PROJECT EXECUTIVE SUMMARY

REQUEST FOR Council Work Program Inclusion
UNDER THE GEF Trust Fund

GEFSEC PROJECT ID: 2688
IA/ExA PROJECT ID: RS-X1019
COUNTRY: El Salvador, Honduras, Nicaragua
PROJECT TITLE: Integrated Management of the Ecosystems of the Gulf of Fonseca
GEF IA/ExA: IADB
OTHER PROJECT EXECUTING AGENCY(IES): N/A
DURATION: 5 years
GEF FOCAL AREA: International Waters
GEF STRATEGIC OBJECTIVES: IW-1 and IW-2
GEF OPERATIONAL PROGRAM: OP9 - Integrated Land and Water Multiple Focal Area
PIPELINE ENTRY DATE: March 2005
EXPECTED STARTING DATE: FEBRUARY 2008
EXPECTED CEO ENDORSEMENT: NOVEMBER 2007
IA/ExA FEE: US$ 560,000

FINANCING PLAN ($)		
	PPG	Project*
GEF Total	600,000	5,000,000
Co-financing	(provide details in Section b: Co-financing)	
GEF IA/ExA		
Government	90,000	1,990,000
Others	300,000	19,336,000
Co-financing Total	390,000	21,326,000
Total	990,000	26,326,000
Financing for Associated Activities If Any:		

CONTRIBUTION TO KEY INDICATORS IDENTIFIED IN THE FOCAL AREA STRATEGIES: The project will contribute to the following targets and performance indicators established for International Waters: (i) The Gulf of Fonseca, the only multi-national maritime body along Central America's Pacific coast (3,200km2) and its tributary watersheds (21,000km2) will have a trinational pollution and sediment control strategy agreed upon by governments and stakeholders in El Salvador, Honduras and Nicaragua and measurable results in its implementation. Two of the tributary watersheds are transboundary; (ii) strategic partnerships between the three countries, including a Trinational Commission for the integrated management of the Gulf's ecosystems, and financing institutions (Spanish International Cooperation Agency, Millennium Challenge Corporation, Japanese International Cooperation Agency, IDB) will be in operation; (iii) 22% of the entire area of mangroves and six major estuaries and deltas, including two Ramsar sites contributing to the productivity of the Pacific Central-American Coastal Large Marine Ecosystem (LME) under a locally-driven and nationally endorsed action plan contributing towards the targets of the World Summit on Sustainable Development; and (iv) El Salvador, Honduras and Nicaragua with innovative demonstration projects in fisheries and mangrove co-management, cleaner production (including from shrimp aquaculture) and sediment control.

Approved on behalf of the Inter American Development Bank. This proposal has been prepared in accordance with GEF policies and procedures and meets the standards of the GEF Project Review Criteria for work program inclusion.

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Date: March 22, 2007

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1. PROJECT SUMMARY

a) PROJECT RATIONALE, OBJECTIVES, OUTCOMES/OUTPUTS, AND ACTIVITIES.

1.1. Project rationale

The Gulf of Fonseca is situated along the Central American Pacific coast, bordering the Republic of Honduras to the North, the Pacific Ocean to the South, the Republic of El Salvador to the west; and the Republics of Nicaragua and Honduras to the east. It is a tropical estuarine system belonging to the Pacific Central-American Coastal Large Marine Ecosystem and made up of a set of interrelated ecosystems, such as interior estuaries, mangroves, and continental and island coasts encompassing an area of 3,200 km^2. Mangroves occupy 1,100 km^2, accounting for approximately 22% of the entire area of mangroves along the Pacific coast of Central America.

Six main tributary watersheds and other smaller ones cover an area of approximately 21,000 km^2. The Goascorán and Río Negro watersheds are transboundary, the first shared by El Salvador and Honduras, the second by Honduras and Nicaragua. Along with the Gulfs of Guayaquil, Nicoya, Chiriqui and Panama, the Gulf of Fonseca is one of the most important tropical coastal systems along the Eastern Pacific Ocean in Latin America due to the size of the estuarine complex and mangrove belt and its proximity to areas with high concentrations of nutrients such as seasonal upwellings and seamounts. Similarly, it is also considered as one of the most biologically rich maritime areas of Central America and provides spawning, nursery and feeding areas for a range of species of fish, shellfish, including stocks that have traditionally supported the most productive artisanal fisheries in the region. Given its physical and ecological characteristics, the Gulf also accounts for a significant share of shrimp farmed in Central America, an important source of revenue for all three countries.

There are two Ramar sites in the Gulf of Fonseca. The mangrove portion of the Mesoamerican Biological Corridor in Honduras (69,711 ha) was designated Ramsar site #10001 in 1999 due to its importance as shelter to migratory and resident birds, and as spawning, reproduction, and feeding areas for turtles, crustaceans, mollusks, and fish. In 2001, the Estero Real and Llanos de Apacunca deltas in Nicaragua (81,700 ha) were also designated Ramsar site #11362, as they were considered crucial for conserving the water resources of the region and habitats for species whose conservation is of global importance. The mangroves, in addition to work as a mean of economic sustenance, serve as filters as they retain contaminants from the mainland, retain sediments, and provide a first line of protection against coastal erosion and the impacts of tropical storms which are frequent in the Gulf region.

The area of the Gulf of Fonseca includes ten Protected Natural Areas under co-management agreements in Honduras, four in the coastal marine zone of Nicaragua, and two in El Salvador. The integrity of the Gulf's coastal and marine ecosystems and the tributary watersheds to which they are directly linked, contribute to regional and global benefits. They also raise complex transboundary considerations for sustainable fisheries, pollution and sediment control that call for a vision shared among all three countries of the Gulf's future development and innovative action at the local level to attain that goal.

The estimated population of the Gulf of Fonseca region is more than 750,000 persons, distributed across 19 coastal municipalities. To a large extent, local residents meet their needs by directly using the goods and services provided by the Gulf. Indeed, the majority of the economically active population in the Gulf's region[3] depends on primary sectors, with subsistence agriculture

[1] http://www.ramsar.org/sitelist_order.pdf

[2] Ibid.

[3] Honduras 180,000 persons, Nicaragua 84,400 persons, El Salvador 45,600 persons.

and artisanal fishing in the coastal zones being the leading sources of employment. During the last decades, new productive activities such as small factories and agro-industries have developed with a focus on production of non-traditional exports such as shrimp farming, the production of watermelon, melon, and cashews. Commerce and services' sectors have been showing a steady growth rate in recent years, with significant increases in maritime shipping and overland commercial transportation expected with the construction of the megaport of La Union – Cutuco, El Salvador. The Transboundary Diagnostic Analysis (TDA) (Annex G) conducted for the project confirms that: (a) most of the employment generated in non-traditional sectors are either temporary or unstable with persistent high poverty levels reported that signify high dependence on resources such as mangroves for fuelwood and fisheries for food security, and (b) agricultural production systems (either subsistence or intensive) need to improve sustainable land management practices and reduce agrochemical run-off, in light of their existing and potential impacts on the Gulf's ecosystems.

There are approximately 20,000 artisanal fishers harvesting stocks of shrimp and finfish shared by all three countries of the Gulf. In addition to traditional fishing practices, fishing for shrimp post-larvae has increased in the last decade. This activity involves the use of toxics during the process of collecting and sorting larvae to eliminate the accompanying by-catch, placing stocks under additional pressure. As fisheries in the Gulf are market-driven with primarily open access conditions, overexploitation is common. As a result, stocks of fishes and crustaceans are reported to be declining based on volumes of catch, catch per unit effort (as well as the size of individuals), while fishing pressure as determined by the size of the fishing fleet and number of licensed and unlicensed fishers has increased. Shrimp aquaculture employs over 50,000 people, primarily in Honduras and El Salvador, and its export value exceeded US$175 million in 2005. While its economic relevance is undeniable, there is concern that the development and operation of shrimp farms could cause negative effects on the carrying capacity of the estuarine ecosystems[4].

