



**United Nations Development Programme**

**Country: Guatemala**

**PROJECT DOCUMENT**

**Conservation and sustainable use of biodiversity in coastal and marine protected areas (MPAs)**

<b>UNDAF Outcome 1.</b>	By 2014, environmental management is strengthened and risk is reduced, with the participation of civil society; there is a better use of renewable energy and improved access to water and sanitation, with special emphasis placed on populations vulnerable to climate and geological risks.
<b>Expected Outcome 6 CPD</b>	By 2014, the Guatemalan population especially those vulnerable to climate risks, have improved environmental management and have more access of renewable energy services.
<b>Expected Output from the project</b>	To strengthen land/forest management processes and biodiversity conservation in order to secure the flow of multiple ecosystems services while ensuring ecosystem resilience to climate change.
<b>Indicators from the project</b>	<ul style="list-style-type: none"> <li>- 164,297.40 hectares of marine and coastal ecosystems under protection by marine-coastal protected areas in the Pacific of Guatemala.</li> <li>- Increase by 15% in the management effectiveness of five (5) marine-coastal protected areas as measured through the METT scorecard</li> <li>- Increase by 25% in the financial capacity of the MPAs according to that established through the total average score in the Financial Sustainability Scorecard</li> </ul>
<b>Executing Entity<sup>1</sup>:</b>	Ministry of the Environment and Natural Resources of Guatemala (MARN); Protected Areas National Council (CONAP)
<b>Implementing Entity<sup>2</sup>:</b>	United Nations Development Program - UNDP

<sup>1</sup> The Government exercises its ownership and responsibility for UNDP programme activities by approving and signing the Country Programme Action Plan (CPAP) with UNDP. All activities falling within the CPAP are, therefore, nationally executed.

<sup>2</sup> The term 'implementation' means the management and delivery of programme activities to achieve specified results, specifically the mobilization of UNDP programme inputs and their use in producing outputs that will contribute to development outcomes, as set forth in the Annual Work Plans (AWPs).

### Brief Description

The project will promote the conservation and long-term sustainable use of marine-coastal biodiversity (BD) of global importance through effectively and equitably managed marine-coastal protected areas (MPAs), which will contribute to improving the economic welfare of the Guatemalan population. By creating two (2) new MPAs and expanding three (3) existing MPAs in the Pacific region, improving MPA management effectiveness, and increasing MPAs' funding, the project will contribute to the protection and sustainable use of marine-coastal BD of global, national, and local importance. As a result of the expansion of existing MPAs and the creation of new MPAs, Guatemala will make significant progress in the protection of its marine-coastal BD in the Pacific coast. More specifically, the project will allow an increase in the protection of coastal areas from 6,043.00 hectares (ha) to 56,046.82 ha, and expanded protection of marine areas from 999.44 ha to 108,250.58 ha, including mangrove areas from 4,004.67 ha to 12,803.10 ha. By the end of the project, the total marine-coastal ecosystems under protection will increase from 7,042.44 ha to 164,297.40 ha. The project will also allow addressing threats from key sectors (fisheries, maritime ports/transportation, and urban development) in order to strengthen MPA management and the conservation and sustainable use of marine-coastal BD in the Pacific region of Guatemala.

**Programme Period:** 2010-2014  
**Programme Component:** Environment and Sustainable Development  
**ATLAS Award Id:** 00075856  
**ATLAS Project ID:** 00087534  
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**PIMS #:** 4639

**Duration:** 60 months  
**Start date:** January, 2014  
**End Date:** January, 2019  
**Management Arrangement:** DIM  
**PAC Meeting Date:**

<b>Total budget:</b>	<b>21,545,080.00</b>
<b>Total allocated resources (cash):</b>	<b>13,680,106.39</b>
• GEF	5,354,545.00
• CONAP	2,036,901.47
• DIPESCA/MAGA	512,966.92
• INFOM	3,000,000.00
• UNDP	2,775,693.00
<b>In-kind contributions:</b>	<b>7,864,973.61</b>
• CONAP	293,158.71
• DIPESCA/MAGA	71,814.90
• INFOM	7,500,000.00

Agreed by the Ministry of Foreign Affairs of Guatemala:

\_\_\_\_\_  
Date/Month/Year

Agreed by the Guatemalan Council for Protected Areas:

\_\_\_\_\_  
Date/Month/Year

Agreed by the (UNDP):

\_\_\_\_\_  
Date/Month/Year

## LIST OF ACRONYMS

AIS	Alien invasive species
AKAZUL	Community, Conservation, and Ecology
APASI	Artisanal Fishermen Association of Sipacate
APR	Annual Project Report
ARCAS	Wildlife Rescue and Conservation Association
ARTE	Territorial Reserve Areas of the State
AWP	Annual Work Plan
BD	Biodiversity
BMPs	Best Management Practices
°C	Degrees Celsius
CATHALAC	Water Center for the Humid Tropics of Latin America and the Caribbean
CBD	Convention on Biological Diversity
CC	Climate change
CECON	Center for Conservation Studies
CEMA	Ocean and Aquaculture Research Center
CIIHO	Inter-institutional Committee on Hydro-oceanographic Research
COCODES	Community Development Councils
CODEDES	Departmental Development Councils
COMUDES	Municipal Development Councils
CONAP	National Protected Areas Council
COP	Conference of Parties
CPAP	Country Programme Action Plan
DIM	Direct Implementation Modality
DIPESCA	Fisheries and Aquaculture Unit
DIPRONA	Office of the Protection of Nature
EAP	Economically active population
ENSO	El Niño–Southern Oscillation
ERC	Evaluation Resource Center
EEZ	Exclusive Economic Zone
FAO	Food and Agriculture Organization of the United Nations
FENAPESCA	National Federation of Artisanal Fishermen
FLACSO	Latin American Faculty of Social Sciences
FSS	Financial Sustainability Scorecard
GEF	Global Environment Facility
GHG	Greenhouse gas
GIS	Geographic Information System
GoG	Government of Guatemala
ha	Hectares
IADB	Inter-American Development Bank
ICC	Private Institute for Climate Change Research
IES	Invasive exotic species
IMO	International Maritime Organization
INAB	National Forest Institute
INE	National Statistics Institute
INGUAT	Guatemalan Institute of Tourism
INFOM	Municipal Development Institute
IPCC	Intergovernmental Panel on Climate Change
IUCN	International Union for the Conservation of Nature

IW	Inception Workshop
KfW	German Development Bank
km <sup>2</sup>	Square Kilometers
LAC	Latin America and the Caribbean
LSC	Local Steering Committee
m <sup>3</sup>	Cubic Meters
M&E	Monitoring and Evaluation
MAGA	Ministry of Agriculture, Cattle Ranching, and Nutrition
MPA	Marine-coastal protected area
MARN	Ministry of the Environment and Natural Resources
masl	Meters Above Sea Level
MBC	Mesoamerican Biological Corridor
MCMP	Marine-Coastal Management Program
METT	Management Effectiveness Tracking Tool for Protected Areas
MICIVI	Ministry of Communications, Infrastructure, and Housing
mm	Millimeters
MRP	Municipal Regional Park
NGO	Non-Governmental Organization
NMC	National Mangroves Committee
OCRET	Bureau of State Land Reserves
PA	Protected Area
PC	Project Coordinator
PIF	Project Identification Form
PIR	Project Implementation Review
PIU	Project Implementation Unit
PMCG	Policy for the Integrated Management of Marine-Coastal Zones
PPG	Project Preparation Grant
PSC	Project Steering Committee
QA/QC	Quality Assurance/Quality Control
RBLAC	UNDP Regional Bureau
RCU	Regional Coordination Unit
ROAR	Results-Oriented Annual Report
SBAA	Standard Basic Assistance Agreement
SECONAP	Regional Council of the Council of Protected Areas Secretariat
SEGEPLAN	Secretary of Planning and Programming of the Presidency
SIGAP	Protected Areas System of Guatemala
TED	Turtle Excluder Devices
TNC	The Nature Conservancy
ToRs	Terms of Reference
TPC	Tripartite Committee
UNDAF	United Nations Development Assistance Framework
UNDP	United Nations Development Programme
UNDP CO	United Nations Development Programme Country Office
USD	U.S. Dollars

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## 1. SITUATION ANALYSIS

### 1.1. Context and global significance

#### *Environmental context*

1. Guatemala possesses a great natural richness resulting from its exceptional geographic location in Central America, with coasts on both the Pacific Ocean and the Caribbean Sea. The Guatemalan coast spans 402 kilometers (km) (254 km of Pacific coastline and 148 km of Caribbean coastline). The marine territory is estimated to cover 120,229.59 km<sup>2</sup>, which includes the Exclusive Economic Zone (EEZ) of the Pacific and Caribbean oceans. Guatemala's hydrographic system contains 38 watersheds that flow into three (3) large drainage areas: Pacific Ocean (18), Gulf of Mexico (10), and the Caribbean Ocean (10). Fourteen (14) of the 38 watersheds flow directly to the Pacific coast and five (5) flow to the Caribbean coast. The rivers flowing to the Pacific originate at altitudes of 3,000 meters above sea level (msl), have average lengths of 100 km, and present pronounced slopes in the upper portions of the rivers that abruptly change in the plains areas (Secretary of Planning and Programming of the Presidency [SEGEPLAN], 2011). Many of the rivers do not empty directly into the ocean but run parallel to the coastline before flowing into it, giving rise to deltas, lagoons, sandbars, estuaries, and canals. It also gives rise to areas prone to flooding during intense periods of rain (Luna, Hermosilla, Flores, Romero y Gómez s.f.).

2. The Pacific coast of region of the country comprises six (6) departments, 16 municipalities, and close to 300 communities settled in the area. Close to 300,000 people live in the coastal municipalities and approximately 3 million people living in the coastal departments of the Pacific region, all within a highly diverse social, environmental, and cultural framework. In the Pacific Ocean, the EEZ covers an area of 110,994.7 km<sup>2</sup>. The land portion comprises 763 km<sup>2</sup>, in which, according to the Constitution, the State has reserved ownership of 3 km of land that is measured beginning at the high tide mark. These national land reserves are managed by Bureau of State Land Reserves (OCRET), which is part of the Ministry of Agriculture, Livestock, and Food (MAGA).

3. There are three ecoregions present in the Pacific coastal region: Central American dry forests, Tehuantepec – El Manchón mangroves and dry northern mangroves from the Pacific coast (Dinerstein et al., 1996)<sup>3</sup>, and the Chiapas-Nicaragua ecoregion. Also, there are four ecosystems (natural scrub, deciduous and semi-deciduous forest, mangroves, and wetlands [INAB s.f.]) and five marine-coastal ecosystems (see Table 1).

Table 1 – Marine-coastal ecosystems on the Pacific coast of Guatemala.<sup>4</sup>

Marine-Coastal Ecosystem	Area (km <sup>2</sup> )
Estuaries	17.15
Herbaceous wetlands	81.38
Coastal lagoons	21.41
Sandy beaches	211.35
Muddy beaches	38.58

4. With regard to vegetation, mangroves are the most representative ecosystem along the coast of the Pacific. Mangrove forests cover 17,663.31 ha<sup>5</sup> (93.79% of the country's mangroves) and only 22.75%

<sup>3</sup> Dinerstein, E; Olson, DM; Graham, DJ; Webster, AL; Primm, SA; Bookbinder, MP; Ledec, GA. 1995. Conservation Assessment of the terrestrial Ecoregions of Latin America and The Caribbean. USA: WWF/WB.

<sup>4</sup> Source: CONAP y MARN. 2009. Biodiversidad Marina de Guatemala: Análisis de Vacíos y Estrategias para su Conservación. Consejo Nacional de Áreas Protegidas, Ministerio de Ambiente y Recursos Naturales, The Nature Conservancy. Guatemala. 152 p.

<sup>5</sup> CATHALAC y SIA-MARN. 2012. Cobertura del mangle en Guatemala a través de Técnicas de Percepción Remota. 16 p.

(4,020.95 ha) are located within protected areas. Table 2 presents the surface area covered by mangroves in the departments of the Pacific coast.

Table 2 – Surface area covered by mangroves per municipality in the Pacific coast.

Mangroves (Department)	Surface Area (ha)
Escuintla	3,894.42
Jutiapa	1,146.91
Retalhulue	5,110.58
San Marcos	545.65
Santa Rosa	4,898.56
Suchitepequez	2,067.19
Total	17,663.31

5. The fauna associated with the marine-coastal zone of the Guatemalan Pacific is very diverse and includes at least 80 orders and 261 families. Approximately 1,012 species of fauna in the Pacific coast of Guatemala are estimated to exist. Of these, 69.33% belong to the Phylum Chordata, followed by mollusks at 27.67%, and only 3% corresponding to arthropods. More than 70% of the species are present in three classes: fish (31.57%), birds (26.17%), and bivalves (15.78%) (Table 3).<sup>6</sup> Sandy and muddy beaches serve as important feeding grounds for coastal bird species (four species from the *Charadriidae* family and 29 species from the *Scolopacidae* family) and nesting areas for sea turtle species such as the Olive Ridley (*Lepidochelys olivacea*) and the leatherback (*Dermochelys coriacea*). Estuaries and coastal lagoons, as well as herbaceous wetlands, serve as areas for feeding, refuge, and reproduction for many marine species and as resting areas for migratory birds, including the American White Pelican (*Pelecanus erythrorhynchos*) and the Wood Stork (*Mycteria americana*). The ocean waters serve as foraging/breeding areas for the green sea turtle (*Chelonia mydas agassizii*) and the hawksbill turtle (*Eretmochelys imbricata*), and for reproduction of the humpback whale (*Megaptera novaeangliae*), and provide habitat to other marine mammals (*Balaenoptera edeni*, *Tursiops truncatus*, *Stenella attenuata*, *Stenella longirostris*, *Delphinus delphis*, *Grampus griseus*, *Feresa attenuata*, *Orcinus orca*, *Ziphus cavirostris*, and *Mesoplodon* sp)<sup>7</sup>, sharks (*Carcharhinus falciformis*, *Nasolamia velox*, *Carcharhinus limbatus*, *Sphyrna lewini* y *Alopias pelagicus*, *C. falciformis*, *Carcharhinus leucas*, *Sphyrna mokarran*, *Galocerdo cuvieri*, *Prionace glauca*, *Carcharhinus longimanus*, and *Gynglimostoma cirratum*)<sup>8</sup>, and fish (e.g. *Diapterus aureolus*, *Diapterus preruvianus*, *Diplectrum máximum*, *Loliolopsis diomedea*, *Lutjanus guttatus*, *Orthopristis* sp, *Selene brevoortii*, *Selene peruvianus*, and *Sphyrna ensis*). The Pink-Footed Shearwater (*Puffinus creatopus*), a pelagic bird classified as “vulnerable” on the International Union for Conservation of Nature (IUCN) Red List is also present, as well as permanently submerged coral formations made up of colonies of hermatypic coral.

Table 3 – Fauna of the marine-coastal zone of the Guatemalan Pacific.

Class	Arthropod	Chordate	Mollusk	Total
Actinopterygii		317		317
Birds		262		262
Bivalves			161	161

<sup>6</sup> CONAP y MARN. 2009. Biodiversidad Marina de Guatemala: Análisis de Vacíos y Estrategias para su Conservación. Consejo Nacional de Áreas Protegidas, Ministerio de Ambiente y Recursos Naturales, The Nature Conservancy. Guatemala. 152 p.

<sup>7</sup> CONAP (2012). Cetáceos de la costa pacífica de Guatemala. Parte II: Pacífico Central.

<sup>8</sup> Alvarado, R. y Mijangos, L. (1999). Estudio sobre la pesquería del tiburón en Guatemala. Shotton, R. (ed). Case studies of the management of elasmobranch fisheries. *FAO Fisheries Technical Paper*. No. 378, part 1. Rome, FAO. 1999. pp.1–479.

Gastropods			123	123
Mammals		68		68
Crustaceans	30			30
Elasmobranchii		25		25
Reptiles		22		22
Scaphoda			3	3
Amphibians		1		1
Total	30	695	287	1,012

### *Marine-coastal protected areas in the Pacific region of Guatemala*

6. The National Council of Protected Areas (CONAP) is the governing board of the Guatemalan System of Protected Areas (SIGAP). The SIGAP currently contains a total of 320 protected areas that cover 3,482,800.52 ha, which corresponds to 31.98% of the total territory of the country<sup>9</sup>. Within the SIGAP the marine-coastal protected areas (MPAs) represent just 2.95% of the total national territory, including an MPA in the Guatemalan Caribbean (Punta de Manabique Wildlife Refuge). This MPA covers 151,878 ha, with 49,289 ha of continental land and 102,589 ha of marine territory, including interior waters<sup>10</sup>. In the Pacific region of Guatemala there are three MPAs: a) Monterrico Natural Reserve Multiple-use Area, which covers 3,799.44 ha with 2,800 ha of continental land<sup>11</sup> and 999.44 ha of marine area; Sipacate-Naranjo National, which covers 2,000 ha of coastal/inland areas<sup>12</sup>; and the La Chorrera Private Natural Reserve (1,243 ha), which is part of the Manchón Guamuchal RAMSAR Site (Table 4 and Figure 1). These MPAs are insufficient for conserving the country's rich marine-coastal BD according to Central American region standards (15% of the national territory) and the Aichi BD targets (10% of coastal and marine areas) (CONAP and MARN, 2009)<sup>13</sup>.

Table 4 – Marine-coastal protected areas of the Pacific region of Guatemala.

No.	Name	Management Category	Municipality (Department)	Category Type	Area (ha)	Year Established	IUCN Category
1	La Chorrera	Private Natural Reserve	Retalhuleu; Ocos (Retalhuleu; San Marcos)	Type V	1,243	1998	III

<sup>9</sup> Consejo Nacional de Áreas Protegidas -CONAP-. 2013. Listado SIGAP 2013. Departamento de Unidades de Conservación – DUC.

<sup>10</sup> Fundación Mario Dary Rivera (FUNDARY), Consejo Nacional de Áreas Protegidas (CONAP), The Nature Conservancy (TNC). 2006. Plan De Conservación de Área 2007-2011 Refugio De Vida Silvestre Punta De Manabique. Guatemala: FUNDARY-PROARCA-TNC. 155 p.

<sup>11</sup> Sigüenza de Micheo RR, Ruiz-Ordoñez JA (Comps.). 1999. Plan maestro de la Reserva Natural de Usos Múltiples Monterrico, 2000-2005. Centro de Estudios Conservacionistas, Consejo Nacional de Áreas Protegidas -CONAP-, Proyecto “Aprovechamiento Sostenible de los Recursos Asociados a los Manglares del Pacífico de Guatemala (INAB-UICN-UE). Guatemala, 202 p.

<sup>12</sup> Organización Nacional para la conservación y el ambiente -ONCA-. 2002. Plan Maestro del Parque Nacional Sipacate-Naranjo, 2002-2006. Organización Nacional para la conservación y el ambiente -ONCA-, Consejo Nacional de Áreas Protegidas -CONAP-, Fondo Nacional para la Conservación de la Naturaleza -FONACON-. Guatemala, 118 p.

<sup>13</sup> CONAP y MARN. 2009. Biodiversidad Marina de Guatemala: Análisis de Vacíos y Estrategias para su Conservación. Consejo Nacional de Áreas Protegidas, Ministerio de Ambiente y Recursos Naturales, The Nature Conservancy. Guatemala. 152 p.

2	Sipacate - Naranjo	National Park	La Gomera (Escuintla)	Type I	2,000	1969	II
3	Monterrico	Multiple-use Natural Reserve	Chiquimulilla; Guazacapán; Taxisco (Santa Rosa)	Type III	3,799.44	1977	III



Figure 1 – Location of the MPAs in the Pacific region of Guatemala.

### *Socioeconomic context*

7. The Pacific coast region comprises 49 municipalities from the departments of San Marcos, Retalhuleu, Suchitepéquez, Escuintla, Santa Rosa, and Jutiapa. Sixteen (16) of these municipalities have coastal areas. The region covers 11,730 km<sup>2</sup>, or 10.77% of the total national territory.

8. According to projections made based on data from the National Statistics Institute (INE, according to its Spanish acronym), 2.9 million people were living on the Pacific coast in 2012<sup>14</sup> (19.24% of the total population of the country)<sup>15</sup>. This region is continually growing (more than 4% annually), presenting a

<sup>14</sup> Guatemala: Estimaciones de la población total por municipio. Período 2008-2020. Instituto Nacional de Estadísticas.

<sup>15</sup> Fondo de Población de las Naciones Unidas (FNUAP) y procesamiento GAUSS (2012) <http://www.gauss.estudios.50megs.com/about.html> que estima para el 2012 una población de 15.073,375 habitantes.

high population density of 161 persons/km<sup>2</sup> in 2009. The region has a population density 28% over the national average, exerting demographic pressure on the territory and its marine and coastal natural resources. Sixty-two percent (62%) of the Pacific coast's population live in rural areas. The area is not historically considered an indigenous territory, nevertheless according to studies performed by FLASCO<sup>16</sup> in 2002, 46% of the population is indigenous, and the rest (54%) consists of ladino or mestizo groups. In the northeastern portion of the region the indigenous communities of Mam (comprising 18.4% of the total population), K'iche' (17.1%), Kaqchiquel (7.9%), and Tz'utujil' (1.3%) are present, as well as a small group of Xinca (1.3%) to the northeast in the area of Santa Rosa and Jutiapa.

9. The Pacific coast is characterized by a relatively young population; 50% of the population is younger than 18 years old. The economically active population (EAP) comprises 44% of the total population, and the rate of economic participation is 70.8% for men and 26.9% for women. The unemployment rate is 2.3% for men and 4.1% for women. The quality of life for impoverished families decreases, as they do not have access to resources or opportunities necessary for their development, thereby increasing their social vulnerability. The average percentage of people living in poverty in the Pacific coast region is 56%, and the percentage of the population living in extreme poverty is 12%. This is reflected in the Human Development Index of 0.555<sup>17</sup>; although it increased during the 2006-2011 time period, it is still below the national average of 0.569. The illiteracy rate for the region is 30%.

10. Agricultural and cattle-ranching activities are the primary economic resource activities developed in the Pacific region, since the most productive soils in the country are found here. In addition, the regions also has experience the growth of the fishing and tourism sectors. The economic potential of the Pacific coast has been oriented towards a model of agricultural exports, lending towards social inequality in part, caused by the lack of attention focused on the migrant population that serves as the seasonal labor source on the large farms. In addition, rural groups with access to land have had little technical, financial, or business support, leading to difficulties in market competitiveness for small- and medium-scale producers in the region.

11. Currently, the agro-export model has been consolidated in the cultivation of sugar cane and is expanding from the central part of the Pacific coast other agro-export crops are grown (oil palm, rubber, and bananas). The Agriculture PIB constitutes 11% of the National PIB but does not include sugar production (this is considered part of the manufacturing industry sector), whose estimated contribution would have added 4% to the Agriculture PIB (in 2011).

12. With regard to tourism, 23% of the demand for hotels at the national level occurs in the Pacific coast. During 2012, 85,800 tourists entered the region through ports, 72% of which disembarked in Puerto Quetzal; this number represented 8.7% more than the number of tourists entering by way of ports in 2011. The income from foreign exchange through tourism reached \$1.4 billion USD in 2012, 5% more than in 2011.

13. The Pacific region has three principal ports: Puerto Quetzal, which was outfitted for foreign commerce and the two ports of San José and Champerico, which are principally used by traditional fishermen. The marine-coastal areas of the country are an important gateway for international business. During 2009, 63% (\$11.9 billion USD) of the value of imports and exports was channeled through the national ports system. This signified the mobilization of 8.9 billion metric tons of international trade cargo through the Pacific ports (Quetzal and San José), which is equivalent to 48.5% of the total<sup>18</sup>.

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<sup>16</sup> Plan de Desarrollo Integral del Litoral del Pacífico. Dirección de Ordenamiento Territorial. Secretaría de Planificación y Programación de la Presidencia. Guatemala, 2011.

<sup>17</sup> Average calculated from the Human Development Indices of the six (6) departments that have jurisdiction in the marine-coastal protected areas included in the project.

<sup>18</sup> Comisión Portuaria Nacional. 2010. El Sistema Portuario Nacional en apoyo al comercio exterior de Guatemala 2009. Dirección de Estudios y Proyectos. Guatemala.

14. In recent years fishing production has decreased in Guatemala; in 2000 it constituted 0.9% (\$157.9 million USD) of the Gross Domestic Product, which diminished to 0.4% (\$132 million USD) in 2009<sup>19</sup>. Nevertheless, there has been a boom in hydrobiological production for exportation; shrimp and aquaculture farms have been installed in estuaries, mangroves, and other coastal areas.

*Socioeconomic context of existing and proposed MPAs:*

#### Existing MPAs

**15. La Chorrera Private Natural Reserve – Manchón Guamuchal RAMSAR Site:** According to estimations made in 2012 there are 4,352 people living in this MPA. Women comprise 51% of the total, indigenous 1%, and the population of people younger than 20 is 55%. The population living in poverty in the area is estimated at 45%, and the 6% live in extreme poverty. The primary social indicators that are geared towards unmet basic needs are: 29% of the population lives in housing with earthen floors; 20% of the homes do not have bathrooms (or at least toilets); the rate of chronic malnutrition in schools is 5%; and the illiteracy rate is 29%. The Human Development Index for the area in which the majority of the population of this MPA lives (Ocós) is 0.575. The main economic activities of the population are subsistence fishing and temporary labor in the banana plantations and shrimp farms, and to a lesser degree, tourism (restaurants, retail stores).

**16. Sipacate-Naranjo National Park:** According to calculations made in 2012, the population living within the MPA is 6,800<sup>20</sup>. Women comprise 48% and indigenous 6%, and the population of people younger than 20 is 49%. The population of people living in poverty is 64%, and the percentage of people living in extreme poverty is 12%. The primary social indicators that are geared towards basic unmet needs of the area are: 20% of the population lives in housing with earthen floors; 23% of the homes do not have bathrooms (or at least toilets); the rate of chronic malnutrition in schools is 25%; and the illiteracy rate is 37%. The Human Development Index is 0.522 (municipality of La Gomera), which is low in relation to the department of Escuintla (0.615). The principal economic activities of the populations living within the MPA are working in the sugar cane farms, salt mines, shrimp farms, and traditional fishing.

**17. Monterrico Natural Reserve Multiple-use Area:** According to 2012 estimates there are 11,400 people living in this area. Women comprise 50% of the population, indigenous 1%, and 50% of the population is younger than 20. The percentage of the population living in poverty is estimated at 66%, and the percentage living in extreme poverty is 18%. The primary social indicators that are geared towards basic unmet needs are the following: 10% of the population lives in housing with earthen floors; 17% of the homes do not have bathrooms (at least toilets); the rate of chronic malnutrition in schools is 9%; and the rate of illiteracy is 26%. The Human Development Index is 0.547 (department of Santa Rosa). The most important economic activity in Monterrico is tourism. Other economic activities that generate income for the communities located within the area are working in sugar cane farms, salt mines, shrimp farms, and traditional fishing.

#### Proposed MPAs

**18. Hawaii Multiple-use Area:** This area is located on the coast of the municipality of Chiquimulilla in the department of Santa Rosa. In 2012 the population was estimated to be 2,550. Women comprise 52% of the population, indigenous 1%, and 53% of the population is younger than 20. The percentage of the population living in poverty is estimated at 63%, and the percentage of people living in extreme poverty is 20%. The rate of illiteracy is 31%. The Human Development Index of the municipality of Chiquimulilla is 0.621, but according to survey conducted in the field this is high due to the living conditions of the people living in the communities of this area. The principal economic activity of the residents is

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<sup>19</sup> Beltrán, Claudia. 2013. Contribución de la pesca y la acuicultura a la seguridad alimentaria y el ingreso familiar en Centroamérica. FIP/SLM/FAO.

<sup>20</sup> SEGEPLAN. 2010. Tasa de crecimiento municipal de La Gomera (Diagnóstico del Municipio de La Gomera).

traditional fishing. There are also groups of the population that obtain income from selling fruit and pashte (*Luffa cilíndrica*). Within the Hawaii area some remains of the Xinca culture have been found, archaeological sites that may be used to promote tourism and establish cultural research centers.

**19. Las Lisas-La Barrona Multiple-use Area:** This area is located in the southern portion of the Santa Rosa and Jutiapa departments, within the jurisdiction of the municipalities of Chiquimulilla, Guazacapan, Pasaco, and Moyuta. According to 2012 estimates there are 4,400 people living in this area. Women comprise 53% of the population, with the average family size of 5 to 6 members. The participation of women in political and social spheres is limited, with less than 25% participating in Community Development Councils (COCODES). The indigenous population, as with the other areas, is small, constituting just 1%. The primary social indicators that are geared towards the basic unmet needs of the area are: 15% of the population lives in housing with earthen floors; 21% of the homes do not have bathrooms (or at least toilets); the rate of chronic malnutrition in schools is 15%; and the rate of illiteracy is 18%. The Human Development Index for this region is 0.572. The principal economic activities in Las Lisas-L Barrona are tourism and traditional fishing.

#### *Legal and institutional context*

20. Guatemala's directives related to marine-coastal conservation and management are based on the 1985 Political Constitution, related laws, and the international treaties and agreements that it has ratified, including the Convention on Biodiversity (CBD; Legislative Decree 5-95). The Political Constitution of Guatemala establishes that "the State exercises full sovereignty over the national territory composed of soil, subsurface soil, inland waters, ocean territory to the extent determined by law, and the airspace over them; the area contiguous to the ocean adjacent to the ocean territory, for carrying out certain activities allowed by international law; and the natural and living resources of the ocean floor and marine subsurface soil and the resources existing in the waters adjacent to the coasts outside of the ocean territory that constitute the exclusive economic zone to the extent determined by law, in conformance with international practice."

21. Article 122 of the Constitution is particularly important, as it establishes that "the State reserves ownership of a 3-kilometer strip of land along the oceans, beginning at the mean high water line..." this strip of land has been established as the Territorial Reserve Areas of the State (ARTE). The Regulatory Law of the Guatemalan ARTE (Decree 126-97) establishes that OCRET will be charged with managing these areas and will administer the programs and activities that are necessary to achieve their best use and development. The Regulatory Law allows the State to lease property within the ARTE to natural or legal persons and establishes that the territorial reserves and properties that combine the appropriate characteristics shall be dedicated preferably to conservation objectives; OCRET will give priority to the conservation of the lake shores, marine coasts, and riverine banks.

22. The Law of Environmental Protection and Improvement (Decree 68-86) establishes that "the State, the municipalities, and the people living in the country propitiate socioeconomic, scientific, and technological development that prevents environmental pollution and maintains the ecological balance. Therefore, the use of wildlife, plant, soil, subsurface soil, and water resources should be done in a rational manner." Article 6 reads that the soil, subsurface soil, and the borders of national waters shall not serve as a reservoir for environmental or radioactive contaminated wastes. Those contaminated materials and products whose use is prohibited in their country of origin may not be introduced into the national territory. Article 8 indicates that all projects, works, industry, or any other activity that may cause harm to renewable or non-renewable natural resources, to the environment shall present an environmental impact analysis. Article 15 reads that the Government will ensure the maintenance of water for human use and other activities for which its use is imperative, issuing the necessary conditions for use and the corresponding regulations. The objective of this law is to ensure the maintenance of ecological balance and environmental quality to improve the quality of life of the country's population. The law's main objectives with regard to marine-coastal systems are: a) the protection, conservation, and improvement of the country's natural resources, as well as the prevention of harm and misuse or destruction of resources,

and the general restoration of the environment; b) the integrated use and rational management of the watersheds and water systems; and c) to save and restore those water bodies that are threatened or at risk of extinction.

23. The Protected Areas Law (Decree 4-89) defines the functions and areas of action of the CONAP, which in turn regulates and issues the guidelines for the establishment and management of protected areas and defines the mechanisms and procedures for their management. With regard to the water bodies and areas of high BD, whether they are within publicly governed areas or on private lands, the law stipulates their protection and conservation, defining the criteria for the best use and management. With regard to the conservation of marine-coastal water bodies, Article 7 reads: “They are protected areas, including their respective buffer zones, which have as their objective the conservation, rational management, and restoration of wild plant and animal species, related resources, and their natural and cultural interactions, that bear important meaning for their function or genetic, historical, scenic, recreational, archaeological and protective values, in such a way to preserve the natural state of the biotic communities, the unique geomorphological phenomena, the sources and supplies of water, the critical watersheds of rivers, the areas protecting agricultural soils, in order to maintain options for sustainable development.” In addition, Article 8 reads: “With regard to management categories related to marine-coastal water bodies: To achieve optimal management and use, the protected areas are classified in the following categories: springs, marine parks, wildlife refuges, and others to be established in the future with similar purposes, which compose the Guatemalan System of Protected Areas, created within this same law, independently of the entity, individual or legal person that manages it.” Finally, Article 9 reads: “Properties owned by the Nation. The territorial reserves and properties registered as property of the Nation, which combine the appropriate characteristics, shall be preferably designated for managed conservation objectives. OCRET will give priority to the conservation and management of the lake shores, marine coasts and the river banks.”

24. The General Fishing and Aquaculture Law (Decree 80-2002) and its Regulation (Government Agreement 223-2005) has the objective of regulating fishing and aquaculture and their associated activities in order to harmonize them with scientific advances, modifying them with the appropriate methods and procedures for the rational use of hydrobiological resources in public waters. This Law establishes that the wild hydrobiological resources contained in the ocean territory, the adjacent area, the exclusive economic zone, and natural inland waters are publicly owned national assets, and that the State is responsible for exercising domain over them, determining the right to fish in them, manage them, and ensuring their proper use. This Law establishes that the State shall apply the criterion of caution in the conservation, management, and use of the hydrobiological resources in order to protect them and preserve the aquatic environment, taking into the consideration the most reliable scientific data available. The Law also includes conditions to establish closed fishing seasons to prohibit of marine and land-based hydrobiological resources to strengthen the sustainable use of these resources. These may be partial or total and according to species, the time and space will be determined by the available scientific evidence, directly related to the resource’s biological conditions and the habitat.

25. Government Agreement 328-2009 approved the Policy for the Integrated Management of Marine-Coastal Areas of Guatemala. The general objective is that “the marine-coastal ecosystems and their watersheds are protected, managed, and used in a way that guarantees their permanence and the equitable development of the population in the coastal areas.” The most important objectives of this Policy related to this project are: a) The marine-coastal ecosystems, watersheds, and BD undergo actions for their restoration, conservation, and integrated management, as well as the effective management of the goods and services they provide; b) The productive sector that uses the marine-coastal resources, goods, and services develops and carries out best practices that guarantee the ecosystems’ permanence; c) The local communities have access to the goods and services generated by the marine-coastal resources without causing harm to them; d) There is public awareness, political willingness, mechanisms, and instruments to

enforce the rights and obligations derived from the national legal framework, the agreements, and international treaties that are associated with the marine-coastal area and its resources.

26. Guatemala has ratified several international conventions and agreements that have as their objectives to harmonize the policies, standards and regulations, actions, procedures, mechanisms, and instruments for the use and management of the natural resources associated with the marine-coastal regions (water, wildlife, and plant species), emphasizing the protection and conservation of BD. These agreements include: a) Convention on the High Seas (Legislative Decree No. 1494); b) Convention on the Continental Shelf; Legislative Decree No. 1493; c); Legislative Decree No. 72-82; d) Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (Legislative Decree No. 25-75; e) International Convention for the Prevention of Pollution from Ships (Decree No. 77-96); f) United Nations Convention on the Law of the Sea (Decree No. 59-96); g) Agreement on the International Program for Dolphin Conservation (Legislative Decree 01-2001); h) International Convention for the Regulation of Whaling (Decree 61-2005); j) Convention for Cooperation in the Protection and Sustainable Development of the Marine and Coastal Environment of The Northeast Pacific (Decree 67-2005); i) Inter-American Convention for the Protection and Conservation of Sea Turtles (Central American Journal, December 9, 2003); and j) Convention on Wetlands of International Importance, especially as Waterfowl Habitat (RAMSAR Convention) (Legislative Decree 4-88), among others.

27. The project is framed within the Policy for the Integrated Management of Marine-Coastal Areas of Guatemala and the Policy on Biological Diversity. Specifically, this Global Environment Facility (GEF) initiative is framed within the concrete actions for compliance with the Aichi Biodiversity Target 11: “By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes.”

#### *Institutional Context*

28. The institutional framework is defined by current regulations that assign specific responsibilities with regard to marine-coastal issues. Through Government Agreement 186-2001, the MARN is established as the institution responsible for enforcing compliance with environmental and natural resource laws throughout the entire country, including the marine-coastal areas. The law assigns regulatory, oversight, and control responsibilities to the MARN, and gives the institution the authority to create policies for managing the SIGAP. Through the Protected Areas Law (Decree 4-89), the CONAP was established to provide the highest level of direction to the SIGAP, with jurisdiction over the entire national territory, its marine coasts, and air space.

29. Through the Forestry Law (Decree 101-96), the INAB was established as the supervising authority with regard to forestry issues within the national agricultural sector. The INAB is charged with enforcing compliance with Article 35, which establishes the national interest in the protection, conservation, and restoration of the country’s mangrove forests. The Forestry Law prohibits changes in land use in the mangrove ecosystems and establishes that the restoration of the mangroves will be supported by a special protection law under the Regulation of Mangrove Use for the sustainable development of this ecosystem (INAB Resolution No. 01.25.98).

30. Through Government Agreement 338-2010, Internal Organic Regulation of the Ministry of Agriculture, Livestock, and Food (MAGA), the MAGA is granted authoritative powers over fishing and aquaculture issues as well as control of the national reserve areas, particularly the coasts that are managed by OCRET. Within the fishing and aquaculture regulatory framework, the MAGA, through the Fisheries and Aquaculture Unit (DIPESCA), is responsible for managing national hydrobiological resources through plans, strategies, programs, and actions that allow the sustainable use of these resources, as well as oversee the appropriate management of the regulatory and legal conditions with regard to

hydrobiological issues. In addition, the MAGA will issue and supervise fishing permits, as well as coordinate with the fishing and aquaculture sector to address issues related to the use and management of hydrobiological resources and impose fines and sanctions stemming from non-compliance with fishing and aquaculture regulations.

