Towards Joint Integrated, Ecosystem-based Management of the Pacific Central American Coastal Large Marine Ecosystem (PACA)

Part I: Project Information

GEF ID
10076

Project Type
FSP

Type of Trust Fund
GET

Project Title
Towards Joint Integrated, Ecosystem-based Management of the Pacific Central American Coastal Large Marine Ecosystem (PACA)

Countries
Regional, Costa Rica, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Panama

Agency(ies)
UNDP

Other Executing Partner(s):

Executing Partner Type

GEF Focal Area
International Waters

Taxonomy
Focal Areas, International Waters, Large Marine Ecosystems, Fisheries, Coastal, Nutrient pollution from Wastewater, Persistent toxic substances, Transboundary Diagnostic Analysis, Biomes, Mangrove, Coral Reefs, Aquaculture, Protected Areas and Landscapes, Community Based Natural Resource Management, Coastal and Marine Protected Areas, Mainstreaming, Agriculture and agrobiodiversity, Infrastructure, Forestry - Including HCVF and REDD+, Influencing models, Convene multi-stakeholder alliances, Demonstrate innovative approaches, Transform policy and regulatory environments, Strengthen institutional capacity and decision-making, Stakeholders, Local Communities, Beneficiaries, Communications, Awareness Raising, Type of Engagement, Participation, Information Dissemination, Partnership, Consultation, Private Sector, SMEs, Individuals/Entrepreneurs, Large corporations, Indigenous Peoples, Civil Society, Non-Governmental Organization, Academia, Community Based Organization, Gender Equality, Gender results areas, Participation and leadership, Access and control over natural resources, Gender Mainstreaming, Sex-disaggregated indicators, Women groups, Gender-sensitive indicators, Capacity, Knowledge and Research, Capacity Development, Learning, Adaptive management, Theory of change, Indicators to measure change, Biodiversity, Certification -National Standards, Extractive Industries, Productive Landscapes, Terrestrial Protected Areas, Pollution, Climate Change Adaptation, Ecosystem-based Adaptation, Climate Finance (Rio Markers), Climate Change Adaptation 1, Climate Change Mitigation 1, Climate Change

Duration
5
In Months

Agency Fee($)
653,374

Submission Date
10/26/2018

A. Indicative Focal/Non-Focal Area Elements

Programming Directions	Trust Fund	GEF Amount($)	Co-Fin Amount($)

Programming Directions	Trust Fund	GEF Amount($)	Co-Fin Amount($)
IW-1_P1	GET	6,877,626	41,312,679
	Total Project Cost ($)	**6,877,626**	**41,312,679**

B. Indicative Project description summary

Project Objective
To promote ecosystem-based management of the Pacific-Central American Large Marine Ecosystem through the strengthening of regional governance.

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount($)	Co-Fin Amount($)
1. Governance instruments improved at regional level for joint management of PACA	Technical Assistance	1. Common understanding of the regional LME challenges and opportunities supported by the participant countries.	1.1. Transboundary Diagnostic Analysis (TDA) of the Pacific Central American Coastal Large Marine Ecosystem prioritizes threats to LME, their immediate and root causes.	GET	2,945,000	17,827,210
		2. Collaborative framework and governance arrangements adopted by the participating countries to implement PACA´s SAP	2.1 Strategic Action Programme (SAP) of legal, policy and institutional reforms, and needed investments, for sustainable utilization of the Pacific Central American Coastal large marine ecosystem endorsed by participating countries.			
			2.2 Collaborative framework and governance arrangements			

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount($)	Co-Fin Amount($)
			to implement PACA´s SAP endorsed by participating countries. 2.3. Strategy for awareness raising, participation and articulation among key decision-makers and stakeholders 2.4. Training of key stakeholders (public and private) on ecosystem-based management of large marine ecosystems			
2. Initial on-the ground pilot active actions to address common key issues and to advance collaborative work and replication	Technical Assistance	3. Tangible impacts generated in demonstrative pilot interventions implemented to contribute to the development and buy-in of the SAP and to decision making on prioritized	3.1. Two pilot interventions on common key issues of the Pacific Central American Coastal Large Marine Ecosystem implemented (to be fully defined during PPG) 3.1.1 Marine Spatial Planning 3.1.2 Conservation and Management of billfishes 3.2. Best practice and lessons from the pilots systematized, accessible and available to all	GET	2,572,504	14,738,265

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount($)	Co-Fin Amount($)
		topics in the region.	stakeholders in the region			
3. Knowledge management	Technical Assistance	4. Collaborative information system developed with key indicators on PACA´s condition and SAP implementation	4.1. Development and adoption of a suite of International Waters Process, Stress Reduction and Environmental/Socioeconomic Status indicators and implementation mechanisms to monitor PACA´s condition and SAP implementation.	GET	1,035,000	6,684,010
		5. Lessons on collaborative actions to manage PACA shared in the region and worldwide (south-south cooperation).	5.1. Website for dissemination of lessons and best practice, linked to partners´ portals and IW:LEARN. 5.2. Project lessons documented and disseminated			

				Sub Total ($)	**6,552,504**	**39,249,485**
		Project Management Cost (PMC)		**GET**	**325,122**	**2,063,194**
		Total Project Cost ($)			**6,877,626**	**41,312,679**

For multi-trust fund projects, provide the total amount of PMC in Table B and indicate the list of PMC among the different trust funds here:

C. Indicative sources of Co-financing for the Project by name and by type

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount($)
Private Sector	To be defined during PPG	In-kind	Recurrent expenditures	100,000
Government	Government of Costa Rica	In-kind	Recurrent expenditures	3,429,250
Government	Government of Ecuador	In-kind	Recurrent expenditures	2,160,157
Government	Government of El Salvador	In-kind	Recurrent expenditures	1,036,200
Government	Government of Guatemala	In-kind	Recurrent expenditures	978,821
Government	Government of Honduras	In-kind	Recurrent expenditures	448,908
Government	Government of Mexico	In-kind	Recurrent expenditures	26,421,425
Government	Government of Panama	In-kind	Recurrent expenditures	5,737,918
GEF Agency	UNDP	In-kind	Recurrent expenditures	1,000,000
			Total Project Cost($)	**41,312,679**

