



Climate Adaptation and Resilience in Cambodia's Coastal Fishery Dependent Communities

Part I: Project Information

GEF ID

9201

Project Type

FSP

Type of Trust Fund

LDCF

Project Title

Climate Adaptation and Resilience in Cambodia's Coastal Fishery Dependent Communities

Countries

Cambodia

Agency(ies)

FAO

Other Executing Partner(s):

Ministry of Environment (MoE), Fisheries Administration (FiA) of the Ministry of Agriculture, Forestry and Fisheries

Executing Partner Type

Government

GEF Focal Area

Climate Change

Taxonomy

Ecosystem-based Adaptation, Climate Change Adaptation, Climate Change, Focal Areas, Adaptation Tech Transfer, Climate resilience, National Adaptation Programme of Action, Livelihoods, Sea-level rise, Mainstreaming adaptation, Least Developed Countries, Community-based adaptation, Sustainable Development Goals, Transform policy and regulatory environments, Influencing models, Demonstrate innovative approaches, Strengthen institutional capacity and decision-making, Private Sector, Stakeholders, Individuals/Entrepreneurs, Education, Communications, Behavior change, Awareness Raising, Strategic Communications, Information Dissemination, Type of Engagement, Partnership, Participation, Consultation, Beneficiaries, Local Communities, Civil Society, Academia, Gender Mainstreaming, Gender Equality, Sex-disaggregated indicators, Women groups, Gender-sensitive indicators, Gender results areas, Access and control over natural resources, Knowledge Generation and Exchange, Participation and leadership, Access to benefits and services, Capacity Development, Conference, Knowledge Exchange, Capacity, Knowledge and Research, Field Visit, Exhibit, Training, Knowledge Generation, Workshop, Seminar, Course, Innovation, Adaptive management, Learning

Rio Markers**Climate Change Mitigation**

Climate Change Mitigation 0

Climate Change Adaptation

Climate Change Adaptation 2

Duration

60In Months

Agency Fee(\$)

413,250

A. Focal Area Strategy Framework and Program

Objectives/Programs	Focal Area Outcomes	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
CCA-1		LDCF	3,507,000	18,890,251
CCA-2		LDCF	525,000	2,935,000
CCA-3		LDCF	318,000	2,229,500
			Total Project Cost(\$)	24,054,751

B. Project description summary

Project Objective

Coastal fishery-dependent communities adapt to climate change through strengthening the resilience of the coastal ecosystems upon which they depend and through adapting their livelihoods and practices to reduce their vulnerability.

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
Component 1 – Strengthening policy coordination and capacity development for an adaptive enabling environment	Technical Assistance	Outcome 1 – National and provincial capacity to support adaptation to climate change is enhanced along coastal areas.	<p>Output 1.1 - Climate Change Adaptation is incorporated into fisheries and coastal frameworks</p> <p>Output 1.2 - Fisheries and coastal ecosystem considerations integrated into the broader cross-sectoral policies, strategies and plans related to Climate Change at national and sub-national levels</p> <p>Output 1.3 - Capacity of national and sub-national government staff and other stakeholders enhanced to develop and implement climate change resilient policies and practices, as well as to access climate finance, and regularly assess their capacity over the project lifetime.</p>	LDC F	652,912	5,699,000

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
Component 2 – Sustainable Ecosystem Management for coastal resilience	Technical Assistance	<p>Outcome 2 – Coastal ecosystems protected and rehabilitated to enhance resilience of the coastal social-ecological systems</p>	<p>Output 2.1 - Climate resilient Protected Area Management Plans put into place and addressing the factors of ecosystem loss along the coastline</p> <p>Output 2.2 - Coastal communities in protected areas enhance their capacity to implement and monitor the Sustainable Community Protected Area Management Plans (including livelihood options and coastal protection measures)</p> <p>Output 2.3 – CPA Network created to build intra-community cooperation for natural resources (and other issues, as for example gender mainstreaming), share lessons learned and strengthen conservation and management actions (vertical and horizontal integration)</p>	LDC F	1,329,469	4,675,940

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
Component 3 – Fishing Community Adaptation Capacity strengthened	Technical Assistance	Outcome 3 - Community Fisheries have increased capacity to adapt to the impacts of climate change	<p>Output 3.1 Integrate adaptation into the development/revision of Community Fishing Area Management Plans (CFAMP) and reflect into CIP and CDP</p> <p>Output 3.2 Integrate Adaptation during the implementation of the CFAMP process, supporting local level monitoring of resilience to climate change</p> <p>Output 3.3 Develop capacity of CFIs (community fisheries) members to monitor that their plans are climate change resilient</p> <p>Output 3.4 Coastal early warning and disaster risk management systems that increase fishers’ resilience against extreme weather and environmental events</p>	LDC F	1,386,365	13,409,811

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
Component 4 – Knowledge Management	Technical Assistance	Outcome 4 – Monitoring and evaluation and information dissemination	Output 4.1 - Project Monitoring, Evaluation and Learning (MEAL) Output 4.2 - Project Communications Plan Output 4.3 - Gender and Stakeholder Engagement Strategy	LDC F	774,111	270,000
Sub Total (\$)					4,142,857	24,054,751
Project Management Cost (PMC)						
					LDCF	207,143
Sub Total(\$)					207,143	0
Total Project Cost(\$)					4,350,000	24,054,751

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

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Amount(\$)
Government	Fisheries Administration	In-kind	2,200,000
Government	Fisheries Administration	Grant	622,500
Government	Ministry of Environment	In-kind	1,979,000
GEF Agency	FAO	In-kind	150,000
GEF Agency	FAO	Grant	3,809,000
GEF Agency	IUCN	In-kind	200,000
CSO	Flora Fauna International (FFI)	In-kind	2,496,940
CSO	WCS	In-kind	257,311
Private Sector	Investco Holding Co., Ltd	In-kind	12,340,000
Total Co-Financing(\$)			24,054,751

D. 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	NGI	Amount(\$)	Fee(\$)
FAO	LDCF	Cambodia	Climate Change		No	4,350,000	413,250
Total Grant Resources(\$)						4,350,000	413,250

E. Non Grant Instrument

NON-GRANT INSTRUMENT at CEO Endorsement

Includes Non grant instruments? **No**

Includes reflow to GEF? **No**

F. Project Preparation Grant (PPG)

PPG Required

PPG Amount (\$)

150,000

PPG Agency Fee (\$)

14,250

Agency	Trust Fund	Country	Focal Area	Programming of Funds	NGI	Amount(\$)	Fee(\$)	
						Total Project Costs(\$)	0	0

Core Indicators

Indicator 6 Greenhouse Gas Emissions Mitigated

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO₂e (direct)	0	7631912	0	0
Expected metric tons of CO₂e (indirect)	0	0	0	0

Indicator 6.1 Carbon Sequestered or Emissions Avoided in the AFOLU (Agriculture, Forestry and Other Land Use) sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO₂e (direct)				
Expected metric tons of CO₂e (indirect)				
Anticipated start year of accounting				
Duration of accounting				

Indicator 6.2 Emissions Avoided Outside AFOLU (Agriculture, Forestry and Other Land Use) Sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO₂e (direct)		7,631,912		
Expected metric tons of CO₂e (indirect)				
Anticipated start year of accounting		2021		
Duration of accounting		20		

Indicator 6.3 Energy Saved (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Total Target Benefit	Energy (MJ) (At PIF)	Energy (MJ) (At CEO Endorsement)	Energy (MJ) (Achieved at MTR)	Energy (MJ) (Achieved at TE)
Target Energy Saved (MJ)				

Indicator 6.4 Increase in Installed Renewable Energy Capacity per Technology (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Technology	Capacity (MW) (Expected at PIF)	Capacity (MW) (Expected at CEO Endorsement)	Capacity (MW) (Achieved at MTR)	Capacity (MW) (Achieved at TE)
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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		23,500		
Male		23,500		
Total	0	47000	0	0

PART II: Project JUSTIFICATION

1. Project Description

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

The national context

Cambodia is situated in mainland Southeast Asia, covering 181,035 km² along the low-lying Central Plain that includes the Tonle Sap basin, the lower Mekong River floodplains and the Bassac River plain. The country is surrounded by mountains to the north, east, south and southwest, while the central lowlands extend into Viet Nam towards the south-east. The south of the country limits with the Gulf of Thailand, with a coastline of 435 km characterized by mangroves forests, sandy beaches and bays, and crossing 4 provinces: Preah Sihanouk (2,536 km²), Kampot (4,873 km²), Koh Kong (10,090 km²), and Kep (336 km²). These four coastal provinces cover a total area of 17,835 km² (representing 10% of the country's area). The claimed Economic Exclusive Zone (EEZ) of Cambodia covers an area of approximately 42,000 km², containing 64 islands.

The country is in a path of unprecedented prosperity, with impressive rates of economic growth over the last decade, translated into a three-fold increase[1]¹ in per capita income, and the decrease in poverty rate from 53.5% in 2004 to less than 10% in 2018.[2]² Over the past two decades, Cambodia has undergone a significant economic transition, gradually moving forwards from the least developed country grouping (it is estimated that the graduation will begin in 2021[3]³). It is aiming to become an Upper Middle-Income Country by 2030[4]⁴ and, ultimately, a High-Income Country by 2050. Driven by garment exports and tourism, Cambodia's economy has sustained an average growth rate of 7.7% between 1995 and 2018, making it among the fastest-growing economies in the world. As global demand peaked in 2018, economic growth is estimated at 7.5%, compared to 7% in 2017 and is expected to remain robust over the medium term, according to the World Bank.[5]⁵ The country's population continues to grow rapidly and is currently at 14.7million[6]⁶ with a density of roughly 82 people[7]⁷ per km². Around 7.3 % of the country's population (about 1,070,525 people[8]⁸), live in the four coastal provinces.

According to the draft National Strategic Development Plan (NSDP) 2019-2023^[9], agriculture contributes around 23.5% of the country’s GDP share in 2018. The reduction of GDP share of the agriculture sector is due to the fast growth of other sectors such as industry, construction and services. Between 2014-2018, the share of agriculture in the GDP has gone from 23.5% to 30.7%, and of this, the main contributions have been provided by crops (58.1%), **fisheries (24.1%)**, animal and livestock production (11.1%), and forestry (6.7%).

Cambodia’s positive trends on economic performance and poverty reduction are being highly threatened due to climate change impacts, and rising socioeconomic inequality, which is threatening to leave many behind and destroy natural ecosystems. This is particularly worrisome in the coast, where the impacts of unplanned and destructive development are taking place in areas already highly vulnerable to the impacts of climate change. Poverty rates also remain high in the four coastal provinces. Koh Kong Province has the highest poverty rate^[10]¹⁰ among the four coastal provinces, with 23.8 % of the households in the province being poor, followed by Kep Province (21.3 %), Kampot Province (13.2 %) and Preah Sihanouk (11.9 %). Almost half of all these poor households are female headed households.^[11]¹¹

In the absence of a legal definition of “coastal area” in Cambodia, the CamAdapt has estimated that about 270,000 people^[12]¹², can be considered **coastal population** for their proximity to the sea (coastal districts) (please refer to Table 1). All these people are to some extent dependent on fisheries and on the sustainable harvesting of other marine/coastal resources.

Table 1 – Characteristics of population in the coastal provinces in 2017.

Description	Kep	Kampot	Sihanouk	Koh Kong	Total
Total population (person)	41,177	681,332	214,630	133,386	1,070,525
Annual population growth rates (%)	1,02	1,09	1,12	1,92	1,29
Total male	20,137	332,309	106,609	66,915	525,970
Total female	21,040	349,023	108,021	66,471	544,555
Number of families	9,079	149,857	46,478	29,199	234,613
% of female as the head of family	17.2	15.7	14.1	17.7	16.18
The medium size of each family (person/family)	4.5	4.6	4.6	4.6	4.6

Source: Commune Data Base 2018 for Kep, Kampot, Sihanouk, and Koh Kong province

Coastal ecosystems and livelihoods

The livelihoods of the families and members of the community fisheries (CFis), and community protected areas (CPAs) are highly dependent on coastal and marine ecosystems, such as mangrove forests, coral reefs, seagrass beds, salt marshes and estuaries. These ecosystems are all extremely important to the country's economic development and coastal livelihoods. Most of the fishing activities operate in coastal shallow water of inshore areas, and between inshore and offshore fisheries. The high dependency on natural resources, combined with overall poverty (households relying on capture fisheries using small-scale fishing gears are amongst the poorest in the four provinces), remoteness and marginalization (specially for islands communities, such as those in Koh Kapik and Koh Sdach commune), and the direct exposure to climate vectors (i.e. storms, sea level rise and changing rainfall), makes coastal fishing communities amongst the most vulnerable to climate change impacts. Increased water temperatures have direct effect on mud-crab and swimming crab, leading to reduced catches and the consequent loss of income. This productivity reduction also impacts women who do the crab peeling, as they have less product to process. Women fishing in mangrove areas have also seen a reduction of mangrove crab and blood cockle collection, also due to the high temperatures. This loss of productivity and of raw material for processing means that women are losing their traditional sources of income and are left with little opportunities to diversify their livelihoods. Other socio-economic activities in coastal areas include agriculture, livestock-raising, construction (often through migration to urban areas) and small-scale tourism and recreation. Tourism has been growing rapidly in recent years; if this growth continues it may become a major employer in coastal areas as well as a source of livelihoods. However, women have less adaptive options available to them, as traditionally they have less influence over the decision-making processes, including those related to climate adaptation. Women are usually responsible for collecting water for the household, but water wells are not supplying enough water for the coastal communities (due to droughts and saline intrusion) and in the absence of safe wells, women have to rely on purchasing water from private water brokers with prices ranging between 4 and 12 USD a week depending on the community. Unable to meet the cost of water due to declining incomes, fishing households (specially women) are drawn into debt.

Mangrove forests, seagrass meadows, and coral reefs (see Figure 1) interact and sustain each other [13]¹³ by maintaining the natural coastal environment and supporting the ecological balance, providing fishery resources that support the livelihoods of coastal communities. These ecosystems also can protect coastal communities against the impacts of climate change.

Mangroves are salt-tolerant trees, rooted in salty sediments in coastal areas, that form their own ecosystem. The complex root system traps soft sediment, stabilizing the shoreline, filtering pollutants, releasing nutrients, and providing habitat for many coastal species, many of which are relevant to fisheries. At times where dense mangrove forests become established, they can create entire islands – an example of this can be found in Peam Krashop Wildlife Sanctuary of Koh Kong province. Mangrove forests provide many ecosystem services, including protection to coastal communities, acting as buffer zones against wave induced erosion and strong tropical storms. They also provide spawning and nursery habitat for many species of fish and invertebrates, including those that are commercially important. Some of these species may migrate to seagrass or the coral reefs nearby. Mangroves are also primary habitat for many species of seabirds and waterfowl.