Despite the many existing national laws regulating activities that could affect the Gulf's ecosystems, there are some gaps that need to be taken into consideration with a view of moving towards legal frameworks that support effective, integrated management of the Gulf in a trinational manner. These are related to: (i) the absence of either laws or regulations for land use planning and management; (ii) overlapping and/or contradictory regulations for watershed management; (iii) weaknesses in national Fisheries Laws that are often outdated and that fail to incorporate the foundation for managing sustainable fisheries consistent with the FAO Code-of-Conduct for Responsible Fisheries and international best practice for regulating coastal aquaculture; and (iv) the lack of regulations on the coastal-marine zone (pollution, sedimentation, dredging, filling).

In addition to the overlaps, contradictions and gaps, there are other factors that prevent the three countries from working in a more effective manner in promoting compliance and enforcing the legal framework relevant to the management of the Gulf's ecosystems. The main issues can be summarized as follows: (i) limited institutional and financial capacity from key institutions for promoting compliance (i.e., through economic and other incentives) and enforcing existing laws; (ii) despite the existence of regulations, environmental infractions are not adequately penalized due to poor monitoring and control given the scarce personnel for these duties; (iii) environmental audits as well as environmental impact assessments for developments in the coastal zone do not have a clear procedural framework for their application; and (iv) although there are existing regional agreements between the three countries reflecting their commitment to cooperate in

[4] Ward (n.y.) Evaluation of the shrimp farming impacts in the Gulf of Fonseca Region. See http://pdacrsp.oregonstate.edu/pubs/technical/17tch/8HR2-2.pdf

managing the Gulf's ecosystems, there is no existing regional cooperation framework in place that can support coordinated action to address key threats within the Gulf.

1.2. Project strategy and approach

Based on the TDA and other complementary analyses undertaken for the project[5], a series of emerging and interconnected problems affecting the marine and coastal resources are threatening the medium and long-term functional integrity of the Gulf's ecosystems. Some of these threats appear to be relatively localized whereas others are common to the three countries or transboundary in nature. These main **threats** are as follows:

Pollution. Organic matter derived from human and animal wastes without proper wastewater treatment and contaminants from agrochemicals, aquaculture effluents and industrial wastes are being discharged into the waters of the Gulf of Fonseca in significant amounts.[6] Although data comparable across the Gulf are limited, there is evidence of reduced dissolved oxygen levels mainly in the estuaries during the dry season. Studies confirm that hydrodynamic conditions along with trends in dissolved oxygen levels[7], suspended sediments, nutrients, pathogens and other contaminants are such that the farmed shrimp industry itself recognizes the need for auto-regulation. As for other pollutants, the presence of residual pesticides and heavy metals in the tissues of fish and other living organisms has been reported as a result of agricultural run-off. As pollutants are transported downstream, they accumulate in coastal sediments and food chains, affect the health of ecosystems such as wetlands and mangroves, and are carried across boundaries by currents within the Gulf. They also have a direct impact on human health.

Sedimentation. Processes in the Gulf are closely linked to its tributary watersheds in all three countries, and some processes have transboundary implications requiring regional cooperation. One of these processes is sedimentation in coastal and marine ecosystems originating from severe erosion upstream. The sediment loads discharged into the Gulf per watershed are correlated with their stream flow, population, economic activity and land use. Based on results from other watershed management projects in the Gulf region, deforestation in the tributary watersheds of the Gulf is one of the main causes of severe erosion, soil loss and downstream sedimentation but there are likely to be other physiographic and land use conditions contributing to the problem. Although very limited monitoring has taken place, a model run in preparing the project indicates that erosion potential may be higher in the low-lying sectors of the watersheds due to intensive agriculture and limited vegetation combined with the higher precipitation intensities characteristic of the Gulf's coastal zone. Applied research undertaken in similar circumstances indicates that sedimentation can have several direct consequences on the Gulf's marine and coastal ecosystems, many with transboundary implications. For example, increasing turbidity and reducing light penetration in coastal waters can impede the development of submerged grasses that are critical for the reproduction of marine fauna, including commercial fish stocks that are shared by all three countries. Excessive sedimentation in nearshore areas can also lead to changes in the hydrology of mangroves and eventual die-off. Very limited field data exist to help understand what portion of sedimentation is human-induced rather than natural, to pinpoint those critical sub- and micro watersheds contributing excessive sediment loads that affect the Gulf's ecosystems and to proceed with a cost-effective approach where all three countries can tackle the problem in a cooperative

[5] (http://envr.abtassoc.com/fonseca unsername: golfo; password fonseca

[6] In rural areas only 10 - 20% of the houses have sewage treatment and solid waste is burned, buried, dumped at unauthorized trash heaps, or disposed in the mangroves.

[7] Persistent low dissolved oxygen levels result in the elimination or reduction of aerobic organisms, particularly species with limited horizontal mobility such as post-larvae, interrupting their natural maturation and interrupting the biological food chain.

manner in an area covering approximately 21,000 square kilometers (total estimated area of all tributary watersheds).

Overexploitation of fish and shellfish. Most of the living marine resources (shrimp and fish species) are overexploited at levels ranging from 31% to 178% of the reference value used in a detailed study of fisheries in the Gulf. The catch of wild shrimp post-larvae and the associated by-catch above recruitment rates have placed significant pressure on all juveniles stocks in the estuaries as well as stocks at sea. In the Gulf of Fonseca many species of mollusks and crustaceans associated with the estuaries, mangroves and rocky reefs have been overexploited by artisanal fishing, and have also been affected by the loss of habitats, sedimentation and pollution. There are indications that artisanal fishing of shark is leading to their depletion, especially species such as the black tip hammerhead sharks. In addition, the harvest of the most common fishes for domestic consumption is above sustainable yields.

Transboundary conflicts among fishers. The depletion of coastal stocks within the Gulf has translated to increasing disputes among artisanal fishers of the three countries who, to maintain their capture levels, cross international boundaries, leading to the seizure of their product and fishing gear. The unit of effort per catch has increased significantly in recent years, and fishers are forced to invest more hours for the same catch and more money in fuel to reach fishing waters further and further from the coast. Other confrontations are caused by the entry of commercial (industrial) fishing boats in artisanal fishing areas and their use of drift nets, which reduce the overall available catch.

Overuse of water resources. The agricultural and agroindustrial sectors make more intense use of water during the dry season, placing pressure on surface and groundwater resources. For example, in the lower part of the Choluteca river watershed, large tracts of land planted in melon for export, watermelon, and sugarcane are irrigated, leading the surface and groundwater flows at the mouth to be reduced considerably. In the mangroves and estuaries, fresh water flows maintain salt concentrations at levels required for the survival and reproduction of species dependent on those ecosystems. When freshwater flows are diminished due to the reduction of infiltration, overuse of the resource, or both at the same time, higher salt concentrations have a negative impact on productivity.

Habitat degradation. The coastal zone of the Gulf of Fonseca has been undergoing a process of rapid land use change in the last several decades.[8] A loss of at least 50% of mangrove forests since the 1960s has been documented in the Gulf of Fonseca and is considered a priority threat. The destruction of mangroves has resulted mainly from the construction of shrimp ponds (both industrial and artisanal), uncontrolled exploitation for fuelwood, urban growth, and the expansion of facilities for salt production. According to some studies, the largest-scale losses of mangrove occurred in the 1960s and 1970s, mainly due to areas given over salt production, whereas those occurred in the 1980s and 1990s were due to the establishment of shrimp farming. In relation to the extraction of mangrove timber, studies done in the Gulf region have confirmed that the poorest communities depend more on wood as a fuel. While encroachment of mangroves for farmed shrimp production has slowed considerably, trends in mangrove deforestation persist due to the increasing fuelwood demands of a growing population on a declining forest stock.[9] Studies have concluded that the mangroves of the Gulf of Fonseca are a shared resource crossing national boundaries that requires coordinated efforts to allocate resource use rights, enforcement and the

[8] See project document for summary tables of land use change.