31. Government Agreement 223-2004 created the nation's Naval Defense and Government Agreement 790-83, the Pacific Naval Command. These agreements define the role of this agency in commanding, supervision, control, and coordination of the ocean territory, the adjacent area, and the exclusive economic zone of the Pacific Ocean and inland waters (lakes and rivers) that are contained within the Pacific Ocean watershed. Government Agreement 120-2004 (Maritime Department) dictates that this department shall plan, organize, coordinate, develop, perform, and oversee regulations and procedures related to maritime security and the prevention of contamination by ships and contribute to the reduction of risk of maritime accidents in national waters.

32. The Municipal Code (Decree 12-2002) establishes that the municipality shall oversee the management of its interests and within the scope of its powers promote all types of economic, social, cultural, and environmental activities, and provide as many services as necessary to improve the quality of life and to satisfy the needs and aspirations of the municipality's population. In addition, it establishes that the municipality is responsible for the "development of permanent municipal forest nurseries, in order to reforest the watersheds of rivers, lakes, ecological reserves, and other areas of its territory to protect the life, health, biodiversity, natural resources, water sources, and to fight against global warming." The coastal municipalities shall drive the empowerment and compliance at the local level with the objectives laid out by the Policy for the Integrated Management of Marine-Coastal Areas of Guatemala, showing management at the local level as the central aspect in the protection of the marine-coastal ecosystems and their watersheds, as well as the equitable development of the local population.

33. Decree 100-85 (Quetzal Port Company Organic Law) establishes that Quetzal Port Company is created as a government entity, decentralized and autonomous, in order to meet the demand of port traffic with regard to cargo and people. Among its functions will be to prevent and control contamination and ecological degradation within its jurisdiction and to provide any public services compatible with its activities. Other entities with interests and obligations in the protection and management of the marine-coastal areas include the Office of the Protection of Nature (DIPRONA) of the National Policy, within the Ministry of the Interior, and the Guatemalan Institute of Tourism (INGUAT).

34. Initiatives to manage hydrobiological resources have been established within this institutional framework, such as the Agreement between MARN, MAGA (specifically through DIPESCA), and CONAP, which assigns specific institutional responsibilities geared towards implementing current and future regulations for the sustainable management of natural resources, especially hydrobiological, and other related actions of inter-institutional cooperation.

## **1.2. Threats to marine and coastal biodiversity, impacts, and root causes**

35. Because conservation and sustainable use strategies for natural systems in Guatemala have traditionally been focused on the terrestrial PAs and the establishment of the MPAs has fallen well behind, many marine-coastal species and ecosystems have been put at risk. The most significant threats to marine-coastal BD, particularly in the Guatemalan Pacific, include: a) loss of habitat and natural cover due to unplanned development, creating a particularly critical situation for the country's mangroves; b) contamination caused by unplanned coastal development (urban, industry, and tourism expansion) and unregulated marine transportation; c) erosion and sedimentation from activities that are developed on overused lands; d) overexploitation of marine-coastal resources, including unsustainable fishing practices, e) alien invasive species (AIS); and e) climate change (CC). These threats and their impacts, as well as their underlying causes, are summarized in the following paragraphs.

**36. Loss of habitat and natural cover (deforestation and loss of mangrove habitat):** Typically mangroves are used by neighboring populations for firewood and charcoal production. The uncontrolled cutting of mangroves for timber used in construction, and the clearing of mangroves for shrimp aquaculture and salt farms are also activities that represent a threat for many areas. Some areas of mangroves are able to naturally regenerate when the agricultural and shrimp cultivation areas are abandoned, this minimizes the impact. In addition, many rural communities are very active in the reforestation of abandoned shrimp farms (for example in Retalhuleu) and other small degraded areas (for example in the departments of the southern coast: Escuintla, Suchitepéquez, Retalhuleu, San Marcos). Portions of the Guatemalan mangroves are protected in three MPAs: Sipacate-Naranjo National Park (which includes close to 231 ha of mangroves), La Chorrera Private Natural Reserve – Manchón Guamuchal RAMSAR site (1,255 ha), and the Monterrico Natural Reserve Multiple-use Area (1,363 ha). Nevertheless, there is little monitoring and control in these areas due to a lack of personnel, and the mangrove forests within the MPAs are used to extract firewood and timber for construction. Preliminary results from previous and current analyses of mangrove cover change suggest that deforestation continues, although at a pace slightly less in 1990 in comparison with the 1980s (Table 5).

Table 5 – Change in mangrove cover over time; estimations for the 1980s and 1990s are based on the trend analysis (FAO, 2005)<sup>21</sup>.

	Most recent and reliable estimation of mangrove area (1999)	Mangrove area (1980)	Mangrove area (1990)	Mangrove area (2000)	Mangrove area (2005)
Guatemala	17,727 ha	18,600 ha	17,400 ha	17,500 ha	17,500 ha

**37.** Many of the species that use the mangrove ecosystem as habitat, are threatened and/or in danger. In the mangrove areas of the Sipacate-Naranjo National Park or the Monterrico Natural Reserve Multiple-use Area, the diversity and abundance of resident as well as migratory aquatic birdlife is remarkable; however, many of these species are threatened due to the clearing and degradation of the mangroves. These bird species include herons (*Ardeidae*), pelicans (*Pelecanidae*), cormorants (*Phalacrocoracidae*), ibis (*Threskiornithidae*), plovers (*Charadriidae*), and seagulls (*Laridae*). There are also two important reproductive colonies for herons, principally (*Bubulcus ibis*, *Butorides virescens*, *Egretta thula*, *E. Caerulea*, *E. Tricolor*, and *Nycticorax violaceus*) and ibis (*Eudocimus albus*) (Méndez. et. al. 1999)<sup>22</sup>.

**38. Contamination:** According to SEGEPLAN (2010 and 2011<sup>23,24,25</sup>) the contamination of water bodies (rivers, lakes, creeks, etc.) is a serious problem in all of the municipalities where the MPAs of the project are located. The principal ecosystems threatened by contamination are mangroves, rivers and their banks, estuaries, and beach areas. In various municipalities wastewater treatment plants are being constructed; however, none of them have been completed and are non-operational, resulting in wastewater being discharged directly into the natural water bodies. Also, in the rural communities the water resources are contaminated by runoff from the fertilizers and pesticides used in agricultural areas. There is a lack of household drains and sewers in the rural areas. In the majority of the municipalities, wastewater drains directly into the rivers, lakes, and other water bodies without any type of treatment, which poses a direct

<sup>21</sup> FAO, (2005). Evaluación de los recursos forestales mundiales 2005. Estudio temático sobre manglares. Guatemala. Perfil Nacional.

<sup>22</sup> Méndez, C., Flores, M., Hernández, S., Calderón, C. 1999. Inventario Nacional de Humedales de Guatemala. Manuscrito. Primer Borrador.

<sup>23</sup> SEGEPLAN (2010). Plan de desarrollo. Chiquimulilla, Santa Rosa. 2011-2025.

<sup>24</sup> SEGEPLAN (2010). Plan de desarrollo. Champerico, Retalhuleu. 2011-2025.

<sup>25</sup> SEGEPLAN (2011). Plan de desarrollo. Pasaco, Jutiapa. 2011-2025.

threat to all forms of aquatic life. It is estimated that in the country only 5% of the wastewater generated is treated. Consequently, the majority of the surface waters of the country are contaminated.

39. With regard to solid wastes, these are collected and transported to the municipal dump and/or placed in unauthorized dumping areas. The majority of the municipalities do not have solid waste treatment plants to adequately manage the wastes. Rural populations generally burn, bury, or throw trash into inappropriate locations or deposit them in the rivers and green areas close to their homes.

40. **Erosion and sedimentation**<sup>26</sup>: Erosion and sedimentation is a problem that all MPAs face in the Pacific coast. The Pacific slope is subject to a very marked erosion process (710 t/ha/year), that is more than twice the amount of erosion of the Gulf of Mexico slope and almost six times as much as the Atlantic slope (122 t/ha/year). The rates of erosion for the watersheds associated with the MPAs on the Pacific coast are as follows<sup>27</sup>: a) Ocosito River/Manchón – Guamuchal MPA: 20 t/ha/year; b) Paz River and Los Esclavos River/Las Lisas-La Barrona MPA: 135 t/ha/year; c) Los Esclavos River/proposed Hawaii: MPA 65 t/ha/year; d) Coyolate River/Sipacate – Naranjo MPA: 40 t/ha/year; and e) María Linda River/Monterrico MPA (established) 50 t/ha/year. Increased erosion and sedimentation directly alters the habitat of coastal and marine species and is related to a lack of adequate planning and an increase in the size and intensity of the crops and grasslands. Examples of the intensive land use annual crops that are the highest contributors to erosion are oil palm (*Elaeis guineensis*) and sugar cane (*Saccharum officinarum*)<sup>28</sup>. The principal impacts from erosion on the marine-coastal species in the Guatemalan Pacific are: a) vulnerability of sea turtle nesting sites, 2) changes in substrates (from sediment deposits) promote interference from invasive species in the medium, 3) reduction of BD in highly sensitive areas that are affected by sedimentation, and 4) loss of mangrove habitat.

41. **Overexploitation of marine-coastal resources (overfishing in the estuaries, adjacent rivers, and marine-coastal areas): Industrial shrimp fishing** – According to the FAO (2006)<sup>29</sup>, shrimp fishing in the Pacific ocean of Guatemala began in 1949 with two ships. During the 1960s this industry gained economic importance and continued until it reached its maximum in 1995. A continued decrease began in this year until 2005, when it reached only 15% of its historical maximum. Between 1979 and 1992 the average intake exceeded more than 70% of the maximum sustained yield (MSY). According to the FAO (2006)<sup>30</sup>, the number of fishing days per year corresponding to the MSY is approximately 5,500 (which would correspond to some 20 boats). Based on this, there is an excess of fleet size in Guatemala given the current supply, and the current Fishing Law does not contain the necessary legal regulations to enforce a reduction strategy for the existing fishing capacity. In fact, the law provides for free access to traditional fishing fleets, thereby increasing pressure on the species valued for self-consumption and to be sold in the markets. The principal threatened species in Guatemala are the white shrimp (*Litopenaeus vannamei*), blue shrimp (*Penaeus stylirostris*), brown shrimp (*Farfantepenaeus californiensis*), and the Pacific seabob (*Xiphopenaeus riveti*).

42. **Small-scale artisanal fishing** – Artisanal fishing in the Guatemalan Pacific is recognized as one of the primary problems in fisheries management<sup>31</sup> and is a threat to the marine BD. The problem is manifested in different locations of the Pacific coast because of the excessive increase in the number of

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<sup>26</sup> IARNA-URL (Instituto de Agricultura, Recursos Naturales y Ambiente de la Universidad Rafael Landívar). (2009). Perfil Ambiental de Guatemala 2008-2009. Las señales ambientales críticas y su relación con el desarrollo. Guatemala.

<sup>27</sup> MARN-URL/IARNA-PNUMA. (2009). Informe Ambiental del Estado - GEO Guatemala 2009

<sup>28</sup> MAGA (Ministerio de Agricultura, Ganadería y Alimentación). (2006). *Mapa de cobertura vegetal y uso actual de la tierra para el año 2003*. Guatemala.

<sup>29</sup> FAO, (2006). Apoyo a la Ordenación de Pesquerías de Camarones y fortalecimiento Institucional de la Autoridad Pesquera. Proyecto: TCP/GUA/3101 (A). FAO.

<sup>30</sup> Apoyo a la Ordenación de Pesquerías de Camarones y fortalecimiento Institucional de la Autoridad Pesquera (FAO, 2006). Proyecto: TCP/GUA/3101 (A). FAO.

<sup>31</sup> FAO (2007). Capacidad de pesca y manejo pesquero en América Latina y el Caribe. Agüero, M. (ed.) FAO Documento Técnico de Pesca. No. 461. Roma, FAO. 2007. 403p.

fishermen/boats and due to the fishing power of a fleet that operates above the level considered sustainable. The illegal entry of artisanal fishing boats into shrimping operations bears an additional negative impact on commercial species as well as other species that are unintentionally captured. In addition, the DIPESCA/MAGA does not keep a record of the artisanal fishing boats going in or out or of the species captured (due to the deficient record-keeping system) and only generally maintains a record of the comings and goings of trawling vessels. The species that are affected by overfishing from artisanal fishing activities include the following: bonefish (*Albua vulpes*), catfish (*Arius* sp.), bass (*Centropomus robalito*, *Centropomus* sp.), toothed flounder (*Cyclopsetta querna*), silver mojarra (*Eucinostomus argenteus*), Ronco (*Haeuropsis leuciscus*), steeplined drum (*Larimus acclivis*), squid (*Loliolopsis diomedae*), and snapper (*Lutjanus* sp.).

43. Threats from fishing activities on sea turtles – There is currently no statistical information regarding this in Guatemala; however, the National Council on Protected Areas (CONAP) has reported sighting dead sea turtles on the southern coasts. The death of sea turtles results from fishermen not using the correct form of Turtle Excluder Devices (TEDs), which causes these species to become trapped in the nets and drown. In addition, there is some evidence that the fishermen are fishing in areas that are prohibited.<sup>32</sup> The turtles can get tangled in gillnets, seines, and lines leading to pots or traps. The fishing gear of the shrimping fleet is also not fitted with the TEDs, causing turtles to drown when they become trapped. The fishing trawl nets, which are extremely heavy metal structures that are dragged along the sea bottom, can trap and crush the turtles, causing death or serious injury. Collectively the artisanal fishermen have a large impact on the local populations of sea turtles, especially on the leatherback (*Dermochelys coriacea*) and logger head (*Caretta caretta*) sea turtles. The coastal fisheries can have an impact on the females that migrate to the nesting areas, as well as the juveniles and the sub-adults. The populations of sea turtles that are the most affected are the Green Sea Turtle (*Chelonia mydas agassizii*), the Hawksbill Sea Turtle (*Eretmochelys imbricata*), and the Pacific Ridley Sea Turtle (*Lepidochelys olivacea*) (FAO, 2011<sup>33</sup>).

44. **Alien invasive species:** The AISs are recognized as one of the principal threats to BD and as agents of change in ecosystem functions. This includes the spreading of species beyond their natural distribution areas. The principal causes of the proliferation of marine IESs and the invasion of hundreds of invertebrates, algae, bacteria, viruses, fish, and other aquatic animals into the ecosystems are unregulated port and maritime transportation activities, including the discharge of ballast water. For example, in the Caribbean, an increase in maritime traffic has led the arrival of alien invasive species through the discharge of the vessels' ballast water. The Asian green mussel (*Perna viridis*) is one such species that is now widespread in the Caribbean. Other marine invasive species introduced through the shipping industry in the Caribbean are the European shore crab (*Carcinus maena*) and the isopod (*Sphaeroma walkeri*).

45. According to the IUCN (2009)<sup>34</sup>, the marine invasive species contribute to the loss of native BD as they prey upon native species, decrease habitat availability for native species, increase competition, and are a source of parasites and disease, among other impacts. Additionally, smothering and overgrowth of marine invasive species may cause changes to ecosystem functions, nutrient cycling, and water quality. MPAs in turn are affected as there are no physical barriers that could prevent the invasion of these alien species.

46. There is a lack of statistical information and measures to counter the threats to the marine-coastal BD in Guatemala from ballast water discharge, and as a result the quantification of the true impacts from the AISs has not been possible. According to information from the Departments of Industrial Security, Integral Security, and Environmental Security of the Quetzal Ports Company (in Guatemala), there is

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<sup>32</sup> Sipacate.com

<sup>33</sup> FAO. 2011. Directrices para reducir la mortalidad de las tortugas marinas en las operaciones de pesca. FAO. Italia.

<sup>34</sup> IUCN. 2009. Marine Menace: Alien invasive species in the marine environment.

currently no regulation of ballast water from vessels coming into national waters; however, there is a criterion that the ballast water should be emptied between 20 and 22 nautical miles outside of the Quetzal Port

**47. Climate change:** Based on information from Campos (s.f.) about CC in Central America as well as climate models by the Intergovernmental Panel on Climate Change (IPCC), it is estimated that given the current trend of GHG emissions into the atmosphere, the median temperature of the planet could reach 4°C or 5°C above than the current median temperature. Long-term climate simulations also suggest a decrease in precipitation in most of northern Central America. Studies show contrasting trends in the precipitation of the Central American region, with strong differences in spatial distribution over the Pacific and Caribbean regions. It is also projected that the El Niño–Southern Oscillation (ENSO) events will occur with greater frequency and intensity, especially the warm phases (El Niño).

48. The impacts from CC are already evident and will bring drastic changes in the short and medium terms (2020, 2050, and 2080) to ecosystems and BD in Guatemala. The primary negative effects of climate change on the ecosystems are related to the temperature increase, which implies a greater demand for water for vegetation (due to evapotranspiration), and a drastic reduction of water availability due to droughts and irregular patterns of precipitation. It is highly probable that these changes in bioclimatic conditions will be more rapid than the ecosystems' ability to adapt to them. Continental waters originating in the upper volcanic areas flow to the Pacific coast, bringing about severe flooding during the rainy season. This problem will be sharply increased if the estimated rise in sea level occurs. The estuaries and canals, especially the Chiquimulilla canal that runs approximately 120 km, will have increased salinity in their waters and in some locations will disappear, becoming completely integrated with the ocean since the sand bars that separate them would not reach heights greater than 1 meter. As a result, the coastal sandbars would be reduced and some would be completely submerged. Some species of mangrove such as the black mangrove (*Avicennia germinans*) would suffer the greatest impacts and would be replaced by the red mangrove (*Rhizophora mangle*). As a result, climate change would adversely affect traditional and commercial fishing, recreational beaches, natural protective structures and ports, drainage networks in populated areas, and other ecosystem services that the marine-coastal ecosystems provide.

#### *Direct and underlying causes*

**49. Agricultural expansion:** The expansion of agriculture based on the agro-export model is one of the principal underlying causes of the loss of marine-coastal BD in Guatemala. The cultivation of sugar cane on the Pacific coast has expanded from the central part of the southern coast to the rest of the Pacific coast. The expansion of sugar cane cultivation in some areas has extended to the borders of mangrove forests and has impacted estuaries, coastal lagoons, and other coastal ecosystems. An increase of areas for cultivation is expected during the next 5 years. In 1980/1981, 77,000 ha of sugar cane were cultivated, and in 2012/2013 248,000 ha were cultivated, representing an annual increase of 4%. During the last year (2011/2012 to 2012/2013) there was an increase of 15,000 ha, indicating an annual increase during this period of 6%. In addition, rubber and banana crops are also cultivated in this region (currently some 20,000 ha), and although they are not as extensively grown as sugar cane, their economic importance is increasing. In addition, there are currently 15,000 ha planted with oil palm and *Jatropha* seeds (*Jatropha curcas*)<sup>35</sup> in the region, and the Bionor Transformation Company has proposed the establishment of 50,000 ha of *Jatropha* seeds on the southern coast<sup>36</sup>. The expansion of sugar cane cultivation and other agricultural exports will have a serious impact on mangroves and estuaries that serve as fundamental ecosystems for the reproduction cycles of many species, including fish and crustaceans, and which are important to many small- and medium-scale fisheries.

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<sup>35</sup> *Jatropha* seeds are used to produce high-quality biofuel or biodiesel.

<sup>36</sup> SEGEPLAN (2011). Litoral del Pacífico. Diagnóstico territorial. Tomo 1.

**50. Development of infrastructure: the Pacific Corridor of Guatemala.**<sup>37</sup> The Pacific Corridor of Guatemala is major development project for the widening and rehabilitation of 362 km of main highways and bridge reinforcements along the Pacific coast. The project will transect the Pacific coast from the department of San Marcos on the border with Mexico (west) to the department of Jutiapa on the border with El Salvador (east). Although the project is considered essential for the development of the Pacific region it also has a great potential to impact marine-coastal BD. Direct impacts include diverting rivers and streams, sedimentation, changes in stream flows, and clearing natural forests. Indirect impacts include increased erosion and contamination of the coastal waters and ecosystems. The project will also cause an increase in the population of the region, thereby increasing the demand for marine-coastal natural resources and BD, increasing pressure on ecosystems services, and generating excess solid and liquid wastes.

**51. Population growth and poverty:** The annual population growth rate for the Pacific region is more than 4%, which is above the national average (2.4%). The population density in the region is 161 individuals/km<sup>2</sup>. In addition, 56% of the population in the region is considered poor, and 12% is considered extremely poor. In the rural areas extreme poverty is calculated at 16% of the population. These conditions of population growth and poverty place intense pressure on the region's marine-coastal BD. The population growth and poverty of the region has also resulted in unplanned urban development in the coastal areas, especially in the areas under OCRET, resulting in the destruction and degradation of coastal ecosystems as well as the contamination of most of the coastal waters. Limited access to land, scarce employment opportunities for an increasing population, the lack of basic public services, and the already high level of vulnerability of the coastal population increases the pressure on marine-coastal BD and ecosystem services, and limits socioeconomic development of the local populations.

**52. Lack of financial resources for the effective management of MPAs:** The SIGAP does not have adequate financial resources for the management of the MPAs. Currently there is no direct budgetary allocation for the MPAs nor for mechanisms that would ensure the coordination and collaboration of management activities. As a result, the following significant deficiencies exist: a) there are no financial resources to contract enough personnel to effectively work towards the protection of the existing MPAs; b) there are no funds for the existing management plans to be updated or their actions implemented (the management plans for the Sipacate Naranjo National Park [2002-2006] and the Monterrico Natural Reserve Multiple-use Area [2000-2005] are currently outdated and ineffective); c) there is only limited monitoring and control of threats to the MPAs' ecosystems and BD, including a lack of implementation of mitigation measures to counter the effects of climate change; d) there are no financial resources to coordinate with neighboring communities, fishermen's groups, or private sectors to implement conservation and sustainable use practices for BD; and e) the institutions responsible for managing the MPAs, primarily CONAP and to a lesser degree the INAB and the MARN, are unable to employ the necessary technical personnel to effectively manage the MPAs.

**53. Institutional weakness and lack of coordination among the authorities:** There is a lack of coordination among the institutions responsible for the protection and management of coastal-marine BD and the MPAs. Functions and responsibilities are scattered among the different agencies (MARN, CONAP, MAGA, INAB, National Defense Ministry, OCRET, and SEGEPLAN) or they overlap, causing an unnecessary duplication of effort. As a result there are no common lines of authority, objectives, strategies, or planning, nor integration of resources, efforts, or willingness in relation to the conservation and sustainable use of marine-coastal ecosystems and BD among the public institutions. There are no defined mechanisms to facilitate the coordination of actions among the public agencies, non-governmental institutions, private sectors, and local government and communities. Added to this lack of

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<sup>37</sup> Garcá y Bodan. (2013) Proyectos de Infraestructura Vial.  
[http://www.garciabodan.com/index.php?option=com\\_content&view=article&id=345:proyectos-de-infraestructura-vial-corredor-pacifico](http://www.garciabodan.com/index.php?option=com_content&view=article&id=345:proyectos-de-infraestructura-vial-corredor-pacifico).

coordination is the weakness of the institutional presence at the local level and a lack of qualified technical staff or equipment in the municipal offices located in the coastal zones that are charged with managing the marine-coastal natural resources.

### 1.3. Long-term solution

54. **The long-term solution** to the multiple threats facing the marine-coastal BD of Guatemala depends on its effective protection through MPAs and the promotion of their sustainable use supported by a strengthened legal and institutional framework, improved skills of environmental officials to monitor and mitigate threats to BD, improved MPA management effectiveness, and the establishment of collaborative conservation efforts between key government and non-government stakeholders. This conservation strategy will permit the GoG to establish new MPAs in the Pacific region, increase marine ecosystem representativeness within the SIGAP, and push forward the establishment of a network of MPAs by the year 2020, in accordance with the guidelines of the COP 10 of the CBD.

55. Specific actions that will be developed through the project and that will contribute to the reduction of threats to coastal and marine BD in Guatemala are summarized in Table 6.

Table 6 – Project contributions to the reduction of threats to coastal and marine biodiversity.

Threats	Solutions
Loss of habitat (deforestation and loss of mangrove habitat)	<ul style="list-style-type: none"> <li>- Reform to the Mangrove Regulations of the INAB so that mangrove conservation and its sustainable use is included and not just limited forestry use.</li> <li>- Increase mangrove protection through MPAs from 4,004.67 ha to 12,803.10 ha.</li> <li>- Participatory conservation, rehabilitation, and sustainable use of mangroves in the five (5) MPAs of the project and their buffer zones.</li> <li>- Rehabilitation of 100 ha of degraded mangroves and the associated riparian corridors.</li> </ul>
Contamination	<ul style="list-style-type: none"> <li>- Agreement to reduce the threat of land-based contamination (solid and liquid wastes) to the Monterrico Natural Reserve Multiple-use MPA and its coastal and marine, BD between the MARN, CONAP, the municipalities, the Quetzal Port, agroindustry, private associations (hotels), and representatives of civil society (fishermen’s associations, environmental committees, COCODES, etc.).</li> <li>- Program for the prevention, reduction, and control of land-based contamination in the five (5) MPAs and their buffer zones: control and reduction of land-based contamination sources (solid wastes and wastewater).</li> </ul>
Erosion and sedimentation	<ul style="list-style-type: none"> <li>- A program for the prevention, reduction, and control of land-based contamination in the five (5) MPAs and their buffer zones: environmental management of watersheds to prevent the degradation of forests, soils, rivers, and streams through watershed management and erosion control.</li> <li>- Cooperation and coordination between national institutions (MARN and CONAP), departments, municipalities, the private sector (e.g., sugar producers, banana growers, tourism), universities, and NGOs to control erosion and sedimentation.</li> </ul>
Overexploitation of marine-coastal resources	<ul style="list-style-type: none"> <li>- Development of an extension support program for small-scale artisanal fisheries to promote the use of BD-friendly practices and the sustainable use of fisheries resources; BD-friendly fishing practices will contribute to the protection of the scalloped hammerhead (<i>Sphyrna lewini</i>), sea turtles (e.g., <i>Lepidochelys olivacea</i>, <i>Chelonia mydas</i>, <i>Eretmochelis coriacea</i>, and <i>Dermochelys coriacea</i>), dolphins (<i>Tursiops truncatus</i> and <i>Stenella attenuata</i>), and to sustaining populations of fishing species with local value (e.g., bonefish [<i>Albua vulpes</i>], catfish [<i>Arius</i> sp.], and yellowfin snook [<i>Centropomus robalito</i>]).</li> <li>- Agreement for the reduction of threats from artisanal fishing in the Monterrico Natural Reserve Multiple-use MPA and the Sipacate-Naranjo MPA and their buffer areas.</li> <li>- Implementation of BD-friendly fishing practices for small-scale artisanal fisheries in the Sipacate-Naranjo Protected Area and the Las Lisas-La Barrona</li> </ul>

Threats	Solutions
	Multiple-use Area will contribute to maintaining stable local populations of the Yellowfin snook ( <i>Centropomus robalito</i> ) and snapper ( <i>Lutjanus</i> sp.) and to the food security of local fishermen and their families. - Implementation of BD-friendly fishing practices to reduce the impact on three (3) commercially important species in multiple-use MPAs and their buffer zones: white shrimp ( <i>Litopenaeus vannamei</i> ); toothed flounder ( <i>Cyclopsetta querna</i> ), and catfish ( <i>Arius</i> sp.).
Alien invasive species	- Agreement between CONAP and the Quetzal Port Company and implementation of a ballast water management program to prevent the introduction of AISs and pathogens present in the ballast water (and sediment) of ships in the vicinity Monterrico Multiple-use Area MPA
Climate change	- Development of a strategy to reduce the vulnerability of BD and ecosystem services to CC in five (5) MPAs and their buffer zones in the Guatemalan Pacific.

#### 1.4. Barriers analysis

56. The following barriers exist that prevent the conservation and sustainable use of BD in MPAs in Guatemala:

57. **Deficient legal, institutional, and financial framework for the conservation of MPAs and marine-coastal BD.** A principal barrier to the effective management of MPAs and the protection of marine-coastal BD is the existence of a weak legal and institutional framework that does not favor the coordinated development of conservation efforts among the various state agencies (e.g., MARN, CONAP, and MAGA), municipal governments, and the productive sectors (e.g., fishing, tourism, and maritime ports/transportation). The existing legal and institutional framework is not conducive to the joint protection of shared coastal and marine ecosystems by institutions and sectors. Different institutions with responsibilities for marine ecosystems' management and planning operate independently of each other; thus, the possibility of effectively addressing the threats to marine-coastal BD, particularly loss of habitat, unsustainable fishing practices, contamination of coastal and marine waters, and CC impacts, is limited.

58. A major barrier to effective MPA management is the lack of financial mechanisms that would allow the diversification of funding sources. MPA financing relies largely on central government funding, which is limited and subject to recurring budget cuts, and the allocation of resources is usually slow. Private sector contributions to MPA management are almost non-existent despite the benefits that they obtain from the multiple ecosystems goods and services that MPAs provide. On the level of individual MPAs, outdated or non-existent business plans have prevented the assessment of management costs (basic and optimal) and revenue potential of each MPA. Thus, efforts to secure funding are made without consideration of the MPAs' management needs, and MPAs remain underfunded as financial targets area not clearly defined and efforts to secure funding are not well oriented..

59. **Limited capacity of MPA officials, local authorities, and private sectors to counteract existing threats to BD.** A major barrier for the effective management of MPAs in Guatemala is the absence of consolidated marine units within MARN and CONAP, making these institutions ill-equipped to face the challenges facing MPAs. This limitation has resulted in deficient MPA planning and management, particularly in Guatemala's Pacific coast where MPAs have limited coverage. Management plans for MPAs need to be developed and/or updated; in addition, the MPAs' managers do not possess a full range of tools needed for effective MPA management since there is a lack of monitoring and enforcement systems to reduce threats to marine-coastal BD and for the development of financial strategies (e.g., business plans and mechanisms for revenue generation and reinvestment) that are necessary to achieve MPA sustainability. Similarly, there is also limited capacity among local authorities (i.e., municipalities) for effective planning and management of marine-coastal areas and for integrating MPAs as part of their planning. Local authorities also lack resources and sufficient information on the status of marine BD to reduce the impacts from coastal development, maritime ports/transportation, and fishing operations.

Finally, there are limited opportunities for the training of fishermen and the fishing industry regarding marine BD and sustainable resource management. There is limited knowledge within the fishing sector (commercial and small-scale artisanal) regarding BD-friendly practices, an important limitation since non-sustainable fishing is widespread in the MPAs.

**60. Deficient standards and tools for the reduction of threats to MPAs and marine-coastal ecosystems.** The slow development of conservation strategies for coastal and marine areas in Guatemala has resulted in a lack of mechanisms and tools to reduce threats from key sectors and local communities to MPAs and coastal-marine BD. Few efforts have been made to involve marine-based productive sectors (e.g., tourism, maritime ports/transportation, and fishing) in conservation efforts or to promote the adoption of production practices that reduce impacts on coastal and marine BD. Similarly, the effects of land-based production and development practices (e.g., agro-industry and urban development) on coastal and marine areas have not been properly addressed, thereby limiting opportunities to reduce threats, particularly contamination, that result from the lack of joint planning and management by local authorities, productive sectors, and local communities. Strategies have not been developed for participatory conservation or the sustainable use of key coastal ecosystems. This is particularly true for mangroves, which have lost a large percentage of their original coverage and continue to be threatened by non-sustainable use and extraction practices.

### 1.5. Stakeholder analysis

61. Table 7 presents a description of the principal stakeholders involved in the project. The successful implementation of the project will largely depend on effective communication with these stakeholders and the mechanisms put into place by the project to ensure their participation. The key national stakeholders are the MARN, CONAP, INAB, -MAGA, and the Navy / Ministry of Defense. At the local level, the most relevant stakeholders are the various municipalities within the coastal departments of the Guatemalan Pacific, as well as civil society organizations and coastal communities.

Table 7 – Key stakeholders of the project.

Stakeholders	Project Implementation Role
MARN	The MARN is the GEF Operational Focal Point. It will provide guidance for strengthening the regulatory and institutional frameworks for the protection of marine-coastal BD through MPAs and for their effective management (Component 1). MARN staff will benefit from training and the MARN will have a Marine-coastal Unit by project end. The MARN will be part of the project's Steering Committee.
CONAP	CONAP will play a central role in the creation/expansion of MPAs (Component 1). It will also provide technical and scientific support to project activities, including legal reform and inter-institutional coordination (Component 1), the establishment of new MPAs and the expansion of existing ones, management plan development, and stakeholder participation for MPA management and marine-coastal BD conservation (Components 2 and 3). CONAP staff will benefit from training and CONAP will have a Marine-coastal Unit by project end. CONAP will be part of the project's Steering Committee and will be a co-financier.
INAB	INAB will provide advice for mangrove regulation reform (Component 1) and technical support in the development of a participatory plan for the conservation and sustainable use of mangroves in Guatemala's Pacific region (Component 3).
DIPESCA-MAGA	DIPESCA-MAGA will implement actions for fisheries management and control and surveillance to be developed through Component 3. Additionally, it will provide field support and will promote the involvement of local communities, municipalities, and the fishery sector in project activities, including establishing agreements for the implementation of BD-friendly fishing practices. DIPESCA-MAGA will be part of the project's Steering Committee and will be a co-financier.
Municipal Development Institute (INFOM)	INFOM aims to support the municipalities of Guatemala in promoting their development and providing them with technical and financial assistance. Additionally, by Law (Governmental Agreement 376-97) INFOM is responsible for the development of policies and strategies for water supply and sanitation, as well as the implementation of related actions. INFOM will

	play a central role in coordinating actions for the participation of municipalities in the project, particularly in marine-coastal ecosystem and MPAs' management and in the prevention, reduction, and control of land-based contamination of MPAs and their buffer areas. INFOM will be part of the project's Steering Committee and will be a co-financier.
Municipalities (10)	Ocós, Retalhuleu, Champerico, La Gomera, Iztapa, Taxisco, Guazacapán, Chiquimilla, Pasaco, and Moyuta. Will participate in the implementation of regulation for marine-coastal management (Component 1), in the alignment of MPA management plans with municipal land/coastal use plans (Components 2 and 3), the development of a monitoring and surveillance program to monitor threats to MPAs and marine BD (Component 2), the reduction of contamination in coastal areas, and will be beneficiaries of training.
Local communities and local community organizations	Will participate in the formulation of MPAs management and coastal zones plans (Component 2). Will serve as advocates in the development of participatory conservation and the sustainable use of marine-coastal BD, including mangrove ecosystems (Components 2 and 3), as well as the delivery of project benefits. Local community organizations include: Fishermen's Association of El Gran Pargo ( <i>Asociación de Pescadores El Gran Pargo</i> ), the Fishermen's Association of Champerico ( <i>Asociación de Pescadores de Champerico</i> ), <i>Asociación Pro-Mejoramiento de la Comunidad Indígena de Las Lomas</i> (Chiquimilla), the National Federation of Artisanal Fishermen ( <i>Federación Nacional de Pescadores Artesanales – FENAPESCA</i> ), and the Artisanal Fishermen Association of Sipacate ( <i>Asociación de Pescadores Artesanales de Sipacate – APASI</i> ).
Non-governmental organizations (NGOs)	Wildlife Rescue and Conservation Association (ARCAS), The Nature Conservancy (TNC), Community, Conservation, and Ecology (AKAZUL), and MAR Fund. NGOs will provide technical and scientific support to the project, as well as experience in MPA management, marine wildlife conservation and monitoring, and sustainable use of coastal-marine BD.
Universities	Universidad del Valle de Guatemala, Universidad Rafael Landívar, Universidad de San Carlos: Ocean and Aquaculture Research Center (CEMA) and Center for Conservation Studies (CECON). Universities will provide technical and scientific support to the project in coastal and marine ecosystem management, MPA management, fisheries, climate change, physical oceanography, among other areas.
Private sector	The private sector (fishing, agroindustry, tourism, urban and coastal development, and marine/ports transportation) will actively participate in the formulation of MPA management plans (Component 2), the establishment of agreements to reduce and control land-based contamination in coastal zones, the adoption of BD-friendly practices, and management of ballast water (Component 3).
Navy / Ministry of Defense	Will provide patrolling and logistics support in MPAs and their buffer areas (Component 3). Will enforce agreements and resource use norms.
United Nations Development Programme (UNDP)	The UNDP is the Project's Implementing Agency and will be responsible for overall project implementation through the Direct Implementation Modality (DIM).

## 1.6. Baseline analysis

62. Under the baseline scenario efforts to reduce the multiple threats facing the marine-coastal BD of Guatemala will be insufficient. Additionally, it is not likely that new MPAs would be created or expanded in the near future, and as a result, key areas for conservation of BD of global, national, and local importance would continue to lack protection and natural systems will continue to be degraded. The following areas are related to the expected outcomes of the project, and form the baseline analysis.

63. Guatemala invests approximately \$9 million USD per year for management of the PA system (to cover recurrent and investment costs of the CONAP and the SIGAP). This is complemented by donations from development partners and a loan from the Inter-American Development Bank (IADB) of \$30 million USD for the sustainable development program in Guatemala's Mayan Biosphere Reserve. In Guatemala's Pacific region there are only three MPAs that are part of the SIGAP: the Monterrico Multiple Use Area; the Sipacate-Naranjo National Park; and the La Chorrera Private Natural Reserve, which is part of the Manchón Guamuchal RAMSAR site. A fourth MPA, the Hawaii Multiple-use Area, has been

proposed but its approval by Congress is still pending. Of these areas, only two have approved management plans (the Monterrico Multiple Use Area and the Sipacate-Naranjo National Park), which are outdated. An analysis developed during the PPG phase using the Financial Sustainability Scorecard (FSS; BD-1 Tracking Tool) for the three MPAs in the Pacific coast and using data from 2011 showed that the MPAs operate with a total annual budget of \$673,326.48 USD, with a financial gap of \$3,626,673.52 USD to cover the basic management cost and investments (84.3% of all financial needs).

