 Improved Regional Collaboration

Objectives: The objective of the sub-component is to establish effective partnerships with other regional and global environmental assessment and monitoring programs that would serve to achieve a better understanding of the status and processes characteristic of the BOBLME.

Activities: To achieve these objectives, the sub-component could support participation in relevant activities and processes associated with one or more of the following programs: (i) the Global International Waters Assessment (GIWA) of trans-boundary region # 55, once follow-up activities are determined; (ii) coastal module activities (e.g., sustainable fisheries and marine biodiversity) associated with the Indian Ocean Global Ocean Observing System (IOGOOS); (iii) Global Coral Reef Monitoring Network (GCRMN); (iv) strategies and measures supported under the regional implementation of the Global Plan of Action (GPA) in South Asian Seas; (v) UNEP's East and South Asian Seas Programs; and (vi) the South Asia Co-operative Environment Programme (SACEP). In addition, the project would expect to co-ordinate closely with other relevant GEF-supported regional (e.g., the currently active Andaman Sea and Gulf of Mannar initiatives) and global (e.g., IW:LEARN) projects.

Target populations: The primary target groups include existing and future partners involved in environmental assessment and monitoring relevant to the BOBLME.

Expected results: Increased co-ordination and collaboration with other regional and global programs leading to improved understanding of the BOBLME.

Sub-component 3.4 Establishment of a Geo-reference Data Base

Objectives: The objective of the sub-component is to establish a project-wide geographic information system which will serve to integrate different data sets and facilitate increased awareness and understanding of the status and processes characteristic of the BOBLME.

Activities: To achieve these objectives, the sub-component would support: (i) identification and inventorying of key project relevant geo-referenced data sets in the BOB region (e.g., fishery resources, critical habitats, coastal and near-shore marine pollution “hotspots” etc.); (ii) design and implementation of a common GIS data-model to store and retrieve geo-reference data on a regional basis; (iii) accessing and inputting existing and project-generated spatial data; (iv) production and dissemination of regional data products; and (v) training and technical assistance.

Target populations: The primary target groups include national executing BOBLME agencies and existing and future partners involved in supporting natural resources based/environmental development activities in the BOBLME.

Expected results: A GIS data-model for the storage of geo-reference data defining common standards and designed to facilitate: (i) greater exchange of data between participating BOB countries/agencies; (ii) increased understanding of the current status, processes and characteristics of the BOBLME; (iii) identification of critical data gaps; and (iv) monitoring of project-supported activities and other developments relevant to the Project.

Component 4: Maintenance of Ecosystem Health and Management of Pollution (US\$ 1.3 M, US\$ GEF 0.6 M).

Objectives:

The objective of the component is to support activities leading to an agreed on set of environmental indicators to measure the health of the BOBLME and the development of a regional collaborative approach to identifying important coastal water pollution issues and to develop remedial strategies.

Geographic scope:

The project component is focused on the coastal waters of the Bay of Bengal and Straits of Malacca, and some of the major rivers that feed into them.

Activities:

The component's activities are described below by sub-component.

Sub-component 4.1 Establishment of an Agreed to Ecosystem Indicator Framework

Objectives: The objective of the sub-component is to establish an agreed to ecosystem indicator framework designed to measure progress toward sustaining BOBLME health.

Activities: To achieve this objective, the sub-component would support: (i) a series of national workshops to identify existing indicators of environmental health used in BOBLME countries, gaps, and development of a suite of indicators and accompanying quantitative objectives; and (ii) a regional workshop to reach consensus of system-wide indicators, thresholds and targets, and timelines for achieving objectives.

Target populations: The primary target groups include representatives from national and state/provincial authorities responsible for assessing and monitoring a range of parameters reflecting environmental health of the BOBLME.

Expected results: Agreed on national and regional ecosystem frameworks designed to establish a common baseline and monitoring of future environmental health of the BOBLME.

Sub-component 4.2 Coastal Pollution Loading and Water Quality Criteria

Objectives: Development of a regional collaborative approach to identifying important coastal water pollution issues and to develop remedial strategies.

Activities: Specifically, under this component, the BOBLME Project would support the following activities: (i) meetings (Think Tanks) to develop a coastal water quality monitoring mechanism for the region, investigate and propose ambient water quality criteria, develop approaches to addressing identified pollution hotspots, and provide background documentation to support a regional mechanism for managing pollution; (ii) address identified capacity needs for monitoring and managing water quality and disseminating information; (iii) develop a systematic coastal water quality programme capable of identifying pollution “hotspots” in relation to agreed criteria, including a pilot monitoring programme of selected “hotspots”; (iv) annual technical meetings to discuss results obtained and their implications, provide support for problems encountered and share lessons learned; and (v) increase public awareness particularly among decision makers and the public of the pollution problems in the BOBLME and impacts on the regions shared ecosystem and its resources.

Expected results: A strategy and action plan for the implementation of a regional pollution monitoring and management program which would include: (i) a monitoring design for the region; (ii) a mechanism for information-sharing, including GIS of monitoring results; (iii) agreed ambient water quality criteria; an initial list of priority “hotspots” identified during pilot monitoring; (iv) proposed corrective strategies and timeframes for reducing pollution loads to acceptable levels; and (v) building large-scale awareness of pollution issues in the region and the relationships between ecosystem health and human welfare.

Component 5: Project Management (US\$ 8.2 M, GEF US\$ 2.7M).

Objectives:

The objective of the component is to establish a cost-efficient project management, M&E, and information dissemination capacity and process leading to the successful implementation of the BOBLME Programme.

Geographic scope:

The scope of the component will be regional for all sub-components.

Activities:

The component’s activities are described below by sub-component.

Sub-component 5.1 Establishment of the RCU

Objectives: The objective of the sub-component is to establish a regional coordinating unit (RCU) whose responsibility is to ensure the cost-effective coordination of all BOBLME supported activities leading to the finalization of the Strategic Action Program.

Activities: To achieve these objectives, the sub-component would support the following activities: (i) recruitment of a mixed international and national staff, (ii) completion of

arrangements with the host-government to support the RCU office, (iii) purchase of necessary equipment, and (iv) operations.

Target populations: The primary target groups are the partners, stakeholders, and beneficiaries of the BOBLME Program.

Expected results: The successful execution of the BOBLME Project (1st phase) in a cost-effective manner.

Sub-component 5.2 Monitoring and Evaluation System

Objectives: The objective of the sub-component is to establish a cost-effective monitoring and evaluation system in conformity with existing FAO and World Bank policies and procedures.

Activities: To achieve these objectives, the sub-component would support the following activities: (i) recruitment of a monitoring and information specialist (costed under sub-component 5.1); (ii) design (or purchase) of software to support computer-based M&E programme; (iii) provision of training to national coordinators (and outside regional contractors) to facilitate accurate data collection, formatting, and reporting to the RCU; and (iv) a mid-term and final project evaluation.

Target populations: The primary target groups are the partners, stakeholders, and beneficiaries of the BOBLME Program.

Expected results: Successful execution of the 1st phase Project of the BOBLME Program through the establishment of an accurate and transparent monitoring programme providing the basis to make timely decisions to address issues as they arise.

Sub-component 5.3 Project Information Dissemination System

Objectives: The objective of the sub-component is to disseminate information to regional and global stakeholders relevant to the BOBLME and the BOBLME Program.

Activities: To achieve these objectives, the sub-component would support the following activities: (i) contract the monitoring and information specialist (costed under sub-component 5.1), (ii) establish a dedicated website, (iii) press releases, (iv) development of promotional materials, and (v) the design and dissemination of country-specific audio-visual materials. In addition, the IW:LEARN Project, which is about to enter its second phase, could include hosting learning exchanges associated with the BOBLME through the IW:Learn website (www.IWLearn.net). These learning exchanges could feature, among other themes: (i) results associated with the ICM “stock-taking” and policy “mainstreaming” sub-components; (ii) experiences gleaned from promoting regional and sub-regional approaches to fisheries management; and (iii) approaches to reaching consensus on coastal water quality criteria.

Target populations: The primary target groups are the regional and global BOBLME stakeholders.

Expected results: Increased regional/global awareness about the objectives of, approach to, and “lessons-learned” derived from the BOBLME.

Attachment 1: SAP Formulation Process

Background and Approach to SAP specification

Maldives, India, Sri Lanka, Bangladesh, Myanmar, Thailand, Malaysia, and Indonesia have jointly identified the objective of the proposed Project as being to elaborate an agreed Strategic Action Plan (SAP) for the BOBLME to address priority issues.

A draft Framework Trans-boundary Diagnostic Analysis (FTDA) has already been prepared under the PDF-B funding for the BOBLME. This FTDA, and its finalisation during the initial stages of the Project, will provide the factual basis for the formulation of a SAP. The SAP will set out specific actions for each country that can be adopted nationally but which will be harmonised with the other concerned countries. These actions will address key trans-boundary concerns and over the longer term, ensure the restoration and protection of the BOBLME.

The Project activities specified below, the preparation of the SAP, and the actions contained within it, will all be undertaken based on a number of key underlying principles. These include:

- Full stakeholder participation and transparency, so as to generate a shared vision and responsibility
- Use of an ecosystems approach, and guidance for fisheries management based on the FAO Technical Guidelines for Responsible Fisheries: The ecosystem approach to fisheries
- Adaptive management and stepwise consensus building, with long-term environmental goals achieved through a series of pragmatic action-based steps, and measurement against agreed indicators. Within each step, agreed achievement indicators will be monitored and there will be a joint planning exercise to review progress and to plan the next step. It is likely that the adaptive management process will consist of:
 - Establishing long-term Ecosystem Quality Objectives (EcoQOs) for identified key problems
 - Agreeing upon the most practical and achievable short-term (project length) measures for making substantive progress towards resolving the problems
 - Setting time-limited operational objectives as project targets
 - Agreeing upon the appropriate a) process, b) stress reduction and c) environmental and living resource status, indicators to monitor progress and setting new operational objectives
 - Consulting with stakeholders on the proposals
 - Ensuring that the appropriate institutional measures are in place to oversee implementation of the agreed joint actions, and finally
- Action that takes into account social and economic root causes of the problem e.g. thinking about fisheries and marine environmental management in the wider rural development, cultural, macro-economic and political context.

- A strong emphasis on accountability, with parties committing themselves to implementing the SAP being fully accountable for their actions.
- Inter-sectoral policy building. Current systems of government in the region are highly sectoral in nature. In order to
- develop a pragmatic programme of action, direct participation should be achieved by all the key sectors involved in the problems. In particular this requires the fisheries sector to engage with other sectors for cross-sectoral planning and advocacy
- Subsidiarity. Practical solutions to transboundary issues (e.g. regional fish stock management) require action at regional, national and sub-national (or local) levels. The SAP will clearly address the balance between regional and national actions, attributing the most appropriate implementation mechanism to each level of action.
- Government commitment. Approval or adoption of the SAP as a binding agreement between governments is seen as crucial to the process.

SAP Formulation Activities

The specification of the SAP will be completed by following a number of steps, based on the “GEF IW TDA/SAP Process Notes on proposed best practice approach”. These steps, the activities associated with them, the individuals/institutions involved, and the calendar of activities, are described in the Table 1 below. Monitoring indicators follow in Table 2.

Table 1: Steps in the SAP Formulation Process

Step	Activities	Individuals/institutions involved and related inputs	Calendar
1. Review of other SAPs and establishment of National SAP Teams.	<p>Distillation of key strengths and weaknesses of existing SAPs from other programmes, discussion with those involved in their development to identify key lessons learned of the SAP development process. Preparation of a report on the above.</p> <p>A National SAP Team will be established in each country based on candidates proposed by the national co-ordinators, and agreed with the RCU Team Leader and international SAP TA. These teams should be technical in nature¹⁴ and probably consist of around 5 people. In order not to duplicate existing structures, where possible members of these SAP teams will be drawn from the National Task Forces (NTFs) and will therefore act as a representative working sub-group of the NTFs.</p>	<p>International TA (1 mm) with experience of SAP preparation to review SAPs and prepare report. He/she will have ongoing inputs throughout the rest of the programme to facilitate and co-ordinate the preparation of the SAP</p> <p>National SAP teams agreed between National co-ordinators (NCs), RCU Team Leader and international SAP TA</p>	2006 – year 1
2. Finalization of the TDA, and specification of a 'vision statement' of long-term EcoQOs	<p>Finalisation of TDA using consultant inputs and a verification workshop. This workshop will also be used to review of report output from Step 1, and consider priority issues identified from the TDA. Long-term EcoQCs will then be proposed/specified</p> <p>A report will be produced laying out the long-term EcoQCs, with clear justification for their inclusion and specification</p>	<p>International SAP TA (4 mm) to; (i) finalise TDA; (ii) prepare for, facilitate and report on a 2-3 day regional workshop attended by all the national SAP teams</p> <p>National SAP teams to attend regional workshop</p>	2006 – year 1
3. Brainstorming of long-term EcoQOs, and agreement on a regional SAP team	<p>National workshops will be held in each country to review the work of the national SAP teams and set/review the agenda for the SAP development. In order to get the most out of these workshops, the TDA and 'vision statement' will be sent to all participants and other relevant stakeholders in advance, with accompanying notes and requests for stakeholder feedback on key issues that will be required/incorporated at the workshops. These comments will be collated prior to the workshop.</p> <p>National workshops will discuss the EcoQOs proposed, and agree on final drafts. It will then examine each EcoQO and identify possible options for achieving them. Working groups during the workshop will each develop part of a matrix (or table) of options, which should include: (i) which part of the causal chain they address; (ii) timeframes for implementing them; (iii) responsible parties relative costs (where possible); and (iv) indicative priorities to the solutions proposed.</p>	<p>National workshop (2-3 days) facilitated and reported on by the international SAP TA (3 mm), and attended by the national SAP teams, the NTFs, national steering committees and co-ordinators and additional specialists or stakeholder representatives as appropriate</p> <p>Stakeholders to provide comment/feedback</p>	2007 – year 2

¹⁴ The composition of the team will depend on the nature of the potential solutions emerging from the brainstorming, but should include specialists in technical, legal, financial and public policy issues. The teams should include adequate stakeholder representation.

	<p>A regional SAP team will be agreed and will include representatives of the National SAP Teams, to ensure the synergy needed to develop regional priorities.</p> <p>The regional SAP team and NCs will collate and review the results of the national workshops at a regional workshop and pull them together into a set of regional ECOQOs.</p>	<p>International SAP TA to agree regional SAP team representatives in association with NCs and NTFs at national brainstorming workshops</p> <p>Regional SAP team and NC to attend regional workshop, prepared for, facilitated and reported on by the international SAP TA (1/2 mm)</p>	
<p>4. Foster synergy/harmonization between the development of the SAP and other ongoing programme activities/components, and conduct feasibility study of options/actions</p>	<p>Review all the outputs and lessons learned from the various activities/studies under other programme components e.g. coastal management, lessons learned, regional fisheries assessments, policy, marine pollution etc.</p> <p>In light of this review, examine the options proposed by the brainstorming workshop, and re-examine the tentative priorities and revise them as necessary. Then select those higher priority solutions that require further study outside any other studies proposed separately under other programme components. These additional studies will be conducted between the two national workshops to be held in each country under this Step. For each option/action the team should: (i) evaluate costs, (ii) list benefits, (iii) examine social soundness, and (iv) describe links to current policies.</p> <p>The Regional SAP Team will then conduct a preliminary environmental evaluation of whether or not the proposed options will make significant progress towards the long-term EcoQOs (see 'Set Operational Objectives' below). If the proposed measures do not signify significant progress towards the longer term objectives, the options considered will be re-examined at the national level and strengthened.</p>	<p>National SAP Teams (2 national workshops in each country, one at beginning and one at end of year, each lasting 2 days)</p> <p>International SAP TA (4mm) to attend, facilitate and write up all national SAP team workshops and assist with review of other programme outputs and lessons learned</p> <p>Unspecified technical studies completed by relevant technical experts (lumpsum \$100,000?)</p> <p>Regional SAP Team workshop (2 days)</p>	<p>2008 – year 3</p>
<p>5. Political consultation on selected options</p>	<p>Political decisions will be taken about which mix of options/actions, including key reforms and investments, governments (and the private sector where appropriate) will commit themselves to in the short/medium term (5/10 years).</p> <p>Written output on agreement will be prepared and reflected in draft National SAPs</p>	<p>International SAP TA (3 mm) to present key outputs from Step 4 above and conduct consultation with a) the programme Steering Committee (1 meeting), and b) the NTFs/NCs/scS (1 meeting in each of the 8 countries).</p> <p>International SAP TA to ensure written agreement on proposed options/actions at end of, or following all meetings/consultation</p> <p>National SAP teams to prepare draft national SAPs, with assistance from international SAP TA</p>	<p>2009 – year 4</p>
<p>6. Set operational objectives and measurable targets</p>	<p>The technical and political consultation process will enable the Regional SAP team to determine how far the political process can, in the short/medium term, be taken towards the long-term EcoQOs. By careful calculation and balancing of the environmental and social benefits, a set of five to ten year operational objectives will be laid down, stating what</p>	<p>Regional SAP team (1 regional workshop of 2-3 days). Workshop planned, facilitated and reported on by the international SAP TA (1 mm)</p>	<p>2009 – year 4</p>

	measurable progress should be observable. Priority interventions will also be identified.		
7. Agree on an institutional framework	<i>Activities related to agreeing the institutional framework are covered under the institutional arrangements component of the programme, with outputs feeding into the SAP process</i>	<i>N/a</i>	<i>N/a</i>
8. Preparation of monitoring and evaluation indicators	<p>Following outline proposals prepared by the international SAP TA, the Regional SAP team will prepare a set of process, stress reduction and environmental status indicators (including living/fisheries resources) at a workshop</p> <p>The indicators will initially be based on the results of the TDA, but will be adapted according to the needs of the long-term EcoQOs and shorter-term operational objectives/targets, as well as project monitoring and evaluation indicators for any subsequent GEF interventions¹⁵. Each indicator will be clearly linked to the institutional capacity for monitoring it.</p>	<p>International SAP TA (1 mm) for preparation of draft monitoring and evaluation indicators, and preparation, facilitation and reporting on indicator workshop</p> <p>Regional SAP team (one 2-3 day workshop) to agree monitoring and evaluation indicators</p>	2010 – year 5
9. Preparation of draft SAP	<p>Review all the outputs and lessons learned from the various activities/studies under other programme components etc.</p> <p>Preparation of a draft SAP on the basis of the reforms and investments outlined in the draft National SAPs and the components agreed in the preceding negotiation process.</p> <p>The SAP will be a concise jargon-free document with clear targets, quantifiable time-limited milestones and unambiguous assignment of responsibilities. It will include: (i) a statement of the priority problems and principles adopted for solving them, (ii) long-term EcoQOs and operational objectives, (iii) joint planning and dispute settlement mechanisms, (iv) institutional arrangements, (v) public participation, and (vi) monitoring and review arrangements</p>	International SAP TA (1 mm) to prepare draft SAP in outline prior to a 3-4 day regional workshop of the Regional SAP team, which will agree the SAP.	2010 – year 5
10. National endorsement of SAP	<p>The regional draft SAP and appropriate national SAPs will need to be endorsed in each country. This will be conducted under the auspices of the NTFs, but will also include wide consultation with stakeholders and civil society. Appropriate mechanisms for public consultation will be agreed, with a related communications strategy and mechanisms to report stakeholder comment/endorsement.</p> <p>In the event of a major reservation on the SAP (unlikely if full consultations are maintained throughout its development), the Steering Committee should decide whether or not to amend the draft and submit it for additional consultations/endorsement.</p>	NTFs, National SAP Teams, and RCU to organise national dissemination of draft regional and national SAPs for comment and endorsement	2011 – year 6
11. Develop GEF Interventions and conduct Partnership	Future interventions planned on the basis of the draft SAP and discussed at a partnership conference, enabling bilateral and multilateral organizations	International SAP TA (1/2 mm) to prepare for, facilitate, and subsequently write up a	2011 – year 6

¹⁵ The GEF IW M & E guide (GEF M & E Working Paper # 10) contains detailed information on the development of suitable indicators which will be used as a guide

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Conference	to review the specific proposals requiring development assistance (including TA, loans and possible equity transfers) and to engage in joint planning for actions to address priority transboundary issues in potential future projects.	partnership conference (2 days), to be attended by bilateral and multilateral organizations, and the regional SAP Team	
12. Ministerial conference adopts SAP, and SAP published and disseminated	A high level Ministerial Conference will formalise national commitment to the regional SAP, generate suitable press coverage, and celebrate the conclusion of the policy process. It will also serve as a launch pad for a new GEF initiative	International SAP TA (1/2 mm) to assist with preparation and facilitation of conference, to be attended by Regional SAP team and relevant Ministers. RCU to organise press coverage/releases and publication and dissemination of the SAP	2011 – year 6

Table 2 SAP Formulation_Monitoring Indicators

Step	Indicators
1. Review of other SAPs and establishment of national SAP teams.	Report on previous SAPs prepared List of national SAP team members
2. Finalization of the TDA, and specification of a 'vision statement' of long-term EcoQOs	Finalized TDA Regional workshop report, including vision statement on EcoQOs
3. Brainstorming of long-term EcoQOs, and agreement on regional SAP teams	8 National workshop reports and public comment Regional workshop report List of regional SAP team members
4. Foster synergy/harmonization between the development of the SAP and other ongoing programme activities/components, and conduct feasibility study of options/actions	16 national workshop reports Regional workshop report and environmental evaluation
5. Political consultation on selected options	Meeting minutes and written/signed agreement in all participating countries on agreed options Draft national SAPs
6. Set operational objectives and measurable targets	Regional workshop report on operational objectives and measurable targets
7. <i>Agree on an institutional framework</i>	N/a
8. Preparation of monitoring and evaluation indicators	International SAP TA report on draft monitoring and evaluation indicators Regional workshop report to include specification of monitoring and evaluation indicators
9. Preparation of draft SAP	Regional workshop report Draft SAP
10. National endorsement of SAP	Documented communication strategy Archives of public comment/endorsement
11. Develop GEF Interventions and conduct Partnership Conference	Conference report (including interest in outline future interventions) and attendance list
12. Ministerial conference adopts SAP, and SAP published and disseminated	Press releases Conference report Records of SAP publication and dissemination

Attachment 2: Selected BOBLME Project Activities Relevant to Reducing Vulnerability in Rural Coastal Communities to Natural Hazards

Factors contributing to increased vulnerability to natural hazards in rural coastal communities	Relevant activities designed to reduce vulnerability	Relevant BOBLME Component Activities
Lack of timely warning	2 nd tier early warning system (EWS)	Inclusion in SAP (Sub-component 1.4)
Absence of vulnerability mapping	Identify and high risk areas prone to natural hazards	Development of vulnerability indicators and GIS (Sub-component 3.4)
Poor land use zoning and planning	Increased local planning authority and capacity	Capacity building for local policy formulation (Sub-component 2.1) Policy “mainstreaming” (Sub-component 2.2)
Destruction of natural habitats (buffer zones)		Post-tsunami coastal critical habitat assessment (Sub-component 1.1) Creation/restoration of critical habitats (Sub-component 3.2)
Poverty (constraining people to use dangerous but cheap habitats)	Poverty reduction through improved fisheries management and fish trade as well as provision of alternative employment opportunities.	Collaborative fisheries management activities (Sub-component 2.3) and alternative livelihood activities supported on a bi-national basis (Sub-component 2.4)

Attachment 3. Selected Key Milestones between BOBLME Project Components and the SAP Formulation Process

Component/Activity						
Strategic Action Program						
Finalization of TDA Financial strategy Institutional arrangements SAP formulation	----- ----- ----- -----	-----→ ----- ----- -----	----- ----- ----- -----	----- ----- ----- -----	----- ----- ----- -----	----- ----- ----- -----
	National SAP teams formed Reviews of other SAPs EcoQOs initially identified	Regional SAP team formed Regional EcoQOs confirmed	Review of the project outputs/lessons-learned EcoQOs modified based on Project inputs	National SAPs prepared Policy workshops	Review of the project outputs/lessons-learned Draft SAP prepared Partner conference Ministerial conference	SAP finalized
Coastal Marine NRM and Sustainable Use						
ICM “stocktaking” ICM “mainstreaming” Collaborative regional fisheries assessments & management plans Collaborative critical habitat and management	Data review Stakeholder consultation Regional fisheries TF established Review of literature/national data bases Bi-national TFs established Environmental baseline established	ICM "lessons learned" and recommendations Policy studies Data portal established Stakeholder consultations Biological studies Initialization of harmonized data collection Stakeholder consultations Key data gaps addressed Alternative livelihoods identified and piloted	Policy workshops Technical workshops Capacity building Sector plans prepared	Pilot policy interventions →	----- Management plans prepared	-----→ Preparation of regional/subregional fishery management plans Bi-national institutional arrangements finalised
Improved Understanding and Predictability of BOBLME						
Large-scale processes/dynamics of BOBLME MPAs and conservation of fish stocks Regional institutional collaboration GIS	 Regional TF established ----- -----	Inventory and collection of data sets Inventories/status update Mapping Case studies Gap analysis GIS data inventory GIS design	Data gaps identified Program of studies prepared FSP developed GIS “products” -----	 -----	 -----	 -----→ -----→
Ecosystem Health and Management of Pollution						
Environmental health indicators	National workshops	National indicators	Regional indicators	National data		

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Regional coastal pollution pilot monitoring & water quality criteria	Regional workshop National TFs formed	developed National workshops "Hotspots" identified Protocols established	developed Regional pilot monitoring system established	sharing ----- -----→	-----→ -----→	-----→ Regional monitor strategy and action plan prepared
Project Year	1	2	3	4	5	6

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ANNEX 5
PROJECT COSTS

Project Cost by Component/Subcomponent

Component	Total (US \$ '000)	% Total Base Costs
A. Strategic Action Program		
1. TDA Preparation	1,670.0	6.9
2. BOBLME Institutional Arrangements	258.4	1.1
3. Sustainable Financing Strategy	980.9	4.0
4. SAP Formulation and Adoption	188.8	0.8
Subtotal: Project Sustainability	3,098.1	12.7
B. Coastal/Marine Natural Resources Management and Sustainable Use		
1. Community-based Integrated Coastal Management (stocktaking)	389.1	1.6
2. Improved Policy Harmonization and Institutional Strengthening (mainstreaming)	1,894.2	7.8
3. Collaborative Regional Fishery Assessments and Management Plans	6,024.4	24.8
4. Collaborative Critical Habitat and Management	1,843.3	7.6
Subtotal: Coastal/Marine Natural Resources Management and Sustainable Use	10,150.9	41.7
C. Improved Understanding and Predictability of the BOBLME		
1. Large-scale Processes and Dynamics affecting the BOBLME	328.6	1.4
2. Marine Protected Areas in the Conservation of Regional Fish Stocks	2,636.9	10.8
3. Improved Regional Collaboration	90.0	0.4
4. Geo-referenced Data Base	466.0	1.9
Subtotal: Improved and Predictability of the BOBLME	3,521.5	14.5
D. Maintenance of Ecosystem Health and Management of Pollution		
1. Indicators of a Healthy BOBLME	259.4	1.1
2. Coastal Pollution Loading and Water Quality Criteria	795.6	3.3
Subtotal: Maintenance of Ecosystem Health and Management of Pollution	1,055.0	4.3
E. Project Management		
1. Establishment of the RCU	5,093.5	20.9
2. Monitoring and Evaluation System	813.7	3.3
3. Project Information Dissemination System	595.4	2.4
Subtotal: Project Management	6,502.5	26.7
Total BASELINE COSTS	24,327.6	100.0
Physical Contingencies	4,135.7	17.0
Price Contingencies	2,019.4	8.3
Total PROJECT COSTS	30,482.7	125.3

Project Cost by Expenditure Accounts

Project Cost by Category	Total (US \$ '000)	% Total Base Costs
I. Investment Costs		
A. Equipment and Furniture	420.6	2
B. Vehicles	15.0	--
C. Technical Assistance	5,023.7	21
D. Studies and Workshops	8,733.1	36
E. Training	1,148.7	5
F. Publications	700.0	3
Total Investment Costs	16,041.0	66
II. Recurrent Costs		
A. Staff salaries	5,784.2	24
B. Office O&M Costs	2,295.3	9
C. Travel	207.1	1
Total Recurrent Costs	8,286.6	34
Total BASELINE COSTS	24,327.6	100
Physical Contingencies	4,135.7	17
Price Contingencies	2,019.4	8
Total PROJECT COSTS	30,482.7	125

Financial Summary

	Years Ending December 31 (US\$ ' 000)						
	2006	2007	2008	2009	2010	2011	Total
Total Project Costs							
Total Investment	3,144.9	5,222.8	2,932.4	2,108.2	1,448.9	1,183.8	16,041.0
Total Recurrent Costs	1,153.0	1,396.4	1,540.9	1,451.1	1,395.5	1,349.6	8,286.6
Financing Sources							
GEF	2,361.8	3,851.8	2,433.4	1,200.2	1,174.4	1,060.6	12,082.1
Governments (cash)	194.5	433.4	420.4	453.4	364.2	330.2	2,196.1
Governments (in-kind)	358.0	578.0	750.4	655.8	597.4	553.2	3,492.8
GOI (cash)	97.6	92.4	95.0	97.4	99.8	102.4	584.6
NOAA (in-kind)	112.8	125.4	54.8	32.6	41.4	36.0	402.9
Other Co-financiers	1,781.0	2,700.8	1,748.2	2,054.0	1,379.0	1,257.0	10,920.3
FAO (in-kind)	190.6	283.0	95.6	73.6	85.0	76.2	803.8
% of total project costs							
GEF	7.7	12.6	8.0	3.9	3.9	3.5	39.6
Governments (cash)	0.6	1.4	1.4	1.5	1.2	1.1	7.2
Governments (in-kind)	1.2	1.9	2.5	2.2	2.0	1.8	11.6
GOI (cash)	0.3	0.3	0.3	0.3	0.3	0.3	1.8
NOAA (in-kind)	0.4	0.4	0.2	0.1	0.1	0.1	1.3
Other Co-financiers	5.8	8.9	5.7	6.7	4.5	4.1	35.7
FAO	0.6	0.9	0.3	0.2	0.3	0.2	2.5

BAY OF BENGAL SUSTAINABLE MANAGEMENT OF THE BAY OF BENGAL LARGE MARINE ECOSYSTEM

ANNEX 6 IMPLEMENTATION ARRANGEMENTS

Partnership Arrangements

BOBLME National Governments

The long-term success of the BOBLME Program will ultimately depend on the shared vision, approach and commitment of the BOB countries to the Program's existence. Participating Governments can mobilize the global community to participate through strategic partnerships, primarily in the form of provision of support for activities which in turn will lead to the creation of the necessary enabling environment to achieve the aforementioned commitment over the long-term. National governments have demonstrated their substantial commitment to the 1st phase Project, through provision of significant levels of support in both cash and in-kind contributions. Cash contributions will be equivalent for all countries and be used to cover the costs of: (i) a contracted full-time national technical advisor, (ii) the *pro rata* portion of the salary of the national coordinator, (iii) associated office space and utilities, and (iv) in-country costs associated with sponsoring project-related national workshops and the participation of national representatives. In addition, BOBLME Governments will provide substantial in-kind contributions which will cover: (i) all counterpart salaries for workshops and training and local travel and (ii) the time of National Task Force members. Furthermore, there will be additional cash and in-kind contributions from the countries participating in the Mergui (Myanmar and Thailand) and Gulf of Mannar (Sri Lanka) sub-projects. Finally, India as host country has generously agreed to support the Regional Coordination Unit (RCU) which will be located in Chennai. Support will consist of provision of appropriate office space, related office operational costs and utilities including tele-communications, and the contracting of 3 support staff (secretary, driver, and cleaner). It is understood, this commitment may be adjusted once the BOBLME institutional arrangements have been finalized.