Describe how any "Investment Mobilized" was identified
N/A

D. Indicative Trust Fund Resources Requested by Agency(ies), Country(ies), Focal Area and the Programming of Funds

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount($)	Fee($)
UNDP	GET	Regional	International Waters		6,877,626	653,374
				Total Project Cost($)	**6,877,626**	**653,374**

E. Project Preparation Grant (PPG)

PPG Amount ($)
154,338

PPG Agency Fee ($)
14,662

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount($)	Fee($)
UNDP	GET	Regional	International Waters		154,338	14,662
				Total Project Costs($)	**154,338**	**14,662**

Core Indicators at Project Identification Form (PIF)

Indicator 5 Area of marine habitat under improved practices to benefit biodiversity (excluding protected areas)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Indicator 5.1 Number of fisheries that meet national or international third party certification that incorporates biodiversity considerations

Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)

Type/name of the third-party certification

Indicator 5.2 Number of Large Marine Ecosystems (LMEs) with reduced pollutions and hypoxia

Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (achieved at MTR)	Number (achieved at TE)
1	0	0	0

LME at PIF	LME at CEO Endorsement	LME at MTR	LME at TE
Pacific Central American Coastal			

Core Indicators at Project Identification Form (PIF)

Indicator 7 Number of shared water ecosystems (fresh or marine) under new or improved cooperative management

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Shared water Ecosystem	Pacific Central American Coastal			
Count	1	0	0	0

Indicator 7.1 Level of Transboundary Diagonostic Analysis and Strategic Action Program (TDA/SAP) formulation and implementation (scale of 1 to 4; see Guidance)

Shared Water Ecosystem	Rating (Expected at PIF)	Rating (Expected at CEO Endorsement)	Rating (Achieved at MTR)	Rating (Achieved at TE)
Pacific Central American Coastal	1			

Indicator 7.2 Level of Regional Legal Agreements and Regional management institution(s) (RMI) to support its implementation (scale of 1 to 4; see Guidance)

Shared Water Ecosystem	Rating (Expected at PIF)	Rating (Expected at CEO Endorsement)	Rating (Achieved at MTR)	Rating (Achieved at TE)
Pacific Central American Coastal	1			

Indicator 7.3 Level of National/Local reforms and active participation of Inter-Ministeral Committees (IMC; scale 1 to 4; See Guidance)

Shared Water Ecosystem	Rating (Expected at PIF)	Rating (Expected at CEO Endorsement)	Rating (Achieved at MTR)	Rating (Achieved at TE)
Pacific Central American Coastal	1			

Indicator 7.4 Level of engagement in IWLEARN throgh participation and delivery of key products(scale 1 to 4; see Guidance)

Shared Water Ecosystem	Rating (Expected at PIF)	Rating (Expected at CEO Endorsement)	Rating (Achieved at MTR)	Rating (Achieved at TE)
Pacific Central American Coastal	1			

Indicator 8 Globally over-exploited fisheries moved to more sustainable levels

Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Expected CO2e (metric tons) (Achieved at MTR)	Expected CO2e (metric tons) (Achieved at TE)
82,000.00			

Indicator 11 Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female	100,000			
Male	150,000			
Total	250000	0	0	0

Part II. Project Justification

1a. Project Description

a. The global environmental and/or adaptation problems, root causes and barriers that need to be addressed;
b. The baseline scenario or any associated baseline Programs;
c. The proposed alternative scenario with a brief description of expected outcomes and components of the Program;
d. Alignment with GEF Focal Area and/or Impact Program Strategies
e. Incremental/additional cost reasoning and expected contributions from the baseline, the GEFTF, LDCF, SCCF, CBIT and co-financing;
f. Global environmental benefits (GEFTF) and/or adaptation benefits (LDCF/SCCF); and
g. Innovation, sustainability and potential for scaling up.

The global environmental and/or adaptation problems, root causes and barriers that need to be addressed (systems description).

1. The Pacific Central-American Coastal Large Marine Ecosystem (PACA) extends from southern Mexico (footnote: Includes the Mexican Pacific Transition and Middle American Pacific regions (Wilkinson et al., 2009). It roughly starts in the border between the States of Sinaloa and Nayarit) (about 22° north) to northern Peru (about 4° south) (Figure 1), encompassing a surface of ca., 199,665,900 ha of coastal and marine habitats (IOC-UNESCO & UNEP, 2015), and 20,853,000 ha of continental shelf (footnote: Source: http://www.seaaroundus.org) (ca., 10.4% of the total area). Nine countries share PACA (from north to south): Mexico, Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, Panamá, Colombia, Ecuador. This Large Marine Ecosystem (LME) has warmer conditions than the neighbouring Gulf of California LME and Humboldt current LME. The northern and southern extremes are transition areas with seasonal subtropical conditions caused by the influence of the California and Humboldt currents, respectively (Aquarone & Adams, 2009; Heileman, 2009; Heileman et al., 2009; Wilkinson et al., 2009).

2. PACA is very dynamic and diverse. It integrates five marine ecoregions (Spalding et al., 2007): Mexican Tropical Pacific (166), Chiapas-Nicaragua (167), Nicoya (168), Panama Bight (170) and Guayaquil (171). Each with characteristic ecological and oceanographic features.

3. PACA is a very productive LME (class 4) (footnote: The productivity range was grouped into five classes, where 1 is the lowest and 5 is the highest (IOC-UNESCO & UNEP, 2016) ; the average primary productivity is 407 g C m-2 y-1. This is lower than the 502 g C m-2 y-1 in the Gulf of California LME (a class 5 LME), and higher than the 144 g C m-2 y-1 in the California current LME (class 2) and 281 g C m-2 y-1 in the Humboldt current LME (class 3). This high primary production is caused by coastal upwelling. In Central America, upwelling develops as a result of locally intense jets of wind blowing from high pressure systems in the Gulf of Mexico and the Caribbean towards the Pacific Ocean; wind jets flow through four passages (i) the isthmus of Tehuantepec, (ii) the Gulf of Fonseca, (iii) the Lake Nicaragua, and (iv) the Panama Canal (Barton et al., 1993; Trasviña et al., 1995; Martínez Díaz de León et al., 1999; Ballestero, 2003; Belkin et al., 2003; Heileman, 2009).