[9] Centro de Estudios Ambientales y Sociales para el Desarrollo Sostenible, CODDEFFAGOLF, International Center for Research on Women, 2000. A Platform for action for the sustainable management of mangroves in the Gulf of Fonseca.

promotion of alternative to fuelwood. Mangrove and wetland losses across the Gulf translate to losses in habitat for migratory bird species as well as species that use the entire Gulf as shelter.

The main **root causes** contributing to the deterioration of the trinational water body include:

Poor coordination between the involved countries, limited capacities and the absence of common tools in order to co-manage the Gulf's resources with a regional perspective. While there have been projects promoting initiatives across the Gulf, none to date have resulted in a functional tri-national institutional framework that incorporates relevant national agencies, local governments, civil society organizations and the private sector. Capacities for integrated coastal resource management at the local, national and regional levels are limited, which is aggravated due to the fact that El Salvador, Honduras and Nicaragua are at distinct stages of devolution of environmental and natural resources management responsibilities to local governments. In most cases, municipal responsibilities in coastal resource management (CRM) in the Gulf of Fonseca are incipient. One of the challenges is to develop local capacities in step with the decentralization process currently in progress in each of the three countries. The other challenge is to promote this increased local responsibility in CRM while respecting considerations that are of national interest. Common tools, such as information systems, monitoring networks and regional models are lacking. Technical and operational capacities at all levels for using these tools for integrated ecosystem management and planning in a coordinated and participatory manner, are incipient.

Absence of harmonized legal/financial mechanisms and planning instruments for guaranteeing the sustainability of the Gulf's marine and coastal ecosystems. Although there are some instruments for regulating human activities that affect the ecosystems within the Gulf, these are limited primarily to the national level with little buy in locally, inconsistent across countries, are not financially sustainable in the long term, and their enforcement is incipient. In addition, incentive schemes for promoting compliance locally are lacking. This is the case, for example, for open access artisanal fisheries and harvesting mangrove wood for fuel where there are no incentives for producers to adhere to co-management plans without clarification of resource use rights. Few common policies, plans or strategies have been agreed upon or implemented in order to effectively address pollution control, sedimentation, transboundary conflicts that exacerbate land and marine resource overuse, and habitat degradation. In part, none of these instruments have been developed due to lack of opportune and updated environmental information about the Gulf of Fonseca and its tributary watersheds, its trends, and current and future impacts under different development and land use scenarios.

Limited sustainable alternative livelihoods. The Gulf of Fonseca is one of the poorest regions in the Central American isthmus. Its population density is greater than the national average in the three countries, and the majority of the inhabitants are settled either on the adjacent zones of the main tributary river basins that drain the Gulf, or along its shores. As the majority of the economically active population is dedicated to subsistence activities and is dependent on scarce natural resources for food safety, fuel and other basic needs, poverty is widespread throughout the Gulf in the three countries. Subsistence level users groups are poorly organized and have limited opportunities to participate in the management of the resources they depend on such as in the case of fisheries. Poor coastal communities and households have limited access to government services, including support to enhance in a sustainable manner productivity and commercialization. Improved markets, alternatives such as tourism are unlikely without a coordinated effort to manage resources across the region.

The threats and root causes identified above point to the need for integrated coastal resource management (CRM) of the Gulf of Fonseca. In this context, integration refers to the biophysical and socio-economic linkages between the tri-national water body, the coastal zone and its tributary watersheds upstream as well as the coordination (or vertical integration) between

regional, national, and local governments and organizations. Under these circumstances, the project's strategy for intervention considers factors crucial for sustainability including the following: (a) it must **build on a common understanding of the Gulf of Fonseca as a system**, shared by the three countries locally and nationally, with the purpose of ensuring that the existing working relationships are strengthened over the course of the project. To that end, the project incorporates two highly complementary features: (i) activities that build local capacities for CRM across the three countries, with an emphasis on municipal governments and organizations; and (ii) a high-level trinational decision-making process that strives for regional consensus and cooperation for the integrated management of the Gulf as a means of addressing transboundary environmental considerations[10]; (b) it must genuinely **engage and promote ownership in the project** among actors involved in the three countries[11] by means of **practical activities that can attain measurable field results** that translate to both socio-economic and environmental benefits in terms of sustainable, productive uses of coastal and marine resources and preventing contamination and excessive sedimentation in the Gulf. In this regard, the project proposes to work *with* the national environmental authorities and *through* the 19 municipalities and their associations, civil society organizations, and educational institutions to carry out co-management arrangements, demonstrate environmentally-friendly technology and best practices as well as promoting an innovative model linking applied research, education and extension (see below); (c) it must **base concerted management decisions on scientific knowledge of both the tributary watersheds and the Gulf's waterbody dynamics**. The strategy thus incorporates Gulf-wide decision tools that enable the three governments and stakeholders to pinpoint where scarce financial and human resources are best invested.

The project intervention has emphasized **cost-effectiveness** by: (a) capitalizing on local resources (i.e., existing entities located in and involved with the Gulf region, existing local facilities) and on the consolidation of existing networks (i.e., for monitoring) and management tools (i.e., municipal development plans) thereby avoiding a more expensive intervention based predominantly the creation of new entities and networks; (b) improving trinational coordination and harmonization of management practices within the scope of existing agreements while taking a phased, progressive approach to the formulation and negotiation of new agreements; (c) directing measures and investments for sediment and pollution from the project as well as from private, public and international cooperation stakeholders to those sectors and locations most likely to have a positive measurable impact on the Gulf's ecosystems.

The project includes several features that are **innovative** regionally and for IW projects. These include: (a) capacity building and the consolidation of tri-national alliances of coastal municipalities (mancomunidades) and user organizations (e.g., fishers and aquaculture producers) to facilitate interchanges, joint priority setting and participation in the regional policy-making and planning initiatives (including the first multi-national coastal management plan for Central America formulated through a process that is locally driven and nationally endorsed; (b) development of a Gulf-wide fisheries policy with ecosystem-based fisheries assessment and co-management as driving principles. Partnerships with specialized institutions such as the National Oceanic and Atmospheric Administration (NOAA), the French Research Institution for Exploitation of the Sea (IFREMER) and others are being sought to give the initiative sustainability and ensure its scientific soundness. IDB has had successful experience in involving IFREMER in sustainable fisheries initiatives elsewhere in Honduras; (c) a regional institutional structure for implementation that promotes the integration of applied inter-disciplinary research,

[10] This is coupled with a commitment that: (a) the negotiation of all formal agreements involve relevant parties including the Ministries of External Affairs of each respective country; and (b) the trinational project will not address boundary considerations.

[11] Including stakeholders (inhabitants, *mancomunidades*, NGOs, among others) from the 19 coastal municipalities in the three countries.

field extension in coastal and marine resources management, and education as an adaptation of the successful U.S. Sea Grant model. This would be the first pilot effort in Latin America; and (d) development of a regional, interactive decision support model that links policy and investment scenarios in the tributary watersheds with risk scenarios in the Gulf that can be used for various regional applications including Strategic Environmental Assessments. Finally, the development of the financial plan as a unified sustainable financing mechanism will ensure the sustainability of the program.