GEF

The GEF's added value is to provide incentives and financial support for national and local institutions to address priority trans-boundary environmental problems in the BOBLME. The Project's regional approach, with GEF support, will make financial resources available to recipient countries, to meet the "incremental costs" to address trans-boundary issues. GEF funds will assist in providing linkages and harmonizing national and local actions with regional environmental objectives.

World Bank

The WB will bring its extensive international experience and knowledge on coastal and marine issues in supervising the Project and assist client countries to benefit from experiences and lessons of similar projects around the world. It will support the Regional Co-ordinating

Unit (RCU) with technical assistance, policy support and the sharing of "lessons-learned." In the implementation of the regional and sub-regional projects, the Bank, through its country offices will provide technical support and help seek assistance for specific investment opportunities at country level that may evolve during the implementation of the BOBLME.

FAO

FAO is the leading international organization in the area of sustainable fisheries management and development. As the executing agency of the BOBLME Program, FAO will draw on its wide range of in-house expertise in the area of marine and coastal resources management and on 25 years of experience in the Bay of Bengal region, to support the proposed Project. An interdivisional Project Task Force (PTF) will be established and comprised of experts in the areas of marine resources assessment and management, fisheries policy and planning, fisheries statistics and information, legal expertise on institutional issues and on the sustainable management of trans-boundary fish stocks, among others. The Project will also benefit from FAO's extensive work on conservation and management of fisheries resources within the ecosystem context, with major emphasis on the implementation of the FAO Code of Conduct for Responsible Fisheries and associated International Plans of Action, at global and regional levels. It is understood that this expertise will be used largely for technical backstopping and that national/regional expertise will be used in implementing the Project wherever possible.

In addition to the technical support, FAO will provide administrative and operational support to the project, drawing on its network of decentralized country offices and field operations and technical staff in the Regional Office for Asia and the Pacific.

Co-Financiers

Co-financing agencies are an essential partner to the BOBLME Program. GEF resources are only catalytic in nature and additional sources of financing and expertise are essential to achieving the identified Project objectives and Program goal over the longer term. This is particularly relevant in an area as large and complex as the BOB. Once confirmed, sources of finance are likely to represent a mix of traditional, re-directed, and leveraged, co-finance.

Structure for Project Management and Coordination

Due to its multi-country scope, the BOBLME project encompasses both regional and national components, and encompasses a wide range of technical fields, including fisheries and other living marine resources, critical habitats, pollution and socio-economic issues, all of which will require technically competent oversight. Furthermore, as a preparatory project focused upon building trust and cooperation between participating countries, setting priorities and identifying strategic management options for the Bay of Bengal, the Project requires a considerable emphasis to be placed on inter-country coordination, communications and information dissemination.

The management structure presented in this annex and in the accompanying organogram fulfils not only an administrative and coordination function but also provides the basis for a range of other technical tasks not specific to individual activities. These include monitoring

and information dissemination functions, as well as supervision of regional and national activities.

Project Steering Committee (PSC)

The PSC will be the policy setting body for the project and will also have the responsibility for endorsing the Annual Regional Work Plan (ARWP), which will contain details of the previous years' technical activities and the plan for the next year. Composition will include two members nominated by each BOBLME member country; typically one will be drawn from the Ministry of Fisheries and the second from the Ministry of the Environment. In addition, representatives of the Executing and Implementing Agencies and co-financing agencies will be members. The Co-ordinator of the Regional Coordination Unit (RCU) will act as secretary. Chairmanship of the PSC will change annually (with no country repeating) and the country of the current chairman will normally be the host country for the annual PSC meeting. The chairman will retain contact with RCU during year and agree upon the site and agenda for the next meeting.

Once endorsed by the PSC, the annual regional work plan will be submitted to Executing/Implementing Agencies under signature of Chairman of the PSC. The PSC will also consider and provide comments on external evaluations and audits. The PSC will normally meet once a year, although exceptional meetings (e.g. during the first year of start-up, if required) could be called. TORs for the PSC are appended (Attachment 1a).

To facilitate this process of information exchange and learning, the World Bank will be represented by a senior official on the BOBLME Steering Committee in ex-officio capacity. This will provide a mechanism for ensuring adequate coordination and oversight of project implementation and information sharing within the Bank.

Regional Coordination Unit (RCU)

The RCU will act as Secretariat to the PSC. It will coordinate work at the national level through the National Coordinators (NC) and at regional level through regional sub-contracting agencies or individuals. The RCU will play no direct role in the execution of the Project.

The RCU will be composed of three international staff, recruited from the region as far as possible, comprising a Co-ordinator, a Chief Technical Advisor and a Monitoring and Information Specialist. Three nationally recruited staff will provide the needed office management, financial management and IT skills. Support staff (secretary, driver, cleaner) and additional services not requiring a full-time staff member (e.g. legal, IT systems maintenance, and specific technical skills areas) will be contracted as required.

The primary responsibility of the RCU will be to ensure the effective development of the Trans-boundary Diagnostic Analysis (TDA) and the Strategic Action Program (SAP) as called for under the project document. This will be achieved by preparing and coordinating the implementation of an ARWP, which will draw upon Annual National Work Plans (ANWP) from each member state, as well as the programming of regional activities. The RCU will also develop and implement a monitoring program, a communications program and obtain independent scientific reviews of all significant technical matters (proposals or

analyses). Reports on these activities, and financial results, will form part of the Work Plan submitted to the PSC. TORs for the RCU are appended (Attachment 1b).

National Task Forces and Coordinators

The National Task Force (NTF) will guide the implementation of the project at national level. Its role will be analogous to that of the PSC, but at national level. Members of the NTF will be nominated by participating Ministries but will also include representatives from non-governmental, civil society and private sector organisations. The NTF will consider and endorse the ANWP for submission to the RCU, including specifications for work within the country over the next year, and support the timely undertaking of the work plan through activities of the National Coordinator, consultants and the National Scientific Advisory Panel (NSAP).

The National Coordinator will act as both Chairman and Secretary to the NTF and will be responsible for preparing agenda and documents required for NTF meetings, as well as directly supervising implementation activities within the country. He/she will be nominated by the lead Ministry for that country, and approved by the Executing Agency and will be supported by a secretary. TOR for the NTF and the National Coordinator are appended (Attachment 1c and 1d).

Representatives from the World Bank country offices if present, will serve on the multi-sectoral National Task Forces, in *ex-officio* capacity that will be responsible for guiding the implementation of the BOBLME Project as well as provide opportunity for ensuring the project results feed into country dialogue and future investments.

Scientific Advisory Panels

Scientific Advisory Panels are proposed at both regional and national levels. Each will consist of a roster of technical specialists, acknowledged as experts at their respective levels (regionally or nationally) who will be paid on an 'as required' basis, but with CVs and rates previously approved under professional service procurement arrangements. The roster will comprise at least two specialists for each of the main areas of focus for the project (i.e. fisheries/living marine resources, pollution, critical habitats and socioeconomic/livelihoods). Review of subject specific proposals/analyses will be by two or three related technical specialists. Review of technically broader documents will be by one specialist from each relevant field. Panel members will work independently, as under a peer review mechanism, and will not normally meet.

The Regional Scientific Advisory Panel will provide input to the policy guidance and work plan approval tasks of the Steering Committee, through the RCU. Their reviews will normally be attached to any technical document presented to the Steering Committee.

National Scientific Advisory Panels will provide similar reviews of national technical proposals or documents. TORs for the RSAP and NSAP are appended (Attachment 1e and 1f).

Annual Work Plans

The ARWP is the central mechanism for guiding the work of the project and ensuring compliance of project activities with the overall Project Brief. It will be prepared by the RCU and submitted to the PSC for their endorsement within 45 days of the commencement of each calendar year and will be derived from ANWP proposals for each country as well as projected regional activities. ARWPs will provide a review of the previous year's activities (national and regional) and proposed plans for coming year. They will include a discussion of technical activities, a provisional financial report (including expenditure projections and disbursement plans), and reports on communications/dissemination, monitoring and IT.

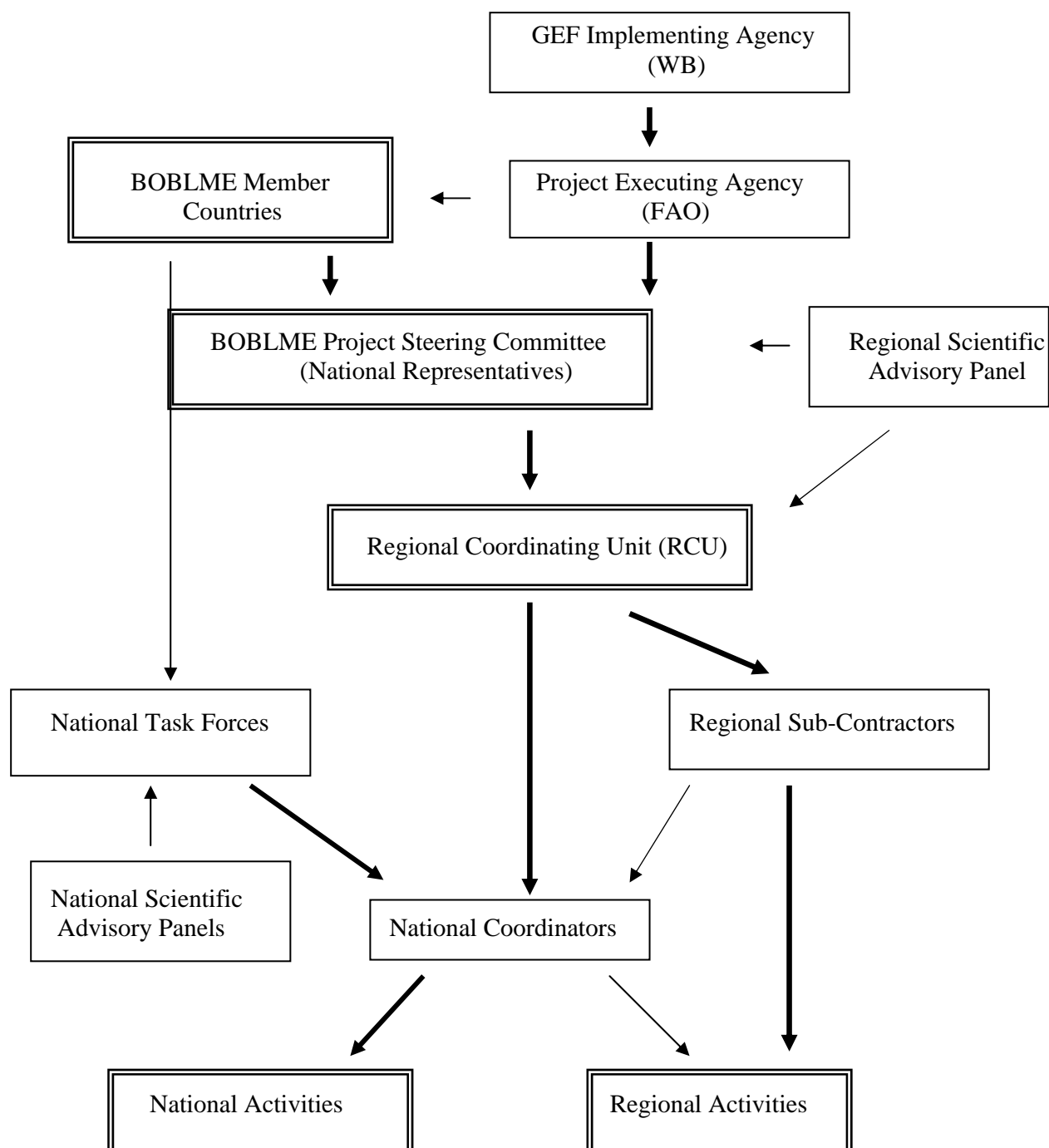
IT Systems

IT systems for the project will be the responsibility of the internationally recruited Monitoring and Information Specialist with one nationally-recruited assistant. An office intranet will be established with a server to provide for common files and periodic tape back-up for the estimated eight users. Where feasible, National Coordinators will be enabled to upload and download data and other files through a web-based system. The printer and scanner will also be networked. IT systems maintenance (including ensuring updated security patches and data back-up) will be handled by a locally contracted IT company. The project website will be designed externally at the commencement of the project but will be maintained and updated by internal staff.

There will be close collaboration between the Monitoring and Information specialist and the Financial Controller to ensure the provision of management information and timely preparation of quarterly reports.

BAY OF BENGAL – LARGE MARINE ECOSYSTEM PROJECT

PROPOSED MANAGEMENT STRUCTURE



Attachment 1a: PROJECT STEERING COMMITTEE (PSC)

Terms of Reference

Role: The Project Steering Committee (PSC) will be responsible for providing general oversight of the execution of the Bay of Bengal Large Marine Ecosystems Project and will ensure that all inputs and processes required for the development of the Trans-boundary Diagnostic Analysis (TDA), the Strategic Action Programme (SAP) and any additional activities agreed upon under the GEF project document are adequately prepared and carried out. In particular, it will:

- Provide overall guidance to the Regional Coordination Unit in the execution of the project.
- Ensure all project outputs are in accordance with the BOBLME Project Brief.
- Review, amend if appropriate, and approve the draft Annual Regional Work Plan of the project for submission to GEF and the designated Project Executing Agency.
- Facilitate the “mainstreaming” of relevant project findings and recommendations into national policy.

Membership: The PSC shall comprise two high level national representatives nominated by each participating member country (Maldives, Sri Lanka, India, Bangladesh, Myanmar, Thailand, Malaysia and Indonesia). Normally one national representative will be nominated from the Ministry of Fisheries or other national agency responsible for living marine resources, while the second representative will be from the Ministry of Environment or other national agency responsible for coastal and marine environmental issues. A senior official from the GEF Implementing Agency (World Bank) and Executing Agency (FAO) shall also be represented on the PSC, in *ex-officio* capacity. Other institutions active in the region such as UNDP, UNEP, the South Asian Cooperative Environment Programme (SACEP), the International Maritime Organization (IMO) and co-financiers may also be requested to participate as observers. Experts selected for the Regional or National Scientific Advisory Panels will be ineligible for membership in the PSC. The Co-ordinator of the Regional Coordination Unit will be an *ex-officio* member of the PSC. Members of the PSC or their designated representatives are expected to participate on National Task Forces for their country of residence.

Meetings: Project Steering Committee meetings will normally be held annually, but the Chairman will have the discretion to call an additional meeting, if this is considered necessary (e.g. during the first year of execution, or for significant modifications to the approved Annual Regional Work Plan¹). No more than 13 months may elapse between PSC meetings.

Chairman: The first PSC meeting will be chaired by the Co-ordinator of the RCU. At the termination of this meeting, the PSC will select a Chairman from among the national representatives on the PSC by a simple vote. The Chairman will serve for one year, finishing his/her term upon the completion of the PSC meeting held closest to one year after selection. At this point a successor Chairman shall be chosen by the PSC voting members in a similar manner. The position of Chairman is not renewable and the new Chairman shall not be of the same nationality as the outgoing Chairman. In liaison with the PSC Secretariat, the Chairman

¹ Interim sessions of the PSC would not necessarily require a physical meeting, and could be undertaken by e-mail or other electronic format.

shall be responsible for determining the date, site and agenda of the PSC meeting(s) during his/her period of tenure, as well as the chairing of such meetings. He/she will ensure circulation by the Secretariat to PSC members of all relevant documents, and will sign approved Annual Regional Work Plans and any subsequent proposed amendments submitted to the GEF Executing Agency.

Secretariat: The Regional Coordinating Unit (RCU) of the project will act as Secretariat to the PSC and be responsible for providing PSC members with all required documents in advance of PSC meetings, including the draft ARWP and independent scientific reviews of significant technical proposals or analyses. The RCU will prepare written minutes of all PSC meetings and be responsible for logistical arrangements relative to the holding of such meetings.

Compensation: Travel and associated travel costs incurred by PSC national representatives attending PSC meetings shall be recompensed in accordance with GEF Executing Agency rules and regulations. No honorarium shall be paid to any person for their participation in PSC business or meetings.

Attachment 1b: REGIONAL COORDINATING UNIT (RCU)

Terms of Reference

Role: The Regional Coordinating Unit (RCU), under the supervision of the Project Steering Committee (PSC), will be responsible for management of all regional activities under the programme, as well as supervision and oversight on national activities carried out through the National Task Forces (NTFs), particularly for the inputs and processes required for the development of the Trans-boundary Diagnostic Analysis (TDA), the Strategic Action Programme (SAP) and any additional activities agreed upon under the GEF project document. In particular, it will:

- Undertake the preparation of the Annual Regional Work Plan (ARWP), including incorporating the contents of the approved Annual National Work Plans (ANWP), and present the draft document to the PSC for its approval
- Undertake, as required by the PSC, the recruitment of members of the Regional Scientific Advisory Panel (RSAC) for independent reviews of proposals and completed studies
- Provide overall guidance to the National Coordinators (NCs) in the execution of the programme at the national level
- As provided for the the ANWP, utilise RCU staff or recruited experts to undertake tasks of a regional nature
- Maintain records pertaining to the technical and financial aspects of programme operation, including the monitoring of programme activities and their outcomes
- Arrange for all PSC meetings, regional workshops and other multinational activities as agreed with the PSC
- Maintain minutes of PSC meetings and circulate these documents to all PSC members

The RCU will not be involved in the actual execution of Project activities.

Composition: The RCU shall initially comprise three international staff; a Programme Coordinator, a Chief Technical Advisor and a Monitoring and Communications Specialist. These staff shall be assisted by three locally recruited skilled staff; a Financial Controller, a Senior Secretary/Office Manager and a IT/Database Clerk. There will also be three locally recruited support staff; a Secretary/Receptionist, a Driver and a Cleaner/Caretaker. Changes to this staffing may occur with the approval of the PSC and the funding agencies.

Programme Coordinator: The RCU will be under the direct management of the Programme Coordinator, and will also act as Secretary to the PSC. He/she will be responsible for the supervision of all RCU staff, as well as of the National Coordinators (NCs) and shall have overall responsibility, under the PSC, for programme functioning and performance. Between PSC meetings the Coordinator will liaise with the current PSC chairperson and maintain effective working relations with each BOBLME member government and shall produce such periodic reports (financial and technical) as will be required. The Coordinator will have the responsibility for hiring and firing locally recruited staff, in accordance with laid down procedures, and will directly supervise the activities of the Financial Controller and the Senior Secretary.

The Programme Coordinator will be qualified to post-graduate level (generally Ph.D.) in either a marine discipline or management, and will have at least 12 years professional experience in the marine sector. He/she will have previous successful management experience of large inter-disciplinary teams involving relations with senior government officials.

Chief Technical Advisor: Under the overall supervision of the Programme Coordinator, the Chief Technical Advisor (CTA) will have primary responsibility for all programme work relating to fisheries and living marine resources and will either conduct any such work occurring at regional level, or will recruit and supervise regional and international experts to do so. He/she will also, in agreement with the Monitoring and Information Specialist, undertake monitoring of the results of studies and other activities relating to his/her area of expertise conducted by the programme, where this is not his/her own work.

The CTA will be qualified to post-graduate level (typically with a Ph.D.) in fisheries, living marine resources, or a comparable field, and will have a minimum of 10 years of experience including the conduct of research and the undertaking of sector studies within the marine sector.

Monitoring and Information Specialist: Under the overall supervision of the Programme Coordinator, the Monitoring and Information Specialist will take responsibility for planning and conducting the monitoring activities required to provide adequate information on activities undertaken through the programme and their outcomes. He/she will either undertake monitoring activities personally, or will recruit regional or international experts to do so. He/she will also supervise the monitoring activities conducted at national level by the National Coordinators. The Specialist shall also take responsibility for the operation of the programme information technology (IT) system, which will include, among other activities, a web site with information on the programme, a regular printed bulletin for distribution to member governments and relevant other organizations and individuals, a financial management system, and an e-mail system for staff. He/she will directly supervise the work of the IT/Data Entry clerk and any outside contractors hired to maintain system operation.

The Monitoring and Information Specialist shall be qualified to post-graduate level in informatics, computer science, management, economics or a related discipline and have at least 6 years experience of running information systems and planning and undertaking monitoring activities.

Locally Recruited Staff: Locally recruited staff will have responsibilities and possess qualifications as prepared by the Programme Coordinator and approved by the PSC.

Attachment 1c: NATIONAL TASK FORCE (NTF)

Terms of Reference

Role: Each member country shall establish a multi-sectoral National Task Force (NTF) which will be responsible for guiding the implementation of the BOBLME project at national level. Specifically, it will:

- Approve the proposed Annual National Work Plan for submission to the Regional Coordinating Unit (RCU). The work plan will comprise reviews of activities undertaken and/or completed over the last year, as well as proposals for national project activities to be conducted over the next year.
- Establish the specifications, contents and a time frame for national work plan activities approved by the Project Steering Committee, and their resulting reports;
- Support the National Coordinator in overseeing the execution of national activities, and national components of regional activities undertaken within the country;
- In collaboration with the National Coordinator and RCU, request members of the National Scientific Advisory Panel (NSAP) to conduct independent evaluations of significant technical proposals, assessments and analyses, and take account of such comments;
- Convene, as required, thematic sub-groups to consider reports covering specific technical areas and associated NSAP evaluations;
- Schedule, organize and conduct such national workshops as may be decided upon in consultation with the National Coordinator and RCU;
- Ensure adequate communication of national activities to all stakeholders, including Government, private sector and NGOs, and invite and encourage the participation of non-NTF stakeholders, particularly local groups, in national activities and consultations when appropriate.

Establishment: The NTF shall be established as soon as possible following the first meeting of the BOBLME Project Steering Committee (PSC).

Membership: Where possible, national Governments will attempt to ensure that the NTF will be composed of representatives of: (a) all relevant Government Ministries and agencies; (b) the World Bank and FAO national office, as observers (if present); (c) national non-governmental organizations (NGOs) active in the areas of the environment, community development, women, fishery and other areas with respect to coastal and marine areas; (d) business and industrial associations representing private enterprises with an interest in marine, tourism and coastal activities; (e) senior academics and researchers working in the area of coastal and marine issues, and; (f) other stakeholders as deemed necessary. International donor agencies and NGOs active nationally in areas relevant to the project shall be offered observer status. The National Coordinator will act as Chairman of the NTF. No member of the NTF may also concurrently serve on the Regional or National Scientific Advisory Panels (RSAP/NSAP).

Thematic Working Groups: In consultation with the National Coordinator, the NTF shall, where deemed useful and necessary, establish small thematic working sub-groups in areas such as fisheries resources, oceanography, biodiversity, coastal zone management, aquaculture, legislation and socio-economics, to consider specific technical issues. Each sub-group will be led by a sectoral specialist from the NTF but membership may include specialists from the NSAP where appropriate.

Meetings: The National Task Force shall meet at least twice per year. One NTF meeting annually should focus on the review and approval of the Annual National Work Plan.

Compensation: Travel and associated travel costs incurred by out-stationed NTF representatives attending NTF meetings shall be recompensed in accordance with Executing Agency rules and regulations. No honorarium shall be paid to any person for their participation in NTF business or meetings.

Attachment 1d. NATIONAL CO-ORDINATOR

Terms of Reference

Role: The National Coordinator will take primary responsibility for the implementation of BOBLME activities within his/her country of operation and will ensure that all national inputs and processes required for the development of the Trans-boundary Diagnostic Analysis (TDA), the Strategic Action Programme (SAP) and any additional activities agreed upon under the GEF project document are adequately prepared and carried out. Specifically he/she will:

- Act as Chairman and Secretary of the National Task Force (NTF), with responsibility for convening meetings, drafting agendas and assembling and preparing materials for consideration by the NTF;
- In consultation with the RCU, identify nominations for the National Scientific Advisory Panel (NSAP) and arrange for their pre-approval by the GEF Executing Agency;
- In consultation with the NTF and RCU, determine those proposals and studies requiring evaluation by the NSAP, select appropriate members of the NSAP for this purpose, and prepare TORs for their work;
- In consultation with the NTF and RCU, identify consultants to undertake national level assignments in accordance with the approved Annual Work Plan, and submit all required documentation to the RCU for their approval and contracting;
- Monitor and supervise the work of the above consultants, and as far as possible, ensure the timely and responsive delivery of contracted outputs;
- Provide assistance and support to staff of the RCU or regional consultants visiting, or engaged in assignments in, his/her country of responsibility, including preparing itineraries, appointments and assisting with travel and other logistical arrangements;
- In consultation with the NTF, determine dates, agendas, budgets and participation for national workshops, and upon approval of these plans by the RCU, undertake the organization and conduct of the workshops;
- Ensure adequate communication of national activities to all stakeholders, including Government, private sector and NGOs, and invite and encourage the participation of non-NTF stakeholders, particularly local groups, in national activities and consultations when appropriate.

The NC is expected and shall be able to contact and coordinate as necessary with other relevant government ministries and departments and state and local authorities whose input is important to the BOBLME Project, consistent with appropriate government communication channels.

Requisites: The National Coordinator shall be a senior official or expert in the field of fisheries and/or the marine environment nominated by the national Government and approved by the GEF Executing Agency. He/she shall have at least 10 years of demonstrable experience in the scientific and technical fields of fisheries (including aquaculture) and have a sound knowledge of environmental issues affecting coastal and marine resources. He/she shall have strong leadership capabilities, experience with regional fisheries bodies/agencies and possess proven experience in the administration and management of complex programmes, as well as having strong written and oral communication skills in English.

Duration and Commitment: The minimum period of appointment of the National Coordinator shall be two years, and where the position is filled by a Government staff member, the Government shall provide written confirmation that the BOBLME process will have priority over other duties which to which he/she may also be assigned.

Collaboration: The National Coordinator shall communicate and/or meet with the Director of the RCU on a regular basis to ensure timely delivery of national inputs and to request assistance to address any problems that may arise during the course of the process, including the identification and recruitment of specialists unavailable within the country. He/she will also collaborate closely with any organization or individual undertaking an approved BOBLME regional activity or study which requires action or input within the country.

Attachment 1e. REGIONAL SCIENTIFIC ADVISORY PANEL (RSAP)

Terms of Reference

Role: The function of the RSAP is to provide independent advice and comments on the technical and scientific contents of all significant regional proposals, evaluations, assessments and reports.

Membership: The panel will consist of internationally recognized experts, normally trained to the Ph.D. level, with substantial experience gained from both Western and Eastern sections of the BOBLME area in the fields of living marine resources, oceanography, marine pollution, coastal management and related environmental, management and socio-economic issues. Preference will be given to citizens or residents of BOBLME member countries. The panel will comprise a minimum of three experts in each principal thematic area. Experts serving on the RSAP will not be eligible for membership of the PSC or NTFs.