4. This LME has outstanding marine and coastal biodiversity. The One Shared Ocean project list 931 fish species and a rough estimate of 1,470 non-fish species. However, biological diversity is most certain much larger. Miloslavic et al., (2011) list 6,714 species only in the area between Costa Rica and Ecuador. They found that the most diverse taxa were polychaeta (1,894 species), fishes (1,212 species), crustaceans (863 species), and molluscs (875 species), these together accounted for 47.3% of the total known biota. In the Gulf of Tehuantepec alone, 24 species of cephalopods and 161 species of demersal fish have been reported (Tapia García, 1997; Alejo-Plata et al., 2014). In Isla del Coco, 1,688 species have been reported, including 383 species of gastropods, 354 species of fishes and 263 species of crustaceans. Marine mammals are part of this outstanding biodiversity, including several charismatic species like the blue (Balaenoptera musculus) and humpback whales (Megaptera novaeangliae). Blue whales winter in the Costa Rican Thermal Convection Dome (Reilly & Thayer, 1990), and northern and southern hemisphere populations of humpback whales have wintering grounds in the warm waters between Baja California, in the north, to northern Peru, in the south (Rasmussen et al., 2007; Felix et al., 2009). Whale and dolphin watching is the basis for growing tourism activities along the coastline (Hoyt & Iñíguez, 2008).

5. High conservation value species are found in this LME. For example, there are major nesting beaches and feeding grounds of sea turtles along the coast, including the region´s largest nesting aggregations (footnote: In the rest of the area only dispersed nesting of small number of individuals is found) of Eretmochelys imbricata (critically endangered in the IUCN Red List) in El Salvador (Liles et al., 2011), and Dermochelys coriacea (critically endangered in the IUCN Red List) (footnote: The East Pacific Ocean subpopulation is critically endangered, the population has declined about 97% during the past three generations (Wallace et al., 2013). There was a large nesting aggregation along the Mexican coast, but it almost disappeared (Pritchard, 1982; Spotilia et al., 2000). Playa Grande is the largest nesting colony of the eastern Pacific Ocean, but the population is rapidly declining (Spotilia et al., 2000; Santidrián et al., 2007) in Playa Grande in Costa Rica. The green turtle (Chelonia mydas) (endangered in the IUCN Red List) is fairly abundant in the eastern Pacific Ocean. The main nesting beaches are located in Colola and Maruata beaches in Michoacan (Mexico), Costa Rica and the Galapagos archipelago (Ecuador). However, the southernmost recorded nesting site is in northern Peru (Forsberg et al., 2012; Kelez & Velez, 2014). The green turtle extensively uses the area between Mexico and Chile (about Valparaiso) for nesting

and feeding (Seminoff et al., 2008; Velez-Zuazo et al., 2014). Amorocho et al., (2012) found that green turtles feeding in Gorgona Island (Colombia) had individuals from distant rookeries, including Mexico and Galapagos.

6. The coverage of coastal and marine protected areas increased from 204 thousand hectares in 1983 to 2.9 million hectares in 2014 (ca., 1.5% MPA coverage) (IOC-UNESCO & UNEP, 2015). A major increase occurred in December 2016, when Mexico created the Deep Mexican Pacific Biosphere Reserve (Reserva de Biosfera Pacífico Mexicano Profundo) which covers the deep sea (from 800 m below sea level to the seafloor) and has a surface of ca., 57.7 million hectares divided into four blocks. The reserve has 15 nucleous areas that comprise 18.7 million hectares. This increased PACA´s MPA coverage to about 30.3%.

7. PACA sustains important fisheries. The LME´s reported annual catch reached two peaks of about one million tonnes in 1985 and 1994. It declined afterwards, fluctuating between 600 thousand and 800 thousand during the 2000s (IOC-UNESCO & UNEP, 2015). The reconstructed annual catch is much larger, with a peak of ca., 3.1 million tonnes in 1985 and a secondary peak of ca., 1.9 million tonnes in 1996 (Sea Around Us). The reported catch in 2010 was 627,006 t (IOC-UNESCO & UNEP, 2015), and the reconstructed catch estimate was 1.2 million tonnes (Sea Around Us). In 2010, five countries accounted for 86% of the total catch: (i) Mexico (45.3%), (ii) Ecuador (22.9%), Panama (9.1%), Peru (6.1%) and El Salvador (2.5%) (Sea Around Us).

8. The most conspicuous fisheries are small pelagic fish, tunas and shrimp. Five species of small pelagic fish (Sardinops sagax, Opisthonema spp., Engraulis ringens, Cetengraulis mysticetus and Scomber japonicus) constituted 37.2% of 2010´s total catch (Sea Around Us).

9. Tunas are a major fishery in the eastern Pacific Ocean (EPO), most of the capture is done by industrial purse-seine and longline vessels in oceanic areas, but there is also coastal capture by artisanal fleets, a few pole-and-line boats, and sport fishermen. In 2010, the total catch of the three main tuna species (Katsuwonus pelamis, Thunnus albacares, and Thunnus obesus) in the EPO was 510,371 t, increasing to 681,488 t in 2015 (IATTC, 2016). The main fleets and processing capacity are based in Ecuador and Mexico. The tuna fleet also capture billfishes, mainly swordfish (Xiphias gladius) and blue marlin (Makaira nigricans). In 2014, the total capture of billfishes was 34,899 t; 80.1% of this was captured by the longline fleet (IATTC, 2016).

10. Large pelagic fish (LPF) are highly migratory species which are captured by artisanal fleets, industrial longline and sport fishermen. There is a major commercial artisanal fishery for dorado (Coryphaena hippurus) in the area. In 2012, the catch in the EPO was about 70,000 t of which Ecuador and Peru together capture about 85%. On the other hand, LPF are valuable resources for the sport fisheries industry, mainly from Mexico to Panama. Mexico has reserved dorado, marlins, sailfish (Istiophorus platypterus), and swordfish for sport fisheries within the first 50 miles offshore. Guatemala reserves the sailfish only for sport fisheries. Similarly,

Nicaragua reserve marlins and sailfish only for sport fisheries. Costa Rica declared marlins and sailfish as species of interest for sport fishing, and El Salvador declared marlins, sailfish, swordfish, dorado and tunas as objects for sport fishing.