While important funds have been invested in the Gulf, there has been a tendency to focus on single productive sectors from a country-based perspective and not taking fully into consideration the interrelated nature of the problems in the Gulf. In this context, cooperative and integrated management of the Gulf can only be achieved by building a shared vision of the Gulf of Fonseca as a maritime body linked to its tributary watersheds with coastal and marine resources collectively used by the three countries locally and nationally, by engaging and promoting ownership in the project among actors involved in the three countries by means of practical activities that can attain quantifiable benefits, and by basing concerted management decisions on scientific data of both the tributary watersheds and the Gulf's waterbody dynamics. Therefore, this project responds to a series of agreements signed by the Governments of El Salvador, Honduras and Nicaragua. Among others, in the context of *Plan Puebla Panamá* (PPP), the three countries also selected the Gulf of Fonseca as a priority area for regional integration, and in 2004 asked the IDB to support the preparation of a GEF project that would promote the integrated management of its ecosystems

1.2 Project goal, objectives outputs and activities

The **global objective** of the full GEF project is to contribute to the health of the trinational coastal and marine ecosystems of the Gulf of Fonseca, one of the most important tropical coastal systems and the only multi-national Gulf along the Eastern Pacific coast of Latin America. The **objective** of the Project is to foster the sustainable use of the Gulf of Fonseca's marine and coastal resources and the integrated management of its ecosystems through the support of a trinational framework for cooperation.

The **specific objectives** are to: (i) establish and strengthen institutional arrangements for an effective and participatory management of the Gulf's ecosystems; (ii) foster integrated planning and regulatory management of coastal and marine resources in the Gulf of Fonseca; (iii) establish decision-making systems for pollution and sediment monitoring, prevention, and control; and (iv) support the promotion of livelihoods compatible with the sustainable use of the Gulf's resources. The following results are expected from the proposed project:

Incremental result 1 - Institutional frameworks and technical capacities for regional management strengthened: the Project will have the following main results: (i) technical and operational capacities of key institutions and actors in the three countries that have responsibilities and interests in the Gulf's coastal and marine ecosystems and tributary watersheds strengthened in coastal resources management (CRM), monitoring, pollution and sediment control and other key competencies for trinational cooperation; (ii) effective mechanisms for cooperation at the trinational level established, including a functioning Trinational Commission for integrated management the Gulf's ecosystems. This also includes the Gulf-wide Federation of municipalities (MUGOLFO); (iii) local civil society networks spanning the Gulf strengthened to ensure effective involvement in the project's activities and long-term cooperation; (iv) information node for monitoring the Gulf of Fonseca consolidated.

Incremental result 2 - Effective coastal and marine ecosystem management measures endorsed and implemented: the Project will have the following main results: (i) a plan for trinational

coastal resource management (CRM) endorsed by all three countries and implemented under local leadership. This will be the first such plan in Central America and it will include a 'CRM benchmark system' enabling local and national governments to gauge progress in CRM in the Gulf region; (ii) specific policy for fisheries and aquaculture in the Gulf endorsed and implemented by all three countries and artisanal fisheries co-management in place with at least three cooperatives including voluntary by-catch reduction; (iii) sustainable financing mechanisms designed; (iv) co-management arrangements for sustainable use of mangrove ecosystems in place and mangrove ecosystems restored.

Incremental result 3 – Decision-making models for preventing / controlling pollution and sedimentation in operation: the Project will have the following main results: (i) hydrometric and water quality (including suspended sediment) monitoring network in the tributary watersheds expanded, with data collection protocols harmonized in all three countries; (ii) bathymetric information and monitoring of the atmosphere, the hydrodynamics and water quality information within the Gulf updated; (iii) hydrological model of the tributary watersheds implemented and enabling the countries have a common understanding of the relative contribution of pollutants and sediments from distinct watersheds and micro-watersheds; (iv) hydrodynamics and water quality model implemented and enabling countries to have a common understanding of the circulation of pollutants and sediments in the Gulf; (v) pollution and sediment control regional strategy designed and executed, with national and local investments in wastewater treatment, clean production and watershed management aligned with agreed upon priorities.

Incremental result 4 – Sustainable livelihoods promoted: the Project will have the following main results: (i) alternative income sources for local communities based on sustainable use of natural resources and environmental services; (ii) demonstration projects to facilitate the adoption and replication of sustainable production practices / alternative livelihoods; (iii) enhanced knowledge in local communities on natural resource conservation and sustainable production methods; (iv) awareness among the target industries of the competitive advantages of clean production and sound environmental management (v) targeted sectors and industries adopt clean productive practices.

To achieve the indicated results, the project includes the following components and activities:

Component 1: Institutional Strengthening for Regional Management of the Gulf. This component will be achieved through the following activities: (i) strengthening the technical and operational capacities of key stakeholders in regional and local institutions, as well as social actors; (ii) reinforcement of the trinational coordination framework; (iii) enhancement of the mechanisms for the involvement of the civil society in the Gulf's management; and (iv) consolidation of the information node for monitoring the Gulf of Fonseca by linking in the local and national information systems with a Regional one.

Component 2: Management of Coastal and Marine Ecosystems. This component consists of the following activities: (i) design and implement a trinational coastal management plan for the Gulf of Fonseca as a foundation for effective local Coastal Resource Management (CRM); (ii) develop fisheries and aquaculture policy and co-management for the Gulf among the three countries; (iii) enhancing the financial sustainability for the management and co-management of the Gulf's resources; (iv) environmental restoration of mangrove ecosystems.

Component 3: Pollution and Sediment Prevention and Control /Decision-making Models. This component will be achieved through the following activities: (i) expansion of the hydrometric and water quality monitoring network in the tributary watersheds of the Gulf of Fonseca; (ii) update of bathymetric information and establishment of monitoring the atmosphere, the hydrodynamics, and water quality within the Gulf of Fonseca; (iii) implementation and start-up of a hydrological model in the tributary watersheds of the Gulf of Fonseca; (iv) implementation and start-up of a

hydrodynamic and water quality model for the Gulf of Fonseca; and (v) designing and execution of a regional strategy for pollution and sediment control in the Gulf of Fonseca.

Component 4: Promotion of sustainable livelihoods. This component consists of: (i) sustainable use of natural resources and development of alternative livelihoods; and (ii) support the adoption of cleaner production in targeted sectors and industries.

b) KEY INDICATORS, ASSUMPTIONS, AND RISKS (FROM LOGFRAME)

In accordance with the Logical Framework (see Annex B), the outcome indicators to measure the level of Project success at the *Goal* and *Purpose* level are described below:

Goal: Contribute to the health of the trinational coastal and marine ecosystems of the Gulf of Fonseca, as well as the well-being of the population settled along its coastal zone and lower binational tributary watersheds.

Outcome indicators three years after the end of the project:

- The coverage of the mangroves is the same or has expanded compared to the current extension (Baseline: Mangroves: 57,400 ha).
- Land-based pollution is controlled or reduced as measured by Biological Oxygen Demand (BOD) at the mouths of the major tributary watersheds (Baseline: estimated total BOD 170,000 kg/day at the mouths of the watersheds based on TDA).
- Sedimentation in the Gulf of Fonseca is controlled or reduced compared with the current estimated amount (Baseline: estimated total sediment discharges 23,000 – 116,000 tons/day at the mouths of the watersheds).
- The number of inhabitants living in the Gulf's area deriving at least 50% of their income from environmentally sustainable activities and / or alternative livelihoods linked to the use of marine and coastal resources has increased by 10%, compared to a baseline to be updated through a survey in Year 1 (Baseline:20,000 artisanal fishers; 53,000 persons dedicated to aquaculture; to be refined during year 1).

Purpose: To foster the sustainable use of the Gulf of Fonseca's marine and coastal resources and the integrated management of its ecosystems through the support of a trinational framework for cooperation.

Outcome indicators by the end of the project:

- The Trinational Commission for managing the ecosystems of the Gulf of Fonseca is operating efficiently as a participatory and representative regional cooperation structure (Baseline: Amapala Agreement of 1993 calling for the establishment of a Trinational Commission is not implemented)
- Based on the Transboundary Diagnosis Analysis, the regional information node and its models, the countries share systematically scientific information on the environmental status and trends of the Gulf's tributary watersheds as well as its waterbody, so as to make it possible to agree upon strategies/actions for pollution and sediment control prevention and adaptive ecosystem management. (Baseline: In 2006 there is no harmonized monitoring network or systematic exchange of data on water quality and sedimentation processes in the Gulf or its tributaries, and existing information systems have limited coverage).
- A set of policies, norms and procedures for the use of coastal-marine resources of the Gulf will have been harmonized based on consensus, and their implementation will be monitored using a common CRM benchmark system. (Baseline: in 2006 no specific policies by consensus have been harmonized nor enforced between the three countries).