64. During the PPG phase of the project, the Management Effectiveness Tracking Tool (METT) for Protected Areas was used to determine the baseline scores for the three existing MPAs in the Pacific region (Table 8). The overall METT score (determined by averaging the individual MPAs) indicated deficient effectiveness in MPA management (25%). The application of the METT and the studies carried out as part of the PPG phase showed that there are weaknesses that prevent the CONAP from effectively managing its MPAs. There is a lack of skilled staff, deficient planning and monitoring and evaluation, reduced budgets, little coordination with other organizations in the conservation of marine-coastal BD and its sustainable use, and insufficient mechanisms to promote community participation in MPA planning and management.

Table 8 – METT scores for MPAs the Pacific coast of Guatemala.

	Name	Score
1	Monterrico Multiple-Use Natural Reserve	40%
2	Sipacate – Naranjo National Park	26%
3	La Chorrera Private Natural Reserve – Manchón Guamuchal RAMSAR site	10%

65. Baseline investments from the Government of Guatemala (CONAP, MARN, MAGA, INAB, OCRET, and the Ministry of Communications, Infrastructure, and Housing [MICIVI]) related to environmental protection and management in the 10 prioritized municipalities (Ocós, department of San Marcos; Retalhuleu and Champerico, department of Retalhuleu; La Gomera, department of Escuintla; Guazacapan, Taxisco, and Chiquimulilla, department of Santa Rosa; and Moyuta and Pasaco, department of Jutiapa) for the next 5 years (2014-2018) will total \$3,906,581.56 USD. Baseline investments from the Pacific coastal municipalities for coastal zone protection/land use planning and management are on the order of \$30,000 USD per year.

66. Additionally, the Quetzal Port Company calculates income generated from ballast water fees at close to \$2.5 million USD during the 5-year period of project implementation. The CEMA will invest \$250,000 USD between 2014 and 2018 in training and research related to marine aquaculture in the Monterrico experimental station (municipality of Taxisco). Finally, ARCAs will invest \$139,375 USD in marine and coastal wildlife protection and ecosystem conservation.

## 2. STRATEGY

### 2.1. Project rationale and policy conformity

67. This project is framed within the BD Focal Area. It aims to promote the conservation and long-term sustainable use of marine and coastal biodiversity of global importance through effectively and equitably managed MPAs, which will contribute to improving the economic welfare of the Guatemalan population. The project addresses BD Objective One (BD-1), which aims to *Improve Sustainability of Protected Area Systems*. The project will contribute to the achievement of *Outcome 1.1: Improved management effectiveness of existing and new protected areas* by: a) promoting the conservation and sustainable use of marine-coastal BD in two new and three existing MPAs; b) strengthening the capacity of national and local stakeholders to effectively manage MPAs and utilize human resources and distribute funds

effectively, and the development of monitoring and adaptive management systems to address threats to MPAs and BD; and c) facilitating synergies between MPA managers and fisheries, urban and coastal development, and maritime ports/transportation sectors for the conservation of BD of global importance in the Pacific region of Guatemala. It will also facilitate an increase in the ecological representativeness of the MPA system. The SIGAP, which is governed by the CONAP, currently includes a total of 320 areas covering 3.48 million ha, which equates to 31.98% of the national territory. However, there are only four MPAs within the SIGAP, which cover 158,920.44 ha (4.5% of the SIGAP), and just one MPA situated in the Caribbean region containing a strictly marine portion, which represents just 2.95% of the total national territory and less than 0.5% of the total marine area of the country. The project will contribute to overcoming this limitation by creating two (2) new MPAs and expanding three (3) existing MPAs in the Pacific region, following the recommendation of Guatemala's marine conservation gap analysis<sup>38</sup> and increasing to 323,217.84 ha (9.28% of the SIGAP) the coastal and marine ecosystems under protection.

68. Additionally, the project will contribute to Outcome 1.2: *Increased revenue for protected area systems to meet total expenditures required for management* by allowing for an increase of 50% in funding from government and non-government sources for MPAs and revenue generation.

## **2.2. Country ownership: country eligibility and country drivenness**

69. The project has been driven by national policies and strategies and will directly address key priorities. Guatemala's Policy for the Integrated Management of Marine-Coastal Zones (PMCG) defines the objectives and strategies for the sustainable use of coastal and marine goods and services in the country. Furthermore, the PMCG has within its proposed strategies the institutional strengthening and coordination of the government agencies responsible for the marine-coastal zones (e.g., MPAs and BD, forests, fisheries, state territorial reserves, control and surveillance, and maritime ports) and the civil sector. This project responds to the needs of the PMCG and will contribute to its implementation through the three project components. Similarly, the project addresses Guatemala's conservation needs as established in the country's marine conservation gap analysis (2009). The gap analysis conservation portfolio consists of 11 sites that need to be part of the SIGAP to increase its ecological representativeness. The project will contribute significantly with the creation of three new MPAs and the expansion of two existing MPAs in five of the sites identified in the marine conservation gap analysis. In addition, the project is driven by the Law of Protected Areas, Decree 4-89 (modified by Decree 110-96), which establishes that BD is an integral part of the natural patrimony of Guatemalans, and therefore, must be conserved through effectively managed protected areas (PAs).

70. Guatemala is a State Party to the Convention on Biological Diversity (CBD), which was ratified on July 10, 1995. The 10th Conference of Parties, (COP 10, held in Nagoya, Japan), Decision X/2: Strategic Plan for Biodiversity 2011-2020, sets strategic goals, and the BD targets (i.e., Aichi Targets) for the parties of the CBD. This project will help Guatemala to meet its commitment to reach the Aichi Targets, in particular Target 11: By 2020, at least 10 percent of coastal and marine areas are conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas. This will be achieved through the creation of two new MPAs and the expansion of three existing MPAs, thereby increasing the coverage of protected marine-coastal ecosystems within Guatemala's PA system by 157,254.96 ha. Additionally, the project will contribute to Strategic Goal B: Reduce the direct pressures on biodiversity and promote sustainable use. The project will address the new Programme of Work on PAs of the CBD, in particular Programme Element 1: Direct actions for planning, selecting, establishing, strengthening, and managing, protected area systems and sites and the target set for MPAs:

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<sup>38</sup> CONAP and MARN. 2009. Biodiversidad Marina de Guatemala: Análisis de Vacíos y Estrategias para su Conservación. Consejo Nacional de Áreas Protegidas, Ministerio de Ambiente y Recursos Naturales, The Nature Conservancy. Guatemala. 152 p

Complete by 2012 in the marine environments the establishment of comprehensive and ecologically representative national and regional systems of protected areas.

### 2.3. Design principles and strategic considerations

71. Project Identification Form (PIF) Conformity: The project design is aligned to the original PIF. The structure of the project components closely resembles the PIF that was approved by the GEF. However, the following changes were made, which do not represent a departure from the project’s strategy as defined originally in the PIF nor will they have an impact on the funds (GEF and co-financing) originally budgeted:

PIF Outputs	Project Document Outputs
Component 1	
Three (3) new multiple-use MPAs (IUCN Category VI) gazetted.	Two (2) new multiple-use MPAs (IUCN Category VI) gazetted. Instead of three (3) new MPAs the project will establish two (2) new MPAs.
Congressional Decree legalizes the expansions of two (2) existing MPAs.	Congressional Decree legalizes the expansions of three (3) existing MPAs. Instead of expanding two (2) existing MPAs the project will expand three (3) existing MPAs. This change and the previous one will still represent a significant increase in marine-coastal ecosystems under protection and according to Guatemala’s marine-coastal conservation gap analysis.
Strategic Guideline 8.3 of Guatemala’s Policy for the Integrated Management of Marine-Coastal Zones (PMCG) improves inter-institutional coordination, define common goals, roles, and co-responsibilities, and participative and financing mechanisms for marine-coastal management in four (4) coastal municipalities.	Strategic Guideline 8.3 of Guatemala’s Policy for the Integrated Management of Marine-Coastal Zones (PMCG) improves inter-institutional coordination, define common goals, roles, and co-responsibilities, and participatory and financial mechanisms for marine-coastal management in ten (10) coastal municipalities. The project will work in the 10 municipalities with jurisdictions over the areas where the MPAs will be created or expanded.
An integrated Marine-Coastal Management Program (MCMP) is developed, facilitating: a) the implementation of the PMCG and development plans to enhance the protection and sustainable use of marine-coastal BD; b) effective MPA management; and c) the development of policy guidelines on the Fisheries Act (MAGA), the National Reserves Act (OCRET), and the Energy and Mines Act (MEM) to reduce threats to marine-coastal BD and organize government and non-government sectors to support conservation efforts.	An integrated Marine-Coastal Management Program (MCMP) is developed facilitating: a) creation of the National Administrative Council for Maritime Affairs; b) the implementation of the PMCG and development plans to enhance the protection and sustainable use of marine-coastal BD; c) effective MPA management; and d) the development of policy guidelines on the Fisheries Act (MAGA) and the National Reserves Act (OCRET) to reduce threats to marine-coastal BD and organize government and non-government sectors to support conservation efforts. The creation of the National Administrative Council for Maritime Affairs was considered a

	necessary first step for the delivery of this project output. Additionally, the project will not be working with the oil sector.
Business plans developed and/or updated for the three (3) new and two (2) expanded MPAs.	Business plans developed and/or updated for the two (2) new and three (3) expanded MPAs. The total number of business plans to be developed through the project remains the same.
An Action Plan for private sector voluntary financial contributions strengthens the financial sustainability of all MPAs.	Municipal investment plans support MPA management through unused budgeted resources by municipalities. A feasibility analysis of the output originally defined in the PIF “private sector voluntary financial contributions strengthen the financial sustainability of all MPAs” indicated that this not feasible. Instead, an assessment of municipal budgets indicated that resources go unused and can be redirected to support MPA management.
Component 2	
Management plans for two (2) expanded MPAs and for three (3) new MPAs are developed and aligned with the municipal participatory land and marine-coastal use plans.	Management plans for three (3) expanded MPAs and for two (2) new MPAs are developed and aligned with the municipal participatory land and marine-coastal use plans. The total number of management plans to be developed through the project remains the same.
Participatory resource use and management strategy for three (3) marine-coastal zones (one in the Caribbean and two in the Pacific) include the permitted uses and restrictions for marine-coastal BD and MPAs in twelve (12) municipalities and mechanisms for conflict resolution and accountability.	Participatory resource use and management strategy for three (3) marine-coastal zones in the Pacific include the permitted uses and restrictions for marine-coastal BD and MPAs in ten (10) municipalities and mechanisms for conflict resolution and accountability. The project will only implement actions in the Pacific coast of Guatemala, which traditionally has received less attention than the Caribbean coast. The project will work in the 10 municipalities with jurisdictions over the areas where MPAs will be created and expanded.
Strengthened capacity of national and local governments (CONAP, MARN, INAB, the Navy, and municipalities), private sectors (fisheries, energy, maritime ports/transportation), and civil society (non-governmental MPA co-administrators and local communities) in MPA management and the conservation and sustainable use of marine-coastal BD.	Strengthened capacity of national and local government institutions (CONAP, MARN, INAB, the Navy, and municipalities), private sector groups (fisheries, urban development, tourism, maritime ports/transportation), and civil society organizations (non-governmental MPA co-administrators and local communities) in MPAs’ management and the conservation and sustainable use of marine-coastal BD. The project will not be working with the oil sector.

<p>A monitoring and enforcement system for the municipalities and CONAP reduce threats to marine-coastal BD in MPAs and their buffer areas.</p>	<p>A technical-scientific information system related to coastal and marine ecosystems and MPA management contributes to the monitoring and control of threats to marine-coastal BD.</p> <p>The scope of this project output was expanded to include a technical-scientific information system that will serve as an information platform to provide information for coastal and marine ecosystems and MPA management, in addition to the monitoring and control of threats to marine-coastal BD in the MPAs.</p>
<p>Component 3</p>	
<p>Three (3) cooperation agreements between MPA authorities (CONAP and municipalities) and the energy, fisheries, and maritime ports/transportation sectors include conservation/management committees to oversee the conservation and sustainable use of BD in four (4) MPAs and their buffer areas.</p>	<p>Three (3) cooperation agreements between MPA authorities (CONAP and municipalities) and the urban development, fisheries, and maritime ports/transportation sectors include conservation/management committees to oversee the conservation and sustainable use of BD in four (4) MPAs and their buffer areas.</p> <p>The project will not be working with the oil sector.</p>
<p>Program for the prevention, reduction, and control of land-based contamination of MPAs and buffer areas defined jointly with municipalities, local communities, and key private sector groups (oil, maritime transportation, agro-industry, tourism, and urban development).</p>	<p>Program for the prevention, reduction, and control of land-based contamination of MPAs and buffer areas defined jointly with municipalities, local communities, and key private sector groups (maritime transportation, agro-industry, tourism, and urban development).</p> <p>The project will not be working with the oil sector.</p>
<p>Vulnerability analysis of the impacts of climate change (CC) to BD and ecosystem services in three (3) MPAs and their buffer areas.</p>	<p>Strategies for reducing vulnerability and the impacts of CC to BD and ecosystem services in five (5) MPAs and their buffer areas.</p> <p>The scope of this project output was expanded to include all five (5) project MPAs.</p>

72. **UNDP's Comparative Advantage:** The effective conservation and management of PAs is one of the UNDP's core signature programs for BD conservation; the UNDP currently supports PA projects in over 15 countries in Latin America and the Caribbean (LAC), covering close to 32 million ha. The UNDP has identified PA financing as pivotal to ensuring effective PA systems in LAC. In 2007 the agency produced a Financial Sustainability Scorecard as an instrument to assist managers and decision-makers in identifying and demonstrating financial needs and gaps in a systematic and periodic manner. The UNDP is continually increasing its portfolio of projects that support the financial sustainability of PAs. In addition, the UNDP has a long history of providing assistance to the GoG in the promotion, design, and implementation of activities that are consistent with the GEF's mandates as well as national conservation and sustainable development initiatives. The comparative advantage of the UNDP for GEF also lies in its global network of Country Offices, its experience in the formulation of integral development policies, institutional strengthening, and the participation of the non-governmental sector and communities, as specified in the document *Comparative Advantage of the GEF Agencies (GEF/C.31/5rev.1)*. The UNDP

has been identified by the MARN and CONAP as the appropriate Implementing Agency of the GEF for this initiative, given its experience in the development of multiple projects for the GEF in BD and PAs.

73. The program framework of the United Nations in Guatemala includes environmental and disaster risk reduction topics as a priority area of work, which involves improving environmental governance at all levels of the state, sustainable use of natural resources, particularly community-based, and strengthening national capacities for disaster risk management, which include CC impacts. Specifically, the country program document of the UNDP seeks to strengthen national and local institutions across all sectors for improved environmental governance by supporting coordinated actions between governmental institutions and the private sector as well as civil society, advocating for sound management of natural resources and generating awareness of the importance of ecosystem goods and services for economic growth and social development. The Environment and Energy area of UNDP-Guatemala is currently implementing a portfolio of projects ranging from national management and sustainability of PAs to cross-sectoral adaptation programs and regional BD conservation and has the necessary capacity and experience for the implementation of the proposed project. Currently the unit is staffed by a program officer, a technical liaison officer, and an administrative/financial officer. The United Nations Development Assistance Framework (UNDAF) 2010-2014 recognizes the sustainable use of BD as a priority area for UN support to the GoG.

74. This project will be under the supervision of the Regional Technical Advisor for GEF projects in Latin America and the Caribbean, who has a Ph.D. and M.Sc. in Environmental Policy and Economics. The UNDP country office will assign seven core staff members to manage and supervise project implementation. The project will be managed by the Program Analyst of the Environment and Development Unit of UNDP Guatemala, who has a MSc in Conservation and Natural Resource Management, B.Sc. in Biology, and 9 years of experience in environmental management and legal/policy issues; a Climate Change and Environment Advisor with a MSc in Marine Sciences and 8 years of experience in environmental management and CC adaptation; and a senior Program Support Associate (15 years with UNDP). Support will be provided by the Head of Crisis Prevention and Recovery Area (MSc. Applied Forestry/Hydrology and 25 years of working experience); and project monitoring and evaluation will be led by UNDP's Head of Monitoring and Evaluation Unit (10 years of experience). Implementation support on Procurement and Finance will be provided by three staff members: Finance Officer (13 years of experience), Procurement Officer (17 years with UNDP), and Human Resources Officer (16 years of experience).

75. Coordination with other related initiatives: The project will coordinate the actions and adopt lessons learned from regional and national initiatives, including the GEF project *Meso-American Barrier Reef System II in Mexico, Belize, Guatemala, and Honduras*, and the *Sustainable Management of the Shared Living Marine Resources of the Caribbean Large Marine Ecosystem (CLME) and Adjacent Regions* project financed by GEF-UNDP, both of which are implementing activities on the Caribbean coast of Guatemala. In addition, actions will be coordinated with the GEF-IADB regional *project Environmental Protection and Maritime Transport Pollution Control in the Gulf of Honduras (Belize, Guatemala, and Honduras)*, which aims to reverse the degradation of coastal and marine ecosystems within the Gulf of Honduras caused by maritime transport- and land-based pollution. The project proposed herein will focus its efforts on the establishment and effective management of MPAs in Guatemala's Pacific coast, which has lagged behind the Caribbean coast in terms of BD conservation initiatives. Thus, this project is clearly additional to past efforts from the GEF to promote the conservation of globally important marine and coastal BD in the region.

76. The project will exchange lessons learned and experiences in skills development, local participation, and the monitoring of threats to BD and MPAs (including CC) with the GEF-funded project in Honduras *Strengthening the sub-system of coastal and marine protected areas*, with the support of the UNDP. This exchange will be facilitated through the UNDP's Senior Technical Advisor, who supervises both projects.

77. The project will also develop synergies with regional initiatives that include: a) the USAID *Management of Aquatic Resources and Economic Alternatives for Central America (MAREA)* Project, with interventions on both coasts of Central America, and b) the *Conservation of Marine Resources of Central America Project* funded by the German Development Bank (KfW), and which is part of the Meso-American Barrier Reef System Fund (MAR Fund) and that will fund actions in four priority coastal and marine protected areas, including the Punta de Manabique MPA in the Caribbean coast of Guatemala. More specifically, the project will coordinate actions and exchange lessons learned in three areas: financial sustainability of MPAs, management plan development, and sustainable use of marine-coastal natural resources. The Mesoamerican Biological Corridor (MBC) was proposed in 1995 as one of the areas in which actions would be taken to control the accelerated loss of BD in Mesoamerica. That same year, GEF approved financing for the identification phase of the project in order to support the establishment of this corridor. The MBC is comprised of sets of areas identified by each country and declared under specific categories of protection and management. The Mesoamerican Reef System is one of the principal components of the MBC. Actions from the project proposed herein for the marine-coastal zone of the Guatemalan Caribbean will complement the initiatives in the MBC and the Mesoamerican Reef System.

#### **2.4. Project objective, outcomes, and outputs/activities**

78. The **project objective** is to promote the conservation and long-term sustainable use of marine and coastal biodiversity of global importance through effectively and equitably managed MPAs, which will contribute to improving the economic welfare of the Guatemalan population. By creating two (2) new MPAs and expanding three (3) existing MPAs in the Pacific region, improving MPA management effectiveness, and increasing MPAs' funding, the GEF investment will contribute to the protection and sustainable use of marine-coastal BD of global, national, and local importance. The project's outcomes and outputs are described below.

#### **Component 1 – Strengthening the MPA legal, policy, and financial frameworks for the protection of marine-coastal biodiversity (BD) and its sustainable use**

*Outcome 1.1 – Two (2) new multiple-use MPAs (Las Lisas-La Barrona and Hawaii) and the expansion of three (3) existing MPAs (La Chorrera Private Natural Reserve—Manchón Guamuchal RAMSAR Site, Sipacate-Naranjo National Park, and Monterrico Multiple-Use Natural Reserve) with a total area of 157,254.96 hectares (ha), are included in the Guatemalan System of Protected Areas (SIGAP) and protect marine BD of global importance.*

*Output 1.1.1 – Two (2) new multiple-use MPAs (IUCN Category VI) gazetted.*

79. The project will facilitate all of the processes (technical, financial, institutional, and civil society) necessary to generate technical studies for the legal establishment of two new MPAs and in conformance with Article 11 of the Regulation of the Protected Areas Law Decree 4-89 and its amendments. This activity will be performed during the first year and a half of the project. The processes or mechanisms to approve and establish an MPA include: a) the development of a technical study coordinated by the CONAP; b) the recommendation by the CONAP for the legal establishment of the MPA to be submitted to Congress; c) the approval by the CONAP Executive Secretariat and the definition of guidelines for programming, administration, financing, and monitoring (according to Article 12 of the Protected Areas Law); d) the identification of the management category and the agency or agencies that will manage the MPA (could be CONAP through its Executive Secretariat or entrusted to other national public or private non-profit entities through an agreement or other legal mechanism); and e) the development of the management plan to be presented to the CONAP in conformance with the guidelines established. A negotiating team will be formed through the project to support the CONAP when presenting the proposal to Congress. Table 9 presents the proposed MPAs, and Figures 1 and 2 show their locations.

Table 9 – Proposed new MPAs for the Pacific coast of Guatemala.

	Name	Area (ha)
1	Hawaii Multiple-use Area	8,874.88
2	Las Lisas-La Barrona Multiple-use Area	17,566.76

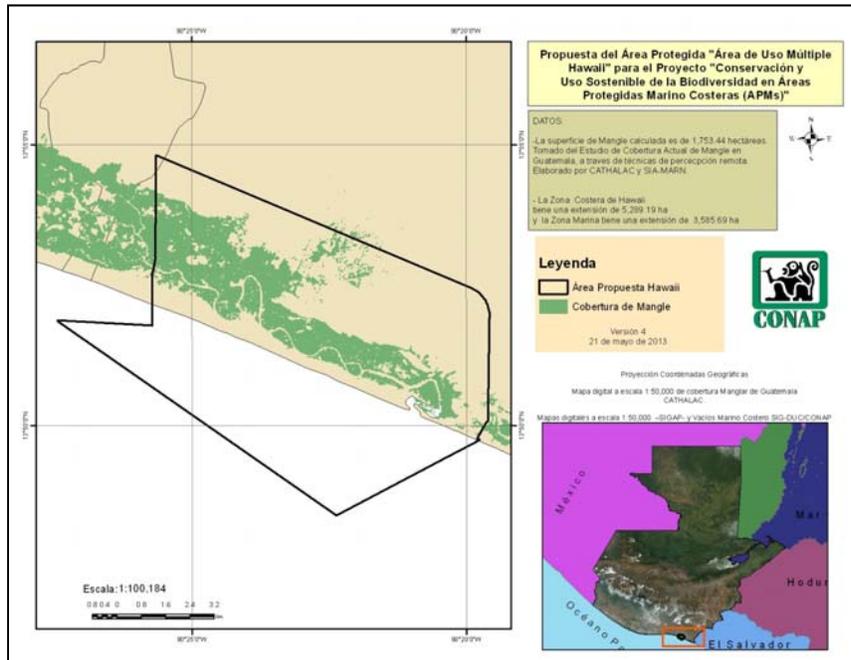


Figure 2 – Proposed MPA: Hawaii Multiple-use Area.

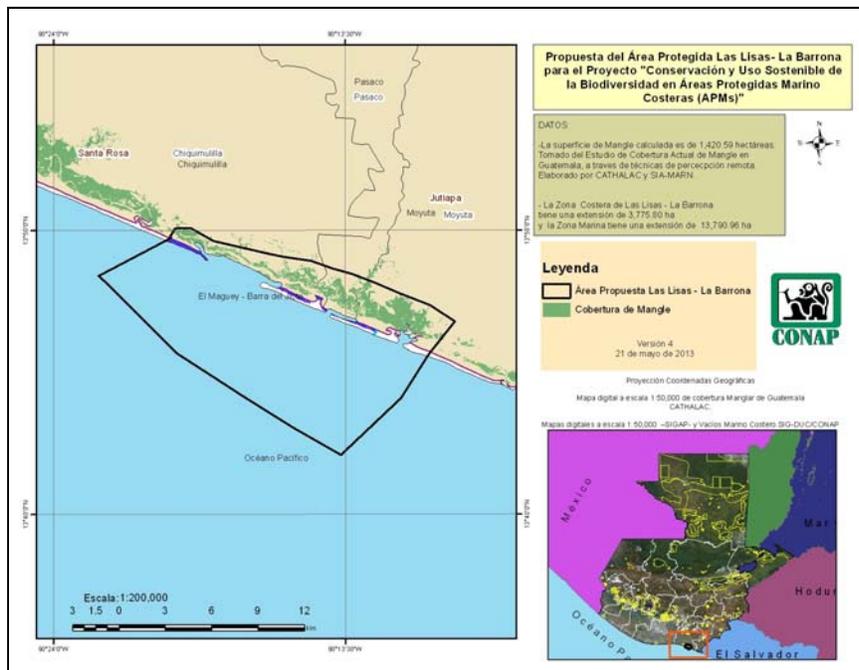


Figure 3 – Proposed MPA: Las Lisas-La Barrona Multiple-use Area.

Output 1.1.2 – Congressional Decree legalizes the expansions of (3) existing MPAs.

80. The project will also allow the expansion of three (3) existing MPAs and will provide support for developing all of the necessary technical, financial, institutional, and social studies as required by law (Article 11 of the Regulation of the Protected Areas Law Decree 4-89 and its amendments). All studies will be completed during the first year and a half of the project and will be supervised by the CONAP in coordination with the project team. The approval process for the expansion of the MPAs is the same as the creation of a new MPA, as described in Output 1.1.1. A negotiating team will be formed through the project to support the CONAP when presenting the proposal for expansion of the MPAs to Congress. The MPAs to be expanded are presented in Table 10, and Figures 4, 5, and 6, show the locations of these MPAs and the proposed expansion areas.

Table 10 – MPAs proposed for expansion.

	Name	Year of Establishment	Area (ha)	Area with expansion (ha)
1	La Chorrera Private Natural Reserve—Manchón Guamuchal RAMSAR Site	1998 (CONAP Resolution 107/98 - RAMSAR Site No. 725)	1,243.00	83,881.21
2	Sipacate-Naranjo National Park	1996 (Presidential Agreement September 6, 1969)	2,000.00	30,499.82
3	Monterrico Multiple-use Natural Reserve	1977 (Presidential Agreement December 16, 1977)	3,799.44	23,474.73

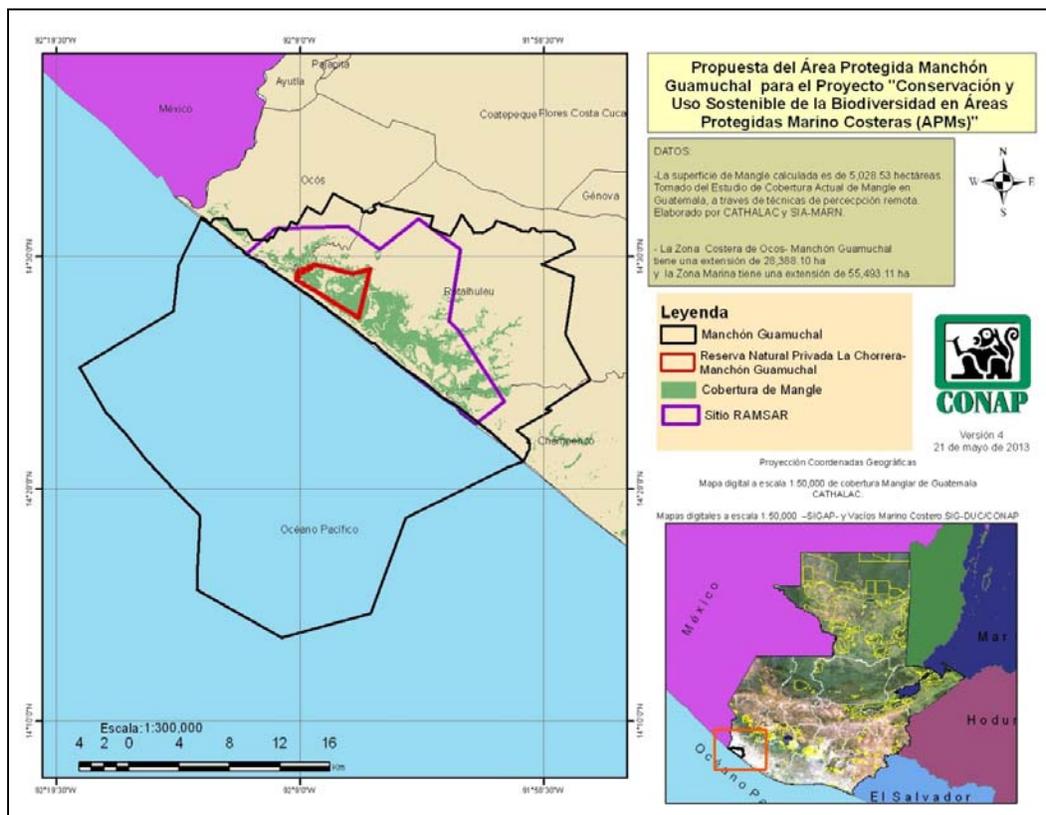


Figure 4 – La Chorrera Private Natural Reserve—Manchón Guamuchal RAMSAR Site Protected Area

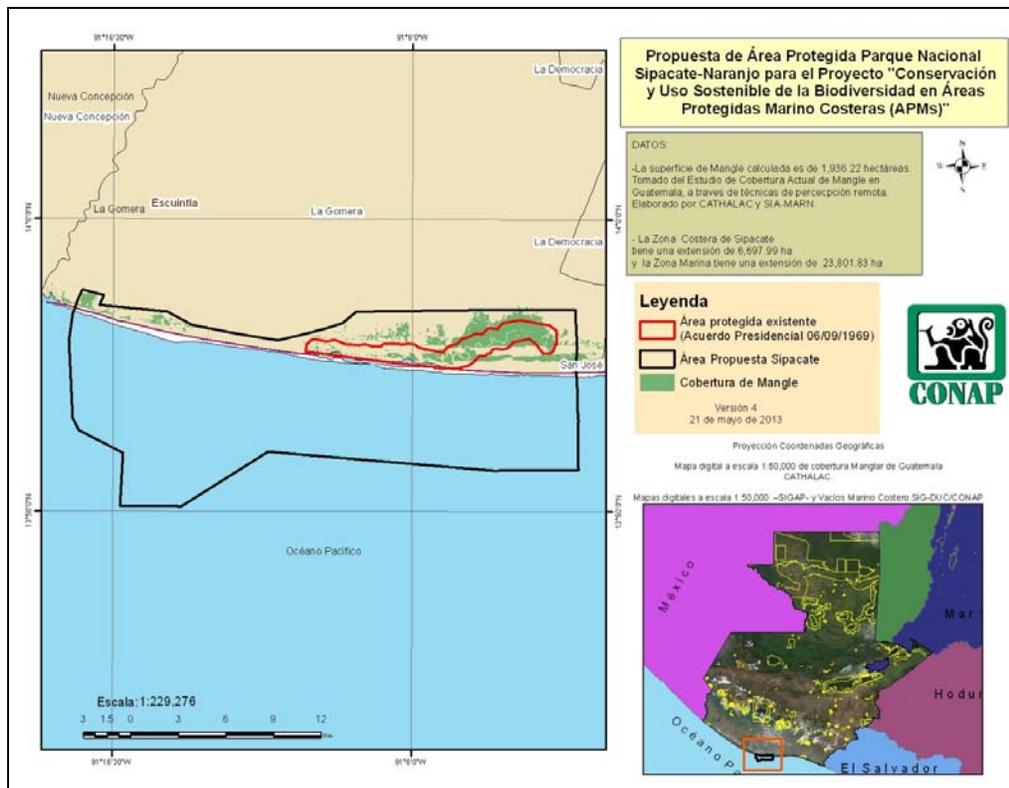


Figure 5 – Sipacate-Naranjo National Park Protected Area.

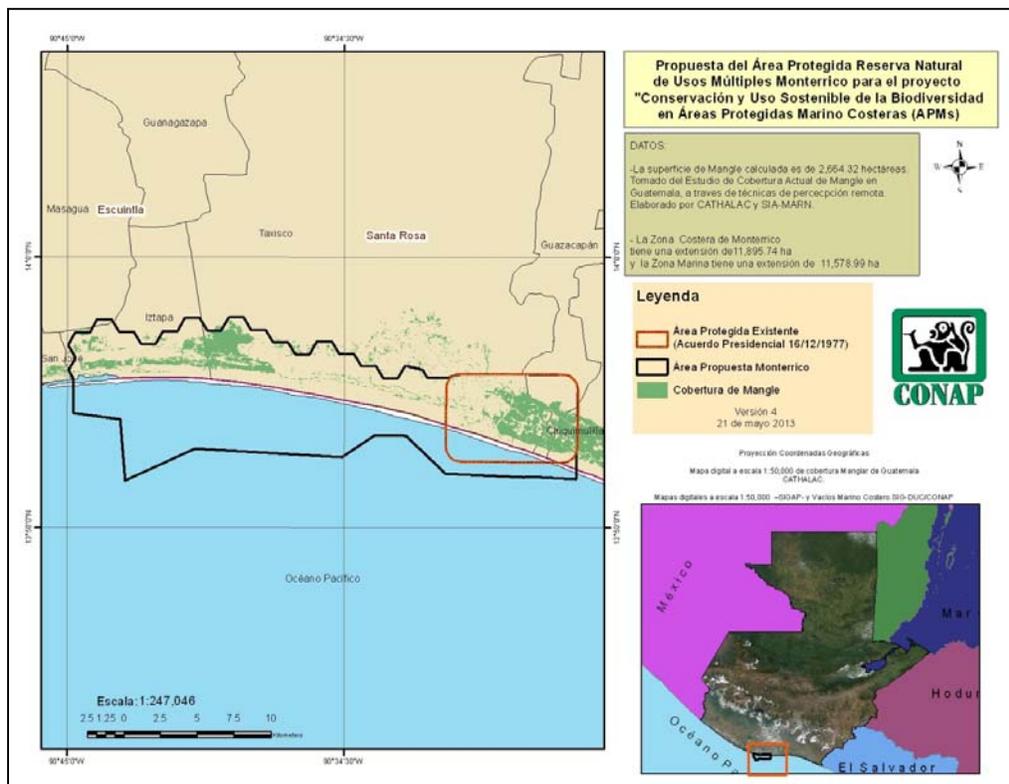


Figure 6 – Monterrico Multiple-use Natural Reserve Protected Area.

81. As a result of the expansion of three (3) existing MPAs and the creation of two new MPAs (Output 1.1.1) Guatemala will make significant progress in the protection of its coastal and marine BD in the Pacific coast. More specifically, the project will allow an increase in the protection of coastal areas from 6,043.00 ha to 56,046.82 ha, and expanded protection of marine areas from 999.44 ha to 108,250.58 ha, including mangrove areas from 4,004.67 ha to 12,803.10 ha. By the end of the project, the total coastal and marine areas under protection will be 164,297.40 ha. Figure 7 shows the locations of the five (5) MPAs that are part of the project.

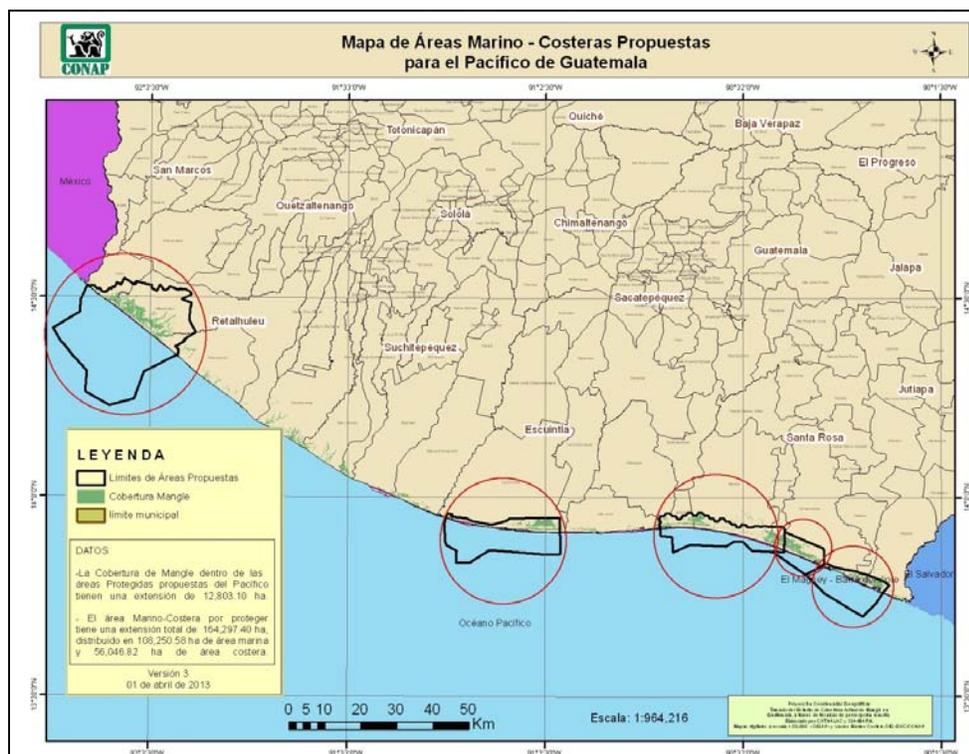


Figure 7 – Marine-coastal protected areas proposed for the marine-coastal project.