Mangrove ecosystems are found in all four coastal provinces: Kep, Kampot, Preah Sihanouk and Koh Kong. The mangrove forest in Peam Krashop Wildlife Sanctuary of Koh Kong province is the largest mangrove area in Cambodia. One data of the extent of mangroves indicates 78,405 ha in the whole coastline (see Table 2), though recent estimates indicate this figure to be much smaller (57,022 ha). There are a total of 41 different mangroves tree species^[14]¹⁴, though two main species dominate: namely *Rhizophora apiculata* and *Rhizophora mucronata*. The CamAdapt PPG consultations revealed a high dependency of coastal communities on mangroves ecosystems, particularly by poor small-scale fishers, particularly women, who glean and fish in and around mangrove areas. Local communities obtain other direct and indirect benefits from mangrove ecosystems, by acting as a buffer zone and protecting village infrastructure from natural disasters (e.g. heavy storm surge, typhoon, strong waves, coastal erosion and sand back intrusion), sustaining fisheries and biodiversity, and having the potential to support alternative livelihood activities (e.g. ecotourism, and mangrove friendly aquaculture).

Table 2 – Mangrove coverage in Cambodia

Province	Mangrove area (in ha)	Mangrove area (in ha)
Kep	1,005	1,208
Kampot	1,900	1,619
Preah Sihanouk	13,500	8,539
Koh Kong	62,000	45,655
Total	78,405	57,022
Source	IUCN 2017 ^[15] ¹⁵	Cambodia Forest Cover 2016, MOE March 2018

Seagrasses are marine flowering plants that grow in shallow coastal waters and are often found forming meadows between mangroves and coral reef ecosystems. Seagrass meadows along the coastal shallower water provide nursery, habitat and feeding ground for many marine fauna and marine fisheries species, including rare and endangered species such as

dugong (*Dugong dugong*), sea horse (*Hippocampus* sps), and sea turtles[16]¹⁶ (*Chelonia mydas* and *Eretmochelys imbricate*). Seagrasses also maintain the water quality in coastal area and absorb nutrients and stabilize the sediment.[17]¹⁷ They also support filtering and treatment of coastal water, trap sediments, prevent seafood erosion, and release oxygen.

There are 9 species of seagrass existing in Cambodia[18]¹⁸, covering an estimated area of 32,492 ha, the largest of which is found in Kampot Province (with an estimated 25,240 ha) (Table 3). Many of small-scale coastal fisheries depend on seagrass ecosystems (e.g. crab or fish trap, fish gill net, and push net) especially in Kep and Kampot provinces, due to the provision of habitat to species such as shrimp, swimming crab, seabass, and grouper. They also have high potential for eco-tourism.

Table 3 – Seagrass distribution in Cambodia

Province	Seagrass area (Unit in ha)
Kep Mainly located around the island of Koh Ses, Koh Por, and Koh Makprang	3,096
Kampot (1) extending from Prek Trapeang Ampil to Prek Kdat, has 1,795 ha; (2) extending from Prek Kdat to Prek Koh Torch (Kilometer 12) has 380 ha; and (3) starts at Prek Koh Torch and extends to Kep Town has 23,065 ha	25,240
Preah Sihanouk Mainly located in some parts of Koh Rong and Koh Rong Sanloeuum archipelago, and Kampong Som Bay	163
Koh Kong Area near Koh Smach, Koh Ampil, and Koh Mnors island, of Koh Sdach commune of Kirisakor District.	3,993
Total area	32,492

Source: DoF, 2004[19]¹⁹

Coral reefs are biodiversity rich coastal ecosystems. The calcium carbonate secreted provides the skeleton to support the soft body polyps for growing. The living polyps have a symbiotic relationship with zooxanthellae, responsible for providing the coral its color, absorbing carbon dioxide through photosynthesis and releasing oxygen as a result. They are found in shallow coastal water, requiring clean and clear water to allow sufficient amount of light to carry out photosynthesis. There are both hard and soft coral reefs in Cambodia,

and they are found distributed as fringing reefs along parts of the mainland, particularly headlands, and around many islands.[20]²⁰ Up to 67 species of hard coral reef and 17 species of soft coral reef have been identified in the coastal area of Cambodia.[21]²¹ Recent studies estimate the coral reefs area at 2,806 ha (Table 4).[22]²² Coral reefs help support marine fisheries in Cambodia, providing habitat of fisheries species such as groupers, seabass, snapper, wrasse, crustacean, and mollusks, etc. that have high market value and can support coastal fishers' livelihoods. Many coastal and island communities depend on coral reef ecosystem fisheries for their livelihood and socioeconomic benefits.

Table 4 – Coral reef distribution along coastal provinces

Province	Coral Reef Areas (in ha)
Kep Mostly located around Kep Archipelago including Koh Por, Koh Ses and Koh Makprang	53
Kampot Mostly located around the islands and coastal areas of Prek Thnoat, Trapaing Ropov and Changhoun communes	953
Presh Sihanouk Mostly located around most of the archipelago of Koh Rong Saleom and Koh Rong	1,198
Koh Kong	602
Total area	2,806

Source: Chanthana & Sopanha, 2016[23]²³

[1] RGC, 2019: Development Cooperation and Partnership Strategy 2019-2023

[2] KIM Lumang Bopata, CDC/CRDB 2019: Development Effectiveness in Cambodia: Progress and Way Forwards, SDC International Forum on Development Effectiveness-30 April 2019, Phnom Penh, Cambodia

[3] KIM Lumang Bopata, CDC/CRDB 2019: Development Effectiveness in Cambodia: Progress and Way Forwards, SDC International Forum on Development Effectiveness-30 April 2019, Phnom Penh, Cambodia

[4] RGC, 2019: Development Cooperation and Partnership Strategy 2019-2023

[5] <https://www.worldbank.org/en/country/cambodia/overview>

[6] RGC, 2014 : NSDP 2014-2018

[7] RGC, 2014 : NSDP 2014-2018

[8] Commune Data Base 2018 for Kep, Kampot, Sihanouk, and Koh Kong province

[9] Draft version March 2019

[10] The Identification of Poor Household Program (known as ID Poor) was started in May 2012 under Ministry of Planning's Proclamation following the RGC's Sub-Decree released in 2011. The program is aimed at to determining which households are poor, their poverty level, and the poverty level of different areas. The ID Poor define the categories of poor level 1 (poor) and Poor level 2 (very poor) are calculated based on scoring of the questionnaire of the identification of poor household. The percentage indicated here is overall level of poverty (1 and 2).

[11] MoP 2018: ID Poor Information System in Cambodia 2017- Report and Map from the Database of Poor Households

[12] This is roughly one quarter of 1,070,525 people in the four coastal provinces.

[13] Greg et all. (2016): The Power of Three: Coral reef, Seagrasses, and Mangroves protect coastal regions and increase their resilience.

[14] An, K., (2011): The Mangrove species in Cambodia.

[15] Sok, V. (2017): Preliminary Situation Analysis for Mangroves and REDD+ for Cambodia.IUCN.

[16] Mcnamara, Aylin & Mizrahi, Meira & Vibol, Ouk & West, Kate. (2015). Marine Turtle Status Report for Cambodia 2015 - Historically, olive ridley turtle (*Lepidochelys olivacea*), hawksbill turtle (*Eretmochelys imbricata*), loggerhead turtle (*Caretta caretta*), green turtle (*Chelonia mydas*), and leatherback turtle (*Dermochelys coriacea*) have been recorded to inhabit the waters of Cambodia, however recent data reveal that species diversity has been reduced to mainly green and hawksbill turtles.

[17] Vibol, O. (2007): National Report on Seagrass in the South China Sea, Cambodia.

[18] MoE/DANIDA/CZM (2002): The State of the Environment report, Kep municipality.

[19] DoF, (2004 b). Seagrass Distribution in Cambodia. Department of Fisheries (previous FiA) Cambodia report

[20] Vibol, O. (2007): National Report on Coral Reefs in the Coastal Waters of the South China Sea, Cambodia.

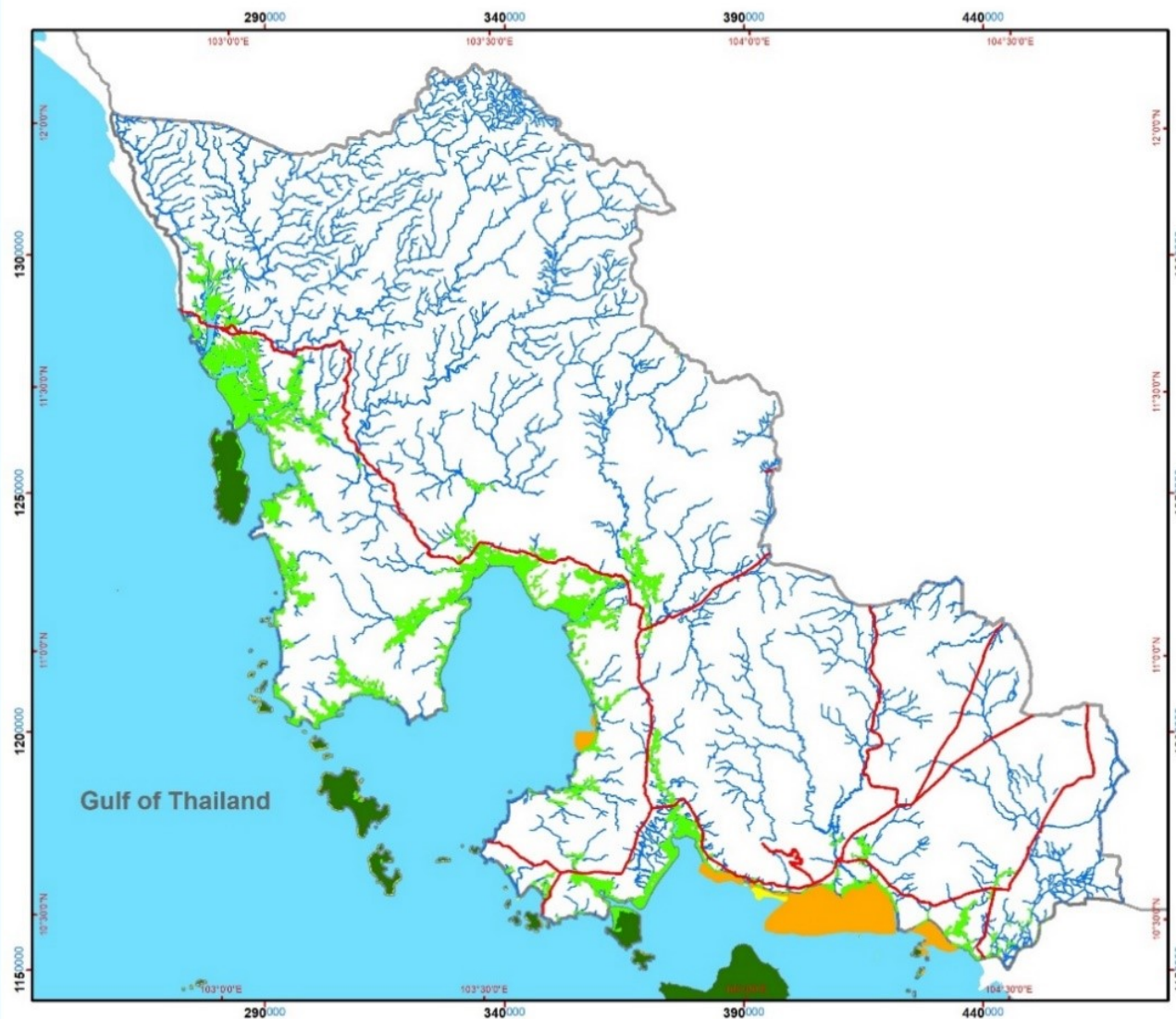
[21] MoE/DANIDA/CZM (2002): The State of the Environment report, Kep municipality

[22] Chanthana, Y. and Sapanha, C. 2016 – Preah Sihanouk: livelihood assessment in Koh Rong Archipelago, Preah Sihanouk province.

[23] ibid

Figure 1 Map of coastal ecosystems in Cambodia

Map of Cambodia's Coastal Ecosystems (Mangroves, Seagrass and Coral Reefs)



Legend

- River system
- National road 48
- Mangroves: 2015
- Coral reefs: 2007
- Seagrass: 2007
- Islands
- Provincial boundary



Data Sources:
- Mangroves: MRC-MoE-2015
- Seagrass, Coralreef: CZM-MoE (2007)



Source: Developed by GIS specialist during CamAdapt PPG phase

In the coastal areas in Cambodia, there are two types of community organizations responsible for the co-management of these valuable ecosystems, in support of the government institutions (FiA and MoE). The local and participatory management of fisheries resources is done by the Community Fisheries (CFis) (under the overall responsibility and guidance of FiA) (see Figure 2). On the other hand, the local and participatory management of resources inside protected areas is done by the Communities Protected Area (under the overall responsibility and guidance of MoE). Despite these overall distinctions, it is normal to find CFis inside protected areas (e.g. CFis in Koh Rong Marine Park). More detail about these two types of communities is provided below.

Community Fisheries (CFis)

The **Community Fisheries (CFis)** organizations were initiated in 2000 as a "top-down" approach as part of the fisheries reform of the time. The objectives for the establishment of Community Fisheries were to sustainably manage fisheries resources with equitable sharing of benefits, increase local communities' understanding and recognition of the benefits and importance of fisheries resources, and to reduce poverty by improving the standard of living of local fishing communities. Nationwide there are a total 516 CFis, out of which 475 are inland fishery communities and just 41 coastal.

The CamAdapt project will be working directly with the 41 Community Fisheries (CFis) located in the coastal area. The higher number of inland CFis reveals the high productivity of freshwater fisheries in the country (specially around the Tonle Sap Lake, the largest freshwater lake in South-East Asia and one of the most productive and biologically diverse freshwater ecosystems in the world). By contrast, marine and coastal fisheries and aquaculture are much less developed, and receive less attention by development projects.

The coastal CFis play important roles for coastal fisheries resources management, being involved in activities such as: mangrove restoration and management, patrolling against illegal fishing, and participating in targeted projects (e.g. crab bank, seagrass and coral reef protection, and other similar conservation activities, etc.). Of the 41 coastal fishery communities, there are 5 CFis in Kep Province (with a total of 766 members, out of which 259 women), 10 CFis in Kampot (3211 members, 1026 women), 16 CFis in Preah Sihanouk (4446 members, out of which 2037 women), and 10 CFis in Koh Kong Province (5508 members, out of which 2468 women). In total, in the four provinces there are 13,931 CFis members, with about 42% (5,790) being female members. For a full list of the CFis in the coastal provinces, see Annex I2.2. The actual number of fishers and people depending on fisheries could be higher, as not all fisher workers are registered as members of the CFis.

The Strategic Planning Framework for Fisheries 2015-2024 has indicated that 300 CFis (in the whole country) should be formally registered and operational (the baseline in 2014 was 50 CFis). Of the 41 CFis along the coastline, only 6 CFis (3 in Kampot and 3 in Preah Sihanouk Provinces) are in the process of being officially registered with the Ministry of Agriculture, Forestry, and Fisheries. In addition, 25 CFis have prepared their management plans (though 11 of these have already expired), while the remaining 16 CFis do not have their management plan yet. In Kep, all the 5 CFis have management plans. In Kampot Province 8 of 10 CFis have a management plan (though 5 of them are already expired). In Preah Sihanouk Province, 8 of 16 CFis have a management plan (but 5 are expired), and in Koh Kong Province 4 of 10 CFis have management plans (with 1 expired). The CamAdapt

project will support the strengthening of the CFis, as well as the updating/development of the CFis management plans, promoting the principles of the Ecosystem Approach to Fisheries (EAF). This approach has not yet been implemented in full in Cambodia, though there are efforts being carried out related to EAF training (e.g. SEAFDEC trainings on EAF), and the CAPFish Project will also promote the EAF approach in inland fisheries.