- Co-management plans for at least two overexploited shared resources (shrimp and fish) are being implemented with fisher associations, local governments and organizations of each country. (Baseline: There are no co-management plans for fisheries resources).

Assumptions: the project was designed under the assumptions that: (i) the governments from the three countries cooperate in the development and enhancement of the legal framework, policies and regulations for the integrated management of the Gulf.; (ii) there is political will in the three countries to sign the Trinational Agreement and ensure the Commission's continuity; (iii) the priority of the key stakeholders in the three countries is maintained with regard to the sustainable development of the Trinational Gulf of Fonseca; (iv) there is sociopolitical stability in the Gulf of Fonseca region, that enables to improve the conditions for integrated ecosystem management; and (v) the trinational agreements established for the joint management of the ecosystems of the Gulf of Fonseca remain in place.

Risks: The success of the project in achieving its global objectives faces three risks: (i) a political risk associated with boundary considerations between the three countries which could cause delays in execution and affect activities aimed at harmonizing policies, norms and procedures for ecosystem management. This risk was recognized at the outset during the preparation process, and the three governments agreed that the project's scope would not encompass or intervene in boundary considerations. All three Ministries of Environment have undertaken to ensure that the appropriate national entities are consulted in a timely manner on any consideration of concern deemed to be beyond the scope of the project. In addition, several formal agreements exist between all three countries that recognize the need for trinational cooperation in managing the Gulf of Fonseca. Despite these measures however, the risk is considered on-going; (ii) a risk associated with large infrastructure developments in the coastal zone (both planned and in construction) such as the new Port of La Unión-Cutuco, that may lead to increased immigration, commercial maritime and land-based transport, and associated industries which, if not planned. These could trigger increased maritime traffic and rapid land use changes that exceed the gradual capacity building of national and local governments in coastal resources management financed by the project, possibly causing unforeseen local and transboundary impacts on the Gulf' ecosystems. Hence, the importance of project activities in Component 1, such as the enhancement of mechanisms for the involvement of the civil society in the Gulf's management, as well as those considered in Component 4, which seek to work in coordination with the different productive actors in the zone to secure their commitment to conservation of the Gulf's ecosystems; (iii) finally, to a large extent, the success of the project will depend on the availability of the co-financing resources and the commitment of the national governments in allocating their human resources at the right time. The national governments have pledged their support to the project's activities. Additionally, negotiations with other potential donors took place during project preparation and final commitments will be received by all the involved institutions by the time of CEO Endorsement.

2. COUNTRY OWNERSHIP

a) COUNTRY ELIGIBILITY

El Salvador, Honduras and Nicaragua ratified the Convention on Biological Diversity on 18 September 1994, 31 July 1995 and 20 November 1995 respectively. All three countries are eligible for GEF financing.

b) COUNTRY DRIVENNESS

This project responds to a series of agreements signed by the Governments of El Salvador, Honduras and Nicaragua. In 1993, the Presidents of the three countries signed the Amapala

Agreement, where they affirmed their interest in conserving and preserving the Gulf due to its importance for each country. In 1999, the Regional Environmental Plan for Central America (PARCA) was approved as a result of the ALIDES[12], and the objectives and components of this project coincide with the thematic and instrumental lines of the new PARCA for the period 2005-2010. In 2002, El Salvador, Honduras and Nicaragua were among the seven countries that signed the Convention for Cooperation in the Protection and Sustainable development of the Marine and Coastal Environmental of the Northeast Pacific under the Regional Seas Program. Signatory countries recognized as priority problems many of the threats being addressed by this project.

In the context of Plan Puebla Panamá (PPP), the three countries also selected the Gulf of Fonseca as a priority area for regional integration, and in 2004 asked the IDB to support the preparation of a GEF project that would promote the integrated management of its ecosystems. As a part of developing the present proposal, a donor roundtable for the Gulf of Fonseca was held at Zacate Grande Island, Honduras in 2005. The Ministers of the MARN, SERNA, and MARENA signed the Declaration of Zacate Grande, where they agreed to push forward a trinational coordination initiative for the integrated management of the Gulf, with the aim of managing this important ecosystem in a sustainable manner as a means of enhancing their countries' development with a regional perspective. The Declaration recognizes that the achievement of this goal will require a consolidated effort on the part of all donors, including complementary financing for the non-reimbursable GEF funding. Finally, again in the context of the Puebla-Panamá Plan, in April 2006 these countries –alongside the rest of the Central American Countries— signed the Voluntary Agreement for Sustainable Environmental Conduct, that in relation to international waters, stated that the projects, plans and programs that can affect these transboundary bodies must ensure the establishment of agreements or understanding among the parties, as is the case of this initiative. With the endorsement of the involved Governments and in cooperation with the Central American Commission on Environment and Development (CCAD), the IDB agreed to support the formulation of a trinational initiative for the Gulf of Fonseca.

The proposed project is also consistent with national strategies, policies, regulations and action plans in the three countries. In **Honduras**, the project is in line with several of the guidelines presented in the National Environment Policy with regards to the ecosystem conservation objective, which stipulates that water resources should be managed in an integrated, decentralized and participatory manner. Additionally, the National Watershed Management Strategy, the National Poverty Reduction Strategy, the General Environment Law, the Water Law and the Poverty Reduction and National Sustainable Development Plan (2006–2010) also support the activities to be developed by the project. In relation to sectoral policies that look for regulating the pesticides run-off from the agricultural practices, the project is aligned with what is included within Priority Measures of the Agroforestry Sector 2004–2008 and the Agro-Nutritional and Rural Areas Policy. In **El Salvador**, the project objectives are consistent with the National Environment Policy and the Environmental Law, which promotes the sustainable management of natural resources. The National Action Plan to Combat Desertification and Drought has highlighted the Governmental responsibilities in promoting the development of rural areas, supporting farmers and agricultural enterprises in accomplishing efficiency and sustainability in productive sectors, as well as the Law for the Control of Pesticides, Fertilizers and Agrochemicals aims to promote the regulation in the use these type of substances. In **Nicaragua**, the Government promulgated the Environmental Policy which serves as a frame fro the Environmental Plan 2001–2005, that promotes the integrated management of critical areas that embraces several resources, such as is the case of the Gulf. Additionally, the National Plan for Water Resources, Development and Territorial Planning which involves the rational use of land and water resources, whereas the General Environment and Natural Resources Law alongside the Soil Protection and Erosion

[12] Central American Alliance for Sustainable Development.

Control Law make reference to the need of supporting actions that will result in mitigation measures related to the causes the of environmental degradation.

The Ministry of Environment and Natural Resources of El Salvador (Carlos José Guerrero Contreras) signed the Letter of Endorsement dated on January 22, 2007.

The Ministry of Environment and Natural Resources of Nicaragua (Cristóbal Sequeira González) signed the Letter of Endorsement dated on January 5, 2007.

The Secretariat of Environment and Natural Resources of Honduras (Patricia Panting G.) signed the Letter of Endorsement at pipeline entry dated on November 1, 2004. Additionally, the operational focal point indicated in an official communication to the Bank dated on March 22, 2007, their agreement with the technical content of the project. The Letter of Endorsement was pending clearance from the Ministry of External Relations on a matter not directly related to the project.