*Outcome 1.2. An enabling policy/legal environment facilitates the conservation and sustainable use of BD in MPAs and their buffer areas.*

*Output 1.2.1 – Reform of the Mangrove Regulation of the National Forest Institute (INAB) promotes mangrove conservation and its sustainable use.*

82. The project will facilitate the reform of the existing Mangrove Regulation of the INAB in close collaboration with the National Mangroves Committee (NMC), a group formed by the CONAP, INAB, MARN, OCRET, DIPESCA, and INGUAT, which serves as an advisory group to define the policies, programs, projects, and actions related to the use and conservation of mangroves. A proposal for the reform will be drafted based on the recommendations made by the NMC and validated through five (5) consultation workshops with national, regional, and local stakeholders. The final document, entitled the *Regulation for the Sustainable Management of the Mangrove Ecosystem*, will be drafted considering the feedback provided during the validation and consultation process. In addition, the *Technical Guidelines Manual for Sustainable Management of the Mangrove Ecosystem* will also be developed jointly with the NMC. This guidelines manual will be made available to all national and local institutions that are involved in the management and conservation of mangroves and will be used during the implementation of participatory conservation, rehabilitation, and sustainable use of mangroves in MPAs and buffer areas of the Pacific coast through Component 3 of the project. Both documents will be completed at the end of the first year of the project. Once the proposal for reform of the Mangrove Regulation is completed, INAB will issue the corresponding agreement for the regulation's approval.

*Output 1.2.2 – An integrated Marine-Coastal Management Program (MCMP) is developed, facilitating: a) the implementation of the PMCG and development plans to enhance the protection and sustainable use of marine-coastal BD; b) effective MPA management; and c) the development of policy guidelines for the Fisheries Act (MAGA) and the National Reserves Act (OCRET) to reduce threats to marine-coastal BD and organize government and non-government sectors to support conservation efforts.*

83. The project will facilitate the creation of the MCMP, pursuant to the Marine-Coastal Policy. The program will include multiple economic sectors so that marine-coastal ecosystem management may be incorporated into all production activities that are carried out on the both coasts. This will contribute to the integrated management of the MPAs, strengthening coordination mechanisms between the multiple stakeholders involved in marine-coastal management, collaboration, and inter-institutional support, which will help to follow up on commitments and national agreements as well as compliance with international agreements such as the CBD.

84. The program's scope implies joint planning of production, conservation, and tourism activities in the marine-coastal region of the Guatemalan Pacific to enhance the protection and sustainable use of marine-coastal BD and improve the quality of life of the people living in coastal areas. The program's objectives include: a) coordinating the efforts of government agencies, municipalities, NGOs, the coastal populations, and productive sectors for marine-coastal management, including conservation, production, and tourism activities; b) defining and developing the instruments and tools of the Marine-Coastal Policy for the effective management of the MPAs; c) implementing the necessary actions for the integrated management of the development of the marine-coastal region of the Guatemalan Pacific; and d) complying with the international agreements and regulations related to marine-coastal management that are ratified by Guatemala.

85. The program includes the following five components: a) Inter-institutional coordination for development planning in the coastal area of the Guatemalan Pacific – this component implies promoting public-private inter-institutional coordination so that all of the coastal-marine development actions and conservation efforts are framed within the country's Marine Coastal Policy and the government and non-government sectors support conservation efforts; b) Marine-coastal environmental education – provide environmental education to the local stakeholders in the marine-coastal region (municipalities, fishermen's associations, government institutions, NGOs, the productive sector, and the general population) about the importance of achieving a balance between the production activities and conservation of the marine-coastal region; c) Standards and regulations for hunting, fishing, and gathering of marine-coastal resources – this entails the review of regulations regarding hunting, fishing, and gathering of marine-coastal resources in order to harmonize existing regulations with other current regulations at the Central American regional level as well as those of Mexico (which have similar ecosystems and local BD) – and an assessment of current hunting, fishing, and gathering of marine-coastal resources practices under the existing regulations in Guatemala in order to make the necessary adjustments to the norms and promote the sustainable use of coastal and marine resources; d) Urban planning and development and infrastructure for tourism – evaluation and analysis for the current state of the real estate market and projected growth with regard to housing and infrastructure for tourism, so that information may be gathered regarding the current and potential threats to the MPAs and BD, and so proposals can be developed for planning and orderly development of infrastructure to reduce pressure on MPAs and their buffer zones. This planning will be coordinated with government institutions (MARN, CONAP, MICIVI, INGUAT, OCRET, INFOM, and municipalities) and the tourism sector; and e) Public awareness of the MCMP – increase awareness by the government institutions (at the central level and in the coastal regions of the Guatemalan Pacific), municipalities, NGOs, the private sector (e.g., fishing, tourism, coastal development), and the general public about the existence of the MCMP and its objectives.

86. In addition, the project will support the creation of the National Administrative Council for Maritime Affairs at the ministry level, which will be the inter-institutional platform for integrating national marine

management and promoting the rational use of coastal and marine resources. The Council will be formed by the MARN, the National Defense Ministry, the Ministry of Foreign Affairs, the Ministry of Livestock and Food, and the Ministry of Transportation, Public Works, and Housing. This Council will also create a Technical Committee formed by institutions and organizations that are involved in the management of the country's coastal and marine areas, and that can be part of specifically themed commissions. The Technical Committee will include the Ocean and Aquaculture Research Center (CEMA), the USAC Department of Biology, the Universidad del Valle de Guatemala, MAGA-DIPESCA, MAGA-OCRET, INAB, CECON, NGOs (e.g., ARCAS, AKAZUL, TNC, and MAR Fund), INGUAT, the National Mangroves Platform, the Inter-institutional Committee on Hydro-oceanographic Research (CIIHO), among others.

87. The governance structure described previously will help to improve decision-making in the use and management of the marine-coastal ecosystem, with benefits for the associated BD and leading to an improved quality of life for the population. This structure will promote the participation of multiple sectors in MPAs' management and will increase institutional and social support for the creation of two (2) new MPAs and the proposed expansion of three (3) existing MPAs. The Council will be responsible for the creation and operation of the MCMP, which will be established during the second year of the project. A document summarizing the goals and objective of the MCMP will be published and made available to the key stakeholders and posted on the websites of the Council members. At the local level, several meetings will be held to inform the public about the MCMP and its objectives, and over 2,000 informational booklets will be distributed among the municipalities, local fishermen's associations, NGOs, and businesses on the Pacific coast of Guatemala.

*Output 1.2.3 – Strategic Guideline 8.3 of Guatemala's Policy for the Integrated Management of Marine-Coastal Zones (PMCG) improves inter-institutional coordination, define common goals, roles, and co-responsibilities, and participatory and financial mechanisms for marine-coastal management in ten (10) coastal municipalities.*

88. This output will strengthen the decision-making structure (governance) for marine-coastal management in the 10 municipalities with jurisdictions over the areas where the three (3) MPAs to be expanded and the two (2) new MPAs to be created by the project are located (Outputs 1.1.1 and 1.1.2). This will be achieved through the facilitation and implementation of Strategic Guideline 8.3 of the PMCG, which promotes institutional building and enhances inter-institutional coordination as part of a national strategy to protect marine-coastal ecosystems. The 10 municipalities are Ocos (department of San Marcos); Retalhuleu and Champerico (department of Retalhuleu); La Gomera and Iztapa (department of Escuintla); Taxisco, Guazacapán, and Chiquimulilla (department of Santa Rosa); and Pasaco and Moyuta (department of Jutiapa). The project will facilitate the creation of three inter-municipal coordination groups that will be formed according to their geographic location along the Pacific Coast of Guatemala and will define the structure, functions, roles, responsibilities, and financial mechanisms for their operation. The project will also support the training of municipal staff in marine-coastal management, provide technical support, define financial mechanisms, and facilitate coordination between the municipalities and the national agencies involved in marine-coastal management (MAGA, MARN, CONAP, INAB, DIPESCA, OCRET, MEM, INGUAT, COCODES, Municipal Development Councils [COMUDES], Departmental Development Councils [CODEDES]), the private sector (AGEXPORT, Climate Change Institute, fishing companies), NGOs (ARCAS, AKAZUL, TNC), academic institutions (USAC/CECON), ports businesses, cooperatives, and fishermen's groups. The experience and knowledge gained will be exchanged with the municipalities in the Caribbean region of Guatemala to facilitate the implementation of Strategic Guideline 8.3 in this region under the leadership of the MARN.

*Outcome 1.3 – Government and non-government sources increase funding by 50% for MPAs measured through the Total Average Score for all MPAs in the UNDP/GEF Financial Scorecard (baseline to be determined during the PPG phase).*

*Output 1.3.1 – Coastal land lease rates (OCRET) established for the financial sustainability of MPAs.*

89. The project will contribute to the financial sustainability of MPAs through adjustments of the coastal land lease rates established through OCRET so that a percentage is redirected to support MPA management. This financial mechanism is part a strategy for securing the financial sustainability of the MPAs, and also includes the development of business plans for the MPAs (Output 1.3.2) and the use of municipal funds (Output 1.3.3). During the PPG the financial needs of the existing MPAs were calculated at close to \$4.3 million USD; however, the current annual financing is only \$673,326.48 USD. Currently the SIGAP is financed primarily through the resources assigned by the Government of Guatemala (general budget and resources from International Cooperation), which creates a dependency on funds that each year are scarcer and more uncertain. The strategy set up by the project for securing the financial sustainability of MPAs will have the highest-level political endorsement so that the proposals presented will be feasible and the CONAP will be charged with the coordination. These processes will be carried out during the first 24 months of the project.

90. Currently OCRET has an annual budget of \$1.13 million USD and the project will develop mechanisms for OCRET/MAGA to transfer the funds that legally correspond to the CONAP. To this end, the project will put together a technical team consisting of an expert in negotiations, a financial expert, and an expert in marine-coastal issues to facilitate all negotiations, to define the increases above current OCRET rates, and to achieve the general increase from OCRET's earnings, define the mechanisms for the transfer of funds, and to establish procedures to ensure that the transferred funds are effectively invested in MPA management. It is understood that, in compliance with the law, this revenue will be transferred from OCRET/MAGA to the CONAP. The PPG estimates indicated that an increase of the lease collection fees by OCRET will result in the transfer of at least \$0.25 million USD annually to the CONAP.

*Output 1.3.2 – Business plans developed and/or updated for the two (2) new and three (3) expanded MPAs.*

91. Business plans will be developed for the two (2) new MPAs (Hawaii and Las Lisas-La Barrona Multiple-Use Area) and of the three (3) existing MPAs that will be expanded (La Chorrera Private Natural Reserve – Manchón Guamuchal RAMSAR Site, Sipacate—Naranjo National Park, and Monterrico Multiple-Use Natural Reserve). The business plans will be developed simultaneously with the management plans of the MPAs during the first and second years of the project and will include: a) evaluation of the specific financial needs for each MPA (i.e., basic and optimum cost analyses) using as reference their management plans; b) evaluation of the potential revenue generation sources for each MPA (e.g., ecotourism, visitors fees, and payment for environmental services) and securing resources from outside sources (government and private); c) cost vs. revenue analysis; and d) developing long-term financial plans (5 to 10 years) considering the cost-revenue analysis. The financial plans will include at least two financial scenarios (low risk and medium risk) to facilitate MPAs' adaptive management.

92. Business plans for MPAs will be developed in coordination with CONAP officials and will include visits to the areas and participatory planning with key stakeholders (i.e., MARN, CONAP, INAB, OCRET, CECON, local communities, and environmental NGOs), and drafting and approval of the business plans by CONAP.

*Output 1.3.3 – Municipal investment plans support MPA management through unused budgeted resources by municipalities.*

93. During the PPG an evaluation of the funds used by the municipalities in the project area was performed for the following municipalities: Retalhuleu and Champerico in the department of Retalhuleu; Ocós, in the department of San Marcos; La Gomera, La Democracia, and San José in the department of Escuintla; Taxisco, Guazacapan, and Chiquimulilla in the department of Santa Rosa; and Pasaco and Moyuta in the department of Jutiapa. These municipalities were identified as leaving close to \$10 million USD unused in their budgets on an annual basis. The project's negotiating technical team, formed to support coastal land lease rates negotiations with OCRET (Output 1.3.1), will also negotiate with the coastal municipalities to direct up to 10% of the unused funds from the municipalities in the project area

for use in the management of the project's MPAs. This will amount to close to \$1 million USD annually. Each municipality, in coordination with the CONAP and with guidance from the negotiating technical team, will determine the mechanisms to transfer the funds and their best use in support of MPA management.

**Component 2 – Strengthening the institutional and individual capacities for the effective management of MPAs and the conservation and sustainable use of marine-coastal BD.**

*Outcome 2.1 – Management effectiveness of Guatemala's three (3) existing MPAs improves by 15% according to Management Effectiveness Scorecard (METT).*

*Output 2.1.1 – Marine units within the MARN and CONAP are established for improving MPA planning and management.*

94. Marine-coastal units in the MARN and CONAP will be created in order to strengthen the MPAs' planning and management. A needs assessment will be performed to determine and address the specific needs within each institution for MPA planning and management and marine-coastal BD conservation. Proposals will be drafted, including legal analyses, organizational analyses (organizational charts) and hierarchical structures, staffing, technical, training, financial, and operation, and they will be submitted for consideration by the governing boards and heads of the MARN and CONAP.

95. The marine-coastal units in the MARN and CONAP will be directly responsible for implementing and monitoring initiatives, and developing programs projects related to MPA management and marine-coastal BD conservation at the central level as well as in the coastal areas. The marine-coastal units in the MARN and CONAP will be governed by the PMCG (Government Agreement 328-2009) and its strategy and plan of action, as well as by all norms, policies, and plans related to the CONAP's mission of ensuring the conservation and sustainable use of BD and PAs in the country. In addition, the marine-coastal units will promote the development of particular strategies of the PMCG for both coasts, as well as consolidate a network of effectively managed MPAs in the country, and will collaborate with marine-coastal management specialists working in the local offices of the MARN and CONAP in both the Caribbean and Pacific coasts to develop improved financial sustainability mechanisms.

96. During the first year of the project, the MARN and CONAP will issue a Ministerial Agreement (MARN) and a Council Resolution (CONAP) endorsing the proposals submitted. Once approved, the project will support the establishment and operation of the marine-coastal units within the MARN and CONAP. This activity will be completed during the second year of the project.

*Output 2.1.2 – Management plans for three (3) expanded MPAs and for two (2) new MPAs are developed and aligned with the municipal participatory land and marine-coastal use plans.*

97. The project will develop the management plans for the two (2) new MPAs and the three (3) existing MPAs that will be expanded under the direction of the CONAP and its technical guidelines (CONAP Technical Document No. 103-2012). The management plans will serve as the governing documents for land use planning, management, and use of protected areas in the SIGAP. The management plans include the general objectives for the MPAs' management, as well as considerations regarding conservation, research, planning, and public use (Article 18 of the Protected Areas Law [Decree No. 4-89]). The development of the management plans for the project's MPAs will follow the guidelines of the SIGAP, which include: a) integration of the planning team, which will consist of an administrator, a representative of the Regional Council of the Council of Protected Areas Secretariat (SECONAP) who is responsible for the management of the region in which the MPA is located, a specialist in geographic information systems (GIS), and technical staff with experience in various disciplines; b) establishment of the methodology to be used (several recommendations are mentioned in the CONAP Technical Document No. 103-2012); and c) structuring of the management plan into five (5) components to facilitate its implementation. The five (5) components are: i) Descriptive Component: describes and assigns value to the MPA's environmental and cultural attributes; ii) Management Considerations Component: identifies

the MPA's primary conservation objectives, determines threats and conflicts, and establishes the land use of the area; iii) Operational Component: establishes the management actions, including administrative aspects, social and community participation, public use program, and research program; iv) Regulatory Component: defines the regulatory aspects of the MPA; and v) Follow-up and Evaluation Component.

98. The project will facilitate institutional agreements to promote coordination between the CONAP and the planning teams to define the methodology used to develop the management plans and to facilitate the process through to its completion. The development of the management plans will be a participatory process during which the local communities, municipal governments, and other local and regional stakeholders present their viewpoints and define the criteria for developing a proposal with ecological, socioeconomic, and cultural relevance. For this purpose, 15 workshops will be held (at least three [3] workshops for each MPA with 100 participants per workshop) and at least 1,000 informational booklets will be printed summarizing the MPAs management plans once these are approved (a total of 5,000 booklets in five [5] MPAs).

*Output 2.1.3 – Participatory resource use and management strategy for three (3) marine-coastal zones in the Pacific include the permitted uses and restrictions for marine-coastal BD and MPAs in ten (10) municipalities and mechanisms for conflict resolution and accountability.*

99. Participatory strategies for resource use and management in three (3) marine-coastal zones will be developed by the municipalities with support from the project and in coordination with the MARN, CONAP, and INFOM. These three (3) areas comprise 25 municipalities and cover a total area of 5,011.59 km<sup>2</sup>. Within this area, 10 municipalities are prioritized (3,038.99 km<sup>2</sup> or 60.63% of the total area) and include the three (3) existing MPAs and the two (2) new MPAs that will be established by the project.

100. Descriptions of the three (3) marine-coastal zones follow and their locations are presented in Figure 8.

101. Marine-Coastal Zone 1: The area comprises 11 municipalities and covers 1,552.84 km<sup>2</sup>: Ayutla, Ocos, and Pajapita (department of San Marcos); Coatepeque and Genova (department of Quetzaltenango); Cuyotenango and San Lorenzo (department of Suchitepéquez); and Retalhuleu, Champerico, San Andrés Villa Seca, and Santa Cruz Mulua (department of Retalhuleu). La Chorrera Private Natural Reserve – Manchón Guamuchal RAMSAR Site MPA is located in this marine-coastal area and is part of the Ocos, Retalhuleu, and Champerico municipalities, which cover 1,045.24 km<sup>2</sup>.

102. Marine-Coastal Zone 2: The area comprises eight (8) municipalities and covers 1,655.19 km<sup>2</sup>: San Lorenzo, Cuyotenango and Santo Domingo Suchitepéquezin (department of Suchitepéquez) and La Democracia, La Gomera, Masagua, Nueva Concepción, San José, and Tiquisate (department of Escuintla). The Sipacate – Naranjo National Park MPA is located in this marine-coastal area and is part of the La Gomera municipality, which covers 609.78 km<sup>2</sup>.

103. Marine-Coastal Zone 3: The area comprises nine (9) municipalities and covers 1,803.56 km<sup>2</sup>: Masagua, San José, and Iztapa (department of Escuintla); Guanagazapa, Guazacapan, Taxisco, and Chiquimulilla (department of Santa Rosa); and Moyuta and Pasaco (department of Jutiapa). The Monterrico Multiple-use Natural Reserve and the proposed Hawaii and Las Lisas-La Barrona Multiple-use Areas are located in this marine-coastal area. Specifically, the Hawaii Multiple-use Area is located in the municipalities of Iztapa, Guazacapan, Taxisco, and Chiquimulilla; and the Las Lisas-La Barrona Multiple-use Area is located within the municipalities of Moyuta and Pasaco. These six (6) municipalities cover an area of 1,383.97 km<sup>2</sup>.



Figure 8 – Location of the three (3) marine-coastal zones in the Pacific.

104. Table 11 summarizes the central aspects of the participatory strategies that are proposed for the use and management of the three (3) marine-coastal areas on the Pacific coast.

Table 11 – Participatory strategies for the three (3) marine-coastal zones in the Pacific.

Marine-Coastal Zone	Area (km <sup>2</sup> )	MPAs	Municipalities	Participatory Strategies for the Marine-Coastal Area	Permitted Activities and Restrictions in the Marine-Coastal Area
1	1,045.24	La Chorrera Private Natural Reserve – Manchón Guamuchal RAMSAR Site	Ocos (department of San Marcos), Retalhuleu and Champerico (department of Retalhuleu)	1. Conservation of mangroves: Sustainable management of the mangrove ecosystems jointly with the local communities and institutions (CONAP-INAB-municipalities).	<b>Permitted activities:</b> a) fishing in canals and estuaries, b) boat rides for tourism and bird watching, and c) training and guided visits for environmental education and protection of BD.  <b>Restrictions:</b> a) urban development is not permitted in mangrove areas, c) hunting or trapping wildlife is not permitted, and d) change in land use for agricultural development is not permitted.
2	609.78	Sipacate – Naranjo National Park	La Gomera (department of Escuintla)	2. Regulation and management of fishing: The Government of Guatemala supports the artisanal fishing sector and will allow the long-term development of this activity in a sustainable	<b>Permitted activities:</b> fishing activities that use artisanal methods exclusively, and b) use of BD-friendly fishing gear.  <b>Restrictions:</b> The use of BD-harmful fishing gear is

				manner and which is central for the livelihoods of coastal communities.	prohibited in this marine-coastal area.
				3. Regulation of ballast water: The regulation and control of ballast water will lead to the reduction of vulnerability and impact on marine-coastal BD; ballast water and sediment management plans will be implemented.	<b>Permitted activities:</b> a) ballast water exchange only in designated areas (not in proximity of the MPAs), b) ballast water exchange in the deep ocean, c) treatment of ballast water prior to discharge using BD-friendly methods. These measures are geared towards controlling ballast water and sediments in the Guatemalan Pacific and abiding by Guatemala's strict adherence and effective participation in the IMO. <b>Restrictions:</b> a) discharge of untreated ballast water in non-designated areas, particularly near MPAs.
3	1,383.97	Monterrico Multiple-use Natural Reserve, Hawaii and Las Lisas-La Barrona Multiple-use Areas	Iztapa (department of Escuintla); Guazacapan, Taxisco, and Chiquimulilla (department of Santa Rosa); Moyuta and Pasaco (department of Jutiapa)	4. Ecotourism development: Ecotourism management standards are developed in the MPAs with the participation of national, regional, and local stakeholders, including the tourism sector.	<b>Permitted activities:</b> a) selected groups are trained in new activities related to ecotourism; participation from all of the sectors wishing to be involved with this change is encouraged, and b) controlled sport fishing is allowed.  <b>Restrictions:</b> a) the area of action will be limited to the area of the MPA, b) the organizations that are already present in the area will be given priority, c) clearing of the mangrove areas is prohibited, d) hunting and/or trapping endangered species is prohibited, and e) the collection of sea turtle eggs for commercial purposes is prohibited, unless they support the hatcheries initiatives already present at the site.
				5. Commercial fishing: Conservation of marine ecosystems through the implementation of mechanisms to control industrial deep-sea fishing, including MPAs, is prioritized.	<b>Permitted activities:</b> a) fishing in MPAs and their buffer zones is done in compliance with the CONAP's regulations and guidelines, b) measures proposed by the FAO regarding the capacity of the shrimping fleet of the Pacific are accelerated, b) the DIPESCA is strengthened to adjust its organizational structure according to planning needs, c) a mechanism for inter-agency coordination (CONAP, DIPESCA, MARN, fishing associations) in relation to deep-sea industrial fishing is

					<p>established, which is already projected for the current Fishing Law.</p> <p><b>Restrictions:</b> a) fishing will only be allowed in designated areas of the MPAs where industrial fishing is allowed and as established in the MPAs' management plans, b) the shrimping fleet must adjust to the FAO recommendations (2006) regarding the number of allowable boats, c) no fishing vessels will be allowed without sea turtle exclusion systems, d) businesses cannot fish in Pacific waters, and d) the capture of species below minimum sizes will not be allowed for the species recommended by the FAO in 2006.</p>
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105. The project will support the implementation of participatory strategies for the use and management of the five (5) MPAs, from the second year until the project's end.

Outcome 2.2 – Effective deployment of human resources and funds addresses threats (loss of habitat, overexploitation of marine-coastal resources, and contamination) in existing (137,855.76 ha, with expansions) and new MPAs (26,441.64 ha).

*Output 2.2.1 – Strengthened capacity of national and local government institutions (CONAP, MARN, INAB, DIPESCA, OCRET, the Navy, and municipalities), private sector groups (fisheries, urban development, tourism, maritime ports/transportation), and civil society organizations (non-governmental MPA co-administrators and local communities) in MPAs' management and the conservation and sustainable use of marine-coastal BD.*

106. A training program will be developed to strengthen the capacity of national and local government agencies (CONAP, MARN, INAB, DIPESCA/MAGA, OCRET, CECOM, and municipalities) and non-governmental MPA co-administrators in MPA planning, management, financial sustainability, and monitoring and BD conservation. Similarly, members of the private sector groups (fisheries, urban development, tourism, maritime ports/transportation) and local communities will benefit from the program, including the development of skills for the sustainable use of BD and the reduction of threats. Training modules and materials will be designed related to the topics mentioned and at least 500 people will be trained by the end of the project through workshops, seminars, and field visits to the MPAs. The impact of the training program will be assessed through interviews and follow-up conducted in the field regarding what was learned and the application of the UNDP Capacity Development Scorecard (the scorecard will be applied twice more during the life of the project: at the mid-point and finalization).

*Output 2.2.2 – Extension support to small-scale artisanal fisheries for implementation of BD-friendly practices.*

107. An extension support program for small-scale artisanal fisheries will be developed to promote the use of BD-friendly practices and the sustainable use of fisheries resources. The objectives of the program will include: a) strengthening capacities of small-scale artisanal fisheries, providing informational tools that are accessible to the fishermen regarding the use of fishing practices that contribute to BD conservation; b) analysis of current fishing practices in the current and new MPAs, establishing fishing volumes in the MPAs and the buffer zones, number of fishermen, species captured, including secondary

or by-catches; c) training of small-scale artisanal fishermen in fishing practices that reduce the impact of their activities on marine-coastal BD and the populations of species used (for self-consumption and sale); and d) development of actions to reduce the threats to marine-coastal BD from the use of non-friendly practices and to maintain stable populations of the species valued by local fishermen.

108. The extension support program will include the following components: a) evaluation of the status of the artisanal fisheries in the MPAs and their buffer zones; this will include censuses of fishermen, identification of fishing grounds within the MPAs and buffer zones, evaluation of the fishing practices used, the species that are being impacted, what difficulties are faced by the fishermen, and other relevant information so that the data generated may support the implementation of BD-friendly fishing action plans with small-scale artisanal fishing groups; b) assessment of the species traditionally fished; this will involve an assessment of the fish species with the highest demand in small-scale artisanal fishing, identification of coastal and marine species that are caught unintentionally (bycatch), assessment of the fishing practices including the management of the bycatch, and assessment of the threats to the fish species with regard to current practices used and to determine solutions to reduce the threats; c) education and training about BD-friendly fishing techniques; this will involve training for the fishermen in the use of BD-friendly fishing techniques and to reduce the threat to species of high demand and to coastal and marine BD in general; d) use of marine-coastal BD-friendly fishing equipment: this will involve implementing BD-friendly fishing equipment and rigging on registered small-scale artisanal fishing boats (with the CONAP and DIPESCA); and e) control and monitoring of small-scale artisanal fishing: this will involve defining jointly with local fishermen and fishermen's groups who traditionally fish in the MPAs and buffer zones the mechanisms for enforcing the implementation of BD-friendly practices, including reporting of violations and penalties, as well as determining jointly zones for protection and zones for resources use. The beneficiaries will be the individual fishermen and the three associations of fishermen in La Chorrera Natural Private Reserve – Manchón Guamuchal RAMSAR Site, Sipacate-Naranjo Protected Area, Monterrico Natural Reserve Multiple-use Area, and the Las Lisas-La Barrona Multiple-use Area. The implementation of the program will be the responsibility of the CONAP in coordination with the DIPESCA/MAGA.

109. BD-friendly fishing practices will contribute to the protection of species such as the scalloped hammerhead (*Sphyrna lewini*), sea turtles (e.g., *Lepidochelys olivácea*, *Chelonia mydas*, *Eretmochelis coriacea*, and *Dermochelys coriacea*), and dolphins (*Tursiops truncatus* and *Stenella attenuata*). Additionally, best fishing practices will contribute to sustaining populations of fishing species with local value, including: bonefish (*Albua vulpes*), catfish (*Arius* sp.), yellowfin snook (*Centropomus robalito*, *Centropomus* sp.), toothed flounder (*Cyclopsetta querna*), silver Mojarra (*Eucinostomus argenteus*), Ronco (*Haemulopsis leuciscus*), steeplined drum (*Larimus acclivis*), cuttlefish (*Loliolopsis diomedae*), and snapper (*Lutjanus* sp.), among others; and shrimp – white shrimp (*Litopenaeus vannamei*), blue shrimp (*Penaeus stylirostris*), brown shrimp (*Farfantepenaeus Californiensis*), and seabob (*Xiphopenaeus riveti*).

### Outcome 2.3 – Monitoring and adaptive management systems to address threats to MPAs and marine-coastal BD.

*Output 2.3.1 – A technical-scientific information system related to coastal and marine ecosystems and MPA management contributes to the monitoring and control of threats to marine-coastal BD.*

110. The project will implement an information system to store, manage, and analyze technical and scientific information related to marine-coastal ecosystems and BD and the management of the MPAs. The proposed structure for this system will be cross-institutional and cross-disciplinary so that it will be used for decision-making and sustainable development planning in the marine-coastal areas. The system will consist of an information platform located in the CONAP and will serve the following purposes: a) to support the conservation of marine-coastal BD and ecosystem services contributing to the effective management of the MPAs; b) to identify and document the status and threats to the MPAs, their associated BD, and other coastal marine ecosystems; c) to provide analyzed information to support

decision-making for mitigating the threats to marine-coastal BD along the Pacific coast and the MPAs, including climate change; and d) to serve as an information exchange platform for promoting the agreement and participation of the different stakeholders related to the conservation and sustainable use of marine-coastal BD, ecosystem services, and the management of the MPAs.

111. The CIIHO, which is led by the National Defense Ministry through the General Administration of Maritime Affairs, the Ministry of Transportation and Housing, the National Ports Commission, the National Geographic Institute, the Ministry of Foreign Affairs, the MARN, CONAP, MAGA, and DIPESCA, will support the actions necessary and provide guidance for the effective operation of the technical-scientific information system. The CIIHO will facilitate coordination with universities (e.g., Universidad del Valle de Guatemala, Universidad Rafael Landívar, Universidad de San Carlos – CEMA) and NGOs (e.g., TNC and Water Center for the Humid Tropics of Latin America and the Caribbean [CATHALAC]) to perform the tasks of generating, collecting, and systematizing the relevant information related to the marine-coastal ecosystems, BD, and MPAs and making it available to the decision-makers for improved national marine-coastal management. The project will strengthen the CIIHO through specific rules and related norms so that marine-coastal environmental aspects are effectively incorporated as part of its structure, positively impacting BD conservation and the management of MPAs.

112. The technical components to address marine-coastal research will strengthen the areas of work of the specific research groups within the CIIHO, such as: a) physical oceanography, b) BD conservation, c) climate change, d) fisheries, e) geology, and f) others. The information, generated, collected, and systematized will be technical and scientific in nature and will be collected using established protocols and procedures according to the topic studied. Reports will be developed as required by the CIIHO. The technical-scientific information system will include a monitoring and evaluation subsystem, which will generate the necessary information for the project's monitoring and follow-up and assess the delivery of global environmental benefits for marine-coastal BD conservation and effective MPA management. Monitoring and follow-up will include the indicators established in the project's results framework (Section 3). The intensity and frequency of the data collection will depend on the methodology that is defined for each theme to be evaluated (BD, forests, and soil), ensuring that at least two cycles of data collection and analysis will be completed during the life of the project.

### **Component 3 – Addressing threats from key sectors (fisheries, maritime ports/transportation, and urban development) in order to strengthen MPA management and the conservation and sustainable use of marine-and coastal BD in the Pacific region of Guatemala.**

*Outcome 3.1 – Key species and ecosystem indicators remain stable in four (4) MPAs (Manchón-Guamuchal, Sipacate-Naranjo, Hawaii-Santa Rosa, and Las Lisas-Paraiso-La Barrona).*

*Output 3.1.1 – Three (3) cooperation agreements between MPA authorities (CONAP and municipalities) and the urban development, fisheries, and maritime ports/transportation sectors include conservation/management committees to oversee the conservation and sustainable use of BD in four (4) MPAs and their buffer areas.*

113. The project will support the formation of a structure of cooperation between the officials from the MPAs (the CONAP), the co-managers of the MPAs, and officials from the urban development, fishing, and ports/maritime transportation sectors. This structure will be based on three (3) cooperation agreements and the formation of conservation and management committees to supervise BD conservation and the management of MPAs and their buffer zones. The cooperation agreements will serve to ensure that the participating officials jointly define actions to reduce threats to the MPAs and marine BD, and within the existing legislative frameworks, and will operate on the concept of good faith and include conflict resolution mechanisms. The three (3) agreements that will be developed through the project are the following:

- a. **Agreement for Control of Ballast Water:** This agreement is closely linked between the management of the Quetzal Port and the Monterrico Natural Reserve/Multiple-use Area/Protected

Area. Although the Quetzal Port is not geographically part of the MPA, it is located only 15 km from the Monterrico Natural Reserve/Multiple-use Area MPA. The port also is closely linked with the Chiquimulilla canal, which is the principal ecosystem of the MPA. The main function of this agreement will lie in the development and implementation of actions to manage ballast water in order to extract or neutralize alien invasive species and pathogens present in the ballast water and sediment that constitute a threat for the MPAs and the marine-coastal BD in Guatemala. This will contribute to the implementation of the Guatemalan Convention on Ballast Water. The agreement will be signed by the National Port Company, the MARN, and the CONAP; these three institutions will be responsible for implementation and compliance through the conservation and management committee that will be established for this purpose. The project team will lead the process to achieve the signing of the agreement. This will include holding five (5) consultation, analysis, and proposal workshops and the necessary follow-up meetings to secure the signed agreement during the first year of the project.

- b. **Agreement for the prevention, reduction, and control of land-based contamination in coastal and marine areas:** The project will support the development of an agreement for the reduction, management, and control of solid and liquid wastes to reduce the threat of contamination to the Monterrico Natural Reserve Multiple-use MPA and its coastal and marine BD. This MPA and its buffer zone is the most threatened by contamination in the Pacific coast due to a presence of a large population, multiple commercial activities, including tourism, and pressure on the MPA's natural resources. The main stakeholders who will participate in this agreement are the MARN, CONAP, INFOM, the municipalities, the Quetzal Port, private associations (hotels), and representatives of civil society (fishermen's associations, environmental committees, COCODES, etc.). In addition, representatives from other private sectors will participate (e.g., fishing and agroindustry), other central government institutions (DIPESCA/MAGA), and universities and NGOs that currently work within the Monterrico Natural Reserve Multiple-use MPA. All of these stakeholders are generators of solid and liquid wastes in the marine-coastal region as a result of their different activities. These stakeholders, jointly with the MARN, will carry out a participatory process to achieve basic consensus, shared proposals, and implement specific actions for the reduction, management, and control of solid and liquid wastes within the agreement's framework.

The agreement will be based on Government Agreement No. 111-2005, which regulates the proper management of wastes and promotes the development of actions that ensure the participation of the different stakeholders of society in resolving the problems of waste management. The agreement to reduce, manage, and control solid and liquid wastes in the marine-coastal region of the Monterrico Natural Reserve Multiple-use Area and its buffer zone has the following objectives: a) reduce and control contamination from solid and liquid wastes produced by populations (communal, industrial, agroindustrial, etc.) located in the marine-coastal region to reduce its impact on BD; b) involve the private sector, government institutions, municipalities, and civil society to jointly control and reduce solid and liquid wastes; and c) create a comprise recognized by the parties, so that the issue of contamination of coastal and marine areas by solid and liquid wastes is addressed in the local development agendas of the government institutions, municipalities, and the private sector. In addition, the agreement will be framed within the National Policy for the Integrated Management of Wastes and in conjunction with Liquid Wastes. The MARN, CONAP, the municipalities, and COCODES will be responsible for implementing the agreement and ensuring compliance with it. At least 18 consultation, analysis, and proposal development workshops will be held to achieve the signing of the agreement during the first year of the project. It is expected that the agreement will be signed and in operation beginning in the second year of the project and will be in effect at least until the project's end.

- c. **Agreement for the reduction of threats from artisanal fishing:** This agreement will be linked to the Monterrico Natural Reserve Multiple-use MPA and the Sipacate-Naranjo MPA where groups of

local fishermen have traditionally fished in these MPAs and their buffer areas. The cooperatives and associations of fishermen, DIPESCA/MAGA, MARN, and CONAP will participate in the agreement and will be responsible for overseeing its application and compliance, and will form a conservation and management committee for reducing threats caused by artisanal fishing in the selected MPAs. The objectives of the agreement are the following: a) develop a program to monitor and control the use of non-marine-coastal-BD-friendly practices, and b) promote sustainable artisanal fishing practices in order to maintain populations of fish species that are of local value, which will contribute to food security, mitigate poverty, and reduce the vulnerability of the families and communities of fishermen who work in this activity in the two (2) MPAs and their buffer zones.

114. Compliance with these three signed agreements will result in the reduction of threats to marine-coastal BD and benefit the following species: fish (*Diapterus aureolus*; *Diapterus pruvianus*; *Diplectrum máximum*; *Loliolopsis diomedea*; *Lutjanus guttatus*; *Orthopristis* sp.; *Selene brevoorti*; *Selene peruvianus*, and *Sphyrna ensi*); crustaceans (*Panulirus gracilis*; *Penaeus stylyrostris*; *Penaeus vannamei*; *Penaeus brevisrostris*; *Xiphopenaeus riveti* and *Penaeus occidentalis*); mollusks (*Donax variabilis*; *Polymesoda coaxans*; *Artina tuberculosa*; *Ostrea* spp.; *Anadara grandis*; *Cassostrea coresiensis*; *Hytissa fischeri*; *Spondylus calcifer*; *Pleuroploca salmo*; *Vasum caestus*; *Hexaples princeps*; *Mytella strigata*; *Polymesoda inflata* and *Tagelus peruvianus*); sharks (*Carcharhinus falciformis*, *Nasolamia velox*, *Carcharhinus limbatus*, *Sphyrna lewini*, and *Alopias pelagicus*; *C. falciformis*; *Carcharhinus leucas*; *Sphyrna mokarran*; *Galocerdo cuvieri*; *Prionace glauca*; *Carcharhinus longimanus*; *Gynglimostoma cirratum*), and sea turtles (*Lepidochelys olivácea*; *Chelonia mydas*; *Eretmochelis coriácea*, and *Dermochelys coriácea*), among others.