11. Sport fisheries for billfishes and tuna can generate very high value for the local economies. In Costa Rica, sport fishing contributes more than commercial fisheries to the gross domestic product (Soto, 2010). In Panama, sport fishing generated USD97 million in 2011 (Southwick et al., 2013). Martin et al., (2016) estimated that the oceanic Eastern Tropical Pacific (excluding the continental platform) produce about USD2.7 billion year-1 in capture fisheries (10 most commercially fished species) and USD 1.6 billion year-1 in sport fisheries (three popular destinations).

12. This LME is regularly affected by ENSO events. El Niño produce intense warming of sea surface temperature in the Panama bight and northern South America, intense rain in Ecuador and Peru, and severe drought in Mexico and Central America. ENSO conditions have strong impacts in the biodiversity, society and economy of the entire region. For example, the 1997 – 1998 El Niño, one of the strongest in record, produced USD7.5 billion in losses in five Andean countries (CAF, 2000a; CAF, 2000b; OPS, 2000).

13. Finally, IOC-UNESCO & UNEP (2015) estimated that in 2010 around 50 million people live in the area; it is estimated that the coastal population would almost double by 2100. Currently, there is a high poverty index of 44% and a low Human Development Index (0.693). The HDI ranges from 0.617 in Honduras to 0.794 in Costa Rica .

Global environmental problems, root causes and barriers to be addressed

14. The Transboundary Waters Assessment Programme (TWAP) found that PACA´s overall risk factor is high , based on a combined measure of the Human Development Index and the averaged indicators for (i) fish & fisheries and (ii) pollution & ecosystem health modules (IOC-UNESCO & UNEP, 2015). The biodiversity of this LME is threatened mainly by (1) pollution from land-based and marine sources, (2) degradation of coastal and marine habitats, (3) overuse of fishery resources, and (4) impacts of climate change.

15. Similar environmental issues affect adjacent areas such as the Gulf of California LME (GC) which due to its biological connections to PACA requires a transboundary management of its living marine resources. The GC LME is one of the five marine ecosystems with high productivity and one of the fastest warming LMEs. It is considered that its fisheries resources are overexploited while an important portion of the eastern coast is subject to industrial, urban and agriculture pollution and unique and valuable habitats located in delta wetlands and marine areas are being altered by human activities. The TWAP found that this LME also has an overall risk factor corresponding to high.

1. **Pollution from land-based and marine sources.**

16. The main sources of pollution are (i) municipal waste (untreated wastewater and garbage), (ii) agriculture run-off, (iii) discharges from vessels and port operations, and (iv) industrial pollution from industry and oil operations.

17. Municipal discharges originate from insufficient basic infrastructure in localities along the coastal zone and the watersheds that drain into the Pacific Ocean. PNUMA (2001) estimated that domestic discharges introduced about 34.2 103 t of nitrogen and 4.1 103 of phosphorus every year into the area between Mexico and Colombia. Urban runoff also includes heavy metals and hydrocarbons. Defew et al., (2005) found accumulation of heavy metals in mangroves of Punta Mala Bay (close to Panama City), which is affected by untreated domestic sewage, storm water road run-off, and diffuse inputs from shipping and agricultural activities.

18. Agriculture run-offs (nutrients, sediments and pesticides) originate from large plantations of several crops, including export-oriented produce like bananas and melons, and limited capacity to control nonpoint source discharges. Seitzinger & Lee (2008) estimated that ca., 80% of the dissolved inorganic nitrogen load to PACA came from anthropogenic sources (mainly fertilizers and manure). IOC-UNESCO & UNEP (2016), classify PACA´s level of river nitrogen load as medium, in the five-point scale used in the TWAP. The run-off of sediments is known to be large, but there are is no recent information. PNUMA (2001) reported that the discharge of suspended solids and total dissolved solids in 2000 in southwest Mexico was 259,540 t and 378,130 t, respectively. In 1999, the coastal areas from El Salvador to Panama discharged in the Pacific Ocean 116,270 t of suspended solids and 179,590 t of total suspended solids (PNUMA, 2001).

19. The Golfo de Nicoya (Costa Rica) is an example of the impact from municipal and agriculture run-off in this LME. The gulf receives the discharges from the río Grande de Tarcoles, Barranca and Tempisque rivers. The first, drain domestic, industrial and agriculture discharges from a 2,121 km2 watershed; including discharges from metropolitan San Jose, which concentrate ca., 50% of the country´s population. The Tempisque river, drain a 3,405 km2 watershed with large plantations of sugarcane and rice, melon and other export crops, and cattle production. As a consequence, accumulation of nutrients (mainly during the rainy season), heavy metals, hydrocarbons and pesticides have been found in several part of the estuary (De la Cruz, 1989; Wo Ching & Moreno, 2001; Kress et al., 2002; García-Cespedes et al., 2004; Acuña-González et al., 2004; Nielsen & Quesada, 2006; Pomerance, et al., 2012; Rodríguez et al., 2014; Cubero, 2014).

20. UNESCO & UNEP (2016), classify PACA´s level of Index of Coastal Eutrophication Potential as lowest (based on the five-point scale used in the TWAP). However, this may not truly reflect the local conditions. Nutrient over-enrichment has produced eutrophication in several areas of this LME, and HABs have become more frequent and intense.

21. Selman et al., (2008) identified seven eutrophic areas within PACA: Golfo de Nicoya and Golfo Dulce in Costa Rica, Golfo de Guayaquil in Ecuador, Jiquilisco Bay in El Salvador, Estero la Jagua (Gulf of Fonseca) in Honduras, Panama Bay in Panama, and Paita Bay in Peru. But there are many others, for example, Contreras et al., (1995) found that most coastal lagoons in southwest Mexico were eutrophic, with high concentrations of nitrites, nitrates and phosphorus.

22. The excess nutrient load creates favourable conditions for the development of HABs and algae growth which inhibit coral development. Harmful Algal Blooms are frequent along the coastal waters of the area. HABs have caused fish kills, death of marine turtles and other marine animals, seafood poisoning and deaths in local populations, and economic losses (Saldate et al., 1991; Band-Schmidt et al., 2001; Ochoa et al., 2002; Torres, 2011; IMARPE, 2012; Licea et al., 2013; Callejas et al., 2015; Calvo et al., 2016). Several bivalves have been contaminated with toxins, including the mangrove clam Anadara tuberculosa, a valuable fishery resource all along PACA´s coastline (Ochoa et al., 2002; Callejas et al., 2015).