Community Protected Areas (CPAs)

In Cambodia, there are a total of 49 protected areas under the mandate of the Ministry of Environment through its General Directorate of Administration for Nature Conservation and Protection (GDANCP) and the General Directorate for Local Community (GDLC). In the coastal area, there are 5 protected areas and 1 marine protected area (Koh Rong National Marine Park[1], which was designated in 2018). The protected areas play very important roles for biodiversity conservation and the provision of ecosystem services which are critical for the sustainable development of the country. However, these protected areas are currently facing many challenges related to limited governance, such as: lack of boundary demarcation, zoning, and management plan; difficulty protecting against illegal activities; difficulty solving land use conflict; limited collaboration among the line ministries; lack of technical training to the rangers and protected areas staff; and shortage of financial support to manage protected areas.

The establishment of the Community Protected Areas (Protected Area Law, 2008) allows for the participation of local communities (or indigenous ethnic minorities) to benefit from the management and sustainable use of natural resources in a designated location of the protected area, with the aim of promoting the standards of living of those communities. There are 20 CPAs located along the three coastal provinces, most of them located in Koh Kong Province (with 15 CPAs), followed by Preah Sihanouk Province with 3 CPAs, and Kampot with 2 CPAs[2]. There are no CPAs in Kep Province.

Of the 20 CPAs in the coastal provinces, there are 16 CPAs that do not have management plans, whereas 4 are under the process of preparing their management plans (i.e. Peam Krasob, Beoung Kachhang, Chroy Svay, Chi Khor Ler). Not all of CPAs in the coastal provinces are adjacent to the sea, and some are located in the highland areas. For the CPAs located in the coastal areas, most of the livelihoods of the communities are dependent on the mangrove ecosystem and coastal fisheries resources, showing that coastal CPAs should also play a key role in the coastal fisheries resources management, and good coordination is necessary between the MoE and FiA to facilitate cooperation with the two management regimes. During the PPG consultations, government counterparts indicated that the CamAdapt should consider **connectivity** between the different protected areas in the four coastal provinces, and assess the possibility of including relevant activities (e.g. those linked to livelihoods and eco-tourism) for those CPAs that are not “coastal” per se. Acknowledging that the priority of the CamAdapt project are those communities living near the coast and the coastal ecosystems, the project will take into account connectivity. The list of CPAs are presented in the Annex I2.2, with summary information in Table 5.

Table 5 – Community Protected Areas in the Coastal Provinces

Province	No. of CPA	Area (ha)	No. of CPAs having management plans	No. of Villages	No. of Households
Koh Kong	15	25,641	3	38	5969
CPAs in Peam Krosop Wildlife Sanctuary	5	12,790	2 are being prepared	12	1,131
CPA in Multiple Use Area of Dong Peng	6	4,314	1	15	1,875
National Park Botum Sakor	3	5,870	0	11	2,963
Kampot	2	2,479	1	5	1,332
CPA in the National Park Bokor	2	2,479	1	5	1,332
Sihanouk	3	188	0	3	361
CPA in National Park Sihanouk Ream	3	188	0	3	361
Total CPA Coastal Provinces	20	28,308	4	46	7,662

Source: MoE 2019

In addition to the Protected Areas mentioned above, two **Marine Fisheries Management Areas** (MFMA) and one **National Marine Park** have been established. The main purpose of these MFMA (**under the mandate of FiA**) is the protection, conservation, and sustainable management of coastal and marine fisheries resources and habitats, including coral reefs, seagrass, and mangrove forests. The National Marine Park (**under the mandate of MoE**) aims to protect natural resources and biodiversity of the islands while promoting alternative livelihoods such as ecotourism.

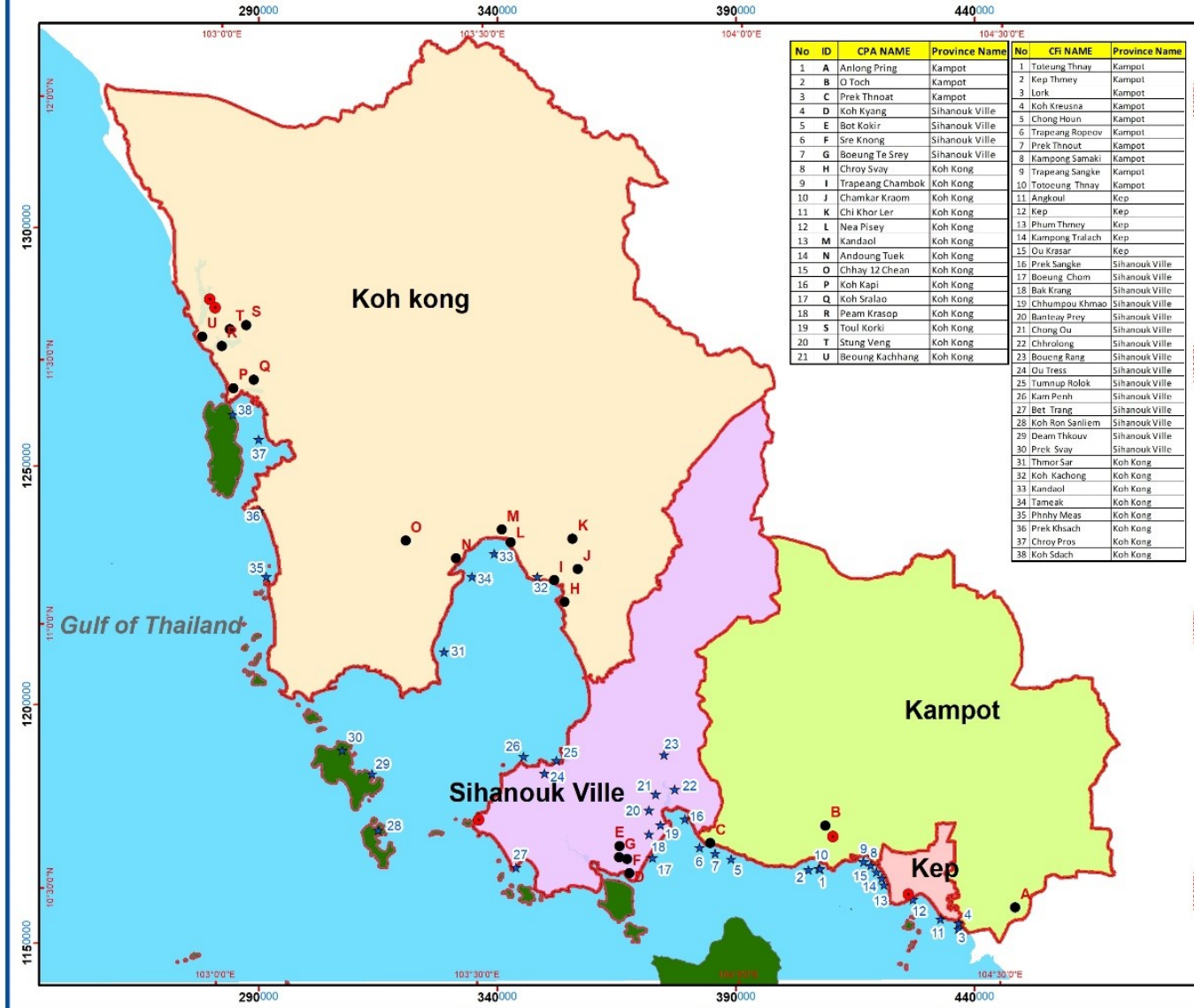
- The first Marine Fisheries Management Area of Koh Rong and Koh Rong Sanloem archipelago (Preah Sihanouk Province) was designated in 2016, with a total area of **40,500 ha**.
- The second Marine Fisheries Management Area of Koh Por and Koh Tonsay archipelago (Kep Province), was designated in 2018, with a total area of **11,307 ha**.
- In 2018, the Koh Rong archipelago was declared Cambodia's first National Marine Park. The Koh Rong National Park includes seven islands: Koh Rong, Koh Rong Samloem, Koh Koun, Koh Touch, Koh Tatiem, Koh Mnoas Krav and Koh Mnoas Knong. It has a total area of **52,448 ha**.

[1] There are no CPAs in the Marine Park of Koh Rong, but there are 3 CFis.

[2] MoE, 2019: Unpublished CPAs database, version January 2019

Figure 2 CPAs and CFis in the coastal area

Community Protected Area and Community Fisheries Map in the Coastal Areas

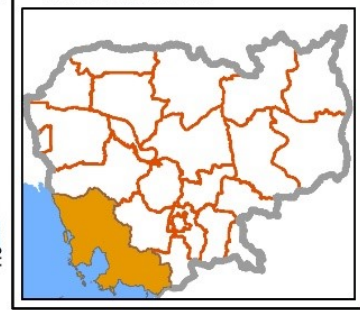


No	ID	CPA NAME	Province Name	No	CFI NAME	Province Name
1	A	Anlong Pring	Kampot	1	Toteung Thmey	Kampot
2	B	O Toch	Kampot	2	Kep Thmey	Kampot
3	C	Prek Thnoat	Kampot	3	Lork	Kampot
4	D	Koh Kyang	Sihanouk Ville	4	Koh Kreusna	Kampot
5	E	Bot Kokir	Sihanouk Ville	5	Chong Houn	Kampot
6	F	Sre Knong	Sihanouk Ville	6	Trapeang Rapreov	Kampot
7	G	Boeung Te Srey	Sihanouk Ville	7	Prek Thnout	Kampot
8	H	Chroy Svay	Koh Kong	8	Kampong Samaki	Kampot
9	I	Trapeang Chambok	Koh Kong	9	Trapeang Sangke	Kampot
10	J	Chamkar Kraom	Koh Kong	10	Totocung Thmey	Kampot
11	K	Chi Khor Ler	Koh Kong	11	Angkoul	Kep
12	L	Nea Pisey	Koh Kong	12	Kep	Kep
13	M	Kandaol	Koh Kong	13	Phum Thmey	Kep
14	N	Andoung Tuek	Koh Kong	14	Kampong Tralach	Kep
15	O	Chhay 12 Chean	Koh Kong	15	Ou Krsar	Kep
16	P	Koh Kapi	Koh Kong	16	Prek Sangke	Sihanouk Ville
17	Q	Koh Srailao	Koh Kong	17	Boeung Chom	Sihanouk Ville
18	R	Peam Krasop	Koh Kong	18	Bak Krang	Sihanouk Ville
19	S	Toul Koriki	Koh Kong	19	Chhumpou Khmao	Sihanouk Ville
20	T	Stung Veng	Koh Kong	20	Banteay Proy	Sihanouk Ville
21	U	Beoung Kachhang	Koh Kong	21	Chong Ou	Sihanouk Ville
				22	Chhrolong	Sihanouk Ville
				23	Boeung Rang	Sihanouk Ville
				24	Ou Treas	Sihanouk Ville
				25	Tumnap Rotok	Sihanouk Ville
				26	Kam Penh	Sihanouk Ville
				27	Bet Trang	Sihanouk Ville
				28	Koh Bon Sanilem	Sihanouk Ville
				29	Deam Thkouv	Sihanouk Ville
				30	Prek Svay	Sihanouk Ville
				31	Thmor Sar	Koh Kong
				32	Koh Kachong	Koh Kong
				33	Kandaol	Koh Kong
				34	Tameak	Koh Kong
				35	Phnh Meas	Koh Kong
				36	Prek Khsach	Koh Kong
				37	Chroy Pros	Koh Kong
				38	Koh Sdach	Koh Kong

- Legend**
- Provincial center
 - Community Protected Area location
 - ★ Community Fisheries location
 - Islands
 - ▭ Provincial boundary
 - Kampot
 - Koh Kong
 - Sihanouk Ville
 - Kep



Data Sources:
 - Administrative boundary: Ministry of Land Management, Urban Planning and Construction
 - Road networks: Ministry of Public Works and Transport
 - Land Cover 2015: MRC-MoE
 - Community Fisheries: Fishery Administratives
 - CPA: Ministry of Environment (MoE)



Source: Developed by GIS specialist during CamAdapt PPG phase

Climate Change Impacts and other challenges faced by coastal communities

Cambodia is located at latitudes 10-14° north of the equator and it experiences a tropical monsoon climate. Average temperatures are relatively uniform across the country and are highest (around 26 to 30 °C) in the early summer months before the rainy season begins. Temperatures remain at 25 to 27°C throughout the rest of the year. The wet season arrives with the summer monsoon, in May through November. The heaviest rainfall is in the Southeast and Northwest, where mean monthly rainfall at this time of year can be more than 500 mm in some areas. Inter-annual variations in climate are caused by the El Niño Southern Oscillation (ENSO). El Niño episodes influence the behavior of the monsoons in this region, and generally bring warmer and drier than average winter conditions across Southeast Asia, whilst La Niña episodes bring cooler than average summers. Seasonality in rainfall can result in variability in water supplies with flooding in the wet season and water shortages in the dry season.

The key projections related to climate change in the region are:

- Temperature: the mean annual temperature is projected to increase by 0.7 to 2.7°C by the 2060s, and by 1.4 to 4.3°C by the 2090s;
- Rainfall: the different models are broadly consistent in indicating increases in mean annual rainfall. This increase is mainly due to the projected increases in the wet season, JJA (June, July, August) (-11 to +31% by the 2090s) and SON (September, October, November) (-8 to +42% by the 2090s). Increases in annual rainfall are partially offset by projected decreases during DJF (December, January, February) (-54 to +36%).
- Storms: Expected changes in precipitation patterns along with changes in storm tracks, frequency and intensity, will also affect coastal systems, both directly and indirectly through their interactions with sea level rise.
- Sea level: Combined with a decline in mangrove area and in increase in the frequency of storms and surges, Cambodia's coastline is increasingly vulnerable to climate change induced sea-level rise. Climate models project the sea-level in this region to rise by the following levels by the 2090s (relative to 1980-1999): 0.18 to 0.43m under SRES B1; 0.21 to 0.52m under SRES A1B and 0.23 to 0.56m under SRES A2.

In terms of tackling challenges associated with climate change, Cambodia is one of the most vulnerable countries in the region given its low adaptive capacity. The World Risk Index of 2018 ranked Cambodia as the 12th country most at risk of natural disasters (considering a combination of exposure, vulnerability, susceptibility, and a lack of coping and adaptation capacities).[1] There are major issues pertaining to required technical knowledge and sustainable coastal natural resource use, which alongside poverty, call for improved coastal resource management models and measures enhancing community climate resilience. The country is exposed to frequent flooding, unpredictable rainfall events, drought and drought spells as well as tropical storms and sea-level rise, while having high dependency on climate-sensitive sectors such as agriculture, water resources, forestry, etc., which support the economic growth and livelihoods of a great majority of the population. This is combined with the limited capacity to adapt to the changing climate, due to major issues related to lack of technical knowledge to address the issues, policy support and poverty.

Problems to be Addressed and Vulnerability to Climate Change

During the PPG consultations, the main livelihood issues that were identified by the members of the CFIs and CPAs that are directly related to climate change include **a decline of fisheries resources, sea water intrusion, a lack of freshwater (particularly in the islands) for domestic and agricultural use**, as well as the **increasing frequent recurrence of damaging storms**, which often leads to the **destruction of coastal ecosystems and coastal infrastructure**.