Selection: The members of the RSAP shall be nominated by National Coordinators, the Programme Steering Committee (PSC), project donors and the GEF Implementing and Executing Agencies. Final selection will be made by the GEF Executing Agency, after consultation with the PSC and project donors.

Functioning: In consultation with the RCU, the PSC will determine which documents shall be subject to independent scientific review. However, reviews shall always be conducted of proposals for major activities to be included in the Annual Work Plan as well as for reports arising from such activities. The members of the panel are not expected to meet and their work will be conducted under the peer review system. Normally, a thematic paper will be reviewed by three panel members who are experts in that area. Broader papers will be reviewed by at least one expert from each of the areas of relevance to the document or proposal.

Compensation: Experts selected for membership of the RSAP will have their CVs and honorariums pre-approved by the Executing Agency but will be paid only on an 'as-and-when-employed' basis. The RCU, in consultation with the PSC and the GEF Executing Agency, shall determine the level of effort required for each review.

Attachment 1f. NATIONAL SCIENTIFIC ADVISORY PANEL (NSAP)

Terms of Reference

Role: The function of the NSAP is to provide independent advice and comments on the technical and scientific contents of all significant national proposals, evaluations, assessments and reports.

Membership: The panel will consist of nationally recognized experts, normally trained to M.Sc. or Ph.D. level, either from the country or with extensive national experience, in the fields of living marine resources, oceanography, marine pollution, coastal management and related environmental, management and socio-economic issues. The panel will comprise a minimum of two experts in each principal thematic area. NSAP panel members are not eligible for membership of the PSC or NTFs.

Selection: The members of the NSAP shall be nominated by National Coordinators, national Governments and their agencies, project donors and the GEF Implementing and Executing Agencies. Final selection will be made by the RCU after consultation with the GEF Executing Agency.

Functioning: In consultation with the RCU, the NTF will determine which documents shall be subject to independent scientific review. However, reviews shall always be conducted of proposals for major national activities to be included in the Annual Work Plan as well as for reports arising from such activities. The members of the panel are not expected to meet and their work will be conducted under the peer review system. Normally, a thematic paper will be reviewed by two panel members who are experts in that area. Broader papers will be reviewed by at least one expert from each of the areas of relevance to the document or proposal.

Compensation: Experts approved for membership of the NSAP will have their CVs and honorariums pre-approved by the Executing Agency but will be paid only on an 'as-and-when-employed' basis. The NTF, in consultation with the RCU, shall determine the level of effort required for each review.

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ANNEX 7

FINANCIAL MANAGEMENT AND DISBURSEMENT ARRANGEMENTS

Financial Management

General

Financial management of the project will be carried out by the Executing Agency in accordance with FAO norms and procedures. With the exception of a local imprest account held by the Regional Coordinating Unit (RCU), all project expenditures will be made through the FAO Regional Office for Asia and the Pacific (FAO-RAP) in Bangkok, which is linked directly into the central FAO Oracle-based financial management system. A full-time nationally-recruited Financial Controller will be based at the RCU office, under the supervision of the Director, with responsibility for preparation of budget, disbursement schedules and financial reports, as well as management of the local imprest account.

Financial Reporting

Financial reporting will occur on both an annual and a semi-annual basis. These reports will be prepared by the RCU and draw on data from the central FAO financial management system. The Annual Financial Report will be the principal financial document and will be supplied to the Implementing Agency within 30 days of closure of FAO accounts for the previous calendar year (normally end of February). The semi-annual financial report will provide details of expenditures incurred over the period since the previous report, including statement of the category of disbursement, the amount disbursed, the recipient of the disbursement (supplier, contractor or consultant), and a comparison of actual disbursement with the amount projected under the disbursement schedule.

A preliminary financial report will be contained in the ARWP (issued within 45 days of year end) which will summarise expenditure information for the preceding year and compare it with the disbursement schedule in the previous year's ARWP. The annual monitoring report (appended to the ARWP) will compare these expenditures to technical progress.

Financial Management Assessment

The project will be executed by the United Nations Food and Agriculture Organisation (FAO), which has completed and is currently executing a number of GEF projects through the World Bank as GEF Implementing Agency. The current project would utilise the financial management system and procedures in operation at FAO-RAP in Bangkok for all transactions except those through the local imprest account at the RCU. As a result, no financial management assessment of the proposed Executing Agency was conducted.

Funds Disbursement

Disbursement Schedule

The overall disbursement schedule for the project is provided in Table 1 of this Annex.

A projected disbursement schedule shall comprise a key element of the Annual Regional Work Plan (ARWP) for the project. The ARWP shall be supplemented by a semi-annual disbursement schedule which will adjust these projected disbursements for the second half of the year, if and as necessary. Both the AWRP and the semi-annual disbursement projections shall be provided to the Implementing Agency.

Use of a Special Account

FAO, as the Executing Agency, shall establish a separate account (the Special Account) denominated in United States Dollars in its financial system in which all transactions relating to the grant will be recorded. An initial amount equivalent to projected expenditures for the first six months of the project will be deposited to this Special Account by the Implementing Agency from the Grant Account. Replenishment of funds in the Special Account shall be made by the Implementing Agency when at least 70% of the Special Account funds have been disbursed, or following the semi-annual presentation of the financial accounts, whichever occurs first, and shall be in accordance with the previously established disbursement schedule and upon presentation of evidence of satisfactory utilization of previous advances.

Accounting and Audit

The Executing Agency shall maintain a financial management system, including records and accounts, and prepare financial statements in accordance with consistently applied accounting standards acceptable to the Implementing Agency, adequate to reflect the operations, resources and expenditures related to the activities.

The Executing Agency shall provide the Implementing Agency with that portion of the report and opinion of the external auditor of the Executing Agency which relates to the management and utilisation of the Special Account. In such exceptional cases as shall give rise to concerns as to the adequate management of project funds, and where specifically requested by the Implementing Agency, the Executing Agency shall seek the authorization of the FAO Finance Committee for a separate audit of the Special Account.

For all expenditures with respect to which withdrawals have been made from the Special Account the Executing Agency shall retain, until at least one (1) year after the end of the fiscal year in which the last replenishment from the Grant Account was made, all records (contracts, orders, invoices, bills, receipts and other documents) evidencing such expenditures and enable the Implementing Agency's representatives to examine such records in any special audit conducted with respect to the operation and use of the Special Account.

Table 1. Bay of Bengal
BOB LME Project
Disbursement Accounts by Financiers
(US\$ '000)

	Government		Government in Kind		India		GEF		FAO		Donor A		Donor B		NOAA		Total
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount
A. Goods																	
Office equipment	0.0	-	-	-	7.6	1.5	249.8	48.3	-	-	127.4	24.6	132.5	25.6	-	-	517.4
Vehicles	-	-	-	-	-	-	8.7	49.0	-	-	4.4	25.0	4.6	26.0	-	-	17.8
Subtotal Goods	0.0	-	-	-	7.6	1.4	258.5	48.3	-	-	131.9	24.6	137.2	25.6	-	-	535.2
B. Services																	
Technical Assistance	0.0	-	-	-	-	-	3,240.3	56.1	660.4	11.4	708.1	12.3	765.6	13.3	402.9	7.0	5,777.3
Training	0.0	-	-	-	-	-	631.3	44.0	143.5	10.0	329.7	23.0	328.9	22.9	-	-	1,433.3
Subtotal Services	0.0	-	-	-	-	-	3,871.6	53.7	803.8	11.1	1,037.8	14.5	1,094.5	15.2	402.9	5.6	7,210.7
C. Studies and Workshops	1,129.9	9.9	-	-	-	-	4,282.1	37.7	-	-	3,421.3	30.1	2,535.5	22.9	-	-	11,368.9
D. Publications	0.0	-	-	-	-	-	693.9	81.2	-	-	79.6	9.3	80.7	9.4	-	-	854.2
E. Recurrent Costs																	
Salaries	932.8	12.9	2,319.4	32.1	135.7	1.9	2,184.7	30.2	-	-	828.2	11.4	834.8	11.5	-	-	7,235.8
Travel	1.0	0.3	158.1	44.0	-	-	96.7	27.5	-	-	49.9	13.9	51.9	14.4	-	-	359.6
Office O&M costs	132.4	4.5	1,015.3	34.8	441.3	15.1	692.5	23.7	-	-	314.9	10.8	321.9	11.0	-	-	2,918.4
Subtotal Recurrent Costs	1,066.2	10.1	3,492.8	33.2	577.0	5.5	2,976.0	28.3	-	-	1,193.1	11.3	1,208.7	11.5	-	-	10,513.8
Total PROJECT COSTS	2,196.0	7.2	3,492.8	11.5	584.7	1.9	12,082.1	39.6	803.8	2.6	5,863.8	19.2	5,056.5	16.6	402.9	1.3	30,482.7

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ANNEX 8
PROCUREMENT ARRANGEMENTS

General

Procurement for the proposed project would be carried out by FAO in accordance with its normal procedures; these procedures are in compliance with World Bank guidelines for goods (Procurement under IBRD Loans and IDA Credit, May 2004) and consulting services (Selection and Employment of Consultants by World Bank Borrowers, May 2004), and the stipulations in the legal agreement. The various items under different expenditure categories are described in general below.

Procurement of Works

No procurement of works is provided for under this project.

Procurement of Goods

Goods procured under this contract would include office equipment, vehicles, small boats and related equipment and scientific instruments. Procurement of goods is expected to occur in all eight of the member countries of the project. No single procurement of goods is anticipated to exceed US\$100,000.

With the exception of those items procured under the category 'Operating Costs', standard (off-the-shelf) goods with a value at or below US\$ 25,000 would be procured through the request for a minimum of three written quotations from established suppliers in response to written product specifications. This FAO procedure is in accordance with World Bank procedures for 'international and local shopping'.

Procurement of goods with a value in excess of US\$25,000 would be procured through national or, if considered advisable, international competitive bidding. National or competitive bidding would require advertising of the procurement specifications in local or national newspapers and/or on a free and open access website.

Procurement of Non-Consulting Services

Non-consulting services anticipated under the project comprise the use of marine survey and scientific vessels and information technology (IT) and media support services. However, the use of marine vessels and equipment services may be provided by national governments under counterpart funding arrangements. The procurement of all project-financed non-consulting services would be through the use of a minimum of three written bids for services specified by the Executing Agency except where only a single supplier was identifiable.

Selection of Consultants

Consulting services are anticipated under the project in a number of areas including the preparation of technical studies relevant to the project, and the independent review of such studies. A minimum of three candidates will be considered. Short lists of consultants for services estimated to cost less than US\$50,000 equivalent per contract may, where suitably qualified and experienced candidates are available, be composed entirely of national consultants from the country in which the service will be provided, or from BOBLME member countries in the case of assignments covering more than one country within the project area. Contracts for consultancy services expected to exceed US\$50,000 will be required to consider all eligible international candidates, but none are anticipated at this time. Contracts may be either lump sum or time-based.

Operating Costs

Operating costs under the project would be limited to the operation of the Regional Coordinating Unit (RCU) and the work of the National Coordinators. These would be procured using the appropriate administrative procedures utilised by FAO for field operations.

Assessment of the Agency's Capacity to Implement Procurement

All procurement activities will be carried out by FAO as Executing Agency for the project. FAO has completed and is currently executing a number of GEF projects through the World Bank as GEF Implementing Agency. The current project would largely utilise the procurement services and procedures in operation at FAO-RAP in Bangkok, although exceptionally large procurements (in excess of US\$100,000), if agreed to by the Implementing Agency, would require approval from FAO headquarters. As a result, no assessment of the proposed Executing Agency's capacity to undertake procurement was conducted.

Procurement Plan

The procurement plan will comprise part of the annual disbursement plan.

Frequency of Procurement Supervision

Not applicable.

Details of the Procurement Arrangements Involving International Competition

Goods, Works and Non Consulting Services

No contract packages to be procured following ICB and direct contracting are anticipated.

Consulting Services

- (a) No consulting assignments are currently foreseen which will require a short-list of international firms.
- (b) Consultancy services estimated to cost above US\$200,000 per contract and single source selection of consultants (firms) for assignments estimated to cost above US\$100,000 will be subject to prior review by the World Bank as Implementing Agency for the project.
- (c) Short lists comprised entirely of national consultants: Short lists of consultants for services estimated to cost less than US\$50,000 equivalent per contract, may be composed entirely of national consultants.

ANNEX 9

(to be completed as appropriate during appraisal)

BAY OF BENGAL
SUSTAINABLE MANAGEMENT OF THE BAY OF BENGAL LARGE MARINE
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ANNEX 10
SAFEGUARD POLICY ISSUES

Attachment 1. Stakeholder Consultation Plan

The Project's development objective is to support the development of a Strategic Action Program (SAP) whose implementation over time will lead to enhanced food security and reduced poverty for coastal communities in the BOB region. Global benefits will accrue from elements of the SAP's implementation which will lead to an environmentally healthy BOBLME. To achieve the Project's proposed Development and Global Environmental Objectives, building in stakeholder consultation, at all levels, was a primary consideration in its design. Stakeholder participation began in the very earliest stages of project preparation. Using PDF-B funding, this process involved: (i) the establishment of a Project Steering Committee; (ii) the establishment of national task forces and national steering committees, (iii) a comprehensive literature review, (iv) preparation of national reports, (v) national consultations, (vi) regional thematic papers, (vii) international peer review, and (viii) experts' meetings. This process led to the identification and agreed on priority issues, barriers, and needed measures to address the issues and subsequently guided the development of the proposed project structure and activities.¹

Once priorities were agreed to by BOBLME countries, a three-day participatory logical framework workshop provided the basis for identifying a series of relevant activities to be supported under the Project.² The common features among these activities were to: (i) promote the development of regional and sub-regional collaborative approaches among the 8 BOBLME countries to address one or more issues identified as trans-boundary priorities; and (ii) provide critical inputs to inform the SAP formulation process and "enrich" and strengthen the SAP itself. For more detail on these processes and relevant documentation, see Annexes 4 and 12, respectively.

The main outputs of the Program's first phase will be the development of the Strategic Action Program (SAP) and the establishment of permanent and eventually, financially-sustainable, institutional arrangements which, together with the countries, will be responsible for guiding and implementing the long-term BOBLME Program. The SAP will provide the "roadmap" that will guide future Program-supported interventions which in turn will be based in part on the finalized trans-boundary diagnostic analysis (TDA). As a result, most of the project resources in Phase 1 are oriented towards foundation building with more substantial field activities likely to take place in the second and subsequent phases of the BOBLME Program. Stakeholder participation in the "foundation building" process is viewed as essential to the long-term sustainability of the BOBLME Program.

Moreover, a key input into the development of the SAP will be the experience and "lessons learned" and "products" derived from pilot field activities supported under the 1st phase Project. Moreover, given the size and complexity of the priority issues to be addressed by field activities in the BOBLME, project-supported interventions addressing new, collaborative approaches will necessarily have to be pilots (e.g., collaborative approaches to managing living marine resources, trans-boundary critical habitats, and pollution hotspot monitoring. Moreover, all of the demonstrative field activities identified as priorities involve regional or sub-regional approaches among the participating BOBLME countries to address

¹ A key outcome of this process was the development of Project's draft Framework TDA (FTDA) which is currently under review by the BOBLME countries.

² See summary of 1st Technical Meeting held in Bangkok 27 -29 April, 2004 on the BOBLME website (<http://www.fao.org/fi/boblme/website/index.htm>).

critical issues in a collaborative means. Based on the increased trust and confidence between the participating countries and the “lessons learned” stemming from these activities, coupled with the creation of solid foundation, many of the subsequent activities identified in the SAP are likely to be based on the building and replicating of what has been successfully achieved under the 1st phase. To ensure that these and other inputs are relevant to the SAP, and the SAP itself is relevant to the BOBLME Program, stakeholder participation is viewed as critical to BOBLME success.

The major stakeholders relevant to Project objectives can be classified into three groups, regional, national and local stakeholders. Regional stakeholders include multi-lateral/bi-lateral development agencies and programs, regional development banks, and international NGOs. National stakeholders include national and state government agencies, civil society organizations, NGOs, private foundations, private sector organizations, and academic institutions. Local/beneficiary stakeholders comprise local government agencies; commercial and rural fishers and their families; school teachers, students and rural youth; coastal/marine tour operators and their clients; local environmental and social/cultural NGOs; and other local citizens.

During project implementation, stakeholder participation is included in all Project components at varying levels of intervention. At the community level, local participation is specifically identified and costed as key inputs into the: (i) “stocktaking” activities (sub-component 2.1); (ii) local capacity improvements as part of policy “mainstreaming” (sub-component 2.2); (iii) development of all project-supported fishery management and critical habitat plans (sub-components 2.3 and 2.4, respectively); and (iv) case studies and development of guidelines associated with assessing the role of fish refugia in the management of fish stocks in the BOBLME (sub-component 3.1). Consultations at the national level will be ensured through the creation of Project-wide National Coordinators and Project Task Forces. National consultations are the “heart” of the processes leading to the finalization of BOBLME institutional arrangements (sub-component 5.1) and the development of an agreed on SAP (Component 1). Additionally, specific national consultations have been included and costed as workshops (sub-component 2.1), national fishery task forces (component 2.3), and commissions (2.4). Finally, at the regional level there are a large number of workshops and consultations which will be supported across many of the components as well as the Project-wide regional collaboration supported under the Improved BOBLME “predictability” sub-component (3.2) and information dissemination sub-component (5.3).

Dependent on the stakeholder group and the nature of the participation, the means to facilitate consultation include: (i) use of local focus groups; (ii) workshops (local, national, regional); (iii) case studies (e.g., field-based post project evaluations); (iv) surveys; and (v) on-line messaging through the Project webpage.

The type, number, estimated cost and schedule of specific stakeholder consultations by Project component/sub-component are provided in Tables 1 and 2, respectively.

An estimated 529 discrete consultation “events” have been identified and costed resulting in a total estimated cost of US \$ 3 million (Table 1). Over half of the consultations dominated by local and national events, fall under the Project’s Sustainable Fishery Assessment and Management sub-component (2.3) for obvious reasons. Other sub-components with a relative

large number of consultations are policy harmonization (54) and the SAP formulation process itself (30).

In addition to these consultative “events,” while not included in the figures provided above, there exist a number of other opportunities where consultations will occur through training, public awareness, and media campaigns supported under the Project. See Annex 4 for more detail.

Table 1. Type, Number, and Estimated Cost of Stakeholder Participation Activities listed by BOBLME Project Component/sub-component

Component/Sub-component	Workshops/Consultations			Total	Estimated Cost (,000 US \$) ¹
	Local	National	Regional		
Strategic Action Program (SAP)					
TDA Preparation	-	8	2	10	125
Institutional Arrangements	-	8	1	9	83
Financing Strategy	-	-	2	2	54
SAP Formulation/Adoption	-	24	6	30	330
Coastal/Marine Natural Resources Management and Sustainable Use					
Community-based ICM	12	8	-	20	74
Policy Harmonization	28	24	2	54	195
Fishery Assessments/Plans	187	136	6	329	1,389
Critical Habitat Management	12	12	3	27	185
Improved Understanding and Predictability of the BOBLME					
BOBLME Processes/ Dynamics	-	16	2	18	167
MPAs/Fish refugia	8	8	3	19	151
Regional Collaboration	NA	NA	NA	NA	90
Geo-referenced Data Base	-	-	-	-	-
Maintenance of Ecosystem Health and Management of Pollution					
Environmental indicators	-	8	2	10	111
Coastal Pollution	-	-	3	3	83
Totals	247	252	30	529	3,037

¹Cost estimates represent costs averaged over the number and category of consultation “event” as unit costs vary by size and type of activity.

Table 2. Schedule of Stakeholder Participation Activities listed by BOBLME Project Component/sub-component

Component/Sub-component	Number of Scheduled Workshops/Consultations by Project Year						
	1	2	3	4	5	6	Total
Strategic Action Program (SAP)							
TDA Preparation	1	-	9	-	-	-	10
Institutional Arrangements	-	-	1	8	-	-	9
Financing Strategy	-	-	1	-	-	1	2
SAP Formulation/Adoption	1	9	17	1	2	-	30
Coastal/Marine Natural Resources Management and Sustainable Use							
Community-based ICM	-	20	-	-	-	-	20
Policy Harmonization	-	-	13	16	16	9	54
Fishery Assessments/Plans	17	108	51	51	51	51	329
Critical Habitat Management	2	2	9	5	4	5	27
Improved Understanding and Predictability of the BOBLME							
BOBLME Processes/ Dynamics	-	9	9	-	-	-	18
MPAs/Fish refugia	3	7	9	-	-	-	19
Regional Collaboration	NA	NA	NA	NA	NA	NA	NA
Geo-referenced Data Base	-	-	-	-	-	-	0
Maintenance of Ecosystem Health and Management of Pollution							
Environmental indicators	-	1	9	-	-	-	10
Coastal Pollution	1	-	1	-	1	-	3
Totals	25	156	129	81	74	66	531

ANNEX 11

(to be completed as appropriate during appraisal)

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ANNEX 12
DOCUMENTS IN THE PROJECT FILE

Documents Available on the Internet for Public Consultations
(<http://www.fao.org/fi/boblme/website/reports.htm>)

National Reports

- Hossain, M.M.M. (2003)* National Report of Bangladesh. Unpublished report prepared for the BOBLME Programme. Unedited version.
- Sampath, V. (2003)* National Report of India. Unpublished report prepared for the BOBLME Programme. Unedited version.
- Purnomohadi, S. H. (2003)* National Report of Indonesia. Unpublished report prepared for the BOBLME Programme. Unedited version .
- Omar, I.H. (2003)* National Report of Malaysia. Unpublished report prepared for the BOBLME Programme. Unedited version.
- Ali, M. (2003)* National Report of the Maldives. Unpublished report prepared for the BOBLME Programme. Unedited version.
- Myint, P. (2003)* National Report of Myanmar. Unpublished report prepared for the BOBLME Programme. Unedited version.
- Joseph, L. (2003)* National Report of Sri Lanka. Unpublished report prepared for the BOBLME Programme. Unedited version.
- Juntarashote, K. (2003)* National Report of Thailand. Unpublished report prepared for the BOBLME Programme. Unedited version.

Workshop Reports

- BOBLME /REP/1 (2003) Verlaan, P.A. (ed.)* Report of the First Regional Workshop of the Bay of Bengal Large Marine Ecosystem Programme. Pattaya, Thailand, 17-21 February 2003. BOBLME, Report No. 1, Chennai, India, in 2 volumes: Vol. 1, 40 pp., Vol. 2, 134 pp.
- BOBLME/REP/2 (2004)* Report of the Preparatory Meeting for the Second Regional Workshop of the BOBLME Programme. Penang, Malaysia, 15-17 March 2004. Unpublished provisional version.
- Second Regional Workshop Report (**scheduled**)
- BOBLME/REP/3 (2004)* Report of the First Technical Meeting of the BOBLME Programme. Bangkok, Thailand, 27-29 April 2004. Unpublished provisional version.
- BOBLME/IPSC (2001)* Report of the First Project Steering Committee Meeting of the BOBLME 28-29 January 2002, Chennai.
- BOBLME/2PSC (2003)* Report of the Second Project Steering Committee Meeting of the BOBLME 19 February 2003.

BOBLME/3PSC (2004) Report of the Third Project Steering Committee Meeting of the BOBLME 17 March 2004.

BOBLME/4PSC/ Report of the Fourth Project Steering Committee Meeting (scheduled)

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Angell, C.L. (2004) Review of Critical Habitats: Mangroves and Coral Reefs. Unpublished report prepared for the BOBLME Programme. Unedited version.

Edeson, W. (2004) Review of Legal and Enforcement Mechanisms in the BOBLME Region. Unpublished report prepared for the BOBLME Programme. Unedited version.

Kaly, U.L. (2004) Review of Land-based Sources of Pollution to the Coastal and Marine Environments in the BOBLME Region. Unpublished report prepared for the BOBLME Programme. Unedited version.

Preston, G.L. (2004) Review of the Status of Shared/Common Marine Living Resource Stocks and of Stock Assessment Capability in the BOBLME Region. Unpublished report prepared for the BOBLME Programme. Unedited version.

Townsley, P. (2004) Review of Coastal and Marine Livelihoods and Food Security in the BOBLME Region. Unpublished report prepared for the BOBLME Programme. Unedited version.

Other Documents in Written Text Only

Reviews by the International Scientific Group Members

Adam, M.S. (2004) Review of the Theme Reports by Angell, Kaly, Preston and Townsley. Unpublished report prepared for the BOBLME Programme.

Hassan, M.N. (2004) Review of the Theme Reports by Angell, Kaly, Preston and Townsley. Unpublished report prepared for the BOBLME Programme.

Kamal, M. (2004) Review of the Theme Reports by Angell, Kaly, Preston and Townsley. Unpublished report prepared for the BOBLME Programme.

Ramachandran, S. (2004). Review of the Theme Reports by Angell, Kaly, Preston and Townsley. Unpublished report prepared for the BOBLME Programme.

Saraya, A. (2004) Review of the Theme Reports by Angell, Kaly, Preston and Townsley. Unpublished report prepared for the BOBLME Programme.

Sivasubramaniam, K. (2004) Review of the Theme Reports by Angell, Kaly, Preston and Townsley. Unpublished report prepared for the BOBLME Programme.

Thwin, S. (2004) Review of the Theme Reports by Angell, Kaly, Preston and Townsley. Unpublished report prepared for the BOBLME Programme.

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Country Reports Presented at the First Regional Workshop

- Ismail, bin A.K., Noordin, R.M., Abu Talib, bin A., Junaidi, bin C.A. (2003)** The Pressures on the Marine Environment and its Living Resources in the Eastern Corridor of the Straits of Malacca. Report of the First Regional Workshop, Verlaan, P.A., ed., BOBLME/REP/1, Volume 2, pp. 90-96. Unedited version available.
- Jayakody, D.S. and Maldeniya, R. (2003)** Status of and Threats to Living Marine Resources of Sri Lanka. Report of the First Regional Workshop, Verlaan, P.A., ed., BOBLME/REP/1, Volume 2, pp. 116-121. Unedited version available.
- Martosubroto, P. and Willmann, R. (2003)** An Ecosystem Approach to Fisheries Management in the Bay of Bengal. Report of the First Regional Workshop, Verlaan, P.A., ed., BOBLME/REP/1, Volume 2, pp. 34-46. Unedited version available.
- Mazid, M.A. (2003)** Status and Potential of the Marine Fisheries Resources and Marine Environment of Bangladesh. In: Report of the First Regional Workshop, Verlaan, P.A., ed., BOBLME/REP/1, Volume 2, pp. 49-63. Unedited version available.
- Myanmar Department of Fisheries (2003).** Status of and Threats to Living Marine Resources in Myanmar. Report of the First Regional Workshop, Verlaan, P.A., ed., BOBLME/REP/1, Volume 2, pp. 107-115. Unedited version available.
- Nair, M.K.R. & Diwan, A.D. (2003)** The Status and Issues of the Bay of Bengal Large Marine Ecosystem. In: Report of the First Regional Workshop, Verlaan, P.A., ed., BOBLME/REP/1, Volume 2, pp. 64-70. Unedited version available.
- Nootmorn, P., Chayakun, R., Chullasorn, S. (2003)** The Andaman Sea Marine Ecosystem in Thailand. Report of the First Regional Workshop, Verlaan, P.A., ed., BOBLME/REP/1, Volume 2, pp. 122-131. Unedited version available.
- Preston, G.L. (2004)** Review of the Status of Shared/Common Marine Living Resource Stocks and of Stock Assessment Capability in the BOBLME Region. Unpublished report prepared for the BOBLME Programme. Unedited version available.
- Senthil Vel, A. (2003)** Coastal Zone Management in India. In: Report of the First Regional Workshop, Verlaan, P.A., ed., BOBLME/REP/1, Volume 2, pp. 71-81. Unedited version available.
- Sherman, K. (2003)** Assessment and Restoration of Large Marine Ecosystems. In: Report of the First Regional Workshop, Verlaan, P.A., ed., BOBLME/REP/1, Volume 2, pp. 8-31. Unedited version available.
- Tambunan, P. (2003)** Status of and Threats to Living Marine Resources in Indonesia. Report of the First Regional Workshop, Verlaan, P.A., ed., BOBLME/REP/1, Volume 2, pp. 82-89. Unedited version available.
- Waheed, A., Hafiz, A., Ali, M., Nazeef, I. (2003)** Living Marine Resources of Maldives - Status and Threats. Report of the First Regional Workshop, Verlaan, P.A., ed., BOBLME/REP/1, Volume 2, pp. 97-106. Unedited version available.

List of Consultations

The logical framework of the programme developed during the technical meeting held at Bangkok Thailand during 27-29 April 2004. List of participants is at Annexure-I.