23. Marine debris is an additional problem, which generates from (i) insufficient waste management in coastal localities, (ii) run-off from watersheds, and (iii) disposal from ocean-based sources (e.g., commercial fishing, shipping). It is known that worldwide marine debris has direct impacts to marine biota (Gall & Thompson, 2015) and that plastic pollution is a major threat (Derraik, 2002; Eriksen et al., 2014; Seltenrich, 2015). However, there are no clear estimations of the amount of marine debris in PACA, and there is very limited information to calculate the discharge from land or ocean-based sources. IOC-UNESCO & UNEP (2015) classify PACA as an LME with relatively moderate levels of plastic concentration. However, the problem could be much more serious, but there is very limited quantitative and systematic information. Nonetheless, there are some indications that plastic pollution might be a grave issue.

24. During the 2015 international coastal clean-up, the amount of solid waste collected in Ecuador and El Salvador was 298 kg/km and 236.5 kg/km, respectively (Ocean Conservancy, 2016). In Ecuador, the three most common items were cigarette butts, plastic beverage bottles and food wrappers. In El Salvador, the three most common items were plastic beverage bottles, plastic bottle caps and food wrappers. In 2002, 58,000 t of solid waste was collected from beaches in southwest Mexico (UNEP, 2006).

25. In 2006, it was estimated that on the Pacific coasts of Panama, Colombia and Ecuador, the garbage from land-based sources with potential to become marine debris is in the range of 8,853 – 26,560 t / year (CPPS, 2007).

26. Plastics seem to be a major component of marine debris in the region. Figueroa et al., (2016) found in two Ecuadorian rocky reefs that (i) 95% of the submerged marine debris were plastic-derived items, and (ii) 63% of all items were fishing-related. Global reviews have found a high incidence of plastic ingestion in seabirds and marine turtles (Schuyler et al., 2014; Wilcox et al., 2015; Nelms et al., 2015). Schuyler et al., (2014) found that green and leatherback turtles were significantly more likely to ingest plastic

debris; these are two key species in the Pacific Central-American Coastal LME. Rosas (2016) found that 12% of the stomachs of the giant squid (Dosidicus gigas) captured by artisanal fishermen had plastic remains, mainly fishing-related items (i.e., polyethylene fishing lines and polyvinyl chloride floats).

27. Finally, shipping and port activities contribute to marine pollution. For example, in the vicinity of the port of Guayaquil, there is a low level but chronic hydrocarbon pollution (Rodriguez, 2006). The same occurs in Salina Cruz (located in the Golfo de Tehuantepec, Mexico) which hast cargo and oil terminals (Botello et al., 1995; Rodriguez, 2006; González-Lozano et al., 2006; Gonzalez-Macias et al., 2007; Gonzalez-Macias et al., 2009).

2. Degradation of coastal and marine habitats.

28. Modification and degradation of natural habitats is caused by a range of human activities, mainly coastal development, tourism, aquaculture and fisheries. Key habitats are coastal wetlands (estuaries and lagoons), mangroves and coral commuities. IOC-UNESCO & UNEP (2015) estimated that mangroves and coral reefs cover, respectively, 0.39% and 0.03% of this LME.

29. Mangroves are very valuable for coastal communities. There are important subsistence and commercial estuarine fisheries for the same groups of fish (e.g., Centropomus spp., Lutjanus spp., Mugil spp., Cynoscion spp.) and invertebrates (e.g., Litopenaeus spp., Callinectes spp., Anadara spp., Ucides occidentalis) all along PACA.

30. There are about 859,625 ha of mangroves along PACA´s coastline, mostly concentrated in Colombia, Panama, Mexico and Ecuador. In the past decades, all countries have had significant loss of mangrove cover, mostly by conversion into shrimp farms. Some countries have managed to control mangrove deforestation, but in others illegal conversion persist. Shrimp farms have environmental and social impacts in local areas which generate conflicts in a number of sites along PACA. For example, in the Honduran area within the Gulf of Fonseca there have been long and strong conflicts among local inhabitants and aquaculture companies (Benitez et al., 2000; Mestre, 2011).

31. Mangroves are also affected by urbanization and coastal development, cutting for firewood or construction material, pollution from land-based and ocean-based sources, and changes in water circulation patterns.

Table 1. Mangrove area in PACA

Country	Mangrove area (ha)	Year	Source
Mexico	153,813[a]	2010	Rodríguez-Zúñiga et al., (2012)
Guatemala	17,670.56	2012	MARN (2013)
El Salvador	40.000[b]	NA	MARN (2014)
Honduras	42,012	1998	Sanchez & Guevara (2000)
Nicaragua	30,546.76[c]	2006	MARENA (2010)
Costa Rica	37,044	2013	SINAC (2014)
Panama	154,427[d]	2007	Spalding et al., (2010) ANAM & ARAP (2013)
Colombia	230.239,2	2013	INVEMAR (2014)
Ecuador	148.230,23	2006	CLIRSEN (2007)

NA = not available

[a] 7,030 ha disturbed.

[b] About 2,000 ha affected by deforestation and siltation.

[c] Assuming 46% is on the Pacific coast.

[d] Assuming 91% is on the Pacific coast.

32. PACA´s coral reefs have a risk category of medium (IOC-UNESCO & UNEP, 2016). However, the threat level is projected to increase considering thermal stress and ocean acidification. Currently, 7% of coral reef cover is under very high threat and 26% is under high threat. But, it is projected that by 2030 and 2050, respectively, 39% and 42% of the coral reef cover will be under very high to critical level of threat (IOC-UNESCO & UNEP, 2015).