It does not help that coastal communities are already experiencing the loss of mangroves, coral reefs and seagrass due to the rapid and unplanned coastal development (mostly tourism and industry in recent years, but also due to agriculture and aquaculture). **Mangrove forest** have been converted to resettlements areas, agriculture purposes and industry, though specific information about the amount of land converted is lacking or is outdated (in the 1990s, more than 5000 ha of mangroves were lost to intensive shrimp farming, salt and rice farming, as well as industrial and tourist developments). These losses are continuing, with recent peak increases in the price of land and due to coastal developments, especially in Preah Sihanouk, but also in Kampot and Kep provinces. **Seagrass** suffer from the use of destructive fishing gears such as trawlers and engine push nets and illegal fishing activities (such as the use of cyanide or dynamite fishing) caused direct damage to these ecosystems. **Coral reefs** are highly affected by other activities such as boat anchoring, and tourist activities like scuba diving. Other issues are related to the increase in water pollution due to population increase and industrial activities near the coast, poor infrastructure (e.g. limited water and energy supply), and a high level of individual debts. The combination of all these impacts are a direct threat to the survival of coastal communities' livelihoods that rely on these ecosystems. Without the strong commitment from the concerned stakeholders to support conservation and sustainable management policies, the marine/coastal ecological balance is highly at risk, and it is only expected to worsen with the impacts of climate change.

Contribution of Climate Change to these challenges

Climate change impacts such increasing temperature, sea-level rise, increased atmospheric carbon dioxide, more frequent and severe storms and altered rainfall patterns can significantly impact the coastal and marine ecosystem with consequences for biodiversity and the critical ecosystem services they provide[2], leading to coastal habitat loss, changes in nutrient dynamics and ocean acidification, all leading to impacts on marine fisheries production[3].

Climate variability and climate change are among the **root causes** of many of the challenges facing coastal populations. Climate variability/change is directly contributing to the destruction and modification of ecosystems, to salt water intrusion, to storms (at-sea and on-land) and to water shortages. Cambodia already faces salinization of land surface and groundwater, impacting freshwater ecosystems and the fertility of farming areas, and climate changes will serve to amplify these issues as well as coastal erosion. As most agriculture is also located in low lying and flood prone coastal areas, these changes also pose threats to food security and livelihood resilience. In particular, overall catch potential of the whole fishery in EEZ waters, is expected to decrease between 10 % (RCP[4] 2.5) to 26 % by 2050 (RCP 8.5), while by the end of the century, the decrease is expected to be about 12% (RCP 2.5) or even reach up to 98% (RCP8.5), which would indicate the total collapse of the fishery in EEZ waters[5].

Table 6 Climate Change impacts in fish catch potential in Cambodia’s EEZ[6]

Projected Changes in Catch Potential (%) in Cambodia EEZ (expected average and range) by 2050 and 2100 under RCP2.6 and RCP8.5, based on outputs of the Dynamic Bioclimate Envelope Model (DBEM)							
Mid Century RCP 2.6		Mid Century RCP8.5		End of Century RCP2.6		End of Century RCP8.5	
Avarage	Range	Avarage	Range	Avarage	Range	Avarage	Range
-9.66	7.67	-26.45	35.4	-11.85	2.26	-97.93	4.98

Mangroves: Mangrove forests can strongly tolerate climate change impacts, protecting from coastal erosion, sea level rise, uncertain precipitation and warming weather. During the PPG consultations, it was noted that in areas well covered by mangrove forest, the impact from natural disasters (such as storms, or coastal erosion) was largely reduced. The observed cooling effects in the mangrove forest during episodes of very high temperatures was also noted. However, mangroves can also be threatened by the **impacts of climate change**. [7] Due to their sensitivity to the duration of the tidal flood, the increased duration of flooding due to **sea level rise** can lead to the loss of mangroves, especially at the margins of the seaward area. Other related impacts include a shift in the composition of mangrove species, and the resulting reduction in productivity and provision of ecosystem services. Even though they might be able to migrate inland, this is a slow process. The impact of stronger waves due to **storm surge** can uproot the mangrove trees, and strong winds can cause damage by breaking branches and defoliating the canopy. Changes in **rainfall patterns** are likely to influence the distribution, extent and growth rate of mangrove forests, particularly those at the edge of their tolerance – lower rainfall and increase in evaporation will result in less mangrove cover, while increased rainfall could also lead to an increase in mangrove area. **Temperature increases** can also influence mangrove composition and productivity – high temperatures can lead to a reduction of photosynthesis. Higher temperatures also increase evaporation rate, leading to salinity increases, which will also influence species diversity, size and productivity of the mangrove forest.

Coral reefs: There is not much information about the impacts of climate change on coral reefs in Cambodia, though some observations by local fishers have noted coral bleaching in some areas. An expected **climate change impact**[8] includes **the warming of the seawater** which leads to coral bleaching due to thermal stress. An increase in carbon dioxide absorbed by the sea decreases pH, known as **ocean acidification**, which will lead to a reduction in the calcification rate necessary for coral reef building. **Sea level rise** can cause an increase in sedimentation for the landward coral reef, leading to smothering of the coral reef. The increase in **storm patterns** and **stronger storms** can directly impact the coral reefs, specially in shallow areas. **Increased rainfall** and consequent freshwater runoff can contribute to the impact of land-based pollution and increase in nutrient load, causing algal blooms and murky water conditions, limiting the growth rate of the coral and leading to coral bleaching.

Seagrass: Seagrass meadows are being affected by **temperature increases** and direct sunlight, during their exposure in low tide periods, leading to the direct loss of seagrass. On the other hand, periods of **heavy rainfall** can dilute the salinity of the coastal water and impact the growth of seagrass, and these impacts have already been observed in Kep and Kampot provinces. The increase in turbidity due to **storm surge** can reduce sunlight reaching the seagrass bed.

The **climate change vulnerability assessment** done in the **Koh Kapik Ramsar**, led by IUCN, assessed the vulnerability of the ecosystem and livelihoods to the impacts of climate change, and identified options to address vulnerabilities and increase the resilience of wetland and livelihoods to the impacts of climate change. The assessment considered the biophysical and ecological characteristics, including habitats and biodiversity, and an overview of the land use patterns, recent conservation/zoning plans, and drivers of change, which included noticeable impacts related to climate change (e.g. abnormal high tides, extreme storms, etc.). The findings indicated that ‘seagrass beds’ were amongst the most vulnerable habitats to the impact of climate change, and indicate other endangered flagship species that are also at risk, such as the Irrawaddy dolphin (*Orcaella brevirostris*), the fishing cat (*Prionailurus viverrinus*), the smooth coated otter (*Lutrogale perspicillata*) and the hairy nosed otter (*Lutra sumatrana*).

Climate variability and climate change may also be contributing indirectly to the declining fish catches reported. Climate variability can strongly affect fish distributions, migration and production in sensitive species (e.g. via increased sea surface temperature and ocean acidification). There are also indirect effects increasingly being understood through ecosystem level changes that affect trophic webs and may result in shifts in species compositions. While these impacts are beginning to be understood for inland Cambodian fisheries and aquaculture, Cambodia does not yet have a marine fishery monitoring system capable of tracking coastal fishery catches and impacts. As climate change intensifies over the coming years, the threat to ecosystems and livelihoods will increase. As a result, the coastal communities dependent on fisheries are highly vulnerable to climate change. Given their high dependence on natural resources, direct exposure to climate vectors (i.e. storms, sea level rise and changing rainfall), overall poverty and lack of adaptive capacity, remoteness and marginalization, all these factors combine to lead to very high levels of vulnerability. It is imperative that strategies are put in place now to identify, monitor and minimize negative impacts and address harmful and unsustainable coastal zone activities.

Until recently, local resilience and coping mechanisms have more or less managed to keep pace with the impacts of climate change. However, projected climate change, notably changing rainfall patterns and sea level rise, are likely in the coming decades, and are expected to increasingly contribute to the further destruction of mangroves, increased salinization of waters and land, increased storms over fishing areas, less supply of freshwater, and changed composition of species (e.g. mangroves) in near shore coastal waters. In turn, each of these is likely to exacerbate the socio-economic challenges facing Cambodia’s coastal communities.

Climate change also has a distinct **gender dimension** in that **women are more exposed to the adverse direct and indirect impacts of climate change**. The **gender analysis** carried out as part of the community consultations during the PPG phase revealed that many women are also fishers (either fishing alone in mangrove areas or with their husbands in boats), however, they are the first to abandon the fishery due to declining catches, and many young women in fishing communities are already migrating to jobs in the garment factories, in search of more stable (even if limited) incomes. Even though both women and men lack understanding of climate change issues and adaptation options, **women have less decision-making power/influence than men related to natural resource management** (both fisheries and water management). As a result, they have less adaptive options available to them to cope with the impacts of climate change, both as fish workers (fishers, processors, marketers, etc.) and as the main caregivers of the fishing households.

An important aspect of climate change is the high levels of uncertainty. Although there is wide recognition of its impact and importance, there is little scientific data or understanding. Climate change is mentioned as a major threat in almost all government policy and planning documents. However, there is little analysis or data as to how climate change will affect Cambodia’s coastal ecosystems in terms of temperature, chemical composition, ecosystem composition, ecosystem health or hydrological cycles. Moreover, there is no scientific analysis as to how this will impact socioeconomic development. Hence there is currently little scientific basis for planning adaptation to climate change. However, this lack of

knowledge and uncertainty should not be used as an excuse for inaction. On the contrary, strong support to coastal communities to diversify their livelihoods, enhance women's participation in decision-making and understanding the risks and improving the management of coastal resources will help these communities to be better prepared to cope with climate change impacts.

The baseline scenario and any associated baseline projects

Policy and Planning Framework

Overall development in Cambodia is guided through the Rectangular Strategy which is currently in its fourth phase. The Rectangular Strategy IV indicates the need to preserve and manage fisheries resources, address the issues of climate change, and strengthening the management of protected areas, biodiversity conservation and natural resource conservation in coastal areas.

There are several relevant legal and policy frameworks being used for the implementation of coastal and fisheries management (**Annex M**), which are highly relevant for the four coastal provinces. These documents have been articulated in a wide range of provincial related reports/ references, and are being used by the concerned provincial line departments/ agencies as well as other partners for coastal conservation and management. They are reflected in the Provincial Development Plan, 5-year Commune Development Plans (CDB), 3-year Commune Investment Plans (CIP), etc. They are also reflected in the State of the Coasts Report 2018, which was prepared by the Provincial Administrations in Partnership with Environmental Management for the Seas of East Asia (PEMSEA). However, strategies for economic development and poverty alleviation must be linked to climate change adaptation measures, supporting the transition to a low-carbon climate-resilient future. The Ministry of Environment as well as the Fisheries Administration under the Ministry of Agriculture, Forestry and Fisheries, and other government institutions have been preparing policies and various strategic plans to respond to climate change and advance economic development with the support of development partners, civil society, and the private sector. The existing legal and policy framework relevant to the CamAdapt project includes Laws/Strategies: such as the **Law on Water Resource Management, 2007**, the **Law on Fisheries, 2007**, the **Forestry Law of 2002**, the **Protected Area Law, 2008**, and the **Law on Disaster Management in Cambodia, 2015**. The **Law on Fisheries** is currently being reviewed, and the CamAdapt project will support the implementation of the Law once it is published. In addition to these laws, there are also relevant regulatory instruments, such as the **Circular No. 1 on the Development of Cambodia Coastal Areas, 2012**, the **Establishment of the National Coastal Steering Committee, 2001**, the **Sub-Decree on Social Land Concession Policy in Cambodia, 2003**, and the **Sub-Decree on Water Pollution Control 1999**, the **Sub-Decree on Environmental Impact Assessment, 1999**, the **Sub-Decree on Control of Air Pollution and Noise Disturbance, 2000**, and the **Sub-Decree on Solid Waste Management, 1999**, as well as the **Inter-Ministerial Proclamation (MoI and MoE) No. 80 on Solid Waste Management in Municipality and Province, 2003**, and the **Sub-Decree on the Establishment of Community Fisheries, 2005**.

One of the key policy documents on climate change was the **Cambodia National Adaptation Programme of Action to Climate Change (NAPA)**, which was endorsed in 2006 to develop adaptation measures that have direct impacts on the lives of local people, especially the poorest. The NAPA provided a framework to guide the coordination and implementation of adaptation initiatives, through a participatory approach, building synergies with other environmental and development programmes, and contributing to the country's achievement of sustainable development under changing conditions due to climate change. The barriers identified by the NAPA to achieve its goals were: a lack of capacity (technical, financial and institutional) to deal with climate hazards, limited integration of climate change issues into national policies and programmes, and limited awareness of

climate change issues. The objectives of the NAPA were then: (1) to understand the main characteristics of climate hazards in Cambodia (flood, drought, windstorm, high tide, salt water intrusion and malaria); (2) to understand coping mechanisms to climate hazards and climate change at the grassroots level; (3) to understand existing programmes and institutional arrangements for addressing climate hazards and climate change; (4) to identify and prioritise adaptation activities to climate hazards and climate change.

Other recent policy documents include the **Cambodia Climate Change Strategic Plan 2014-2023 (CCCSP)**, which has the aim of strengthening the capacity of institutions to identify and develop a strategy to deal with the anticipated impact of the climate change and disasters, as well as the **Climate Change Priority Action Plan for Agriculture, Forestry and Fisheries Sector (2016-2020)**, which specially looks into reducing any negative impacts of CC and the vulnerability of the agricultural sectors including animal production, forestry, and fisheries, and to counteract damages and losses through increased DRR, CCA and mitigation measures to CC and global warming, while being able to respond and recover in case of unavoidable disasters. Also relevant is the **Strategic Planning Framework for Fisheries (2015-2024)**, which is a strategic document to assist all stakeholders to effectively contribute to the Royal Government's vision, where the people and future generations continue to benefit from abundant fisheries. It focuses on four areas: 1) Capture fisheries and management, 2) Aquaculture: inland and marine, 3) Fisheries value chains, 4) Regulations and services. Other relevant documents include the **Strategic Plan for Reaction on Marine Pollution from Inland, 2008**, and the provincial **Coastal Strategies** that provide the direction of coastal development and management, covering five main strategies including: **1. Disseminate and raise awareness** among stakeholders of their roles and responsibilities, as well as the issues in marine and coastal resources management in order to ensure their involvement and active participation in coastal management implementation; **2. Conservation and protection of marine and coastal resources and habitats** for the benefits of the coastal communities and the generations to come; reduction of unsustainable activities that cause environmental degradation; **3. Preservation and restoration of ecological, cultural and social values** in the province for the benefits of local communities in the present and future generation; **4. Sustainable development of marine and coastal resources** supporting the livelihood of local communities in the present and future and generation; and **5. Adapt to potential impacts of climate change**, including sea level rise, increasing temperatures, more frequent storms and salinization (saltwater intrusion).

Coastal management in Cambodia is divided into a number of sectors under the jurisdiction of several different ministries, with their own set of laws and regulations, as indicated above. The **National Committee on Coastal Management and Development (NCCMD)** was established to facilitate coastal zone management and protect the environment and natural resources in the coastal zone, in an effort to improve the living conditions for the coastal population through the sustainable use and development of the coastal zone. The NCCMD is composed mainly of three important ministries: Ministry of Land Management, Urban Planning and Construction, the Ministry of Environment, and the Ministry of Tourism. However, the management of coastal resources falls under the mandate of different ministries, overlapping in the case of some coastal resources. This is the case of **mangrove forests**, which are under the jurisdictions of both FiA and GDANCP. Mangroves inside protected areas are under the management of the GDANCP.

