

## PROJECT BRIEF

### 1. IDENTIFIERS:

**PROJECT NUMBER**

**PROJECT NAME**

Environmental Protection and Maritime Transport Pollution Control in the Gulf of Honduras

**DURATION**

Five Years

**IMPLEMENTING AGENCY**

Inter-American Development Bank (IDB)

**EXECUTING AGENCY**

**REQUESTING COUNTRIES**

Belize, Guatemala, Honduras

**ELIGIBILITY**

The countries are eligible under paragraph 9(b) of the Global Environment Facility (GEF) Instrument. The Strategic Action Programme is consistent with the relevant provisions of regional and global Conventions relating to International Waters to which the countries are signatories and/or contracting parties.

**GEF FOCAL AREA**

International waters

**GEF PROGRAMMING FRAMEWORK**

OP-10

### 2. Summary

This project proposal for the environmental management of the Gulf of Honduras (GOH), "Environmental Protection and Maritime Transport Pollution Control in the Gulf of Honduras," has a primary focus on demonstration of new and mixed technologies to address some of the major environmental problems and issues of the Gulf leading to the degradation of marine and coastal ecosystems by human activities. The long-term goal of the project is to reverse the degradation of the coastal and marine ecosystems by enhancing the control and prevention of maritime transport-related pollution in the major ports and navigation lanes, improving navigational safety to avoid groundings and spills, and reducing land-based inputs to the adjacent coastal and marine areas within the Gulf of Honduras. These issues have been identified as Major Perceived Problems and Issues (MPPI) during the TDA process. Chemical spills, collisions, and ship groundings occur in this region due to lack of capacity and lack of demonstration of both innovative and available technologies to minimize these events through regional cooperation. At risk are the extensive barrier and patch reefs, sea grass meadows, mangrove forests, and their associated biodiversity (including the dugong and manatee). The Project has four main components with associated objectives identified by the root cause analysis carried out during the project preparation process: (i) *Building regional capacity for maritime and land-based pollution control in Central America*; (ii) *Creating, analyzing and distributing marine environmental information and contributing to demonstration of new technologies to address a strategic action programme for the Gulf of Honduras*; (iii) *Enhancing navigational safety in shipping lanes*; and (iv) *Improving environmental management in the regional network of five ports within the Gulf of Honduras*. The activities to be undertaken will complement other projects in the region to provide a strong foundation for the long-term sustainable environmental management of the Gulf of Honduras. In particular, the present, transport-related project focus complements the ongoing MesoAmerican Barrier Reef System (MBRS), which is addressing other regional aspects of the GOH environments. A preliminary Transboundary Diagnostic Analysis (TDA) has been prepared and serves as the basis for preparation of this project proposal. The full Global Environment Facility (GEF) project will update and expand the TDA, and will contribute to a regionally agreed SAP (prepared in cooperation with MBRS), following clarification of some aspects of the environmental status of the region as well as building grounds for SAP implementation. The present project is consistent with the GEF International Waters Focal Area- Strategic Priorities in Support of World Summit on Sustainable Development (WSSD) outcomes for FY 2003-2006.

### 3. Costs and Financing (Million US \$)

		US\$
<b>GEF:</b>	Full Project	: 4,892,108
	PDF – B	: 500,000
		:
	<b>Subtotal GEF</b>	: <u>5,392,108</u>
<b>Co-Financing:</b>		
	<b>PDF – B</b>	
	Governments (in cash and kind)	: 0
	<b>Full Project</b>	
	Governments (in cash and kind)	: 2,452,485
	USAID/ PROARCA	: 1,220,010
	IMO	: 125,000
	MACHC	: 335,000
	COCATRAM	: 432,000
	TBD	: 1,702,480
	Private Sector (Ports)	: 328,660
	<b>Subtotal Co-financing</b>	: <b>6,595,635</b>
	<b>Total Project Cost</b>	: <b><u>11,987,743</u></b>

### 4. Associated Financing (Million US \$):

Governments (baseline)	: 46,425,389
<b>TOTAL</b>	: <b><u>58,143,132</u></b>

## **5. GEF Operational Focal Point Endorsements**

**Belize:** Nancy Namis, Chief Executive Officer, Ministry of Economic Development  
Date:

**Guatemala:** Licenciada Enma Díaz, Vice-Minister, Ministry of Environment and Natural Resources  
Date:

**Honduras:** Patricia G. Panting, Minister, Ministry of Natural Resources and Environment  
Date:

## **6. Implementing Agency Contact:**

Ms. Michele Lemay. - Interamerican Development Bank

## ACRONYMS

ACDI	Canadian Agency for International Development
ALIDES	Alliance for Sustainable Development
CAPAS	Central American Protected Areas System
CEP	Caribbean Environment Programme
CCAD	Central American Commission on Environment and Development
CESSCO	Centro de Estudios y Contaminantes
CICAD	Central American Interparliamentary Commission on Environment and Development
CIDI	Inter-American Council for Integral Development
COCAAP	Central American Commission on Port Authorities
COCATRAM	Central American Maritime Transport Commission
COMITRAM	Consejo Sectorial de Ministros de Transporte de Centroamérica
CZMAI	Coastal Zone Management Authority and Institute
DGMM	Merchant Marines
EIA	Environmental Impact Assessment
EMPORNAC	National Port Authority - Guatemala
ENP	National Port Authority - Honduras
EQO	Environmental Quality Objective
FAO	Food and Agriculture Organization of the United Nations
FECAMCO	Federación de Cámaras de Comercio de Centroamérica
FECAEXCA	Federación de Cámaras de Exportadores de Centroamérica
GEF	Global Environment Facility
GIWA	Global International Waters Assessment
IA	Implementing Agency
IALA	International Association of Lighthouse Authorities
IDB	Inter-American Development Bank
IHO	International Hydrographic Office
IMDG	International Maritime Dangerous Goods
IMDS	Mesoamerican Sustainable Development Initiative
IMO	International Maritime Organization
IPC	Inter-American Port Commission
ISP	Inter-American Strategy for Participation
IW:LEARN	International Waters (IW) Learning, Exchange and Resource Network Program
MACHC	Meso-American Commission for Hydrography and Charting
MARENA	Ministry of Environment and Natural Resources
MARPOL	International Convention for the Prevention of Pollution from Ships
MBRS	MesoAmerican Barrier Reef System
MIF	Multilateral Investment Fund
MPPI	Major Perceived Problem and Issue
NAP	National Action Plan
NAVO	U.S. Naval Oceanographic Office
NGO	Non-governmental Organization
NOAA	National Oceanic and Atmospheric Administration
OAS	Organization of American States
OMI	International Maritime Organization
OPRC	Convenio Internacional sobre Cooperación, Preparación y Lucha contra la Contaminación por Hidrocarburos
PARCA	Central American Regional Environmental Plan
PCU	Project Coordination Unit
PDF	Project Development Facility
PNUMA	Same as UNEP, below (in Spanish)
PPM	Project Planning Matrix

PPP	Plan Puebla Panama
PROARCA	Programa Ambiental Regional para CentroAmérica (Regional Environmental Program for Central America)
PROLEGIS	Harmonized Environmental Legislation Program (PROARCA)
RAP	Rapid Assessment of Point Sources and Non-Point Sources
REPICA	Meeting of Port Authorities of the Isthmus of Central America
ROCRAM-CA	Operating meeting on regional cooperation of maritime administrations of Central America
SAP	Strategic Action Programme
SENA	National Secretary of the Environment
SERNA	Secretariat for Natural Resources and the Environment (Honduras)
SICA	Central American Integration System
SINEIA	National System of Environmental Impact Assessment
SOPTRAVI	Secretariat of Public Works, Transportation and Housing
TAG	Technical Advisory Group
TDA	Transboundary Diagnostic Analysis
TRIGOH	Trinational Alliance for the Gulf of Honduras
TPR	Tri-Partite Review
UNAM	Universidad Autónoma de Honduras
UNCLOS	United Nations Convention on the Law of the Sea
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
USAID	United States Agency for International Development
USGS	U.S. Geological Survey
USUARIOS	Central American Federation for Advice on Uses of International Transport
VTS	Vessel Tracking System
WWF	World Wildlife Fund
ZOLIC	Industrial and Commercial Free Zone

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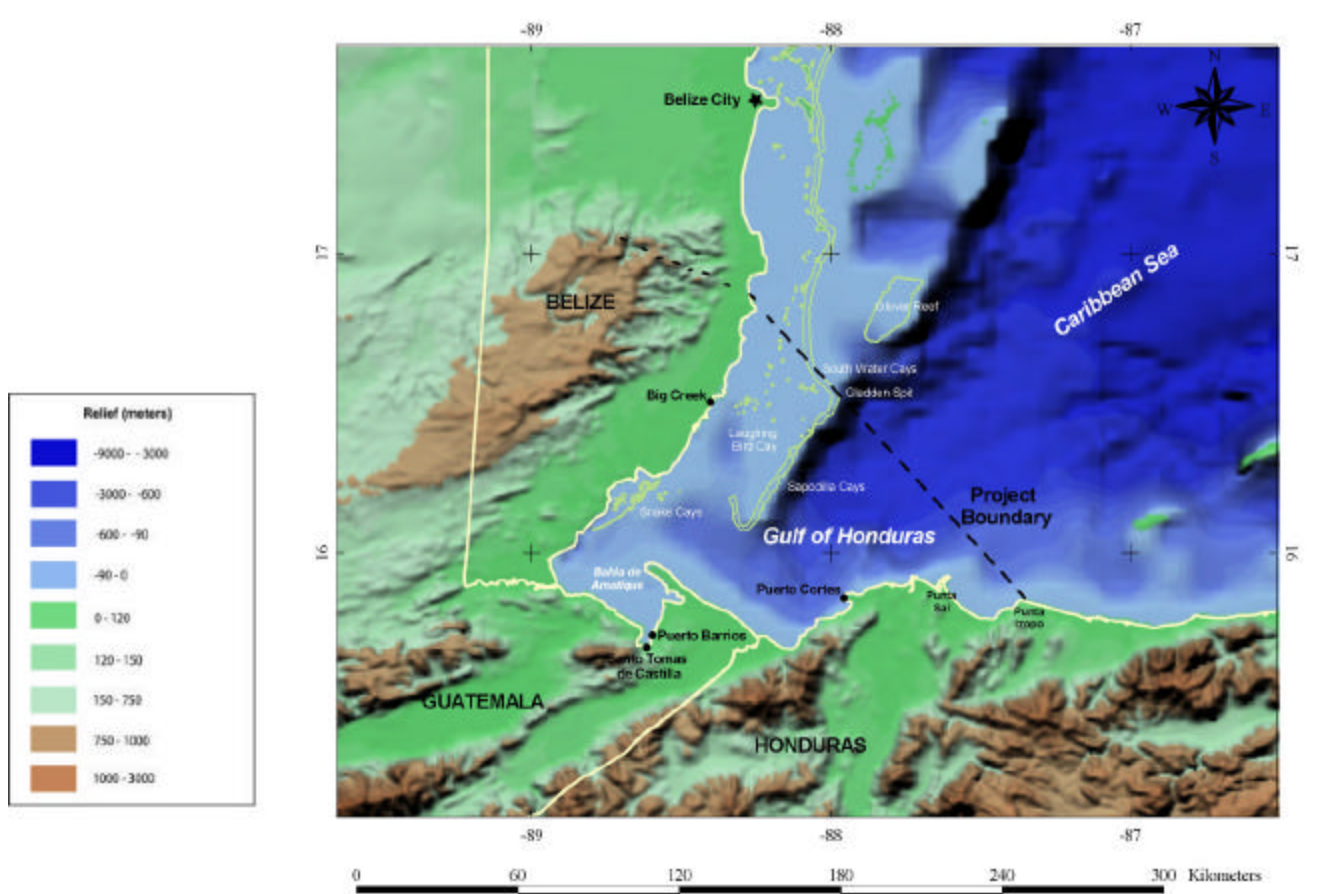
**BACKGROUND AND CONTEXT – BASELINE COURSE OF ACTION**

**INTRODUCTION**

1. The Project Area for the proposed GEF project includes the Gulf of Honduras, as well as the watersheds in Belize, Guatemala, and Honduras that contribute to the Gulf (Figure 1). The Project Area extends from Punta Isopo, in the southeast, northwest towards the Port of Belize, inwards along the northern border of the Maya Mountains watershed, southwestward along the various watersheds of Belize, into the Sarstoon, Laguna Izabal, and Motagua watersheds in Guatemala, and the Ulua, Lean, Cuyamel, and Chamelecon watersheds in Honduras, and finally reaching the coast once again at Punta Isopo. The Gulf of Honduras covers approximately 10,000 square kilometers, and the watersheds make up some 53,700 km<sup>2</sup>, with roughly 5,800 km<sup>2</sup> in Belize, 18,300 km<sup>2</sup> in Guatemala, and 29,600 km<sup>2</sup> in Honduras.

The western portion of the Gulf is lined by the MesoAmerican Barrier Reef Complex, the second largest barrier reef system in the world. The complex interaction of open ocean waters, coastal waters, and riverine flows is reflected in the varied ecosystems that contribute to the region’s valuable ecological diversity. The shallow waters of the Gulf provide refuge for marine species, such as commercially exploited populations of shrimp, spiny lobster, conch and finfish, as well as the Caribbean’s largest population of West Indian manatee. The Gulf’s watershed is culturally diverse, with large populations of Garifuna, Mestizos, Mayans and Creoles, and important archaeological sites.

**Figure 1. The Gulf of Honduras**



2. In 2000, 11.4 million people lived in Guatemala, 6.4 million in Honduras, and 0.2 million in Belize (UNDP 2002 Human Development Report). Between 2000 and 2015, the populations are to expected to grow 1.6%, 2.4%, and 2.0% annually in Belize, Guatemala, and Honduras, respectively. In 2000, approximately 12.4 million people lived in the Gulf of Honduras watershed, representing roughly 70 percent of the population in the three countries. Most people live in rural areas, with a few exceptions. Approximately 2 million people in the watershed live in the large urban centers of Guatemala City, Guatemala and San Pedro Sula, Honduras, with several smaller population centers located in the Gulf of Honduras coastal zone, directly affecting the coastal and marine ecosystems. Roughly half a million people live along the coast of the Gulf of Honduras. Nevertheless, the population density in this coastal zone is relatively low.