Date	Meeting	Venue	Observations
29.1.2003	India - National Task Force	New Delhi	Establishing of the National Task Force and to guide in the preparation of the national, regional, thematic and summary report.
12.9.2003	India - National Task Force	New Delhi	Finalisation and seeking comments and suggestions on the National Report
04.6.2004	India - Special Task Force	New Delhi	To discuss the Logical Frame Work
8.3.2003	Bangladesh - National Task Force	Dhaka	First National Task Force Meeting
18.9.2003			Comments and suggestions on the National Report
03.2.2003	Indonesia - National Task Force	Jakarta	Nomination of NC, NRG members
08.9.2003			Comments and suggestions on the National Report
4.4.2003	Malaysia - National Task Force	Penang	Nomination of the NRG and ISRG members
2.9.2003		Kuala Lumpur	Seeking comments and suggestions on the National Report
20.4.2003	Maldives - National Task Force	Maldives	Nomination of NC, NRG and ISRG members
25.1.2004			Comments and suggestions on the National Report
4.2.2003	Myanmar - National Task Force	Yangon	Discussions on how to protect the health of the Eco-systems and manage the living resources of the BOB improving food and livelihood security. Nomination of NC, NRG and ISRG members.
4.9.2003			Second National Task Force Meeting
2.4.2003	Sri Lanka - National Task Force	Colombo	Nomination of NC, NRG and ISRG members
12.9.2003			Second National Task Force Meeting
21.3.2003	Thailand - National Task Force	Bangkok	Nomination of NC, MRG and ISRG Members
26.8.2003			Second National Task Force Meeting
30-31/10/2003	India – National Workshop	Chennai	National Workshop
18-19/12/2003	Bangladesh - National Workshop	Dhaka	National Workshop
23-24/10/2003	Indonesia - National Workshop	Bogor	National Workshop
20-21/10/2003	Malaysia - National Workshop	Penang	National Workshop
30-31/12/2003	Maldives - National Workshop	Male	National Workshop
04.2.2003	Myanmar - National Workshop		National Workshop
11-12/11/2003	Sri Lanka - National Workshop	Colombo	National Workshop
29-30/10/2003	Thailand - National Workshop	Bangkok	National Workshop

Date	Meeting	Venue	Observations
Project Steering Committee Meetings			
28-29.1.2002	1 st Project Steering Committee Meeting	Chennai	Nomination of NC and PCS members Preparation for the 1 st Regional Workshop
19.2.2003	2 nd Project Steering Committee Meeting	Pattaya	Guidelines and dates were decided for holding the National workshops and National Task Force meetings
17.3.2004	3 rd Project Steering Committee Meeting	Bangkok	Co funding of projects/activities
	4 th Project Steering Committee	scheduled	
17-21.2.2003	First Regional Workshop	Bangkok	
15-17.3.2004	Preparatory Meeting	Penang	Member countries were requested to obtain endorsements for potential sources of co-financing activities.
27-29.4.2004	First Technical Meeting	Bangkok	Developed and reached agreement on a draft Logical framework
25-30.10.2004	Second Regional Workshop	Colombo	Scheduled

BAY OF BENGAL

**SUSTAINABLE MANAGEMENT OF THE BAY OF BENGAL LARGE MARINE
ECOSYSTEM**

ANNEX 13

STATEMENT OF LOANS AND CREDITS

Operational Analyses
Commitments and Disbursements, FY05
People's Republic of Bangladesh

Proj ID	TL	Date, Approval	Date, Rev Closng	Net Comm Amt (US\$M)	Tot Disb (US\$M)	Disb in FY (US\$M)	Tot Undisb Bal (US\$M)	Tot Cancel (US\$M)	Cancel in FY (US\$M)
P009468	Fourth Fisheries	RAFIQUZZAMAN	07/20/1999	12/31/2004	19.8	9.8	0.4	10.8	8.2
P009524	Dhaka Urban Transport	QURESHI	01/19/1999	03/31/2005	112.1	77.8	4.4	35.5	64.9
P037294	Third Road Rehabilitation & Maintenance	LUNDEBYE	10/01/1998	03/31/2005	273	197.5	6.9	84.6	
P037857	Health and Population Program	CORTEZ	06/30/1998	12/31/2004	249.2	201.8		46.5	0.8
P041887	Municipal Services	LEE	03/16/1999	06/30/2005	138.6	59.5	0.3	81.6	
P044789	BD Private Sector Infrastructure Dev	DUTZ	10/28/1997	03/31/2007	235	85.5	0.1	152.1	
P044810	Legal & Judicial Capacity Building	ALAM	03/29/2001	06/30/2007	30.6	9	0.9	25	
P044811	Financial Institutions Development	AHMAD	09/16/1999	06/30/2005	46.9	35.8		10.5	
P044876	Female Secondary School Assis. II	DAR	03/12/2002	12/31/2006	120.9	44		93.8	
P049587	Aquatic Biodiversity Conservation	RAFIQUZZAMAN	07/20/1999	12/31/2004	3.7	2.7	0.7	1.1	1.3
P050745	Arsenic Mitigation Water Supply	KEMPER	08/27/1998	06/30/2005	28	14.5	0.4	15	4.4
P050751	National Nutrition Program	BALACHANDER	05/25/2000	12/31/2004	68	33.2	8	41.1	24
P050752	Post-Literacy & Continuing Education	LAPRAIRIE	02/27/2001	12/31/2005	53.3	17.7	0.3	42.9	
P053578	Social Investment Program Project	CHRISTENSEN	03/18/2003	06/30/2007	18.2	2	0.2	17.7	
P057833	Air Quality Management Project	AKBAR	07/25/2000	12/31/2005	4.7	1.8	0	3.3	
P059143	Microfinance II	AHMAD	01/18/2001	06/30/2005	151	138.3		21.8	
P062916	Central Bank Strengthening Project	AHMAD	06/19/2003	12/31/2007	37	2		37	
P069933	HIV/AIDS Prevention	BALACHANDER	12/12/2000	06/30/2005	18	7.2	0	14.9	22
P071435	Rural Transport Improvement Project	GALLI	06/19/2003	06/30/2009	190	11.6	1	191.1	
P071794	Rural Elect. Renewable Energy Dev.	ELAHI	06/25/2002	06/30/2008	191	47.7	7.3	176.9	
P074040	Renewable Energy Development	ELAHI	06/05/2002	06/30/2008	8.2	2.3	0.1	5.9	
P074731	Financial Services for the Poorest	AHMAD	06/19/2002	12/31/2005	5	1.3	0.1	4.4	
P074966	Primary Education Development Program II	MUKHERJEE	02/24/2004	06/30/2010	150	2.2	2.2	151.4	
P075016	Public Procurement Reform Project	ISLAM	05/02/2002	11/30/2005	4.5	2.4	0	2.7	
P078707	Power Sector Development TA	ZAHEER	06/03/2004	12/31/2008	15.5			15.7	
P081849	BD: Telecommunications Technical Assist.	PRADHAN	06/19/2003	06/30/2008	9.1	0.3	0	9.6	
P081969	Enterprise Growth & Bank Modernization	ALAM	06/08/2004	11/30/2009	250	16.1	16.1	237	
P083890	Economic Management TA Program (EMTAP)	KANANI	06/22/2004	12/31/2009	20			20.3	
P086661	iBD - Water Supply Program Project	KEMPER	06/17/2004	04/30/2010	40			40.5	
P086791	Reaching Out of School Children Project	DAR	06/17/2004	06/30/2010	51			51.7	
Overall Result				2,542.40	1,024.00	49.3	1,642.40	125.5	

Source: BW

Data as of: 08/29/2004 05:39:36

Operational Analyses
Commitments and Disbursements, FY05
Republic of India

Proj ID	TL	Date, Approval	Date, Rev Closng	Net Comm Amt (US\$M)	Tot Disb (US\$M)	Disb in FY (US\$M)	Tot Undisb Bal (US\$M)	Tot Cancel (US\$M)	Cancel in FY (US\$M)
P009972	NATIONAL HIGHWAYS III PROJECT	DAS	06/08/2000	06/30/2006	516	193.8	29.1	322.2	
P010473	TUBERCULOSIS CONTROL	SORENSEN	01/30/1997	09/30/2004	129.4	76.5	7.5	47.9	13
P010476	Tamil Nadu WRCP	RAJAGOPAL	06/20/1995	09/30/2004	257.9	199.3		19.4	25
P010496	ORISSA HEALTH SYS	KUDESIA	06/29/1998	03/31/2005	76.4	29.9	2	50.9	
P010505	RAJASTHAN DPIP	SHAH	04/25/2000	12/31/2005	100.5	32.8	1.5	76.8	
P010511	MALARIA CONTROL	SUDHAKAR	06/12/1997	03/31/2005	118.3	77.3	2.3	41.9	46.5
P010529	Orissa WRCP	JOARDAR	12/19/1995	09/30/2004	278.8	243.9	4.3	12	12.1
P010531	REPRODUCTIVE HEALTHI	CHOWDHURY	05/28/1997	09/30/2004	260.3	229.9	22.4	26	
P010561	Natl Agr Technology	SIDHU	03/17/1998	12/31/2004	196.8	134	3.2	57.8	
P010566	GUJARAT HWYS	GALLI	09/05/2000	12/31/2005	381	138.5	8.6	242.5	
P031829	ODS II - Consumption Phase Out	RAHILL	03/02/1995	06/30/2010	50	30.2		19.8	
P035172	UP POWER SECTOR RESTRUCTURING PROJECT	SANCHEZ GAMARRA	04/25/2000	12/31/2004	150	139.4	1.3	10.6	
P035173	POWERGRID II	KHOSLA	05/03/2001	06/30/2006	450	283.8	6.4	166.2	
P035827	WOMEN & CHILD DEVLPM	GRAGNOLATI	06/29/1998	09/30/2004	300	131.9	8.8	179.2	
P038021	DPEP III (BIHAR)	CLARKE	12/04/1997	09/30/2005	152	79.4	4.4	79.6	
P038334	RAJ POWER I	SHUKLA	01/18/2001	06/30/2005	180	98.4	1.9	81.6	
P040610	RAJ WSRP	PATHAK	02/19/2002	03/31/2008	140	14.3	2	146.8	
P041264	Wtrshd Mgmt Hills II	SELLEN	06/15/1999	03/31/2005	135	107.6	3	24.9	
P044449	RURAL WOMEN'S DEVELOPMENT	VEMURU	03/27/1997	06/30/2005	12.8	6.1		5.7	6.7
P045049	AP DPIP	SHAH	04/11/2000	12/31/2005	111	66.8	1.7	52.4	
P045050	RAJASTHAN DPEP	CLARKE	06/08/1999	12/31/2004	85.7	47.6		40.8	
P045051	2ND NATL HIV/AIDS CO	ROSENHOUSE	06/15/1999	03/31/2006	191	134.3		58.9	
P049385	AP ECON RESTRUCTURIN	KHANNA	06/25/1998	09/30/2005	543.2	427.5		117.7	
P049770	REN EGY II	RYAN RIZVI	06/27/2000	03/31/2006	130	43.2	7.5	89.3	
P050637	TN URBAN DEV II	MUKUNDAN	05/27/1999	11/30/2004	105	89		16	
P050646	UP Sodic Lands II	BUNYASI	12/15/1998	09/30/2005	194.1	123.8	4.7	73.9	
P050647	UP WSRP	RAJAGOPAL	02/19/2002	10/31/2007	149.2	9.5	1.8	160.5	
P050649	TN ROADS	SWAMINATHAN	06/17/2003	03/31/2009	348	15	1.3	333	
P050651	MAHARASH HEALTH SYS	CHOWDHURY	12/08/1998	03/31/2005	117	72.8	7.4	49.2	17
P050653	KARNATAKA RWSS II	ALVARADO	12/18/2001	12/31/2007	151.6	12.1	2.9	162.3	
P050655	RAJASTHAN HEALTH SYSTEMS DEVELOPMENT	CHOWDHURY	03/11/2004	09/30/2009	89			89.6	
P050657	UP Health Systems Development Project	SORENSEN	04/25/2000	12/31/2005	110	32	1	87.1	
P050658	TECHN EDUC III	SHRIVASTAVA	09/07/2000	06/30/2006	64.9	26.7	4	43.5	

P050667	UP DPEP III	KAUL	12/16/1999	09/30/2005	182.4	131.3		49.1	
P050668	MUMBAI URBAN TRANSPORT PROJECT	SWAMINATHAN	06/18/2002	06/30/2008	542	68.2	6.6	485	
P055454	KERALA RWSS	ABHYANKAR	11/07/2000	12/31/2006	55.5	15.8	4	46.8	10
P055455	RAJ DPEP II	JENA	06/21/2001	12/31/2006	74.4	34.1	1.9	50.1	
P055456	IN-Telecommunications Sector Reform TA ELEMENTARY EDUCATION PROJECT (SSA)	SMITH	06/06/2000	12/31/2004	42	28.8	0.4	13.2	20
P055459	MP DPIP	KAUL	04/20/2004	12/31/2007	500	75		415.2	
P059242	IN-TA for Econ Reform Project	CONSTANTINO	11/07/2000	06/30/2006	110.1	34.6	8.1	87.5	
P059501	KAR WSHD DEVELOPMENT	KHANNA	05/12/2000	12/31/2005	45	8.5	0.8	40.1	
P067216	IMMUNIZATION STRENGTHENING PROJECT	MILNE	06/21/2001	03/31/2007	100.4	8.9		106.6	
P067330	LEPROSY II	KANG	04/25/2000	12/31/2005	226	217.7		13	
P067543	UP ROADS	PRIYADARSHI	03/27/2001	12/31/2004	30	28.1		3.9	
P067606	CFC PRODTN SECTOR CLOSURE ODS III INDIA	THOMAS	12/19/2002	12/31/2008	488	49.1	8.3	438.9	
P069376	MIZORAM ROADS	RAHILL	06/09/2000	06/30/2011	85.3	52.1		33.2	
P069889	KARN HWYS	GALLI	03/14/2002	12/31/2007	60	13.8	2.2	54.9	
P070421	KARN Tank Mgmt	VICKERS	05/24/2001	12/31/2006	360	90.5	3	269.5	
P071033	Grand Trunk Road Improvement Project	EPWORTH	04/25/2002	01/31/2009	98.9	6		110.7	
P071244	AP RURAL POV REDUCTION	THARAKAN	06/21/2001	12/31/2006	589	148.3	21.3	440.7	
P071272	Tech/Engg Quality Improvement Project	SHAH	02/20/2003	09/30/2008	150	27.2	3.7	141	
P072123	KERALA STATE TRANSPORT	SHRIVASTAVA	11/14/2002	06/30/2008	250	6.5	0.3	270.5	
P072539	AP Comm Forest Mgmt	LUNDEBYE	03/14/2002	12/31/2007	255	41.7		213.3	
P073094	MAHAR RWSS	SHAH	07/16/2002	03/31/2008	108	26.2	5	100.3	
P073369	DISEASE SURVEILLANCE	MUNSHI	08/26/2003	09/30/2009	181	9		179.4	
P073651	ALLAHABAD BYPASS	HEYWOOD BANDYOPADHYA Y	07/08/2004	03/31/2010	68			69.1	
P073776	Gujarat Emergency Earthquake Reconstruct	10/14/2003	06/30/2009	240	12.4			227.6	
P074018	Food & Drugs Capacity Building Project	SARKAR	05/02/2002	10/31/2005	442.8	179.7	8.7	332.7	
P075056	Chatt DRPP	KANG	06/05/2003	06/30/2008	54	2.5		55.6	
P076467	Uttar Wtrshed	ESMAIL	04/24/2003	03/31/2009	112.6	5		117.1	
P078550	GEF Biosafety Project	ESMAIL	05/20/2004	03/31/2012	69.6			69	
P079865	Karnataka UWS Improvement Project	PEHU	07/23/2003	06/30/2006	1	0.1		0.9	
P082510	Hydrology II	ALVARADO	04/08/2004	12/31/2008	39.5			39.5	
P084632	JAGANNATHAN	08/24/2004	02/28/2011	105.5				105.5	
Overall Result					11,941.00	4,668.50	215.1	7,565.90	150.3

Source: BW

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Operational Analyses
Commitments and Disbursements, FY05
Republic of Indonesia

Proj ID	TL	Date, Approval	Date, Rev Closng	Net Comm Amt (US\$M)	Tot Disb (US\$M)	Disb in FY (US\$M)	Tot Undisb Bal (US\$M)	Tot Cancel (US\$M)	Cancel in FY (US\$M)
P003701	ID ODS I- UMBRELLA	MATHUR	10/24/1994	12/31/2007	36.6	15.7	0.2	20.9	
P003993	ID-SUMATRA REG'L RDS	HAJJ	03/31/1998	12/31/2004	184	170.7	2.4	13.3	50
P004026	ID-Railway Efficiency	DOTSON	11/21/1996	09/30/2004	57.7	55.4	1.2	2.3	47.3
P036047	ID-BALI URBAN INFRA.	SORAYA	05/06/1997	09/30/2004	74	65	0.2	9	36
P036049	ID-EARLY CHILD DEVELOPMENT	ISKANDAR	07/28/1998	03/31/2005	10.8	8.6	0.2	2.3	10.7
P036956	ID-SAFE MOTHERHOOD	MARZOEKI	07/01/1997	12/31/2004	33.3	30.9		2.5	9.2
P039644	ID-W. JAVA BASIC EDUCATION ID - BENGKULU REGIONAL	STRUDWICK	03/31/1998	12/31/2004	99.7	99.4	0.7	0.4	3.8
P040061	DEVELOPMENT	TRIYANI	03/03/1998	08/31/2005	15.5	7.7	0.4	7.8	5
P040196	ID-SUMATRA BASIC EDUCATION	ROESLI	04/08/1999	04/30/2006	74.6	65.5	1.3	8.4	
P040528	ID-W. JAVA ENVMT MGMT	LEITMANN	06/12/2001	06/30/2005	17.5	5.6	1.2	12.7	
P040578	ID-Eastern Indonesia Region Transport	HAJJ	12/11/2001	06/30/2006	200	122.6	6.1	77.4	
P041895	ID-SULAWESI BASIC EDUC. BEPEKA AUDIT MODERNIZATION	STRUDWICK	04/08/1999	04/30/2006	63.8	44.1	0.6	18.9	
P049051	PROJECT	CHEN	06/17/1997	09/30/2004	14.6	13	0.2	1.6	1.8
P049539	ID-PROVINCIAL HEALTH II	MARZOEKI	06/26/2001	06/30/2007	103.2	13	4.6	96.1	
P049545	ID-PROVINCIAL HEALTH I	MARZOEKI	06/15/2000	06/30/2006	38	19.2	2.5	21.4	
P059477	ID-WSSLIC II ID-DECNT. AGRICULTURAL/FORESTRY	POLLARD	06/15/2000	06/30/2009	77.4	24.4		58.4	
P059930	EXT	SHETTY	08/31/1999	12/31/2004	18	14	0.9	4	
P059931	ID-Water Resources & Irr.Sector Mgt Prog	ALAERTS	06/26/2003	12/31/2007	70			70.1	
P063913	ID-Java-Bali Pwr Sector & Strength	BERRAH	06/26/2003	12/31/2008	141	1.4	1.4	139.6	
P064118	ID-WATSAL ID-LAND MANAGEMENT &POLICY	ALAERTS	05/18/1999	12/31/2004	300	150		150	
P064728	DEVT PROJECT	ZAKOUT	04/29/2004	12/31/2009	65.6			65	
P068051	ID-GEF-W. JAVA ENVT MGMT ID-LIBRARY DEVELOPMENT PROJECT -	LEITMANN	06/12/2001	06/30/2005	3.1	0.2		2.9	
P068949	LIL	ROESLI	06/08/2001	12/31/2004	4.2	3.1	0.4	1.5	
P071316	ID - Coral Reef Rehab and Mgmt Prog II	PATIL	05/25/2004	12/31/2009	56.2			56	
P072852	ID-UPP2 ID-SECOND KECAMATAN	SORAYA	06/11/2002	06/30/2008	100	19		91.5	
P073025	DEVELOPMENT PROJECT	BOTTINI	06/26/2001	12/31/2006	320.2	153.6	16.8	181.3	
P073772	ID-Health Workforce & Services (PHP 3)	BOROWITZ	06/12/2003	12/31/2008	105.6	4.3		105.6	
P073970	ID-GLOBAL DEV LEARNING (LIL)	STRUDWICK	06/28/2002	09/30/2006	2.7	0.9		1.8	

P074290	ID-2nd Eastern Indonesia Reg. Transport	HAJJ	06/22/2004	06/30/2009	200		200	
P076271	ID-PPITA	DASGUPTA	05/22/2003	12/31/2006	17.1	2.5	14.6	
P079156	ID Third Kecamatan Development Project	GUGGENHEIM	06/26/2003	12/31/2008	91		92.7	
Overall Result					2,595.30	1,109.90	41.2	1,529.80
							163.7	

Source: BW

Data as of: 08/29/2004 05:39:36

Operational Analyses
Commitments and Disbursements, FY05
Malaysia

Proj ID	TL	Date, Approval	Date, Rev Closng	Net Comm Amt (US\$M)	Tot Disb (US\$M)	Disb in FY (US\$M)	Tot Undisb Bal (US\$M)	Tot Cancel (US\$M)	Cancel in FY (US\$M)
P004212	MY OZONE DEPLETING SUBS	PRASAD	08/15/1995	12/31/2010	25	11.2	0.3	13.8	
P058681	MY-ED SECTOR SUPPORT	REGEL	03/30/1999	12/31/2004	244	221.2	9	22.8	
Overall Result				269	232.4	9.3	36.6		

Source: BW

Data as of:
08/29/2004
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Operational Analyses
Commitments and Disbursements, FY05
Republic of Maldives

Proj ID	TL	Date, Approval	Date, Rev Closng	Net Comm Amt (US\$M)	Tot Disb (US\$M)	Disb in FY (US\$M)	Tot Undisb Bal (US\$M)	Tot Cancel (US\$M)	Cancel in FY (US\$M)
P055944	III EDUC & TRAIN.	VAN MEEL	03/16/2000	01/31/2007	17.6	13.9	1.3	4	
P078523	Integrated Human Development Project	KHAN	07/06/2004	06/30/2010	15.6		16		
Overall Result				33.2	13.9	1.3	20		

Source: BW

Data as of: 08/29/2004 05:39:36

Operational Analyses
Commitments and Disbursements, FY05
Democratic Socialist Republic of Sri Lanka

Proj ID	TL	Date, Approval	Date, Rev Closng	Net Comm Amt (US\$M)	Tot Disb (US\$M)	Disb in FY (US\$M)	Tot Undisb Bal (US\$M)	Tot Cancel (US\$M)	Cancel in FY (US\$M)
P010517	PVT SECT INFRAS DEV	DURAIWAMY	06/13/1996	06/30/2005	62	43.3	1	13.5	15
P010525	GENERAL EDUCATION II	CRAIG	12/09/1997	12/31/2004	69.4	51.2	1.1	17.9	0.9
P034212	MAHAWELI RESTRUCTURI TEACHER EDUCATION & TEACHER	FERNANDO	04/14/1998	06/30/2005	57	56		0.8	
P042266	DEPLOYMENT	CRAIG	06/13/1996	12/31/2004	64.1	53.6	0.1	6	
P044809	LEGAL AND JUDICIAL REFORMS	HULUGALLE	06/20/2000	06/30/2005	18.2	6.4	0.3	13.1	

P050738	Land Tit & Rel Serv (LIL)	LAVADENZ PACCIERI	03/27/2001	12/31/2004	5	3	0.5	2.6	
P050740	HEALTH SECTOR DEVELOPMENT	GRAGNOLATI	06/15/2004	06/30/2010	60			58.6	
P050741	Relevance and Quality of Undergrad. Educ	VAN MEEL	06/10/2003	12/31/2009	40.3	2.2	0.4	41.1	
P058067	Second Community Water	KEICHO	05/06/2003	06/30/2009	39.8	2.5	0.1	40.1	
P058070	North-East Irrigated Agriculture Project	FERNANDO	12/02/1999	06/30/2005	27	22.2	1.4	5	
P069784	Distance Learning Initiative - LIL	DURAI SWAMY	03/05/2001	06/30/2005	2	1.3	0	0.9	
P071131	LK Central Bank Strengthening	HULUGALLE	06/19/2001	07/31/2005	30.3	26.1	0.1	6.6	
P074730	National HIV/AIDS Prevention Community Development & Livelihood	PYNE	12/17/2002	06/30/2008	12.6	0.7	0.2	13.4	
P074872	"Gemi	MUNSHI	03/30/2004	03/31/2009	51			49.9	
P076702	Renewable Energy for Rural Economic Dev.	WRIGHT	06/20/2002	06/30/2008	75	23.5		61.8	
P077586	LK Economic Reform TA	RADWAN	12/10/2002	06/30/2008	15	5.3		11.3	
P077761	Renewable Energy for Rural Economic Dev.	WRIGHT	06/20/2002	06/30/2008	8	3.5		4.5	
P086747	NEIAP II	FERNANDO	06/22/2004	03/31/2011	64.7			65.2	
Overall Result					701.4	300.8	5.1	412	15.9

Source: BW

Data as of: 08/29/2004 05:39:36

Operational Analyses
Commitments and Disbursements, FY05
Kingdom of Thailand

Proj ID	TL	Date, Approval	Date, Rev Closng	Net Comm Amt (US\$M)	Tot Disb (US\$M)	Disb in FY (US\$M)	Tot Undisb Bal (US\$M)	Tot Cancel (US\$M)	Cancel in FY (US\$M)
P004649	TH OZONE DEPLETING SUBS	SHAH	08/02/1994	06/30/2010	45	21.3		23.7	
P004791	TH-SEC EDUC QUALITY IMPROV	REGEL	06/25/1996	04/30/2005	63	41		22	18.9
P042268	TH-Distr. Autom & Relia	SEKSE	07/16/1996	12/31/2004	100	91.7	0.2	8.3	
P069027	TH-BUILDING CHILLER REPLACEMENT PROJECT	PINNOI	06/21/2001	09/30/2005	2.5	1.2		1.3	
P069028	TH BUILDING CHILLER REPLACEMENT - MT	PINNOI	06/21/2001	09/30/2005	2.5	1.2		1.3	
P075173	TH-Highways Management	JENSEN	12/09/2003	06/30/2008	84.3	3.7	2.2	80.6	
Overall Result					297.3	160.1	2.4	137.1	18.9

Source: BW

Data as of: 08/29/2004 05:39:36

BAY OF BENGAL

SUSTAINABLE MANAGEMENT OF THE BAY OF BENGAL LARGE MARINE ECOSYSTEM

ANNEX 14

COUNTRY AT A GLANCE

Bangladesh at a glance

8/29/03

POVERTY and SOCIAL				South Asia	Low-income
	Bangladesh				
2002					
Population, mid-year (millions)	135.7		1,401		2,495
GNI per capita (Atlas method, US\$)	380		460		430
GNI (Atlas method, US\$ billions)	51.1		640		1,072
Average annual growth, 1996-02					
Population (%)	1.7		1.8		1.9
Labor force (%)	2.8		2.3		2.3
Most recent estimate (latest year available, 1996-02)					
Poverty (% of population below national poverty line)	34		..		..
Urban population (% of total population)	26		28		30
Life expectancy at birth (years)	62		63		59
Infant mortality (per 1,000 live births)	52		71		81
Child malnutrition (% of children under 5)	48		..		..
Access to an improved water source (% of population)	97		84		76
Illiteracy (% of population age 15+)	59		44		37
Gross primary enrollment (% of school-age population)	100		97		95
Male	100		108		103
Female	101		89		87

Development diamond*

Life expectancy

GNI per capita

Gross primary enrollment

Access to improved water source

— Bangladesh

— Low-income group

KEY ECONOMIC RATIOS and LONG-TERM TRENDS					
	1982	1992	2001	2002	
GDP (US\$ billions)	18.1	31.7	47.0	47.6	
Gross domestic investment/GDP	17.8	17.3	23.1	23.1	
Exports of goods and services/GDP	5.2	7.6	15.4	14.3	
Gross domestic savings/GDP	12.5	13.9	18.0	18.2	
Gross national savings/GDP	17.9	19.3	22.4	23.4	
Current account balance/GDP	-4.9	-0.4	-1.7	0.5	
Interest payments/GDP	0.3	0.5	0.3	0.3	
Total debt/GDP	27.9	42.8	32.4	35.8	
Total debt service/exports	17.7	16.2	7.3	7.7	
Present value of debt/GDP	..	..	20.7	..	
Present value of debt/exports	..	..	105.4	..	
	1982-92	1992-02	2001	2002	2002-06
(average annual growth)					
GDP	3.8	5.0	5.3	4.4	..
GDP per capita	1.3	3.2	3.5	2.6	..
Exports of goods and services	6.4	12.0	14.9	-2.3	..