For **mangroves** outside the protected areas, however, the responsibility of management falls under the Fisheries Administration. Specific provisions for the management of mangrove forests (outside the protected areas mentioned above) are included in the Law on Fisheries, 2006 (uncer revision), which stipulates a ban for setting fire in the forest (Article 26), and prohibition of forest cutting, land clearing, land title and process/commercialization of the forest (Article 28). For **coral reefs** and **seagrass areas**, the responsibility of management falls under FiA, as they are in the zones included under the CFi management plans (CFIMP), except for those in protected areas under the management of MoE (e.g. Koh Rong Island National Park)

Other plans include the **Master Plan for Tourism Development in the Coastal Zone, 2004**, which has the aim of planning for tourism expansion and construction as well as the mechanism of tourism management along the coastal zone, and the **5 Years Mangrove Management Plan for Prey Nup (2018-2022)**, which was established to effectively manage mangrove in Prey Nup of Kampot province for marine habitats, and it is part of the updated Strategic Plan for Fisheries (SPF 2015-2024).

In addition to these documents, it is also important to reference the provincial and commune level policy documents, such as:

- The **National Strategic Development Plan (NSDP) 2014-2018** and the new updated **NSDP 2019-2023** has set up a plan to mainstream gender in climate change policies in all development programmes and sectors in order to reduce women's poverty and vulnerability especially disabled women and minority women.
- The **National Protected Area Strategic Management Plan (NPASMP) 2017-2031** indicates the need to understand the different needs and priorities of men and women in developing protected area management approaches to reduce conflicts that support both conservation and sustainable livelihoods. Gender mainstreaming in NPASMP 2017-2031 entails incorporation of strategies and actions that ensure women and the most vulnerable groups are empowered to participate in planning, management and decision-making processes related to protected areas, and share equitably in the benefits from the provision of livelihood opportunities.
- The **National Environmental Strategy and Action Plan (NESAP) 2016-2023** has focused on extending its efforts to strengthen collaborations led by National Council for Sustainable Development (NCSD) in promoting a cross-sectoral coordination, with emphasis on the cross-cutting themes such as gender and capacity development in relation to environment and natural resources management and conservation. An action plan has also been developed and one of its objectives is to study and increase understanding of the impacts of changing environment on public health, poverty, gender inequality and other associated risks in a scientific and evidence-based manner. Moreover, achievement of gender equality and empowering of all women and girls has been one of its strategic goals.
- **Provincial Development Plans and Provincial Investment Plan:** This follows the Sub-Decree on Development Plan and 3-Year Rolling Investment Program of Capital/Province, Municipal/District to identify projects and relevant prioritized activities that the provincial administration shall implement. The plan shall primarily focus on economic, social, land management, natural resources, environment and climate change, disaster, administration and security, and public order of the province in order to respond to the priority needs of the province.
- **Commune Development Plans (CDP) and Commune Investment Program (CIP):** The purpose of preparing a commune/Sangkat development plan is to help the commune/Sangkat council to mobilise resources, both internal and external, and decide on their use to solve local problems and to serve the general interest of the commune/Sangkat residents. The commune/Sangkat development plan shall be developed for a period of five years, and shall be reviewed every year to update the three-year rolling commune/Sangkat investment program and to prepare the annual budget of the commune/Sangkat.
- **Fisheries Cantonment Annual Plans:** The Annual Plan draws key priority indicators and commitments that contribute to rural livelihoods, food security, and resource conservation in the province. The Annual Plan is a product of an integrated policy and planning process for the sector, especially addressing Decentralization and Deconcentration (D & D) policy and plans, gender, and other cross-cutting issues. These plans are being mainstreamed into Provincial, District/Municipality and Commune/Sangkat five year development planning and three year investment programmes, as a strategy to strengthen the collaboration of fisheries resource management among sub-national administration, and

facilitate the access to domestic financial resources to support fisheries management actions. Some examples of this strategy include mangrove replanting within the Peam Krasop Wildlife Sanctuary in Koh Kong Province and the concrete artificial reef box deployed in the coastal seagrass areas in Koh Kapik and Chrouy Pros Commune of Koh Kong Province, that received financial support from NGOs, in addition to Koh Kong District authority, and from Koh Kapik and Chrouy Pros commune fund.

Other relevant key documents include:

- Strategic Plan for Fisheries Conservation and Management (2019-2028) draft
- National Strategy Plan for Aquaculture Development in Cambodia (2016-2030)
- Proclamation on the Marine Fisheries Management Areas (MFMA) for Koh Rong and Rong Sanloeu Archipelago in Pres Sihanouk Province and for Koh Pov and Koh Tonsay Archipelago in Kep Province.
- Fishing area agreement of each coastal fisheries community
- Fishing area management plan for each coastal fisheries community

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Gender mainstreaming in climate change policies

Over the past years, Cambodia has made good progress towards integrating gender concerns in environment and climate change negotiations. The Royal Government of Cambodia (RGC) has signed international conventions on women's rights with the commitment to address gender issues that links with environment and climate change.

The Cambodia Climate Change Strategic Plan (CCCSP) 2014-2023 mentioned above also aims to reduce gender vulnerability and risks to environment and climate change impacts. The Ministry of Women Affairs (MoWA) is collaborating on the CCCSP, which is being coordinated by the Ministry of Environment (MoE). The CCCSP 2014-2023 action plan has set as one of its objectives to “Reduce sectoral, regional, and **gender vulnerabilities** and health risks related to climate change impacts”. The M&E framework has further developed a **gender sensitive target/indicator**: “By 2020, 10% of the protected areas, conservation areas, agroecosystems and forest ecosystems including mangroves, that have been under a lot of pressures in recent years are in an advanced state of restoration and are providing enhanced services, **particularly to women, elders and children in local communities and indigenous ethnic minority groups**”. The focus of this target/indicator is on the supply of essential services, including services related to water, health, food security, climate change adaptation, resistance and resilience to land degradation or natural disasters and, in general, services related to livelihoods and the well-being of Cambodians. It has placed emphasis on addressing specific needs of women, local communities and ethnic minorities, and other vulnerable groups.

The **Master Plan on Gender and Climate Change (2018-2030)** envisions the institutionalization of gender mainstreaming in CC adaptation, mitigation and disaster risk reduction investments for contributing to equitable, climate resilience and sustainable society of Cambodia. To make that transformation happen, short-term (2018-19), medium (2019-23) and long-term (2023-2030) goals were identified to complement the commitments of the RGC in the NSDPs, the “Neary Rattanak” (or Strategic Plan for Gender Equality) and Cambodia

CC Strategic Plan (CCCSP) 2014-2023 along with the relevant **Sustainable Development Goals (SDGs)**. There are seven (7) supportive initiatives to operationalize the Master Plan. The Master Plan focuses on the Government, development partners, civil society organizations and expects to incorporate the private sectors as the key collaborators in Cambodia that have been working in gender and CC related fields.

The “**Gender and Climate Change Strategic Plan (GCCSP) 2014–2023** consists of strategies to incorporate women into decision-making on climate change adaptation and mitigation, and natural resources management; to increase awareness and relevant capacities on gender and climate change within MoWA and its decentralized offices and other stakeholders; conduct research on gender and climate change; and deliver targeted interventions for women related to climate change adaptation and mitigation.

The Government of Cambodia established in 2005 a ministry-level working group **Gender Mainstreaming Action Groups (GMAG)** to mainstream gender issues into respective strategies, policies, programs/projects and establishment of **Gender and Climate Change Committee (GCCC) Working Group** in Ministry of Women’s Affairs (MoWA) to take responsibility for technical work, administration, finance, and raise ideas that are relevant to climate change. This has resulted in the development of an institutional framework for mainstreaming gender and climate change issues in Cambodia. The active GMAG at national and provincial level (PGMAG) have been working since then. The GCCC at national level has been working effectively but it does not exist yet at provincial level and district level.

To integrate gender mainstreaming in fisheries, MAFF has collaborated closely with Ministry of Women’s Affairs (MoWAs) and other stakeholders (from national to sub-national levels) to get both technical and financial support. This includes the establishment of MAFF’s Gender and Children Working Group and subsequently included the FiA’s Gender and Children Sub-Working Group in the structure, and an **Action Plan for Gender Equality Promotion and Child Labor Elimination in the Fisheries Sector (2016-2020)**.

Other Relevant Initiatives

In addition to the legal frameworks and policies described above, there are several initiatives and projects taking place that are relevant to CamAdapt. Information about these plans were gathered during the CamAdapt PPG consultations from February to April 2019.

At sub-national level, the Provincial Fisheries Cantonments, Department of Environments, Community Fishery (CFi) and Protected Areas Communities (CPAs), in addition to the ongoing support of the FiA and MoE to manage and institutionalize the CFis and CPAs in the four coastal provinces, activities implemented to improve coastal ecosystems include:

- **Kep:** The fishery cantonment has cooperated with Marine Conservation Cambodia for the deployment of 106 artificial concrete boxes in the seagrass area to protect fisheries resources against illegal fishing activities in coastal areas.
- **Kampot:** The fisheries cantonment in Kampot has cooperated with Community Fisheries to prepare the mangrove nursery and germinated 21,100 of mangrove seedlings and 19,400 of seedling have been replanted. There are plans to continue with the management of the mangrove nursery and patrolling activities for seagrass resources conservation.
- **Preah Sihanouk:** The provincial department of Environment collaborated with the marine navy for the deployment of concrete boxes (artificial coral reefs) for the shelter or fisheries habitats in the area of Koh Rong archipelago

- **Koh Kong:** The provincial department of environment indicated that 11, 200 mangrove seedlings were replanted.

Additionally, efforts for decentralization mean that every year, the Fisheries Cantonment plan and the Provincial Department of Environment plan are mainstreamed into the Commune Development Plan and the Commune Investment Program. The purpose of this decentralization policy is to secure ownership by local authorities and get them involved with natural resources management, including sustainable coastal resource management. FiA has also disseminated the Fisheries Law and relevant fisheries regulations, through a total of 301 sessions attended by 11, 043 participants (2,739 women). Illegal fisheries crackdowns in community areas require close collaboration between fisheries communities and relevant institutions such as fisheries inspections and local authorities.

Other project interventions taking place in Cambodia and relevant to the CamAdapt have been included in Table 7. Some of these are on-going, have ended (but are still relevant for the CamAdapt) or are expected to start implementation, such as the EU CAPFISH CAPTURE program (described in more detail below after the table).

Table 7 – Existing projects/activities

Province	Development Partner/projects	Type of Activities	Status
Kep	Mangrove for the Future (MFF)	Resource restoration and habitat protection focusing on mangrove, coral reefs and seagrass	Ended
	Asian Development Bank (ADB)	GMS Tourism infrastructure development	On-going
	United Nations Environment Program (UNEP)	Urban EbA – description in the coordination section	On-going
	International Union for Conservation of Nature (IUCN)	Implementation of project activities, information dissemination, community mobilization	Ended
	Southeast Asian Fisheries Development Center (SEAFDEC)-Sida Project	Marine fisheries management and Transboundary and stakeholders mobilization	Ended
	Marine Conservation for Cambodia (MCC)	Conservation, marine resource protection, controlling and marine resource research	On-going

	CSARO	Solid waste management	Ended
	Private enterprise	Solid waste management	On-going
Kampot	Mangrove for the Future (MFF)/ Fisheries Action Coalition Team (FACT)	Resource protection and rehabilitation	On-going
	Action Aid Cambodia / CWDC	Livelihood Improvement and resource conservation	On-going
	Mlup Baitong	Information and awareness raising	
	Asian Development Bank (ADB)- Tourism project	Tourism infrastructure development	On-going
	International Union for Conservation of Nature (IUCN)	Implementation of project activities, information dissemination, community mobilization	Ended
	Southeast Asian Fisheries Development Center (SEAFDEC)/ United Nations Environment Program (UNEP)/ Global Environment Facility(GEF) Establishment and Operation of a Regional System of Fisheries Refugia in the South China Sea and Gulf of Thailand	Management of critical habitats for fish stocks (description of this GEF project in the Coordination section)	On-going
	Konrad and GEA project	Waste management activities	Ongoing
	BCV	Land right and tenure for marginalized groups.	On-going
	SAMAKI organization	Supporting community fisheries	On-going
	ActionAid Cambodia	Greater land tenure for the most marginalised communities	On-going
	Climate-Friendly Agribusiness Value Chains Sector Project (MAFF/ADB)	Development of climate resilient critical agribusiness value chain infrastructure; climate-smart agriculture and agribusiness; and enabling environment for climate-friendly agribusiness	On-going
Preah Sihanouk	South China Sea/Global Environment Facility (SCS/GEF)	Supporting mangrove protection in the coast	On-going

	Japan International Cooperation Agency (JICA) (Supporting marine fisheries)	Aquaculture Seed Production Techniques	On-going
Koh Kong	International Union for Conservation of Nature (IUCN) (Building Resilience of Wetlands in the GMS, through a Ramsar Regional Initiative)	Conduct climate change vulnerability assessments and develop management plans in ten existing or potential new Ramsar sites	On-going
	Fauna & Flora International (FFI) (Building resilience of Cambodia's marine resources and coastal communities)	Supports 3 Community Fisheries in the Koh Rong Archipleago, zoning of Marine Fisheries Management Area zones, patrols using SMART Strengthening marine turtle conservation.	On-going
	Wildlife Conservation Society WCS (Reptile Conservation and Cooperation)	Support Royal Turtle conservation	On-going
	Morodok organization	Support agricultural, small-business, fisheries and forestry	On-going
Covering four coastal provinces	European Union- Cambodia Programme for Inclusive Growth in the Fisheries Sector (EU CAPFISH): Cambodia programme for sustainable and inclusive growth in the fisheries sector	Support community fisheries, fisheries conservation,	Being implemented
	European Union- Cambodia Programme for Inclusive Growth in the Fisheries Sector EU CAPFISH-AQUACULTURE component	Support aquaculture and climate change (mainly Tonle Sap and inland region) – description below	Being implemented

	Forum Syd (through LNGO grants)	Supporting community fisheries, resource protections	On-going
	EU (Promotion of inclusive and sustainable growth in the Agricultural Sector: Fisheries and Livestock)	IUU fishing (fishing vessel registration), community fisheries, Artemia (Kampot), etc.	Ended
	Asian Development Bank (ADB) SPCR	Climate resilience	Ended
	United Nations Development Program/Global Environment Facility/ The Least Developed Countries Fund (UNDP GEF LCDF project)	Strengthening climate information and early warning systems in Cambodia (2015-2019) Skills and Service Development Project collaborated with UNDP GEF LCDF project and UNDP regional project on strengthening school preparedness for tsunami. Promotion of the EWS1294SMS-based early warning system in schools.	Ongoing
	Save the Children (Cambodia)	Beside this collaboration with UNDP, one component of Save the Children Cambodia is focusing on skills and services development for livelihood improvement.	Ongoing (started in late 2018)
Nation-wide	Cambodia for the Agriculture Services Programme for Innovation, Resilience and Extension, ASPIRE	<ul style="list-style-type: none"> - knowledge-based policy; - capacity development for extension services; - improved extension services; - infrastructure supporting climate-resilient agriculture; and - the ASPIRE secretariat. 	On-going

With a few exceptions, most of the projects listed in **Table 7** are not directly involved in climate change adaptation, though they are still relevant for coastal resources and fisheries. The CamAdapt project will work closely and make use of the knowledge generated from those projects implementing climate change related activities, such as the work that was done by IUCN on vulnerability assessment in Koh Kapik Ramsar Site, and the EU CAPFISH project that will be implemented by FiA, FAO and other agencies, covering the whole country and that has a strong focus on inland fisheries, particularly in the Tonle Sap region. The CamAdapt Project will create a platform to mainstream adaptation and resilience considerations into environmental and development planning in coastal areas, providing examples and lessons relevant for other inland fisheries, and ensuring the provision of coastal ecosystem services to the rest of the country. There will be engagement with other relevant GEF projects (e.g. the Fisheries Refugia, the SAP-SCS implementation, etc.) that are covered in the Coordination Section (Section 6.b).