The three countries are at varying stages of economic and political development. Belize enjoys relatively high human development, with GDP per capita of over \$5600 annually and average life expectancy over 74 years, with political stability. However, the area of Belize located within the Gulf of Honduras watershed is largely rural, and the population is under-educated and impoverished compared with the rest of the country. Guatemala, with an annual per capita GDP of approximately \$3800, is less developed than Belize and has experienced considerable political turmoil following a 36-year civil war. Even though the country has the largest economy in Central America, a high percentage of all Guatemalans live below the poverty level, with the wealth in the country distributed unequally. Honduras in recent decades has suffered as a result of its proximity to the conflicts in Nicaragua and El Salvador, and most recently from the devastating Hurricane Mitch in 1998, which caused almost \$1 billion in damage and killed approximately 5,600 people. The country's current annual GDP per capita is approximately \$2,400.

3. The poverty experienced in much of the Gulf's watershed, compounded by relatively high population growth rates, has resulted in the overuse and misuse of the region's terrestrial, coastal and marine resources. The economy of the watershed is based largely on agricultural production, with coffee and bananas serving as two of the region's most significant exports. In coffee and banana production, intensive methods are used that include fertilizers and other chemicals that runoff and flow into waterbodies, causing increasing algae formation and the potential for dissolved oxygen depletion. Additionally, a large percentage of the population is engaged in small-scale or subsistence farming. Slash and burn methods have often been used, resulting in high rates of deforestation, and increased runoff causing higher peaks in water flow after storms in areas of the watershed. Logging, often uncontrolled, in upper watersheds has degraded coastal areas by causing siltation of rivers and coastal waters that reduces productivity and smothers coral reefs. Reduction of water clarity due to high sediment loads also affects sea grasses, an important habitat in the Gulf. Overfishing and aquaculture are another source of degradation of the sensitive habitats and species of the region. Fish stocks in the area, particularly in Belize, are under increasing pressure and many commercial species, such as finfish, conch, and lobster are overexploited.

4. Increasingly, land-based sources of pollution related to industrial, mining and tourism activities are also becoming more significant. Agro-processing, textile and chemical industries, such as the ones in the areas of San Pedro Sula in Honduras and Guatemala City, contribute effluents that can reach the Gulf through the rivers of the Chamelecon and Motagua watersheds, respectively. As the infrastructure does not exist to adequately handle industrial waste and wastewater, the Gulf has been contaminated with chemicals, heavy metals and petroleum products. These and other activities, such as the exploitation of oil in Laguna Izabal in Guatemala, are projected to increase in the future. Increased tourism and its associated coastal development also affect habitats in the Gulf of Honduras region, particularly in Belize, as well as in coastal areas of Guatemala and Honduras. This has multiple consequences. Mangroves and coastal littoral forests have been destroyed to make way for hotels and other tourism infrastructure, and the clearing of vegetation and dredging has led to increased sedimentation. Untreated sewage and wastewater from these new developments causes nitrification, and garbage disposal from tourist boats and coastal development is often inadequate resulting in solid waste entering waterways, further decreasing watery quality.



5. The growing economic activity in the region is affecting the marine and coastal ecosystems by increasing port and shipping operations in the Gulf. This marine transport has been identified as one of the major regional problems for the environment. National economic plans include expansion of the marine transport sector to help revive the economies. In 2001, almost 6,000 ships passed through the five ports included in this project and the trends indicate that this number will continue to increase. Not only are there more ships entering the ports now, but they are also larger than before. As the volume of goods increases, shipping companies are moving towards using deeper draught ships. This is resulting in plans to expand current port operations and dredge deeper channels in order to accommodate the larger vessels. The major port facilities on the Gulf of Honduras are Puerto Cortés in Honduras, Puerto Barrios and Puerto Santo Tomás de Castilla in Amatique Bay in Guatemala, and Big Creek in Belize. The Port of Belize City, while located north of the Gulf of Honduras, is also included in this project due to the potential for spills occurring at or near this port to affect the Gulf of Honduras as a result of the prevailing oceanographic currents. Table 1 shows the cargo activity (metric tons) for each of the five ports in the regional part network, for each of the past seven years. These figures show a clear increase on port activity. Table 2 summarizes the most recent import and export statistics available for the ports in the region divided between hazardous and non-hazardous cargo.

**Table 1: Cargo Imported/Exported through Gulf of Honduras Ports Annually (metric tons)**

	1996	1997	1998	1999	2000	2001	2002
Belize City Port	449,378	487,099	504,450	578,407	610,505	704,837	n/a
Big Creek	65,868	57,774	57,683	64,157	134,621	90,232	n/a
Santo Tomas de Castilla	3,185,949	3,775,375	4,437,009	4,255,514	4,349,697	4,245,118	4,800,027
Puerto Barrios	n/a	n/a	n/a	n/a	n/a	1,679,700	1,353,113
Puerto Cortes	3,992,700	4,677,800	5,091,100	4,977,360	5,398,290	5,661,940	n/a

**Table 2. Annual Average Imports and Exports from Ports in the Region (metric tons)**

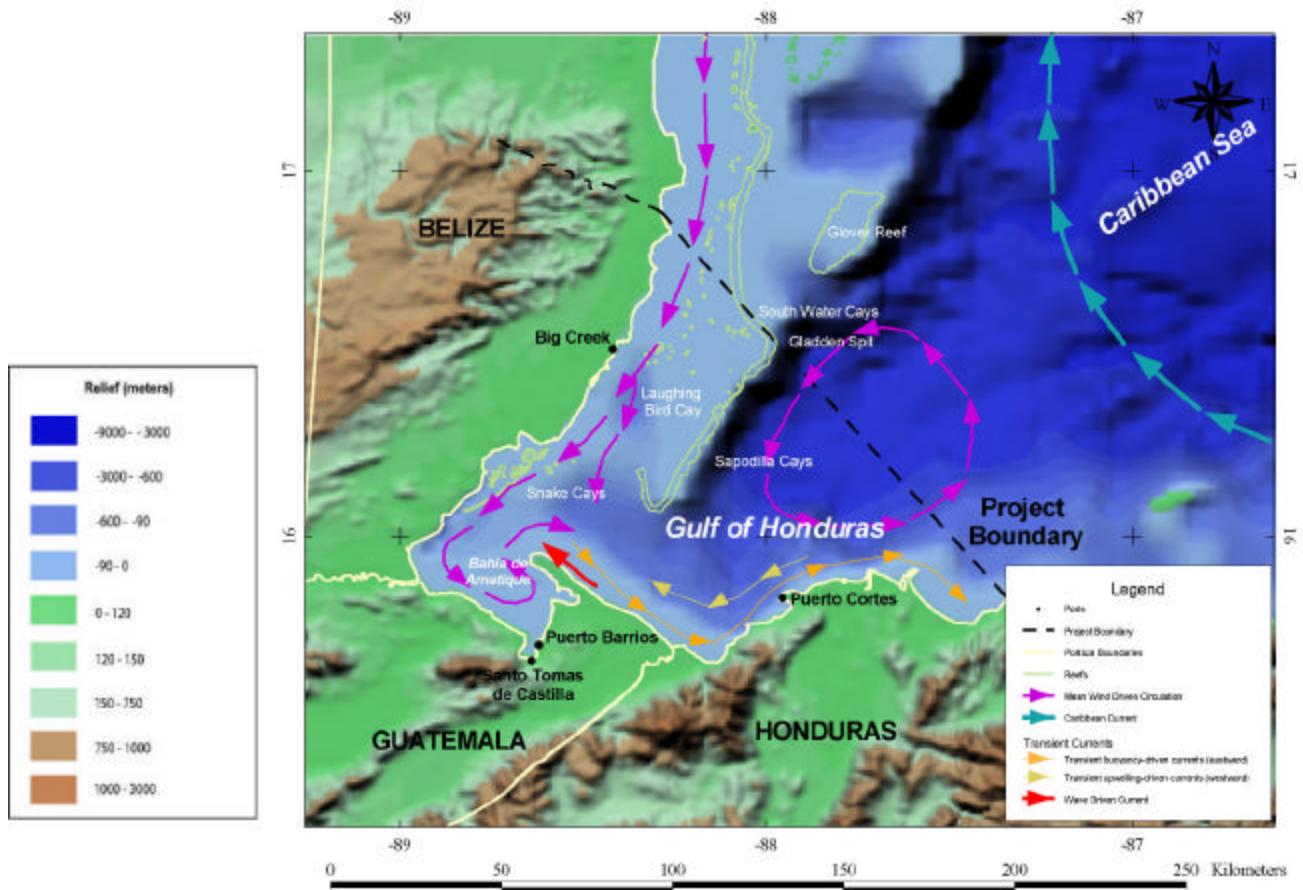
Cargo	Sub-type	Belize	Guatemala	Honduras
Hazardous		187,364	2,379,181	1,140,447
	Petroleum	187,352	2,094,003	1,065,834
	Non-Petroleum	12	285,178	74,613
Non-Hazardous		624,958	4,466,583	4,022,694
	Banana	45,140	853,648	355,873
	Non-Banana	579,819	3,612,935	3,666,821
Total		812,322	6,845,764	5,163,141

6. In addition to cargo going to and from the ports, traffic volume has been increased greatly by cruise ship activity. In the Port of Belize City, cruise ship activity has more than tripled each of the past few years. Plans for dredging a long navigation channel to bring cruise ships directly to the Port of Belize are in their final stages.

7. The Gulf of Honduras is a shared maritime body linked through oceanographic processes. There is great interconnectivity between the ecosystems, with the integrity of each ecosystem dependent on the health and influence of adjacent ecosystems. Environmental problems in the Gulf of Honduras are highly transboundary due to the oceanography of the waterbody. There is a persistent counter-clockwise long-shore flow over the shelf with a current speed of about 0.1 – 0.2 m/s, best pronounced off the coast of Belize (Figure 2). During summer months, the buoyancy-driven counter-clockwise coastal flow adds to the wind-driven current. During winter months, the buoyancy-driven

circulation is at a minimum and the trade winds may induce coastal upwelling off the coast of Honduras with its associated westward long-shore flow. The open sea boundary is under the influence of a quasi-permanent cyclonic eddy generated in the southeast corner of the Cayman basin due to interaction of the Caribbean Current with the coast of Central America and wind. As a result of the prevailing oceanographic currents, the region is highly susceptible to marine pollution incidents. As maritime traffic and port operations within and beyond the Gulf continue to rise, the potential for catastrophic accidents, as well as chronic pollution, increases. As is discussed in more detail in the preliminary TDA, a spill or pollution incident in one area of the Gulf could quickly spread to other areas including the MBRS, and it could have a devastating impact on sensitive habitats, threatening fisheries resources and tourism.

**Figure 2. Oceanographic Currents in the Gulf of Honduras**



8. Marine transport has important environmental consequences, because the ports in the region are adjacent to important and sensitive ecosystems. Daily port operations as well as the risk of ship collisions or large oil spills pose a risk to coastal ecosystems, particularly in the semi-enclosed Bay of Amatique. Guatemala registered 12 accidental spills between 1975 and 2002, for the most part at Santo Tomás de Castilla, with Puerto Barrios reporting a spill of fuel oil and sludge that occurred as a result of a collision of a vessel with a pier in 1993. In Puerto Cortés, although no oil spill accidents were reported in its bay between 1994 and 2002, some accidents have occurred, at the companies adjacent to the port's facilities. Currently, there are only limited environmental management systems implemented in some of the ports included in this study, thus compounding the potential impact of a spill. In addition to activities at the ports, the threat of oil and chemical spills resulting from navigational risks is quite serious in the Gulf of Honduras. Due to the limited accessibility of Puerto Barrios and Puerto Santo Tomás de Castilla in Guatemala within the inner section of the Bay of Amatique, the risk of collisions and groundings is significant. This risk is increased by the shallow depths and narrow width of the navigation channels (on the average only 90 m wide and 11 m deep, while many ships have drafts of up to 10.5 m). The potentially extreme weather in the region, including frequent hurricanes, threaten, maritime safety. The age, type and maintenance of the ships entering the Gulf of Honduras ports also play a part, as does the training of the ship crewmembers. The need for improved navigational safety is widely recognized, including better communication systems and infrastructure, as well as the capability to update bathymetric maps. Spills occurring in the Gulf, particularly in the Bay of Amatique, have the potential to devastate nearby sensitive habitats.

9. The Gulf supports a wealth of marine fishes and mammals, some of which are endangered, such as the manatee. Amongst the western Caribbean coastal waters, the Gulf of Honduras is marked by richness in coral, seagrass, and mangrove habitats, which are among the most productive ecosystems on the planet, in terms of average net primary productivity. The productivity of the Gulf is due to rivers transporting nutrients from the land, the nutrients from the open sea (upwelling), and the close proximity of the swampy mangrove areas, the seagrass beds and the coral reefs. These ecosystems are linked to one another in biologically important ways. The mangroves reduce the amount of sediment transferred to seagrass beds and coral reefs. At the same time, coral reefs reduce wave energy and thereby help to establish conditions favorable for the establishment of mangrove stands.

However, the land-based and marine-based anthropogenic activities taking place in the Gulf and its watershed are degrading coastal and marine ecosystems, and leading to a critical loss of habitat. The causes are diverse. Recreational boats and commercial ships have hit and broken coral reefs. Increased agricultural and commercial development have resulted in significant losses of mangrove forests. Industrial, agricultural, and touristic development have contributed toxic pollutants, sewage, and excessive nutrient loads, leading to eutrophication, loss of dissolved oxygen, and siltation, among other problems. Forest cutting and poor watershed management have also led to greatly increased siltation. In order to help preserve the wealth of terrestrial and marine species in the region, Belize, Guatemala and Honduras have established a great many protected areas which most of them are found within the Gulf of Honduras watershed. Belize has designated 50 protected areas nationally; in Guatemala 120 protected areas has been designated covering around 30% of the country's territory. In Honduras, 102 protected areas cover roughly 27% of the national territory.

10. The region has four Ramsar sites located within it:

Guatemala:	Punta de Manabique
Honduras:	Parque Nacional Jeanette Kawas
	Refugio de Vida Silvestre Punta Izopo
	Barras de Cuero y Salado.