33. Coral reefs are naturally affected by strong ENSO events. In Costa Rica, the 1982-1983 El Niño produced extensive coral bleaching causing about 50% mortality of coral reefs at Isla del Caño and 90% at Isla del Coco (Garzón-Ferreira et al., 2000; Cortés et al., 2010). In 1998, La Niña caused about 70% mortality of coral reefs in Oaxaca (Mexico) (Kramer et al., 2000). Human activities produce direct and indirect damages to coral reefs. The main direct causes are (i) extraction of corals, (ii) nonregulated tourist activity,

(iii) ship groundings, (iv) anchor damage and (v) eutrophication (Garzón-Ferreira, et al., 2000; Kramer et al., 2000; Glynn et al., 2016). The main indirect causes are: (i) coastal alteration, (ii) sedimentation, (iii) pollution (hydrocarbons, nutrients, pesticides) and (iv) plankton booms (Garzón-Ferreira, et al., 2000; Kramer et al., 2000; Glynn et al., 2016). Climate change will also impact coral reefs, considering that it is expected to have more intense and stronger ENSO events (Cai et al., 2014; Cai et al., 2015).

3. Overuse of fishery resources.

34. The percentage of overexploited and collapsed stocks has steadily increased since 1990. Collapsed stocks increased from 5.2% in 1990, to 12.3% in 2000 and to 20.8% in 2010 (Sea Around Us). In 2010, 52.3% of the stocks were overexploited (31.5%) or collapsed. Since 1990, the percentage of the catch from overexploited stocks has fluctuated between 21.8% (1994) and 40.3% (1990). In 2010, 39.1% of the capture came from overexploited and collapsed stocks, 28.3% from exploited stocks and 27.7% from rebuilding stocks.

35. The increase in overuse of fishery resources is caused by (i) intense fishing pressure particularly in estuarine and coastal fisheries, (ii) limitations to monitor and administer small scale and artisanal fisheries, (iii) use of high-impact and destructive fishing practices, and (iv) illegal fishing.

36. It is known that fishing pressure from small-scale and artisanal fisheries has increased. However, these fisheries have a high level of informality and tend to be un-reported and not managed, leading to unsustainable practices that deplete the resources. For example, in Peru, it has been estimated that about 70% of the artisanal fisheries sector is informal (Anon, 2015). About 50% of the vessels and 51% of the fishermen that capture pota (Dosidicus gigas) – the second largest Peruvian fishery -- do not have permits (Paredes & De la Puente, 2014). In Ecuador, estuarine fish in the Gulf of Guayaquil (e.g, weakfishes, snooks, mullets) and coastal resources (e.g., groupers, octopus) are open access un-managed fishery resources.

37. According to the estimates of Sea Around Us, PACA´s reconstructed catch is about a third larger than the reported catch. The reconstructed catch estimates reflect discards, unrecorded / underestimated catches, and unreported catches (Pauly & Zeller, 2015; Pauly & Zeller, 2016). In general, important fisheries, mainly industrial (e.g., tuna, small pelagic fish) and export-oriented (e.g., lobsters), are monitored and have management systems. But, less valuable fisheries – mainly small scale, artisanal and subsistence fisheries -- tend to be un-reported and not managed.

38. Some fishing operations, like bottom trawling and long-lines, have high impact on non-target resources and valuable biodiversity. There are important levels of unrecorded discards that are not considered in decision making. For example, unreported discards from the Panamanian shrimp trawl fishery are about three times the landed catch (Harper et al., 2014). In the southernmost part of Mexico (called the Middle American Pacific) shrimp trawling has very high bycatch ratio, ranging from 1:16 to 1:41 (Wilkinson et al., 2009).

39. In addition, there are a number of shared resources that require regional coordination and harmonized regulations (e.g., C. hippurus, billfishes, sharks, small pelagic fish and Anadara spp.) A case are billfishes which are captured by commercial and sport fisheries in the region, but countries have different management priorities. For example, Mexico and Central American countries give high priority to their use in catch-and-release sport fisheries. However, billfishes are a main target for overseas and national industrial long-line fleets. In Ecuador billfishes are a main target of artisanal fisheries. The IATTC has limitations to assess billfish stocks and formulate management strategies because of lack of information from domestic commercial and sport captures.

4. Impacts of climate change

40. It is anticipated that climate change will strongly affect the conditions in this LME. So far it has been identified a general warming trend of air temperature and more intense rainfall events in Central America and northern South America (Aguilar et al., 2005). A slow warming trend of the sea surface temperature between 1957 and 2006 was reported by Belkin (2009).

41. Existing information indicate that corals reef could be affected by warming and ocean acidification, and that climate change could increase the occurrence and intensity of HABs (Gilbert et al., 2014; Wells et al., 2015). In addition, the coasts of Costa Rica, El Salvador, Honduras and Nicaragua are vulnerable to sea level rise. In El Salvador, it has been estimated that about 10% of its territory would be flooded if the sea level rises by 13 cm and up to 27.6% if it rises by one meter (UNEP, 2006).

42. Future changes in ENSO events are unclear. Bakun & Weeks (2008) proposed that they may be less intense; but Cai et al., (2014 and 2015) anticipated more intense and stronger events.

Please refer to the PIF document for No. 43 to 98

1b. Project Map and Coordinates

Please provide geo-referenced information and map where the project interventions will take place.

2. Stakeholders

Select the stakeholders that have participated in consultations during the project identification phase:

Indigenous Peoples and Local Communities ☑

Civil Society Organizations ☑

Private Sector Entities ☑

If none of the above, please explain why: ☑

43. The following table summarize key stakeholder engagement during project preparation. Nonetheless, a full stakeholder analysis will be conducted during PPG, with focus on the key stakeholders of the pilot sites.

44. Fourteen indigenous groups are located along PACA´s coastal area: Chontal, Mixe, Zoque, Zapoteca, Huave, Nahua, Lenka, Chorotega, Xiu, Nahoa, Bruncajc, Nagäbe - Buglé, Wounaan, and Emberá (Villagomez, 2004; Acosta, 2007; UNICEF & FUNPROEIB Andes, 2009; UICN, 2016).

45. From north to south, they are located in the following areas:

a. Chontal, Mixe, Zoque, Zapoteca, and Huave in the isthmus of Tehuantepec (Mexico).

b. Nahua in a coastal stretch of El Salvador.

c. Lenka in Salvadorian Gulf of Fonseca.

d. Chorotega, Xiu, and Nahoa in Nicaragua.

e. Bruncaj in Bahia de Coronado in Costa Rica.

f. Ngäbe - Buglé in Golfo Dulce in Costa Rica.

g. Ngäbe - Buglé in Golfo de Chiriquí in Panama

h. Wounaan and Emberá in the Golfo de San Miguel in Panama.

i. Emberá are located in Borbón (northern Ecuador, Esmeraldas province).