3. PROGRAM AND POLICY CONFORMITY

a) FIT TO GEF FOCAL AREA STRATEGIC OBJECTIVES AND OPERATIONAL PROGRAM

The project has been formulated in accordance with the GEF **Operational Program 9 Integrated Land and Water Multiple Focal Area**, through the implementation of a more comprehensive, ecosystem-based approach in managing the Gulf and their drainage basins, by establishing and strengthening regional policies, institutional arrangements and capacity building for its integrated management as a tri-national estuarine and marine system, improving the management of tributary watersheds for pollution control and prevention, and supporting the generation of environmental goods and services that can contribute to regional economic development. The project will also contribute to two of the three **GEF Strategic Objectives for GEF-4** within this focal area: (a) the one related to *catalyze implementation of agreed reforms and on-the-ground stress reduction investments to address transboundary water concerns* (IW-1), via the implementation of the established Central American Regional Environmental Plan, the Amapala Agreement (signed by the three countries), the regional fisheries policy and other regional agreements by supporting harmonization of national policies and regulations, promoting regional planning instruments, and leveraging investments in the recovery of regional fisheries and other coastal resources and pollution control, and (b) the other related to *expand foundational capacity building to a limited number of new transboundary systems through integrated approaches and foster replication through targeted learning for the IW portfolio* (IW-2) by means of promoting the dissemination and adoption of emerging issues for managing transboundary waters in a cross-sectoral manner, and the establishment of the Tri-national Commission for the Integrated Ecosystem Management of the Gulf of Fonseca, that, with the support of the Central American Commission for Environment and Development (CCDA), will serve as a first step towards establishing a permanent high-level institutional arrangement for regional policy coordination and management of the Gulf.

b) SUSTAINABILITY (INCLUDING FINANCIAL SUSTAINABILITY)

In relation to the **institutional** sustainability, at the *local level*, the presence of a strong set of civil society organizations in each country creates opportunities for local participation in the integrated management of ecosystems and ownership of the activities promoted by the GEF IW Project. For example, the *Asociación Civil Trinacional del Golfo de Fonseca* (ACTRIGOLFO) has laid the groundwork for cooperative partnerships to attain local sustainable development. The institutional assessment conducted during project preparation indicates that the 19 local governments of the

Gulf have varying levels of capacity in local CRM. Nonetheless, most have municipal environmental units and have had prior involvement with environmental management activities. They will be the recipient of much of the capacity building to ensure their effective participation. Institutional challenges arise in the consolidation of the *Mancomunidad de Municipalidades del Golfo de Fonseca* (MUGOLFO), a process initiated previously by the PROGOLFO Project, but which requires the support that this GEF Project plans to provide. At the *national level*, SERNA, MARENA, and MARN have actively accompanied the process of designing the project and have expressed their interest in working together to carry it out through their regional offices in the Gulf area, and also with technical liaisons for the Project. The Ministries of Environment of the three countries have expressed their interest in signing a high-level trinational agreement that would constitute a platform for the Project's actions and for designing collaborative actions in the long run for the coordinated management of the Gulf's ecosystems. The identification of CCAD as the execution institution by the three ministries of environment was made based on the regional political legitimacy and sustainable development mandate this institution has and its' previous successful experiences with project execution supported by the execution unit. CCAD has a unit for Coordination of Projects in Execution, that has implemented several projects financed by multilateral and bilateral institution (USAID, SIDA, CIDA, DANIDA, Netherlands, IDB, CABEI, WWF, FAO, Spain, UNEP and UNDP) including GEF projects (*Reserva de Biosfera Transfronteriza Corazón del Corredor Biológico Mesoamericano* GEF/WB). The institutional analysis of CCAD undertaken as part of the project preparation shows that CCAD has adequate systems to manage funds and procurement processes.

The assessment made during preparation of the Project of the feasibility of attaining **financial** sustainability –so as to guarantee the long-term impacts— indicates that there are major challenges in connection with this task, as in the case of many GEF IW Projects (see Annex F). Nonetheless, if the Project succeeds in diversifying the sources of financing so as to include self-generated, external, as well as private sources, donors and the public sector, its financial viability may be feasible. In this regard, one of the activities of the project includes the design of a business plan for the Full-scale GEF Project, and the creation and operation of a unit to support the investment that will undertake to raise resources for the project from potential private investors and/or donors. The presence of consolidated industry in the region (such as aquaculture in Honduras and Nicaragua) and of large-scale port infrastructure projects and associated developments (such as the Port of La Unión in El Salvador) generate significant opportunities for establishing partnerships between the public and private sectors for attaining environmental objectives such as reducing pollution and sedimentation.

In terms of **social and environmental** sustainability, positive global environmental impacts are anticipated, associated with the improvement in the quality of the surface waters in tributary watersheds and coastal zones of the Gulf, as well as the conservation and restoration of critical coastal and marine ecosystems such as estuaries and mangroves. In addition, the institutional strengthening of the public entities at the national and local levels, as well as of the civil society organizations involved in the Gulf's environmental management will have positive long-term impacts. Local residents will also benefit from improved environmental conditions and enhanced opportunities for sustainable livelihoods, augmenting the general wellbeing of the population. Additionally, the involvement of key productive sectors and industries in the adoption of cleaner technologies will help mainstream ecological considerations in the development agenda of the Gulf. The inclusion of targeted groups such as women, youths and artisanal producers generates conditions for increase the equity for minorities. It is important nonetheless, to note that the current levels of poverty and unmet basic needs of the population pose major challenges in the task of reducing pressures on the Gulf's ecosystems. Thus the Project's long-term success also rests on its capacity for reinforcing economic incentives for environmentally-sustainable productive activities that make it possible to improve the population's incomes.

c) REPLICABILITY

Replication is an essential feature of the project, particularly given its connection with larger scale projects in tributary watersheds of the Gulf such as the IDB-financed MARENA project in Honduras and Millennium Challenge Corporation project in Nicaragua. In these two instances the objective is to transfer successful technological solutions for pollution and sediment control demonstrated at a small scale to a much wider portion of the watersheds with a view of reinforcing the linkages between decisions made in the upper parts of watersheds with processes in the Gulf. Lessons learned on innovative methodologies can also be applied to other multi-national coastal areas in Latin America such as: (i) institutional arrangements that promote the involvement of municipalities and their federations in the integrated management of transboundary watersheds and waterbodies of particular interest at the *global* and *regional* levels; (ii) incentives to promote sustainable production and financial schemes / co-management agreements for managing resources in a sustainable manner, with the involvement of the civil society, of particular interest at a *national* level; (iii) support to the creation of innovative / alternative livelihoods and ecosystem restoration, of particular interest at the *local* level. Additionally, the project replication strategy will respond to the following intentions as follows: (i) all the demonstration projects supported by the Project will be selected through criteria that promote and ensure the replicability of the interventions; (ii) the models for pollution and sediment prevention and control in the tributary watersheds will be disseminated through international and regional working groups and forums, with the support of academic and research institutions; (iii) the results of the feasibility for the Sea Grant model for the Gulf of Fonseca will be the subject of a special event to discuss its applicability in others parts of Latin America; (iii) the project will promote direct exchanges with other IW projects in Latin America (such as the Uruguay/Argentina Environmental Protection of the Rio de la Plata and Its Maritime Front: Pollution Prevention and Control and Habitat Restoration) and through IW:LEARN in order to facilitate horizontal learning; (iv) the involvement of the public schools will be used as a means of divulgating information and lessons derived from the project's execution within the appropriate targeted population; (v) the project will proactively engage in dialogue with legislation and policy makers at different levels, public / private institutions and productive associations, as well as with community based organizations, with the view of examining experiences in establishing multi-national coordination mechanisms that consider an ecosystem-based approach.

d) STAKEHOLDER INVOLVEMENT

The process of designing this project involved a broad range of stakeholders who participate actively in, and/or have an impact on the environmental management of the Gulf of Fonseca. While the consultations carried out sought to reach out and involve the groups that participated during implementation of the PROGOLFO Project, new actors were added based on the needs identified. Three trinational workshops were held, one in each country, which included representatives of the environmental authorities from the national and local levels, the productive sectors, and the non-governmental organizations that work in the Gulf of Fonseca. In addition, a trinational workshop was held focused on the local governments of the Gulf, which included the participation of the mayors and/or persons in charge of the environmental units from 18 of the 19 coastal municipalities of the project's area of influence. To supplement that workshop, focus group consultations were held to consult with local actors in each country, and two regional tours in the context of which representatives of municipalities, non-governmental organizations, and productive sectors were interviewed. Information dissemination and consultation will continue during project implementation through the social communication strategy and environmental education activities included in Component 1(c) as well as the Project website. Effective local participation in Project activities is a cross-cutting element of each Component. For example, in