11. Recognizing the need to address priority transboundary concerns in the Gulf, the littoral countries worked with the IDB to propose an initiative on environmental protection and maritime transport pollution control in the Gulf of Honduras focusing on demonstrations of innovative

technology mixes. This proposal resulted in a Global Environment Project Development Facility Block-B (GEF PDF-B) grant, which facilitated the development of a Preliminary Transboundary Diagnostic Analysis (TDA) and the development of this Project Brief. The TDA identified the supra-national threats and responses. Risk assessment criteria were applied to identify priority regional threats, responses, and targets.

12. The project aims to contribute to a regionally agreed Strategic Action Programme (SAP) for the integrated management of port and marine transport activities in the Gulf of Honduras and at building the grounds for its implementation. It is envisioned that the SAP will be developed jointly with the MBRS project. At the same time, this project aims to fully assess the risks from land-based sources of pollution compared with those from port and maritime operations through the development of a final TDA, and address limited areas of land-based sources of pollution not being adequately focused on by other projects (such as MBRS). The goal is to enhance the ability of the countries to plan for and manage current and future port and marine operations and land-based activities, so that they will be done on a sustainable basis. The project will address such issues as the lack of capacity, poor coordination, overlapping responsibilities, sectoral approaches to port and marine operations control, and inadequate enforcement of laws within participating states.

#### GEF PROGRAMMING CONTEXT

13. The programming context and the design of the present project is directed to the GEF Operational Programme #10 which states: "In the Contaminant-Based Operational Program, the GEF includes projects that help demonstrate ways of overcoming barriers to the adoption of best practices that limit contamination of the International Waters environment. Four components characterize the range of projects in this operational program. One set includes a set of limited demonstration projects for addressing land-based activities while others include projects related to contaminants released from ships, persistent toxic substances such as persistent organic pollutants (POPs), and targeted regional or national projects useful in setting priorities for possible GEF interventions, meeting the technical needs of projects in the focal area, or distilling lessons learned from experience (para 10.2)." The present project proposal meets these requirements and will assist the countries of the Gulf of Honduras to address contaminants released from ships, as well as important land-based activities.

14. The Concept for this project began in the mid-1990's, as COCATRAM, TRIGOH, and other regional entities recognized the need to focus on marine transport issues to protect the sensitive receptors-at-risk (coral barrier reef, seagrass beds, mangroves, and sensitive species). Although the present project has expanded to address land-based activities as well as marine-based, elements of the original concept remain the same.

15. The project is essentially regional and transboundary in nature and will enable the states of the basin to build new and improve on existing regional cooperative frameworks, ensure adherence to international conventions, as well as strengthen national laws, regulations, and management regimes to improve the likelihood of sustainability of resource use and reduce existing and potential degradation. The implementation of this project, and ultimately the SAP, will result in regional, and by extension global, environmental benefits through protection of international waters, their resources, and sustainable use of resources in conformity with the objectives of GEF Operational Program 10, i.e., "to develop and implement International Waters projects that demonstrate ways of overcoming barriers to the use of best practices for limiting releases of contaminants causing priority concerns in the International Waters focal area, and to involve the private sector in utilizing technological advances for resolving these transboundary priority concerns (para 10.3)."

16. Under the Contaminant-Based Operational Programme 10, several outputs from the Ship-Related Contaminants Component projects are envisaged. This includes the implementation "of measures to prevent the transfer of non-indigenous species in ship ballast water, demonstration of new technology to help ships avoid collisions in busy corridors and the implementation of measures to

prevent unauthorized releases of contaminants while leveraging private sector investment. The new information technology may discourage releases of oil and non-degradable waste, and provide a means of determining whether ballast water was exchanged in accordance with best practices to prevent transfer of species and to address MARPOL issues. Once barriers to use of the new technology are overcome, efficiency gains and reduced insurance costs may raise the profits of the private sector and some of these profits might contribute to financial sustainability following the end of GEF involvement (para 10.16).”

17. The project proposed will address all of the above points. Implementation of the final SAP will thus assist in the conservation of natural resources and assist the countries in complying with their national and regional obligations under various international conventions. At a global level, the project and its SAP join regional and national activities into a coherent component of the global environmental protection effort. The projects will have global benefits as port operations, safe navigation, and water quality are improved, protecting valuable and unique habitats and the biodiversity in the region.

18. The present project also is consistent with the recent Draft GEF International Waters Focal Area- Strategic Priorities in Support of WSSD Outcomes for FY 2003-2006. This document lists various priorities, including:

- **Priority D.** *Test the viability of technologies and innovative approaches for preventing the releases of contaminants from land-based and ship-based sources and for addressing competing uses of water resources under conditions of fluctuating climate in support of various intergovernmental processes.*
  - *Target: \*By 2006, GEF will have successfully demonstrated the local feasibility of these technology innovations in support of 4 or 5 different intergovernmental processes such as those related to alien species in ship ballast water, ship-related contaminants, land-based pollution sources, protection of biodiversity, and adaptation to climatic fluctuations.*

The present project will directly assist in addressing two of the key International Waters gaps: addressing ship-based sources of pollution and land-based pollution sources (ports).

19. The project is a part of a wider GEF regional effort involving other GEF Implementing Agencies. The focus of this project on marine pollution control is intended to complement the World Bank/GEF/CCAD Project for the Conservation and Sustainable Use of the Mesoamerican Barrier Reef System (MBRS) as well as the on-going UNDP/GEF Conservation and Sustainable Use of the Barrier Reef Complex in Belize. Both of these projects fall within the GEF Operational Program for Biodiversity for Coastal, Marine and Freshwater Ecosystems (OP-2). Of note, the Threat and Root Cause Analysis conducted for the MBRS project identified the tri-national area of the Gulf of Honduras as a critical area. Port and ship-based pollution were recognized as significant threats to the health of the reef ecosystem to be addressed by this complementary project.

20. This project has been developed to avoid duplication with existing projects, especially the on-going MBRS. The MBRS has four major components:

1. Marine Protected Areas (MPAs)
2. Regional Environmental Monitoring and Information System
3. Promoting sustainable use of the MBRS
4. Public awareness and environmental protection

The present project does not address components 1 or 3 of the MBRS. However, it has been designed to develop synergy with components 2 and 4 of the MBRS. Specifically, for component 2, the monitoring, will be fully coordinated with MBRS more advanced plan for monitoring. In addition, the data and information for the GOH project will be modeled and shared with the MBRS system, which

is already considerably advanced. For component 4, the GOH project will share existing, developed communications, environmental awareness activities, and education programs. Furthermore, the components related to ballast water management would be coordinated with the initiatives being developed under the UNDP/GEF global project for the “Removal of Barriers to the Effective Implementation of Ballast Water Control and Management Measures in Developing Countries”. Close coordination with IMO during development of this second-phase Ballast Water Project will permit effective sharing of information and technologies.

21. The proposed project would also consider other initiatives, such as the UNDP/GEF project “Wider Caribbean Initiative on Ship-Generated Wastes” and the UNEP/GEF project “Development of Comprehensive Management Programme to Reduce Pesticide Releases from the Agricultural Sector to the Marine Environment of the Caribbean Sea”. The Wider Caribbean Initiative for Ship-Generated Waste will focus on the MARPOL 73/78 Convention, with two major components: legal, technical and institutional measures, and providing a forum for consensus building. The present project would build on the outcomes of this project for ship wastes. IMO, as implementer of the ship waste project and cooperating agency for the present project, will assist with lessons learned.

22. The full list of regional GEF projects can be found in table 3.

**Table 3: List of GEF Regional Projects in the GOH (download from [www.gefonline.org/projectList.cfm](http://www.gefonline.org/projectList.cfm))**

Country	Project Name	Region	Focal Area	Agency	Project Type	GEF Grant (US\$M)	Project Stage
Regional	Establishment of a Programme for the Consolidation of the Meso-American Biological Corridor	LAC	Biodiversity	UNDP	Full Size Project	10.940	CEO Endorsed
Regional	Central American Fund for Environment and Development: Account for the Global Environment	LAC	Biodiversity	UNDP	Full Size Project	15.000	Council Approved
Regional	Regional Program on Electrical Energy Efficiency in Industrial and Commercial Service Sectors in 7 Countries in Central America	LAC	Climate Change	UNDP	Full Size Project	2.400	Pipeline
Regional	Creation and Strengthening of the Capacity for Sustainable Renewable Energy Development in Central America	LAC	Climate Change	UNDP	Medium Size Project	0.750	CEO Approved
Regional	Conservation and Sustainable Use of the Mesoamerican Barrier Reef	LAC	Biodiversity	IBRD	Full Size Project	10.616	CEO Endorsed
Regional	Indigenous Community Integrated Ecosystems Management Project	LAC	Multiple Focal Areas	IBRD	Full Size Project	10.700	PDF B
Regional	Accelerating Renewable Energy Investments through CABEI in Central America	LAC	Climate Change	UNDP	Full Size Project	6.100	PDF B
Regional	Environmental Protection and Maritime Transport Pollution Control of the Gulf of Honduras	LAC	International Waters	IADB	Full Size Project	8.550	PDF B
Regional	Caribbean Renewable Energy Development Programme	LAC	Climate Change	UNDP	Full Size Project	4.776	Council Approved
Regional	Caribbean: Mainstreaming Adaptation to Climate Change	LAC	Climate Change	IBRD	Full Size Project	5.345	CEO Endorsed
Regional	Caribbean Planning for Adaptation to Global Climate Change (CARICOM)	LAC	Climate Change	IBRD	Full Size Project	6.825	CEO Endorsed
Regional	Building Capacity for Conducting Vulnerability and Adaptation Assessments in the Caribbean Region	LAC	Climate Change	UNDP	Enabling Activity	0.118	CEO Approved

*Environmental Protection and Maritime Transport Pollution Control in the Gulf of Honduras*

Regional	EcoEnterprises Fund	LAC	Biodiversity	IBRD	Medium Size Project	1.000	CEO Approved
Regional	Building Wider Public and Private Constituencies for the GEF in Latin America and the Caribbean: Regional Promotion of Global Environment Protection through the Electronic Media	LAC	Multiple Focal Areas	UNDP	Medium Size Project	0.998	CEO Approved
Regional	Biodiversity Conservation and Integration of Traditional Knowledge on Medicinal Plants in National Primary Health Care Policy in Central America and Caribbean	LAC	Biodiversity	UNEP	Medium Size Project	0.750	CEO Approved

REGIONAL PROGRAMMING CONTEXT

23. The issues raised by the preliminary TDA make it clear that the region as a whole lacks the capacity and the information base for the integrated environmental management of the port and maritime transport activities in the Gulf of Honduras. This is the background from which the project has been formulated. The region, however, strongly supports reduction in pollution from port operations and maritime transport, indicated by the support for the Cartagena Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region and its Protocol Concerning Co-operation in Combating Oil Spills in the Wider Caribbean Region. Article 3 of the Convention states, “The Contracting Parties shall endeavour to conclude bilateral or multilateral agreements including regional or subregional agreements, for the protection of the marine environment of the Convention area.” Thus this Project Brief directly supports the Cartagena Convention. The project also will contribute to the objectives of the Mesoamerican Sustainable Development Initiative (IMDS) of the Plan Puebla Panama (PPP), which aims at promoting natural resources/sustainable development projects in multinational areas in Mesoamerica and promotes the application of Strategic EIAs to assess and mitigate both direct and indirect impacts of regional/transboundary projects.

24. The preliminary TDA and this Project Brief indicates that there would be minimal overlap between this project and the other activities which are taking place in the Gulf of Honduras region. The IDB and other multilateral and international organizations are supporting various maritime-related projects in the area. For example, the Canadian International Development Agency (CIDA) has financed a first phase of an environmental action plan for port operations in Puerto Cortés. A second phase of the initiative is under consideration as possible co-financing for baseline activities to the regional GEF project. Other projects related to this proposed GEF operation include the World Bank-financed Sustainable Coastal Tourism and Management Project for the Caribbean Coast in Honduras, the NASA/CCAD Mesoamerican Biological Corridor Program, the EU-funded WRIScS project, the USGS Hurricane Mitch Project, COCATRAM activities, TRIGOH and the WWF Mesoamerican Reef System Ecoregion Project. Additionally, USAID has funded the PROARCA program with the objective to improve environmental management in the Mesoamerican Biological Corridor. The specific objectives of the PROARCA project include: i) improving the management of protected areas, ii) expand access to markets for environmentally friendly products and services, iii) harmonizing environmental laws, and iv) increasing the use of less polluting technologies and practices. The PROARCA project is being implemented in four specific regions: Gulf of Honduras, Mosquitian Coast, Gulf of Fonseca, and the Cahuita-Amistad Rio Canas regions. COCATRAM is a regional maritime entity that forms part of the Central American Integration System. COCATRAM works with both the public and private sectors of its member countries providing technical assistance and capacity building in areas related to international transport including security, environment, facilitation, and legislation.

25. A relevant project being implemented by COCATRAM that can be strengthened through the Gulf of Honduras project is the Regional Maritime Navigation Assistance System. During the design stage of this project, efforts were made to coordinate with the existing projects in the region through contacting and inviting representatives to participate in the regional stakeholders advisory committee. During the full project phase, the regional projects coordination mechanism already in place under the PROARCA program will be used to minimize duplication of efforts and exchange lessons learned. PROARCA, as a parallel-funding agency, will sit on the GOH project's management committee, to assure that local governments, villagers, and other stakeholders will be fully involved in the GOH project.

26. PROARCA also assists in the PROLEGIS project, implemented by CCAD and the USERA. The project seeks to harmonize environmental protection policies in the region, with four fields of actions:

1. Develop harmonized environmental standards and regulations
2. Increase the enforcement and compliance capacity of environmental legislation
3. Effectively apply key international agreements
4. Develop a harmonized regional system for environmental audits

As a parallel-financing agency, PROARCA will co-finance certain aspects of this GOH project.

27. Another major regional player is the Trinational Alliance for the Gulf of Honduras (TRIGOH), a coalition of nine conservation groups from Belize, Guatemala, and Honduras. Founded in 1995, TRIGOH has promoted ecoregional fisheries management, reduced the risk of hazardous spills, and expanded public awareness. With the IDB, they helped to start this project in its PDF-A phases, and has been an active participant since.