46. In addition, there is a large African-american population located in the coastal area along northern Ecuador (Esmeraldas province), Colombia, and the provinces of Darien and Panama in Panama.

47. During PPG the specific linkages and roles of these and other identified stakeholders to the project will be identified. Those groups whose livelihoods have direct links with project action, will be incorporated in the project preparation process. In addition, project design will incorporate appropriate culturally-sensitive measures according to UNDP and GEF policies.

In addition, provide indicative information on how stakeholders, including civil society and indigenous peoples, will be engaged in the project preparation, and their respective roles and means of engagement.

3. Gender Equality and Women's Empowerment

Briefly include below any gender dimensions relevant to the project, and any plans to address gender in project design (e.g. gender analysis).

48. Women are key stakeholders in a large number of activities that occur within the Pacific Central-American Coastal Large Marine Ecosystem. These activities range from direct collection of cockles in mangroves and invertebrates on tidal pools, to running restaurants and hotels, to administer MPAs, and to head local governments and public entities.

49. Every effort will be made to advance gender equality in the project, to incorporate gender-sensitive actions in the TDA/SAP process, and to mainstream gender considerations into the SAP. During PPG, (i) a gender analysis, and (ii) a gender action plan will be prepared to identify needs and opportunities to mitigate potentially adverse effects of the project on men and women, as well as to promote gender equality within the project.

50. UNDP has procurement procedures that explicitly recognize the promotion of gender equality as a standard business practice. As a result, gender equality will be taken into consideration through the procurement processes when sourcing staff, equipment, and consultants.

Does the project expect to include any gender-responsive measures to address gender gaps or promote gender equality and women empowerment?

Closing gender gaps in access to and control over natural resources; ☑

Improving women's participation and decision-making; and/or ☑

Generating socio-economic benefits or services for women. ☐

Will the project's results framework or logical framework include gender-sensitive indicators?

Yes

4. Private sector engagement

Will there be private sector engagement in the project?

Yes

Please briefly explain the rationale behind your answer.

51. Private sector enterprises (ranging from micro-enterprises to multinational corporations) are key stakeholders in a number of activities that occur within the Pacific Central-American Coastal Large Marine Ecosystem. These activities include, for example, tourist operators, sport fishing, harbour operations, maritime transportation, commercial fishing and provision of potable water and sewage services.

52. Private sector, like fishing companies and marine tourism operators, will be directly engaged in the preparation of the SAP and TDA. Private enterprises will also be part of the implementation the pilot interventions on marine spatial planning and regional strategy for conservation and management of billfishes.

5. Risks

Indicate risks, including climate change, potential social and environmental risks that might prevent the Project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the Project design (table format acceptable)

6. Coordination

Outline the institutional structure of the project including monitoring and evaluation coordination at the project level. Describe possible coordination with other relevant GEF-financed projects and other initiatives.

53. The present project will coordinate with the following projects:

a. Global Sustainable Supply Chains for Marine Commodities (GEF ID 5271), under implementation Costa Rica and Ecuador.

b. Sustainable Management of Tuna Fisheries and Biodiversity Conservation in the Areas Beyond National Jurisdiction (GEF ID 4581), under implementation in IATTC's area of competence.

c. Fourth phase of the Eastern Tropical Pacific Seascape project (ETPS), executed by Conservation International in Costa Rica, Colombia, Ecuador and Panama.

d. Catalyzing Implementation of the Strategic Action Programme for the Sustainable Management of Shared Living Marine Resources in the Caribbean and North Brazil Shelf Large Marine Ecosystems (CMLE+), which include a number of PACA´s countries and is under implementation by UNDP.

e. Coastal Fisheries Initiative – Latin America (GEF ID 9124) which is under implementation in Ecuador and Peru.

f. Catalysing Implementation of a Strategic Action Programme for the Sustainable Management of Shared Living Marine Resources in the Humboldt Current System (GEF ID 9592) to be implemented in Chile and Peru.

g. Implementation of the Strategic Plan of Ecuador Mainland Marine and Coastal Protected Areas Network (GEF ID 9369) which is under implementation in Ecuador.

h. Conservation, sustainable use of biodiversity, and maintenance of ecosystem services in protected wetlands of international importance (GEF ID 5749), implemented in El Salvador.

i. Strengthening management of the protected areas system to better conserve endangered species and their habitats (GEF ID 5089), implemented in Mexico.

j. Conservation, sustainable use of biodiversity, and maintenance of ecosystem services of internationally important protected wetlands (GEF ID 4836), implemented in Costa Rica.

k. Conservation of coastal watersheds to achieve multiple global environmental benefits in the context of changing environments (GEF ID 4792), implemented in Mexico.

l. Enhancing national capacities to manage invasive alien species (IAS) by implementing the national strategy on IAS (GEF ID 4771), implemented in Mexico.

m. Integrated management of marine and coastal areas of high value for biodiversity in continental Ecuador (GEF ID 4770), implemented in Ecuador.

n. Strengthening management effectiveness and resilience of protected areas to safeguard biodiversity threatened by climate change (GEF ID 4763), implemented in Mexico.

o. Conservation and sustainable use of biodiversity in coastal and marine protected areas (MPAs) (GEF ID 4716), implemented in Guatemala.

p. Strengthening the sub-system of coastal and marine protected areas (GEF ID 4708), implemented in Honduras.

q. Costa Rica forever programme.

54. The present project will seek coordination with the following projects which area being prepared:

a. Project proposal (name not available) to KfW to strengthen CMAR. It will be implemented in Colombia, Costa Rica, Ecuador and Panama.

55. Finally, the project will coordinate with the pertinent initiatives of NGOs that are working on marine conservation in the area. For example, Conservation International, MarViva, The Billfish Foundation, WWF, and WildAid. It will also establish communication and coordination with IATTC, CPPS, OLDEPESCA, OSPESCA, the Secretariat of CMAR, and the Secretariat of the Antigua Convention.