The European Union (EU) has established, through the EU Development Cooperation Instrument (DCI) **the Cambodia Programme for Sustainable and Inclusive Growth in the Fisheries Sector (CAPFISH)**. The programme is structured in two main components: one on aquaculture (CAPFISH Aquaculture), which was adopted in 2016 with EUR 30 million, though it has no activities planned for coastal aquaculture, and one on capture fisheries (CAPFISH Capture Fisheries), with a total portfolio of approximately 93 million Euros over the 2019-2023 period. The implementing framework of CAPFISH-Capture Fisheries comprises two funding modalities: Direct budget support through the Fisheries Administration (FiA) and complementary funding. The implementation of the complementary support is by FAO, UNIDO and NGO/CSO. The CAPFISH-Capture Fisheries includes three pillars of engagement: 1. Fisheries conservation and management; 2. Fisheries post-harvest and trade; and 3. Fishing communities' social and economic development. The key focus of the project is in the Tonle Sap region, with some activities in the coastal areas. The expected objectives are: **Objective 1 - Improved conservation, management and compliance with fisheries laws and regulations in the inland and marine domain**. Outputs under this objective are related to control and surveillance of conservation and fishing areas, improved habitat restoration and protection, management tools and procedures, co-management, and improved understanding of the impacts of infrastructure development on the fishery. **Objective 2 – Post-harvest fisheries are developed**, has the outputs related to increased fish/food safety controls, and fish processing and valorization. **Objective 3 – Improved resilience of the fishing communities of the Tonle Sap and coastal areas**, has the outputs related to the support of job creation outside the fishery sector, as well as improved access to social services and infrastructure. All the activities will be implemented in close coordination and collaboration with the FiA staff. Since most of the activities of the CAPFISH project will be implemented for inland fisheries (e.g. Tonle Sap region), the two projects will collaborate closely sharing information and lessons learned particularly to activities related to improved conservation of ecosystems, and improved resilience of communities. CAPFISH-Capture Fisheries activities taking place in the coastal areas will be closely coordinated with the CamAdapt project, through the project teams and the FiA staff, building on synergies for the implementation of the activities and avoiding any duplication of efforts. The CamAdapt focus on mainstreaming climate change adaptation will be deepened in all those activities that will be implemented by the CAPFISH-Capture Fisheries in the coastal areas.

Particularly relevant for the CamAdapt project is the recent **FAO Technical Cooperation Programme (TCP)** project titled “Technical support for institutional and capacity enhancement on gender-sensitive fisheries management and conservation”, that had been developed directly to address the gender and child labor gaps identified under the EU CAP-Capture Fisheries project. The TCP project will carry out an institutional analysis of data collection related to gender and child labour issues in marine and inland capture fisheries, as

well as in the fisheries value chains. This information will be used by the CamAdapt project, and will guide the development of the CamAdapt Gender Strategy (which will be developed under Component 4).

The **crab bank** is maintained by the fisheries communities along the coastal provinces under cooperation and coordination of technical support from FiA with relevant NGOs. Basically, the practice of crab banks depends on the participation of fisheries communities through donating the gravid female crab for growing in the cage until they release the eggs and hatch as larval stage in the coastal seagrass or mangrove ecosystem. These crab bank projects are strongly supported by the Fisheries Administration with participation from coastal fishermen, especially fishery communities. Through the crab bank implementation, the production of swimming crab catches along the coastal areas has stabilized. Until now, no research has been done to confirm that the crab increases are due to the implementation of crab bank project. However, the fishery communities who participated in the crab bank projects confirmed that the areas that implemented the crab bank project observed improved natural stocks of swimming crab compared with those areas that did not implement the crab bank project. Nevertheless, the practice of crab bank projects also encountered challenges, among these are: (i) some fishers feel reluctant to donate the gravid female crab for the crab bank projects because they are poor and face difficulty with their daily livelihoods; ; (ii) the implementation of crab bank projects in some communities lack financial and material support as well as technical support from technical departments or NGOs; and (iii) some members of fishery community lack knowledge and experience on crab banks project. The fishery communities are not yet strong enough, and the implementation of crab banks project can only be carried out by coordination and technical support from technical institutions or NGOs.

Barriers

Despite the baseline programs and projects described above, there are still key barriers that prevent stakeholders from taking adequate action to reduce vulnerability to impacts of climate change and increase resilience in Cambodia's coastal ecosystems. The following section summarizes these key barriers, and the main contributing issues and causes related to each barrier and key measures to address these barriers and enable stakeholders to be better prepared to cope with climate change impacts.

Barrier 1: Lack of capacity and coordination to support communities in adaptation planning in the management of coastal natural resources

Despite the existence of a policy framework (as seen above) supporting coastal communities adapt to climate change (also at the sectoral level), there is a lack of capacity implementing these policies and strategies, as well as carrying out policy monitoring and ensuring feedback at the different levels (community, provincial and national) with the FiA and MoE. Within the coastal and fisheries sectors, there is limited capacity to carry out systematic analysis of the climate change related vulnerabilities (e.g. through vulnerability assessments for these sectors) and design and implement adaptation options. The lack of technical capacity to address these complex issues was highlighted in the results of the Capacity Assessment survey carried out during the PPG phase.

Even though there are national policies on climate change and for the agriculture sector overall, there are still a lack of integration of climate change adaptation into fisheries and coastal networks, particularly at the local level. On the other hand, the needs of coastal fisheries (which are different to those of inland fisheries), are not appropriately recognized in the climate change cross-sectoral policies and processes (e.g. the NAP and NDC processes).

The weak coordination among the relevant government agencies, particularly FiA and MoE at the different levels, is recognised as a significant contributor to this barrier. Whilst some coordination mechanisms exist, such as the Technical Working Groups (which includes other partners), these are not strong enough to systematically address climate change issues and formulate integrated adaptation actions in the coastal areas. The lack of coordination is also due to a *lack of clarity and transparency with regards to land ownership and land-use rights*, and the *weak conflict resolution processes*. Registering land-ownership and obtaining permission for land-use both require complex approval processes that involve many government actors at several levels. Hence, there is a high risk of competing claims for the same land, both equally valid. As a result, there is a high risk that powerful economic forces dominate the land ownership and land-use conflicts, through both legal and extra-legal channels. Further, even when land use or land ownership is sufficiently clear on paper, in practice the lack of accurate, up-to-date maps and signboards mean that both short-term and long-term trespassing is common. These issues also affect land that is covered, or was previously covered, by mangroves. It also affects coastal areas that have been identified for use in CFis. Addressing these issues will require strong involvement and smooth coordination with the Ministry of Land Management and the Ministry of Interior, particularly in the demarcation of coastal protected areas (Community Protected Areas, designated by MoE), and Community Fisheries (CFi) management areas (which are designated by FiA).

There is also a need for specific technical guidance and resources to generate knowledge on key areas to reduce vulnerability in coastal fisheries socio-ecological systems, in topics such as a mangrove friendly aquaculture, restoration of coastal ecosystems, etc.

This barrier is addressed principally through project **component 1: Strengthening policy coordination and capacity development for an adaptive enabling environment**.

Barrier 2: Limited knowledge and resources to protect and rehabilitate coastal ecosystems to enhance their adaptation supportive roles.

Currently, there is no reliable information about the status and trends of coastal ecosystems (mangroves, coral reefs and seagrass) in Cambodia, and there is also no ongoing monitoring to assess their health and how they are being impacted by climate change.

There is weak coordination among the relevant government agencies regarding the status and adaptation options between the FiA (which oversees mangrove forests outside protected areas) and MoE (which oversees mangroves inside protected areas).

There is also an overall lack of direct support to make the protected area management plans more climate resilient, based on gender-sensitive vulnerability assessments, and carried out through participatory process. This is also the case for implementation and participatory monitoring of the plans to ensure they are reaching their objectives. Different CPAs in the coastal area are disconnected among themselves, and among the national CPA Network, and there is a lack of lessons learned being documented and shared. CPA members overall have limited understanding of climate change impacts and the options available to them to address those impacts, as communities, and also through their CPA management plans.

This barrier will be addressed through all components, but specially through **Component 2: Coastal ecosystems protected and rehabilitated to enhance the resilience of the coastal social-ecological systems**.

Barrier 3: Limited capacity and resources available to coastal fishing communities to adapt to climate change impacts

As mentioned above, of the 41 CFIs in the coastal area, only 6 CFIs are in the process of being officially registered at the Ministry of Agriculture, Forestry and Fisheries, and many other still do not have their management plans in place. Climate change consideration have not been integrated in the development of the CFMP, and there is a lack of adaptation options available for CFIs members to cope with the impacts of climate change.

Fishers who relied in their traditional knowledge to predict weather conditions, are now unable to do so due to climatic variability and extreme weather events, leaving fishers unprepared and threatening their safety at sea and at shore. The number of accidents by thunder-strike has been raising in recent years, and many fishers are faced by a storm without previous warning, being exposed to risks.

The decline of fisheries resources due to rising temperatures also threatens their livelihoods, and they lack the knowledge and skills to diversify their livelihoods (only options available are related to garment factories and as construction workers, which are often in remote locations from their households and families, putting youth under additional risks).

This barrier will be addressed through all components, but specially through **Component 3: Fishing Community Adaptation Capacity**.

Barrier 4: Limited knowledge sharing and communication on issues related to climate change and their impacts in coastal ecosystems and consequent effects on livelihoods.

Cambodia has limited experience documenting climate change vulnerabilities and adaptation options specific to coastal areas, as much as of the work on fisheries has been done in the Tonle Sap region. There is overall a lack of lessons, studies, good practice and communication mechanisms to deliver such information to stakeholders.

Only limited mechanisms exist for the various stakeholders to share their information of climate change and adaptation practices and knowledge to promote resilience within the fisheries sector in coastal areas. The sector has limited information and analytical capacity with respect to data collected in relation to climate change adaptation.

Something that become very apparent during the PPG phase was the lack of understanding on how to integrate climate change adaptation and gender mainstreaming into the CFIs and CPAs, and overall sharing lessons learned and coordinate among the different stakeholders. The lack of coordination creates a high risk of duplication of interventions, if not properly monitored and documented.

This lack of communications and knowledge sharing will be addressed in **Component 4: Knowledge Management**.

1) The proposed alternative scenario with a brief description of expected outcomes and components of the project and the project's Theory of Change.

The CamAdapt project will support Cambodia to achieve its national development goals and especially those related to fisheries, and coastal ecosystem conservation and management. The adaptation alternative provided by the LDCF-GEF will address climate change impacts in the fisheries and other coastal resources in Cambodia, so these can maintain their contributions to food security, reduce greenhouse gas emissions, and increase resilience against the impacts of climate change. The project will be implemented through four main components:

- Component 1 –Strengthening policy coordination and capacity development for an adaptive enabling environment
- Component 2 – Sustainable ecosystem management for coastal resilience
- Component 3 – Fishing community adaptation capacity strengthened
- Component 4 – Knowledge management

The project will work with stakeholders to address the priorities identified in the **NAPA (2006)**, contributing to at least three key priority projects: Community mangrove restoration and sustainable use of natural resources (no. 29); Rehabilitation of coastal protection infrastructure (no. 26); and Community and household water supply in coastal provinces (no. 27). The CamAdapt project is also aligned with the **MAFF Climate Change Priorities Action Plan for Agriculture, Forestry and Fisheries Sector (2016-2020)**, whose main goal is: “to contribute to reducing any negative impacts of climate change and the vulnerability of the agricultural sectors including animal production, forestry, and **fisheries**, and to counteract damages and losses through increased disaster risk reduction, climate change adaptation and mitigation measures to climate change and global warming, while being able to respond and recover in case of unavoidable disasters”. With regards to fisheries, one key strategy of the plan is to: Enhance management, conservation and development of fishery resource in a sustainable manner through improving understanding of climate change impacts.

The four project components will strengthen mainstreaming of climate change adaptation considerations into policy and planning, improve coordination and collaboration among different government agencies and development partners at the local, provincial and national levels, and increase the capacity of local stakeholders to be better prepared to deal with the impacts of climate change.

To achieve this, the Least Developed Countries Fund (LDCF) funds will build on the baseline projects and will support synergistic actions to increase the adaptive capacity of communities heavily dependent on coastal resources, particularly fisheries resources and habitats. Interventions will build resilience and enhance climate change adaptation within these vulnerable social-ecological systems, with the use of ecosystem approaches for the management of fisheries, mangroves and other coastal resources such as seagrasses and coral reefs. The project will work with national, provincial and local authorities and the coastal communities to identify short- and medium-term climate risks and to co-develop adaptation actions that address their specific vulnerability contexts.

The project objective is that “Coastal fishery-dependent communities adapt to climate change through strengthening the resilience of the coastal ecosystems upon which they depend and through adapting their livelihoods and practices to reduce their vulnerability”.

The project objective is achieved through the following four Outcomes:

- **Outcome 1** – National and provincial capacity to support adaptation to climate change is enhanced along coastal areas.
- **Outcome 2** – Coastal ecosystems protected and rehabilitated to enhance resilience of the coastal social-ecological systems

- **Outcome 3** – Community Fisheries have increased capacity to adapt to the impacts of climate change
- **Outcome 4** – Monitoring and evaluation and information dissemination

Project Components, Outcomes, Outputs and Indicative Activities

Component 1 – Strengthening policy coordination and capacity development for an adaptive enabling environment

This component will focus on enhancing the capacity of relevant stakeholders at the local, provincial and national levels to assess climate vulnerability of coastal systems and fisheries-dependent communities and support the integration of adaptation/coastal/fisheries considerations into policies, programmes and plans. Work will build on previous assessments (e.g. UNEP) and will address gaps identified by previous projects. Component 1 will be delivered through three outputs and the implementation of related activities that i) ensures the integration of climate adaptation considerations into fisheries and coastal frameworks, following an ecosystem approach to fisheries (**Output 1.1**), ii) ensures the integration of fisheries and coastal considerations into the broader climate change related work (**Output 1.2**), and that iii) develops the capacity of staff from government and other relevant organizations to develop and implement climate change resilient policies and actions (**Output 1.3**).