Economic ratios*

Trade

Domestic savings

Investment

Indebtedness

— Bangladesh

— Low-income group

STRUCTURE of the ECONOMY				
	1982	1992	2001	2002
(% of GDP)				
Agriculture	31.2	29.4	24.1	22.7
Industry	21.1	22.5	25.9	26.4
Manufacturing	13.7	13.9	15.6	15.9
Services	47.7	48.1	50.0	50.9
Private consumption	88.4	83.0	78.5	76.6
General government consumption	4.5	4.5	4.5	5.0
Imports of goods and services	15.9	12.3	21.5	19.0
	1982-92	1992-02	2001	2002
(average annual growth)				
Agriculture	2.2	3.4	3.1	0.0
Industry	6.0	7.1	7.4	6.5
Manufacturing	5.6	6.6	6.7	5.5
Services	3.7	4.8	5.5	5.4
Private consumption	3.0	3.7	4.8	-0.1
General government consumption	2.7	4.5	4.5	19.2
Gross domestic investment	6.3	9.6	5.8	8.2
Imports of goods and services	2.3	9.4	11.2	-11.2

Growth of Investment and GDP (%)

— GDI

— GDP

Growth of exports and Imports (%)

— Exports

— Imports

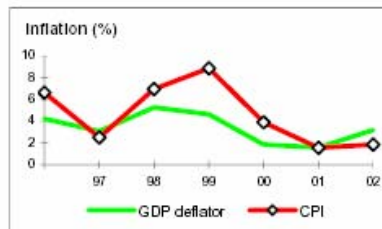
Note: 2002 data are preliminary estimates.

* The diamonds show four key indicators in the country (in bold) compared with its income-group average. If data are missing, the diamond will be incomplete.

Bangladesh

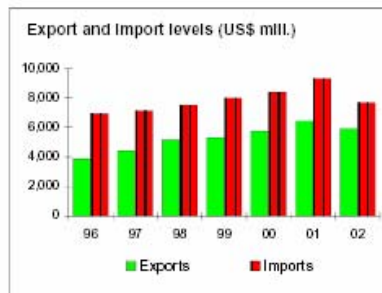
PRICES and GOVERNMENT FINANCE

	1982	1992	2001	2002
<i>Domestic prices</i>				
(% change)				
Consumer prices	..	4.5	1.6	1.9
Implicit GDP deflator	9.7	3.0	1.6	3.2
<i>Government finance</i>				
(% of GDP, includes current grants)				
Current revenue	...	8.3	9.0	10.1
Current budget balance	...	1.9	1.4	2.1
Overall surplus/deficit	-9.6	-4.5	-5.0	-4.6



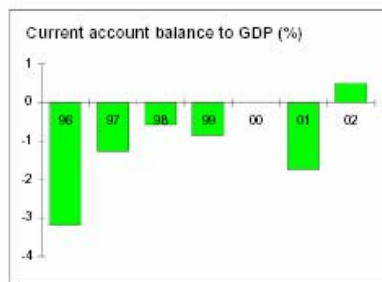
TRADE

	1982	1992	2001	2002
(US\$ millions)				
Total exports (fob)	...	1,986	6,476	5,929
Raw jute	...	106	67	61
Leather and leather products	...	139	254	207
Manufactures	...	1,593	5,766	5,367
Total imports (cif)	...	3,526	9,363	7,697
Food	...	265	380	437
Fuel and energy	...	168	848	723
Capital goods	...	1,289	2,400	2,617
Export price index (1995=100)	...	86	112	115
Import price index (1995=100)	...	107	129	106
Terms of trade (1995=100)	...	81	87	108



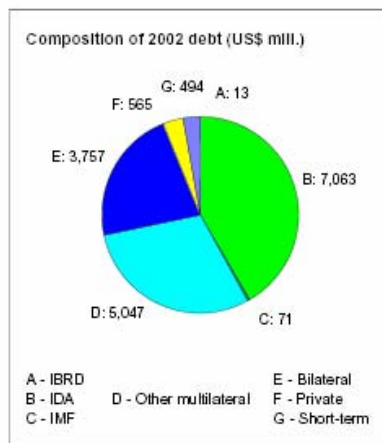
BALANCE of PAYMENTS

	1982	1992	2001	2002
(US\$ millions)				
Exports of goods and services	840	2,468	7,235	6,794
Imports of goods and services	2,759	3,932	10,103	9,061
Resource balance	-1,919	-1,464	-2,868	-2,267
Net income	-97	-89	-264	-319
Net current transfers	1,121	1,435	2,316	2,826
Current account balance	-895	-118	-816	240
Financing items (net)	387	635	490	35
Changes in net reserves	508	-517	326	-275
<i>Memo:</i>				
Reserves including gold (US\$ millions)	...	1,600	1,307	1,583
Conversion rate (DEC, local/US\$)	20.0	37.7	54.0	57.4



EXTERNAL DEBT and RESOURCE FLOWS

	1982	1992	2001	2002
(US\$ millions)				
Total debt outstanding and disbursed	5,054	13,561	15,216	17,010
IBRD	55	60	17	13
IDA	1,270	4,534	6,439	7,063
Total debt service	220	552	671	722
IBRD	3	7	7	7
IDA	9	52	143	156
Composition of net resource flows				
Official grants	759	357	287	410
Official creditors	739	623	419	220
Private creditors	21	-19	230	85
Foreign direct investment	7	4	174	65
Portfolio equity	0	6	0	-6
World Bank program				
Commitments	571	353	296	479
Disbursements	188	323	312	301
Principal repayments	0	24	99	112
Net flows	188	300	213	190
Interest payments	12	35	50	51
Net transfers	175	264	163	138



India at a glance

7/30/04

POVERTY and SOCIAL				South Asia	Low-income
	India				
2002					
Population, mid-year (millions)	1,048.3			1,401	2,495
GNI per capita (Atlas method, US\$)	470			460	430
GNI (Atlas method, US\$ billions)	494.8			640	1,072
Average annual growth, 1996-02					
Population (%)	1.7			1.8	1.9
Labor force (%)	2.2			2.3	2.3
Most recent estimate (latest year available, 1996-02)					
Poverty (% of population below national poverty line)	29			..	..
Urban population (% of total population)	28			28	30
Life expectancy at birth (years)	63			63	59
Infant mortality (per 1,000 live births)	68			71	81
Child malnutrition (% of children under 5)	..			..	..
Access to an improved water source (% of population)	78			84	76
Illiteracy (% of population age 15+)	41			44	37
Gross primary enrollment (% of school-age population)	102			97	95
Male	111			108	103
Female	92			89	87

Development diamond*

Life expectancy

GNI per capita

Gross primary enrollment

Access to improved water source

India Low-income group

KEY ECONOMIC RATIOS and LONG-TERM TRENDS					
	1982	1992	2001	2002	
GDP (US\$ billions)	194.8	244.2	478.5	510.2	<p>Economic ratios*</p> <p>Trade</p> <p>Domestic savings</p> <p>Investment</p> <p>Indebtedness</p> <p>India Low-income group</p>
Gross domestic investment/GDP	21.7	23.8	22.3	22.8	
Exports of goods and services/GDP	6.1	9.0	13.5	15.2	
Gross domestic savings/GDP	18.3	21.8	21.7	22.5	
Gross national savings/GDP	19.2	21.8	23.7	24.6	
Current account balance/GDP	-2.0	-1.6	0.1	0.6	
Interest payments/GDP	0.4	1.4	0.8	0.7	
Total debt/GDP	14.1	37.0	20.4	20.6	
Total debt service/exports	13.6	28.0	11.7	13.9	
Present value of debt/GDP	..	..	14.2	..
Present value of debt/exports	..	..	84.7	..
	1982-92	1992-02	2001	2002	2002-06
(average annual growth)					
GDP	5.6	6.0	5.2	4.6	6.2
GDP per capita	3.4	4.2	3.5	3.0	4.7
Exports of goods and services	6.9	13.5	7.1	21.8	7.9

Growth of Investment and GDP (%)

STRUCTURE of the ECONOMY						
	1982	1992	2001	2002		
(% of GDP)					<p>Growth of exports and imports (%)</p>	
Agriculture	35.9	30.9	25.0	22.7		
Industry	25.8	26.7	25.7	26.6		
Manufacturing	16.2	16.2	15.3	15.6		
Services	38.3	42.3	49.4	50.7		
Private consumption	69.9	65.8	65.9	65.0		
General government consumption	10.7	11.2	12.5	12.5		
Imports of goods and services	8.4	9.8	14.1	15.6		
(average annual growth)						
Agriculture	3.1	2.5	6.5	-5.2		
Industry	6.7	6.2	3.4	6.4		
Manufacturing	6.5	6.6	3.6	6.2		
Services	6.8	8.2	6.8	7.1		
Private consumption	5.3	5.0	6.2	-0.8		
General government consumption	6.1	7.1	3.0	3.1		
Gross domestic investment	5.7	7.2	1.6	9.5		
Imports of goods and services	5.7	12.0	4.0	8.1		

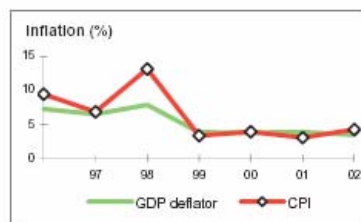
Note: 2002 data are preliminary estimates.

* The diamonds show four key indicators in the country (in bold) compared with its income-group average. If data are missing, the diamond will be incomplete.

India

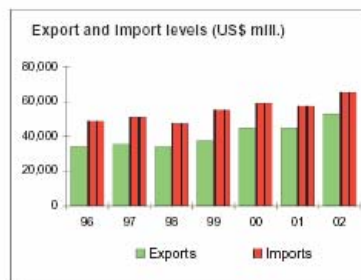
PRICES and GOVERNMENT FINANCE

	1982	1992	2001	2002
Domestic prices				
(% change)				
Consumer prices	6.7	12.6	3.1	4.3
Implicit GDP deflator	7.7	8.8	3.9	3.5
Government finance				
(% of GDP, includes current grants)				
Current revenue	..	18.7	17.5	19.1
Current budget balance	..	-3.2	-8.1	-7.4
Overall surplus/deficit	..	-7.2	-10.5	-10.9



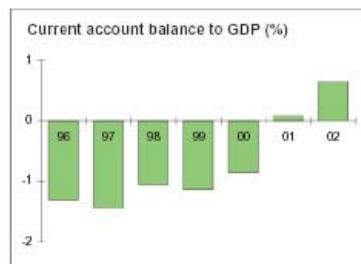
TRADE

	1982	1992	2001	2002
(US\$ millions)				
Total exports (fob)	9,490	18,869	44,915	52,512
Marine products	377	602	1,237	1,381
Ores and minerals	445	738	1,262	1,900
Manufactures	5,109	14,039	33,370	38,353
Total imports (cif)	16,468	24,316	57,618	65,422
Food	1,071	507	2,043	2,368
Fuel and energy	5,957	6,100	14,000	17,640
Capital goods	2,662	4,532	9,882	12,746
Export price index (1995=100)	94	95	90	101
Import price index (1995=100)	125	96	93	100
Terms of trade (1995=100)	75	99	97	101



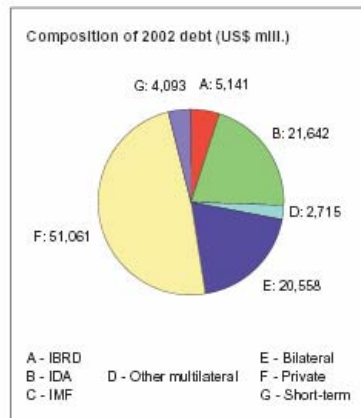
BALANCE of PAYMENTS

	1982	1992	2001	2002
(US\$ millions)				
Exports of goods and services	12,377	23,599	65,580	77,475
Imports of goods and services	18,352	27,917	73,706	83,620
Resource balance	-5,975	-4,318	-8,126	-6,145
Net income	-335	-3,423	-3,601	-4,882
Net current transfers	2,510	3,852	12,125	14,807
Current account balance	-3,800	-3,889	398	3,727
Financing items (net)	3,101	4,692	11,359	13,682
Changes in net reserves	699	-803	-11,757	-16,980
Memo:				
Reserves including gold (US\$ millions)	4,896	9,832	54,106	75,428
Conversion rate (DEC, local/US\$)	9.7	30.6	47.7	48.4



EXTERNAL DEBT and RESOURCE FLOWS

	1982	1992	2001	2002
(US\$ millions)				
Total debt outstanding and disbursed	27,546	90,264	97,516	105,210
IBRD	1,395	9,326	7,015	5,141
IDA	6,983	15,438	20,402	21,642
Total debt service	2,054	7,697	9,327	13,042
IBRD	172	1,395	1,372	3,029
IDA	72	267	569	637
Composition of net resource flows				
Official grants	394	363	384	410
Official creditors	1,352	2,543	365	-3,657
Private creditors	1,180	1,563	-1,569	-1,861
Foreign direct investment	0	313	4,741	3,611
Portfolio equity	0	244	1,951	944
World Bank program				
Commitments	1,889	2,678	2,190	1,523
Disbursements	1,397	1,954	2,089	1,465
Principal repayments	98	834	1,467	3,196
Net flows	1,300	1,119	622	-1,730
Interest payments	146	828	474	470
Net transfers	1,153	292	148	-2,200



The World Bank Group: This table was prepared by country unit staff; figures may differ from other World Bank published data.

7/30/04

Indonesia at a glance

9/3/2003

POVERTY and SOCIAL		Indonesia	East Asia & Pacific	Low-income	
2002					
Population, mid-year (millions)		211.7	1,838	2,495	
GNI per capita (Atlas method, US\$)		710	950	430	
GNI (Atlas method, US\$ billions)		149.9	1,740	1,072	
Average annual growth, 1996-02					
Population (%)		1.3	1.0	1.9	
Labor force (%)		2.2	1.2	2.3	
Most recent estimate (latest year available, 1996-02)					
Poverty (% of population below national poverty line)		16	..	..
Urban population (% of total population)		43	38	30	
Life expectancy at birth (years)		67	69	59	
Infant mortality (per 1,000 live births)		34	33	81	
Child malnutrition (% of children under 5)		25	15	..	
Access to an improved water source (% of population)		78	76	76	
Illiteracy (% of population age 15+)		12	13	37	
Gross primary enrollment (% of school-age population)		110	106	95	
Male		111	105	103	
Female		109	106	87	
KEY ECONOMIC RATIOS and LONG-TERM TRENDS					
	1982	1992	2001	2002	
GDP (US\$ billions)	94.7	139.1	141.3	172.9	
Gross domestic investment/GDP ¹	27.8	30.5	21.8	20.2	
Exports of goods and services/GDP	25.3	27.9	42.3	35.4	
Gross domestic savings/GDP	29.0	33.4	24.9	21.1	
Gross national savings/GDP	..	21.4	22.8	17.1	
Current account balance/GDP	-5.6	-2.0	4.9	4.3	
Interest payments/GDP	1.6	2.7	3.2	1.8	
Total debt/GDP	26.5	63.3	94.2	74.5	
Total debt service/exports	18.1	32.6	25.9	23.7	
Present value of debt/GDP	..	..	93.0	..
Present value of debt/exports	..	..	235.5	..
	1982-92	1992-02	2001	2002	2003-07
(average annual growth)					
GDP	6.9	2.5	3.4	3.7	3.9
GDP per capita	5.0	1.1	2.1	2.3	2.4
Exports of goods and services	6.9	3.1	1.9	-1.2	3.6

Development diamond*

Life expectancy

GNI per capita

Gross primary enrollment

Access to improved water source

Indonesia

Low-income group

Economic ratios*

Trade

Domestic savings

Investment

Indebtedness

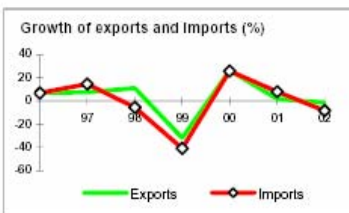
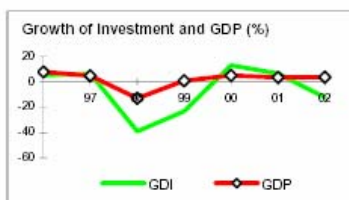
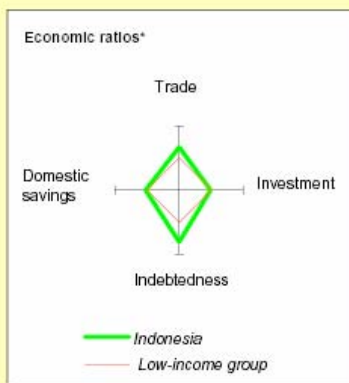
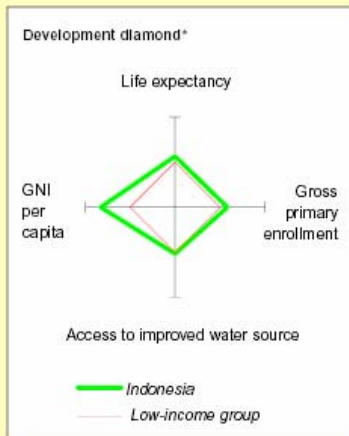
Indonesia

Low-income group

STRUCTURE of the ECONOMY		1982	1992	2001	2002
(% of GDP)					
Agriculture		23.9	18.7	17.0	17.5
Industry		37.9	39.6	45.6	44.5
Manufacturing		11.9	22.0	25.0	25.0
Services		38.2	41.7	37.5	38.1
Private consumption		59.5	57.8	67.3	70.7
General government consumption		11.5	8.8	7.8	8.2
Imports of goods and services		24.1	25.0	34.9	28.5
(average annual growth)		1982-92	1992-02	2001	2002
Agriculture		3.8	1.6	1.0	1.7
Industry		9.2	3.2	3.3	3.7
Manufacturing		12.6	4.7	4.1	4.0
Services		6.5	2.3	4.6	4.4
Private consumption		4.4	5.2	4.4	4.7
General government consumption		4.9	0.4	9.0	12.8
Gross domestic investment		9.6	-4.7	6.3	-12.5
Imports of goods and services		3.0	1.9	8.1	-8.3

Growth of Investment and GDP (%)

Growth of exports and Imports (%)



Note: 2002 data are preliminary estimates.

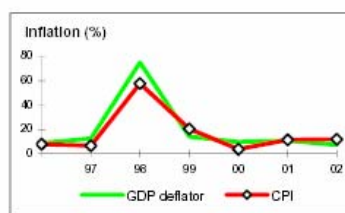
¹ Gross domestic investment excludes change in inventories for 2001 and 2002.

* The diamonds show four key indicators in the country (in bold) compared with its income-group average. If data are missing, the diamond will be incomplete.

Indonesia

PRICES and GOVERNMENT FINANCE

	1982	1992	2001	2002
Domestic prices				
(% change)				
Consumer prices	..	7.6	11.5	11.9
Implicit GDP deflator	6.1	5.4	10.8	7.2
Government finance				
(% of GDP, includes current grants)				
Current revenue	..	..	20.7	18.9
Current budget balance	..	..	0.0	0.6
Overall surplus/deficit	..	..	-2.9	-1.7



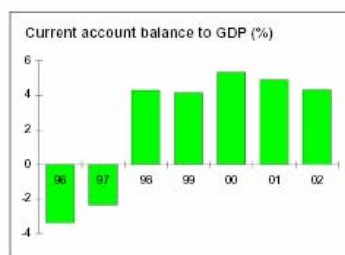
TRADE

	1982	1992	2001	2002
(US\$ millions)				
Total exports (fob)	..	33,796	57,364	58,817
Fuel	..	10,671	12,648	12,139
Rubber	..	684	872	1,238
Manufactures	..	14,224	22,275	19,119
Total imports (cif)	..	27,280	34,669	35,805
Food	..	1,274	2,497	2,852
Fuel and energy	..	2,104	5,523	6,558
Capital goods	..	11,700	9,050	8,606
Export price index (1995=100)
Import price index (1995=100)
Terms of trade (1995=100)



BALANCE of PAYMENTS

	1982	1992	2001	2002
(US\$ millions)				
Exports of goods and services	20,251	37,187	62,864	64,004
Imports of goods and services	22,716	34,874	50,549	51,498
Resource balance	-2,465	2,313	12,315	12,506
Net income	-2,993	-5,664	-8,143	-6,508
Net current transfers	134	571	2,728	1,453
Current account balance	-5,324	-2,780	6,900	7,451
Financing items (net)	3,471	4,850	-8,278	-3,430
Changes in net reserves	1,853	-2,070	1,378	-4,021
Memo:				
Reserves including gold (US\$ millions)	..	..	27,890	31,911
Conversion rate (DEC, local/US\$)	661.4	2,029.9	10,260.9	9,311.2



EXTERNAL DEBT and RESOURCE FLOWS

	1982	1992	2001	2002
(US\$ millions)				
Total debt outstanding and disbursed	25,133	88,002	133,072	128,765
IBRD	1,735	10,640	11,435	10,729
IDA	707	814	722	794
Total debt service	3,856	12,457	14,445	13,893
IBRD	207	1,515	1,753	1,905
IDA	8	22	32	33
Composition of net resource flows				
Official grants	92	298	0	0
Official creditors	1,067	3,097	615	-440
Private creditors	1,401	2,655	-6,199	-2,915
Foreign direct investment	225	1,777	-5,877	-7,066
Portfolio equity	0	146	1,145	1,243
World Bank program				
Commitments	977	1,256	645	103
Disbursements	583	1,003	585	419
Principal repayments	82	692	853	1,065
Net flows	501	311	-268	-646
Interest payments	133	845	932	873
Net transfers	368	-533	-1,200	-1,519

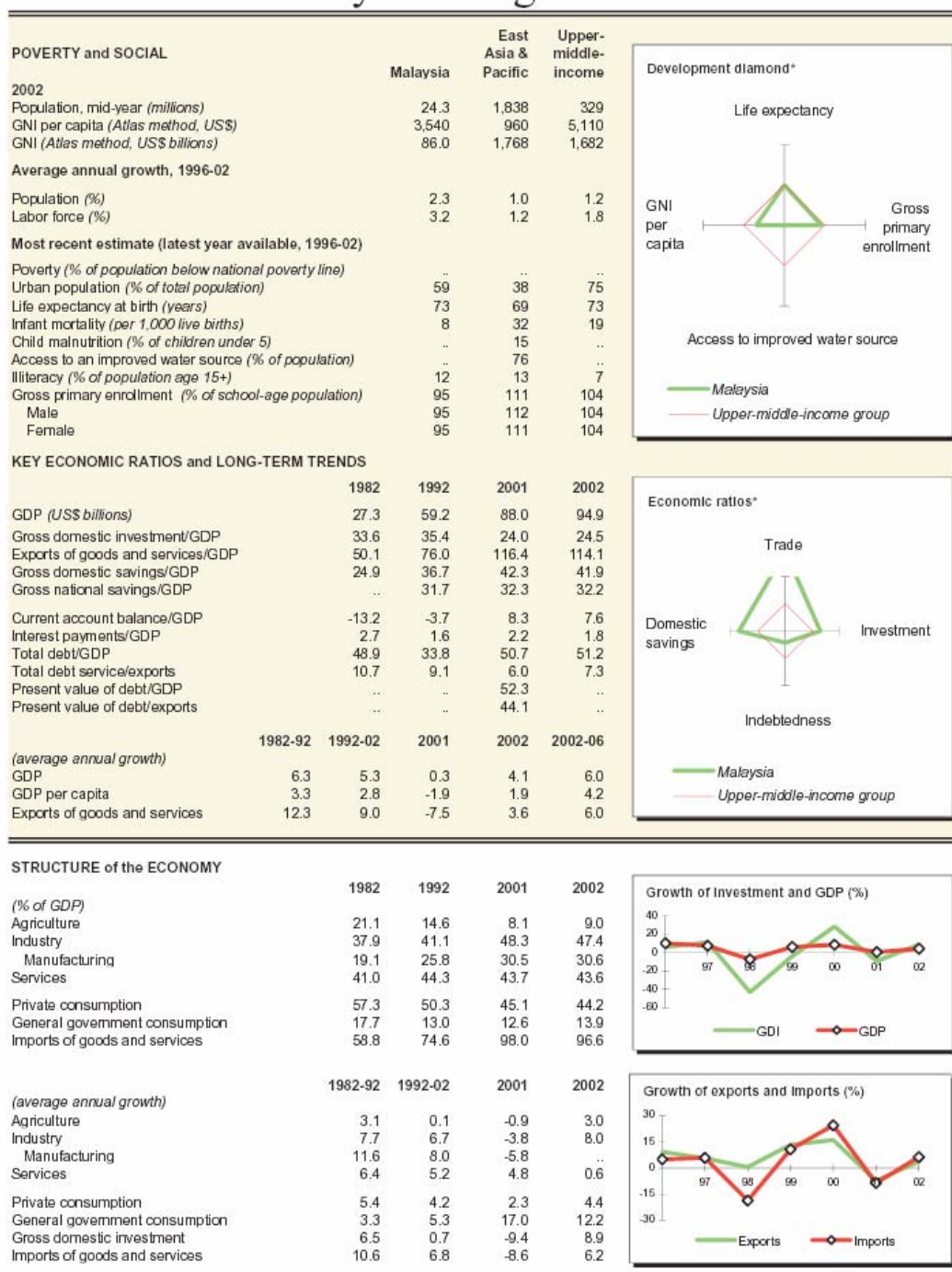


The World Bank Group: This table was prepared by country unit staff; figures may differ from other World Bank published data.

9/3/2003

Malaysia at a glance

4/13/04



Note: 2002 data are preliminary estimates.

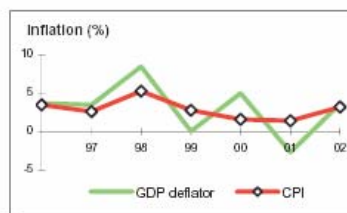
This table was produced from the Development Economics central database.

* The diamonds show four key indicators in the country (in bold) compared with its income-group average. If data are missing, the diamond will be incomplete.

Malaysia

PRICES and GOVERNMENT FINANCE

	1982	1992	2001	2002
Domestic prices				
(% change)				
Consumer prices	..	4.7	1.4	3.2
Implicit GDP deflator	2.5	2.4	-2.7	3.6
Government finance				
(% of GDP, includes current grants)				
Current revenue	..	26.0	23.8	23.2
Current budget balance	..	4.0	4.7	4.1
Overall surplus/deficit	..	-0.9	-5.5	-5.6



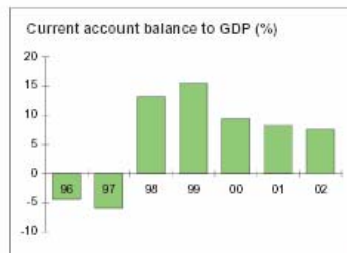
TRADE

	1982	1992	2001	2002
(US\$ millions)				
Total exports (fob)	..	39,613	87,969	93,178
Fuel	..	3,591	2,926	3,052
Rubber	..	925	496	656
Manufactures	..	28,051	75,083	78,664
Total imports (cif)	..	36,238	0	0
Food	..	2,434	1,879	1,888
Fuel and energy	..	2,700	9,356	..
Capital goods	..	18,249	42,386	..
Export price index (1995=100)
Import price index (1995=100)
Terms of trade (1995=100)



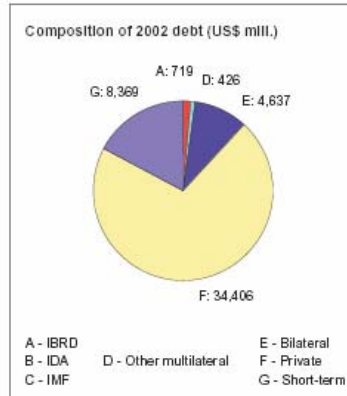
BALANCE of PAYMENTS

	1982	1992	2001	2002
(US\$ millions)				
Exports of goods and services	13,649	44,812	102,436	108,261
Imports of goods and services	16,071	44,009	86,254	91,696
Resource balance	-2,421	803	16,181	16,565
Net income	-1,147	-3,143	-6,743	-6,595
Net current transfers	-32	172	-2,152	-2,781
Current account balance	-3,601	-2,168	7,286	7,189
Financing items (net)	3,339	8,786	-8,250	-10,924
Changes in net reserves	262	-6,618	964	3,734
Memo:				
Reserves including gold (US\$ millions)	..	..	30,800	34,600
Conversion rate (DEC, local/US\$)	2.3	2.5	3.8	3.8



EXTERNAL DEBT and RESOURCE FLOWS

	1982	1992	2001	2002
(US\$ millions)				
Total debt outstanding and disbursed	13,354	20,018	44,612	48,557
IBRD	660	1,072	788	719
IDA	0	0	0	0
Total debt service	1,525	4,209	6,229	8,082
IBRD	90	278	141	180
IDA	0	0	0	0
Composition of net resource flows				
Official grants	5	49	8	12
Official creditors	166	-26	2,071	-204
Private creditors	3,749	502	951	1,853
Foreign direct investment	1,397	5,183	554	3,203
Portfolio equity	0	2,695	-673	-250
World Bank program				
Commitments	152	235	0	0
Disbursements	124	148	60	56
Principal repayments	44	191	83	126
Net flows	80	-43	-23	-70
Interest payments	46	87	59	55
Net transfers	34	-130	-81	-125



Maldives at a glance

8/29/03

POVERTY and SOCIAL			
	Maldives	South Asia	Lower-middle-income
2002			
Population, mid-year (millions)	0.29	1,401	2,411
GNI per capita (Atlas method, US\$)	2,090	460	1,390
GNI (Atlas method, US\$ billions)	0.60	640	3,352
Average annual growth, 1996-02			
Population (%)	2.3	1.8	1.0
Labor force (%)	2.4	2.3	1.2
Most recent estimate (latest year available, 1996-02)			
Poverty (% of population below national poverty line)	..	..	..
Urban population (% of total population)	28	28	49
Life expectancy at birth (years)	69	63	69
Infant mortality (per 1,000 live births)	58	71	30
Child malnutrition (% of children under 5)	..	..	11
Access to an improved water source (% of population)	100	84	81
Illiteracy (% of population age 15+)	3	44	13
Gross primary enrollment (% of school-age population)	131	97	111
Male	131	108	111
Female	131	89	110

Development diamond*

Life expectancy

GNI per capita

Gross primary enrollment

Access to improved water source

— Maldives

— Lower-middle-income group

KEY ECONOMIC RATIOS and LONG-TERM TRENDS					
	1982	1992	2001	2002	
GDP (US\$ billions)	0.05	0.28	0.62	0.62	
Gross domestic investment/GDP	..	..	21.8	..	
Exports of goods and services/GDP	20.0	..	87.2	..	
Gross domestic savings/GDP	..	..	38.2	..	
Gross national savings/GDP	..	..	27.3	..	
Current account balance/GDP	-39.9	-6.9	-9.8	..	
Interest payments/GDP	1.7	0.5	0.7	0.7	
Total debt/GDP	135.9	33.3	37.6	43.8	
Total debt service/exports	5.3	3.2	4.6	..	
Present value of debt/GDP	..	..	28.3	..	
Present value of debt/exports	..	..	37.4	..	
	1982-92	1992-02	2001	2002	2002-06
(average annual growth)					
GDP	..	6.0	3.5	2.3	..
GDP per capita	..	3.5	1.1	0.0	..
Exports of goods and services	...	7.7	0.0	...	..