#### *Output 3.1.2 – Ballast water management program and fee system.*

115. A program to manage ballast water will be developed to reduce and control the impact this has on the country's Pacific coast, particularly to prevent the introduction of alien invasive species and pathogens that are present in the ballast water and sediment. The program will be associated with the Monterrico Multiple-use Area MPA, which is located just 15 km from Puerto Quetzal, the largest Pacific-coast port in Guatemala. The port is closely linked to the natural Chiquimulilla canal, a natural canal that is part of the MPA. The institutions responsible for the development and implementation of the program to manage ballast water will be the MARN, CONAP, the Naval Base of the Pacific, and the Quetzal Port Company, who administers the Quetzal Port and who will be responsible for ensuring the compliance of the shipping companies who use the port with the program.

116. The ballast water management program and fee system will be developed following the guidelines and standards of the International Convention for the Control and Management of Ships' Ballast Water and Sediments (2004)<sup>39</sup>. The following actions will be included as part of the program: a) assess the scope for managing ballast water with regard to the types of ships and threats to MPAs and marine-coastal BD; b) certification of the Quetzal Port in accordance with international regulations regarding the control and management of ballast water; c) develop a legal ordinance for the survey, certification, and inspection of ships; d) implement, according to national port guidelines, the rules proposed and defined by the International Maritime Organization (IMO); and e) develop a proposal for the repayment of a fee charged for the dumping of organisms, pathogens, and sediments in the ballast water of ships; this fee will be repaid specifically for the conservation and protection of the marine-coastal BD found in the Monterrico Multiple-use Area MPA. Currently the Quetzal Port Company calculates its annual income generated from ballast water fees at close to \$0.5 million USD. The port

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<sup>39</sup> Organización Marítima Internacional –OMI-. (2004). Convenio Internacional para el Control y la Gestión del Agua de Lastre y los Sedimentos de los Buques.

company has a fee regulation authorized by its Advisory Board, which allows the Quetzal Port Company to generate income from ballast water. For this reason the project team, under the guidelines of officials of the CONAP, will negotiate the implementation of fees related to ballast water with authorities from the Quetzal Port Company, with the goal of obtaining an annual contribution of at least \$0.25 million USD for the MPAs' management. This contribution will be transferred from the Quetzal Port Company to the CONAP for investment in the management of the MPAs.

117. At least 10 workshops (during a period of 2 years) will be held for the development of the ballast water management program and fee system. Implementation of the agreed-upon regulations and fees will begin in the third year of the project.

*Output 3.1.3 – Program for the prevention, reduction, and control of land-based contamination of MPAs and buffer areas defined jointly with municipalities, local communities, and key private sector groups (maritime transportation, agro-industry, tourism, and urban development).*

118. A program for the prevention, reduction, and control of land-based contamination in the five (5) MPAs and their buffer zones (Manchón Guamuchal Protected Area, Las Lisas-La Barrona Protected Area, Hawaii Protected Area, Sipacate-Naranjo Protected Area, and the Monterrico Natural Reserve Multiple-Use Area) will be developed in order to reduce contamination in the marine-coastal area and its impact on BD. The objectives of the program are to: a) perform an analysis of the status of terrestrial contamination sources in the MPAs and their buffer zones; b) evaluate, prevent, reduce, and control the terrestrial contamination sources in each of the MPAs; and c) strengthen inter-institutional coordination and cooperation between officials, the general population, and key stakeholders from the private sector to control, reduce, and mitigate damage from land-based contamination to the MPAs through the development of inter-institutional agreements. The program will include the following components: a) integrated management of solid wastes in the coastal area: the program will promote the selective collection of solid wastes in the centers where they are generated, recycling, production of compost, and the incineration of hazardous wastes at legally established sites in each municipality; b) planning for control and reduction of land-based contamination sources: planning will be conducted for the management of solid wastes and wastewater from the upper portions of the watersheds to the marine-coastal region where the MPAs and their buffer zones are located; c) creation of contingency plans: contingency plans for the management of hazardous substances (chemical compounds, oil, pesticides, and agroindustrial toxic wastes) will be developed in each of the municipalities where the MPAs and their buffer zones are located; d) environmental management of watersheds: the degradation of forests, soils, rivers, and streams will be prevented or reduced through watershed management and erosion control; and f) monitoring and evaluation: a monitoring plan will be developed for monitoring impacts from contamination on the MPAs and marine-coastal BD, including the development of standards for measuring levels of contamination and indicators of the impacts, which will be articulated with the marine-coastal information and monitoring system that is to be established through Output 2.3.1.

119. To develop and implement the program, cooperation and coordination is required between national institutions (MARN, CONAP, and INFOM, as well as their regional offices on the Pacific Coast), departments, municipalities, the private sector (e.g., Sugar Producers' Association of Guatemala [ASAZGUA], banana growers [FRUTERA, BANASA, and API40]), the Quetzal Port Company and tourism, universities and research centers (CEMA), CECON, Universidad del Valle de Guatemala, and Universidad Rafael Lándivar), and NGOs.

120. The activities proposed for the prevention, reduction, and control of land-based contamination sources in the MPAs and buffer zones are the following: a) creation of work groups among the municipalities, the MARN, and CONAP; b) development of work plans jointly with the municipalities

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<sup>40</sup> Association of independent banana producers, Guatemala.

that are geared towards the control and management of liquid and solid wastes; and c) development of a manual for environmental best practices in the management of wastes aiming to: i) educate the population about separating households wastes according to type (plastics, glass, organics, metals, and toxic materials; ii) educate the population to not generate and throw away wastes in illegal dumps; iii) educate the tourists to place trash in the designated trash cans; iv) improve waste collection trains in the MPAs' municipalities of influence; and v) educate the population to avoid burning solid wastes, unless it is done in designated areas.

121. The development of the program to prevent, reduce, and control land-based sources of contamination in the MPAs and their buffer zones will be initiated during the first year of the project simultaneously with the development and/or updating of the MPAs' management plans (Output 2.1.2). The program will begin operating beginning in the second year of the project. A document outlining the program will be developed, as well as 1,000 informational booklets.

*Output 3.1.4 – Strategies for reducing vulnerability and the impacts of climate change (CC) to BD and ecosystem services in three (3) MPAs and their buffer areas.*

122. The project will support the development of an holistic strategy to reduce the vulnerability of BD and ecosystem services to CC and its consequent impacts in five (5) MPAs and their buffer zones in the Guatemalan Pacific: La Chorrera Private Natural Reserve—Manchón Guamuchal RAMSAR Site, Sipacate-Naranjo National Park, Monterrico Multiple-use Natural Reserve, Hawaii Multiple-use Area, and Las Lisas – La Barrona Multiple-use Area. The strategy comprises the following four objectives: a) reduce the impact of CC on marine-coastal BD and the MPAs through increased knowledge of climatic variables (e.g., temperature and precipitation), its variability, and the impact on the marine-coastal areas; b) achieve the active and decisive participation of the stakeholders involved in the management and use of the resources associated with the MPAs to contribute towards reducing the impact of CC; c) implement monitoring tools and instruments to adequately record and analyze the environmental variables that impact the marine-coastal region (e.g., changes in sea level, air and water temperatures) and to monitor vulnerable species and ecosystems; and d) increase the awareness of the public, government officials, and groups or organizations living in the marine-coastal regions about the importance of CC and the implementation of measures to reduce its impacts, principally early warning programs.

123. The strategy to reduce vulnerability to CC and the impact on BD and ecosystem services includes the following activities: a) generating information regarding the impacts of CC on MPAs and marine-coastal BD, identifying climatic “tipping points,” improving monitoring (e.g., changes in sea levels, changes in water and air temperatures, changes in water chemistry, and monitoring of vulnerable species and ecosystems), and making projections for assessing potential future impact; b) translating information into participatory management responses and strengthening the awareness of the local populations, civil organizations, and government officials about the importance of BD in balancing local ecosystems and its role in the provision of ecosystem services, with the goal of maximizing ecosystem and BD resilience in the MPAs through the reduction of other sources of stress, such as: i) conservation of the mangrove ecosystem and reforestation of mangrove areas; ii) control of hunting, fishing, and use of coastal and marine BD to sustain local populations and to promote their resilience to climate variability; iii) control and elimination of threats from fires in coastal ecosystems and areas; iv) participation by the population in local organizations such as COMUDES, COCODES, and CODEDES to influence decision-making about agricultural and industrial activities, the development of coastal infrastructure, and other activities that threaten marine-coastal BD; and v) involvement of populations located in the upper and middle portions of the watersheds that drain to the marine-coastal region of the Guatemalan Pacific where the MPAs are located; c) incorporation of considerations for CC into MPA planning and management, including the identification and zoning of areas that are especially vulnerable to CC and controlling their uses; and d) development of a monitoring system that generates information about the potential changes in marine-coastal ecosystems and their BD and which affect the stability of populations of globally and locally

important species (e.g., marine-coastal birds and sea turtles); and changes in the cover, structure, functions, and ecosystem services of the key ecosystems such as the mangroves, beaches, and estuaries.

The municipalities, COCODES, local organizations, NGOs, production sectors, universities, research centers, and national environmental officials will be consulted in the development and implementation of the CC mitigation strategy and its components. The strategy will be developed considering the necessities, expectations, and realities of the populations and institutions in the marine-coastal areas. It will be developed during the first year of the project and will be presented to the different stakeholders previously mentioned for its validation. During the second year of the project the strategy will be pilot-tested in two (2) MPAs: Monterrico Multiple-use Natural Reserve and the Hawaii Multiple-use Area.

*Outcome 3.2 – Stable catches and sizes of selected fisheries species in four (4) multiple-use MPAs and their buffer zones in the Pacific region by project end.*

*Output 3.2.1 – BD-friendly fishing practices reduce the impacts on two (2) key species of local importance (small-scale artisanal fisheries) and three (3) species of commercial importance in multiple use MPAs and their buffer zones.*

124. BD-friendly fishing practices for small-scale artisanal fisheries will be implemented in the Sipacate-Naranjo Protected Area and the Las Lisas-La Barrona Multiple-use Area, and will contribute to maintaining stable local populations of the Yellowfin snook (*Centropomus robalito*) and snapper (*Lutjanus* sp.) and to the food security of local fishermen and their families. BD-friendly practices will be carried out following the components of the extension support program for small-scale artisanal fisheries outlined in Output 2.2.2, and will help to gradually reduce the use of non-BD-friendly fishing gear, replacing it with fishing gear that has less of an impact on marine-coastal BD. It will also promote the following practices and principles: a) avoidance of deliberate leaks of contaminants into sediments, sand, or water; b) limiting fishing in the river outfalls; c) properly disposing of wastes, including lines and hooks; d) respecting fishing and navigation regulations, including those for the MPAs; e) treating other fishermen and private property owners with courtesy and respect; f) small-scale artisanal fishermen committing to the preservation of hydrobiological resources, rejecting the commercialization of species with less than the recommended sizes and banned species; g) respecting property rights, not illegally entering private lands or waters, and respecting MPA zoning (including areas where fishing is prohibited); and h) careful handling and release of all by-catch, including threatened and/or vulnerable species such as sea turtles, sharks, and fish species that are protected through regulations.

125. BD-friendly fishing practices will also be implemented to reduce the impact on three (3) commercially important species in multiple-use MPAs and their buffer zones: white shrimp (*Litopenaeus vannamei*); toothed flounder (*Cyclopsetta querna*), and catfish (*Arius* sp.). BD-friendly practices will follow the components of the extension support program for small-scale artisanal fisheries as outlined in Output 2.2.2. The following measures will be implemented to reduce the impacts from commercial fishing on the white shrimp, in particular: a) fishing efforts within the MPAs and their buffer zones will be reduced, thereby reducing the number of fishing boats and fishing events; b) a minimum catch size for the white shrimp will be established; and c) two months during the year which area closed to fishing (May and June) will be enforced to periodically analyze and define the appropriate fishing effort. In addition, the breeding areas for shrimp will be protected and activities for monitoring and control will be increased. These actions will help to reduce the impact on the white shrimp population as well as reduce the impact on by-catch and benthic ecosystems. Best fishing practices will also be implemented to reduce the impact on the toothed flounder and the catfish.

126. BD-friendly fishing practices that will reduce the impact on two (2) key species of local importance (small-scale artisanal fishing) and three (3) commercially important species will be coordinated by DIPESCA/MAGA and CONAP, with support provided by the municipalities. In both cases workshops will be held to articulate the fishing regulations with the management plans of the

MPAs, and work meetings to promote and coordinate these activities will be held with all interested stakeholders (DIPESCA/MAGA and CONAP, municipalities, small-scale artisanal and commercial fishermen, the project team, and private initiatives) during the first year of the project. Implementation of BD-friendly fishing practices will begin during the second year of the project, and monitoring and control of the activities will be carried out as part the monitoring and enforcement system developed for the municipalities and CONAP in order to reduce threats to marine-coastal BD in MPAs and their buffer areas (Output 2.3.1).

*Outcome 3.3 – Sustainable use and extraction of resources contribute to the conservation of 6,725 ha of mangroves in MPAs and their buffer areas.*

*Output 3.3.1 – Participatory conservation, rehabilitation, and sustainable use of mangroves in MPAs and buffer areas of the Pacific coast favor mangrove protection and the design of riparian conservation corridors.*

127. The project will promote the participatory conservation, rehabilitation, and sustainable use of mangroves in the five (5) MPAs of the project and their buffer zones. Specific management plans for the mangroves are necessary due to the fact that historically this ecosystem has faced great pressure in the Guatemalan Pacific and a large percentage of their original coverage has been lost and they continue to be threatened by non-sustainable use and extraction practices. The management plans will strengthen their conservation and the BD that resides within them and will be developed in a participatory manner. Once the plans are defined they will be validated through the MPAs’ management committees under coordination by the CONAP. The mangroves’ management plans will be developed simultaneously with the MPAs’ Master Plans (Output 2.1.2) and will be based on the *Technical Guidelines Manual for Mangrove Forest Management*. As with the MPAs’ management plans, the specific management plans for the mangroves will include: a) a diagnostic phase in which all related technical and social studies will be completed; b) management considerations, including conservation and management goals; c) operational procedures; d) regulations and zoning; and e) follow-up and evaluation.

128. One pilot project for the ecological rehabilitation of the mangroves will be implemented in the Monterrico Multiple-use Natural Reserve and will include the rehabilitation of approximately 100 ha of degraded mangroves and the associated riparian corridors. The development of the pilot project involves the following activities: a) development and implementation of a protocol for the ecological rehabilitation of mangroves; b) historical analysis of the area, including changes in cover and structure of the mangroves and variations in the composition of the associated plant and wildlife species; c) establishment of horizontal connectivity (with other mangrove patches) and following an altitudinal gradient (riparian corridors); d) implementation of joint conservation and research actions between various institutions (universities, government, NGOs, private initiatives) with the diverse marine-coastal wildlife and plant indicator species; and e) participation of the communities in workshops on environmental education, ecological rehabilitation of mangroves, and their conservation. The project will work directly with women in the communities so that they are equipped to manage the mangrove nurseries that are necessary for the rehabilitation process. The pilot project will be implemented during the third year of the project and will be under the coordination of the CONAP, who will receive support from the INAB, USAC/CEMA, TNC, NGOs, and municipalities. This activity will contain a monitoring plan to evaluate the effectiveness of this pilot plan and an information database from periodic monitoring of the rehabilitation actions.

**2.5. Key indicators, risks and assumptions**

129. Project’s indicators are provided in Table 12. Detailed information on project indicators is included in the Section 3: Results Framework of this Project Document. The risks that might prevent the project from being achieved are presented in Table 13.

Table 12 – Project indicators.

Objective / Component	Indicators	Goal (5 years)
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To promote the conservation and long-term sustainable use of marine and coastal BD of global importance through effectively and equitably managed MPAs, which will contribute to improving the economic welfare of the Guatemalan population.	Total area (in hectares [ha]) of marine and coastal areas under protection by MPAs in the Pacific	- 164,297.40 ha
	Change in the management effectiveness of three (3) existing MPAs and two (2) new MPAs as measured through the METT scorecard	- La Chorrera Private Natural Reserve – Manchón Guamuchal RAMSAR site: from 10% to 25% - Sipacate-Naranjo National Park: from 26% to 41% - Monterrico Multiple-Use Natural Reserve: from 40% to 55% - Hawaii Multiple-Use Area: from 27% to 42%
	Change in the financial capacity of the MPAs according to that established through the total average score in the Financial Sustainability Scorecard	- Legal, regulatory, and institutional framework: from 7.78% to 32.78% - Business planning and tools for cost-effective management: from 1.69% to 16.69% - Tools for generating income and its allocation: from 12.68% to 42.68% - Total: from 7.73% to 32.73%
<b>Component 1.</b> Strengthening the MPA legal, policy, and financial frameworks for the protection of marine-coastal BD and its sustainable use.	Number of multiple-use MPAs declared and included in the SIGAP	- Five (5)
	Legal and regulatory framework facilitates the conservation and sustainable use of BD in the MPAs and buffer zones	- Regulatory reforms regarding the use and management of mangroves (INAB-CONAP-OCRET) - Proposed reforms to the Law of Fishing and Aquaculture - Implementation of the Strategic Line 8.3 of the PMCG (to strengthen governance mechanisms)
	Total annual budget from the central government (USD) assigned to the management of the MPAs and amount of financial resources received annually from private sources for the MPAs' management	- \$1,009,989.72 (50% increase)
<b>Component 2.</b> Strengthening the institutional and individual capacities for effective management of MPAs and the conservation and sustainable use of marine-coastal BD	Change in the capacity development indicators for MPAs management and the conservation and sustainable use of marine-coastal BD according to the total score of UNDP Capacity Development Scorecard (national and local government, private sector and civil society)	<u>National Government</u> - MARN: from 42.86% to 62.86% - CONAP: from 45.245 to 65.24% - INAB: from 61.54% to 81.54% - DIPESCA: from 43.59% to 63.59% <u>Municipalities</u> - Retalhuleu: from 5.56% to 25.56% - Champerico: from 25% to 45% - La Gomera: from 44.44% to 64.44% - Iztapa: from 0% to 20% - Taxisco: from 47.22% to 67.22% - Guazacapan: from 2.78% to 22.78% - Chiquimulilla: from 36.11% to 56.11% - Pasaco: from 27.78% to 47.78% - Moyuta: from 38.39% to 58.39% <u>Civil Society</u> - NGO (ARCAS): from 63.89% to 83.89% - Fishermen's Association of Champerico: from 11.11% to 31.11% - Fishermen's Association of El Gran Pargo:

		<ul style="list-style-type: none"> <li>from 0% to 20%</li> <li>- Champerico ports companies: from 4.76% to 24.76%</li> <li>- CECON: from 57.14% to 77.14%</li> </ul>
	Number of management plans for existing and new MPAs	<ul style="list-style-type: none"> <li>- Three (3) new management plans</li> <li>- Two (2) management plans updated: Sipacate – Naranjo National Park and Monterrico Multiple-Use Natural Reserve</li> </ul>
	Number of staff from national and local governments, private sectors, and civil society, including women, trained in monitoring and control of threats to marine and coastal BD	<ul style="list-style-type: none"> <li>- CONAP: 30</li> <li>- MARN: 40</li> <li>- INAB: 5</li> <li>- OCRET: 3</li> <li>- DIPESCA: 15</li> <li>- Municipalities: 20 (2 x 10 municipalities)</li> <li>- NGOs: 50</li> <li>- Local associations: 110</li> <li>- Defense Ministry: 10</li> <li>- Ports Commission: 10</li> </ul>
	Increase in the number of monitoring, control, and surveillance plans and patrolling events	<ul style="list-style-type: none"> <li>- Work plans: from 0 to 5 (one/MPA/year during 5 years)</li> <li>- Patrolling events: from 0 to 120 per MPA (2/month/MPA during 5 years)</li> </ul>
<p><b>Component 3:</b> Addressing threats from key sectors (fisheries, maritime ports/transportation, and urban development) in order to strengthen MPA management and the conservation and sustainable use of marine and coastal BD in the Pacific region of Guatemala</p>	Coverage (ha) of key marine-coastal ecosystems in five (5) MPAs and their buffer zones	<p>Current levels are maintained:</p> <ul style="list-style-type: none"> <li>- Estuaries: 1,715 ha</li> <li>- Coastal lagoons: 2,141 ha</li> <li>- Herbaceous wetlands: 8,138 ha</li> <li>- Sandy beaches: 21,135 ha</li> <li>- Muddy beaches: 3,858 ha</li> </ul>
	Estuaries: 1,715 ha; Coastal lagoons: 2,141 ha; Herbaceous wetlands: 8,138 ha; Sandy beaches: 21,135 ha; Muddy beaches: 3,858 ha	
	Number of hatchlings released per reproductive period of the sea turtle <i>Lepidochelys olivacea</i> in the nesting beaches of the Pacific	<ul style="list-style-type: none"> <li>- 165,000</li> </ul>
	Minimum sizes (cm) of select fish species in four (4) multiple-use MPAs and their buffer zones in conformance with FAO regulations <sup>41</sup>	<p><u>Commercially important species:</u></p> <ul style="list-style-type: none"> <li>- White Shrimp (<i>Litopenaeus vannamei</i>): 3 g or 6.6 cm.</li> <li>- Blue Shrimp (<i>Penaeus stylirostris</i>): 3 g or 6.6 cm.</li> <li>- Brown Shrimp (<i>Farfantepenaeus californiensis</i>): 3 g or 6.6 cm.</li> <li>- Hammerhead Shark (<i>Sphyrna lewini</i>): 220 cm total length for females and 178 cm for males.</li> </ul>
	Change in average income received by fishermen implementing BD-friendly fishing practices	<ul style="list-style-type: none"> <li>- 20%</li> </ul>

<sup>41</sup> The regulation proposed by the FAO is aimed at the minimum sizes; in the case of fisheries maximum sizes are not considered, since the concern with the stocks of fish is that the organisms reach at least their initial reproduction size, which allows them to maintain stable populations. For other species there are no regulations regarding sizes.

	Coverage of mangroves in five (5) MPAs and their buffer zones	– 12,803.10 ha: a. Sipacate – Naranjo National Park: 1,936.22 ha. b. Monterrico Multiple-Use Natural Reserve: 2,664.32 ha. c. La Chorrera Private Natural Reserve – RAMSAR site Manchón Guamuchal: 5,028.53 ha. d. Hawaii Multiple-Use Area: 1,753.44 ha. e. Las Lisas – La Barrona: 1,420.59 ha.
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Table 13 – Risks facing the project and the risk mitigation strategy.

<b>Risk</b>	<b>Rate*</b>	<b>Risk mitigation strategy</b>
Increase in threats to BD beyond currently projected levels	M*	To reduce this risk the project will strengthen the legal and institutional structure for the protection and sustainable use of the country’s coastal and marine BD. The project will work closely with coastal municipal governments to provide them with participatory planning tools that will include the permitted uses and restrictions for marine-coastal BD to facilitate the monitoring and control of threats. The participation of private sectors and local communities in the project and the development of mechanisms, including resources use agreements (control of ballast water; prevention, reduction, and control of land-based contamination in coastal and marine areas; and reduction of threats from artisanal fishing) and for joint conservation and management of MPAs (including roles, responsibilities, and derived benefits) will contribute also contribute to mitigate this risk.
Short-term negative impacts on local communities’ livelihoods caused by restrictions on resource use	L	The project will have positive medium- and long-term impacts on coastal rural and urban communities; however, in the short term there may be negative impacts on local communities’ livelihoods caused by restrictions on resources use when existing MPAs are expanded or new MPAs are created. To mitigate this risk, local communities will participate actively in the MPA expansion and creation processes, which will be done in close consultation with them and according to Article 11 of the Regulation of the Protected Areas Law Decree 4-89 and its amendments, which states that the establishment of PAs should consider the effects of their creation on local communities. Additionally, the development of the MPA management plans will be a participatory process, during which the local communities will be able to present their viewpoints and define the criteria for developing management strategies that consider their socioeconomic needs and so that they can gradually transition from current forms of marine-coastal resource use to more sustainable practices. Additionally, the project will provide technical support and training to facilitate changes in resource use practices. For example, the project will develop an extension support program for small-scale artisanal fisheries that will help to gradually reduce the use of non-BD-friendly fishing gear, replacing it with fishing gear that has less of an impact on marine-coastal BD. This will include: a) training for the fishermen in the use of BD-friendly fishing techniques; b) implementing BD-friendly fishing equipment and rigging on registered small-scale artisanal fishing boats; c) and determining jointly zones for protection and zones for resources use; among other activities.
Security issues	L	Recently Guatemala has seen an increase in security issues related to the illegal drug trade. Although most of this activity is happening in the northern

<b>Risk</b>	<b>Rate*</b>	<b>Risk mitigation strategy</b>
		part of the country along the Mexican border, there is a risk that it may expand to the coastal areas. The project will involve Guatemala's Navy and municipal governments in the monitoring and enforcement of planned actions directed to reduce threats to marine-coastal BD of MPAs, which in turn will serve to discourage any illegal activities within the project target sites. Additionally, the project will maintain good public relations and will assure the involvement of local communities in project activities, which in addition to providing direct benefits for local communities (e.g., continued availability of marine resources and food security) will serve as a social control measure to reduce this risk.
Impact of CC on marine-coastal BD.	L	Through the establishment of new MPAs and the expansion of existing MPAs, connectivity between marine-coastal ecosystems will be established, providing movement of species between different habitats and thereby serving as temporary refuge in the face of potential CC events. The protection of the mangroves will help to mitigate the impacts from storms and hurricanes associated with CC through the reduction of their intensity and the prevention of erosion in different coastal zones, with benefits for marine-coastal species as well as the human settlements in coastal areas. Finally, national- and municipal-level authorities will be trained to better understand the impacts of CC on marine-coastal BD and to adopt conservation and management strategies for mitigating CC effects and enhancing resilience.

\* H: High; M: Medium; L: Low

## 2.6. Financial modality

130. The financial support provided by GEF resources will consist of a grant to cover the incremental costs of these activities. Therefore, GEF resources will be mainly directed toward technical assistance.

131. The project will be executed under DIM according to the standards and regulations for UNDP cooperation in Guatemala and in close coordination with the MARN. The costs of the incremental activities that are required to contribute to global benefits that will be financed by GEF are \$5,354,545 USD. A summary of the project's budget is presented in Table 14.

Table 14 – Total project budget.

<b>Outcome</b>	<b>Budget</b>	<b>Percentage of total budget</b>
Component 1. Strengthening the MPA legal, policy, and financial frameworks for the protection of marine-coastal BD and its sustainable use.	990,000	18.5%
Component 2. Strengthening the institutional and individual capacities for effective management of MPAs and the conservation and sustainable use of marine-coastal BD.	1,753,000	32.7%
Component 3. Addressing threats from key sectors (fisheries, maritime ports/transportation, and urban development) in order to strengthen MPA management and the conservation and sustainable use of marine-and coastal BD in the Pacific region of Guatemala	2,344,000	43.8%
Project management costs	267,545	5.0%
<b>TOTAL</b>	<b>5,354,545</b>	<b>100.0</b>

## 2.7. Cost-effectiveness

132. In line with the GEF Council's guidance on assessing the cost-effectiveness of projects (Cost Effectiveness Analysis in GEF Projects, GEF/C.25/11, April 29, 2005), a qualitative approach to identifying the alternative with the best value and feasibility for achieving the project objective was used.

133. This project has been developed using cost-effectiveness criteria, and focuses on removing the legal, institutional, technical, and financial barriers that prevent the consolidation of Guatemala's MPAs and reduction of threats to marine-coastal BD. The project proposes a strategy consisting of three interrelated components that will remove these barriers by strengthening Guatemala's existing MPA legal, institutional, and financial framework for the protection and sustainable use of the country's marine-coastal BD, enhancing the institutional and individual capacities for effective MPA management and the conservation and sustainable use of marine-coastal BD, and addressing threats from key sectors to MPAs and marine-coastal BD in the Pacific region of Guatemala. The GEF alternative represents a more cost-effective approach than the alternative, in which MPA management effectiveness in the Pacific coast will not improve, MPA coverage will continue being very limited, threats to marine-coastal BD will not be addressed, and the delivery of global and national benefits will not occur. Cost-effectiveness should be achieved as described in the following paragraphs.

134. The non-GEF alternative is one where Guatemala will continue to make very slow progress in providing further protection to key marine-coastal ecosystem through the creation and/or expansion of MPAs. Guatemala's priority for strengthening terrestrial PAs has resulted in limited MPA coverage and representation of marine-coastal ecosystems in the SIGAP. When MPAs have been established, little consideration has been given to ecological criteria, which has been proven to be costly in terms of loss of key habitat in unprotected areas. The GEF alternative is a timely and unique opportunity to expand three (3) existing MPAs and the creation of two (2) new multiple-use MPAs (Component 1), which will allow increasing the protection of marine-coastal ecosystems from 7,042.44 ha to 164,297.40 ha, in line with the country's marine-coastal conservation gap analysis, a significant step forward in the protection of Guatemala's coastal and marine BD in the Pacific coast. The GEF alternative builds on the common interest that now exists among key government agencies (MARN, CONAP, INAB, and DIPESCA/MAGA) and coastal municipalities to further protect coastal and marine areas through multiple-use MPAs while promoting the sustainable use of marine-coastal natural resources.

135. Additionally, under the alternative scenario, marine and coastal BD conservation will continue to be done in a legal and institutional environment that is not conducive to enhance its protection through joint and participatory decision-making, and experience and information-sharing among the different institutions, sectors, and local organizations involved in MPA management and marine and coastal resources use. The GEF scenario is a more cost-effective option than the alternative, as it will promote legal reforms and the implementation of existing policies (Component 1) that will allow coordinated and informed efforts among key national and local stakeholders. This in turn, will allow the implementation of coordinated strategies (Components 2 and 3) to reduce threats to marine-coastal BD (e.g., loss of habitat and natural cover due to unplanned development, contamination caused by unplanned coastal development, and overexploitation of marine-coastal resources, including none-friendly fishing practices for BD) and to contribute to the sustainability of coastal and marine resources with long term-benefits for coastal populations.

136. Under the alternative scenario the financial sustainability of Guatemala's MPAs will remain uncertain as evidenced by the results of the application of the Financial Sustainability Scorecard (BD1-Tracking Tool). The MPAs will continue to rely only on the allocation of limited funding by the central government, with limited opportunities to diversify and the development financial strategies that respond to the MPAs' management needs. The project's approach to the financial sustainability of MPAs will include: a) adjustments of the coastal land lease rates established through OCRET so that a percentage is redirected to support MPA management. OCRET has an annual budget of \$1.13 million USD and the

project will develop mechanism for OCRET to transfer the funds that legally correspond to the CONAP; b) the development of business plans for MPAs, which will allow revenue generation by each area (e.g., ecotourism, visitors fees, and payment for environmental services) that currently does not exist, and securing resources from outside sources (government and private); and c) the investment of up to 10% of unused funds from coastal municipalities, which may amount to close to \$1 million USD annually. Additionally, a ballast water management fee system to be developed with the Quetzal Port Company may represent additional funding for MPA management; the Quetzal Port Company calculates its annual income generated from ballast water fees at close to \$0.5 million USD and the project will develop a proposal for the repayment of fees charged for the dumping of organisms, pathogens, and sediments in the ballast water of ships, specifically to the conservation and protection of the marine and coastal BD found in the Monterrico Multiple-use MPA. This strategy relies mostly on redirecting already existing funds to support MPA management, which may prove to be more cost-effective than having to depend on new funding sources that may be more uncertain.

137. The alternative MPA management scenario is also one in which limited skills and lack of experience of MPA managers in implementing conservation actions in coastal and marine environments and the lack of reliable information regarding the condition of marine-coastal BD places them in a disadvantageous position to face the current threats to MPAs, which will prove costly over time as future actions require larger investments when it is not possible to act on them in a timely manner. Also, MPA management plan development has not been systematic and currently MPAs do not have a management plan in place or are outdated. In addition, the lack of an effective mechanism for monitoring marine-coastal BD has prevented informed decisions being made regarding conservation through MPA management. If this scenario were to prevail it would prove to be costly over time, as decision-making for MPA management and BD conservation and its sustainable use will continue to respond only to immediate needs rather than to strategic planning.

## **2.8. Sustainability**

### *Ecological sustainability*

138. The ecological sustainability of the project's outputs will be achieved through increasing MPA coverage to provide more and long-lasting protection of marine-coastal BD of global, national, and local importance. Strengthened legal and institutional frameworks will also promote cooperation between national and local MPA stakeholders, which will contribute to the ecological sustainability of the project by promoting joint decision-making regarding the conservation and sustainable use of marine-coastal BD, as well as for the implementation of more effective monitoring and enforcement system to reduce threats to marine-coastal BD in MPAs and their buffer areas. At the MPA level, management plan development and improved management effectiveness (improved planning, management, community participation, and monitoring) will constitute an important project contribution to the long-term viability of marine-coastal BD. The project will allow the development of a vulnerability analysis of the impacts of climate change to BD and ecosystem services in five (5) MPAs and their buffer areas, an important contribution to a topic that has had little development in Guatemala and which is essential for developing mitigation strategies and enhancing the resilience of marine-coastal BD to climate change and variability.

### *139. Social sustainability*

140. The social sustainability of the project will be achieved mainly through the direct participation of the local communities and local governments in MPA planning and management, and the implementation of BD conservation and sustainable use strategies. Additionally, MPA expansion and/or creation will include consultation with local stakeholders (e.g., fishermen, private sectors, community organizations, and municipal governments) to ensure their views and their needs are considered, their lasting support of MPAs, a reduction in potential conflicts, and identification of areas for short- and long-term cooperation. More specifically, the two (2) new areas to be created by the project will be multiple-use MPAs (IUCN Category VI), which will allow the conservation and sustainable use of natural resources and minimize

the possibility of adverse social effects that may result from potential restrictions on resource use. By establishing agreements for cooperation between key sectors (urban development, fishing, and ports/maritime transportation sectors) and MPA officials, and the formation of conservation and management committees to supervise BD conservation and the management of MPAs and their buffer zones, awareness about MPAs and BD will be increased and the reduction of threats to marine-coastal BD will be more sustainable.

#### *Institutional sustainability*

141. The institutional sustainability will be achieved through an enabling policy/legal environment that will promote cooperation between national institutions (CONAP, MARN, DIPESPA/MAGA, and OCRET) for the conservation and sustainable use of BD in MPAs and their buffer areas. Additionally, by the project's end both the MARN and the CONAP will have Marine Units as part of their institutional structure to promote the development of long-term strategies and projects for the PMCG and to collaborate more effectively with marine-coastal management staff working in the local offices of the MARN and the CONAP on both the Caribbean and Pacific coasts. The project will train staff from CONAP, MARN, INAB, and the Navy in key areas related to MPA management and marine-coastal BD conservation as part of a capacity strengthening strategy to build solid institutions. Additionally, the project will contribute to building capacity at the MPAs' level for the implementation of participatory management actions that will contribute to consolidating the CONAP's role as the national administrator of MPAs and of the SIGAP. Finally, strengthened working relationships and collaboration between government institutions, NGOs, and municipalities are an additional guarantee for institutional sustainability and future collaborative efforts in MPA management and BD conservation.

#### *142. Financial sustainability*

143. Financial sustainability will be achieved through a strategy for securing the financial sustainability of MPAs that includes the adjustments of the coastal land lease rates established through OCRET so that a percentage is redirected to support MPA management, the development to business plans for MPAs for revenue generation and securing outside funding, and the redirection of unused funds from the municipalities of the project area for use in the management of the project's MPAs. This strategy will diversify MPA funding, which currently depends solely on central government budgets, and will contribute to significantly reducing the financial gap of MPAs and providing medium- and long-term financial resources. Finally, a ballast water management program and fee system will allow the development of a proposal for the payment to the CONAP of a fee for the dumping of organisms, pathogens, and sediments through the ballast water of ships. Under the guidelines of the CONAP authorities, the project team will negotiate the implementation of fees related to ballast water with authorities from the Quetzal Port Company, which will constitute an additional source of funding for the financial sustainability of MPA management.

## **2.9. Replicability**

144. At the local level the project will focus on the implementation of strategies to reduce threats to marine-coastal BD (e.g., loss of habitat and natural cover due to unplanned development, contamination caused by unplanned coastal development, and overexploitation of marine-coastal resources, including none-friendly fishing practices for BD) in 10 coastal municipalities with jurisdictions over the areas where the three (3) MPAs to be expanded and the two (2) new MPAs to be created by the project are located. Lessons learned from these actions will have the potential to be replicated in the rest of the coastal municipalities in the Pacific coast as well as in the Caribbean coast.

145. At the national level, the national institutions (e.g., INAB, CONAP, MARN, and DIPESCAMAGA) will benefit from the project through the development of capacities for planning, follow-up, and monitoring of BD initiatives and threats, which will facilitate the replicability of similar efforts particularly in the Caribbean coast (not the focus of this project).

146. The project also has the potential to be replicated and provide lessons learned at the international level. Similar efforts for the conservation of marine-coastal BD are currently underway or are planned in several countries in the Latin America and the Caribbean region (e.g., Costa Rica, Honduras, and Colombia,). In particular, the lessons learned in capacity development and the monitoring of threats to BD and MPAs (including CC) will be encouraged, including exchange of information with the GEF funded project in Honduras *Strengthening the sub-system of coastal and marine protected areas*.