28. A further major player in the regional scene regarding marine pollution and navigation is the International Maritime Organization (IMO). The IMO has been active in the GOH region for decades, and has worked closely with the three countries on various aspects of international conventions regarding navigation and shipping. At present, the IMO has ongoing national projects in the three countries addressing national contingency planning for the offshore waters. In addition, IMO provides technical assistance to the countries in various aspects of convention compliance. The present project will expand on the IMO activities by bringing regionalization of the contingency planning and technical assistance for conventions. Designed so as not to be duplicative of the IMO ongoing baseline activities, the present project will regionalize many of the earlier and ongoing interventions by the IMO. The IMO will be a major contributor to this project, providing technical expertise, domain expertise in many of the areas of concern in this project, and even assistance to the Executing Agencies if needed.

29. There are a number of projects funded by the IDB of relevance to the current project and efforts will be made through the local IDB offices to coordinate with them (see Annex L for a list of all IDB-funded projects in Belize, Guatemala and Honduras). The IDB-financed program for the environmental management in the Bay Islands in Honduras will contribute, among others, to the sustainable management of the archipelago's coastal and marine resources as well as control of land-based sources of pollution through investments in sewage collection and treatment facilities and solid waste management. Another project aiming at decreasing the pollution of coastal waters is the IDB-funded project for sanitation in the city of Puerto Cortés in Honduras, which will ensure efficient and sustainable arrangements for potable water supply and wastewater disposal services, including the sewerage infrastructure to ensure the safe, environmentally acceptable disposal of liquid wastes.

#### NATIONAL PROGRAMMING CONTEXT

30. The implementation of this project will supplement existing bi-lateral and national efforts to address environmental issues in the Gulf of Honduras. This project, with its SAP based on the preliminary TDA, contains several priority actions that will enhance the ability of countries of the Gulf of Honduras to implement existing legal frameworks for enhancing the regional environmental



management of the port and maritime transport operations and increase the ability of the riparian states to reduce regional and transboundary environmental problems, i.e., to move the scale of operation from the national level to the regional level.

31. The Preliminary TDA contains an overview of the legal and regulatory basis for these actions in the three participating countries. The countries all participate in various international treaties, including the United Nations Convention on the Law of the Sea (UNCLOS), the International Convention for the Prevention of Pollution from Ships (MARPOL) and other IMO-facilitated treaties related to marine transport and pollution. There is little effective regionality to the national commitments to these treaties, however, and cooperation and collaboration would strengthen the compliance with the treaties. This project will improve the ability of the three participating countries to comply with the international maritime treaties through the development of a regional regulatory framework.

32. In addition to being signatories to the international maritime transport treaties, Belize, Guatemala and Honduras have developed national legislation to govern port and marine activities that varies by country. While a general legal framework exists to support program activities to address maritime contamination and security, implementation has been inconsistent as there is a lack of supporting regulations and adequate institutional support at the national level. In the case of Guatemala, the situation is more confusing due to the fact that the country does not have a viable Port Authority. In addition to these difficulties, each country has different ministries responsible for coastal planning, compliance with international conventions, environmental monitoring, sanitation, and environmental impact assessment. These agencies with the national maritime authorities form a complex network of regulatory programs. The institutional and regulatory frameworks for the three countries are generally impeded by fragmentation of responsibilities and deficiencies in program coverage.

The operation of the national port system varies among the three countries and even within countries there are issues with fragmentation of responsibilities among the national regulatory agencies and local government. Recent studies have suggested that the majority of Central American countries have not given maritime issues the necessary emphasis. Global problems that have been identified throughout Central America maritime administration include i) need to strengthen the legislative framework and national policies governing maritime issues ii) inadequate financial resources for personnel and equipment iii) need for better trained personnel iv) lack of stakeholder participation in the development of international norms v) few academic or educational institutions that offer specialized professional development.

#### SYSTEM BOUNDARIES

33. The area for project activities is defined as follows:

- a) The countries of the Gulf of Honduras: Belize, Guatemala and Honduras.
- b) The approximate inland boundaries are defined as the limits of the drainage basins of the rivers draining into the Gulf of Honduras (see Figure 1). The Project Area for the proposed GEF project extends from Punta Sal, Punta Isopo, in the southeast, northwest towards the Port of Belize along the Belize shoreline, inwards along the northern border of the Maya Mountains watershed, southwestward along the various watersheds of Belize (numerous watersheds, lumped here as the Maya Mountain watersheds), Guatemala (Sarstoon, Laguna Izabal, Motagua), and Honduras (Uluu, Lean, Cuyamel, Chamelecon), reaching the coast once again at Punta Isopo.

#### MAJOR PERCEIVED THREATS, PROBLEMS AND ISSUES

34. As part of activities in the project preparation phase supported by a GEF PDF-B grant, information and reports were collected which provided information on the problems relating to the priority transboundary environmental concerns in the Gulf of Honduras. Based on the early project

development activities, as well as the regional consensus – building process, this Preliminary TDA identifies a single major perceived problem and issue:

**DEGRADATION OF COASTAL AND MARINE ECOSYSTEMS**

35. The following major causes of the MPPI have been determined:

1. Negative environmental effects arising from existing and future port operations and infrastructure development
2. Negative environmental effects arising from marine activities
3. Other Land-Based Activities (other than shipping-related) causing degradation of the ecosystems of the Gulf of Honduras

36. Coral reefs and mangroves are the most biologically diverse ecosystems in the Gulf of Honduras and are greatly at risk. The northern part of the Gulf of Honduras is located within the limits of the second longest barrier reef in the world (MBRS), which extends for 250 km and covers 22,800 km<sup>2</sup>. The southern reefs are discontinuous and less developed when compared to northern Belize. Large freshwater loads from the Motagua, Sarstoon and Dulce rivers limit reef development to a few isolated corals and small patch reefs in the Gulf of Honduras itself. Several reef islands are located near the eastern boundary of the Gulf. Coral reefs grow in clear water and are extremely sensitive to pollution, whether due to chemical contaminants or suspended sediments. Coral reefs in the Gulf have shown signs of degradation in recent years, bleaching has occurred on numerous occasions, and they have been susceptible to diseases, perhaps related to anthropogenic causes. Coral bleaching in response to elevated seawater temperatures was reported for much of the Caribbean during 1983 and 1987, and the first well-documented mass bleaching event in Belize occurred in 1995 where 52% of coral colonies bleached. With nearly 60 coral species, the MBRS is one of the most diverse coral reefs in the western Atlantic. The rapid expansion of coastal populations and consequentially increased loads of domestic sewage, agricultural runoff and industrial effluent to the marine environment, as well as the increased maritime operations and traffic, represent a significant threat to the coral reef habitat. Spills from navigational accidents in the Gulf have the potential to devastate reef ecosystems.

37. Mangroves serve as critical habitat for many species within and beyond the Gulf. However, significant areas of mangrove forests have been cut down in the Gulf, either for the wood or to make way for agriculture or coastal development. In 1991, mangrove loss near Belize City was 3.6% rate. Approximately 700 hectares of mangrove forests have been identified in the Atlantic Coast at a region of Guatemala. For example, between 1992 and 1998, the mangrove coverage in Guatemala decreased by 29%. Mangroves may still be found in several regions of the Gulf, including: Rio Sarstoon-Livingston, Livingston-Punta de Palma, Río Dulce-El Golfete River, Puerto Barrios and Punta de Manabique. The mangroves of the Sarstoon-Temash system and the Port Honduras-Payne's Creek system form the largest mangrove stand on the coasts of Guatemala and Belize. In Belize, there are at least 750 km<sup>2</sup> of mangrove forest covering 3.4% of the national territory. In Honduras, mangroves cover about 1200 km<sup>2</sup>. It is not known the extent to which the remaining stands have suffered degradation from land-based and marine-based sources of pollution. Significant mangrove stands are located in the vicinity of many of the ports included in this project, leaving them vulnerable to pollution from port operations and contamination from navigational accidents.

38. Seagrass habitats are important for fishery production, as a food source for certain threatened animal species, and for coastal stabilization. Approximately 3,750 hectares of seagrass beds have been identified in areas of the Gulf of Honduras, including Bahía de Amatique, in Graciosa Bay, and off the coast of Belize. However, the status of seagrass beds in the Gulf of Honduras has not been adequately assessed, and the extent to which these ecosystems have suffered degradation due to pollution from land and marine-based sources is unclear. Seagrass beds are located in the vicinity of many of the ports included in this study and the one major maritime accident that has occurred to date in Bahía de Amatique caused significant damage to nearby seagrass beds.

39. Based on the causal chain analysis shown in Annex M, the root causes of degradation of marine and coastal ecosystems include:

Inadequate Legal/Regulatory Structure

- Lack /Inadequate Use of EIA
- Lack of Monitoring/Enforcement
- Lack of National Standards and Regulations
- Lack of Audit
- Inadequate Regional Policies and Agreements
- Inadequate National Policy Frameworks

Inadequate Infrastructure

- Lack of ICZM
- Lack of Early Warning System
- Inadequate Investment

Inadequate Capacity

- Lack of Minimum Training Standards
- Lack of Education
- Lack of Scientific Capacity and Knowledge

40. The preliminary Transboundary Diagnostic Analysis provides more comprehensive information on the root causes and sources of the identified problem. This document gives an initial review of the actions to be taken to address this major perceived problem, either through mitigation or elimination of the root causes. The evidence from the TDA indicates that there are many organizations and institutions that deal with various aspects of marine transport in isolation, that often develop policies and programs, which then result in conflicting interventions. There are also a large number of laws, each dealing with different aspects of marine transport, which negates a holistic approach. Management in the Gulf clearly lacks full participation of civil society in sustainable development initiatives, and there is a general lack of understanding and awareness at all levels of the link between the environment, the economy, and society. Certain exceptions exist, of course, including the strong role played by the NGO TRIGOH.

**RATIONALE AND OBJECTIVES (ALTERNATIVE )**

41. The broad development goal of this project is to reverse the degradation of the coastal and marine ecosystems, by enhancing the control and prevention of maritime transport-related pollution in the major ports and navigation lanes, improving navigational safety to avoid groundings and spills, and reducing land-based inputs to the adjacent coastal and marine areas within the Gulf of Honduras.

42. To satisfy the broad development goal, the project has four major components, namely:

- Component 1: *Building regional capacity for maritime and land-based pollution control in the Gulf of Honduras;*
- Component 2: *Updating the TDA, contributing to a region-specific SAP, and creating, analyzing and distributing marine environmental information for the Gulf of Honduras;*
- Component 3: *Enhancing navigational safety in shipping lanes;*
- Component 4: *Improving environmental management and hazard reduction measures in the regional network of five ports within the Gulf of Honduras.*

43. The TDA identified the major perceived problem and issue in the basin and then analyzed the root causes, based on this analysis. The project proposes the four components in paragraph 37 to address the highest priority problems in the Gulf of Honduras. The preliminary TDA lists two overarching Environmental Quality Objectives as a possible basis for long-term action to improve the

Gulf of Honduras environment. These EQOs were discussed at regional meetings during preparation of the project (e.g., Guatemala, March 2003), but they are only draft at this stage. As part of the full TDA/SAP process, the EQOs will be updated and strengthened. They are presented here only to indicate the major environmental drivers for the region.

44. Certain themes are repeated in these EQOs, including the need for capacity building, institutional strengthening, priority setting (Strategic Action Programme process), and the need to initiate demonstration of technologies and approaches to manage more effectively coastal and marine areas. The present GEF project addresses these four concrete aspects that are identified in the EQO process in the preliminary TDA. The final SAP will include input from MBRS and other regional projects in a fully participatory process, so these EQOs with their targets are certain to change.

*Stabilized Marine and Coastal Water Quality*

*TARGETS (examples)*

1. Reduce pollution from port and other land-based operations activities in the Gulf of Honduras by 25% by 2008
2. Reduce pollution from marine activities by 50% by 2008
3. Reduce risk of marine accidents, including coral destruction, by half by 2013

*Prevention of Degradation of Sensitive Coastal and Marine Habitats*

*TARGETS (examples)*

1. Rate of decline in the quality of selected coral reef sites halved by 2013
2. Rate of decline in the quality of selected mangrove sites halved by 2013
3. Stabilize seagrass inventory by 2020

45. A major rationale for this project is to improve coordination and harmonize regional approaches in the Gulf of Honduras, which is part of the overall Caribbean basin (covered by the framework Cartagena Convention). Regional coordination and cooperation are not as effective as they could be, despite significant past efforts at sectoral cooperation. As a result, globally significant environmental resources are at risk, including the second largest barrier reef in the world, and vast coastal mangrove areas. Working closely with MBRS and IMO, this project would assist the region to create and or improve upon environmental management systems to mitigate ongoing pollution and to help prevent potentially catastrophic maritime accidents.

**PROJECT ACTIVITIES AND EXPECTED RESULTS**

46. The four principal components offer the greatest potential project benefits in terms of environmental protection from both national and transboundary perspectives over the interval of the next five years. The four principal components and their associated objectives were developed for the project based on the areas of threats identified by the preliminary TDA. These major components have associated objectives, activities, and results, which are listed below in summary form.

47. This project has a strong orientation towards demonstrations as a mechanism to encourage and facilitate concrete changes in national and regional behavior and attitude towards the environment. These demonstration activities have been outlined in broad form during this project preparation phase. However, the actual demonstrations to be conducted will be selected during a competitive, participatory process during the full project implementation. Selection process for the demonstrations include: replicability; likelihood of successful execution; cost-sharing; and likelihood to contribute to achievement of project goals.

48. The demonstration activities included in this project encompass:  
Activity 1.3: Two demonstration projects to develop norms or provide technical assistance for developing economic instruments or incentives.  
Activity 3.4: Demonstrate use of hydrographic data for environmental management purposes.

- Activity 3.7: Three demonstration projects related to navigational safety.  
Activity 4: Three demonstration projects for improvement of environmental activities at ports.

**49. Component 1: Building regional capacity for maritime and land-based pollution control in the Gulf of Honduras.**

**Objective:** Create and consolidate a regional network for land-based and maritime pollution control within the Gulf of Honduras, including the formulation of institutional and economic arrangements that will assure the sustainability of the action program.