Economic ratios*

Trade

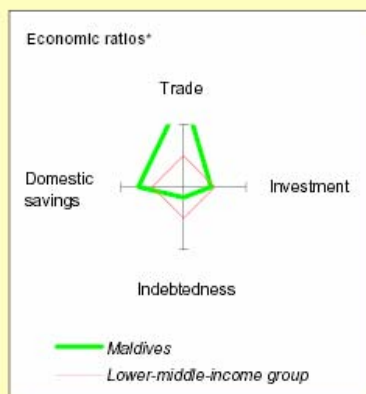
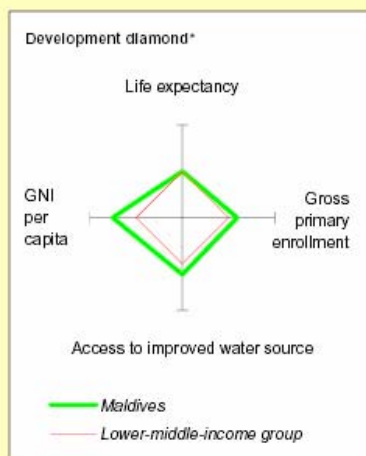
Domestic savings

Investment

Indebtedness

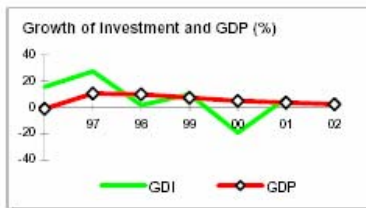
— Maldives

— Lower-middle-income group



STRUCTURE of the ECONOMY

	1982	1992	2001	2002
(% of GDP)				
Agriculture	..	..	..	..
Industry	..	..	..	..
Manufacturing	..	..	..	..
Services	..	..	..	..
Private consumption	..	..	38.1	..
General government consumption	..	..	23.7	..
Imports of goods and services	80.0	..	70.8	..
	1982-92	1992-02	2001	2002
(average annual growth)				
Agriculture	6.2	2.1	1.6	1.4
Industry	10.3	8.8	4.7	2.7
Manufacturing	10.1	5.6	3.1	1.5
Services	10.2	8.6	-3.0	..
Private consumption	..	3.0	4.9	..
General government consumption	..	13.3	7.7	..
Gross domestic investment	..	5.2	6.7	..
Imports of goods and services	..	7.6	1.9	..



Note: 2002 data are preliminary estimates.

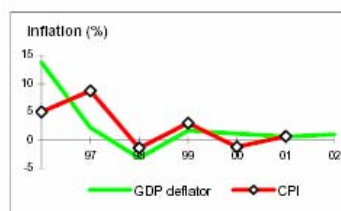
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Maldives

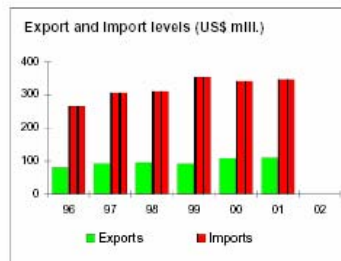
PRICES and GOVERNMENT FINANCE

	1982	1992	2001	2002
Domestic prices (% change)				
Consumer prices	22.0	16.8	0.7	..
Implicit GDP deflator	..	..	0.6	1.0
Government finance (% of GDP, includes current grants)				
Current revenue	..	27.7	32.8	34.7
Current budget balance	..	9.8	6.4	7.9
Overall surplus/deficit	..	-11.8	-4.9	-6.8



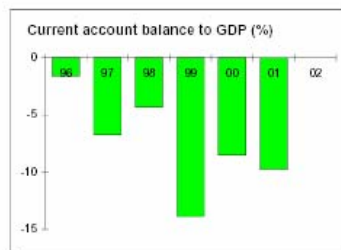
TRADE

	1982	1992	2001	2002
(US\$ millions)				
Total exports (fob)	..	65	110	..
Marine exports	..	32	44	..
Garments	..	8	32	..
Manufactures
Total imports (cif)	..	189	348	..
Food	85	..
Fuel and energy	..	23	48	..
Capital goods
Export price index (1995=100)	..	86	123	..
Import price index (1995=100)	..	92	79	..
Terms of trade (1995=100)	..	94	156	..



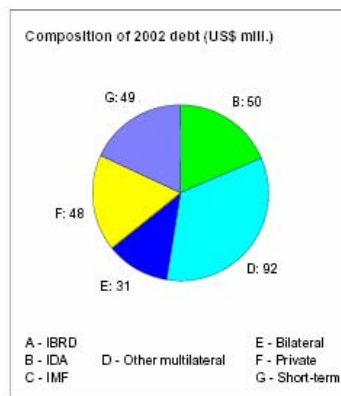
BALANCE of PAYMENTS

	1982	1992	2001	2002
(US\$ millions)				
Exports of goods and services	77	219	464	..
Imports of goods and services	94	217	457	..
Resource balance	-17	2	7	..
Net income	-5	-17	-35	..
Net current transfers	3	-5	-30	-42
Current account balance	-19	-20	-61	..
Financing items (net)	26	17	40	..
Changes in net reserves	-7	3	21	-5
Memo:				
Reserves including gold (US\$ millions)	..	18	94	..
Conversion rate (DEC, local/US\$)	7.2	10.6	12.2	12.8



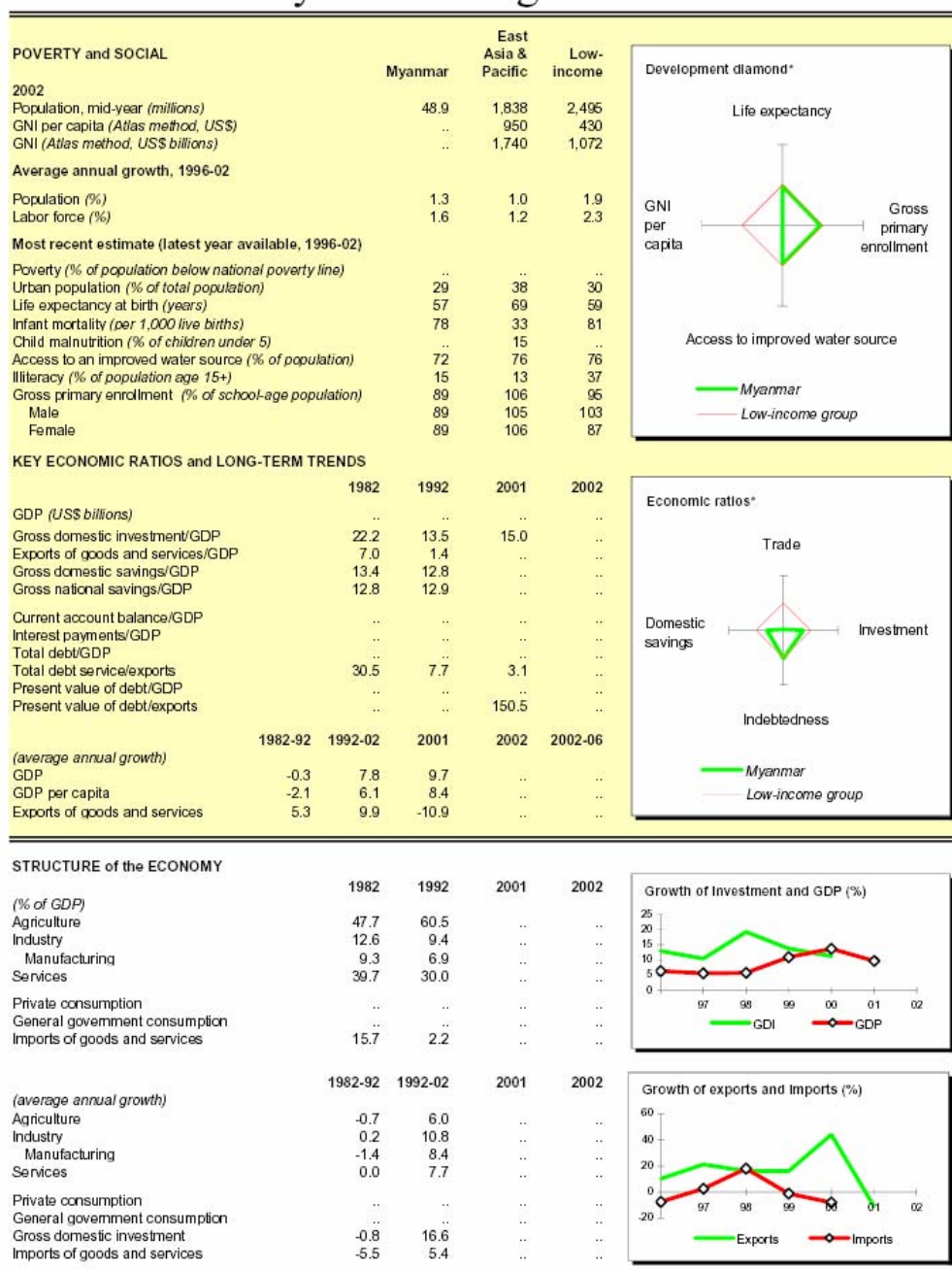
EXTERNAL DEBT and RESOURCE FLOWS

	1982	1992	2001	2002
(US\$ millions)				
Total debt outstanding and disbursed	65	95	235	270
IBRD	0	0	0	0
IDA	2	22	44	50
Total debt service	4	7	22	22
IBRD	0	0	0	0
IDA	0	0	1	1
Composition of net resource flows				
Official grants	1	12	15	0
Official creditors	6	13	4	10
Private creditors	0	3	1	15
Foreign direct investment	0	7	12	0
Portfolio equity	0	0	0	0
World Bank program				
Commitments	0	10	0	0
Disbursements	0	8	0	3
Principal repayments	0	0	0	1
Net flows	0	8	0	3
Interest payments	0	0	0	0
Net transfers	0	8	-1	2



Myanmar at a glance

8/20/03



Note: 2002 data are preliminary estimates.

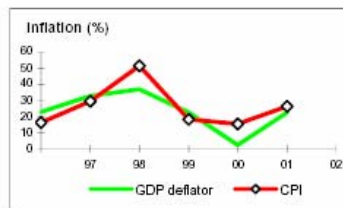
This table was produced from the Development Economics central database.

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Myanmar

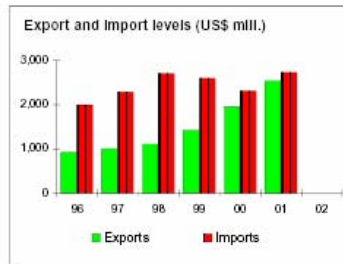
PRICES and GOVERNMENT FINANCE

	1982	1992	2001	2002
Domestic prices				
(% change)				
Consumer prices	..	21.9	26.5	..
Implicit GDP deflator	3.4	21.7	22.6	..
Government finance				
(% of GDP, includes current grants)				
Current revenue	..	8.3	4.7	..
Current budget balance	..	0.0	..	..
Overall surplus/deficit	..	0.0	0.2	..



TRADE

	1982	1992	2001	2002
(US\$ millions)				
Total exports (fob)	..	591	2,544	..
Timber	..	156	280	..
Rice	..	41	112	..
Manufactures	..	5	..	..
Total imports (cif)	..	1,010	2,736	..
Food	..	101	122	..
Fuel and energy	0	..
Capital goods	..	415	828	..
Export price index (1995=100)
Import price index (1995=100)
Terms of trade (1995=100)

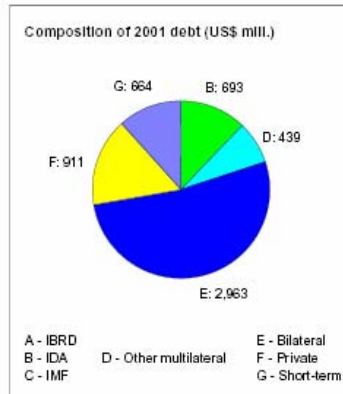


BALANCE of PAYMENTS

	1982	1992	2001	2002
(US\$ millions)				
Exports of goods and services	459	702	2,646	..
Imports of goods and services	973	679	3,016	..
Resource balance	-514	23	-370	..
Net income	-55	-148	-57	..
Net current transfers	..	..	..	..
Current account balance	-562	-55	-218	..
Financing items (net)	407	149	293	..
Changes in net reserves	155	-94	-75	..
Memo:				
Reserves including gold (US\$ millions)	..	..	524	..
Conversion rate (DEC, local/US\$)	..	..	..	..

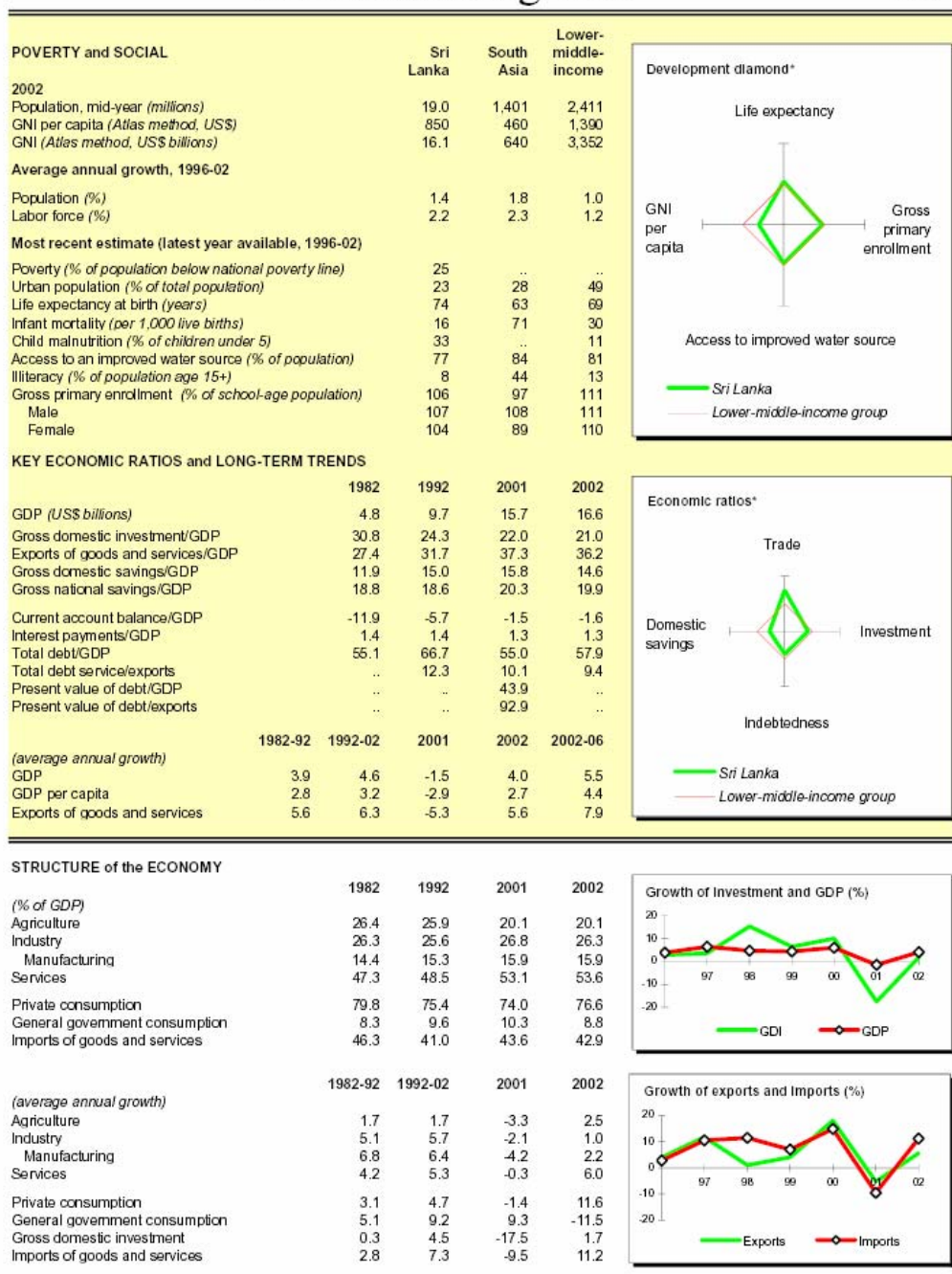
EXTERNAL DEBT and RESOURCE FLOWS

	1982	1992	2001	2002
(US\$ millions)				
Total debt outstanding and disbursed	2,046	5,355	5,670	..
IBRD	0	0	0	..
IDA	233	765	693	..
Total debt service	143	54	84	..
IBRD	0	0	0	..
IDA	2	11	0	..
Composition of net resource flows				
Official grants	50	39	60	..
Official creditors	274	53	2	..
Private creditors	56	-1	-63	..
Foreign direct investment	0	172	208	..
Portfolio equity	0	0	0	..
World Bank program				
Commitments	116	0	0	..
Disbursements	48	15	0	..
Principal repayments	0	5	0	..
Net flows	48	10	0	..
Interest payments	2	6	0	..
Net transfers	47	4	0	..



Sri Lanka at a glance

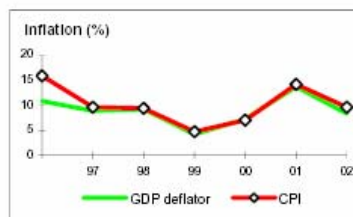
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Sri Lanka

PRICES and GOVERNMENT FINANCE

	1982	1992	2001	2002
Domestic prices				
(% change)				
Consumer prices	..	11.4	14.2	9.6
Implicit GDP deflator	12.1	9.4	13.7	8.3
Government finance				
(% of GDP, includes current grants)				
Current revenue	..	22.1	17.0	16.9
Current budget balance	..	1.0	-4.5	-3.9
Overall surplus/deficit	-14.0	-5.4	-10.4	-8.5



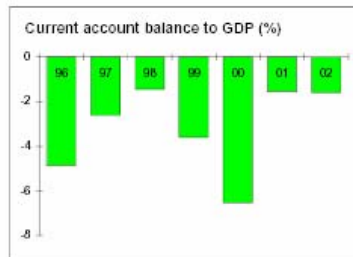
TRADE

	1982	1992	2001	2002
(US\$ millions)				
Total exports (fob)	..	2,459	4,817	4,699
Tea	..	340	690	660
Other agricultural goods	..	164	330	319
Manufactures	..	1,214	2,543	2,424
Total imports (cif)	..	3,676	5,974	6,106
Food	..	524	654	696
Fuel and energy	..	175	731	789
Capital goods	..	851	1,081	1,170
Export price index (1995=100)	169	173
Import price index (1995=100)	130	135
Terms of trade (1995=100)	130	128



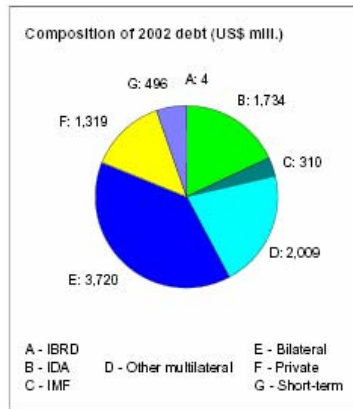
BALANCE of PAYMENTS

	1982	1992	2001	2002
(US\$ millions)				
Exports of goods and services	..	3,081	6,172	5,967
Imports of goods and services	2,185	3,976	7,154	7,103
Resource balance	..	-895	-982	-1,136
Net income	-94	-178	-267	-252
Net current transfers	426	523	1,006	1,123
Current account balance	-568	-550	-244	-264
Financing items (net)	521	897	464	602
Changes in net reserves	47	-347	-220	-338
Memo:				
Reserves including gold (US\$ millions)	..	936	1,181	1,566
Conversion rate (DEC, local/US\$)	20.8	43.8	89.4	95.7



EXTERNAL DEBT and RESOURCE FLOWS

	1982	1992	2001	2002
(US\$ millions)				
Total debt outstanding and disbursed	2,625	6,475	8,658	9,592
IBRD	32	65	8	4
IDA	179	1,095	1,570	1,734
Total debt service	245	453	748	688
IBRD	4	15	5	5
IDA	3	14	39	44
Composition of net resource flows				
Official grants	171	122	198	55
Official creditors	175	188	174	179
Private creditors	221	-37	61	-56
Foreign direct investment	64	121	172	235
Portfolio equity	0	26	-11	25
World Bank program				
Commitments	126	39	37	75
Disbursements	60	74	39	91
Principal repayments	4	14	31	36
Net flows	56	60	8	55
Interest payments	3	14	13	13
Net transfers	53	46	-5	42



The World Bank Group: This table was prepared by country unit staff; figures may differ from other World Bank published data.

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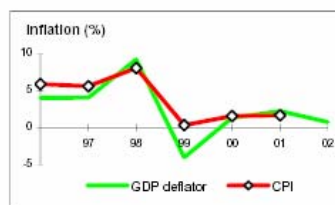
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* The diamonds show four key indicators in the country (in bold) compared with its income-group average. If data are missing, the diamond will be incomplete.

Thailand

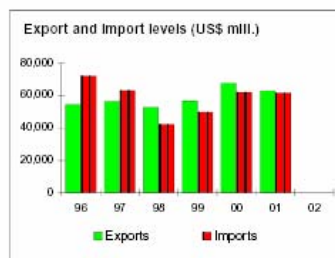
PRICES and GOVERNMENT FINANCE

	1982	1992	2001	2002
Domestic prices				
(% change)				
Consumer prices	5.2	4.2	1.7	..
Implicit GDP deflator	5.1	4.5	2.2	0.7
Government finance				
(% of GDP, includes current grants)				
Current revenue	13.8	17.7	15.1	..
Current budget balance	-1.0	6.7	1.1	..
Overall surplus/deficit	-5.9	2.6	-2.6	..



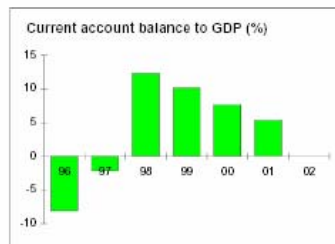
TRADE

	1982	1992	2001	2002
(US\$ millions)				
Total exports (fob)	6,835	32,095	63,190	..
Rice	979	1,432	1,585	..
Rubber	413	1,144	1,325	..
Manufactures	..	24,976	55,532	..
Total imports (cif)	8,549	40,679	61,847	..
Food	321	1,976	2,067	..
Fuel and energy	2,642	3,298	7,130	..
Capital goods	..	16,773	29,457	..
Export price index (1995=100)	..	..	..	..
Import price index (1995=100)	..	..	..	..
Terms of trade (1995=100)	..	..	..	..



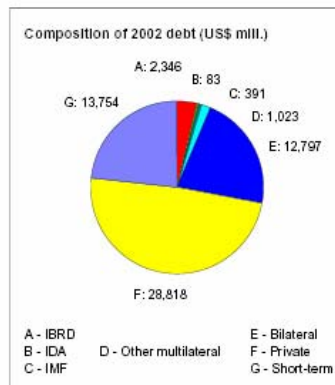
BALANCE of PAYMENTS

	1982	1992	2001	2002
(US\$ millions)				
Exports of goods and services	8,552	41,387	76,215	..
Imports of goods and services	9,223	46,628	69,216	..
Resource balance	-672	-5,241	1,802	..
Net income	-514	-1,708	-1,357	..
Net current transfers	183	646	600	..
Current account balance	-1,003	-6,303	6,227	..
Financing items (net)	922	9,332	-4,910	..
Changes in net reserves	81	-3,029	-1,317	..
Memo:				
Reserves including gold (US\$ millions)	2,652	21,182	33,048	..
Conversion rate (DEC, local/US\$)	23.0	25.4	44.4	43.0



EXTERNAL DEBT and RESOURCE FLOWS

	1982	1992	2001	2002
(US\$ millions)				
Total debt outstanding and disbursed	12,235	41,784	67,211	59,212
IBRD	1,270	1,898	2,998	2,346
IDA	70	106	86	83
Total debt service	1,940	5,895	20,314	19,859
IBRD	124	814	449	991
IDA	0	2	4	4
Composition of net resource flows				
Official grants	64	161	44	0
Official creditors	656	-282	-156	-4,102
Private creditors	664	2,168	-6,893	-3,099
Foreign direct investment	191	2,113	3,820	0
Portfolio equity	0	455	18	0
World Bank program				
Commitments	616	369	0	0
Disbursements	389	177	365	104
Principal repayments	35	646	263	803
Net flows	353	-470	102	-699
Interest payments	89	170	190	192
Net transfers	264	-639	-88	-891



BAY OF BENGAL
SUSTAINABLE MANAGEMENT OF THE BAY OF BENGAL LARGE MARINE
ECOSYSTEM

ANNEX 15
INCREMENTAL COST ANALYSIS

The **development objective** of the BOBLME Project (PDO) is to support the development of a Strategic Action Program (SAP) whose implementation will lead to enhanced food security and reduced poverty for coastal communities in the BOB region.

The Project's **global environmental objective** (GEO) is to formulate an agreed on Strategic Action Program (SAP) whose implementation over time will lead to an environmentally healthy BOBLME. To achieve the GEO, the BOBLME Project, defined as the 1st phase of a multi-phase BOBLME Program, will support a series of interventions that complement relevant existing national and regional activities (the Baseline), and support the development of regional institutional mechanisms, processes, and activities designed to promote the development and implementation of a more comprehensive regional approach to the management of the BOBLME.

The Project's **principal outcomes** will include: (i) a finalized Trans-boundary Diagnostic Analysis (TDA) including the establishment of a new environmental baseline following the recent tsunami; (ii) a Strategic Action Program (SAP); (iii) the establishment of permanent, financially sustainable institutional arrangements that will support the continued development and broadening of commitment to a regional approach to BOBLME issues; one which will be needed to support a longer term and comprehensive effort required for an area as large and complex as the BOBLME; (iv) creation of conditions leading to improved wellbeing of rural fisher communities through incorporating regional approaches to resolving resource issues and barriers affecting their livelihoods into the SAP and future BOBLME Program activities; (v) support for a number of regional and sub-regional activities designed to promote collaborative approaches leading to changes in sources and underlying causal agents contributing to trans-boundary environmental degradation (defined both as shared and common issues); (vi) development of a better understanding of the BOBLME's large-scale processes and ecological dynamics; (vii) establishment and monitoring of basic health indicators in the BOBLME; (viii) increased capacity; and (ix) processes leading to a long-term commitment from the BOBLME countries needed to address complex situations.

The GEF Alternative will achieve these objectives at a total incremental cost of US\$ 30.5 million (M) including contingencies (US\$ 24.5 M without contingencies), with a proposed GEF contribution of US\$ 12.1 M and co-financing of: (i) US\$ 6.3 M from BOBLME Member States; (ii) US\$ 11.3 M from co-financiers; and (iii) US\$ 0.8 M from FAO.

For more detail on project design see Annex 4.

Threats, Underlying Causes and Government Response to BOBLME Environment

For purposes of the Bay of Bengal Large Marine Ecosystem (BOBLME) Program, the Bay of Bengal (BOB) region is defined as comprising the coastal watersheds, islands, reefs, continental shelves and coastal and marine waters of the Maldives, Sri Lanka, the east coast of India, Bangladesh, Myanmar, the west coast of Thailand, the west coast of Peninsular Malaysia, and the Indonesian provinces of Aceh, Riau, and North and West Sumatra (see

Annex 17 of the draft Project Brief). This body of water, measuring approximately 3.3 million km² in area, together with the coastal drainage systems, has been identified as one of the world's sixty-four Large Marine Ecosystems (LMEs) sharing a distinct bathymetry, hydrography, productivity, and trophically dependent populations.

About one-quarter of the world's population reside in the littoral countries of the BOB of which some 400 million live in the Bay's catchment area alone, many subsisting at or below the poverty level. An average of 65% of the region's urban population live in large coastal cities and migration towards the coastal regions appears to be on the increase.