147. Lessons learned from this GEF initiative will provide useful information and experience for the implementation of similar initiatives. The project will make use of the tools made available by UNDP-GEF (i.e., information networks, forums, and documentation and publications) for their dissemination. Project costs for disseminating knowledge and lessons learned are \$9,000 USD (an average of \$1,800 per year) and have been properly budgeted as part of the project's monitoring and evaluation (M&E) plan.

### 3. STRATEGIC RESULTS FRAMEWORK AND GEF INCREMENT

#### 3.1. Incremental Cost Analysis

##### *Global and National objectives*

148. The project will deliver **global environmental benefits** through the protection of habitat for species of global importance and the creation of two (2) new MPAs and expansion of three (3) existing MPAs (covering 164,297.40 ha) that will increase the marine and coastal ecosystems representation of the SIGAP. A summary of the BD values and threats for each site is presented below. Species of global importance that will benefit from the project's implementation include the hawksbill turtle (*Eretmochelys imbricata*), the green sea turtle (*Chelonia mydas*), the loggerhead sea turtle (*Caretta caretta*), the scalloped hammerhead (*Sphyrna lewini*), the black mangrove (*Avicennia germinans*), the red mangrove (*Rhizophora mangle*), and multiple fishing species of commercial and local importance such as the white shrimp (*Litopenaeus vannamei*), blue shrimp (*Penaeus stylirostris*), brown shrimp (*Farfantepenaeus californiensis*), the Pacific seabob (*Xiphopenaeus riveti*), the bonefish (*Albua vulpes*), catfish (*Arius* sp), bass (*Centropomus robalito*, *Centropomus* sp), toothed flounder (*Cyclopsetta querna*), silver mojarra (*Eucinostomus argenteus*), Ronco (*Haeulopsis leuciscus*), steplined drum (*Larimus acclivis*), squib (*Loliolopsis diomedea*), and snapper (*Lutjanus* sp). In addition to the many marine species, coastal and marine birds, including migratory birds, will benefit from the project through the protection of their feeding, breeding, and resting areas (e.g., *Bubulcus ibis*, *Butorides virescens*, *Egretta thula*, *E. Caerulea*, *E. Tricolor*, *Nycticorax violaceus*, and *Eudocimus albus*).

149. The creation of new MPAs in the Pacific region of Guatemala will contribute to the achievement of the targets set by the COP 10 (Decision X/2) and the new Programme of Work for PAs of the CBD for MPAs. Through the project, a MPA financial sustainability strategy will be put in place, including the development and update of business plans for the three new and two expanded MPAs, which will contribute to increasing their funding by 50% as measured through the Total Average Score for all MPAs in the FSS (GEF-1 Tracking Tool).

##### *Baseline Scenario*

150. Although under the "business as usual" scenario important programs will be developed, these programs alone will not overcome the barriers that currently prevent reducing the multiple threats to marine-coastal BD of the Pacific region of Guatemala and its effective protection through effectively managed MPAs and the promotion of its sustainable use. The baseline programs include multiple investments that are planned for the 2014-2018 time period.

151. Existing and planned investments for baseline programs and activities for the 2014-2018 time period are estimated at **\$6,945,956.57** USD. Baseline activities include a total investment of \$3,906,581.56 USD by the GoG through CONAP, MARN, MAGA, INAB, OCRET, and MICIVI. Coastal municipalities will make investments of up to \$150,000 USD. The Quetzal Port Company will

generate \$2.5 million USD in income from ballast water fees. Finally, CEMA and ARCAS will invest in training and research (\$250,000 USD) and in marine and coastal wildlife protection and ecosystem conservation (\$139,375 USD), respectively.

#### *GEF Alternative to Generate Global Benefits*

152. Despite the important contribution of the planned baseline investments, they will not be sufficient to reduce the multiple threats facing the marine-coastal BD of the Pacific region of Guatemala and to its protection through effectively managed MPAs. The GEF **alternative scenario** will help to remove the barriers that prevent Guatemala from achieving this goal; it consists of three complementary components that together will contribute to the conservation and long-term sustainable use of marine-coastal BD of global importance while improving the economic welfare of the Guatemalan coastal population. A description of the GEF alternative scenario follows.

153. The alternative GEF scenario will **strengthen the MPA legal, policy, and financial frameworks for the protection and sustainable use of marine-coastal BD**. Incremental financing will be in the amount of **\$2,292,970.00** USD; **\$990,000.00** USD will be provided by the GEF and **\$1,302,970.00** USD will be provided by co-financing sources. Co-financing for this project component will be provided by the CONAP (\$100,000.00), the Municipal Development Institute (INFOM) (\$942,970.00), and the UNDP (\$260,000.00).

154. In addition, the GEF alternative will also **strengthen the institutional and individual capacities for effective MPA management and the conservation and sustainable use of marine-coastal BD**. The incremental financing expected for this component is **\$6,216,140.00** USD; **\$1,753,000.00** USD will be provided by the GEF and **\$4,463,140.00** USD will be provided by co-financing sources. The GEF alternative will include an investment from the CONAP (\$763,800.00), DIPESCA/MAGA (\$191,448.00), INFOM (\$2,785,925.00), and the UNDP (\$721,967.00).

155. Finally, the GEF alternative will **address threats from key sectors in order to strengthen MPA management and the conservation and sustainable use of marine-coastal BD in the Pacific region of Guatemala**. The incremental financing expected for this component is **\$11,916,950.01** USD; **\$2,344,000.00** USD will be provided by the GEF and **\$9,572,950.01** USD will be provided by co-financing sources. The GEF alternative will include an investment from the CONAP (\$1,318,484.01), DIPESCA/MAGA (\$364,115.00), INFOM (\$6,246,465.00), and the UNDP (\$1,643,886.00).

156. System Boundary: The GEF alternative will allow the creation of two (2) new MPAs and the expansion of three (3) existing MPAs in the Pacific region of Guatemala. This will represent an increase from 7,042.44 ha of protected coastal and marine ecosystems to 164,297.40 ha. In addition, the project will strengthen MPA legal, policy, and financial frameworks, and will address threats from key sectors (fisheries, maritime ports/transportation, and urban development) in order to strengthen MPA management and the conservation and sustainable use of marine-and coastal BD, focusing on 10 municipalities in the Pacific region where the MPAs are located. The project will work in buffer areas of the MPAs in close coordination with municipal and national authorities, private sectors, NGOs, and coastal communities to enhance MPA management effectiveness.

157. Incremental costs summary: The incremental cost matrix presented below summarizes baseline costs and incremental activity costs for each project component. The total baseline amounts to **\$6,945,956.57** USD. The costs of the incremental activities required to contribute to global benefits include **\$5,354,545.00** USD to be funded by the GEF and **\$16,190,535.00** USD to be provided by co-financers, for a total of **\$21,545,080.00** USD. All project co-financers have stated their commitment to the project through written signed letters.

158. In summary, the GEF alternative has a total cost of **\$28,491,036.57** USD, 18.8% of which will be provided by GEF (excluding PPG resources). A summary of the GEF alternative follows.



COMPONENT	BASELINE (A)		ALTERNATIVE (A+B)		INCREMENT (B)	
<b>Component 1:</b> Strengthening the MPA legal, policy, and financial frameworks for the protection of marine-coastal BD and its sustainable use.	GoG (CONAP, MARN, MAGA, INAB, OCRET, MICIVI)	390,658.16	GEF	990,000.00	GEF	990,000.00
	Municipalities	15,000.00	Co-financing	1,302,970.00	Co-financing	1,302,970.00
			CONAP	100,000.00		
			INFOM	942,970.00		
			UNDP	260,000.00		
			Baseline	405,658.16		
	<b>Subtotal baseline</b>	<b>405,658.16</b>	<b>Subtotal alternative</b>	<b>2,698,628.16</b>	<b>Subtotal increment</b>	<b>2,292,970.00</b>
<b>Component 2:</b> Strengthening the institutional and individual capacities for effective management of MPAs and the conservation and sustainable use of marine-coastal BD	GoG (CONAP, MARN, MAGA, INAB, OCRET, MICIVI)	1,171,974.47	GEF	1,753,000.00	GEF	1,753,000.00
	Municipalities	45,000.00	Co-financing	4,463,140.00	Co-financing	4,463,140.00
			CONAP	763,800.00		
			DIPESCA/MAGA	191,448.00		
			INFOM	2,785,925.00		
			UNDP	721,967.00		
		Baseline	1,216,974.47			
	<b>Subtotal baseline</b>	<b>1,216,974.47</b>	<b>Subtotal alternative</b>	<b>7,433,114.47</b>	<b>Subtotal increment</b>	<b>6,216,140.00</b>
<b>Component 3:</b> Addressing threats from key sectors (fisheries, maritime ports/transportation, and urban development) in order to strengthen MPA management and the conservation and sustainable use of	GoG (CONAP, MARN, MAGA, INAB, OCRET, MICIVI)	2,343,948.94	GEF	2,344,000.00	GEF	2,344,000.00
	Municipalities	90,000.00	Co-financing	9,572,950.01	Co-financing	9,572,950.01
	Quetzal Port Company	2,500,000	CONAP	1,318,484.01		
	CEMA	250,000	DIPESCA/MAGA	364,115.00		
	ARCAS	139,375	INFOM	6,246,465.00		
			UNDP	1,643,886.00		

marine-and coastal BD in the Pacific region of Guatemala			Baseline	5,323,323.94		
	<b>Subtotal baseline</b>	<b>5,323,323.94</b>	<b>Subtotal alternative</b>	<b>17,240,273.95</b>	<b>Subtotal increment</b>	<b>11,916,950.01</b>
Project Management	NA		GEF	267,545.00	GEF	267,545.00
			Co-financing	851,474.99	Co-financing	851,474.99
			CONAP	147,776.17		
			DIPESCA/MAGA	29,218.82		
			INFOM	524,640.00		
			UNDP	149,840.00		
				0.00		
	<b>Subtotal baseline</b>	<b>0.00</b>	<b>Subtotal alternative</b>	<b>1,119,019.99</b>	<b>Subtotal increment</b>	<b>1,119,019.99</b>
<b>TOTAL</b>			Total GEF	5,354,545.00	Total GEF	5,354,545.00
			Total Co-financing	16,190,535.00	Total Co-financing	16,190,535.00
			Total Baseline	6,945,956.57		
	<b>TOTAL BASELINE</b>	<b>6,945,956.57</b>	<b>TOTAL ALTERNATIVE</b>	<b>28,491,036.57</b>	<b>TOTAL INCREMENT</b>	<b>21,545,080.00</b>

### 3.2. Project Results Framework

	Indicator	Baseline	Goal (of the Indicator)	Verification Mechanisms	Risks and Assumptions
<p><b>Project Objective:</b> To promote the conservation and long-term sustainable use of marine and coastal biodiversity (BD) of global importance through effectively and equitably managed marine-coastal protected areas (MPAs), which will contribute to improving the economic welfare of the Guatemalan population.</p>	Total area (in hectares [ha]) of marine and coastal areas under protection by MPAs in the Pacific	– 7,042.44 ha	– 164,297.40 ha	<ul style="list-style-type: none"> <li>– Databases, technical reports, and maps.</li> <li>– Resolution of the CONAP Council</li> <li>– Technical study and proposal of Law</li> </ul>	<ul style="list-style-type: none"> <li>– Political willingness and social consensus to create new MPAs and expand existing MPAs</li> </ul>
	Change in the management effectiveness of three (3) existing MPAs as measured through the METT scorecard	<ul style="list-style-type: none"> <li>– La Chorrera Private Natural Reserve – Manchón Guamuchal RAMSAR site: 10%</li> <li>– Sipacate – Naranjo National Park: 26%</li> <li>– Monterrico Multiple-Use Natural Reserve: 40%</li> </ul>	<ul style="list-style-type: none"> <li>– La Chorrera Private Natural Reserve – Manchón Guamuchal RAMSAR site: 25%</li> <li>– Sipacate-Naranjo National Park: 41%</li> <li>– Monterrico Multiple-Use Natural Reserve: 55%</li> </ul>	<ul style="list-style-type: none"> <li>– Updated METT scorecards</li> <li>– Annual project evaluation reports</li> </ul>	<ul style="list-style-type: none"> <li>– The Government of Guatemala (national and local), the civil sector, and the private sector maintain an interest in improving the management of the MPAs</li> <li>– Environmental variability is within normal ranges, including climate variability</li> <li>– There is effective inter-institutional coordination for reaching agreements and the establishment of MPAs</li> </ul>
	Change in the financial capacity of the MPAs according to that established through the total average score in the UNDP/GEF Sustainability Scorecard	<ul style="list-style-type: none"> <li>– Legal, regulatory, and institutional framework: 7.78%</li> <li>– Business planning and tools for cost-effective management: 1.69%</li> <li>– Tools for generating income and its allocation: 12.68%</li> <li>– Total: 7.73%</li> </ul>	<ul style="list-style-type: none"> <li>– Legal, regulatory, and institutional framework: 32.78%</li> <li>– Business planning and tools for cost-effective management: 16.69%</li> <li>– Tools for generating income and its allocation: 42.68%</li> <li>– Total: 32.73%</li> </ul>	<ul style="list-style-type: none"> <li>– Updated Financial Sustainability Scorecard</li> </ul>	<ul style="list-style-type: none"> <li>– Stable national and international economic conditions</li> </ul>

<b>Component 1:</b> Strengthening the MPA legal, policy, and financial frameworks for the protection of marine-coastal BD and its sustainable use.	Number of multiple-use MPAs declared and included in the SIGAP	– Tree (3)	– Five (5)	– Databases, technical reports, and maps. – Resolution of the CONAP Council – Technical study and proposal of Law	– There is willingness by the decision-makers to declare new MPAs – Social consensus
	Legal and regulatory framework facilitates the conservation and sustainable use of BD in the MPAs and buffer zones	– Regulations for Mangroves from the National Forest Institute – INAB, CONAP, and OCRET – Fishing Regulations (Law of Fishing and Aquaculture) (DIPESCA and MARN) – Strategic Line 8.3 for the Policy for the Integrated Management of Marine-Coastal Areas in Guatemala (PMCG) and the National Hydrographic Commission (Vice Ministry of the Ocean – Defense Ministry)	– Regulatory reforms regarding the use and management of mangroves (INAB-CONAP-OCRET) – Proposed reforms to the Law of Fishing and Aquaculture – Implementation of the Strategic Line 8.3 of the PMCG (to strengthen governance mechanisms)	– Government agreement on regulating the use and management of mangroves (INAB-CONAP) – Inter-institutional agreements – Reports of compliance of the Marine-Coastal Management Program (MCPM)	– There is political willingness to make and implement reforms – Interinstitutional coordination is optimal – There is legal feasibility
	Total annual budget from the central government (USD) assigned to the management of the MPAs and amount of financial resources received annually from private sources for the MPAs' management	– \$673,326.48	– \$1,009,989.72 (50% increase)	– Updated Financial Sustainability Scorecard – Databases with financial and accounting information of the MPAs	

**Outputs:**

- 1.1. Two (2) new multiple-use MPAs (IUCN Category VI) gazetted.
- 1.2. Congressional Decree legalizes the expansions of three (3) existing MPAs.
- 1.3. Reforms of the Mangrove Regulations of the National Forest Institute – INAB and CONAP promote mangrove conservation and its sustainable use.
- 1.4. An integrated Marine-Coastal Management Program (MCMP) is developed facilitating: a) creation of the National Administrative Council for Maritime Affairs; b) the implementation of the PMCG and development plans to enhance the protection and sustainable use of marine-coastal BD; c) effective MPA management; and d) the development of policy guidelines on the Fisheries Act (MAGA) and the National Reserves Act (OCRET) to reduce threats to marine-coastal BD and organize government and non-government sectors to support conservation efforts.
- 1.5. Strategic Guideline 8.3 of Guatemala's Policy for the Integrated Management of Marine-Coastal Zones (PMCG) improves inter-institutional coordination,

define common goals, roles, and co-responsibilities, and participatory and financial mechanisms for marine-coastal management in ten (10) coastal municipalities.					
1.6. Coastal land lease rates (OCRET) established for the financial sustainability of MPAs.					
1.7. Business plans developed and/or updated for the two (2) new and three (3) expanded MPAs.					
1.8. Municipal investment plans support MPA management through unused budgeted resources by municipalities.					
<b>Component 2:</b> Strengthening the institutional and individual capacities for effective management of MPAs and the conservation and sustainable use of marine-coastal BD.	Change in the capacity development indicators for MPAs management and the conservation and sustainable use of marine-coastal BD according to the total score of UNDP Capacity Development Scorecard (national and local government, private sector and civil society)	<u>National Government</u> - MARN: 42.86% - CONAP: 45.24% - INAB: 61.54% - DIPESCA: 43.59% <u>Municipalities</u> - Retalhuleu: 5.56% - Champerico: 25% - La Gomera: 44.44% - Iztapa: 0.00% - Taxisco: 47.22% - Guazacapan: 2.78% - Chiquimulilla: 36.11% - Pasaco: 27.78% - Moyuta: 38.39% <u>Civil Society</u> - NGO (ARCAS): 63.89% - Fishermen's Association of Champerico: 11.11% - Fishermen's Association of El Gran Pargo: 0.00% - Champerico ports companies: 4.76% - CECON: 57.14%	<u>National Government</u> - MARN: 62.86% - CONAP: 65.24% - INAB: 81.54% - DIPESCA: 63.59% <u>Municipalities</u> - Retalhuleu: 25,56% - Champerico: 45% - La Gomera: 64.44% - Iztapa: 20% - Taxisco: 67.22% - Guazacapan: 22,78% - Chiquimulilla: 56.11% - Pasaco: 47.78% - Moyuta: 58.39% <u>Civil Society</u> - NGO (ARCAS): 83.89% - Fishermen's Association of Champerico: 31.11% - Fishermen's Association of El Gran Pargo: 20% - Champerico ports companies: 24.76% - CECON: 77.14%	- Updated Capacity Development Scorecard - Project evaluation reports	- Institutional climate is conducive to coordinating efforts of national and local stakeholders around the MPAs.
	Number of management plans for existing and new MPAs	- Two (2) existing management plans outdated: Sipacate – Naranjo National Park (2002 – 2006) and Monterrico Multiple-Use Natural Reserve (2000 – 2005)	- Three (3) new management plans - Two (2) management plans updated: Sipacate – Naranjo National Park and Monterrico Multiple-Use Natural Reserve	- Approved management plan documents	- Consensus among government, private sector, and civil society stakeholders to jointly develop the management plans for MPAs.
	Number of staff from national and local	- CONAP: 14 - MARN: 6	- CONAP: 30 - MARN: 40	- Minutes and databases from the	- Monitoring of marine-coastal BD

	governments, private sectors, and civil society, including women, trained in monitoring and control of threats to marine and coastal BD	<ul style="list-style-type: none"> <li>- OCRET: 0</li> <li>- DIPESCA: 5</li> <li>- Municipalities: 0</li> <li>- NGOs: 12</li> <li>- Local associations: 50</li> <li>- Defense Ministry: 2</li> <li>- Ports Commission: 4</li> </ul>	<ul style="list-style-type: none"> <li>- OCRET: 3</li> <li>- DIPESCA: 15</li> <li>- Municipalities: 20 (2 x 10 municipalities)</li> <li>- NGOs: 50</li> <li>- Local associations: 110</li> <li>- Defense Ministry: 10</li> <li>- Ports Commission: 10</li> </ul>	training events	accepted as part of the management activities of the MPAs and their buffer zones
	Increase in the number of monitoring, control, and surveillance plans and patrolling events	<ul style="list-style-type: none"> <li>- Monitoring work plans: 0</li> <li>- Patrolling events: 0</li> </ul>	<ul style="list-style-type: none"> <li>- Work plans: 5 (one/MPA/year during 5 years)</li> <li>- Patrolling events: 120 per MPA (2/month/MPA during 5 years)</li> </ul>	<ul style="list-style-type: none"> <li>- Monthly/annual work and patrol programs</li> <li>- Patrolling reports</li> </ul>	<ul style="list-style-type: none"> <li>- Effective coordination between national and local authorities</li> </ul>
<b>Outputs:</b>					
<p>2.1. Marine units within the MARN and CONAP are established for improving MPA planning and management.</p> <p>2.2. Management plans for three (3) expanded MPAs and for two (2) new MPAs are developed and aligned with the municipal participatory land and marine-coastal use plans.</p> <p>2.3. Participatory resource use and management strategy for three (3) marine-coastal zones in the Pacific include the permitted uses and restrictions for marine-coastal BD and MPAs in ten (10) municipalities and mechanisms for conflict resolution and accountability.</p> <p>2.4. Strengthened capacity of national and local government institutions (CONAP, MARN, INAB, OCRET, DIPESCA, the Navy, and municipalities), private sector groups (fisheries, urban development, tourism, maritime ports/transportation), and civil society organizations (non-governmental MPA co-administrators and local communities) in MPAs' management and the conservation and sustainable use of marine-coastal BD.</p> <p>2.5. Extension support to small-scale artisanal fisheries for implementation of BD-friendly practices.</p> <p>2.6. A technical-scientific information system related to coastal and marine ecosystems and MPA management contributes to the monitoring and control of threats to marine-coastal BD.</p>					
<b>Component 3:</b> Addressing threats from key sectors (fisheries, maritime ports/transportation, and urban development) in order to strengthen MPAs' management and the conservation and sustainable use of marine- and coastal BD in the Pacific region of Guatemala.	Coverage (ha) of key marine-coastal ecosystems in five (5) MPAs and their buffer zones	<ul style="list-style-type: none"> <li>- Estuaries: 1,715 ha</li> <li>- Coastal lagoons: 2,141 ha</li> <li>- Herbaceous wetlands: 8,138 ha</li> <li>- Sandy beaches: 21,135 ha</li> <li>- Muddy beaches: 3,858 ha</li> </ul>	- Current levels are maintained	<ul style="list-style-type: none"> <li>- GIS: Databases and maps</li> <li>- Technical reports and publications</li> <li>- Project monitoring and evaluation reports</li> </ul>	<ul style="list-style-type: none"> <li>- There is a commitment at the local level and by the productive sectors for the conservation and sustainable use of marine-coastal BD</li> <li>- Effective monitoring and control</li> <li>- Sampling efforts are optimal</li> </ul>
	Number of hatchlings released per reproductive period of the sea turtle <i>Lepidochelys olivacea</i> in the nesting beaches of the Pacific	- 150,000	- 165,000	<ul style="list-style-type: none"> <li>- Field notes</li> <li>- Monitoring databases</li> <li>- Project technical reports</li> </ul>	

	Minimum sizes (cm) of select fish species in four (4) multiple-use MPAs and their buffer zones in conformance with FAO regulations <sup>42</sup>	<u>Commercially important species:</u> – White Shrimp ( <i>Litopenaeus vannamei</i> ) – Blue Shrimp ( <i>Penaeus stylirostris</i> ) – Brown Shrimp ( <i>Farfantepenaeus californiensis</i> ) – Hammerhead Shark ( <i>Sphyrna lewini</i> )	<u>Commercially important species:</u> – White Shrimp ( <i>Litopenaeus vannamei</i> ): 3 g or 6.6 cm. – Blue Shrimp ( <i>Penaeus stylirostris</i> ): 3 g or 6.6 cm. – Brown Shrimp ( <i>Farfantepenaeus californiensis</i> ): 3 g or 6.6 cm. – Hammerhead Shark ( <i>Sphyrna lewini</i> ): 220 cm total length for females and 178 cm for males.	– Field notes – Monitoring databases – Project technical reports	– There is a commitment by the local and commercial fishermen for the sustainable use of fishing resources (minimum sizes allowed) – Effective monitoring and control – Sampling efforts are optimal
	Change in average income received by fishermen implementing BD-friendly fishing practices.	– 0%	– 20%	– Annual surveys of fishermen’s income – Project monitoring and evaluation reports: PIR/APR, mid-term and final evaluation reports	– The fishermen are interested in participating – Stable market – Sampling efforts are optimal
	Coverage of mangroves in five (5) MPAs and their buffer zones	– 4,004.67 ha: a. Sipacate – Naranjo National Park: 1,682.32 ha; b. Monterrico Multiple-Use Natural Reserve: 1,412.77 ha; c. La Chorrera Private Natural Reserve – RAMSAR site Manchón Guamuchal: 909.58 ha d. Hawaii Multiple-Use Area: 0 e. Las Lisas – La Barrona: 0	– 12,803.10 ha: a. Sipacate – Naranjo National Park: 1,936.22 ha. b. Monterrico Multiple-Use Natural Reserve: 2,664.32 ha. c. La Chorrera Private Natural Reserve – RAMSAR site Manchón Guamuchal: 5,028.53 ha. d. Hawaii Multiple-Use Area: 1,753.44 ha. e. Las Lisas – La	– GIS: Databases and maps – Technical reports and publications – Project monitoring and evaluation reports	– There is a commitment at the local level and with the productive sectors for the conservation and sustainable use of mangroves in the Pacific – Environmental variability, including climate change, within normal ranges – Effective monitoring and

<sup>42</sup> The regulation proposed by the FAO is aimed at the minimum sizes; in the case of fisheries maximum sizes are not considered, since the concern with the stocks of fish is that the organisms reach at least their initial reproduction size, which allows them to maintain stable populations. For other species there are no regulations regarding sizes.

			Barrona: 1,420.59 ha.		control
<p><u>Outputs:</u></p> <p>3.1. Three (3) cooperation agreements between MPA authorities (CONAP and municipalities) and the urban development, fisheries, and maritime ports/transportation sectors include conservation/management committees to oversee the conservation and sustainable use of BD in four (4) MPAs and their buffer areas.</p> <p>3.2. Ballast water management program and fee system.</p> <p>3.3. Program for the prevention, reduction, and control of land-based contamination of MPAs and buffer areas defined jointly with municipalities, local communities, and key private sector groups (maritime transportation, agro-industry, tourism, and urban development).</p> <p>3.4. Strategies for reducing vulnerability and the impacts of CC to BD and ecosystem services in five (5) MPAs and their buffer areas.</p> <p>3.5. BD-friendly fishing practices reduce the impacts on two (2) key species of local importance (small-scale artisanal fisheries) and three (3) species of commercial importance in multiple use MPAs and their buffer zones.</p> <p>3.6. Participatory conservation, rehabilitation, and sustainable use of mangroves in MPAs and buffer areas of the Pacific coast favor mangrove protection and the design of riparian conservation corridors.</p>					

#### 4. TOTAL BUDGET AND WORKPLAN

<b>Award ID:</b>	00075856	Project ID(s):	00087534
<b>Award Title:</b>	Guatemala: Conservation and sustainable use of biodiversity in coastal and marine protected areas (MPAs)		
<b>Business Unit:</b>	GTM10		
<b>Project Title:</b>	Conservation and sustainable use of biodiversity in coastal and marine protected areas (MPAs)		
<b>PIMS no.</b>	4639		
<b>Implementing Partner (Executing Agency)</b>	United Nations Development Program		

GEF Component/Atlas Activity	Responsible Party/Implementing Agent	Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Amount Year 5 (USD)	Total (USD)	See Budget Note:
COMPONENT 1:	UNDP		GEF	71300	Local Consultants	31,928					31,928	1
				71400	Contractual Services Individuals	11,205	11,205	11,206			33,616	2
				71600	Travel	5,000	2,750	2,750			10,500	3
				72100	Contractual Services Companies	459,167	409,167	11,666			880,000	4
				72200	Equipment and Furniture	700					700	5
				72500	Supplies	2,000	2,000	2,000			6,000	6
				74200	Audio Visual & Print Production Cost			13,000			13,000	7
				74500	Miscellaneous Expenses	1,419	1,419	1,418			4,256	8
				75700	Training, Workshops and Confer	10,000					10,000	9
				<b>Total Component 1</b>	<b>521,419</b>	<b>426,541</b>	<b>42,040</b>	<b>0</b>	<b>0</b>	<b>990,000</b>		
COMPONENT 2:	UNDP		GEF	71400	Contractual Services Individuals	32,138	32,138	32,138	32,139	32,139	160,692	10
				71600	Travel	6,500	6,500	6,500	6,500	6,500	32,500	11
				72100	Contractual Services Companies	551,500	551,500	294,000	74,000	74,000	1,545,000	12
				72500	Supplies	1,500	1,500	1,500	1,500	1,500	7,500	13
				74500	Miscellaneous Expenses	1,462	1,462	1,462	1,461	1,461	7,308	14

					<b>Total Component 2</b>	<b>593,100</b>	<b>593,100</b>	<b>335,600</b>	<b>115,600</b>	<b>115,600</b>	<b>1,753,000</b>		
<b>COMPONENT 3 (INCLUDES MONITORING AND EVALUATION COSTS):</b>	<b>UNDP</b>	<b>GEF</b>	71400	Contractual Services Individuals	33,666	33,666	33,666	33,667	33,667		<b>168,332</b>	15	
			71600	Travel	10,900	10,900	10,900	10,900	10,900			<b>54,500</b>	16
			72100	Contractual Services Companies	411,000	411,000	366,000	366,000	366,000			<b>1,920,000</b>	17
			72200	Equipment and Furniture	14,300	3,000	3,000	3,000	3,000			<b>26,300</b>	18
			72500	Supplies	1,800	1,800	1,800	1,800	1,800			<b>9,000</b>	19
			72800	IT Equipment	3,500	300	300	300	300			<b>4,700</b>	20
			74500	Miscellaneous Expenses	2,425	2,425	2,425	2,424	2,424			<b>12,123</b>	21
				<b>Sub-Total Component 3</b>	<b>477,591</b>	<b>463,091</b>	<b>418,091</b>	<b>418,091</b>	<b>418,091</b>			<b>2,194,955</b>	
			71200	International Consultants				19,600		24,412		<b>44,012</b>	22
			71300	Local Consultants				12,600		16,538		<b>29,138</b>	23
			71400	Contractual Services Individuals	2,000	2,000	2,000	2,000	4,000			<b>12,000</b>	24
			71600	Travel				13,800		14,800		<b>28,600</b>	25
			72100	Contractual Services Companies	8,355	5,855	7,355	5,855	7,555			<b>34,975</b>	26
			72500	Supplies				150		170		<b>320</b>	27
				<b>Sub-Total M&amp;E</b>	<b>10,355</b>	<b>7,855</b>	<b>55,505</b>	<b>7,855</b>	<b>67,475</b>			<b>149,045</b>	
				<b>Total Component 3</b>	<b>487,946</b>	<b>470,946</b>	<b>473,596</b>	<b>425,946</b>	<b>485,566</b>			<b>2,344,000</b>	
<b>PROJECT MANAGEMENT</b>	<b>UNDP</b>	<b>GEF</b>	71400	Contractual Services Individuals	36,438	36,438	36,438	36,438	36,438		<b>182,190</b>	28	
			71600	Travel	37,800	7,800	7,800	7,800	7,800			<b>69,000</b>	29
			72200	Equipment and Furniture	1,060							<b>1,060</b>	30
			72500	Supplies	300	300	300	300	300			<b>1,500</b>	31
			72800	IT Equipment	3,930	230	230	230	230			<b>4,850</b>	32
			74500	Miscellaneous Expenses	577	577	577	577	577			<b>2,885</b>	33
			63500	MOSS Costs	3,056	751	751	751	751			<b>6,060</b>	34
				<b>Total Project Management</b>	<b>83,161</b>	<b>46,096</b>	<b>46,096</b>	<b>46,096</b>	<b>46,096</b>			<b>267,545</b>	
				<b>PROJECT TOTAL</b>	<b>1,685,626</b>	<b>1,536,683</b>	<b>897,332</b>	<b>587,642</b>	<b>647,262</b>	<b>5,354,545</b>			

## Total Budget Summary

<b>Donor Name</b>	<b>Amount Year 1 (USD)</b>	<b>Amount Year 2 (USD)</b>	<b>Amount Year 3 (USD)</b>	<b>Amount Year 4 (USD)</b>	<b>Amount Year 5 (USD)</b>	<b>Total (USD)</b>
GEF	1,685,626.00	1,536,683.00	897,332.00	587,642.00	647,262.00	<b>5,354,545.00</b>
CONAP	466,012.04	466,012.04	466,012.04	466,012.04	466,012.04	<b>2,330,060.18</b>
DIPESCA/MAGA	116,956.36	116,956.36	116,956.36	116,956.36	116,956.36	<b>584,781.82</b>
INFOM	2,100,000.00	2,100,000.00	2,100,000.00	2,100,000.00	2,100,000.00	<b>10,500,000.00</b>
UNDP	555,138.60	555,138.60	555,138.60	555,138.60	555,138.60	<b>2,775,693.00</b>
<b>TOTAL</b>	<b>4,923,733.00</b>	<b>4,774,790.00</b>	<b>4,135,439.00</b>	<b>3,825,749.00</b>	<b>3,885,369.00</b>	<b>21,545,080.00</b>

### Atlas Budget Summary

<b>Atlas Budgetary Account Code</b>	<b>ATLAS Budget Description</b>	<b>Amount Year 1 (USD)</b>	<b>Amount Year 2 (USD)</b>	<b>Amount Year 3 (USD)</b>	<b>Amount Year 4 (USD)</b>	<b>Amount Year 5 (USD)</b>	<b>Total (USD)</b>
71200	International Consultants	0	0	19,600	0	24,412	<b>44,012</b>
71300	Local Consultants	31,928	0	12,600	0	16,538	<b>61,066</b>
71400	Contractual Services- Individuals	115,447	115,447	115,448	104,244	106,244	<b>556,830</b>
71600	Travel	60,200	27,950	41,750	25,200	40,000	<b>195,100</b>
72100	Contractual Services - Companies	1,430,022	1,377,522	679,021	445,855	447,555	<b>4,379,975</b>
72200	Equipment and Furniture	16,060	3,000	3,000	3,000	3,000	<b>28,060</b>
72500	Supplies	5,600	5,600	5,750	3,600	3,770	<b>24,320</b>
72800	IT Equipment	7,430	530	530	530	530	<b>9,550</b>
74200	Audio Visual & Print Prod. Costs	0	0	13,000	0	0	<b>13,000</b>
74500	Miscellaneous	5,883	5,883	5,882	4,462	4,462	<b>26,572</b>
75700	Training, Workshops and Confer	10,000	0	0	0	0	<b>10,000</b>
	MOSS Costs	3,056	751	751	751	751	<b>6,060</b>
	<b>Total</b>	<b>1,685,626</b>	<b>1,536,683</b>	<b>897,332</b>	<b>587,642</b>	<b>647,262</b>	<b>5,354,545</b>

<b>Budget Line &amp; Description</b>	<b>Total (USD)</b>	<b>Percentage</b>
71200 - International Consultants	44,012	0.82

71300 - Local Consultants	61,066	1.14
71400 - Contractual Services- Individuals	556,830	10.40
71600 - Travel	195,100	3.64
72100 - Contractual Services - Companies	4,379,975	81.80
72200 - Equipment and Furniture	28,060	0.52
72500 - Supplies	24,320	0.45
72800 - IT Equipment	9,550	0.18
74200 - Audio Visual & Print Prod. Costs	13,000	0.24
74500 - Miscellaneous Expenses	26,572	0.50
75700 - Training, Workshops and Confer	10,000	0.19
MOSS Costs	6,060	0.11
<b>TOTAL</b>	<b>5,354,545</b>	<b>100.0</b>

Component	Total budget assigned	Percentage of total budget assigned
Component 1	990,000	18.5%
Component 2	1,753,000	32.7%
Component 3	2,344,000	43.8%
Project Management	267,545	5.0%
<b>TOTAL</b>	<b>5,354,545</b>	<b>100.0%</b>

### Project Budget Notes

Atlas Category	Atlas Code	Budget Notes
<b>Outcome 1. Strengthening the MPA legal, policy, and financial frameworks for the protection of marine-coastal BD and its sustainable use.</b>		
1. Local Consultants	71300	Policy Consultant: Reforms of the Mangrove Regulations of the National Forest Institute – INAB. Total cost: \$31,928; 52 weeks at \$614/week.
2. Contractual Services – Individuals	71400	Marine Policy Expert: Strengthening the MPA legal, policy, and financial frameworks. Total cost: \$33,616; 44 weeks at \$764/week.
3. Travel	71600	a) DSA Policy consultant. Total cost: \$2,250; \$75/day for 30 days. b) DSA Marine Policy Expert. Total cost: \$8,250; \$62.50/day (44 days/year during 3 years).