**Activities:**

The activities under this component concentrate on creation of the enabling environment and the institutions that are required for the effective management of the Gulf of Honduras. The components represent stakeholder activities and public-private sector partnerships, both of which are essential for the project to succeed. The components will also include project management and coordination, and project steering and monitoring at the regional level. A key to the long-term sustainability of project activities is the formulation of arrangements for financing regional maritime pollution control and prevention. Close coordination with MBRS is essential in carrying out these activities.

- 1.1 Put in place institutional arrangements for carrying out the project activities that will ensure the sustainability of the action program.
  - Establish a Regional Coordination Mechanism, building on existing institutional arrangements such as the MBRS (*see project management framework*).
  - Establish and empower the Project Steering Committee, including installation of the National Focal Points as spearheads for National Interministerial Coordination (*this activity depends upon institutional arrangements decided upon*).
  - Draft and obtain MOUs or Agreements among high-level officials of the three countries in support of the program and the SAP objectives and goals.
- 1.2 Identify, strengthen, and involve stakeholders.
  - Develop a public participation and awareness (PPA) plan for the project including a communication strategy, design of instruments (meetings, publications, status reports, web sites, etc.) and its timetable for implementation.
  - Implement the PPA workplan involving national experts, private and public sector, NGOs and other interested parties.
  - Establish regional information networks and information exchange mechanisms to disseminate information in Central America through newsletters, a web page and publications on the topic of maritime transport pollution control and the progress of the project in order to enhance the replication of successful experiences (within the framework of Cartagena Convention and Oil Spill Protocol).
  - Develop a strategy to be implemented by the Project Coordinating Unit (PCU) to integrate private sector involved in GOH development (industry, shipping, fisheries, tourism) into activities of this project, as appropriate as sub-contractor, consultant or co-sponsor of specific activities. Examples include public-private sector partnerships and similar efforts.
  - Conduct independent reviews and reporting of results annually to promote international support and networking for the action program. This should include a role for IMO, recognizing their strong interest and domain expertise in this topical area.
- 1.3 Develop and conduct training workshops for stakeholders. These training workshops will include both national and regional institutions. Additionally, links and exchanges with other similar regions such as the Gulf of Fonseca will take place.

- Conduct indicative survey of value-added training needs and educational programs in the region related to environmental management in the maritime transport industry (e.g., ICAM, Coastal and Marine Environmental Management, Civil Society, environmental crime investigation and legal prosecution, economic valuation of disasters, citizen monitoring/ surveillance, and strategic planning for port personnel).
  - Develop training courses for three priority training needs in local languages.
  - Conduct or use existing one training session in each of the countries on each of the three priority training areas, using a train-the-trainers approach.
  - Conduct exchanges with other IW projects in Latin America (e.g. Frente Marítimo in Uruguay/Argentina).
  - Send competitively selected students to train in developed countries.
- 1.4 Formulate arrangements for economic instruments and incentives, and financing regional maritime pollution monitoring, control and prevention, including the establishment of a financing scheme in cooperation with the private sector and port authorities to contribute to the financial sustainability of the program.
- Develop consultation process to determine costs, who pays, how is it paid, and legal and operational aspects (includes fees from prosecution of environmental violations)
  - Develop linkages with existing institutional arrangements (regional and supra-regional, such as the Cartagena Convention) and international collaborations (with IMO).
  - Propose incentive mechanisms and investigate feasibility of a trust fund for the Gulf of Honduras environment.
  - Identify tools such as conservation easements, land-use zoning, and other types of incentives to control pollution and encourage the adoption of less polluting technologies.
  - Identify incentives for private sector participation in monitoring and prevention of pollution.
  - Identify and assist in the improved quantification of economic benefits of maritime pollution prevention, including, for example, reduced insurance costs, protection of tourism assets, fisheries resources, etc.
  - Conduct two demonstration studies including development of norms, technical assistance, to support these instruments and incentives.
- 1.5 Agree on environmental performance indicators for the Gulf of Honduras through a broad stakeholder process and develop a process to monitor those indicators, working closely with MBRS (and using GEF guidance on indicators of July 2003).
- Conduct a broad stakeholder workshop to develop and agree upon performance indicators to monitor impacts of the project on the environment. This workshop will address issues of who monitors the progress, and how monitoring is to take place, building linkages with existing national monitoring programs and monitoring activities in regional projects, including the CZMAI in Belize, PMAI in Honduras, individual port authorities, and MBRS regionally.
  - Working with MBRS, design and implement a monitoring and modeling strategic framework in order to use the indicators to assess the effectiveness of the project in achieving the EQOs. The strategic framework should
    - i) Establish a baseline of land based sources of pollution (water column and sediment monitoring) through monitoring near or at the mouth of the rivers for the watersheds: Uluá, Chamelecón (Honduras), Motagua, Izabal, Sartún (Guatemala), Tamash, Rio Grande, Golden Stream, Deep River, Upper Fresh Creek, Monkey River (Belize),
    - ii) Establish a baseline water and sediment quality within the Gulf,
    - iii) Identify the relative impact of the different contaminants (nutrients, sediment, BOD, toxics) and their sources (Land/Marine).

50. The results from the execution of the above activities under component 1 are summarized as follows:

**Outputs (Results):**

- Improved national and regional capacities for effective environmental management of maritime transport
- Stakeholders fully involved in project
- Increased knowledge and awareness by local stakeholders of maritime and land-based transport pollution issues
- Sustainable regional financial mechanism for financing SAP activities developed
- Monitoring and evaluation process developed and implemented

*51. Component 2: Updating the TDA, contributing to a region-specific SAP, and creating, analyzing and distributing marine environmental information for the Gulf of Honduras.*

**Objective:** Fill technical gaps in understanding the state of the environment, undertake strategic planning for concrete actions to reduce marine pollution in the Gulf of Honduras, and develop the long-term capacity for gathering, organizing, analyzing and disseminating marine environmental information, as a complement to the MBRS Regional Environmental Information System (EIS).

**Activities:**

A full TDA will be completed under this component. A targeted SAP will also be contributed to, and endorsed as part of this activity, working closely with MBRS, focusing on priority marine and land-based activities.

- 2.1 Expand the MBRS data and information management system to include maritime impacts from port and navigation activities and land-based activities on the Gulf of Honduras.
  - Building on the existing MBRS EIS where feasible, expand a Data and Information Management System for the Gulf of Honduras to facilitate the updating of the TDA with the monitoring program being implemented, and data sharing with other projects, including the MBRS and the Central American Information System developed by CCAD.
  - Develop mechanisms for the sharing of data and information for input into the Data and Information Management System for the Gulf of Honduras.
  - Create standards and protocols for the collection, processing, analysis and compilation of data and GIS information.
  - Develop a centralized system for access and distribution of the data to the organizations involved in the control of maritime pollution and transport in the Gulf of Honduras.
  - Develop technical capacity for the transfer and incorporation of hydrographical and oceanographical data into GIS-based information systems.
  - Publish an annual report of the state of the Gulf for general public distribution.
- 2.2 Update and complete TDA, including an updated assessment of the relative importance and transboundary impact of land-based and marine-based sources of pollution and filling the gaps identified in the Preliminary TDA.
  - Fill gaps in knowledge of scientific and social issues, as identified in the preliminary TDA, to develop an updated TDA (working closely with MBRS to avoid duplication).
  - Conduct a thorough evaluation of the national and regional legal and institutional frameworks addressing environmental management of the maritime transport industry and land-based activities.
  - Complete an analysis of the socio-economic conditions of the Gulf of Honduras region that would affect efforts to improve environmental management of the maritime transport industry.

- 2.3 Contribute to, negotiate, and endorse at the national level a regional Strategic Action Programme (SAP) for port and navigational pollution reduction measures as well as reduction of other adverse land-based activities, and improvement of navigation safety .
- Establish regional expert group to facilitate the SAP.
  - Establish national SAP committees to prepare national inputs.
  - Conduct workshops (national and regional) to develop SAP: workshops will include consideration of land-based activities, ports, and marine activities, contaminant reduction goals and programs.
  - Continue quarterly interministerial meetings in each country to discuss and refine SAP components.
  - Conduct regional workshop to review SAP.
  - Obtain signatures on SAP by appropriate ministries followed by national endorsement.
  - Conduct a regional donor conference to develop partnerships for carrying out the SAP.
  - Prepare application materials for designation of the GOH as a Special Area under MARPOL 73/78 and as a Particularly Sensitive Area.

52. The results from the execution of the above activities under component 2 are summarized as follows:

**Outputs (Results):**

- Gaps in knowledge of state-of-the-environment filled
- TDA updated, agreed upon and widely disseminated
- Regional SAP, which supports improved safety of navigation and protection of the marine environment, completed and endorsed at the national level
- Partnerships for carrying out the SAP developed
- Reevaluate the target reduction goals established during the third year of the program.
- Develop contaminant reduction goals by watershed and parameters identified from the monitoring and modeling, and programs to achieve them.
- Incremental improvement in knowledge capacity to control LBA
- Application for including the Gulf of Honduras as a Special Area under MARPOL 73/78 and as a Particularly Sensitive Area, submitted to IMO.

53. **Component 3:** *Enhancing navigational safety in shipping lanes.*

**Objective:** Enhance navigational safety in key ports and approaches with the goal of reducing marine environmental pollution by improving hydrographic capacity in terms of improved navigation safety products (e.g., nautical charts) and services (e.g., notice-to-mariners), and improving coastal/oceanographic GIS database that can be used for an oil and chemical spill prevention and contingency planning for the Gulf of Honduras to prevent damages associated with both operational and accidental discharges at sea, and the ability to respond to accidental spills.

**Activities:**

The activities in this component focus on preventing accidental groundings and discharges from maritime transport operations, and developing the infrastructure and capacity to address such spills if they occur. Activities under this component focus on improving the hydrographic and oceanographic cooperation in the region in order to both prevent and prepare for potential groundings and spills in the Gulf related to maritime transport operations. Policy and legislative interventions will be defined, on national and regional bases. New technologies will be demonstrated in order to aid in the prevention of accidents and contingency plans will be developed for addressing accidents. These two demonstration projects will be developed and agreed during the full project, with a focus on replicability and incorporation into the SAP.



- 3.1 Conduct navigational risk assessments and propose modifications in maritime shipping routes and other risk reduction measures.
- Identify needs in improvement and expansion of signaling equipment (buoys, beacons, lighthouses, etc.) and identify investment opportunities for SAP.
  - Regionalize navigational safety communications capability by helping to establish common regional communications protocols, and assisting in starting national communications centers, to improve the overall security of maritime transport in order to avoid ship collisions in busy corridors, as well as to enable monitoring, surveillance and control of fishing and other commercial vessels, navigational routes and sea lanes, and incidences of coastal pollution. Assistance in the areas of VHF/HF radio, radar, Automated Identification System (AIS), and electronic navigational charts will help establish this regional communications capability and assist compliance with the new IMO/ISPS standards to be implemented by July 2004.
- 3.2 Review and draft reforms for the institutional, legal, policy, regulatory and enforcement framework for navigational safety, including the prevention of oil and chemical spills, vessel standards, provision of hydrographic services, certification, the framework for the definition of liabilities; and facilitating the process of ratification, as well as promoting the compliance, with international and regional conventions and agreements (such as international collision regulations and other international IMO conventions like the Safety of Life at Sea).
- Complete national reports on institutional, policy, legal, regulatory and enforcement frameworks for navigational safety, including at the international and national levels.
  - Hold workshops to review regional and national frameworks and recommend more unified policy/legal/regulatory/institutional frameworks for navigational safety.
  - Draft policies, laws and other instruments to address gaps in institutional/ legal/regulatory structure.
  - Promote and introduce new regulations and technologies to avoid groundings and collisions and adopt methods to prevent unauthorized discharge of toxic substances, including ballast water. A specific activity is to establish a regional ballast water exchange zone (limit), shoreward of which ballast water cannot be exchanged in the Gulf of Honduras.
- 3.3 Cooperating closely with MBRS, establish a regional focus for oceanography related to oil and chemical spill planning and response, for oceanographic data processing, as well as management and modeling (Marine) GIS-based data applications, that will share information with the public and decision makers within the Gulf of Honduras region.
- Review and assess national capacities for oceanography (including oil spill modeling).
  - Through a high-level workshop, develop and agree on a policy for regional cooperation in oceanography, in support of oil spill and chemical spill response, with linkages to national and regional spill response efforts.
  - Obtain ongoing national budget and other financing, including private sector, to support regional focus for oceanography related to spill planning and response.
- 3.4 Enhance capacity by developing and implementing a training program for national and regional entities, including hydrography; inspection, pilotage, and oceanography related to navigational safety and spills.
- Develop technical capacity and obtain necessary computers and software for oil and chemical spill trajectory analysis and response, including training and education, working closely with other regional modeling projects such as the MBRS.
  - Develop training for processing of oceanographic data and data exchange compatible with the project's Data and Information Management System.
  - Develop methodologies and build capacity for oil and chemical spill damage assessments and the determination of environmental restoration costs.

- Assess needs for and develop training for specific operational areas such as pilotage, Port Wardens, Port State Control, oil spill response, use of dispersants in response to oil spills, etc.
  - Establish an information sharing mechanism to ensure that relevant oceanographic information (such as tides and water levels, currents, etc.) is made available to support regional hydrographic activities, including the production of nautical charts.
  - Building on the outcomes of the high level regional workshop of Activity 3.6, obtain sustainable access to training, expertise and equipment (both hardware and software) required for hydrographic product and service needs, hydrographic data collection, processing, analysis, paper and electronic chart production and distribution, and demonstrate in each country the application of this capacity for purposes of hydrographic charting and other requirements of the project, in priority areas such as navigation channels, high-value environmental resource areas, etc.
  - Provide training on hydrographic data processing, archiving and production of electronic navigational charts.
  - Provide training on how to format hydrographic data so that it can be integrated into the project data and information management system (including GIS) and used for non-navigation purposes (such as coral reef mapping, coastal zone management, etc.)
- 3.5 Prepare a regional/transboundary oil and chemical spill prevention and contingency plan.
- Establish oil pollution reporting procedure for ships and offshore units (linked to activity 3.1).
  - Plan and perform emergency spill response exercises, with national and regional authorities, to demonstrate and evaluate capabilities of the regional response.
  - Improve regional capacity for oil and chemical spill containment and clean-up by identifying existing equipment and facilities (including using the oil spill brigade in Guatemala as a regional model) and gaps in available facilities.
  - Develop national emergency response plans for ship fires and groundings (national obligation).
- 3.6 Building on the initial assessment / gap analysis of regional hydrographic capabilities of the Meso-American and Caribbean Sea Hydrographic Commission (MACHC), hold a high-level workshop to address institutional arrangements for regional capacity building. Participants should include senior, decision-making representatives from each country's national interministerial hydrographic apparatus, regional organizations such as COCATRAM, MACHC and other key players. Such a workshop should 1) explore alternatives for regional cooperation under the scope of the project, and 2) decide on a common approach, including political arrangements that will effectively build regional capacity while reducing costs by utilizing common assets.
- Each country establishes an interministerial mechanism (Commission, Committee, Steering Group, etc.) with representatives from relevant government ministries (including the National Geographic Institutes) and private sector entities to assess, organize and coordinate national efforts related to hydrographic data collection, processing, production and dissemination.
  - Each country's interministerial coordination mechanism to reach a consensus on what capabilities, products and services it could potentially provide in support of regional hydrographic initiatives, including identifying and providing access to existing hydrographic data.
- 3.7 Develop and implement a training/demonstration program for national and regional entities in hydrography to improve technical capacity.