Component 1, the Trinational Advisory Forum will provide a local venue for discussing and providing feedback on project implementation. The formulation of the coastal management plan (Component 2 (a), will use a participatory mapping technique that will directly involve local governments. The CRM benchmark system will remain as a local tool for municipalities to monitor progress and share experience in coastal management in the Gulf region. Co-management of fisheries and mangroves offers multiple opportunities for producers to take active part in activities such as inventories, registries, and restoration (Components 2 (b) and (c). In Component 3, local governments will participate in collecting data for the models and in assessing their results. Finally, Component 4 provides incentives for micro, small and medium enterprises and industry to take an active role in maintaining the Gulf's ecosystems.

e) MONITORING AND EVALUATION

Throughout its lifetime, the impacts of the project intervention will be monitored using the indicators generated by the TDA and described in the logical framework matrix (Annex B). Within the first year of the project execution, the complete baseline of outcome and output indicators will be consolidated and the detailed M&ES will be made operational (see Annex E). The system will include three types of indicators: (i) process outcomes indicators such as the publication of the Trinational Cooperation Agreement and the conformation of the Trinational Commission for the Management of the Gulf of Fonseca Ecosystems; (ii) stress reduction outcomes indicators such as those that reflect amounts of pollutants phased out, improved policies / regulations and progress in local CRM as measured by the CRM benchmark system; and (iii) environmental / water resources status outcomes indicators, such as annual changes in water quality measures at the hydrometric stations by the mouths of the respective watersheds. The M&ES will be build on existing initiatives that have been developed by different stakeholders, and will be located within the UCPR. Therefore, it is expected that the system will be internalized in the existing institutions, involving their staff and other local organizations, in order to ensure continuity after the life of the project. As indicated in Table 1 in Annex E, the total estimated costs for monitoring and evaluation are US$ 400,000.

A mid-term evaluation will be carried out when 50% of the GEF resources have been disbursed or after 30 months after the project contract goes into effect, whichever comes first. This review will determine if the project strategy is performing according to the established objectives, or if adjustments are necessary. In addition, a final evaluation is to take place when 90% of the GEF resources have been disbursed to determine, among others, the extent to which the project objectives have been reached, the level of stakeholder participation in decision-making, positive changes in beneficiaries and practices due to the intervention, as well as sustainability and cost-effectiveness. Both evaluations will place special emphasis on certain critical issues such as: (1) how effective are the cooperation agreements and the process of designing and implementing the coastal-management plan and the regional pollution control strategy, for bringing about a consensus among the three countries on the strategic guidelines for the integrated management of the Gulf?; (2) have the capacities for management and co-management of coastal-marine resources been improving in the Gulf area?; (3) to what extent have the industries adopted clean production technologies, and the communities internalized / diversified the sustainable use of the ecosystems of Gulf of Fonseca and good practices in their productive activities, and what types of socioeconomic benefits are being generated?; (4) has there been an improvement in the dissemination of information, awareness-raising, and scientific knowledge of the Gulf of Fonseca as a regional ecosystem, so that management decisions are being made on the basis of the best available and accurate information?; (5) what are the trends observed in the ecological integrity of the ecosystems of Gulf of Fonseca and how is the Project contributing to maintaining them?. The

results of the evaluations, the lessons learned, and the good practices will be widely disseminated and shared among the local and national governments, strategic local allies, co-financing agencies, and other relevant actors nationally, regionally, and internationally, including efforts financed by the GEF, through the Project's website and IW:Learn.

4. FINANCING (for all tables, expand or narrow table lines as necessary)

a) **PROJECT COSTS**

Project Components/Outcomes	**Co-financing ($)**	***GEF ($)***	**Total ($)**
1. Institutional Strengthening for Regional Management of the Gulf	240,000	1,120,000	1,360,000
2. Management of Coastal and Marine Ecosystems	1,589,000	1,666,000	3,255,000
3. Pollution and Sediment Prevention and Control /Decision-making Models	6,756,000	1,380,000	8,136,000
4. Promotion of sustainable livelihoods	11,751,000	500,000	12,251,000
5. Project management budget/cost	990,000	334,000	1,324,000
Total project costs	21,326,000	5,000,000	26,326,000

b) **PROJECT MANAGEMENT BUDGET/COST***

Component	Estimated Staff Weeks	GEF($)	Other sources ($)	Project total ($)
Locally recruited personnel**	1,320		382,000	382,000
Nationally and internationally recruited consultants***	520	334,000	197,000	531,000
Office facilities, equipment, vehicles and communications			251,000	251,000
Travel			75,000	75,000
Miscellaneous			85,000	85,000
Total		334,000	990,000	1,324,000

* It is expected that a Project Executing Unit will be established with the following staff: Project Coordinator, specialized in coastal and marine (including fisheries) management (260 weeks to be funded by GEF***) with overall responsibility for project execution; pollution marine control and prevention expert (260 weeks to be funded by GEF***) and national coordinators (660 weeks on detail from SERNA, MARENA and MARN**) with technical responsibilities for components 1 and 2; monitoring and evaluation/social communications expert (220 weeks to be funded by co-financing***); financial/administration manager (220 weeks to be funded by co-financing***) and a project assistant (220 weeks to be funded by co-financing***). These are indicative figures and for cost-effectiveness reasons, opportunities will be explored during project design to both take advantage of existing structures and facilities (for example within the University of Zamorano).

** Refers to personnel on detail from SERNA, MARENA, and MARN and/or other participating institution(s).

*** Although participation of national consultants will be promoted, IDB procurement policies does not provide for ex-ante restrictions with regards to national vs international consultants to be contracted with the GEF funds, but rather distinguishes between publication at the national and international levels, depending on the amounts of the service contracts.

c) **CONSULTANTS WORKING FOR TECHNICAL ASSISTANCE COMPONENTS:**

Component	Estimated Staff weeks	GEF($)	Other sources ($)	Project total ($)
Personnel*	1,320			
Local / international consultants**	1,432	1,177,000	608,000	1,785,000
Total	2,752	1,177,000	608,000	1,785,000

* In the case of personnel it refers to the staff time of SERNA, MARENA, and MARN and other participating institutions to accompany the technical assistance.

** These are estimated costs for the consultants required to provide technical assistance under the four Project components. These will likely be a combination of individual consultants, firms and/or specialized institutions that will be hired during Project execution. Although participation of national consultants will be promoted, IDB procurement policies does not provide for ex-ante restrictions with regards to national vs. international consultants, but rather distinguishes between publication at the national and international levels, depending on the amounts of the service contracts. The specific roles and functions of each consultant will be specified in the respective detailed terms of reference and the Project's annual operational plans to be prepared during Project preparation and execution.

d) **CO-FINANCING SOURCES**[13] (expand the table line items as necessary)

Co-financing Sources				
Name of co-financier (source)	Classification	Type	Amount ($)	Status
Governments	Nat'l Gov	In cash/in kind	1,990,000	Confirmed
MCC	Bilat. Agency	In cash	14,400,000	Confirmed
AECI	Bilat. Agency	In cash	4,000,000	Confirmed
JICA	Bilat. Agency	In cash	936,000	Confirmed
Sub-total co-financing			21,326,000	

5. INSTITUTIONAL COORDINATION AND SUPPORT

a) CORE COMMITMENTS AND LINKAGES

In addition to being aligned with the Bank's new Environment and Safeguards Compliance Policy and its strategy for coastal and marine resources management, the Project is consistent with the IDB's countries strategies for El Salvador, Honduras and Nicaragua. The main purpose of the Bank's Country Strategy with **El Salvador** for the 2005-2009 term is to reduce poverty. In order to achieve this goal, the strategy proposes two interrelated strategic objectives that are consistent with the project: (i) To promote sustainable economic growth by increasing competitiveness; and (ii) to strengthen human capital and improve opportunities for the poorest segments of the population. It recognizes that it is necessary to foster a sustained acceleration in economic growth, while at the same time improving access by the very poor to basic services and optimizing the quality of these services, so as to provide the population with opportunities that enable them to benefit more from the country's economic growth. This core commitment of the IDB along with its investment program complements the proposed project in that it addresses rural poverty, one of the fundamental causes of the degradation of the Gulf.