4. Contractual Services - Companies	72100	<p>Contractual services for:</p> <p>a) Integrated Marine-Coastal Management Program (MCMP). Total cost: \$120,000.</p> <p>b) Implementation of the Strategic Guideline 8.3 of the PMCG, as part of a national strategy to protect marine-coastal ecosystems. Total cost: \$290,000; \$29,000/municipality.</p> <p>c) Establishment of two (2) new multiple-use MPAs. Total cost: \$140,000; \$70,000/MPA.</p> <p>d) Expansions of three (3) existing MPAs. Total cost: \$210,000; \$70,000/MPA.</p> <p>e) Increase government and non-government sources of funding for MPAs. including:</p> <p>i. Coastal land lease rates (OCRET). Total cost: \$35,000.</p> <p>ii. Business plans for the two (2) new and three (3) expanded MPAs. Total cost: \$50,000; \$10,000/MPA.</p> <p>iii. Funding from unused budgeted resources by municipalities. Total cost: \$35,000.</p>
5. Equipment and Furniture	72200	<p>a) Video beam. Total cost: \$500.</p> <p>b) Digital camera. Total cost: \$200.</p>
6. Supplies	72500	Office and field supplies for strengthening the MPA legal, policy, and financial frameworks. Total cost \$6,000; \$2,000/yr during 3 years.
7. Audiovisual & Print Prod. Costs	74200	Publication of the MCMP and informational booklets. Total cost: \$13,000.
8. Miscellaneous Expenses	74500	Incidental expenses related to strengthening the MPA legal, policy, and financial frameworks. Total cost: \$4256.
9. Training, Workshops and Confer	75700	Five (5) consultation workshops with national, regional, and local stakeholders to reform the Mangrove Regulation of the INAB. Total cost: \$10,000, \$2,000/event.
<b>Component 2: Strengthening the institutional and individual capacities for effective management of MPAs and the conservation and sustainable use of marine-coastal BD.</b>		
10. Contractual Services – Individuals	71400	<p>a) MPA Management Expert: Strengthening the institutional and individual capacities for effective management of MPAs and BD conservation. Total cost: \$36,672; 48 weeks at \$764/week.</p> <p>b) Technical assistant (part time) (2): field coordination of projects activities. Total cost: \$124,020; 260 weeks at \$477/week.</p>
11. Travel	71600	<p>a) MPA Management Expert: \$9,375; \$62.50/day (30 days/year during 5 years).</p> <p>b) DSA Technical Assistant (2): \$23,125; \$62.50/day (37 days/year during 5 years).</p>

12. Contractual Services - Companies	72100	<p>Contractual services for:</p> <p>a) Marine units within the MARN and CONAP are established. Total cost: \$80,000; \$40,000/unit.</p> <p>b) Management plans for three (3) expanded MPAs and for two (2) new MPAs. Total cost: \$275,000; \$55,000/MPA.</p> <p>c) Participatory resource use and management strategy for three (3) marine-coastal zones in the Pacific of Guatemala. Total cost: \$660,000; \$220,000/zone.</p> <p>d) Training program to strengthened the capacity of national and local governments, private sectors, and civil society members in MPA management and BD conservation and sustainable use. Total cost: \$70,000.</p> <p>e) Extension support to small-scale artisanal fisheries for implementation of BD-friendly practices. Total cost: \$300,000.</p> <p>f) Technical-scientific information system related to coastal and marine ecosystems and MPA management. Total cost: \$160,000.</p>
13. Supplies	72500	Office and field supplies for strengthening the institutional and individual capacities for effective management of MPAs and BD conservation. Total cost \$7,500; \$1,500/yr during 5 years.
14. Miscellaneous Expenses	74500	Incidental expenses related to strengthening the institutional and individual capacities for effective management of MPAs and the conservation and sustainable use of marine-coastal BD. Total cost: \$7,308.
<b>Component 3: Addressing threats from key sectors (fisheries, maritime ports/transportation, and urban development) in order to strengthen MPA management and the conservation and sustainable use of marine-and coastal BD in the Pacific region of Guatemala.</b>		
15. Contractual Services – Individuals	71400	<p>a) Marine-coastal BD Expert: technical assistance to address threats to BD and MPAs from key sectors. Total cost: \$44,312; 58 weeks at \$764/week.</p> <p>b) Technical assistant (part time) (2): field coordination of projects activities. Total cost: \$124,020; 260 weeks at \$477/week.</p>
16. Travel	71600	<p>a) Local transportation. Total cost: \$12,000; \$2,400/year during 5 years.</p> <p>b) Marine-coastal BD Expert: \$9,375; \$62.50/day (30 days/year during 5 years).</p> <p>c) Gas (2 motorcycles). Total cost: \$10,000; \$2,000/year during 5 years.</p> <p>d) DSA Technical Assistant (2): \$23,125; \$62.50/day (37 days/year during 5 years).</p>

17. Contractual Services - Companies	72100	<p>Contractual services for:</p> <p>a) Three (3) cooperation agreements between MPA authorities (CONAP and municipalities) and the coastal development, fisheries, and maritime ports/transportation sectors. Total cost: \$90,000; \$30,000/agreement.</p> <p>b) Ballast water management program and fee system. Total cost: \$200,000.</p> <p>c) Program for the prevention, reduction, and control of land-based contamination of MPAs and buffer areas. Total cost: \$750,000; \$150,000/MPA for 5 MPAs.</p> <p>d) Vulnerability analysis of the impacts of CC to BD and ecosystem services in five (5) MPAs and their buffer areas. Total cost: \$250,000; \$50,000/MPA for 5 MPAs.</p> <p>e) BD-friendly fishing practices reduce the impacts on two (2) key species of local importance (small-scale artisanal fisheries) and three (3) species of commercial importance in multiple use MPAs and their buffer zones. Total cost: \$330,000; \$165,000/MPA for 2 MPAs.</p> <p>f) Participatory conservation, rehabilitation, and sustainable use of mangroves in 5 MPAs and buffer areas. Total cost: \$300,000; \$60,000/MPA.</p>
18. Equipment and Furniture	72200	<p>a) Two (2) motorcycles. Total cost: \$10,000; \$5,000/unit.</p> <p>b) Maintenance &amp; Insurance for 2 motorcycles: Total cost: \$15,000; \$1,500/year during 5 years.</p> <p>c) Video beam (2). Total cost: \$1,000; \$500/unit.</p> <p>d) Digital camera (2). Total cost: \$300; \$150/unit.</p>
19. Supplies	72500	Office and field supplies. Total cost: \$9,000; \$1,800/year during 5 years.
20. IT Equipment	72800	<p>a) Two (2) computers: technical assistant/field coordinators. Total cost: \$2,200, \$1,100/unit.</p> <p>b) Two (2) printers. Total cost: \$1,000; \$500/unit.</p> <p>c) IT supplies &amp; maintenance. Total cost: \$1,500; \$300/year during 5 years.</p>
21. Miscellaneous Expenses	74500	Incidental expenses related to addressing threats from key sectors. Total cost: \$12,123.
<b>Monitoring and Evaluation</b>		
22. International Consultants	71200	<p>a) Mid-term project evaluation: Total cost: \$19,600; 4 weeks at \$4,900/week.</p> <p>b) Final project evaluation. Total cost: \$24,412; 4.5 weeks at \$5,425/week.</p>
23. Local Consultants	71300	<p>a) Mid-term project evaluation: Total cost: \$12,600; 4 weeks at \$3,150/week.</p> <p>b) Final project evaluation. Total cost: \$16,538; 4.5 weeks at \$3,675/week.</p>
24. Contractual Services – Individuals	71400	<p>a) Review and systematization of lessons learned and best practices. Total cost: \$5,000; \$1,000/yr during 5 years.</p> <p>b) Terminal report. Total cost: \$2,000.</p> <p>c) Technical reports on specific issues or areas of activity of the project. Total cost: \$5,000; \$1,000/yr during 5 years.</p>
25. Travel	71600	<p>a) Travel costs for mid-term evaluation. Total cost: \$13,800.</p> <p>b) Travel costs for final evaluation: Total cost \$14,800.</p>

26. Contractual Services – Companies	71400	a) Project Inception Workshop. Total cost \$2,500. b) Mid-term (\$1,500) and final evaluation (\$1,700) related workshops. Total cost: \$3,200. c) Project board meetings. Total cost: \$2,500; \$500/yr. d) External audit (5). Total cost: \$26,775; \$5,355/yr.
27. Supplies	72500	Supplies for mid-term (\$150) and final (\$170) evaluations. Total cost: \$320.
<b>Project Management</b>		
28. Contractual Services- Individuals	71400	a) Project coordinator (part time): project planning, day-to-day management of project activities, project reporting, maintaining key relationships among stakeholders. Total cost: \$84,040; 110 weeks at \$764/week. b) Secretary (part time): overall project assistance. Total cost: \$43,160; 130 weeks at \$332/week. c) Finance Assistant (part time). Responsible for financial management of the project, accounting, purchasing, and reporting. Total cost: \$54,990; 130 weeks at \$423/week.
29. Travel	71600	a) Vehicle. Total cost: \$30,000. b) Gas. Total cost: \$11,500; \$2,300/year during 5 years. c) Maintenance & Insurance. Total cost: \$19,250; \$3,850/year. d) DSA Project Coordinator. Total cost: \$8,250; \$62.50/day (132 days during 5 years).
30. Equipment and Furniture	72200	a) Three (3) desks and chairs for PMU staff. Total cost: \$600; \$150/unit b) Video beam. Total cost: \$460. c) Digital camera. Total cost: \$150.
31. Supplies	72500	Office supplies. Total cost: \$1,500; \$300/year during 5 years.
32. IT Equipment	72800	a) Three (3) computers. Total cost: \$3,300, \$1,100/unit. b) One (1) printer. Total cost: \$400; \$400/unit. c) IT supplies & maintenance. Total cost: \$1,150; \$230/year during 5 years.
33. Miscellaneous Expenses	74500	Incidental expenses related to project management. Total cost: \$2,885; \$577/year during 5 years.

34. MOSS Costs

Telecommunications

a) Two (2) portable radios. Total cost: \$620; \$310/unit.

Medical Support

b) One (1) first aid kit for vehicle. Total cost: \$44.

c) One (1) first aid kit for office. Total cost: \$350.

Vehicles

d) One (1) ABC Extinguisher for vehicle. Total cost: \$38.

e) One (1) road Emergency Kit. Total cost: \$190.

f) GPS. Total cost: \$329.

g) GPS service. Total cost: \$885; \$177/year.

h) One (1) vehicle base radio. Total cost: \$532.

i) Protective coating. Total cost: \$139.

Offices and Facilities

j) One (1) ABC Extinguisher for office. Total cost: \$63.

Shared MOSS Costs

k) Maintenance of the telecommunication network. Total cost: \$950; \$190/yr during 5 years.

l) Security training (4 persons). Total cost: \$1,020; \$255/year during 5 years.

Other

m) E-mail account. Total cost: \$900; \$15/month.

## 5. MANAGEMENT ARRANGEMENTS

159. The Project will be executed under the Direct Implementing Modality (DIM) as requested by the GoG and according to the standards and regulations of the UNDP. This modality of implementation will facilitate communication between sector institutions and in coordination with other UNDP projects, such as the GEF project *Sustainable forest management and multiple global environmental benefits* and the UNFCCC Adaptation Fund project *Climate change-resilient productive landscapes and socio-economic networks advanced in Guatemala*. In addition, the project will have an advisory committee to ensure a focus on gender and human rights, as well as other cross-cutting issues. The UNDP will identify partners responsible for carrying out project activities. These partners may include the central government, local government, NGOs, and UN agencies. In the case of NGOs and UN agencies, their own financial rules are applicable to the activities they carry out, provided these are not inconsistent with those of UNDP. If the government implements part of the project, as a responsible party their own rules and regulations can apply, or alternatively, establish procedures agreed to with UNDP in all cases ensuring they are not inconsistent with those rules and regulations of UNDP.

160. In its role as GEF Implementing Agency (IA) for this project UNDP shall provide project cycle management services as defined by the GEF Council (described in Annex 8.8 – Project Management Services) and will also execute the project under DIM.

161. The duration of the project will be 5 years. Implementation of the project will be carried out under the general guidance of a Project Board/Project Steering Committee (PSC), specifically formed for this purpose. According to UNDP policy, each project must install a Project Board as the highest body responsible for making management decisions and advising the Project Manager or Coordinator when guidance is required, including approval of revisions to the budget. The project assurance reviews conducted by this group are carried out according to designated decision points during the development of the project or, as necessary, when the Project Manager or Coordinator deems necessary. The Board is consulted by the Project Manager or Coordinator when it comes to making decisions in the event that the project limits have been exceeded.

162. The above group includes the following two extensive functions: a) Executive Agency: Represents the tenure of the project and chairs the Board; and b) Senior Provider: An individual or group representing the interests of parties who provide funding and/or technical assistance to the project. Their main function on the Board is to provide guidance on the technical feasibility of the project.

163. The main responsibilities of the Project Board are:

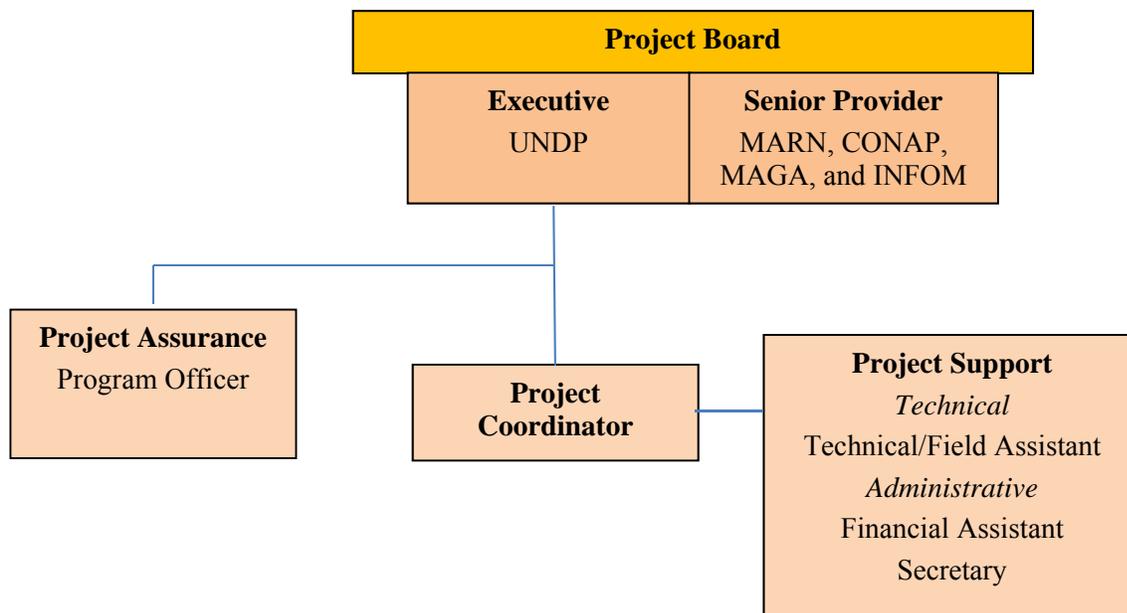
- Approve the project work plan;
- Make decisions regarding the milestones defined in the Annual Operational Plan;
- Monitor project development; ensure that activities are contextualized in the strategies and objectives of the Project;
- Approve budget and substantial project revisions and address issues relating to the Project Manager's report; and
- Approve the project plans and technical reports and financial progress.

164. The Project Board will be composed as follows:

- The UNDP, who will assume the role of Executive Agency.
- MARN, CONAP, MAGA, and INFOM who will assume the role of the Senior Providers.
- The Project Board shall meet regularly every six months and in extraordinary sessions when convened by the Executive Agency.
- Project Assurance: The UNDP will assign a Program Officer to support the Project Board in overseeing and monitoring the project in an objective and independent way.

165. Local stakeholders will have an additional mechanism to influence the project through a *Local Steering Committee* (LSC), which will consist of appointed members, and whose composition, responsibilities, and function will be determined by the stakeholders themselves. The LSC for the implementation phase will give continuity to the LSC that existed during the PPG phase. The LSC will meet regularly to discuss the project's progress and to communicate interests and concerns to the Project Coordinator. The committee may also have a seat on the Project Board/PSC. Subject to confirmation at project inception, the LSC may also designate sub-committees to discuss specific issues such as the mainstreaming of gender considerations into project operations.

166. The organizational chart for the Project is as follows:



167. Project implementation will be the responsibility of the *Project Implementation Unit* (PIU). The PIU will be led by a *Project Coordinator* (PC) who will be the signing authority of requests to UNDP for disbursements of project funds. The PC will lead a team composed of a financial assistant and a secretary, based in Guatemala City. The project financial assistant will have as his/her principal role to ensure the fluidity of administrative procedures and budget disbursements from UNDP to the PIU. At the community level, a technical assistant will be contracted to provide follow up to initiatives promoted by the project.

168. In addition to the specific positions underlined above, a series of sub-contracts will be necessary in order to ensure and complement the technical capacity of the members of the PIU. These contracts will be entered into in accordance with the guidelines of the UNDP and the terms of reference defined by the PC during the first month of the implementation phase or annually, in accordance with the project's work plan.

169. Moreover, the project's financial management will be supported by the UNDP office in Guatemala. To this end, in the first 45 days after the start of the project, a guide should be made that will define levels of financial authority, responsibility, and accountability. Among others, the guide will include the following:

- Guidelines for recording all expenses in the combined delivery report (CDR).

- Establishment of a project accounting system to maintain updated information on the financial situation.
- Mechanisms for expenditure control and segregation of duties.
- A system for the management of unliquidated obligations.
- Procedures for making payments and monitoring of contractor performance.
- Financial regulations, policies, and procedures applicable to UNDP DIM projects.
- Procedures for approving budgets.
- Implementing the internal control framework.

## 6. MONITORING FRAMEWORK AND EVALUATION

170. Project M&E will be conducted in accordance with the established UNDP and GEF procedures and will be provided by the project team and the UNDP-CO with support from the UNDP/GEF RCU in Panama City. The Project Results Framework in Section 3 provides performance and impact indicators for project implementation along with their corresponding means of verification. The M&E plan includes an inception report, project implementation reviews, quarterly and annual review reports, mid-term and final evaluations, and audits. The following sections outline the principle components of the M&E plan and indicative cost estimates related to M&E activities. The project's M&E plan will be presented and finalized in the Project Inception Report following a collective fine-tuning of indicators, means of verification, and the full definition of project staff M&E responsibilities.

### *Project Inception Phase*

171. A **Project Inception Workshop (IW)** will be held within the first three (3) months of project start-up with the full project team, relevant GoG counterparts, co-financing partners, the UNDP-CO, and representation from the UNDP-GEF RCU, as well as UNDP-GEF headquarters as appropriate.

172. A fundamental objective of this IW will be to help the project team to understand and take ownership of the project's goal and objectives, as well as finalize preparation of the project's first annual work plan on the basis of the Project Results Framework and GEF Tracking Tool for BD (BD-1). This will include reviewing the results framework (indicators, means of verification, and assumptions), imparting additional detail as needed, and on the basis of this exercise, finalizing the AWP with precise and measurable performance indicators, and in a manner consistent with the expected outcomes for the project.

173. Additionally, the purpose and objective of the IW will be to: a) introduce project staff to the UNDP-GEF team that will support the project during its implementation, namely the CO and responsible RCU staff; b) detail the roles, support services, and complementary responsibilities of UNDP-CO and RCU staff in relation to the project team; c) provide a detailed overview of UNDP-GEF reporting and M&E requirements, with particular emphasis on the Annual Project Implementation Reviews (PIRs) and related documentation, the Annual Project Report (APR), as well as Mid-term and Final evaluations. Equally, the IW will provide an opportunity to inform the project team on UNDP project-related budgetary planning, budget reviews including arrangements for annual audit, and mandatory budget re-phrasings.

174. The IW will also provide an opportunity for all parties to understand their roles, functions, and responsibilities within the project's decision-making structures, including reporting and communication lines and conflict resolution mechanisms. The Terms of Reference (ToRs) for project staff and decision-making structures will be discussed, as needed, in order to clarify each party's responsibilities during the project's implementation phase. The IW will also be used to plan and schedule the Tripartite Committee Reviews.

### *Monitoring Responsibilities and Events*

175. A detailed schedule of project review meetings will be developed by the project management in consultation with project implementation partners and stakeholder representatives and incorporated in the Project Inception Report. Such a schedule will include: a) tentative timeframes for Tripartite Committee (TPC) Reviews, Steering Committee (or relevant advisory and/or coordination mechanisms); and b) project-related M&E activities.

176. **Day-to-day monitoring** of implementation progress will be the responsibility of the PC based on the project's AWP and its indicators. The PC will inform the UNDP-CO of any delays or difficulties faced during implementation so that the appropriate support or corrective measures can be adopted in a timely and remedial fashion. The PC will fine-tune the progress and performance/impact indicators of the project in consultation with the full project team at the IW with support from UNDP-CO and assisted by the UNDP-GEF RCU. Specific targets for the first-year implementation progress indicators together with their means of verification will be developed at this workshop. These will be used to assess whether implementation is proceeding at the intended pace and in the right direction and will form part of the AWP. Targets and indicators for subsequent years will be defined annually as part of the internal evaluation and planning processes undertaken by the project team.

177. Measurement of impact indicators related to global benefits will occur according to the schedules defined through specific studies that are to form part of the project's activities and specified in the Project Results Framework.

178. **Periodic monitoring** of implementation progress will be undertaken by the UNDP CO through quarterly meetings with the project implementation team, or more frequently as deemed necessary. This will allow parties to take stock of and to troubleshoot any problems pertaining to the project in a timely fashion to ensure the timely implementation of project activities. The UNDP CO and UNDP-GEF RCU, as appropriate, will conduct yearly visits to the project's field sites, or more often based on an agreed upon schedule to be detailed in the project's Inception Report and AWPs to assess first-hand project progress. Any other member of the Steering Committee can also take part in these trips, as decided by the Steering Committee. A Field Visit Report will be prepared by the UNDP CO and circulated no less than one month after the visit to the project team, all Steering Committee members, and UNDP-GEF.

179. **Annual monitoring** will occur through the Tripartite Committee (TPC) Reviews. This is the highest policy-level meeting of the parties directly involved in the implementation of a project. The project will be subject to TPC review at least once every year. The first such meeting will be held within the first twelve (12) months of the start of full implementation. The project proponent will prepare an APR and submit it to UNDP CO and the UNDP-GEF regional office at least two weeks prior to the TPC for review and comments.

180. The APR will be used as one of the basic documents for discussions in the TPC. The PC will present the APR to the TPC, highlighting policy issues and recommendations for the decision of the TPC participants. The PC will also inform the participants of any agreement reached by stakeholders during the APR preparation on how to resolve operational issues. Separate reviews of each project component may also be conducted if necessary. The TPC has the authority to suspend disbursement if project performance benchmarks are not met. Benchmarks will be developed at the IW, based on delivery rates and qualitative assessments of achievements of outputs.

181. The **Terminal TPC Review** is held in the last month of project operations. The PC is responsible for preparing the Terminal Report and submitting it to UNDP-CO and to UNDP-GEF RCU. It shall be prepared in draft at least two months in advance of the TPC meeting in order to allow review, and will serve as the basis for discussions in the TPC meeting. The terminal TPC review considers the implementation of the project as a whole, paying particular attention to whether the project has achieved its stated objectives and contributed to the broader environmental objective. It decides whether any actions are still necessary, particularly in relation to sustainability of project results, and acts as a vehicle through which lessons learned can be captured to feed into other projects being implemented.

### ***Project Monitoring Reporting***

182. The PC, in conjunction with the UNDP-GEF extended team, will be responsible for the preparation and submission of the following reports that form part of the monitoring process and that are mandatory.

183. A **Project Inception Report (IR)** will be prepared immediately following the IW. It will include a detailed First Year/AWP divided in quarterly timeframes detailing the activities and progress indicators that will guide implementation during the first year of the project. This work plan will include the dates of specific field visits, support missions from the UNDP CO or the RCU or consultants, as well as timeframes for meetings of the project's decision-making structures. The IR will also include the detailed project budget for the first full year of implementation, prepared on the basis of the AWP, and including any M&E requirements to effectively measure project performance during the targeted 12-month timeframe. The IR will include a more detailed narrative on the institutional roles, responsibilities, coordinating actions, and feedback mechanisms of project-related partners. In addition, a section will be included on progress to date on project establishment and start-up activities and an update of any changed external conditions that may affect project implementation. When finalized, the IR will be circulated to project counterparts who will be given a period of one calendar month in which to respond with comments or queries. Prior to the IR's circulation, the UNDP CO and UNDP-GEF's RCU will review the document.

184. The **Annual Project Report (APR)** is a UNDP requirement and part of UNDP CO central oversight, monitoring, and project management. It is a self-assessment report by the project management to the CO and provides input to the country office reporting process and the Results-Oriented Annual Report (ROAR), as well as forming a key input to the TPC Review. An APR will be prepared on an annual basis prior to the TPC review, to reflect progress achieved in meeting the project's AWP and assess performance of the project in contributing to intended outcomes through outputs and partnership work. The format of the APR is flexible but should include the following sections: a) project risks, issues, and adaptive management; b) project progress against pre-defined indicators and targets, c) outcome performance; and d) lessons learned and best practices.

185. The **Project Implementation Review (PIR)** is an annual monitoring process mandated by the GEF. It has become an essential management and monitoring tool for project managers and offers the main vehicle for extracting lessons from ongoing projects. Once the project has been under implementation for one year, a PIR must be completed by the CO together with the project management. The PIR can be prepared any time during the year and ideally prior to the TPC review. The PIR should then be discussed in the TPC meeting so that the result would be a PIR that has been agreed upon by the project, the Implementing Partner, UNDP CO, and the RCU in Panama. The individual PIRs are collected, reviewed, and analyzed by the RCU prior to sending them to the focal area clusters at the UNDP-GEF headquarters. In light of the similarities of both APR and PIR, UNDP-GEF has prepared a harmonized format for reference.

186. **Quarterly Progress Reports** outlining main updates in project progress will be provided quarterly to the local UNDP CO and the UNDP-GEF RCU by the project team. Progress made shall be monitored in the UNDP Enhanced Results Based Management Platform and the risk log should be regularly updated in ATLAS based on the initial risk analysis included in Annex 8.1.

187. **Specific Thematic Reports** focusing on specific issues or areas of activity will be prepared by the project team when requested by UNDP, UNDP-GEF, or the Implementing Partner. The request for a Thematic Report will be provided to the project team in written form by UNDP and will clearly state the issue or activities that need to be reported on. These reports can be used as a form of lessons learned exercise, specific oversight in key areas, or as troubleshooting exercises to evaluate and overcome obstacles and difficulties encountered. UNDP is requested to minimize its requests for Thematic Reports, and when such are necessary will allow reasonable timeframes for their preparation by the project team.

188. A **Project Terminal Report** will be prepared by the project team during the last three (3) months of the project. This comprehensive report will summarize all activities, achievements, and outputs of the project; lessons learned; objectives met or not achieved; structures and systems implemented, etc.; and will be the definitive statement of the project's activities during its lifetime. It will also lay out recommendations for any further steps that may need to be taken to ensure sustainability and replicability of the project's activities.

189. **Technical Reports** are detailed documents covering specific areas of analysis or scientific specializations within the overall project. As part of the Inception Report, the project team will prepare a draft Reports List detailing the technical reports that are expected to be prepared on key areas of activity during the course of the project, and tentative due dates. Where necessary this Reports List will be revised and updated, and included in subsequent APRs. Technical Reports may also be prepared by external consultants and should be comprehensive and specialized analyses of clearly defined areas of research within the framework of the project and its sites. These technical reports will represent, as appropriate, the project's substantive contribution to specific areas, and will be used in efforts to disseminate relevant information and best practices at local, national, and international levels. Technical Reports have a broader function and the frequency and nature is project-specific.

190. **Project Publications** will form a key method of crystallizing and disseminating the results and achievements of the project. These publications may be scientific or informational texts on the activities and achievements of the project in the form of journal articles or multimedia publications. These publications can be based on Technical Reports, depending upon the relevance and scientific worth of these reports, or may be summaries or compilations of a series of Technical Reports and other research. The project team will determine if any of the Technical Reports merit formal publication, and (in consultation with UNDP, the GoG, and other relevant stakeholder groups) will also plan and produce these publications in a consistent and recognizable format. Project resources will need to be defined and allocated for these activities as appropriate and in a manner commensurate with the project's budget.

### ***Independent Evaluation***

191. The project will be subjected to at least two independent external evaluations as follows:

192. An independent **Mid-Term Evaluation** will be undertaken at exactly the mid-point of the project lifetime. The Mid-Term Evaluation will determine progress being made towards the achievement of outcomes and will identify course correction if needed. It will focus on the effectiveness, efficiency, and timeliness of project implementation; will highlight issues requiring decisions and actions; and will present initial lessons learned about project design, implementation, and management. Findings of this review will be incorporated as recommendations for enhanced implementation during the final half of the project's term. The organization, ToRs, and timing of the mid-term evaluation will be decided after consultation between the parties to the project document. The ToRs for this Mid-Term Evaluation will be prepared by the UNDP-CO based on guidance from the UNDP-GEF RCU. The management response of the evaluation will be uploaded to the UNDP corporate systems, in particular the UNDP Evaluation Resource Center (ERC). All GEF Tracking Tools for the project will also be completed during the mid-term evaluation cycle.

193. An independent **Final Evaluation** will take place three months prior to the terminal Steering Committee meeting, and will focus on the same issues as the Mid-Term Evaluation. The Final Evaluation will also look at impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental goals. The Final Evaluation should also provide recommendations for follow-up activities and requires a management response which should be uploaded to PIMS and to the UNDP ERC. The ToRs for this evaluation will be prepared by the UNDP-CO based on guidance from the UNDP-GEF RCU. All GEF Tracking Tools for the project will also be completed during the final evaluation.

### ***Audits***

194. The project will be audited in accordance with the UNDP Financial Regulations and Rules and applicable audit policies.

### ***Learning and Knowledge Sharing***

195. Results from the project will be disseminated within and beyond the project intervention zone through a number of existing information sharing networks and forums. In addition, the project will participate, as relevant and appropriate, in UNDP-GEF sponsored networks, organized for Senior Personnel working on projects that share common characteristics. UNDP-GEF RCU has established an electronic platform for sharing lessons between the project managers. The project will identify and participate, as relevant and appropriate, in scientific, policy-based and/or any other networks, which may be of benefit to project implementation through lessons learned. The project will identify, analyze, and share lessons learned that might be beneficial in the design and implementation of similar future projects. Identifying and analyzing lessons learned is an ongoing process, and the need to communicate such lessons as one of the project's central contributions is a requirement to be delivered not less frequently than once every twelve (12) months. UNDP-GEF shall provide a format and assist the project team in categorizing, documenting, and reporting on lessons learned. Specifically, the project will ensure coordination in terms of avoiding overlap, sharing best practices, and generating knowledge products of best practices in MPA management and marine-coastal BD conservation with the current projects of Guatemala's portfolio.

### ***M&E work plan and budget***

<b>Type of M&amp;E activity</b>	<b>Responsible Parties</b>	<b>Budget US\$*</b>	<b>Time frame</b>
Inception Workshop	<ul style="list-style-type: none"> <li>• Project Coordinator</li> <li>• UNDP CO</li> <li>• UNDP GEF</li> </ul>	2,500 (GEF) 2,000 (CoF)	Within first two months of project start-up
Inception Report	<ul style="list-style-type: none"> <li>• Project Team</li> <li>• UNDP CO</li> </ul>	None	Immediately following IW
Measurement of Means of Verification of project results	<ul style="list-style-type: none"> <li>• UNDP GEF Regional Technical Advisor/Project Coordinator will oversee the hiring of specific studies and institutions, and delegate responsibilities to relevant team members</li> </ul>	To be determined during the initial phase of implementation of the project and the IW.	Start, mid-point, and end of project
Measurement of Means of Verification for Project Progress and Performance (measured on an annual basis)	<ul style="list-style-type: none"> <li>• Oversight by Project Coordinator</li> <li>• Project Team</li> </ul>	No separate M&E cost: to be absorbed within salary and travel costs of project staff	Annually prior to APR/PIR and to the definition of annual work plans
APR and PIR	<ul style="list-style-type: none"> <li>• Project Coordinator and Team</li> <li>• UNDP-CO</li> <li>• UNDP-GEF</li> </ul>	None	Annually
Tripartite Committee Reviews and Reports	<ul style="list-style-type: none"> <li>• GoG counterparts</li> <li>• UNDP CO</li> <li>• UNDP GEF RCU</li> </ul>	None	Annually, upon receipt of APR
Steering Committee/Board Meetings	<ul style="list-style-type: none"> <li>• Project Coordinator</li> <li>• UNCP-CO</li> <li>• GoG representatives</li> </ul>	2,500 (GEF) 3,000 (CoF) (1,100 per year)	Two times per year
Quarterly progress reports	<ul style="list-style-type: none"> <li>• Project Coordinator and Team</li> </ul>	None	Quarterly
Technical reports	<ul style="list-style-type: none"> <li>• Project Coordinator and Team</li> <li>• Hired consultants as needed</li> </ul>	5,000 (GEF) 4,000 (CoF)	To be determined by Project Team and

			UNDP-CO
Mid-term Evaluation	<ul style="list-style-type: none"> <li>• Project Coordinator and Team</li> <li>• UNDP- CO</li> <li>• UNDP-GEF RCU</li> <li>• External Consultants (evaluation team)</li> </ul>	47,650 (GEF) 8,000 (CoF)	At the mid-point of project implementation
Final Evaluation	<ul style="list-style-type: none"> <li>• Project Coordinator and Team</li> <li>• UNDP- CO</li> <li>• UNDP-GEF RCU</li> <li>• External Consultants (evaluation team)</li> </ul>	57,620 (GEF) 13,000 (CoF)	At least three months before the end of project implementation
Terminal Report	<ul style="list-style-type: none"> <li>• Project Team</li> <li>• UNDP-CO</li> </ul>	2,000 (GEF) 2,000 (CoF)	At least three months before the end of the project
Lessons learned	<ul style="list-style-type: none"> <li>• Project Coordinator and Team</li> <li>• UNDP-GEF RCU (suggested formats for documenting best practices, etc.)</li> </ul>	5,000 (GEF) 4,000 (CoF) (1,800 per year)	Yearly
Audit	<ul style="list-style-type: none"> <li>• UNDP-CO</li> <li>• Project Coordinator and Team</li> <li>• Auditors</li> </ul>	26,775 (GEF) (5,355 per year)	Yearly
Visits to field sites	<ul style="list-style-type: none"> <li>• UNDP-CO</li> <li>• UNDP-GEF RCU (as appropriate)</li> <li>• GoG representatives</li> </ul>	No separate M&E cost: paid from IA fees and operational budget	Yearly
<b>TOTAL INDICATIVE COST</b> (*Excluding project team staff time and UNDP staff and travel expenses)		GEF	149,045
		CoF	36,000
		<b>Total</b>	<b>185,045</b>

## 7. LEGAL CONTEXT

196. This Project Document shall be the instrument referred to as such in Article I of the Standard Basic Assistance Agreement (SBAA) between the GoG and the UNDP (available at [http://www.pnud.org.gt/downloads/Acuerdo\\_MG\\_Guatemala-PNUD.pdf](http://www.pnud.org.gt/downloads/Acuerdo_MG_Guatemala-PNUD.pdf)), signed by the parties on July 20, 1998 and approved by Decree No. 17-2000 (March 29, 2000). The host country implementing agency shall, for the purpose of the SBAA, refer to the government co-operating agency described in that Agreement.

197. The UNDP Resident Representative in Guatemala is authorized to effect in writing the following types of revision to this Project Document, provided that he/she has verified the agreement thereto by the UNDP-GEF Unit and is assured that the other signatories to the Project Document have no objection to the proposed changes: a) revision of, or addition to, any of the annexes to the Project Document; b) revisions which do not involve significant changes in the immediate objectives, outputs or activities of the project, but are caused by the rearrangement of the inputs already agreed to or by cost increases due to inflation; c) mandatory annual revisions which re-phase the delivery of agreed project inputs or increased expert or other costs due to inflation or take into account agency expenditure flexibility; and d) inclusion of additional annexes and attachments only as set out here in this Project Document.

198. This document, together with the CPAP, which was signed by the GoG and UNDP and is incorporated by reference, constitutes a Project Document as referred to in the SBAA. All CPAP provisions apply to this document.

199. Consistent with the Article III of the SBAA, the responsibility for the safety and security of the Implementing Partner and its personnel and property, and of UNDP's property in the Implementing Partner's custody, rests with the Implementing Partner.

200. The Implementing Partner shall: a) put into place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried out; and b) assume all risks and liabilities related to the Implementing Partner's security and the full implementation of the security plan.

201. UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required herein shall be deemed a breach of this agreement.

202. The Implementing Partner agrees to undertake all reasonable efforts to ensure that none of the UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism, and that the recipients of any amounts provided by UNDP herein do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via <http://www.un.org/Docs/sc/committees/1267/1267ListEng.htm>. This provision must be included in all sub-contracts or sub-agreements entered into under this Project Document.