- Building on the outcomes of IIIf(ii) obtain sustainable access to training, expertise and equipment (both hardware and software) required for hydrographic data collection, processing, analysis, paper and electronic chart production and distribution.
- Provide training on hydrographic surveying, data processing, archiving and production of electronic navigational charts.
- Provide training on how to format hydrographic data so that it can be integrated into the project data and information management system (including GIS) and used for non-navigation purposes (such as coral reef mapping, coastal zone management, etc.)

3.8 Identify and conduct two demonstration pilot activities related to improved navigation safety and marine environmental protection. Examples include improved navigational products and services (e.g., producing electronic navigational charts for a key port) and regional vessel tracking capabilities; improved processes for removal, transport, and treatment of chemical wastes (including oil, solid waste and water); and pilot integration of environmental and natural resource conservation and management data within Electronic Nautical Chart (ENC) and associated maritime safety data and technologies.

- Host a regional workshop/symposium on best available technologies and best environmental practices addressing navigational risks; broadly disseminate results from the symposium.
- Select practical technologies/practices and implement demonstration projects, including one on electronic charting.
- Monitor and report on progress of demonstration projects.
- Disseminate lessons learned from demonstration projects: encourage their application throughout in the region.

54. The results from the execution of the above activities under component 3 are summarized as follows:

**Results:**

- Steps for reducing pollution from navigational risks identified
- Legal/policy/regulatory framework for improved navigational safety, including addressing oil and chemical spills and improved hydrographic products and services, developed
- Regional capacity for addressing transboundary spills enhanced
- Two technologies for reducing navigational risks successfully demonstrated
- Regional capacity for hydrography and oceanography enhanced
- National and regional capacity for addressing oil and chemical spills improved
- Electronic charting linked to environmental management needs

55. **Component 4:** *Improving environmental management and hazard reduction measures in the regional network of five ports within the Gulf of Honduras.*

**Objective:** Improve environmental management in the regional network of five ports within the Gulf of Honduras through preparation and implementation of environmental management investment and action programs, including demonstration pilot activities and involvement of the private sector.

**Activities:**

The activities under this component focuses on improving the environmental management of port operations in the Gulf of Honduras, at the five selected ports of interest (two in Belize, two in

Guatemala, and one in Honduras). This project will deliver real benefits to the local people by the implementation of demonstration projects. The project proposes three replicable demonstration projects on themes formulated on the basis of national reports and needs assessed in the preliminary TDA, including charting, dredge spoil disposal, etc. Specific criteria and guidelines for the selection of demonstration projects will be developed early during the project execution phase, followed by regional agreement on the priority demonstration projects, and then implementation, monitoring, and reporting. As lead-in to the SAP (Component 2, Activity 2.2), the financial sustainability mechanisms will be investigated, including determination of private sector involvement. Legal and policy interventions at the port-level and national levels, fully harmonized regionally, will contribute to the success of this component.

- 4.1 Conduct port operations risk assessments and propose concrete modifications to reduce pollution risks.
  - Conduct environmental evaluations in the five ports for developing guidelines, standards and policies. Environmental evaluations should be focused on the identification and recommendation of best environmental practices and instruments as the basis for developing uniform guidelines and policies for the Gulf of Honduras region.
  - Identify dredging needs and evaluate environmental impacts of dredging and dredge disposal methods.
  - Assess impacts of illegal discharge of ballast and oily ballast water and identify infrastructure needs for treating ballast water.
  - Assess impacts of oil and chemical spills occurring during loading and off-loading of ships and introduce new technologies to avoid spills. Take into account the technical information from component 2.1 in relation to ecological and social sensitive areas when conducting risk assessments at ports.
- 4.2 Review the adequacy of compliance with existing conventions and suggest reforms for national laws, policies, regulations and enforcement policies regarding port activities (including enhanced use of international agreements and mechanisms to control and enforce adequate certification of visiting ships).
  - Conduct an assessment of the enforcement within each country of enforcement of conventions.
  - Complete national reports on policy, legal, regulatory and enforcement frameworks regarding port activities.
  - Hold a series of workshops to review national frameworks and recommend more unified policy/legal/regulatory frameworks.
  - Develop and/or harmonize EIA process for direct and indirect impacts, and for the mitigation and prevention of environmental impacts associated with port expansion and operation.
- 4.3 Develop harmonized regional guidelines, standards and policies for port environmental management and security.
  - Hold a series of workshops to discuss and agree on regional guidelines, standards and policies for port environmental management.
  - Broadly disseminate results of workshop.
  - Build capacity and conduct learning exchange programs between ports (including training extension activities in other Central American countries).
- 4.4 Identify sources of investment and develop investment plan for providing equipment and facilities for minimizing environmental impacts of port operations, including solid waste and oily ballast water disposal (as a contribution to the SAP).
  - Identify projects for environmental management at the ports and mechanisms for execution and funding.

- Establish a port users' forum, to meet twice per year, to discuss environmental investment needs. Private sector, potential investors and donor should be invited to the port forums.
  - Forum attends SAP workshops and planning process, to provide input into the SAP process.
- 4.5 Conduct demonstration pilot projects related to environmental improvements in three major ports focusing where possible on private-public partnerships, including demonstrations of port-specific hydrographic survey and electronic/paper nautical chart production activities, and environmentally effective ways of disposing of contaminated dredge spoil.
- Identify and execute pilot projects for environmental services at the ports
  - Identify and execute pilot projects on sensitive areas around ports
  - Host regional workshop/symposium on best available technologies and best environmental practices addressing sources of pollution from port operations; broadly disseminate results from the symposium.
  - Select technologies/practices and implement demonstration projects.
  - Monitor and report on progress of demonstration projects.
  - Disseminate lessons learned from demonstration projects; encourage their application elsewhere in the region.

56. The results from the execution of the above activities under component 4 are summarized as follows:

**Results:**

- Steps for reducing environmental threats from port operations identified and supported at three sites using Demonstration Projects
- Guidelines for reducing environmental threats from port operations agreed upon at the regional level
- Legal/policy/regulatory framework for environmental management of ports developed
- Sustainable economic mechanism for improving port operations identified, including strong private sector participation

57. The Workplan for these Components and Activities is presented below in Table 3. A full implementation plan will be developed by the staff of the Regional Coordination Mechanism immediately upon beginning its operation and will be submitted to the project Steering Committee for adoption.

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**Table 4. Workplan and Timetable – Overall Duration of the Project**

Component/Activities	Time Frame																	
	Year 1			Year 2			Year 3			Year 4			Year 5					
<i>1. Building regional capacity for maritime and land-based pollution control in the Gulf of Honduras</i>																		
1.1 Put in place institutional arrangements for carrying out the project activities that will ensure the sustainability of the action program.																		
1.2 Identify, strengthen and involve stakeholders.																		
1.3 Develop and conduct training workshops for stakeholders.																		
1.4 Formulate arrangements for economic instruments and incentives, and financing regional maritime pollution monitoring, control and prevention, including the establishment of a financing scheme in cooperation with the private sector and port authorities to contribute to the financial sustainability of the program.																		
1.5 Agree on performance indicators for the Gulf of Honduras maritime transport pollution control project through a broad stakeholder process and develop a process to monitor those indicators.																		
<i>2. Updating the TDA, developing a region-specific SAP, and creating, analyzing and distributing marine environmental information for the Gulf of Honduras.</i>																		
2.1 Develop a data and information management system for maritime impacts from port and navigation activities and land-based activities on the Gulf of Honduras.																		
2.2 Update and complete TDA, including an updated assessment of the relative importance and transboundary impact of land-based and marine-based sources of pollution and filling the gaps identified in Preliminary TDA.																		
2.3 Prepare, negotiate, and endorse at the national level a regional Strategic Action Programme (SAP) for port and navigational pollution reduction measures (as well as reduction of other adverse land-based activities) and improvement of navigation safety.																		



*Environmental Protection and Maritime Transport Pollution Control in the Gulf of Honduras*

4. <i>Improving environmental management and hazard reduction measures in the regional network of five ports within the Gulf of Honduras</i>																			
4.1 Conduct port operations risk assessments and propose concrete modifications to reduce pollution risks.																			
4.2 Review the adequacy of existing conventions and suggest reforms for national laws, policies, regulations and enforcement policies regarding port activities (including enhanced use of international agreements and mechanisms to control and enforce adequate certification of visiting ships).																			
4.3 Develop harmonized regional guidelines, standards and policies for port environmental management and security.																			
4.4 Identify sources of investment and develop investment plan for providing equipment and facilities for minimizing environmental impacts of port operations, including solid waste and oily ballast water disposal (as a contribution to the SAP).																			
4.5 Conduct demonstration pilot projects related to environmental improvements in three major ports, including demonstrations of port-specific hydrographic survey and electronic/paper nautical chart production activities, and environmentally effective ways of disposing of contaminated dredge spoil.																			



## **RISKS AND SUSTAINABILITY**

58. Good working examples of integrated planning and management among the three Gulf of Honduras states are few, though there are numerous regional bodies and cooperative efforts (see the Regional Programming Context). Considerable time and effort has already been spent to foster a new paradigm of co-operation in the project preparation phase among the relevant decision makers. The riparian countries have shown, through their efforts and commitment, their determination to solve joint problems right from the beginning of the process. During the several regional workshops and meetings held during the PDF-B process, the same if not an even greater sense of commitment has been shown by the countries. This commitment would need to be continued with the wider set of decision makers as well as the field personnel during project implementation. The incorporation of a project component into the overall design that establishes a more strategic regional coordination framework has been prompted by the existing weaknesses at various levels in the area of environmental management and sustainable development. An effective regional coordination framework will reduce many of the risks associated with the project. A key function of the regional coordination mechanism would be to reduce duplication of projects funded by various bi-lateral initiatives between the Gulf of Honduras countries and donors.

59. In all of the countries of the Gulf, levels of basic technical expertise are present in government, academic institutions and non-governmental organizations that indicate that these institutions are well placed to take an active part in implementing the activities that have been prioritized. There are some areas where expertise in specific and highly specialized disciplines is not available in all the countries. It is anticipated that the project will institute procedures to address these inadequacies very early during project implementation.

60. The proposed interventions were partly selected on the ability of the governments to sustain them. The high political commitment shown by the governments so far in the project development process is a fair indication of their continued interest and support. The long-term success of the project will rest fundamentally with the political will of participating governments to cooperate and sustain project interventions and outputs at project termination. This will be dependent on the success of the planned public awareness interventions and the degree to which the private sector and public sees ownership of the project. This sustainability of the project will be enhanced by the deliberate inclusion of the major stakeholders in all aspects of project implementation. The most likely risk to sustainability of the project is financial strain initiated by the vulnerability of the national economies to global events. The countries in question, particularly Belize, are economically strained, and therefore cannot channel major existing national budget to the marine environment. Financial stress reduces the ability of the states to sustain needed levels of counterpart funding and also reduces the likelihood of countries to assume the increased financial burden upon completion of GEF funding. Further risks have been mentioned in the Log Frame Matrix.

61. One key intervention contributing to project sustainability and the transferable sustainability of the GEF contribution will be the demonstration projects and their replicability throughout the basin. As such, one of the key criteria for demonstration project funding is a clear definition within the proposal of the potential for replicability of the lessons learned and the best practices developed from the demonstration project. These demonstration projects are consistent with the SAP development process. Significant additional inputs will be required to ensure that the lessons learned are transferred from one area to another in the basin and this will require considerable government commitment of manpower and financial resources. Annex D provides an overview of the processes to be used to address replicability of demonstration projects.

## **FINANCIAL SUSTAINABILITY**

62. Another important intervention, one that addresses the critical issue of financial sustainability of the project, will be the establishment of a financing scheme in cooperation with the private sector and port authorities. As discussed above, there is a risk that the economically-strained Gulf countries

will not be able to provide adequate funding for protection of the marine environment and new financial mechanisms are therefore required. During the implementation of the full project, a number of financing arrangements will be analyzed in order to support regional maritime pollution monitoring, control and prevention, to contribute to the financial sustainability of the program. While it is likely that a range of international donors will be interested in funding SAP activities, it is important to develop funding sources from within the region that are sufficient to keep the core SAP activities on a solid financial footing. During the full project, a variety of approaches will be considered for financing the SAP activities. Some of these include:

- Fees for port services, such as treatment of oily bilge water and garbage disposal.
- Port fees directly levied to support SAP activities. This could be based on a per boat basis or on cargo tonnage, with the fee depending upon the potential toxicity of the cargo.
- Fees collected from cruise ship tourists.
- Reimbursements in the event of accidents. Money not used in the spill cleanup could be used for SAP activities, such as those related to spill prevention.
- Partnerships with in-kind and monetary contributions from private, non-governmental and international entities.
- Money from the general fund of each country.

63. The approaches discussed here are not prescriptive, as to what should be done to generate money on a sustainable basis. Rather, these are some potential approaches that the countries in the region may consider to provide financing for SAP activities over the longer term. Generating money from fees on imports and exports – perhaps differentiated by the hazard posed by the cargo – and fees on cruise ship passengers are two approaches that can provide a significant core of funding for SAP activities.