The Bank's strategy for **Honduras** is also focused on: (i) increasing the competitiveness of productive activities; (ii) enhancing the development of human capital; (iii) strengthening

[13] Refer to the paper on Cofinancing, GEF/C.206/Rev. 1

governance. These three strategic areas are closely intertwined insofar as governance, institutional development, and human capital development are crucial factors for increasing competitiveness and sustainable growth that, in the case of Honduras is closely dependent on natural resources.

The Bank's strategy for **Nicaragua** is founded on three strategic approaches. Under economic growth, the strategy calls for promoting competitiveness and sustainable production. Under governance, the Bank's strategy for achieving this objective covers three areas, all consistent with the project: (i) establishing a suitable legal foundation for effective and efficient government; (ii) undertaking sweeping actions to modernize and reform the three branches of government; and (iii) making full use of technology. Under the third strategic area of productivity of the very poor, top priority is attached to social and productive investments to benefit the very poor, particularly under programs with very positive impacts in the short term.

The IDB is also financing projects that complement the Gulf of Fonseca project. For example, in Honduras, the **Natural Resources Management Program (MARENA)**, project in which IDB is currently supporting the Government of Honduras in addressing land degradation through a national watershed management program. The Reitoca and Verdugo sub-watersheds (located in the upper parts of the Naocome watershed -- one of the main contributors of contaminants and sediments to the Gulf) are included in the area of intervention. Actions that are being implemented relate to forest fire control, soil and water conservation, including good agricultural practices (see http://www.marena.hn for more information). This is a multi-phase loan and, following the results of an evaluation expected in May, discussions are foreseen on a possible second phase. In addition, the Bank is financing sanitation projects in some of the municipalities of the Gulf of Fonseca (e.g., San Lorenzo and Choluteca) that are consistent with the project's objective for pollution control from tributary watersheds.

b) CONSULTATION, COORDINATION AND COLLABORATION BETWEEN IAS, AND IAS AND EXAS, IF APPROPRIATE.

The GEF Project Integrated Ecosystem Management of the Gulf of Fonseca has objectives that complement other initiatives have been implemented, are currently being carried out in its area of influence, or that are being drawn up, and therefore, it will seek both, to build on the existent results and to generate synergies and complementarities, in an effort to have greater impacts. These include the following projects. The**Coastal Ecosystem Conservation in the Gulf of Fonseca Project (PROGOLFO)**, a joint regional initiative financed by the Danish Agency for International Development (DANIDA), and carried out by the governments of El Salvador, Honduras, and Nicaragua from 1999 to 2003 through MARN, SERNA and MARENA. This Project sought to foster the sustainable development of the natural, socioeconomic, and institutional resources of the Gulf by preparing a strategic framework for management and development aimed at addressing the key environmental problems. One of the major contributions of this effort was to generate a significant amount of information on the coastal marine zone of the Gulf of Fonseca, that has been used as a basis for developing this new project. Additionally, it helped to strengthen the involvement of governmental institutions, local governments, NGOs in the participative design of a regional strategy for the Gulf's integrated management. In 2003, the Regional Strategy for the Integrated Management of the Coastal and Marine Resources in the Gulf of Fonseca (PROGOLFO) was signed by the three countries. This Strategy has four priorities, which are coherent with the specific objectives of this proposal. The priorities are: (i) strengthening of institutional capacity; (ii) coastal and marine resources management; (ii) exogenous impacts mitigation (tributary watersheds); and (iv) economic and social well-being. In 2004, the Strategy was endorsed by El Salvador, Honduras and Nicaragua.

That year, the Governments requested the IDB's support for preparing a GEF project consistent with the Strategy. The **Environmental Regional Program for Central America (PROARCA)**, through its component of Coastal Zone Management (PROARCA / Costas) executed its first phase from 1996 to 2001, with resources from USAID. This component fostered the effective management of marine and coastal resources in some Central American specific areas, developing and sharing information, tools and methods for the integrated management of coastal zones, at the time that it strengthened the international collaboration for the effective management of transboundary coastal areas; **Project for the Conservation of Coastal Ecosystems in the Gulf of Fonseca**, with funds from AECI-ARAUCARIA, with a period of execution from 2005 to 2010. At present, the project is performing baseline studies. Among its objectives, the present initiative looks for complements the one related to foster the sustainable management, in an integral and participatory manner of the ecosystems of the Gulf of Fonseca, so as to reduce degradation and contamination, improve the availability and management of the natural resources, resolve conflicts over access to and management of the natural resources, and ensure access to natural resources so as to benefit the various sectors of the population". The Secretariat of Agriculture is carrying out the Gulf of Fonseca Mangrove Management and Conservation Project (PROMANGLE – Valle and Choluteca) and the Forest and Water Project (Choluteca); the **United States Millennium Account (MCC)**, through its agreements with each country, will be carrying out activities for the productive sector and watershed management in the Gulf's area. For example, in Nicaragua, the Millennium Account has accorded priority to the departments of León and Chinandega for implementing the productive projects and management of watersheds that include the Estero Real watershed.

c) PROJECT IMPLEMENTATION ARRANGEMENT

The framework for implementing the Project will seek to involve all relevant agencies and organizations in all three countries involved in the management of the Gulf of Fonseca's ecosystems, relying on temporary arrangements while progress is made towards establishing a permanent framework for cooperation. The intent is to establish a Trinational Commission as part of the project through a Cooperation Agreement. In the interim, the implementation structure will consist of two parts: (i) the formal arrangements for project execution, including all administrative and financial aspects which are not intended to exist beyond the period of execution of the project; and (ii) the decision-making and participatory structure which is intended to transform itself into a permanent framework for trinational cooperation for integrated management of the Gulf's ecosystems (see attached diagram). The execution structure would consist of CCAD through its Executive Secretariat, a Regional Project Coordination Unit and Program Participating Agencies in all three countries. The decision-making and participation structure would consist of a Regional Executive Committee, whose responsibilities would be assumed by the Trinational Commission once established, a Trinational Advisory Forum, a Regional Technical Committee and ad hoc committees are required and national supervision units. The arrangements proposed will facilitate ongoing consultation and dialogue among the government institutions, local governments, NGOs, scientific community, private organizations, and civil society for decision-making regarding the project activities. Based on an analysis of different options for trinational execution schemes and consistent with the Zacate Grande Declaration, the three Ministries of Environment (MARN, MARENA and SERNA) have identified CCAD as the regional institution that would take on a transitory role in the integrated management of the Gulf of Fonseca while the trinational scheme is consolidated.[14]

[14] This implementation framework is subject to final confirmation by all three countries during the appraisal mission.

ANNEXES

Annex A:	Incremental Cost Analysis
Annex B:	Logical Framework
Annex C:	GEF STAP Roster Review
Annex C1:	IDB Response to STAP Review
Annex D:	Letters of Endorsement
Annex E:	Monitoring and Evaluation Plan
Annex F:	Financial Sustainability Analysis
Annex G:	Transboundary Diagnosis Analysis (in Spanish)
Annex H:	Commitment Communications
Annex I:	Aide Memoire of Consultations (in Spanish)