Outcome 1 is **National and provincial capacity to support adaptation to climate change is enhanced along coastal areas**. By the end of the project, the following activities will be achieved:

1. Climate Change adaptation will be mainstreamed into five fisheries and aquaculture policies and legal frameworks at the national level (1) and at the provincial level (4).
2. Coastal ecosystems' roles in climate change adaptation, disaster risk reduction and contributions to people's wellbeing will be recognized and promoted.
3. The individual capacity of government and other key institutions staff will be enhanced throughout the project (and beyond) to effectively implement Components 2 and 3, and lessons learned of this capacity development process will be captured as part of Component 4 of the project.
4. Coastal communities dependent on natural resources (CPAs and CFIs) will directly benefit from the identification of their vulnerability to climate change, the integration of adaptation and ecosystem resilience considerations into their management plans, and the development of a Climate Change Adaptation Action Plan for coastal fisheries dependent communities.
5. The specific needs of coastal and fisheries resources and dependent communities will be taken into account in the negotiations pertaining to the National Adaptation Plan (NAP) process and the Nationally Determined Contributions (NDC), as well as in other relevant Technical Working Groups (TWG).
6. Women's leadership roles will be enhanced to mainstream climate change adaptation into Community Fisheries Management Plans (CFMP) and Community Protected Area Management Plans (CPAMP), by creating awareness of government staff and other key stakeholders on the linkages between climate change and gender in coastal areas.

Output 1.1 Climate Change Adaptation is incorporated into fisheries and coastal frameworks

Following the Ecosystem Approach to Fisheries, this output will be implemented through a focus on governance, ecological wellbeing and human wellbeing, ensuring that climate change adaptation is fully integrated into fisheries and coastal frameworks, and that there is sustainability of the achievements obtained. The CamAdapt project will coordinate closely with the FAO CAPFISH project (which is promoting the EAF in Cambodia at the national level), to ensure coherence in the capacity development interventions and build synergies for the implementation of the new Fisheries Law (expected to be finalized in 2020).

Indicative Activities

- 1.1.1 Review fisheries and coastal policies and legal frameworks and identify gaps and needs in existing policies to enhance climate resilient fisheries and aquaculture investments
- 1.1.2 Undertake a coastal ecosystem services valuation, to highlight the role of coastal ecosystems in climate change adaptation and mitigation, in addition to the other services they provide, the assessment will include drivers of change affecting these ecosystem services (climate change, development, deforestation, etc.).
- 1.1.3 Carry out a targeted and gender-differentiated Impact and Vulnerability Assessment specifically for coastal fisheries and coastal habitats.
- 1.1.4 Assess global and local best practices for adaptation and mitigation options and identify those that are applicable for coastal fisheries communities and habitats in Cambodia.
- 1.1.5 Analyse financial and social incentive mechanisms to support climate change mitigation and adaptation actions of relevance to fisheries communities
- 1.1.6 Develop a Climate Change Adaptation Action Plan for coastal fisheries dependent communities through multi-stakeholder consultations
- 1.1.7 Promote resource mobilization for the inclusion of adaptation and gender considerations into the development of Commune Investment Plans (CIPs) and Commune Development Plans (CDP), towards more climate resilient and gender sensitive budgeting, taking into consideration activities related to Community Protected Areas (CPA) and Community Fisheries (CFIs) management plans.
- 1.1.8 Develop technical guidance on specific topics to reduce vulnerability in coastal fisheries social-ecological systems, such as (i) how to implement mangrove/coastal habitat friendly aquaculture, (ii) how to restore coastal habitats (mangroves, coral reefs, seagrass) along the Cambodian coast, (iii) recommendations for waste management system to reduce pollution on mangrove and other marine ecosystems; (iv) how to improve safety at sea; (v) facilitating participatory environmental monitoring; (vi) minimizing losses in post-harvest practices

The CamAdapt project will initiate a review of coastal policies and relevant legal frameworks (particularly those related to coastal management, including land management, as well as fisheries and aquaculture), to identify gaps and needs required to support investments that promote climate resilient fisheries and aquaculture in coastal areas (**Activity 1.1.1**).

In addition, a valuation of coastal ecosystems will be carried out, including an analysis of the drivers of change affecting the ecosystem services (climate change, rapid coastal development, deforestation, etc.), and highlight the role of coastal ecosystems in climate change adaptation and mitigation, along with other services they provide. This assessment will be done through a participatory process, through interviews and focus group discussions (**Activity 1.1.2**).

An Impact and Vulnerability assessment for coastal fishing communities will be carried out to address human wellbeing and gender considerations, through a participatory process in the four coastal provinces (**Activity 1.1.3**). The tools^[9] to determine vulnerability will be defined previous to the assessment and will have a strong gender differentiated approach to determine the different vulnerabilities and the resulting specific needs of women and men in coastal fishery/protected area communities.

The CamAdapt will also review existing adaptation and mitigation actions taking place in other similar projects, particularly other LDCF projects, assessing their relevance to the context of Cambodia (**Activity 1.1.4**). This will be done through a desk review, with consultations/validation expected at the national level in Phnom Penh.

The CamAdapt project will also examine the availability of financial mechanisms to support climate change mitigation and adaptation activities for small-scale fishers in coastal Cambodia, beyond the life of the project, and to ensure its sustainability (**Activity 1.1.5**). Areas to explore will include the Green Climate Fund, international donors, private sector and other domestic sources of funding. This will include consultations at the local and provincial levels.

With the information gathered, the project will develop an Adaptation Plan for coastal fisheries dependent communities (**Activity 1.1.6**) through a consultative process at the local, provincial and national levels, to identify the needs and specific actions required for promoting adaptation in coastal areas, taking into account coastal land management issues. This will be done in coordination with the Technical Working Groups (especially Climate Change and Fisheries) integrated into the national adaptation planning process for Cambodia, in line with the **Cambodia Climate Change Strategic Plan 2014 – 2023** of the Ministry of Environment, and with the aim of supporting the implementation of the **Climate Change Priorities Action Plan for Agriculture, Forestry and Fisheries Sector 2016-2020** of the Ministry of Agriculture, Forestry and Fisheries. The development of the coastal Adaptation Plan will rely on strong efforts by the CamAdapt project to strengthen the coordination and collaboration between FiA and MoE, as well as other institutions/organizations with mandate in the coastal area (e.g. Ministry of Land Management, Urban Planning and Construction, the Ministry of Tourism, Ministry of Interior, the National Committee for Coastal Management and Development, etc.).

Taking into account that CIPs and CDPs are developed through their own institutional processes, the project will coordinate with relevant key partners to facilitate knowledge sharing about gender and adaptation, and by facilitating meetings where appropriate (**Activity 1.1.7**). The aim is to promote climate resilient and gender sensitive budgeting taking into consideration activities related to CPA and CFIs management plans.

The project will also support the development of technical guidance on key topics that are most relevant to reducing vulnerability in coastal fisheries socio-ecological systems (**Activity 1.1.8**), including for example: i) climate friendly aquaculture, ii) restoration of coastal habitats, iii) provision of recommendations for waste management to reduce pollution on coastal and marine ecosystems, iv) safety at sea, v) participatory monitoring and evaluation (M&E) and vi) minimizing post-harvest losses. Capacity building support related to these topics will be provided directly to coastal communities under component 2 and 3, by first strengthening the capacity of government partners to deliver their mandate, and ensuring that lessons learned are being captured are shared through Component 4.

Output 1.2 Fisheries and coastal ecosystem considerations integrated into the broader cross-sectoral policies, strategies and plans related to Climate Change at national and sub-national levels

While Output 1.1 was concerned with the integration of climate change considerations into fisheries and coastal frameworks, this Output will aim to ensure the inclusion of fisheries and coastal ecosystem considerations into climate change frameworks, so the particular needs of fisheries and coastal ecosystems are fully taken into account in decision-making related to the implementation of climate change policies, etc.

Indicative Activities

- 1.2.1 Carry out a gap analysis of climate change policies, strategies and plans and provide recommendations and knowledge products to integrate fisheries and coastal ecosystem inputs
- 1.2.2. Identify and support the participation of fisheries and coastal stakeholders into climate change and Disaster Risk Management (DRM) events/seminars/networks
- 1.2.3. Facilitate knowledge sharing through participation in regional and global workshop(s) on climate resilient policies and practices for fisheries/mangroves/aquaculture/and coastal resource
- 1.2.4. Collaborate with the National Adaptation Plan process for Cambodia, as well as the National Determined Contributions reporting and ensure that coastal resources are adequately addressed in the national plans and programmes.

A gap analysis (**Activity 1.2.1**) will be conducted to assess the gaps integrating fisheries and coastal management needs into climate change related policies and strategies and what can be done to strengthen them, providing the data necessary for the development of policy briefs and communication materials as required.

The project will support the participation of key stakeholders working on fisheries and coastal issues to participate in national/provincial climate change and Disaster Risk Management (DRM) events/seminar/networks, to ensure the inclusion of fisheries and coastal inputs into the more general climate change and DRM related policy decisions (**Activity 1.2.2**).

In addition, the project will also provide support for key project partners (MoE and FiA, but also other relevant institutions working in coastal areas) to share lessons learned and experiences, as well as learn from other projects on climate resilient practices specifically for fisheries/aquaculture and coastal ecosystems (**Activity 1.2.3**). This will be promoted with other agencies as part of Component 4 of the CamAdapt project, while under this component the focus is on local/provincial coordination, and the strengthening of local networks for sharing information.

The project will support provincial representatives in each country to participate in the discussions related to the National Determined Contributions (NDCs), to ensure that coastal resources (specially mangroves) are taken into consideration and their roles in climate change mitigation and adaptation are properly acknowledged (**Activity 1.2.4**).

Output 1.3 Capacity of national and sub-national government staff and other stakeholders enhanced to develop and implement climate change resilient policies and practices, as well as to access climate finance, and regularly assess their capacity over the project lifetime.

This output will complement Output 1.1 and Output 1.2, by ensuring that national and subnational government staff, as well as other key stakeholders, develop their technical and institutional capacity to implement climate resilient policies, and to facilitate their understanding to access climate finance, that will ensure the sustainability of the project Outcomes beyond the life of the project.

Indicative Activities

- 1.3.1 Carry out capacity need assessments related to climate change adaptation in coastal areas and impacts on fisheries and coastal ecosystems
- 1.3.2 Conduct the Capacity Needs Assessment on Gender Mainstreaming in Climate Change Adaptation in all intervention areas, and specifically to improve women's participation in leadership positions (in CFI/CPA).
- 1.3.3 Provide capacity development support (training, technical advice, etc.) on climate change issues, gender mainstreaming, adaptation solutions, climate finance, remote sensing, GHG mangrove saving assessments (e.g. using Ex-ACT tool), facilitating participatory vulnerability assessments and climate adaptation planning, etc., for provincial, district and commune government representatives and other key stakeholders (based on capacity need assessments).
- 1.3.4 Undertake periodic needs assessments of local/provincial/national government staff throughout the project implementation
- 1.3.5 Support Multi-sectoral policy dialogues through existing mechanisms such as the Technical Working Groups on (Fisheries, Climate Change, Agriculture and Water), and others (e.g. the Secretariat of the National Climate Change Committee, the Gender and Climate Change Committee, National Committee on Coastal Zone Management and Development (NCCMD), and the private sector.
- 1.3.6 Support provincial, district, and commune Committee for women, child and nutrition.

To achieve this, first thing will be to conduct capacity needs assessments, to define the existing level of capacity and what are the key areas that require attention (**Activity 1.3.1**). During the Project Preparation (PPG) phase, a Capacity Needs Assessment Survey was administered to government officers (both from FiA and MoE) to identify the existing capacity gaps to integrate climate change adaptation considerations into fisheries and coastal ecosystem planning and management with a gender responsive approach.

- A survey was administered, and of 65 persons requested to reply, 46 responded (71 percent response rate; 8 respondents were women). Of the 46 respondents, 21 were from the national level, from the Ministry of Environment (7 persons) and the Fisheries Administration (14 persons). From the sub-national level, there were 25 respondents from the provincial fisheries and environment departments of the four provinces (Kep, Kampot, Sihanouk and Koh Kong).

- The survey revealed that although respondents were somewhat aware of the existence of the climate change policies (mostly the NAPA), they were not very familiar with the existence of national/provincial/local policies or strategies related to climate change adaptation in the fisheries sector.

- The main concerns related to climate change in fisheries and aquaculture sectors were: droughts, floods, temperature increases and unpredictable rainfall patterns, increased mortality of fish due to loss of habitats, increased temperatures, changes in salinity, and diseases outbreaks. For coastal ecosystems, the key issues identified were the destruction of coastal ecosystems, and impacts on mangrove, seagrass, and coral reefs; coastal erosion, loss of biodiversity and reduction in fisheries productivity, as well as salt water intrusion (e.g. in rice fields).

- There was a certain level of knowledge about the implementation of gender policies, but with limited understanding about gender issues in the context of climate change adaptation. With regards to climate finance, most of the respondents were largely unaware of the existence of funding to support climate change adaptation or disaster risk reduction, with only a small percentage mentioning Green Climate Fund (GCF), LDCF or others. Overall, respondents considered there is not enough capacity for ministries/departments to work on climate change.

A capacity needs assessment (**Activity 1.3.2**) will be carried out to address gender issues and the role of women in fisheries and the capacity needs required to improve women's participation in leadership positions in Community Fisheries, and Community Protected areas. The gender analysis carried out as part of the CamAdapt PPG consultations (**key findings are included in the Gender Action Plan, Section 3 – Gender Equality and Women's Empowerment**) revealed that overall women have less decision-making power than men, and have less representation in management committees. This can be explained by the existence of discriminatory biases, as well as lack of awareness and lack of confidence of

women themselves to actively participate in fisheries management related activities. In a few communities (e.g. CFi Trapaing Ropov, Chong O, and Koh Sralaow), women were more active.

Through the identification of areas requiring capacity development support, the project will provide training and technical advice (**Activity 1.3.3**), on topics and tools needed by government staff as well as staff of key stakeholder organizations, to be able to enhance their roles in the implementation of Components 2 and 3 of the project. Based on the initial Capacity Needs Assessment Survey carried out during the PPG phase, the topics and tools covered will be related to climate change and gender mainstreaming issues, including context specific adaptation solutions, climate finance, remote sensing, mangrove saving assessments of greenhouse gas emissions, etc., facilitating participatory vulnerability assessments and climate adaptation planning, for provincial, district and commune government representatives, and relevant stakeholders.

The CamAdapt project will conduct periodic needs assessments (**Activity 1.3.4**) of local/provincial and national government staff throughout the project implementation, to evaluate the effectiveness of the training activities/technical advice received and being delivered during Components 2 and 3, to ensure adaptive learning throughout the project implementation. The materials and tools used will be made available to the general public and other LDCF projects through Component 4.

The project will actively share knowledge and lessons learned through direct involvement (**Activity 1.3.5**) in policy dialogues, including participation in the Technical Working Groups on Fisheries, Climate Change, Agriculture and Water, and with other mechanisms, such as the Secretariat of the National Climate Change Committee, the Gender and Climate Change Committee, and the National Committee on Coastal Zone Management and Development (NCCMD).

The project will also coordinate with the Committee for women, child and nutrition at the provincial, district and commune, to ensure the CamAdapt Gender Strategy (which will be developed under Component 4) is well aligned with the needs of women and youth in the coastal areas, and that lessons learned and recommendations generated by the project can be shared more widely (**Activity 1.3.6**).

Component 2 – Sustainable ecosystem management for coastal resilience

This component will focus on enhancing the resilience of coastal ecosystems (specially mangroves, seagrass and coral reefs), to continue delivering their ecosystem services and as an adaptation strategy against the impacts of climate change.