## 8. ANNEXES

### 8.1. Risk Analysis

<b>Project Title:</b> Conservation and sustainable use of biodiversity in coastal and marine protected areas (MPAs)	<b>Award ID:</b> 00075856	<b>Date:</b>
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#	Description	Date Identified	Type	Probability and Impact	Countermeasures/ Management Response	Owner	Submitted, Updated By	Last Update	Status
1	Increase in threats to BD beyond currently projected levels	November 8, 2011 (at PIF)	Institutional	Enter probability on a scale from 1 (low) to 5 (high) P = 3  Enter impact on a scale from 1 (low) to 5 (high) I = 4	To reduce this risk the project will strengthen the legal and institutional structure for the protection and sustainable use of the country's coastal and marine BD. The project will work closely with coastal municipal governments to provide them with participatory planning tools that will include the permitted uses and restrictions for marine-coastal BD to facilitate the monitoring and control of threats. The participation of private sectors and local communities in the project and the development of mechanisms, including resources use agreements (control of ballast water; prevention, reduction, and control of land-based contamination in coastal and marine areas; and reduction of threats from artisanal fishing) and for joint conservation and management of MPAs	UNDP, CONAP	UNDP	August 2013 (at CEO Endorsement Request)	Risk continues to persist

					(including roles, responsibilities, and derived benefits) will contribute also contribute to mitigate this risk.				
2	Short-term negative impacts on local communities' livelihoods caused by restrictions on resource use	August 29, 2013 (at CEO Endorsement Request	Social	Enter probability on a scale from 1 (low) to 5 (high) P = 2  Enter impact on a scale from 1 (low) to 5 (high) I = 2	The project will have positive medium- and long-term impacts on coastal rural and urban communities; however, in the short term there may be negative impacts on local communities' livelihoods caused by restrictions on resources use when existing MPAs are expanded or new MPAs are created. To mitigate this risk, local communities will participate actively in the MPA expansion and creation processes, which will be done in close consultation with them and according to Article 11 of the Regulation of the Protected Areas Law Decree 4-89 and its amendments, which states that the establishment of PAs should consider the effects of their creation on local communities. Additionally, the development of the MPA management plans will be	UNDP, CONAP, Municipalities	UNDP	August 2013 (at CEO Endorsement Request)	Risk continues to persist

					<p>a participatory process, during which the local communities will be able to present their viewpoints and define the criteria for developing management strategies that consider their socioeconomic needs and so that they can gradually transition from current forms of marine-coastal resource use to more sustainable practices. Additionally, the project will provide technical support and training to facilitate changes in resource use practices. For example, the project will develop an extension support program for small-scale artisanal fisheries that will help to gradually reduce the use of non-BD-friendly fishing gear, replacing it with fishing gear that has less of an impact on marine-coastal BD. This will include: a) training for the fishermen in the use of BD-friendly fishing techniques; b) implementing BD-friendly fishing equipment and rigging on</p>				
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					registered small-scale artisanal fishing boats; c) and determining jointly zones for protection and zones for resources use; among other activities.				
3	Security issues	November 8, 2011 (at PIF)	Social, Institutional	Enter probability on a scale from 1 (low) to 5 (high) P = 2  Enter impact on a scale from 1 (low) to 5 (high) I = 2	Recently Guatemala has seen an increase in security issues related to the illegal drug trade. Although most of this activity is happening in the northern part of the country along the Mexican border, there is a risk that it may expand to the coastal areas. The project will involve Guatemala's Navy and municipal governments in the monitoring and enforcement of planned actions directed to reduce threats to marine-coastal BD of MPAs, which in turn will serve to discourage any illegal activities within the project target sites. Additionally, the project will maintain good public relations and will assure the involvement of local communities in project activities, which in addition to providing direct benefits for local communities (e.g., continued availability of marine resources and food security) will serve as a social control measure to reduce this risk.	UNDP, CONAP, Municipalities	UNDP	August 2013 (at CEO Endorsement Request)	Risk continues to persist

4	Impact of CC on marine-coastal BD	November 8, 2011 (at PIF)	Environmental	<p>Enter probability on a scale from 1 (low) to 5 (high) P = 2</p> <p>Enter impact on a scale from 1 (low) to 5 (high) I = 2</p>	<p>Through the establishment of new MPAs and the expansion of existing MPAs, connectivity between marine-coastal ecosystems will be established, providing movement of species between different habitats and thereby serving as temporary refuge in the face of potential CC events. The protection of the mangroves will help to mitigate the impacts from storms and hurricanes associated with CC through the reduction of their intensity and the prevention of erosion in different coastal zones, with benefits for marine-coastal species as well as the human settlements in coastal areas. Finally, national- and municipal-level authorities will be trained to better understand the impacts of CC on marine-coastal BD and to adopt conservation and management strategies for mitigating CC effects and enhancing resilience.</p>	UNDP, CONAP	UNDP	August 2013 (at CEO Endorsement Request)	Risk continues to persist.
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## 8.2. Terms of Reference for Key Project Staff

The following are the indicative ToRs for the project management staff. The PIU will be staffed by a full-time PC and a part-time Project Administrator/Finance Assistant, and part time secretary all of whom will be nationally-recruited positions. ToRs for these positions will be further discussed with UNDP's CO and will be fine-tuned during the IW so that roles and responsibilities and UNDP GEF reporting procedures are clearly defined and understood. Also, during the IW the ToRs for specific consultants and sub-contractors will be fully discussed and, for those consultancies to be undertaken during the first six months of the project, full ToRs will be drafted and selection and hiring procedures will be defined.

### Project Coordinator (PC)

The UNDP CO will hire the PC to carry out the duties specified below, and to provide further technical assistance as required by the project team to fulfill the objectives of the project. He/she will be responsible for ensuring that the project meets its obligations to the GEF and the UNDP, with particular regard to the management aspects of the project, including supervision of staff, serving as stakeholder liaison, implementation of activities, and reporting. The PC will be responsible for the day-to-day management of project activities and the delivery of its outputs. The PC will support and coordinate the activities of all partners, staff, and consultants as they relate to the implementation of the project. The PC will report to the UNDP Project Officer and will be responsible for the following tasks:

#### *Tasks:*

- Prepare detailed work plan and budget under the guidance of the SC and UNDP;
- Make recommendations for modifications to the project budget and, where relevant, submit proposals for budget revisions to the SC, and UNDP;
- Facilitate project planning and decision-making sessions;
- Organize the contracting of consultants and experts for the project, including preparing ToRs for all technical assistance required, preparation of an action plan for each consultant and expert, supervising their work, and reporting to the UNDP Project Officer;
- Provide technical guidance and oversight for all project activities;
- Oversee the progress of the project components conducted by local and international experts, consultants, and cooperating partners;
- Coordinate and oversee the preparation of all outputs of the project;
- Foster, establish, and maintain links with other related national and international programs and national projects, including information dissemination through media such as web page actualization, etc.;
- Organize SC meetings at least once every semester as well as annual and final review meetings as required by UNDP, and act as the secretary of the SC;
- Coordinate and report the work of all stakeholders under the guidance of UNDP;
- Prepare PIRs/APRs in the language required by the GEF and the UNDP's CO and attend annual review meetings;
- Ensure that all relevant information is made available in a timely fashion to UNDP regarding activities carried out nationally, including private and public sector activities, which impact the project;
- Prepare and submit quarterly progress and financial reports to UNDP as required, following all UNDP quality management system and internal administrative process;
- Coordinate and participate in M&E exercises to appraise project success and make recommendations for modifications to the project;
- Prepare and submit technical concepts and requirements about the project requested by UNDP, the GoG, or other external entities;
- Perform other duties related to the project in order to achieve its strategic objectives;
- Ensure the project utilizes best practices and experiences from similar projects;

- Ensure the project utilizes the available financial resources in an efficient and transparent manner;
- Ensure that all project activities are carried out on schedule and within budget to achieve the project outputs;
- Solve all scientific and administrative issues that might arise during the project.

*Outputs:*

- Detailed work plans indicating dates for deliverables and budget;
- Documents required by the control management system of UNDP;
- ToRs and action plan of the staff and monitoring reports;
- List of names of potential advisors and collaborators and potential institutional links with other related national and international programs and national projects;
- Quarterly reports and financial reports on the consultant’s activities, all stakeholders’ work, and progress of the project to be presented to UNDP (in the format specified by UNDP);
- A final report that summarizes the work carried out by consultants and stakeholders during the period of the project, as well as the status of the project outputs at the end of the project;
- Minutes of meetings and/or consultation processes;
- Yearly PIRs/APRs;
- Adaptive management of project.

All documents are to be submitted to the UNDP Project Officer and in MS Word and in hard copy.

*Qualifications (indicative):*

- A graduate academic degree in areas relevant to marine and coastal BD conservation and sustainable use;
- Minimum 5 years of experience in project management with at least 3 years of experience in marine and coastal BD conservation and sustainable use ;
- Experience facilitating consultative processes, preferably in the field of natural resource management;
- Proven ability to promote cooperation between and negotiate with a range of stakeholders, and to organize and coordinate multi-disciplinary teams;
- Strong leadership and team-building skills;
- Self-motivated and ability to work under the pressure;
- Demonstrable ability to organize, facilitate, and mediate technical teams to achieve stated project objectives;
- Familiarity with logical frameworks and strategic planning;
- Strong computer skills;
- Flexible and willing to travel as required;
- Excellent communication and writing skills in Spanish and English;
- Previous experience working with a GEF-supported project is considered an asset.

**Project Administrator/Finance Assistant**

The Project Administrator/Finance Assistant is responsible for the financial and administrative management of the project activities and assists in the preparation of quarterly and annual work plans and progress reports for review and monitoring by UNDP. The Project Administrator/Finance Assistant will have the following responsibilities:

- Responsible for providing general financial and administrative support to the project;
- Take own initiative and perform daily work in compliance with annual work schedules;

- Assist project management in performing budget cycle: planning, preparation, revisions, and budget execution;
- Provide assistance to partner agencies involved in project activities, performing and monitoring financial aspects to ensure compliance with budgeted costs in line with UNDP policies and procedures;
- Monitor project expenditures, ensuring that no expenditure is incurred before it has been authorized;
- Assist project team in drafting quarterly and yearly project progress reports concerning financial issues;
- Ensure that UNDP procurement rules are followed during procurement activities that are carried out by the project and maintain responsibility for the inventory of the project assets;
- Perform preparatory work for mandatory and general budget revisions, annual physical inventory and auditing, and assist external evaluators in fulfilling their mission;
- Prepare all outputs in accordance with the UNDP administrative and financial office guidance;
- Ensure the project utilizes the available financial resources in an efficient and transparent manner;
- Ensure that all project financial activities are carried out on schedule and within budget to achieve the project outputs;
- Perform all other financial related duties, upon request

*Qualifications and skills:*

- At least an Associate’s Degree in finance, business sciences, or related fields;
- Experience in administrative work, preferably in an international organization or related to project implementation;
- A demonstrated ability in the financial management of development projects and in liaising and cooperating with government officials, NGOs, etc.;
- Self-motivated and ability to work under the pressure;
- Team-oriented, possesses a positive attitude, and works well with others;
- Flexible and willing to travel as required;
- Excellent interpersonal skills;
- Excellent verbal and writing communication skills in Spanish and English;
- Good knowledge of Word, Outlook, Excel, and Internet browsers is required;
- Previous experience working with a GEF-supported project is considered an asset.

**Secretary**

This position provides support to the PC for the day-to-day management of the project and secretarial or assistance functions. The Project Administrator/Finance Assistant will have the following responsibilities:

- Assist the PC in all project implementation activities;
- Make logistical arrangements for the organization of meetings, consultation processes, and media;
- Provide secretarial support for the project staff;
- Draft contracts for international/local consultants and all project staff, in accordance with instructions by the Contracts Office at UNDP;
- Draft agreements for entities related to the project, in accordance with instructions by the Contracts Office at UNDP;
- Draft correspondence related to assigned project areas; provide clarification, follow up, and responses to requests for information;
- Assume overall responsibility for administrative matters of a more general nature, such as registry and maintenance of project files;

- Provide support to the PC and project staff in the coordination and organization of planned activities and their timely implementation;
- Assist the PC in liaising with key stakeholders from the GoG counterpart, co-financing agencies, civil society, and NGOs, as required;
- Ensure the proper use and care of the instruments and equipment used on the project;
- Ensure the project utilizes the available administrative resources in an efficient and transparent manner;
- Ensure that all project administrative activities are carried out on schedule and within budget to achieve the project outputs;
- Resolve all administrative and support issues that might arise during the project.
- Provide assistance in all logistical arrangements concerning project implementation;
- Perform all other administrative duties, upon request;

*Qualifications and skills:*

- Demonstrated experience in administrative work, preferably in an international organization or related to project implementation;
- Self-motivated and ability to work under the pressure;
- Team-oriented, possesses a positive attitude, and works well with others;
- Flexible and willing to travel as required;
- Excellent interpersonal skills;
- Excellent verbal and writing communication skills in Spanish and English;
- Good knowledge of Word, Outlook, Excel, and Internet browsers is required;
- Previous experience working with a GEF-supported project is considered an asset.

### **8.3. Stakeholder Involvement Plan**

#### ***Stakeholder Participation during Project Preparation***

During the PPG phase of the project, key stakeholders participated in planning and project design workshops and several smaller focus group sessions and meetings. These participatory forums were the following: a) PPG phase inception workshop and b) project Results Framework Workshop. Additionally, multiple individual meetings and consultations with key national and local stakeholders were held during the PPG phase by the project team, UNDP CO, and staff from the MARN and CONAP. Descriptions of the PPG phase workshops are presented below.

Inception Workshop of the PPG Phase. The Inception Workshop was held on October 1<sup>st</sup>, 2012 in Guatemala City. The objectives of this workshop were to: a) help the PPG project team and other stakeholders to understand and take ownership of the project goals and objectives, b) ensure that the project team and other stakeholders have a clear understanding of what the PPG phase seeks to achieve as well as their own roles in successfully carrying out the PPG activities, c) re-build commitment and momentum among key stakeholders (including potential project co-financers) for the PPG phase, and d) validate the PPG Work Plan.

The participants in the PPG Phase Inception Workshop included staff from the MARN, CONAP, SEGEPLAN, TNC, UNDP CO, and the PPG project team.

Project Results Framework Workshop. The Results Framework Workshop was held on February 19-20, 2013 in Guatemala City. The objectives of this workshop were to: a) define the Results Framework, including the revised project outputs, indicators, baseline information, goals, verification mechanisms, and assumptions; b) preliminary definition of the project’s activities for each outcome/output; c) define a preliminary budget for the project, including the co-financing; and d) update the PPG phase Work Plan.

The participants in the PPG Phase Inception Workshop included staff from the MARN, CONAP, INAB, OCRET, TNC, CECON, CEMA, Private Institute for Climate Change Research (ICC), UNDP CO, and the PPG project team.

**Local consultations:** The local CSOs and local industry groups consulted during project design included the Fishermen’s Association of El Gran Pargo (*Asociación de Pescadores El Gran Pargo*) (Ocós, San Marcos), the Fishermen’s Association of Champerico (*Asociación de Pescadores de Champerico*), the *Asociación Pro-Mejoramiento de la Comunidad Indígena de Las Lomas* (Chiquimilla), the National Federation of Artisanal Fishermen (*Federación Nacional de Pescadores Artesanales – FENAPESCA*) an umbrella organization of fishing committees and cooperatives, and the Artisanal Fishermen’s Association of Sipacate (*Asociación de Pescadores Artesanales de Sipacate – APASI*). Women participated in all consultations, since they are active in the processing and sale of fish, and in the fish packing process for companies. In addition, consultations were made in nine (9) municipalities, including the application of the UNDP Capacity Development Scorecard. Consultations with local communities and local community organizations (including women) and municipalities (including the COCODES and the COMUDES) will continue during project implementation.

***Stakeholder Participation Plan for the Project Implementation Phase***

**Objectives of the Stakeholder Participation Plan:** The formulation of the stakeholder participation plan had the following objectives: a) to clearly identify the basic roles and responsibilities of the main participants in this project, b) to ensure full knowledge of those involved concerning the progress and obstacles in project development and to take advantage of the experience and skills of the participants to enhance project activities, and c) to identify key instances in the project cycle where stakeholder involvement will occur. The ultimate purpose of the stakeholder participation plan will be the long-term sustainability of the project achievements, based on transparency and the effective participation of the key stakeholders.

During the PPG phase, visits were conducted by the project team and MARN and CONAP staff to the 10 coastal municipalities in the Pacific that will participate in the project to involve the local stakeholders early on in the project design process and to identify potential partnerships with local groups, local authorities, and private sectors, for project implementation.

**Summary of Stakeholder Roles in Project Implementation:**

Stakeholders	Project Implementation Role
MARN	The MARN will provide guidance for strengthening the regulatory and institutional frameworks for the protection of marine-coastal BD through MPAs and for their effective management (Component 1). MARN staff will benefit from training and the MARN will have a Marine-coastal Unit by project end.
CONAP	CONAP will play a central role in the creation/expansion of MPAs (Component 1). It will also provide technical and scientific support to project activities, including legal reform and inter-institutional coordination (Component 1), the establishment of new MPAs and the expansion of existing ones, management plan development, and stakeholder participation for MPA management and marine-coastal BD conservation (Components 2 and 3). CONAP staff will benefit from training and CONAP will have a Marine-coastal Unit by project end. CONAP will be part of the project’s Steering Committee and will be a co-financier.
INAB	INAB will provide advice for mangrove regulation reform (Component 1) and technical support in the development of a participatory plan for the conservation and sustainable use of mangroves in Guatemala’s Pacific region (Component 3).
DIPESCA-MAGA	DIPESCA-MAGA will implement actions for fisheries management and control and surveillance to be developed through Component 3. Additionally, it will provide field support and will promote the involvement of local communities, municipalities, and the fishery sector in project activities, including establishing agreements for the implementation of BD-friendly fishing practices. DIPESCA-MAGA will be part of the project’s Steering Committee and will be a co-financier.

INFOM	INFOM will play a central role in coordinating actions for the participation of municipalities in the project, particularly in marine-coastal ecosystem and MPAs' management and in the prevention, reduction, and control of land-based contamination of MPAs and their buffer areas. INFOM will be part of the project's Steering Committee and will be a co-financier.
Municipalities (10)	Will participate in the implementation of regulation for marine-coastal management (Component 1), in the alignment of MPA management plans with municipal land/coastal use plans (Components 2 and 3), the development of a monitoring and surveillance program to monitor threats to MPAs and marine BD (Component 2), the reduction of contamination in coastal areas, and will be beneficiaries of training.
Local communities	Will participate in the formulation of MPAs management and coastal zones plans (Component 2). Will serve as advocates in the development of participatory conservation and the sustainable use of marine-coastal BD, including mangrove ecosystems (Components 2 and 3), as well as the delivery of project benefits.
Non-governmental organizations (NGOs)	NGOs will provide technical and scientific support to the project, as well as experience in MPA management, marine wildlife conservation and monitoring, and sustainable use of coastal-marine BD.
Universities	Universities will provide technical and scientific support to the project in coastal and marine ecosystem management, MPA management, fisheries, climate change, physical oceanography, and other areas.
Private sector	The private sector (fishing, agroindustry, tourism, urban and coastal development, and marine/ports transportation) will actively participate in the formulation of MPA management plans (Component 2), the establishment of agreements to reduce and control land-based contamination in coastal zones, the adoption of BD-friendly practices, and management of ballast water (Component 3).
Navy / Ministry of Defense	Will provide patrolling and logistics support in MPAs and their buffer areas (Component 3). Will enforce agreements and resource use norms.
United Nations Development Programme (UNDP)	The UNDP is the Project's Implementing Agency and will be responsible for overall project implementation through the Direct Implementation Modality (DIM).

**Participation Mechanisms:** Three key phases for stakeholders' participation have been identified for the implementation phase of the project: planning, implementation, and evaluation. **Project planning** will include annual meetings with key PA stakeholders (including members of the SC) during which annual goals will be set for each component of the project. These annual planning meetings will also serve to specify the activities that are to be funded through each co-financing source. **Project implementation** will take place according to the annual plans that are approved by the SC, which will be formed by the following agencies: MARN, CONAP, MAGA, INFOM, and the UNDP CO. The UNDP CO will be the Executing Agency. Local stakeholders will have an additional mechanism to influence the project through a LSC, which will consist of appointed members, and whose composition, responsibilities, and function will be determined by the stakeholders themselves. **Project evaluation** will occur annually with the participation of key stakeholders at the end of each planning year and previous to defining the annual plan for the following year of project implementation. Also, **Mid-term and final evaluations** will be carried out as part of the project cycle. Due to the independent nature of these evaluations, they will be key moments during the project's life when stakeholders can express their views, concerns, and assess whether the project's outcomes are being achieved and if necessary, define the course of correction.

#### 8.4. Tracking Tool

The tracking tool related with the project (BD) is included in a separate file.

## 8.5. Project Cycle Management Services

Stage	Country Office <sup>43</sup>	UNDP/GEF
<b>Identification, Sourcing/Screening of Ideas, and Due Diligence</b>	Identify project ideas as part of country programme/CPAP and UNDAF/CCA.	<ul style="list-style-type: none"> <li>• Technical input to CCA/UNDAFs and CPAPs where appropriate.</li> <li>• Input on policy alignment between projects and programmes.</li> <li>• Provide information on substantive issues and specialized funding opportunities (SOFs).</li> <li>• Policy advisory services including identifying, accessing, combining and sequencing financing.</li> <li>• Verify potential eligibility of identified idea.</li> </ul>
	Assist proponent to formulate project idea / prepare project idea paper (e.g. GEF PIF/PPG).	<i>Technical support:</i> <ul style="list-style-type: none"> <li>• Research and development.</li> <li>• Provide up-front guidance.</li> <li>• Sourcing of technical expertise.</li> <li>• Verification of technical reports and project conceptualization.</li> <li>• Guidance on SOF expectations and requirements.</li> <li>• Training and capacity building for Country Offices.</li> </ul>
	<i>Appraisal:</i> <ul style="list-style-type: none"> <li>• Review and appraise project idea.</li> <li>• Undertake capacity assessments of implementing partner as per UNDP POPP.</li> <li>• Environmental screening of project as and when included in UNDP POPP.</li> <li>• Monitor project cycle milestones.</li> </ul>	<ul style="list-style-type: none"> <li>• Provide detailed screening against technical, financial, social and risk criteria.</li> <li>• Determine likely eligibility against identified SOF.</li> </ul>
	<i>Partners:</i> <ul style="list-style-type: none"> <li>• Assist proponent to identify and negotiate with relevant partners, cofinanciers, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Assist in identifying technical partners.</li> <li>• Validate partner technical abilities.</li> </ul>
	<i>Obtain clearances:</i> <ul style="list-style-type: none"> <li>• Government, UNDP, Implementing Partner, LPAC, cofinanciers, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Obtain SOF clearances.</li> </ul>
<b>Project Development</b>	<i>Initiation Plan:</i> <ul style="list-style-type: none"> <li>• Management and financial oversight of Initiation Plan</li> <li>• Discuss management arrangements</li> </ul>	<ul style="list-style-type: none"> <li>• Technical support, backstopping and troubleshooting.</li> <li>• Support discussions on management arrangements</li> <li>• Facilitate issuance of DOA</li> </ul>
	<i>Project Document:</i> <ul style="list-style-type: none"> <li>• Support project development, assist proponent to identify and negotiate with relevant partners, cofinanciers, etc.</li> <li>• Review, appraise, finalize Project Document.</li> <li>• Negotiate and obtain clearances and signatures – Government, UNDP, Implementing Partner, LPAC,</li> </ul>	<i>Technical support:</i> <ul style="list-style-type: none"> <li>• Sourcing of technical expertise.</li> <li>• Verification of technical reports and project conceptualization.</li> <li>• Guidance on SOF expectations and requirements.</li> <li>• Negotiate and obtain clearances by SOF</li> <li>• Respond to information requests, arrange revisions etc.</li> <li>• Quality assurance and due diligence.</li> </ul>

<sup>43</sup> As per UNDP POPP with additional SOF requirements where relevant.

Stage	Country Office <sup>43</sup>	UNDP/GEF
	cofinanciers, etc. <ul style="list-style-type: none"> <li>Respond to information requests, arrange revisions etc.</li> <li>Prepare operational and financial reports on development stage as needed.</li> </ul>	<ul style="list-style-type: none"> <li>Facilitate issuance of DOA</li> </ul>
<i>Key UNDP/GEF management performance indicators/targets for Project Development:</i>		
<ol style="list-style-type: none"> <li>Time between PIF approval to CEO endorsement for each project:               <ul style="list-style-type: none"> <li>Target for GEF trust fund project: FSP = 18 months or less, MSP 12 months or less.</li> <li>Target for LDCF and SCCF: FSP/MSP = 12 months or less.</li> </ul> </li> <li>Time between CEO endorsement (or PAC for non GEF funded projects) to first disbursement for each project:               <ul style="list-style-type: none"> <li>Target = 4 months or less</li> </ul> </li> </ol>		
<b>Project Oversight</b>	<i>Management Oversight and support</i>	<i>Technical and SOF Oversight and support</i>
	<i>Project Launch/Inception Workshop</i> <ul style="list-style-type: none"> <li>Preparation and coordination.</li> </ul>	<ul style="list-style-type: none"> <li>Technical support in preparing TOR and verifying expertise for technical positions.</li> <li>Verification of technical validity / match with SOF expectations of inception report.</li> <li>Participate in Inception Workshop</li> </ul>
	<i>Management arrangements:</i> <ul style="list-style-type: none"> <li>Facilitate consolidation of the Project Management Unit, where relevant.</li> <li>Facilitate and support Project Board meetings as outlined in project document and agreed with UNDP RTA.</li> <li>Provide project assurance role if specified in project document.</li> </ul>	<ul style="list-style-type: none"> <li>Technical input and support to TOR development. Troubleshooting support.</li> <li>Support in sourcing of potentially suitable candidates and subsequent review of CVs/recruitment process.</li> </ul>
	<i>Annual WorkPlan:</i> <ul style="list-style-type: none"> <li>Issuance of AWP.</li> <li>Monitor implementation of the annual work plan and timetable.</li> </ul>	<ul style="list-style-type: none"> <li>Advisory services as required</li> <li>Review AWP, and clear for ASL where relevant.</li> </ul>
	<i>Financial management:</i> <ul style="list-style-type: none"> <li>Conduct budget revisions, verify expenditures, advance funds, issue combined delivery reports, ensure no over-expenditure of budget.</li> <li>Ensure necessary audits.</li> </ul>	<ul style="list-style-type: none"> <li>Allocation of ASLs, based on cleared AWP</li> <li>Return of unspent funds to donor</li> <li>Monitor projects to ensure activities funded by donor comply with agreements/ProDocs</li> <li>Oversight and monitoring to ensure financial transparency and clear reporting to the donor</li> </ul>
	<i>Results Management:</i> <ul style="list-style-type: none"> <li>Alignment: link project output to CPAP Outcome in project tree in Atlas, link CPAP outcome in project tree to UNDP Strategic Plan Environment and sustainable Development Key Result Area as outlined in project document during UNDP work planning in ERBM.</li> <li>Gender: In ATLAS, rate each output on a scale of 0-3 for gender relevance.</li> <li>Monitoring and reporting: Monitor project results, track result framework indicators, and co-financing where relevant. Monitor risks in Atlas and prepare annual APR/PIR report where required by donor and/or UNDP/GEF.</li> </ul>	<ul style="list-style-type: none"> <li>Advisory services as required.</li> <li>Quality assurance.</li> <li>Project visits – at least one technical support visit per year.</li> </ul>

Stage	Country Office <sup>43</sup>	UNDP/GEF
	<ul style="list-style-type: none"> <li>Annual site visits – at least one site visit per year, report to be circulated no later than 2 weeks after visit completion.</li> </ul>	
	<p><i>Evaluation:</i></p> <ul style="list-style-type: none"> <li>Integrate project evaluations into CO evaluation plan. Identify synergies with country outcome evaluations.</li> <li>Arrange mid-term, final, and other evaluations: prepare TOR, hire personnel, plan and facilitate mission / meetings / debriefing, circulate draft and final reports.</li> <li>Participate as necessary in other evaluations.</li> <li>Ensure tracking of committed and actual co financing as part of mid-term and final evaluations.</li> <li>Prepare management response to project evaluations and post in UNDP ERC.</li> </ul>	<ul style="list-style-type: none"> <li>Technical support and analysis.</li> <li>Quality assurance.</li> <li>Compilation of lessons and consolidation of learning.</li> <li>Dissemination of technical findings.</li> <li>Participate as necessary in other SOF evaluations.</li> </ul>
	<p><i>Project Closure:</i></p> <ul style="list-style-type: none"> <li>Final budget revision and financial closure (within 12 months after operational completion).</li> <li>Final reports as required by donor and/or UNDP/GEF.</li> </ul>	<ul style="list-style-type: none"> <li>Advisory services as required.</li> <li>Technical input.</li> <li>Quality assurance.</li> </ul>

*Key UNDP GEF management performance indicators/targets for Project Oversight:*

- Each project aligned with country outcomes and UNDP Strategic Plan Environment and Sustainable Development key results, and included in Country Office Integrated Work Plan in the ERBM:
  - Target = 100%
- Quality rating of annual APR/PIRs: Once completed and submitted, the quality of each project APR/PIR is rated by an external reviewer
  - Target = Rating of Satisfactory or above
- Quality rating of Terminal Evaluations: Once completed, the quality of each terminal evaluation is rated by an external reviewer
  - Target = Rating of Satisfactory or above
- Quality of results achieved by project as noted in terminal evaluation: the independent evaluator assigns an overall rating to the project.
  - Target = Satisfactory or above

## **8.6. Environmental and Social Screening**

The document for the Environmental and Social Screening for the Sustainable Forest Management and Multiple Global Environmental Benefits project is included in a separate file attached to this ProDoc.

## 8.7. UNDP GEF Branding Guidelines

### UNDP-GEF BRANDING GUIDANCE NOTE

3 October 2013

The purpose of this guidance note is to promote a common branding of UNDP supported GEF/LDCF/SCCF<sup>44</sup> projects, and to provide guidance on implementing the [GEF branding/visibility guidelines](#). This note applies to all communications materials including print, web, and video. Other non GEF/LDCF/SCCF donor financed projects managed by the UNDP-GEF unit should follow the UNDP branding guidelines and relevant guidance provided by the donor.

Please apply this guidance immediately and disregard previous versions of this guidance note. If you have any questions, please contact [Nancy Bennet](#).

This note contains the following sections:

A. [UNDP-GEF BRANDING](#)

1. [Projects](#)
2. [Portfolio of projects](#)
3. [UNDP-GEF](#)

B. [PUBLICATIONS:](#)

1. [UNDP-GEF Publications](#)
  - i. [Logos](#)
  - ii. [Foreword](#)
  - iii. [Boilerplate text](#)
  - iv. [Editing](#)
  - v. [Designer](#)
2. [UNDP or External Party Publications that include UNDP Supported GEF/LCDEF/SCCF Financed Projects](#)
3. [Project Communications](#)

C. [KEY RESOURCES:](#)

1. [GEF resources](#)
2. [UNDP resources](#)

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<sup>44</sup> LDCF = Least Developed Countries Fund; SCCF = Special Climate Change Fund

## **UNDP-GEF BRANDING:**

### **1. *Projects:***

- Please use the following when referring to projects: UNDP supported GEF financed project. Please change GEF to LCDF or SCCF when appropriate.
- These are country owned projects or regional/global projects. They are not UNDP or UNOPS projects, UNDP-GEF projects or GEF funded/financed projects.
- Projects are supported by UNDP not UNDP-GEF.
- The grant component (from GEF/LDCF/SCCF) of the project is part of a bigger country owned project that is also partly financed by other partners.
- List the country by name and avoid categories like ‘developing’ where possible.
- When referring to the Small Grants Programme, please note the official branding of ‘GEF SGP’ or the ‘GEF Small Grants Programme’, it is not the UNDP SGP or UNDP Small Grants Programme or SGP. The GEF SGP is implemented by UNDP.

Good examples:

- ✓ Brazil Biodiversity Project supported by UNDP with GEF grant financing.
- ✓ The GEF is the largest financier of the Brazil Climate Change Mitigation project (add title) supported by UNDP.
- ✓ Regional Yellow Seas UNDP supported GEF financed project.
- ✓ Global ALM project supported by UNDP with GEF grant financing.

Please avoid examples:

- × UNDP-GEF biodiversity project in Brazil.
- × UNDP-GEF IW regional project.

### **2. *Portfolio of Projects:***

- UNDP supports a portfolio of focal area/thematic team projects that are financed by the GEF/LDCF/SCCF.

Good examples:

- ✓ UNDP supports 10 Biodiversity Projects in Brazil, 8 of which have GEF grant financing.
- ✓ The GEF is the largest financier of the biodiversity projects in Brazil supported by UNDP.

Please avoid examples:

- × UNDP-GEF biodiversity portfolio or UNDP-GEF’s portfolio of biodiversity projects.
- × The GEF is the largest financier of UNDP’s portfolio of Climate Change Mitigation projects in Brazil.

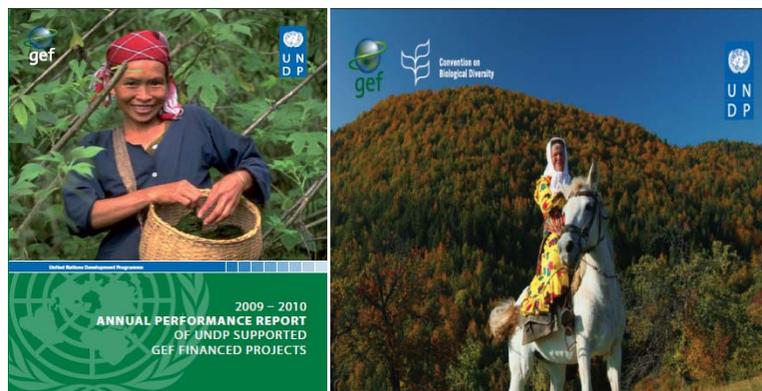
### 3. **UNDP-GEF:**

- GEF does not finance UNDP or UNDP-GEF.
- Our Unit is called UNDP-GEF (note hyphen) or UNDP-Global Environment Facility. Not UNDP/GEF (no slash), not UNDP GEF, not UNDP Environmental Finance Services Group or Unit.
- RTAs are UNDP Technical Advisers based in a region.

#### A. **PUBLICATIONS:**

1. **UNDP-GEF Publications:** when 100% of the publication relates to UNDP supported GEF/LDCF/SCCF financed projects.

- **Logos:** The UNDP logo with [tagline](#) must appear on the top right hand corner of the publication. The GEF logo must appear on the top left hand corner of the publication. See section C below for details.



- **Foreword:** Each UNDP-GEF publication should include a foreword from the UNDP-GEF Executive Coordinator or the Principal Technical Adviser.



When relevant, other partners and donors (i.e. the GEF...) should be invited to contribute to the foreword (see example below) or a second foreword can be added to the publication.



- **Boilerplate text:** The logos of UNDP and GEF must be added on the inside cover of the publication. The following boilerplate text must be used under the logos.

GEF: “The GEF unites 182 countries in partnership with international institutions, non-governmental organizations (NGOs), and the private sector to address global environmental issues while supporting national sustainable development initiatives. Today the GEF is the largest public funder of projects to improve the global environment. An independently operating

financial organization, the GEF provides grants for projects related to biodiversity, climate change, international waters, land degradation, the ozone layer, and persistent organic pollutants. Since 1991, GEF has achieved a strong track record with developing countries and countries with economies in transition, providing \$9.2 billion in grants and leveraging \$40 billion in co-financing for over 2,700 projects in over 168 countries. [www.thegef.org](http://www.thegef.org)”

UNDP: “UNDP partners with people at all levels of society to help build nations that can withstand crisis, and drive and sustain the kind of growth that improves the quality of life for everyone. On the ground in 177 countries and territories, we offer global perspective and local insight to help empower lives and build resilient nations. [www.undp.org](http://www.undp.org)”



- **Editing:** Publications should be edited by an external editor. Contact Nancy Bennet for details.
- **Designer/Corporate approach:** A designer (Sandra Rojas) is available to work on UNDP-GEF publications. Please contact Nancy Bennet for details.

2. **UNDP or External Party Publications that include UNDP Supported GEF/LCDF/SCCF Financed Projects:** When one or more of the case studies in the UNDP or External party publication is a UNDP supported GEF/LDCF/SCCF financed project.

- **Acknowledgement box:** The support provided by UNDP and the GEF/LDCF/SCCF grant financing of the project (s) should be recognised in an acknowledgement box in the communications material (i.e. typically included on the inside cover). If this is not feasible,

UNDP support and GEF financing must be acknowledged in the section related to the UNDP supported GEF financed project.

**a. UNDP publication acknowledgement box**

We would like to recognize the many partners who have contributed to the projects outlined in this publication, and thank the Global Environment Facility ([www.thegef.org](http://www.thegef.org)) along with *insert names of other financial donors* for their financial contribution to these projects.



**b. External party publication acknowledgement box**

We would like to recognize the many partners who have contributed to the projects outlined in this publication, and the United Nation Development Programme ([www.undp.org](http://www.undp.org)) and the Global Environment Facility ([www.thegef.org](http://www.thegef.org)) along with *insert names of other financial donors* for their support and financial contribution to these projects.



Empowered lives.  
Resilient nations.



**3. Project Communications:** All project communication materials -including project videos, brochures, reports etc... - must follow the GEF guidelines: [Enhancing the Visibility of the GEF](#)

- **Logos:** The UNDP and GEF logos should appear on all project communication materials. For project videos, the UNDP and GEF logos must appear at the beginning or the end of a project video. Where space permits, both the UNDP logo and boilerplate text and the GEF logo and boilerplate text should appear in the video as well. See examples:

- <http://www.facebook.com/video/video.php?v=404296136159>

## B. KEY RESOURCES:

1. **GEF Resources:** Please visit the GEF website at [www.thegef.org](http://www.thegef.org)

- [Enhancing the Visibility of the GEF](#)
- [GEF logo](#)

2. **UNDP Resources:**

- **UNDP LOGO AND TAGLINE:**

<https://intranet.undp.org/unit/pb/communicate/tagline/SitePages/Home.aspx>

This intranet portal assists UNDP staff to integrate the organization's new tagline *'Empowered lives. Resilient nations.'* Each folder provides guidelines on use and application of the new logo and tagline in various materials. The new branding with the tagline became effective in June 2011 and replaces previous standards. Please implement use of the UNDP logo and UNDP tagline in accordance with this guidance.

- **QUALITY ASSURANCE PROCESS (IN THE POPP)**

<https://intranet.undp.org/global/popp/rma/Pages/seven-steps-quality-assurance-procedure.aspx>

This procedure applies to all global and regional products and publications branded with the UNDP logo. Given that UNDP will continue to spend a significant amount of resources publishing online and print products, it is critical that branded products are of high quality and high utility. The UNDP Quality Assurance Procedure is designed to ensure that global and regional products and publications are peer-reviewed, strategic and geared to respond to the needs of clients. A good practice example from the Democratic Governance Group is attached.

- **BDP WRITER/EDITOR ROSTER**

<http://intra.undp.org/bdp/writer-editor-roster.htm>

To assist in meeting the editorial and production standards in line with the quality assurance process, BDP established a roster of writer/editors in the English language who are on LTAs with BDP. This can significantly reduce the time spent recruiting suitable writers/editors and help to ensure a high caliber of editorial input. BDP Units at Headquarters that need to engage a writer and/or editor must use one of the consultants from this roster.

- **UNDP TEMPLATES FOR KNOWLEDGE AND ADVOCACY PRODUCTS**

<http://intra.undp.org/corporate-templates/index.html>

This online tool is designed to help UNDP staff create strategic, cost-effective, consistent and high-quality knowledge and advocacy products with clear corporate branding. Please note that the templates were created prior to the tagline being introduced. For the advocacy products please ensure professional designers you use insert the logo with the new tagline on the front covers of these products. For the knowledge products please use the existing MS Word files until new templates are available with the tagline incorporated. The Strategy Note, Comparative Experience, and Discussion Paper templates allow you to replace the existing logo in the header with the new logo+tagline images made available by the Office of Communications (see (1) above).