The BOB supports numerous coastal fisheries, many of which are of significant socio-economic importance to the countries bordering the water body; an estimated 2 million fishers who operate primarily in coastal and inshore waters are directly employed in the sector. Included amongst these fisheries are coastal demersal, shrimp and small pelagic fisheries, as well as offshore fisheries for tuna and similar species.

A key issue facing the region's coastal fishing communities is the unsustainable harvesting of certain species, a result of the open access nature of the resource. Many of the fishery resources in the region are already heavily exploited, and if fishing is allowed to continue unregulated, the situation will likely worsen with significant adverse impacts on the large number of small-scale fishers dependent on these resources for their livelihoods and as a source of food security. The socio-economic implications of non-sustainable exploitation of fish stocks is exacerbated further by the illegal incursion of foreign fleets, increased competition and conflicts between artisanal and large-scale fisherman, encroachment by nationals into the territorial waters of neighboring countries, and an alarming increase in cyanide fishing and other non-sustainable fishing practices.

A second key issue is the continued degradation of highly productive coastal and near-shore marine habitats such as coral reefs, mangroves and estuaries, and marine grass beds, all critical fish spawning and nursery areas. Immediate causes include land conversion and reclamation, direct overexploitation, accelerated sedimentation, and destructive tourism and fishing practices. Sea-based sources of pollution include oil pollution and offshore oil and gas exploration. There are also the potential adverse impacts related to the future development of seabed minerals.

Closely related to the two issues described above, are the accumulative effects associated with land-based sources of pollution that are contributing to the disruption of basic processes and functioning of the marine ecosystem. These include degradation and loss of fish spawning and nursery areas, fish kills and possible changes in trophic structure. The fate and effect of pollutants has not been studied extensively but there is a growing body of evidence to support the conclusion that most are deposited as estuarine sediments, while a smaller portion is flushed out to deeper waters. It is argued by some that the ecosystem's assimilative capacity on the whole has not been exceeded and that pollution problems are localized in nature, however, there remain many uncertainties about the Bay's status and ecological functioning, much of it attributable to the lack of comprehensive, reliable data.

In addition to these long-standing and pervasive issues, the region is strongly influenced by monsoons, storm surges, cyclones and other natural disasters, such as the recent tsunami, that affect coastal populations. As a result of the tsunami, in addition to the massive human tragedy and the subsequent need to rebuild and restore communities' wellbeing, given the

socio-economic importance of many of the region's coastal and near-shore marine habitats (coastal lagoons, mangroves, and coral reefs) as sources of livelihood to some of the most heavily impacted sectors of society (namely, poor, rural coastal communities), there is also a need to assess the status of these habitats and ascertain the implications to the future livelihoods of affected populations.

Major root causes underlying these issues include population growth and changing demographics, unabated pressure on the primary sector to feed exports due to continued demand for increased foreign exchange, a growing and diversifying industrial sector, and the undervaluing of the natural resources and the environmental "goods and services" provided by the coastal and near-shore marine ecosystems.

One of several major barriers to resolving these issues is the lack of regional institutional arrangements to facilitate a coordinated approach among the BOBLME countries to address the previously identified issues. A second major barrier is the weak and/or inappropriate policies, strategies and legal measures that characterize much of the region. Where these do exist, they are rarely enforced. Other major constraints include lack of alternative livelihoods, weak institutional capacity, insufficient budgetary commitments, and lack of community stakeholder consultation and empowerment.

The BOBLME countries are well aware of these issues, underlying causal factors and barriers to their resolution. In response they have demonstrated significant levels of commitment to address many of the aforementioned problems both in terms of national actions as well as including their participation in a number of conventions and other legal instruments which address one or more of the aforementioned problems (see Annex 1). The substantial national participation among the 8 BOBLME countries during the project preparation process indicates that their commitment remains strong.

For more detail on project design see Annex 1.

Baseline Scenario

The commitment of the riparian countries to managing the resources of the Bay of Bengal in a coordinated, comprehensive and integrated manner, grew from their participation in the longstanding Bay of Bengal Programme (BOBP). The project concept for a BOBLME Program was originally put forward in early 1995 by the BOBP Advisory Committee. BOBP, which became operational in 1979, aimed to improve the socio-economic conditions of the small-scale fisherfolk in the member countries through the development and promotion of new and innovative techniques and technologies. As the Programme evolved, its focus turned to addressing the serious management problems facing the fisheries resources, and started looking more at the environment-related activities linking the health of the ecosystem and the fisheries resources. Bangladesh, India, Indonesia, Malaysia, Maldives, Sri Lanka and Thailand were members of BOBP, and Myanmar participated in BOBP meetings as an observer.

The PDF-B proposal, which was endorsed by the BOBP Advisory Committee and the Committee for the Development and Management of Fisheries in the Bay of Bengal (BOBC), was to have been implemented in close collaboration with BOBP. The implementation of the PDF-B was delayed when one of the member countries raised the need to re-endorse the project. The result was that the two projects got out of sync, and BOBP came to an end and

BOBC was dissolved just as the PDF-B was taking off. Subsequently, a Bay of Bengal Programme – Intergovernmental Organization (BOBP-IGO) was established in 2004 with four members (Bangladesh, India, Maldives, and Sri Lanka). It is a fledgling institution, and the mandate is, for the time being, limited to small-scale fisheries development. While it has not yet become a fully operational institution, it has, to the extent possible, been taken into consideration in developing the baseline.

A preliminary study on potential options for regional coordination was carried out with PDF-B resources. As noted above, there already exist a number of international, regional and sub-regional institutions and programs operating in the Bay (see Annex 1). Despite their large number, none appear to have the mandate, geographical scope and/or capacity to support an initiative based on an LME approach; particularly one that addresses the shared and common issues and barriers characteristic of the BOB. However, it is equally clear that the proposed BOBLME Program cannot resolve the aforementioned issues in isolation. Rather it must build on past experience and existing institutions and activities in the region, including the exchange of data and information collected through the numerous national and regional initiatives addressing the coastal and marine environment and fisheries issues in the Bay of Bengal to achieve any significant lasting impact.

The calculation of the Baseline was based on an initial screening of on-going, regional and national programs and projects (the latter scheduled for implementation over the next 2 - 6 years) relevant to the proposed project objectives. Short profiles have been presented in Attachments 1a and 1b for regional and national programs/projects, respectively. For regional/sub-regional programs whose objectives were viewed as complementary to the BOBLME Project, baseline calculations were based on the annual national contributions made by participating countries to the respective program (Attachment 2).¹ National sources of assistance vary and consist of national and state/provincial government expenditures, regional and sub-regional organizations, and donor funded projects. Once identified, both regional/sub-regional and national programs/projects were evaluated to the component/activity level and compared with components of the proposed project (Attachments 3a and 3b). Only those components/activities of the previously identified baseline programs/projects relevant to the proposed project component objectives were costed and included as part of the baseline (see Attachment 3).

The aforementioned baseline calculations were completed prior to 26 December, 2004. As a result of the occurrence of the tsunami and modification of the BOBLME Project to include an assessment of the new, post-event environmental baseline (see below), an additional analysis for the Project baseline was required. Any analysis however, is constrained by the number of current activities, their status, and the rapidly changing situation in the tsunami affected area. As a result, by convention, the baseline for the post-tsunami activities relevant to the BOBLME consists of: FAO's own funds through the Technical Cooperation Program (TCP) and bi-lateral funds approved for FAO execution as of 8 February. In total, these amount to US\$ 19.5 million. There are substantial additional funding that is currently being negotiated (US\$ 48.5 million) but this has yet to be confirmed and has not been included in the analysis. These funds are to be used in general, for the following immediate priorities: (i) coordination and technical assistance; (ii) supply of fishing gear, repair and replacement of boats, rehabilitation and restocking of fish ponds, early rehabilitation of harbors, anchorages,

¹ A similar approach to estimating the project baseline was applied in the GEF-supported South China Sea LME.

fish storage and processing; (iii) seeds, tools, and other agricultural inputs to allow resumption of food production; and (iv) repair of irrigation and drainage infrastructure, and reclamation of crop land affected by salt water flooding. It is understood, that a needs assessment will be completed prior to supporting major investments. Finally, it is noted that there are likely a number of other proposed initiatives to assess environmental consequences of the tsunami. It is understood that any activity supported under the BOBLME would coordinate and cooperate with the relevant agencies to ensure complementarities and avoid overlap.

Summary Baseline Costs and Benefits

Baseline Costs. In the absence of additional GEF funding, the implementation of the aforementioned on-going and planned programs/projects will contribute at least in part, to both the PDO and GEO. The estimated costs of baseline activities amount to US\$ 83 million (M; Attachment 4).

Baseline Benefits. Activities under the Baseline Scenario will produce predominantly national benefits and contribute only in a limited way to the achievement of global benefits due to the many constraints that limit the effectiveness of national actions impact on regional issues. Specific benefits include: (i) sustainable management of trans-boundary fish stocks (within national waters) and critical habitats, (ii) data collection efforts providing limited usefulness to understanding larger scale-processes characteristic of the BOBLME, (iii) creation and management of national marine protected areas and fish refugia, (iii) nation-based monitoring of water quality in coastal waters, and (iv) participation in sub-regional groupings of countries formed to address ad hoc priority issues dependent on national policies and funding.

In terms of a post-tsunami needs assessment, the major needs that are likely to be assessed include: (i) financial impacts and needs; (ii) social impacts and needs (especially institutions such as government services, village association, networks etc); (iii) impacts on human capitals (skills, knowledge and abilities) and needs; and (iv) physical impacts (basic infrastructure and goods) and needs.

In view of the need for regional institutional arrangements, collaborative approaches, an agreed on Strategic Action Program (SAP) and long-term financial sustainability to address priority issues and barriers characteristic of the BOBLME, the Baseline Scenario is unlikely to contribute significantly to achieving any global benefits. In recognition of these limitations, the Governments of the BOBLME have requested assistance from the GEF to formulate and implement an Alternative Scenario that will support the achievement of incremental benefits related to the aforementioned programs that comprise the Baseline Scenario. Moreover, in light of the likely affect the tsunami has had on critical coastal and nearshore marine critical habitats, new environmental conditions have likely been established. The Project baseline however will not contribute to establishing a new environmental baseline; an *a priori* requirement needed to ascertain if the BOBLME Program will achieve progress in contributing to a healthy BOBLME as determined through environmental status indicators.

GEF Alternative

The GEF Alternative will support the achievement of the PDO and GEO through strategic actions addressing key threats and barriers characteristic of the BOBLME. Financing the incremental costs associated with these actions would build on the Baseline Scenario by promoting a regional approach which will result in: (i) Trans-boundary Diagnostic Analysis (TDA); (ii) a new environmental baseline composed of a post-tsunami critical coastal/marine habitat assessment; (iii) an agreed to Strategic Action Program identifying critical priorities of regional/global importance to address in the next phase of the BOBLME Program; (iv) regional institutional arrangements established to facilitate a collaborative approach to issues of regional/global concern in the BOBLME; (v) reduced pressure on selected trans-boundary fish stocks and critical habitat of global importance; (vi) improved understanding of the large-scale processes characteristic of the BOBLME leading to more informed national and regional efforts to address critical trans-boundary issues; (vii) improved management of trans-boundary fish stocks through more informed use and regional coordination in establishment of fish refugia; (viii) conservation of biodiversity of regional/global importance achieved through regional collaboration in establishing a system of marine protected areas and fish refugia; (ix) establishment of a common set of environmental health indicators that will provide a regional basis for assessing and monitoring status of BOBLME; (x) a pilot water quality monitoring program designed to (a) develop experience in adopting a regional approach, and (b) identify regional “hotspots” to be addressed in subsequent BOBLME Program phases; and (xi) a sustainable source of funding to implement priority actions; and (x) improved IW project design through the exchange of “lessons learned” and other relevant experiences with other LME programs.

Costs. The total cost of the GEF Alternative is estimated to be US\$ 113.4 M (*GEF financing: US\$ 12.1 M*), detailed as follows (see Matrix 1): (i) US\$ 23.3 M (*GEF financing: US\$ 2.5 M*) to develop a Strategic Action Program (SAP; Component 1); (ii) US \$ 48.6 M (*GEF financing: US\$ 2.7 M*) to promote regional approaches to the management and sustainable use of coastal/marine natural resources (Component 2); (iii) US\$ 17.6 M (*GEF financing: US\$3.6 M*) to support improved understanding and predictability of the status and process characteristics of the BOBLME (Component 3); (iv) US\$ 15.7M (*GEF financing: US\$0.6 M*) to support a regional approach to addressing issues associated with land-based sources of pollution (Component 4); and (v) US\$ 8.2 M (*GEF financing: US\$2.7 M*) to support of Project Management, M&E, and Information Dissemination (Component 5).

Benefits. Under the GEF Alternative, the benefits generated from this approach would include both national and global benefits. National benefits include: (i) diversified livelihoods and improved well-being among small-scale fisher communities; (ii) dependable, long-term sustained national production of selected trans-boundary fish stocks for BOBLME countries; (iii) increased understanding and strengthened national programs in BOBLME-relevant sectors; (iv) establishment of national environmental “health” indicators for coastal habitats/waters; (v) preparation of national Strategic Action Programs; (vi) pilot testing of cost-recovery mechanisms applicable to national activities; (vii) increased national awareness of other BOBLME relevant activities; and (viii) a financial, socio-economic, and equipment/infrastructure needs assessment following the tsunami event of 26 December, 2004 (see complete list of national benefits in the Incremental Cost Matrix below). Global benefits include: (i) removal of barriers to creating a more focused, regionally co-ordinated effort to address trans-boundary issues in the BOBLME; (ii) updated assessment of critical coastal/marine habitat assessment of global importance; (iii) resolution of selected priority issues (e.g., management of selected regional fish stocks, pollution, and management of

critical habitat whose boundaries extend beyond one or more political jurisdictions); (iv) increasing exchange and application of shared experiences and expertise within the region; (v) increasing public awareness of the significance and technical knowledge of the status and processes of the BOBLME; (vi) developing or enhancing regional and/or local solutions among BOBLME countries; and (vii) achieving economies of scale and cost advantages which accrue from addressing certain problems in a collaborative fashion.

Incremental Costs¹

The difference between the costs of the Baseline Scenario (US\$ 83 M) and the GEF Alternative (US\$ 113.4 M) is an estimated US\$ 30.4 M. The total requested GEF contribution amounts to US\$ 12.1 M, detailed as follows: (i) US\$ 2.5 M to develop the Strategic Action Program (Component 1); (ii) US \$ 2.7 M to promote regional approaches to the management and sustainable use of coastal/marine natural resources (Component 2; (iii) US\$ 3.6 M to support improved understanding and predictability of the status and process characteristics of the BOBLME (Component 3); (iv) US\$ 0.5 M to support a regional approach to addressing issues associated with land-based sources of pollution (Component 4); and (v) US\$ 2.7 M to support of Project Management, M&E, and Information Dissemination (Component 5). The aforementioned GEF-support would cover incremental costs of technical assistance (US\$ 3.5 M), studies and workshops (US\$ 4.1 M), training (US\$ 0.6 M), publications (US\$ 0.7 M), equipment and furniture (US\$ 0.3 M), and salaries, travel and O&M costs (US\$ 3.0 M).

Co-financing of US\$ 18.4 M of the incremental cost has been mobilized as follows: (i) US\$ 5.7 M from the BOBLME governments of which US\$ 2.2 M is in cash; (ii) US\$ 11.3 M in cash from other co-financiers; and (iii) US\$ 0.8 M (in-kind) from FAO. Incremental financing from the BOBLME Governments would include: (i) a cash contribution of US\$ 2.2 M in support of (a) the partial costs of national workshops and meetings, (b) salaries of national technical advisors and support staff, (c) the partial costs of the national task force office O&M, and (d) the salaries of sub-project coordinators and assistants (Myanmar, Thailand, and Sri Lanka only); and (ii) an in-kind contribution of US\$ 3.5 M to finance task force salaries, local travel and travel allowances, and other O&M costs. In addition, the Government of India (GOI), as host country, will contribute US\$ 0.6 M in cash to support the Regional Coordinating Unit (RCU). This contribution will cover the costs of: (a) office space, (b) furniture, (c) salaries of selected staff, and (d) O&M including utilities. The funding from the remaining co-financiers representing US\$ 11.3 M will cover technical assistance (US\$ 2.1 M), studies and workshops (US\$ 5.7 M), training (US\$ 0.7 M), publications (US\$ 0.2 M), equipment and furniture (US\$ 0.3 M), and salaries, travel and O&M costs (US\$ 2.4 M) in support of all project components. The funding from FAO (US\$ 0.8 M) would cover the in-kind costs associated with technical assistance (US\$ 0.7) and training (US\$ 0.1).

¹ Kindly note minor differences in totals are due to rounding error and the amounts include in contingencies.

Matrix 1. Incremental Cost Matrix

Component	Cost Category	US\$ Million	Domestic Benefits	Global Benefits
Component 1. Strategic Action Program	Baseline	US\$ 19.5 M	(i) sub-regional groupings of BOBLME countries collaborate on agreed to priorities through existing institutional mechanisms dependent on national annual funding priorities; (ii) financial, socio-economic, and physical needs assessment completed.	Global benefits limited and dependent on geographic scope, priority and level of funding.
	With GEF Alternative	US\$ 23.3M	(i) national participating institutions strengthened, (ii) preparation of national Strategic Action Programs will facilitate addressing issues of national importance, and (iii) pilot testing of candidate cost-recovery mechanisms applicable to national activities.	Regional institutional arrangements established to facilitate a collaborative approach to issues of regional/global concern in the BOBLME; (ii) an agreed to Action Program identifying critical priorities of regional/global importance to be addressed in the next phase of the BOBLME Program; (iii) a sustainable source of funding to implement priority actions; and (iv) updated environmental baseline of critical habitats established.
	Incremental	US\$3.8 M	<i>Note: Consists of: GEF (US\$ 2.5 million); Governments cash (US\$ 0.1 M); Governments in-kind (US\$ 0.3M.); and Other Co-financiers (US\$ 1.0 M).</i>	
Component 2. Coastal/Marine Natural Resources Management and Sustainable Use	Baseline	US\$ 35.8M	(i) localized and project-driven policies support community-driven integrated coastal management; (ii) selected trans-boundary fish stocks are managed in national waters; (iii) selected trans-boundary fish stock data collected and assessed at a national level; (iv) trans-boundary critical habitat managed within national framework.	Limited global benefit achieved primarily through national efforts directed at managing trans-boundary fish stocks and the conservation of critical natural habitat of global importance.
	With GEF Alternative	US\$ 48.6 M	(i) diversified livelihoods and improved well-being among small-scale fisher communities through policy mainstreaming; (ii) dependable, long-term sustained production of selected trans-boundary fish stocks for BOBLME countries; .	(i) lessons-learned in community-based ICM exchanged throughout the region; (ii) reduced pressure on selected trans-boundary fish stocks and critical habitat of global importance; (iii) sustainability of selected trans-boundary fish stocks ensured through regional/sub-regional management approaches; and (iv) critical trans-boundary habitat conserved through bi-national efforts.
	Incremental	US\$ 12.8 M	<i>Note: Consists of: GEF (US\$ 2.7 million); Governments cash (US\$ 1.2 M); Governments in-kind (US\$ 1.3 M.); Other Co-financiers (US\$ 6.9 M); and FAO (US\$ 0.7 M).</i>	

Component 3. Improved Understanding and Predictability of the BOBLME Environment	Baseline	US\$ 13.3 M	(i) national data collection efforts and studies provide partial understanding of BOBLME large-scale processes and dynamics; (ii) marine protected areas and fish refugia created and managed in national waters; (iii) existing regional/global programs share information on selected BOBLME characteristics.	Limited global benefits achieved through national efforts contributing to an: (i) improved understanding of local/meso-scale processes, (ii) conservation of biodiversity of global importance, and (iii) sharing data and participating in collaborative <i>ad hoc</i> activities in priority sectors in the BOBLME.
	With GEF Alternative	US\$ 17.6 M	Increased understanding and strengthened national programs in oceanography and conservation of marine biodiversity.	Improved understanding of the large-scale processes characteristic of the BOBLME leading to more informed national and regional decisions and efforts to address critical trans-boundary issues; (ii) improved management of trans-boundary fish stocks through more informed use and regional coordination in management and establishment of MPAs and fish refugia; and (iii) conservation of biodiversity of regional/global importance achieved through regional collaboration in establishing a system of MPAs.
	Incremental	US\$ 4.3 M	<i>Note: Consists of: GEF (US\$ 3.6 million); Governments cash (US\$ 0.1 M); Governments in-kind (US\$ 0.1 M.); Other Co-financiers (US\$ 0.5 M); and FAO (US\$ 0.1 M).</i>	
Component 4. Maintenance of Ecosystem Health and Management of Pollution	Baseline	US\$ 14.4 M	(i) national monitoring programs assess and monitor status of "health" in coastal habitats/waters.	Limited global benefits achieved through national based coastal habitats/waters assessments.
	With GEF Alternative	US\$ 15.7 M	(i) establishment of national environmental "health" indicators for coastal habitats/waters and (ii) increased understanding and strengthened national programs in water quality monitoring.	(i) establishment of a common set of environmental health indicators provide regional basis for assessing and monitoring status of BOBLME; (ii) pilot water quality monitoring program provides (a) experience in adopting a regional approach, and (b) identification of regional "hotspots" to be addressed in subsequent BOBLME Program phases.
	Incremental	US\$ 1.3 M	<i>Note: Consists of: GEF (US\$ 0.5 million); Governments cash (US\$ 0.1 M); Governments in-kind (US\$ 0.1 M.); Other Co-financiers (US\$ 0.6M); and FAO (US\$ 0.1 M).</i>	
Component 5. Project Management	Baseline	US\$ 0.0 M	BOBLME related information provided through existing national programs and sector-specific sub-regional programs	Global benefits limited and dependent on program.
	With GEF Alternative	US\$ 8.2 M	(i) improved project management skills at national levels; (ii) national monitoring and evaluation system put in place and made operational; and (iii) increased national awareness of other BOBLME relevant activities.	(i) establishment of an effective and cost-efficient management unit that, together with BOBLME countries, successfully achieve sProject objectives; and (ii) global improved LW LME project design through exchange of "lessons learned" and other relevant experiences.
	Incremental	US\$ 8.2 M	<i>Note: Consists of: GEF (US\$ 2.7 million); Governments cash (US\$ 0.8 M); Governments in-kind (US\$ 1.7 M.) GOI (US\$ 0.6 M); Other Co-financiers (US\$ 2.3 M); and FAO (US\$ 0.1 M).</i>	

BAY OF BENGAL: Sustainable Management of the Bay of Bengal Large Marine Ecosystem
Annex 15: Incremental Cost Analysis

Totals	Baseline	US\$ 83 M		
	With GEF Alternative	US\$ 113.4 M		
	Incremental <i>(Before contingency)</i>	US\$ 30.5 M <i>(US\$ 24.3)</i>	<i>Note: Consists of: GEF (US\$ 12.1 million); Governments cash (US\$ 2.2 M); Governments in-kind (US\$ 3.5 M.); GOI (US\$ 0.6 M); Other Co-financiers (US\$ 11.3 M); and FAO (US\$ 0.8 M).</i>	

Attachment 1a: Baseline Scenario – Descriptive Briefs of Selected Relevant Regional Programs/Projects

Indian Ocean Tuna Commission (IOTC). International Commission established in 1993 with the objective of promoting cooperation among its members for the purpose of conserving and achieving the optimum utilization of tuna and other stocks covered under the Agreement.

Asia-Pacific Fishery Commission (APFIC). Commission established in 1976 evolving out of the Indo-Pacific Fisheries Council with the objective of promoting the full and proper utilization of living aquatic resources by development and management of fishing and culture operations and by .

Bay of Bengal Inter-governmental Organization (BOB-IGO). Established as an inter-governmental programme in 2003, the main objective is to support regional cooperation among member countries of the region for fisheries development with a major focus on socio-economic improvement of its small scale fisheries and fish farmers.

Southeast Asia Fishery Development Center (SEAFDEC). Established through an agreement reached in 1967, SEAFDEC operates through 4 Centers in SE Asia with the objective to promote sustainable development of fisheries in the region through research, training and information dissemination.

Intergovernmental Organization for Marketing Information and Technical Advisory Services for Fishery Products in the Asia and Pacific Region (INFOFISH). This IGO established in 1987 has the mandate to provide marketing information and technical advisory services to the fishery industry of the Asia-Pacific region.

Network of Aquaculture Centres in Asia and the Pacific (NACA). Initially established through a donor supported project, NACA became an IGO in 1990 with the mandate to promote rural development through sustainable aquaculture focusing on capacity building, research, information dissemination, provision of policy guidance, and addressing aquatic animal health and disease management.

Asia-Pacific Economic Cooperation (APEC). A forum created in 1989 to promote economic cooperation in the region, a fisheries working group was established in 1991. The focus of the group is on conservation and sustainable use of fisheries resources and aquaculture, development of solutions to common resource management problems, enhancement of food safety and quality of fish and fisheries products, and sector-specific work relating to trade and investment.

Association of Southeast Asian Nations (ASEAN). A political association that was created in 1967 for the purposes of accelerating economic growth and achieving social progress and cultural development. Under ASEAN, a Fisheries Consultative Group (FCG) was created in association with SEAFDEC in 1998 for the purpose of supporting regionalization of the Code of Conduct for Responsible Fisheries, addressing fish-trade and environmental issues, information collection, and development of a 5 year programme on sustainable fisheries for food security.

Bangladesh, India, Myanmar, Sri Lanka, and Thailand Economic Cooperation (BIMSTEC). Cooperative agreement between participating countries designed to foster socio-economic development and create an enabling environment for cooperation in various fields designed to enhance the livelihoods of the peoples in the region including the strengthening of fisheries development and management.

South Asian Association for Regional Cooperation (SAARC). Association created among South Asian countries in 1985 to promote economic cooperation and trade.

South Asian Co-operative Environment Programme (SACEP). Regional environmental programme established in 1982 to promote and support the conservation and management of the environment in the member states of the South Asian region in a co-operative manner.

South Asian Seas Programme (SAS). UNEP's environmental programme for South Asian member countries designed to protect and manage the marine environment and related coastal ecosystems of the region

IOC Regional Committee for the Central Indian Ocean (IOCINDIO). A regional subsidiary body of the IOC created in 1982, the objectives of the ICINDIO are to plan, promote, and co-ordinate cooperative regional marine scientific projects among member states, assist in the implementation of regional components of the global ocean science programmes, facilitate the transfer of scientific information, promote the exchange of oceanographic data, and identify needs for training, education, and mutual assistance in the marine sciences.

WorldFish Center (WFC). An international research center that promotes an ecosystem multidisciplinary partnership approach to fisheries research and development through contributing to improved productivity, environmental protection, saving biodiversity, improving policies and strengthening national institutions.

Attachment 1b. Baseline Scenario – Descriptive Briefs of Selected Relevant National/State Programs/Projects

Bangladesh

Projects. The national baseline is dominated by project support. This consists of the: (i) Coastal and Wetland Biodiversity Management Project; (ii) Biodiversity Conservation, Marine Park Establishment and Ecotourism Development in St. Martin Island Project; and (iii) Empowerment of Coastal Fishing Communities Project.

India

State budget. State budgetary resources are being used to support the following programs: (i) Fish stock Assessment for Capacity Management; (ii) Brackish and Fresh water Fish Culture in Closed Canals and Coastal Areas; (iii) Integrated Fishery and Algae Culture Project for Women Fisheries (in Sundarbans); (iv) Assessing Migratory Routes and Status of Breeding Grounds of Hilsa; and (v) State environmental monitoring.

Indonesia

National budget. National budgetary resources are being used to support: (i) National Fisheries Program (Coordination Forum for Management and Utilization of Marine Fisheries Resources) and (ii) Coastal and Marine Protected Areas. **State programs** consist of: (iii) Community-based Coastal Area Management (Riau Province), and (iv) Land-based Sources of Pollution Project (Nanggroe Aceh Darusalam Province).

Malaysia

National budget. National budgetary resources are being used to support: (i) monitoring, control and surveillance (MCS) and the development of management plans for selected fisheries under the national fisheries management program; (ii) community-based coastal area management activities focused on promoting stakeholder participation in selected projects in the BOBLME project area in Malaysia; and (iii) development, monitoring and management of marine parks.

Maldives

National budget. National budgetary resources are being used to support: (i) basic fisheries management, surveys, and monitoring activities; and (ii) supporting projects related to the IOTC.

Myanmar

National budget. National budgetary resources are being used to support: (i) fisheries research and development, (ii) monitoring of artisanal fishery effort/yield, (iii) mapping of critical habitats, (iv) coral reef monitoring, and (v) near-shore bathymetry.

Sri Lanka

National budget. National budgetary resources are being used to support: (i) national fisheries management, (ii) fisheries research and development, and (iii) community-based coastal resources management. **Project** support consists of: (iv) Coral Reef Monitoring and Conservation Project, and (v) the Protected Area Management and Wildlife Conservation Projects

Thailand

National budget. National budgetary resources are being used to support: (i) fisheries management and assessments (shark and Indian mackerel); (ii) coastal and marine park management and protection (Andaman Sea), and (iii) environmental monitoring to assess status of water quality along the coastal waters (Phang-nga Bay). **Project** support consists of: (iv) Community-based Resources Management Project (CBFM), and (v) Coastal Habitats and Resources Management Project (CHARM).