7. Consistency with National Priorities

Is the Project consistent with the National Strategies and plans or reports and assesments under relevant conventions

Yes

If yes, which ones and how: NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, INDCs, etc

Consistency with National Priorities. Is the project consistent with the National strategies and plans or reports and assessments under relevant conventions? (yes /no). If yes, which ones and how:

- National Action Plan for Adaptation (NAPA) under LDCF/UNFCCC

- National Action Program (NAP) under UNCCD

- ASGM NAP (Artisanal and Small-scale Gold Mining) under Mercury

- Minamata Initial Assessment (MIA) under Minamata Convention

- National Biodiversity Strategies and Action Plan (NBSAP) under UNCBD

- National Communications (NC) under UNFCCC

- Technology Needs Assessment (TNA) under UNFCCC

- National Capacity Self-Assessment (NCSA) under UNCBD, UNFCCC, UNCCD

- National Implementation Plan (NIP) under POPs

- Poverty Reduction Strategy Paper (PRSP)

- National Portfolio Formulation Exercise (NPFE) under GEFSEC

- Biennial Update Report (BUR) under UNFCCC

- Others

56. The project is consistent with the national biodiversity strategies of the participating countries (from north to south):

a. Mexico´s National Biodiversity Strategy issued in 2000. A new version with a 2016-2030 action plan is under consultation.

b. Guatemala´s National Biodiversity Strategy and action plan 2012-2022 issued in 2012.

c. El Salvador´s National Biodiversity Strategy issued in 2000 and updated in 2013

d. Honduras´s National Biodiversity Strategy and action plan 2014-2020 issued in 2014.

e. Costa Rica´s National Biodiversity Strategy and action plan 2016-2025 issued in 2016.

f. Panama´s National Biodiversity Strategy issued in 2000.

g. Ecuador´s National Biodiversity Strategy and Action Plan 2015-2030.

57. The project is also consistent with the national fisheries policies and regulations, and the following national policies (from north to south):

a. Mexico´s National Seas and Coasts Policy issued in 2012.

b. Costa Rica´s National Sea Policy 2013-2028, issued in 2013.

c. Ecuador´s Ocean and Coastal Policies issued in 2014.

58. The project is consistent with the following regional policies and instruments:

a. Fisheries and aquaculture integration policy 2015 - 2025 (OSPESCA, 2015), approved on March 2015 by Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Panama and Dominican Republic. This is a comprehensive policy that includes, among other elements, regional governance and management and climate change. This regional policy is implemented through a number of regional regulations.

b. The Convention for the Strengthening of the Inter-American Tropical Tuna Commission Established by the 1949 Convention between the United States of America and the Republic of Costa Rica (denominated the "Antigua Convention"). This convention is the basis of the IATTC and covers the regional management of f tunas and tuna-like species and other species of fish taken by vessels fishing for tunas and tuna-like species in the convention area. The regional management is implemented through resolutions adopted by consensus by the participating parties.

c. The regional protocols and agreements adopted by the parties of the CPPS. These include, among others, protocols on pollution from land-based sources marine protected areas. In addition, CPPS administer the Regional Seas Action Plan for the South-east Pacific (approved in 1981). The action plan includes six lines of work: (a) marine mammals, (b) marine turtles, (c) marine protected areas, (d) marine pollution, (e) marine debris, and (f) mangroves.

The regional environmental strategy 2015 – 2020 (CCAD, 2014) and the regional strategy on climate change (CCAD & SICA, 2010) adopted by CCAD. Both instruments incorporate actions for the coastal and marine environment and resources

8. Knowledge Management

Outline the Knowledge management approach for the Project, including, if any, plans for the Project to learn from other relevant Projects and initiatives, to assess and document in a user-friendly form, and share these experiences and expertise with relevant stakeholders.

59. Component 3 will focus on knowledge management. Lessons will be systematically documented and shared through the project´s website, national and regional websites (e.g., fisheries authorities, OSPESCA) and IW:LEARN. The project´s website will be developed and maintained following the IW:LEARN guidance. Project experience will be documented and disseminated using the GEF IW templates for experience notes and results notes. Country representatives and the project team will participate in IW:LEARN meetings and the International Waters Conferences. At least 1% of the GEF project budget allocation will be dedicated to IW portfolio learning.

60. The project will (i) develop and maintain an electronic platform (e.g., website, social networks) to facilitate communication and information exchange, and (ii) support working groups and systematically document and disseminate lessons to key stakeholders in the region.

61. The documents to be produced will be gender and culturally sensitive. Documents with appropriate language will be prepared for decision makers and key stakeholders. Technical documents will have English summaries to facilitate international access.

Part III: Approval/Endorsement By GEF Operational Focal Point(S) And Gef Agency(ies)

A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S): (Please attach the Operational Focal Point endorsement letter with this template).

Name	Position	Ministry	Date
Enid Chaverri Tapia	Director of International Cooperation	Ministry of Environment and Energy of Costa Rica	8/14/2018
Carlos Walberto	Vice Minister of Natural Resources	Ministry of Environment and Natural Resources	9/19/2018

Name	Position	Ministry	Date
Ramos Salguero	and Climate Change	of Guatemala	
Rosibel Martinez Arraga	Director of External Cooperation and Resource Management	Secretariat of Energy, Natural Resources, Environment and Mining of Honduras	1/27/2018
Antonella Finis	Head of International Cooperation Officer	Ministry of Environment of Panama	9/18/2018
Camila Zepeda Lizama	General Director	Ministry of Finance and Public Credit of Mexico	9/18/2018
María Belén Duran Flores	Planning and Investment Assistant	Ministry of Environment of Ecuador	9/20/2018
Walter González	International Cooperation Unit Chief	Ministry of Environment and Natural Resources of El Salvador	3/8/2017

ANNEX A: Project Map and Geographic Coordinates

Please provide geo-referenced information and map where the project intervention takes place

ANNEX B: GEF 7 Core Indicator Worksheet

Use this Worksheet to compute those indicator values as required in Part I, Table F to the extent applicable to your proposed project. Progress in programming against these targets for the program will be aggregated and reported at any time during the replenishment period. There is no need to complete this table for climate adaptation projects financed solely through LDCF and SCCF.

ANNEX C: Project Taxonomy Worksheet

Use this Worksheet to list down the taxonomic information required under Part1 by ticking the most relevant keywords/topics//themes that best describes the project