64. It is likely that each country will want to choose their own mix of financing mechanisms, because of differences in cargo and cargo volume, as well as existing differences in tariff structures between countries. More generally, regardless of the types of funding mechanisms actually implemented, it is critical that all aspects of financing are transparent, so that there are minimal concerns about how the money is being spent. Stakeholders need to see how the money is collected, how much is collected, and feel the money is well spent. And the benefits achieved by the SAP activities have to be tangible to the stakeholders in the region. Without a sense of the money being well spent, then there will be an inevitable loss in support.

65. If competitive concerns can be overcome, and stakeholders see value in the SAP activities, then the long-term financing of SAP activities should not be problematic. The amount of money required by SAP activities is likely to be well within the capability of the region to finance on a long-term sustainable basis. A more detailed discussion of sustainable financing options for SAP activities is included in Annex K.

#### **STAKEHOLDER PARTICIPATION**

66. Stakeholder involvement is recognized as an integral requirement for each project component. In endorsing the project brief, the countries of the region recognize and embrace the need for this direct involvement by all stakeholders in the project process. The primary stakeholders in this project include:

- Public Sector: Ministry of Natural Resources and Environment and Ministry of Transportation and Communications in the three countries. National Port Authorities in the three countries. Publicly-owned ports in the region (Puerto Cortés in Honduras and Puerto Santo Tomás de Castilla in Guatemala).
- Local Governments

- Private Sector: Private ports in the Gulf of Honduras (Port of Belize City and Port of Big Creek in Belize and Puerto Barrios in Guatemala).
- Non-Governmental Organizations (NGOs): TRIGOH (Trinational alliance of environmental NGOs in the Gulf of Honduras), which includes TIDE in Belize, FUNDAECO and FUNDARY in Guatemala, and PROLANSTATE in Honduras.
- Regional Institutions: COCATRAM, CCAD, MACHC
- Regional Projects: PROARCA, MBRS.

67. A stakeholder participation plan is attached to the optional Annexes as Annex F. It indicates how the various stakeholders will be involved, and at what stages. In order to attain sustainability, the activities are designed to address interests of large groups of stakeholders, and a significant portion of the budget is designated for this task. Stakeholder participation in project management will also be facilitated by the Citizens Advisory Committee, which is discussed in more detail below.

68. Additionally, stakeholders have been actively involved in the development of this Project Brief. To seek input throughout the development of this project, a Regional Stakeholders Advisory Committee was created. This advisory committee was made up of a variety of governmental, non-governmental and private sector stakeholders who participated in a series of public and individual meetings and provided significant input in the development of the Preliminary TDA and the Project Brief. Stakeholder participation included representatives from government agencies such as the merchant marines, national port authorities, ministry of environment, ministry of finance and tourism institute; non-governmental organizations such as TRIGOH and its individual member organizations; representatives from the private sector such as COBIGUA; and representatives from other projects in the region such as the MBRS and COCATRAM. More than 60 representatives attended the three public meetings held in each of the three countries participating in the project.

69. The first meeting, held in San Pedro Sula, Honduras in November 2002; provided stakeholders with a detailed overview of the GEF project concept and a forum to discuss the scope and priority of sources of environmental degradation resulting from maritime transport, port operation, navigational risks and land-based sources. Legislative and institutional considerations were also discussed at this meeting. The second meeting, held in Guatemala City in March of 2003, presented the preliminary findings of the draft TDA and a conceptual approach for the Project's regional operating framework. Stakeholders participated in group discussions and provided input on the relative importance of environmental problems of the Gulf. At the third meeting, held in Belize in June 2003, the Stakeholder Committee reviewed and provided input on the first draft of the Project Brief, discussed options for the project operating framework and began analyzing candidate institutions under consideration for the regional executing institution. At the fourth and final meeting held in Tegucigalpa, Honduras, the Stakeholder Committee reached agreement that the Regional Executing Agency would be a collaborative effort between COCATRAM and CCAD. Definition of responsibilities and delegation of respective responsibilities will be outlined in a draft memorandum included in the appendices of the Project Brief.

#### **PROJECT MANAGEMENT FRAMEWORK**

70. The management framework is a forum for collaborative decision-making. Stakeholders represent different sectors including managers from local and national government, scientific organizations and academia, industry, nongovernmental organizations, user groups, and international organizations. Initiatives will require new or strengthening of existing laws and regulations and regional harmonization of legislation. This Project provides the opportunity to evaluate, and where useful, reformulate and broaden agency missions and organizational structure to better address programs in terms of a watershed approach for the Gulf of Honduras. A transboundary watershed approach will provide an opportunity to consider contaminant loading in the context of hydrologic conditions and not solely political jurisdictions. The program will contribute a regional value to existing national programs.

71. **Regional Steering Committee:** The Regional Steering Committee will consist of senior representatives from the counterpart agencies for each country charged with environmental management, port operation, and navigational safety. Additionally, the Committee will include donor agencies, and the Executing Agency. Non-voting members may include partner institutions, technical experts, and non-governmental organizations working on Project-related issues in the region. Steering Committee members will be responsible for the review and approval of the annual project workplan and budget and the review of proposed project activities and policies with national and regional implications. The following Steering Committee membership was endorsed by the Stakeholders Committee:

- Inter-American Development Bank
  
- Minister of the Counterpart National Institution for each country
  - Minister of Environment or designate
  - Minister of Transportation or designate
  - Minister of Defense or designate
  
- Director of the Regional Executing Agency

Non-voting members may include:

- Management Committee Director
- USAID, IMO, MACH, TRIGOH among others

72. **Inter-American Development Bank :** As implementing agency, the IDB will be responsible for overseeing the development and implementation of the GEF project and ensuring that program activities are executed in accordance with GEF requirements and meet the objectives outlined in the GEF funding agreements.

73. **National Counterpart Agencies:** The GEF Project requires the designation of national counterpart agencies for each of the three countries. Unlike some GEF projects that can be categorized into a single program area, this project involves three broad program areas – environmental management, port operations, and maritime transport. The recommendation for this project is to designate three counterpart agencies to maximize coverage of the project elements. The counterpart agencies, recommended by the Stakeholders Committee, include the Ministry of the Environment, Ministry of Transportation, and the Maritime Division of the Ministry of Defense. for each of the countries

74. **Project Coordination Unit:** The Project Coordination Unit (PCU) will be responsible for the direct implementation of the five-year project during the Project’s initial phase. Figure 1 from Annex I shows the PCU housed within the Regional Executing Agency, although the relationship is administrative and project finances and staff resources are dedicated to the GEF project. In consultation with the Management Committee, the PCU prepares the annual workplan and budget for the project. The PCU also provides administrative, logistical, and technical support to the Management Committee and other program committees.

#### **PROJECT COMMITTEES AND WORKGROUPS**

75. **Management Committee:** The Management Committee will collaborate with the PCU and build consensus among its diverse stakeholder membership concerning program activities to be undertaken by the GEF program. Committee members serve as direct links to their respective organizations to ensure that their input adequately reflects their institutions’ and constituents’ concerns. The Management Committee will consist of members that are mid-level decision-makers working in port operations, industry, national and local government, environmental groups, maritime organizations, community groups, user organizations, pollution control and planning, or professional organizations whose members’ activities are directly or indirectly involved in project-related coastal

issues, navigational safety, or port operations. In order to keep the committee with a manageable number, membership should be limited to approximately 30 members and their alternates. Maintaining a balance among the countries and the sectors is critical in order to have a meaningful dialogue and representative participation. The Management Committee composition endorsed by the Stakeholders Committee includes:

- Two national government representatives from each country to include the environmental ministry and one other ministry representative working on project issues, which may include navigational safety, coastal zone management, natural resources among other relevant program areas.
- One local government representative from each country
- Two nongovernmental organization representatives working on marine pollution or navigational safety issues from each country.
- One port authority representative from each country
- Two private sector/industry representatives from each country. Examples of participants could include shipping, petroleum, tourism or other industries based on country priorities.
- One scientific or academic institution from each country
- Two international organization representatives and their alternate acting as regional experts. Examples of expert institutions include the IMO and NOAA.
- Director of the Regional Executing Agency

76. **Citizens Advisory Committee:** In large part, the long-term success and sustainability of the GEF program will depend on broad public support consisting of stakeholders and the general public. An informed and involved public will be one of the program's important goals. The Citizens Advisory Committee will serve to develop activities to educate and involve the public in the decision-making process and reinforce civil society participation during the development and implementation phase of program activities. An important contribution to the program will be education of the general public and user groups concerning the GEF program and its activities, and ultimately institutionalization of program recommendations. The Citizens Advisory Committee representatives should consider all sectors that will be affected directly and indirectly by the program activities.

77. **Technical Advisory Committee:** The Technical Advisory Committee will consist of experts representing a balance of scientific disciplines from the public and private sectors, academic institutions, environmental organizations, and international organizations. Examples of potential committee members include the IMO, MACH, MBRS, CESSCO, TRIGOH, and technical staff from the counterpart agencies,. The Technical Advisory Committee will provide guidance to both the Management Committee and the Project Coordinating Unit concerning research needs, sampling and monitoring protocols, the prioritization of program activities based on technical considerations, and the reconciliation of data from multiple sources. The Technical Committee will be responsible for reviewing deliverables produced by the GEF project in terms of technical accuracy.

78. **Other Ad hoc Workgroups:** The Project also may identify the need to convene additional workgroups based on the program priorities. Examples of other workgroup topics include local government, finance and legislation. The municipalities also have a potentially important role in the execution of program activities. The formation of a finance committee may be warranted to identify and capture funding for country needs that contribute to the success of the GEF program, but are ineligible due to the incremental cost restrictions. A legislative workgroup would focus on the

development of regulations for international conventions and issues related to harmonization of legislation on a tri-national basis.

**REGIONAL EXECUTING AGENCY**

79. The Regional Executing Agency (REA) will function as the regional administrator of the GEF funding and executing framework. An REA representative will sit on the Management Committee and serve as a non-voting observer for the Steering Committee. The Regional Executing Agency will be responsible to the IDB for project oversight in the region.

80. As part of the development of the preliminary TDA and this Project Brief, the evaluation of the proposed regional executing institution has been developed with input from the Regional Stakeholder Advisory Committee. Stakeholders reviewed and commented on criteria for evaluating the regional institution. In response to a request received at the third Regional Stakeholders meeting, attendees were provided with the opportunity to submit proposals in consideration for regional executing agency. Throughout the preliminary TDA and Project Brief development there has been an emphasis on providing a transparent and inclusive planning and decision-making process.

81. Candidate institutions were evaluated using criteria defining desirable characteristics for the institution, as well as Project requirements established by GEF.

82. Annex I shows proposed organization of the GEF project structure based on the working relationship and responsibilities discussed below. The following criteria were developed as part of the evaluation process for the regional executing structure:

1. Demonstrated financial stability apart from any funding to be provided by GEF.
2. Administrative structure sufficient to administer the GEF funding program and respond to program audits as needed.
3. Recognized regional importance by stakeholders working on maritime pollution and navigational safety issues.
4. Expertise in the technical and management aspects in the program areas of marine pollution, navigational safety, and coastal planning.
5. Established contacts with government officials, industry, port authorities, and civil society organizations working on issues in the GEF program area.
6. Established public education and outreach programs and experience working with diverse stakeholder groups.
7. Demonstrated interest and long-term commitment to working on marine pollution and navigational safety issues in the Gulf of Honduras.
8. Demonstrated ability to coordinate ongoing regional programs to address the control of marine pollution and navigation safety issues in the Gulf of Honduras.
9. Ability to convene regional meeting.

83. The selected option for the Regional Executing Agency provides the project with a structure that can best respond to the technical, political and administrative elements of the programs. In developing the recommended option the following factors were considered:

- Technical resources and experience to address three broad programmatic areas – maritime transport, port operations and environmental management
- Formal work relationships with Belize, Guatemala, and Honduras
- Demonstrated ability to administer GEF projects either through previous GEF project experience or administration of internationally-funded projects of similar scope and complexity

84. **Collaboration between COCATRAM and CCAD:** After review of the areas of expertise and strengths that each institution brings to the project, the region agreed that the project would benefit from a collaborative effort between COCATRAM and CCAD. The details of the internal coordination of a joint project execution are the subject of an MOU (A draft MOU prepared by COCATRAM and CCAD is shown in Annex N). The project concept was originally proposed through the Regional Action Plan “The Agenda for Maritime and Port Security in Central America”, prepared by COCATRAM, CCAD and PROARCA.

85. COCATRAM provides the project with the technical background in the areas of maritime transport and port operation. COCATRAM has extensive regional experience and established relationships with government and industry. CCAD brings to the project complementary programmatic experience, GEF project administration experience, and political relationships in the environmental field, established outreach programs to NGOs and civil society, and membership by all three project countries. CCAD would strengthen the project through a collaborative project execution.

86. COCATRAM is a regional subsecretariat of SICA working to strengthen maritime transport, port operation, navigation safety and related environmental issues. The commission serves in an advisory capacity to governments to promote effective and sustainable development in the maritime transport sector in Central America. COCATRAM has established itself as a small, but specialized institution with established working relations with the ports, and local and national government agencies. The Commission is well-known in Honduras and Guatemala. COCATRAM does not currently have a formal working relationship with the Belize government.

87. COCATRAM is currently implementing several internationally-funded projects although it has not previously administered a GEF project. COCATRAM is a small agency that operates by contracting specialized experts to execute its program activities. If COCATRAM were to execute the GEF project, it would need to contract additional project staff.

88. COCATRAM is well-known and respected in the region as was indicated in the stakeholder interviews. The area where the agency needs strengthening is its outreach efforts with civil society and environmental NGOs working on similar issues in the region. Additionally, the lack of a formal working relationship with the Belize government has resulted in less interaction with authorities. COCATRAM has been working to strengthen and formalize its relationship with the Belize government. A serious consideration of COCATRAM’s ability to execute the project requires the development of a formal working relationship with Belize through use of a memorandum of agreement or other formal mechanism that meets the approval of IDB and GEF.