Attachment 2. Estimated National Contributions to Selected Regional Bodies by Country (US\$ ‘000)

Sub-region	Countries	Type of Regional Institution												Scientific Bodies	
		Regional Fishery Bodies						Economic Development				Environmental Management			
		IOTC	APFIC ¹	BOB-IGO ²	SEAFDEC	INFOFISH	NACA ³	APEC ⁵	ASEAN	BIMSTEC	SAARC	SACEP	SAS	WFC	IOCINDIO
SE Asia	Indonesia	-	2	-	4	0	40 ⁴	2	NA	-	-	-	-	NA	NA
	Malaysia	27	2	-	4	0	30	2	NA	-	-	-	-	NA	NA
	Myanmar	-	2	-	4	0	NA	-	NA	0	-	-	-	NA	NA
	Thailand	27	2	-	4	0	30	2	NA	0	-	-	-	NA	NA
South Asia	Bangladesh	-	2	20	-	0	20	-	-	0	NA	21	13	NA	NA
	India	34	2	60	-	0	60	-	-	0	NA	32	32	NA	NA
	Maldives	-	-	20	-	0	-	-	-	-	NA	15	6	NA	NA
	Sri Lanka	45	2	20	-	0	20	-	-	0	NA	16	13	NA	NA
Total		133	14	120	16	0	200	6	NA	0	NA	84	64	NA	NA

¹Estimated cost to travel to annual meetings.

²Assumes Formula II of the BOB IGO agreement applied.

³Based on proposed schedule of contributions.

⁴Participating non-member government.

⁵Consists of percentage of approved project budgets for MRC and Fisheries supported with BOBLME APEC country contributions.

Key:

-: not a member.

NA: information not available.

Attachment 3a. Relevance of Baseline Activities by Project Component

Regional Programs/Projects	Proposed Project Components				Project Management, M&E, Information Dissemination
	Strategic Action Program (SAP)	Coastal/Marine NRM and Sustainable Use	Improved Understanding and Predictability of the BOBLME Environment	Maintenance of Ecosystem Health and Management of Pollution	
IOTC	?	133	-	-	-
APFIC		14	-	-	-
BOB IGO		120	-	-	-
SEAFDEC		16	-	-	-
INFOFISH		0	-	-	-
NACA		200	-	-	-
APEC		6	-	-	-
ASEAN		NA	-	NA	-
BIMSTEC		0	-	-	-
SAARC		NA	-	NA	-
SACEP		-	-	84	-
SAS		-	-	64	-
IOCINDIO		-	NA	-	-
WFC		NA	-	-	-
Total		489	0	148	0

Attachment 3b. Estimate of National Program/Project Baseline Costs by Project Component

National/ State Programs/Projects	Proposed Project Components				
	Strategic Action Program (SAP)	Coastal /marine NRM and Sustainable Use	Improved Understanding and Predictability of the BOBLME Environment	Maintenance of Ecosystem Health and Management of Pollution	Project Management, M&E, Information Dissemination
<u>Bangladesh</u>					
National budget ¹	-	-	-	-	-
Projects	-	5,169,996	10,389,996	-	-
<u>India</u>					
National budget ^{1,2}	-	-	-	-	-
State budget ^{1,2,3} (West Bengal, Andhra Pradesh, Orissa Tamil Nadu)	-	8,323,200	224,400	14,064,000	-
Projects	-	-	-	-	-
<u>Indonesia</u>					
National budget ^{1,2}	-	866,700	666,666	100,000	-
State budget ^{1,2} (Acha, N Sumatra, Riau)	-	-	-	-	-
Projects	-	-	-	-	-
<u>Malaysia</u>					
National budget ^{1,2}	-	10,800,000	430,000	NA	-
State	-	-			-
Projects	-	-			-
<u>Maldives</u>					
National budget ¹	-	1,164,282	-	-	-
Projects	-	793,470	-	-	-
<u>Myanmar</u>					
National budget ¹	-	105,000	450,000	-	-
Projects	-	-	-	-	-
<u>Sri Lanka</u>					
National budget ¹	-	1,680,000	66,000	NA	-
Projects	-	618,000	3,000		-
<u>Thailand</u>					
National budget ^{1,2}	-	4,073,436	1,068,288	60,000	-
State budget ^{1,2}	-	160,974	-	-	-
Projects	-	1,585,365	-	45,000	-
<u>Totals</u>	-	35,340,423	13,298,350	14,269,000	-

¹Figures represent annual budget projected out over 6 year life of project.

²Estimated for national area bordering BOBLME only.

³Estimates based on extrapolation of data for West Bengal.

Key:

-: no program/project identified.

NA: information not available

Attachment 4. Estimate of Total National Baseline Costs by Project Component

National Programs/ Projects	Proposed Project Components					Total
	Strategic Action Program (SAP)	Coastal /marine NRM and Sustainable Use	Improved Understanding and Predictability of the BOBLME Environment	Maintenance of Ecosystem Health and Management of Pollution	Project Management, M&E, Information Dissemination	
National	-	35,340,423	13,298,350	14,269,000	-	62,907,773
Regional/	-	489,000	0	148,000	-	637,000
Sub-regional						
Tsunami relief	19,500,000	-	-	-	-	19,500,000
Totals	19,500,000	35,829,423	13,298,350	14,417,000	0	83,044,773

¹Figures represent annual budget projected out over 6 year life of project.

²Estimated for national area bordering BOBLME only.

³Estimates based on extrapolation of data for West Bengal.

Key:

-: no program/project identified.

BAY OF BENGAL
SUSTAINABLE MANAGEMENT OF THE BAY OF BENGAL LARGE MARINE
ECOSYSTEM

ANNEX 16

STAP ROSTER REVIEW

The project team is grateful to the STAP reviewer for comments to strengthen the contents and presentation of this proposal. Presented below are the responses and/or actions taken, where required, taken in response to the STAP comments (in italic following the STAP comments).

Project reviewer: Dr. Loke-Ming Chou, Department of Biological Sciences, National University of Singapore.

KEY ISSUES

Introduction

The project aims specifically at protecting ecosystem health and managing living resources of the Bay of Bengal Large Marine Ecosystem (BOBLME). The main output is a Strategic Action Program (SAP) detailing activities that should improve sustainable management of BOBLME over the long-term. The SAP will include a comprehensive framework with well-defined institutional and financial arrangements to ensure long-term sustainability of the program itself so that the ultimate goal of a healthy BOBLME can be realized.

Central to regional strengthening of collaborative approaches and co-operation is the establishment of a Regional Coordinating Unit (RCU), considered necessary as none of the existing regional mechanisms is deemed appropriate in terms of mandate, geographical scope, and/or capacity to support an initiative based on a LME approach.

Activities will focus on two major threats which have been identified through preparatory phase consultations. These are living resource overexploitation and continued habitat degradation.

The program is structured into five components, three of which deal specifically with resource management and environmental protection, and the remaining two with project management and sustainability.

Scientific and technical soundness of the project

The participating countries have, through the extensive regional and national consultations under the Block and Supplemental Block B grants, indicated a common desire for a healthy BOBLME. Its resources help support 400 million people inhabiting the Bay's catchment area. Sustainable exploitation requires a good understanding of the Bay's ecological functions and processes, strengthened national and regional management capacity and efficient coordination.

Component 1: Strategic Action Programme.

Sub-component 1.2: BOBLME Institutional Arrangements.

A properly defined institutional mechanism should be established in the early phases of the project so that accountability can be maintained from the start. Participating countries should agree to a permanent institutional arrangement as early as possible, rather than have this developed halfway or towards the end of the first phase.

Response by the project team: *The project preparation team fully agrees with the recommendation. This has been an issue that has been discussed with and among the participating countries since the early stages of project preparation. To be honest, there was a lack of consensus on the exact nature and location of a permanent institutional mechanism to implement the Project. As a result, agreement was reached among the 8 participating countries that an “ interim” regional coordination unit (RCU) responsible for project implementation should be established at the onset of the Project. It was also agreed that project resources would be provided to support a much more detailed institutional analysis as well as promote a series of national and regional consultative workshops designed to achieve the needed consensus prior to the establishment of BOBLME permanent institutional arrangements. The participating countries have agreed to a timetable calling for a decision no later than the end of Project Year 3. Depending on the nature of that decision and the potential budgetary implications, the possibility may exist of replacing the RCU with a permanent arrangement prior to the end of Project’s 1st phase. Finally, the existing situation provides an opportunity to allow for the emergence of other possible solutions which could facilitate reaching consensus among the participating countries (e.g., in the broadening of geographical representation and deepening of the mandate of the BOB Inter-governmental Organization).*

Sub-component 1.3: Financial Sustainability.

This is crucial to long-term sustainability of any program and any effort devoted to this aspect will be worthwhile. A sustainable financing mechanism should be agreed to and be able to sustain program coordination at least, to ensure continuity and interest that can withstand the pulsating nature of aid agency funding.

Response by the project team: *The team feels that this is a very important issue. Project sub-component 1.3 specifically supports the establishment of a financially viable BOBLME. This sub-component will support the: (i) design and establishment of a financing mechanism to fund the annual recurrent costs of the agreed BOBLME management structure ensuring the continued beneficial impact of the BOBLME program; and (ii) assist BOBLME countries to prepare for the mobilization of financial resources and development of financial mechanism for implementing specific actions that will be developed, agreed and included under SAP.*

Sub-component 1.4: SAP Preparation and Adoption.

The processes identified for developing the SAP are suitable; use of TDA and consultations with government, public stakeholders and partners to formulate the SAP should result in a product that addresses most needs.

Component 2: Coastal/Marine Natural Resources Management and Sustainable Use.

Sub-component 2.1: Community-based Integrated Coastal Management.

There should be sufficient and varied experience across the region on community-based management with many valuable learning lessons that can be applied and replicated. This sub-component is important for capturing the wealth of information and synthesizing the information for greater experience sharing. Similar activities in the East Asian Seas region have shown how community-based management of coral reefs and reef-related fisheries have been extended from the Philippines to Indonesia through information sharing and site visit exchanges. Replication of success is certainly to be encouraged and this activity should facilitate it.

Sub-component 2.2: Improved Policy Harmonization

This sub-component is important to ensure that policy processes and capacity for policy formulation are in place at local, national and regional levels. It will be more effective if the rural coastal community and the research community be given a more direct involvement equal to policy makers so that policy interventions are relevant and more acceptable to the coastal communities whose livelihoods can be improved through these policies. This is pertinent particularly to Objective 'ii', which promotes consolidation of selected policy recommendations to facilitate community-based ICM.

Response by the project team: *We fully agree with the comments of the reviewer and feel that many of these concerns have been addressed in project design. The proposed policy studies identified under this sub-component (which are described in more detail in documents in the project file), particularly Study 3 which focuses on community level policy and the respective sociological aspects, are designed to be fully participatory and inclusive in their completion. These studies in turn will provide a major input into identifying and formulating possible policy interventions. Similarly, the national workshops proposed under the sub-component, both provide and have budgeted for a broad and diverse level of stakeholder participation including from the rural coastal and research communities. National workshops will also be attended by the national Project Steering Committees (PSCs) and National Task Forces (NTFs) members, some of whom will represent rural coastal communities. Workshop invitees will also include representatives from other stakeholder groups identified as appropriate (in terms of making and influencing policy), through the initial policy studies proposed above. It is expected to be particularly important to involve provincial and district officials, community representatives, and NGOs. These workshops will be one of the main means through which the Project will influence policy. Budget support has also been provided to strengthen capacity in local NGOs to work with coastal communities in participating and influencing local formulation of policies that affect their livelihood and wellbeing. Finally, project design has been kept flexible and provides*

opportunities for the countries to include additional policy studies and the wherewithal to act on policy recommendations if new priorities are identified during implementation.

Sub-component 2.3: Collaborative Regional Fishery Assessments and Management Plans.

It appears that shark fishery management to be addressed on a regional scale, and Hilsa and Indian mackerel fisheries management to be addressed at sub-regional levels have been evaluated as the most important target fisheries in need of collaborative trans-national efforts. This strategy of selecting a few species in urgent need of management is sound and practical. The question arises as to which fishing sector benefits most from the exploitation of these species and whether there are present conflicts between large-scale and small-scale operators at local and national levels that will make it enormously difficult and complicated to deal with at sub-regional and regional scales, keeping in view the PDO of enhanced food security and reduced poverty for coastal communities. The common fishery data/information system to be established will be useful for the management of trans-boundary species, but it is not clear if the intention is to restrict the database to trans-boundary species or to be all encompassing.

Response by the project team: *The reviewer is correct in noting that the selected species are taken by both small and large-scale vessels in the BOBLME region. Similarly, the conflict between the small and large – scale operators is one of the main management issues in the region and will be addressed by the Project as it is a transboundary issue (common) in that all countries have the same issue. In light of the complexity of the issue, it was judged to be most practical to address it at a sub-regional level (Hilsa and Indian mackerel, respectively). Many management interventions are possible and the opportunity to learn from others is a major advantage (these could include zoning, gear restrictions, seasonal closures and/or setting up of protected areas or fish refugia). Specific measures will be identified through the establishment of regional and national fishery taskforces to include representatives from both sectors and the subsequent preparation of national and sub-regional fishery management plans. Better management in both sectors would benefit food security both through direct food/nutrition effects and through indirect effects of improved earnings and employment. With respect to the data/information system, the intention is to use the trans-boundary species as an initial means to promote more standardized and consistent data collection systems which can then be built on and applied to all species. The eventual long-term goal is to establish a more generic system for all countries in the future.*

Sub-component 2.4: Collaborative Critical Habitat Management.

Activities of this sub-component are broad and similar to establishing ICM programs at two pilot sites, each involving two countries. The activities include development of a systematic monitoring program but do not indicate specifically what is to be monitored. If monitoring focuses on critical habitats, then what aspects are to be included? It is assumed that the critical habitats will be monitored to track the effectiveness of public awareness raising, alternative livelihood creation and improved planning capacity. The two proposed pilot sites will make excellent case studies on the management of shared/migratory stocks and be well-connected to Sub-component 2.3.

Response by the project team: *Again the team agrees with the reviewer's observations. During project preparation there was not sufficient time to inventory all relevant data, sources and current monitoring programs, including in the latter case, national monitoring*

programs which might be adapted to the specific sites. However, major data gaps that were identified that need to be addressed to complete an environmental baseline at the sites include basic oceanographic parameters, fish larval patterns, presence and status of selected rare and endangered species, and the current regime under differing monsoonal conditions. However, while representatives from the countries' relevant main line technical agencies and marine laboratories participated actively in the preparation of this sub-component, time constraints prevented a larger technical workshop with other stakeholders which will be needed to finalize a number of aspects of the sub-component including the monitoring program. Moreover, given the likelihood that the recent tsunami has adversely affected a number of coastal/near-shore marine habitats in the proposed sites, there may be a need to adjust both baseline priorities (e.g., a need to resurvey selected critical habitat) and monitoring parameters and activities. Project design has provided the flexibility to adjust to any changes in the baseline and monitoring program resulting from wider consultation and/or a change in circumstances. Under the sub-component, support has been provided for the creation and periodic meeting of technical bi-national operations task forces that will provide the means to address and finalize these issues. In addition, a series of data workshops have been budgeted for in the sub-component to allow for researchers to coordinate, exchange, and interpret data from the participating sites. Regardless of possible changes needed to complete an environmental baseline and establish a monitoring program, which will be finalized in Project Year 1, the monitoring of status and change of critical habitats (primarily, coral reefs, marine grass beds, and mangroves) will likely be parameters to be included in any monitoring plan supported under this sub-component.

Component 3: Improved Understanding and Predictability of the BOBLME Environment.

Sub-component 3.1: Improved Understanding of Large-scale Processes and Dynamics affecting the BOBLME.

This activity is relevant and useful to a better understanding of large-scale environmental processes and does not take much of the total project cost. The identification of information gaps will help to steer future efforts that will synergize existing information.

Sub-component 3.2: Marine Protected Areas in the Conservation of Regional Fish Stocks

The activities proposed in this Sub-component are directed at a more comprehensive approach to the establishment of Marine Protected Areas (MPAs) for more effective management of fisheries stocks, particularly migratory species. They are straightforward and consistent with similar initiatives to create MPA networks that are known to me. The previous Sub-component will complement this to a large extent.

Sub-component 3.3: Improved Regional Collaboration.

While participation in relevant activities and processes of the listed programs/initiatives are to be supported, it is not clear what the level of involvement will be in order to ensure improved collaboration. Too often, participation is reduced to attendance at meetings of the other institutions, with collaboration restricted at best to mere information sharing. The budget for this component suggests that this is the proposed mode of collaboration for greater effectiveness; collaboration should extend to joint activities that capitalize on the

expertise/resources of different institutions so that limitation of funds becomes less of an obstacle to moving ahead.

Response by the project team: *Again the team agrees with the observation. It is the view of the team that the only way to achieve any significant impact on the “health” of a body of water as large and complex as the Bay of Bengal, will be to work in a close and collaborative fashion with other regional and global programs and projects in the Bay. That being said, identifying and negotiating these collaborative arrangements at the onset of project effectiveness, in the absence of well-established and recognized BOBLME institutional arrangements, constrains making substantial commitments in terms of resources at this time. Moreover, most of the project resources in Phase 1 are oriented towards foundation building with more substantial field activities likely to take place in the second and subsequent phases of the BOBLME Program. Furthermore, based on an initial evaluation of other relevant initiatives in the region, there remains a certain level of uncertainty with respect to their own status and next steps (e.g., GIWA). Finally, it was felt that there would be some difficulty in justifying the blocking of resources during this phase of the BOBLME Program for use in collaborative activities to be defined later in Project implementation. Despite these considerations, there have been a number of informal discussions with regional institutions with respect to possible roles in support of project implementation (ref. regional sub-contractors in the institutional arrangements proposed under the Project). These will be further defined in Project Year 1. In short, as the reviewer has correctly said, the focus of the 1st phase is to establish a permanent institutional arrangement in support of BOBLME objectives. In light of this priority, the team felt it was logical to provide the wherewithal to enable the regional coordinating unit (RCU) to reach out initially through attending of meetings and other similar mechanisms to more fully understand the range and nature of existing initiatives during the foundation building process. This in turn will provide a basis for building a more substantive collaborative approach in subsequent phases of the Program where field activities will become a much more significant part of project supported activities..*

Sub-component 3.4: Establishment of a Geo-reference Data Base.

This activity is essential to permanently archive the huge quantity of information to be generated from the program. Information retrieval will be facilitated and the production of regional data products will give participating countries a good sense of ownership and the benefits of participation.

Component 4: Maintenance of Ecosystem Health and Management of Pollution.

Sub-component 4.1: Establishment of an Agreed to Ecosystem Indicator Framework.

Environmental health indicators are important tools for managers. While water quality indicators are much established, ecological indicators that measure habitat quality are comparatively less defined or accepted. Still it will be a useful exercise if such indicators are developed for the region. Water quality criteria have been developed and adopted by the Association of South East Asian Nations (ASEAN) and can be considered by BOBLME nations, four of which belong to ASEAN.

Sub-component 4.2: Coastal Pollution Loading and Water Quality Criteria.

This Sub-component is timely and necessary to the SAP. A strong regional capacity to address marine pollution will contribute to a healthy BOBLME.

Component 5: Project Management.

Sub-component 5.1: Establishment of the RCU.

This Sub-component is estimated to take up 22.5% of the project funding. It is a major expenditure and should be considered carefully. Various alternatives to the establishment of an entirely new RCU were considered but analyzed to be unsuitable. There are advantages and disadvantages to setting up a new coordinating structure. These will have to be examined in greater detail and the final decision should be supported with stronger and more convincing justifications, including a cost-benefit analysis.

Response by the project team: *The team has been highly sensitive to this issue throughout the preparation process. As might be expected from a Program encompassing activities in eight countries with a considerable emphasis on, monitoring, evaluation and information dissemination, the cost of the project management component is significant (over 20% of the total). One factor which contributed to increased cost was a decision to increase project implementation from 5 to 6 years. Nevertheless, this is viewed as both warranted and realistic for a Program as complex as the BOBLME. Another factor contributing to cost is the inclusion of national counterpart management and coordination costs. In terms of the costs themselves, salaries and travel make up the greatest percentage. The number of expatriates (which may all be recruited from the region) have been cut to the minimum needed to ensure a technically sound RCU and still be able to call the BOBLME a regional project (3). Similarly, the travel budgeted for an 8 country regional project is not viewed as excessive. Finally, it should be noted that the countries have contributed significantly in both cash and in-kind, particularly India as host country, in covering the partial costs of the sub-component. Although careful attention was given to assessing alternative management structures, it should be stressed that there is no existing institutional structure within the region capable of taking on this role. The structure established for the purposes of implementing the PDF-B retains only a single national staff member at this time. Among the alternatives evaluated were: (i) incorporating BOBLME management within the Chennai-based BOBIGO; (ii) basing the management unit at FAO Regional headquarters in Bangkok; and (iii) basing the management unit within one of the regional fisheries or coastal research organizations. It was concluded that although the BOBIGO might offer a long term sustainable solution to BOBLME management, the current restricted membership (only three of the eight participating countries) render it infeasible as a host at this time. The utilization of FAO offices, while reducing initial investment costs, would do little to cut annual operating budgets and would risk significantly reducing the role of participating national countries in management and hence long term sustainability.*

Sub-component 5.2: Monitoring and Evaluation System.

This is certainly necessary to ensure that project targets are met and progress is as planned. The proposed activities are relevant.

Sub-component 5.3: Project Information Dissemination System.

This Sub-component is as important as the previous.

Identification of the global environmental benefits and/or drawbacks of the project.

The benefits will be a healthier and better managed BOBLME where improved sustainability will contribute to poverty alleviation of rural coastal communities and enhanced food security. The drawbacks include the lengthy process to develop an effective regional mechanism and acceptance by various stakeholders, but it has to start sometime. The project brief (p.2, 3rd paragraph) states that a critical barrier to addressing the key issues of unsustainable harvesting and habitat degradation is the weak and/or inappropriate policies, strategies and legal measures that characterize much of the region. “Where these do exist, they are rarely enforced”. How confident can we be of situation improvement resulting from better policy formulation when the present weakness of enforcement and/or surveillance remains unaddressed?

Response by the project team: *It is the team’s view that sound policies are a prerequisite to improved surveillance and enforcement. It makes little sense to support increased enforcement capacity if what is being enforced is non-sustainable. It is felt, with strong support from the countries, that project support for a thorough review of “lessons learned” in the region, coupled with increased awareness among decision-makers and rural fisher communities alike, provides a sound basis for beginning to get the policies “right.” This will be further supported, by the establishment of a data portal designed to facilitate information exchange within the region, initially focusing on fishery legislation and policies and, dependent on its success, broadening the portal to include information and data relevant to other Project-relevant themes. Finally, project resources have been provided to promote the pilot the implementation of new policies where opportunities arise and the countries are in agreement. Once the “right” policy framework is in place, greater emphasis can be focused on increasing the efficacy of their implementation, most likely in the Program’s 2nd phase where field activities are more likely to predominate. Finally, despite the emphasis on foundation building in this initial phase of the Program, there are a number of field oriented pilot activities (e.g., preparation and implementation of regional and sub-regional fishery management plans, sub-regional management of transboundary critical habitat, and pollution “hotspot” monitoring). Where monitoring and enforcement are identified as major constraints in these activities, it is expected that project resources would address these issues as warranted.*

How the project fits within the context of the goals of GEF, as well as its operational strategies, program priorities, GEF Council guidance and the provisions of the relevant conventions.

The project is highly relevant to GEF goals. The performance indicators have been selected to reflect environmental quality improvement, enhanced capacity of participating countries, an effective collaborative mechanism and poverty alleviation.

Regional context.

The project includes all the countries around the large marine ecosystem of the Bay of Bengal and the regional context is relevant and well defined.

Replicability of the project (added value for the global environment beyond the project itself.

The institutional framework model that will be developed can certainly be replicated and applied to other LMEs. The project itself has pilot sites for the demonstration of sub-regional and bilateral arrangements and these in themselves can be replicated across BOB.

Sustainability of the project itself.

The development of the collaborative mechanism is a confidence-building measure that will increase resolve among participating countries to manage and improve the environmental quality of the Bay. Progress and success of initial activities will help to maintain interest that should contribute to project sustainability.

SECONDARY ISSUES

Linkages to other focal areas.

The project covers many of the main issues linked to ICM and LME management. It should help countries to meet with commitments to international conventions and agreements dealing with the marine environment.

Linkages to other programs and action plans at regional or subregional levels.

There are many programs and initiatives operating in the Bay of Bengal and functional linkages with these are important if action is to be synergized and overlapping activities minimized.

***Response by the project team:** We fully agree and have attempted to reflect that in project philosophy and design. See remarks under sub-component 3.3, above.*

Other beneficial or damaging environmental effects.

The project has only beneficial effects to the environment. No damaging effects on the environment are apparent except for delays in project implementation.

Degree of involvement of stakeholders in the project.

There is a high degree of engagement with various stakeholders and a consultative approach is adopted in the project. There is a lot of consensus building involving stakeholders.

Capacity-building aspects.

When adopted and established by participating nations, the regional mechanism will increase the capacity of these countries to manage the marine environment more effectively and improve capability to address transboundary issues.

Innovativeness of the project.

There is not much in the way of innovation. Models exist elsewhere on the process of developing a regional mechanism for improved management of a large marine ecosystem. None is in place for the BOBLME.

***Response by the project team:** We fully agree. A major factor which influenced project design, supported with very explicit guidance from the participating countries, was not to place the focus and budget of the Project on promoting new, innovative approaches to manage the BOBLME and its resources. Rather it was to consolidate the already large and diverse experiential data base that exists throughout the region, distill relevant “lessons learned” and support its further replication and deepening in the BOB area. Further, while the creation of a regional approach to managing the BOBLME in itself may not be considered particularly innovative, the establishment of a well-recognized and appropriate institutional arrangements to facilitate a regional approach among the countries to address transboundary issues was felt by most to be the highest priority. Finally, while arguably not particularly novel, Project support for the promotion of collaborative approaches among two or more countries to address critical protected areas, transboundary fish stock management, common environmental health protocols and pollution monitoring will be new to the region.*

ADDITIONAL REMARKS

It is already accepted that regional approaches are necessary for the management of the marine environment and to cope with its open and interconnected nature. Regional collaboration not only improves capacity to address transboundary issues, but also enhances management at national and local levels. Effective regional mechanisms can help to facilitate sharing of responsibilities and improve surveillance and enforcement across territorial boundaries, reducing helplessness at national levels against, for example, foreign poachers. Such a network will strengthen management throughout the region.

The recent Asian tsunami disaster provides a clarion call for the strengthening of regional co-operation. If already established, the regional institutional set-up can help to rehabilitate the thousands of displaced and affected fishers who survived the calamity. Even without natural

disasters of such unprecedented magnitude, the rates of habitat degradation and fisheries resource depletion are sufficiently serious to warrant immediate attention.

Response by the project team: During the preparation of the FTDA, the occurrence of natural hazards generally and tsunamis specifically, were not identified as a priority. This situation changed dramatically on 26 December 2004. We fully appreciate the magnitude and gravity of the recent tsunami on the peoples of the region and spent a good deal of time, given the project objectives, potential funding source, and status of project preparation, on how best to respond. As a result, the BOBLME proposal, which had been prepared and endorsed by the countries pre-tsunami, was reassessed to ascertain where meaningful and compatible contributions could be made in a timely manner. A number of opportunities in the proposed Project were identified which could easily be adapted to reduce vulnerability in rural coastal communities to natural hazards (for example by support for vulnerability mapping and improved local use planning in the Project's GIS and Policy formulation sub-components, respectively). An important additional need was identified, namely to establish a new, post-tsunami environmental "baseline" which has now been included under the TDA sub-component through a comprehensive assessment of critical coastal habitats. This will provide a key input into other on-going and proposed coastal community and livelihood assessments to ascertain impacts on future income and well-being of affected populations. Finally, dependent on the priorities of the countries, there could be the possible inclusion of a second tier Early Warning System (EWS), designed to expedite the transfer of hazard relevant information from national information nodes (typically located in the capital cities) to vulnerable rural coastal communities. In light of the number of current activities and the rapidly changing situation in the tsunami-affected areas, flexibility has been built into the Project so as to allow further definition of BOBLME-supported activities as the situation evolves. What is important, however, is early action on the approval of the Project to ensure that BOBLME plays a meaningful role in the future assessment and rehabilitation and management effort. An operational BOBLME would also provide the framework of an ecosystem approach and sustainable fisheries management, a framework in which many donors that are providing emergency and rehabilitation relief are interested in collaborating. Once approved and operational, a regional workshop proposed under the TDA sub-component (sub-component 1.1) would provide a means to better assess how the Project can better contribute to other on-going and planned activities.

Project implementation.

The process and mechanism are clearly outlined. Support from the participating countries is important to the successful implementation of the project and this has already been demonstrated in the project's preparatory phase.

Project future.

Much depends on the commitment of participating countries. This again has already been demonstrated in the preparatory phase with countries contributing in cash and kind to the development of the project proposal.

(b)