89. The Comisión Centroamericana de Ambiente y Desarrollo (CCAD) has a Presidency pro-tempore which started in Costa Rica and is presently in Belize. Also, the CCAD has an Executive Secretary and technical Ad-hoc Commissions dedicated to ensure the execution of the CCAD functions and responsibilities. The Presidency of CCAD represents the Commission before regional, international and national organisms. The Secretary is responsible for the implementation of operational plans and projects at the regional level. CCAD has extensive experience with administration of regional projects including GEF projects. Honduras, Belize and Guatemala are members of CCAD.

90. The following table outlines the advantages that were found for a collaborative approach between COCATRAM and CCAD.



*Environmental Protection and Maritime Transport Pollution Control in the Gulf of Honduras*

**Table 5. Factors for Considering Regional Executing Agency**

	<b>Technical Expertise in Project Areas</b>	<b>Formal Work Relationship with Project Countries</b>	<b>Demonstrated Ability to Execute GEF Projects</b>	<b>Observations</b>
<b>COCATRAM</b>	COCATRAM has extensive experience working in the areas of maritime transport and port operations. This experience includes addressing related environmental issues.	Honduras and Guatemala are members of COCATRAM. COCATRAM does not have formal relations with Belize, but has informally included authorities in training and technical strengthening programs.	COCATRAM has not yet administered a GEF Project; however, it has administered various internationally funded projects.	<p>1. COCATRAM is actively involved in promoting sustainable development of the maritime transportation industry, port operations and navigational security in Central America including related environmental issues. COCATRAM is not involved in natural resources, coastal planning, biodiversity and other environmental issues that may be potentially impacted by the project.</p> <p>2. GEF and IDB would require COCATRAM to have a formal mechanism by which Belize would integrate into the GEF Project without being a member of COCATRAM. It may be feasible to formalize Belize participation through an MOU with COCATRAM or alternatively through the incorporation of SICA into the Project Agreement with IDB since Belize is a member of SICA.</p>
<b>CCAD</b>	CCAD is involved in diverse aspects of environmental and natural resource management. CCAD is developing a clean technology program	Belize, Honduras and Guatemala are members of CCAD	CCAD has successfully administered several GEF projects.	CCAD is not involved in the core activities of the GEF Project but enriches the project by providing environmental expertise and contributes to better understanding of land-based sources of pollution in the GOH . In addition, the Commissions' Board consists of the Environmental Ministers of each of the three country participants and strengthens the program coordination and regional implementation.

**PROJECT FINANCING AND INCREMENTAL COSTS**

**Project Financing**

91. The Project is designed to build new and improve on existing regional cooperative frameworks, ensure adherence to international conventions, as well as strengthen national laws, regulations, and management regimes to improve the likelihood of sustainability of resource use and reduce existing and potential degradation. Additional financing for these future activities will be sought at the completion of this action programme; hence, the GEF Project will serve to leverage and catalyze further investments in the region. A detailed project budget, corresponding to the component activities will be prepared with the stakeholders during the Appraisal phase.

92. The Project will finance activities in the three countries as described in Table 3 below. The Project builds on national activities in these countries and serves as a transboundary increment to those national actions.

93. Funding for this Project is within the context of the agreed GEF Project envelope and ensures the commitment of all Governments and the support of bi-lateral and multilateral donors who have expressed an interest in supporting the project.

94. **Total project cost for the full project is estimated to be US\$**

**Table 6: Summary of Project Financing (US\$ million)**

Project Components	Co-financing Govts'	Co-financing other sources*	GEF	TOTAL
	US\$ millions			
1: Building regional capacity for maritime and land-based pollution control in the Gulf of Honduras Region.	721,395	67,650	2,508,249	3,297,204
2: Creating, analyzing and distributing marine environmental information and developing a strategic action plan for the Gulf of Honduras.	406,851	172,300	949,535	1,528,686
3: Enhancing navigational safety in shipping lanes.	958,491	2,700,200	1,007,640	4,666,331
4: Improving environmental management in the regional network of five ports within the Gulf of Honduras.	365,748	1,213,090	106,640	1,685,478
<b>TOTALS</b>	<b>2,452,485</b>	<b>4,153,150</b>	<b>4,572,064</b>	<b>11,167,699</b>
Executing Agency				320,044
PDF (B)				500,000
<b>Total Project Financing</b>				<b>11,987,743</b>

\* Note: See table 7: Other Co-financing (US\$ million).

**Table 7: Other Co-financing (US\$ million)**

Project Components	PROARCA/ USAID	IMO	TBD*	COCAT RAM	MACHC	Private Sector	TOTAL
	US\$ millions						
1: Building regional capacity for maritime and land-based pollution control in the Gulf of Honduras Region.	-	-	-	-	-	67,560	67,560
2: Creating, analyzing and distributing marine environmental information and developing a strategic action plan for the Gulf of Honduras.	17,100	-	-	-	-	55,200	72,300
3: Enhancing navigational safety in shipping lanes.	676,040	125,000	1,089,080	432,000	335,000	133,080	2,790,200
4: Improving environmental management in the regional network of five ports within the Gulf of Honduras.	526,870	-	613,400	-	-	72,820	1,213,090
<b>TOTALS</b>	<b>1,220,010</b>	<b>125,000</b>	<b>1,702,480</b>	<b>432,000</b>	<b>335,000</b>	<b>328,660</b>	<b>4,143,150</b>

\* Note: TBD - to be determined

#### INCREMENTAL COSTS

95. The incremental costs analysis is presented in summary in Table 4 below, and is based on the component costs and the discussion contained in Annex A. Annex A discusses the baseline activities, the alternative scenario, the domestic and global benefits of each, and provides the level of funding.

**Table 8: Summary of Baseline and Incremental Costs and Domestic Environmental Benefits**

Component	Baseline (B)	Alternative (A)	Increment (A-B)		
			Govts'	Other	GEF
1: Building regional capacity for maritime and land-based pollution control in the Gulf of Honduras Region	17,472,457	20,769,659	721,395	67,560	2,508,249
2: Creating, analyzing and distributing marine environmental information and developing a strategic action plan for the Gulf of Honduras	8,839,067	10,367,751	406,851	172,300	949,535
3: Enhancing navigational safety in shipping lanes	12,335,423	17,001,754	958,491	2,700,200	1,007,640
4: Improving environmental management in the regional network of five ports within the Gulf of Honduras	7,778,441	9,463,919	365,748	1,213,090	106,640
<b>TOTAL</b>	<b>46,425,389</b>	<b>57,603,084</b>	<b>2,452,485</b>	<b>4,143,150</b>	<b>4,572,064</b>

#### MONITORING, EVALUATION AND DISSEMINATION

96. Monitoring and evaluation includes a series of linked activities, including a complete Project Document, Tripartite Reviews, Annual Project Reports, and mid-term and final project evaluations. Monitoring and evaluation begins with preparation of the Project Document, complete with logical framework matrix (Log Frame) developed according to strict M&E procedures, including clear indicators of implementation progress and means of verification. This Project Brief includes the required Log Frame matrix with progress indicators and verifiers. The monitoring of the progress in executing the components and activities will be a central function of the Intergovernmental Project Steering Committee, which will serve as the oversight body. This should be done in accordance with the IADB's internal guidelines for project monitoring and evaluation. As part of its Terms of Reference, the Project Steering Committee will review and evaluate the objectives and outputs of the

project during execution as well as identify and respond to emerging issues as they arise. The project will be subject to the annual GEF Project Performance Implementation Review based on the annual programme/project report as described below.

97. The annual programme/project report (APR) is designed to obtain the independent views of the main stakeholders of a project on its relevance, performance and the likelihood of its success. The APR form has two parts. Part I asks for a numerical rating of project relevance and performance as well as an overall rating of the project. Part II asks for a textual assessment of the project, focusing on major achievements, early evidence of success, issues and problems, recommendations and lessons learned. The APR will be prepared by the Project Coordinator, after consultation with the relevant stakeholders, and will be submitted to the IADB. The stakeholder review will focus on the logical framework matrix and the performance indicators. Stakeholders could include a letter to the IADB that they have been consulted and their views taken into account.

98. The Gulf of Honduras project will be subject to Tri-Partite Review (TPR) once during the project (at the end of the third year). The Tri-Partite Review (TPR) is a policy-level meeting of the parties directly involved in the implementation of a project. The participants include the government, the IADB, project management, the direct beneficiaries, and other stakeholders. On these occasions, the Project Coordinator will submit an updated workplan (if required) and the latest Annual Project Report (APR), and formulate recommendations for eventual adjustments of strategies and activities. A draft APR shall be prepared at least two months in advance of the TPR to allow review by the IADB prior to the meeting. The Executing Agency assures that the recommendations of the TPR are carried out. Annual TPRs are not required as the Steering Committee meetings are expected to address many of the issues that would normally be addressed in a TPR.

99. The project will also participate in the GEF Project Implementation Review (PIR) process, in addition to the APR and TPR. The PIR is mandatory for all GEF projects that have been under implementation for at least a year at the time that the exercise is conducted. The PIR, which is carried out between June and September, contains sections on basic project data, financial status, procurement data, impact achievement and progress in implementation. The basic outline tends to follow the structure of the Log Frame or PPM (Project Planning Matrix), with indicators assigned to development objectives, immediate objectives, means of verification, and assumptions. The PIR questionnaire is sent to the Project Coordinator, usually around the beginning of June. Project Coordinators have on average 1.5- 2 months to collect the necessary information, and submit it to the IADB.

100. A mid-term project evaluation will be conducted. At the end of 30 months a mid-term evaluation, focusing on relevance; performance (effectiveness, efficiency and timeliness); issues requiring decisions and actions; and initial lessons learned about project design, implementation and management, will be made. A final evaluation, which occurs at the end of project implementation, focuses on the same issues as the mid-term evaluation but also looks at early signs of potential impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental goals. It should also provide recommendations for follow-up activities.

101. In summary tabular form, the M&E process for the Gulf of Honduras project will be as follows:

**Table 9: M&E Activities, Timeframes and Responsibilities**

<b>Activity</b>	<b>Responsibilities</b>	<b>Timeframes</b>
1. Drafting Project Planning Documents: Prodoc, Logframe (including indicators), M&E Plan	<b>Project proponent</b> together with RCU Staff and consultants and other stakeholders	During project design stage
2. Annual Programme/Project Report (APR)	Project Coordinator in consultation with Project stakeholders	Annually

<b>Activity</b>	<b>Responsibilities</b>	<b>Timeframes</b>
3. Tripartite Review (TPR)	The Governments, <b>Project Coordinator</b> , project team, IADB	At 36 months
4. Project Implementation Review (PIR)	<b>Project Coordinator, IADB</b> , project team,	Annually, between June and September
5. Mid-term and Final evaluations	Project team, IADB, <b>UNEP/DGEF headquarters, UNEP/EOU</b>	At the mid-point and end of project implementation

102. In addition to the standard IADB and GEF procedures outlined above, the project will benefit from (at minimum) annual Steering Committee Meetings. The Steering Committee is the primary policy-making body for the Gulf of Honduras project. The Project Coordinator will schedule and report on Steering Committee Meetings.

103. Meetings can also be organized *ad hoc* at the request of the coordinator and/or on request by one of the participating countries. The Steering Committee will approve the final results of such meetings.

104. Working in concert with appropriate scientific and technical institutions and government agencies in the region and in line with emerging GEF policies, the project will develop a set of “environmental quality indicators” to track the short and long-term impacts of this project. Key environmental indicators will include process indicators (e.g., policy, legal, institutional, etc. reforms), stress reduction indicators (e.g., reduced pollutant loads, etc.), and environmental status indicators (e.g., cleaner waters/sediments, restored habitats, etc.). The development of these indicators is part of the SAP process, and is included as Task 1.5.

105. Periodic Status Reports would be prepared at the request of the Steering Committee for presentation at key meetings associated with the project; however, to the extent possible, the APRs should be used for this purpose.

106. The project will also participate in the UNDP/UNEP/WB-GEF International Waters (IW) Learning, Exchange and Resource Network Program (IW:LEARN) which will now enter in the second phase. The Pilot Phase of IW:LEARN initiated procedures for incorporating lessons learned into formulation and implementation of GEF IW projects by fostering a knowledge-sharing community of GEF IW projects and partners through face-to-face interactions and distance learning. Pilot activities demonstrated various distance learning, knowledge sharing and knowledge management products and services, and tested their capacity-building value to this community. Many of the ideas presented in this Project Brief have benefited from lessons learned from past GEF projects. These ideas cover the project implementation modality, the M&E process, the identification of objectives and tasks, and the public participation component. The GEF's IAs are now proposing to use IW:LEARN's successfully tested techniques in an Operational Phase Full-Sized Project (FSP) to build the capacity of GEF IW projects through ongoing exchanges of experience and active learning. IW:LEARN is poised to address projects' priorities at the global scale and to collaborate with other projects to replicate its services within their transboundary basins and subsets of the GEF IW portfolio.

**LIST OF ANNEXES**

**Required Annexes:**

- Annex A. Incremental Cost Annex**
- Annex B. Logframe Matrix**
- Annex C. STAP Roster Technical Review**
- Annex C1. Implementing Agency Response to STAP/IA Comments**

**Optional Annexes:**

- Annex D Demonstration process selection and replicability**
- Annex E Preliminary Transboundary Diagnostic Analysis**  
Preliminary analysis of the transboundary environmental issues facing the Gulf of Honduras. (Separate document.)
- Annex F Public Involvement Plan Summary**  
Summary of how various Stakeholders will be involved in the Gulf of Honduras, including governance, management, and implementation, along with reference to the major Objectives/Components where their participation is identified.
- Annex G Baseline Activities and Co-financing**  
Based on input from the countries, as well as the IADB, the baseline and co-financing were identified to assist in the Incremental Cost Analysis.
- Annex H List of Publications Prepared During the PDF-B**  
Published materials available from the IADB describing the process and steps taken to develop the Preliminary TDA and the Project Brief. (Not used at this time.)
- Annex I Institutional Arrangements**  
Schematic of the Implementation Structure for the Gulf of Honduras, including governance, management, regional activities, and national activities.
- Annex J Copies of GEF Operational Focal Point Endorsement Letters**
- Annex K Financial Sustainability Plan**
- Annex L Projects Financed by the IADB**
- Annex M Causal Chain Analysis**
- Annex M Draft MOU – COCATRAM-CCAD**