Outcome 2 of the project is “**Coastal ecosystems protected and rehabilitated to enhance resilience of the coastal social-ecological systems**”. By the end of the project, the following activities will be achieved:

1. A participatory monitoring system will be established along the coast to assess the spatial distribution of coastal ecosystems, especially mangroves (inside and outside protected areas), and also coral reefs and seagrass (being underwater their assessment has higher complexity), that will be aligned with the national forest inventory, satellite-based land monitoring system, developing historical estimates, and future projections.

2. Community Protected Area Management Plans and key coastal ecosystems (including those outside protected areas) will become more resilient by addressing the impacts of climate change and identifying adaptation options (through gender-sensitive participatory vulnerability assessments), and they will be effectively implemented following the EbA for coastal areas.
3. 7,000 members of the CPAs will enhance and diversify their livelihood opportunities to undertake income generating activities and become more resilient against climate change impacts (linkages with Output 3.2).
4. CPA coastal networks (sharing lessons learned and good practices on climate resilient CPAs) in coastal areas will be strengthened and integrated into the national CPA network.

Component 2 will be delivered through 3 outputs and the implementation of related activities. **Output 2.1** will focus on mainstreaming climate change considerations into the Community Protected Area Management Plans (CPAMP), including the generation and verification of data and information necessary to do so, while **Output 2.2** will support the implementation of the CPAMPs, ensuring that climate change adaptation and gender considerations are properly acknowledged and integrated. **Output 2.3** will strengthen and create (when necessary) CPA Networks (and including members of CFIs for the development a CFi Network) for sharing information and lessons learned, as well as joint strategies to deal with the impacts of climate change.

The project will be implemented following two ecosystem-based approaches. Activities related to the management and conservation of coastal ecosystems, under Component 2, will follow the Ecosystem based Adaptation (EbA), whereas activities under Component 3 will follow a context specific Ecosystem Approach to Fisheries Management.

Ecosystem based Adaptation (EbA) is defined as “the adaptation policies and measures that take into account the role of ecosystem services in reducing the vulnerability of society to climate change, in a multi-sectoral and multi-scale approach”^[10]. It uses an approach to manage the ecosystem to increase the resilience of people and economic sectors to better cope with the impacts of climate change. It puts the focus on the need to strengthen the links between adaptation and mitigation (e.g. through the Reduction of Emissions from Deforestation and Forest Degradation (REDD+) programme, and the interaction with local communities, highlighting their role as important decision-makers in adaptation and ecosystem management, taking into account local and indigenous knowledge.

Coastal ecosystems can help address a range of climate change risks and impacts on coastal areas, and can provide adaptation benefits to help mitigate the impact of climate change for coastal communities (Table 8).

Table 8 – Adaptation benefits of coastal ecosystem restoration and conservation

Adaptation Benefits

<i>Coral reefs restoration and conservation</i>	<ul style="list-style-type: none"> - May help keep pace with sea level rise through surface elevation - Provision of habitat and nursery grounds for fish, supporting fisheries and livelihoods - Support diversification of livelihoods (including those related to tourism and recreation) - Coral reef restoration can be cost effective (e.g. when compared to tropical breakwaters) - Other benefits include enhancement of biodiversity, medicinal products, etc.
<i>Mangrove restoration and conservation</i>	<ul style="list-style-type: none"> - Provision of coastal protection (reducing wave energy and erosion, and storm surge water levels. - May help keep pace with sea level rise through soil stabilization and sediment capture. - Provision of refuge from ocean acidification - Habitat and nursery ground for fish and other marine species - Provision of diversified livelihoods. - Additional mitigation benefits – carbon storage
<i>Seagrass restoration and conservation</i>	<ul style="list-style-type: none"> - Coastal protection by reducing current velocity, dissipate wave energy and stabilize sediments - May help keep pace with sea level rise through the trap of sediment and raising surface elevation. - Provision of habitat and nursery ground for fish - Supporting fisheries and diversified livelihoods. - Other biodiversity benefits (e.g. feeding grounds for endangered species such as marine turtles, dugongs, etc.) - Additional mitigation benefits – carbon storage

Source: UNEP, 2016[11]

The **EbA approach**[12] requires understanding of the development planning context, in terms of existing and wider national plans and strategies, and the adaptation context, in terms of climate change hazards and vulnerabilities, and therefore developing context specific adaptation options to respond to them. The “adaptation plan” that comes out of this exercise will require an implementation strategy, as well as a adaptive monitoring system, that facilitates management changes when required, to “adapt” to the changing reality. The approach is underpinned by the development of stakeholder capacity, and adaptation mainstreaming. The CamAdapt is following this approach as suited for the Cambodian context.

Output 2.1 Climate resilient Protected Area Management Plans put into place and addressing the factors of ecosystem loss along the coastline

The CamAdapt project will strengthen the work initiated by the Ministry of Environment with regards to the development of the **Community Protected Area Management Plans** along the coastal areas, to ensure the sustainable use and management of coastal resources and the protection of coastal ecosystems. The CamAdapt project will promote the use of the Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of Food Security[13], as a guiding document for the development of the CPAMP.

Indicative Activities

- 2.1.1 Revise and update the historic trends, current status, and spatial distributions of mangroves, seagrasses and coral reefs along the whole Cambodian coast to understand the change dynamics of these ecosystems in the project sites and to identify areas of potential restoration, site specific afforestation/reforestation, and enhancement activities.
 - o Establish a satellite-based mangrove/seagrass/coral reef monitoring system in line with the national satellite-based land monitoring system, with a complete a detailed assessment of all mangrove forests in coastal provinces as part of a full National Forest Inventory (NFI) cycle for Cambodia
 - o Historical change estimates of mangroves/seagrass/coral reefs to establish a reliable reference level for mangrove forests and continue monitoring of change during or post project period.
- 2.1.2 Undertake gender-sensitive, participatory Rapid Vulnerability Assessments of coastal community protected areas (CPAs); repeated in year 4 of the project
- 2.1.3 Develop a participatory CPA monitoring system with key indicators when conducting the Rapid Vulnerability Assessment (stocktaking and monitoring changes, achievements, perceptions, priorities). This “vulnerability monitoring” will also feed into the monitoring system of the project.
- 2.1.4 Support the development of climate-resilient management plans of protected areas and Community Protected Area Management Plan (CPAMP) (for targeted CPAs).

This will be done through an assessment of the ongoing trends and spatial distributions of mangroves, seagrasses and coral reefs along the coast of Cambodia (**Activity 2.1.1**). As the South China Sea (SCS)- Strategic Action Programme (SAP) project will be implemented at the same time as CamAdapt by SEAFDEC and UNEP, it is envisaged that CamAdapt will focus on specific activities to support setting up the baseline information available and measure the trends within the project scope. This can be done with the provision of support for the development and implementation of a methodology for the National Forestry Inventory (NFI) plot measurements in mangrove ecosystems and the establishment of a satellite-based mangrove/seagrass/coral reef monitoring system that is in line with the national satellite-based land monitoring system (mobilizing the expertise of the REDD+ task force), as well as the calculation of historical change estimates of mangrove forest and monitoring during the life of the project and beyond.

Related to Output 1.1, Activity 1.1.3, the CamAdapt will also carry out a rapid vulnerability assessment of coastal community protected areas, addressing the livelihood options of CPA members and the adaptation options available to them (**Activity 2.1.2**). This assessment will be repeated during year 4 of the project to evaluate any changes, and ways forward after project completion.

In connection to the Rapid Vulnerability Assessment, the project will also help develop a participatory CPA monitoring system with key indicators, which will include stocktaking and monitoring of changes, achievements, perceptions and priorities (**Activity 2.1.3**). The vulnerability monitoring system will also feed into the monitoring system of the project.

With the completion of the vulnerability assessments, the CamAdapt project will provide guidance and support to integrate climate adaptation and resilience considerations into the Community Protected Area Management Plans (for targeted coastal CPAs), as well as into the management plans of coastal protected areas (**Activity 2.1.4**).

Output 2.2. Coastal communities in protected areas enhance their capacity to implement and monitor the Sustainable Community Protected Area Management Plans (including livelihood options and coastal protection measures)

In addition to mainstreaming adaptation and resilience into the CPAMP, the CamAdapt will provide support for the implementation, including pilot livelihood activities and coastal protection measures, following the approach on Ecosystem based Adaptation. This output will also provide opportunities to pilot incentive mechanisms and promote participatory community-based management plans.

Indicative Activities

- 2.2.1 Support the implementation of climate change adaptation and gender priorities of the CPAMPs and other protected area management plans, such as:
- Demarcate CPA boundaries and mapping to ensure clearly defined boundaries
 - Develop site-specific restoration, afforestation/reforestation activities (mangrove) through community participation
 - Strengthen management of existing mangrove and coastal habitats and/or establish mangrove conservation areas (including the demarcation, and installation of mangrove area) involving key stakeholders.
 - Facilitate the establishment of sustainable financial mechanisms from eco-tourism, industries and other business/14 opportunities, through engagement of private sector for co-financed schemes and ensuring employment of local people
 - Support the establishment or coordination of activities linked to the conservation of mangrove and other marine ecosystems, such as community-based eco-tourism and mangrove friendly aquaculture.
 - Develop a manual for solid and liquid waste management systems to reduce pollution on mangrove and other marine ecosystems.
- 2.2.2 Conduct public awareness raising events to local communities on the protection and conservation of mangrove forests, sea-grass and coral reefs and their benefits linked to climate change mitigation, adaptation and resilience, and produce training materials as part of dissemination events.
- 2.2.3 Enhance the capacity of PA rangers and CPA members for participatory implementation and monitoring of the CPAMP, through trainings, regular CPA committee meeting and technical assistance as required.
- 2.2.4 Review existing protected area monitoring system and, if necessary, use tools and/or develop skills for effective and operational monitoring and patrolling activities.
- 2.2.5 Share and disseminate Payment for Ecosystem Services (PES) lesson learned to wider stakeholders based on MoE's PES current experiences

The Output will be achieved by the implementation of pilot activities related to climate change adaptation and addressing gender needs, as well as the identified needs of the protected area management plans (**Activity 2.2.1**). This will include i) the demarcation of CPA boundaries and mapping to ensure clearly defined boundaries, following nature based solutions instead of concrete cement poles when and as possible, ii) develop site-specific restoration, afforestation/reforestation activities (mangrove) through community participation, iii) Strengthen management of existing mangrove and coastal habitats and/or establish mangrove conservation areas (including the demarcation, and installation of mangrove area) involving key stakeholders, iv) Facilitate the establishment of sustainable financial mechanisms from eco-tourism, industries and other business opportunities, through engagement of private sector for co-financed schemes and ensuring employment of local people, v) Support the establishment or coordination of activities linked to the conservation of mangrove and other marine ecosystems, such as community-based eco-tourism and mangrove friendly aquaculture, and vi) Develop a manual for solid and liquid waste management systems to reduce pollution on mangrove and other marine ecosystems.

The estimated data of land available for restoration (based on the PPG consultations, both in protected areas and outside protected areas) is shown in Table 9.

Table 9 – Available area for restoration of mangroves

Province	Available Area for restoration (in ha)
Kep Province	About 25 ha (in Ankorl CFis and in Kep CFis), data from Provincial Fisheries Cantonment.
Kampot Province	About 100 ha (both CPA and CFis areas) in Prek Thorth, Koh Touch, Koun Sath, Lork (data from Provincial Department of Environment). About 500 ha can be replanted (for the whole province area), data from Provincial Fisheries Cantonment
Sihanouk Province	About 30 ha (in Prey Nub and Stoeung Hav District)
Koh Kong Province	About 50 ha (in Thmar Sar, Ta Meak, and Chrouy Svay) included both CFis and CPA areas. Data provided by Provincial Fisheries Cantonment. About more than 100 ha (in Adong Teuk, Dang Peng, and Peam Krashop) (data from Provincial Department of Environment).
Total	805 ha

In addition, the CamAdapt will conduct public awareness raising events (**Activity 2.2.2**) directed to local communities for the protection and conservation of mangrove forests, seagrass and coral reefs, based on the benefits they provide for climate change mitigation and adaptation, and to improve the resilience of coastal communities. Training materials will be produced and disseminated during these events.

The CamAdapt will also strengthen the capacity of the rangers of the Protected Areas, as well as the CPA members for the participatory implementation and monitoring of the CPAMP (as developed during Output 2.1), through the provision of training and technical assistance, as well as facilitation of regular CPA committee meetings (**Activity 2.2.3**).

This will require a review and assessment of the existing protected area monitoring system, and the development of tools and provision of technical assistance for the effective operational monitoring and patrolling activities (**Activity 2.2.4**).

The project will generate knowledge and identify lessons learned related to Payment for Environmental Services based on MoE's current experiences with PES and disseminate these lessons and best practices with the relevant stakeholders (**Activity 2.2.5**).

Output 2.3 CPA Network created to build intra-community cooperation for natural resources (and other issues, e.g. gender mainstreaming), share lessons learned and strengthen conservation and management actions (vertical and horizontal integration)

The CamAdapt will provide support for the creation/strengthening of a CPA Network focused on intra-community cooperation for natural resources, with special attention to adaptation, resilience and gender mainstreaming, including sharing knowledge among women, and highlighting the role of women in coastal and fisheries management. The CPA Network will share lessons learned and strengthen the conservation and management actions part of the CPAMP (with both vertical and horizontal integration).

Indicative Activities

- 2.3.1 Strengthen and/or build the CPA network along the coastal area and integrate into the national CPA network.
- 2.3.2 Organize a community meeting/workshop and exchange programme to share lessons learned and good practices on climate resilient CPA management plan implementation.

The project will support the strengthening or building of a CPA network along the coastal area, and facilitate the process for integrating it as part of the national CPA network (**Activity 2.3.1**)

The CPA network will be strengthened through regular meetings and workshops, in addition to exchange programme (e.g. study tours) to share lessons learned and good practices on climate resilience and CPA implementation and management (**Activity 2.3.2**). Members of CFis will be invited to participate in the meetings of the CPA Networks, for better coordination of management of coastal ecosystems that are not part of the protected areas. The project will also focus on creating a CFi Coastal Network, for overall sharing information related to monitoring coastal ecosystems, as well as “CamAdapt Fisherwomen” Network, specially aimed to exchange lessons learned among women (from both CPAs and CFis) in fishing communities and their experience fishing/managing resources/participating in decision making and processing fishery products (linked to Output 3.3).

Component 3 – Fishing Community Adaptation Capacity

This component will focus on strengthening the adaptation capacity of the Community Fisheries, through improved management plans, adaptation options, and livelihood diversification, and it will be guided by the Voluntary Guidelines for Securing Sustainable Small-scale Fisheries in the Context of Food Security and Poverty Eradication[15].

The component 3 has the following outcome: **Outcome 3 – Community Fisheries have increased capacity to adapt to the impacts of climate change**. By the end of the project, the following activities will be achieved:

1. Climate Change Adaptation will be mainstreamed into Community Fisheries Management plans, through participatory and gender-responsive processes, with a focus on reducing vulnerability, diversifying livelihoods, and undertaking climate resilient fisheries management activities.
2. 20,000 CFI members (both women and men) will enhance their capacity to manage fisheries resources and improve their livelihoods through participatory and gender-responsive adaptation actions, including participatory monitoring, and the creation of a **CFI Coastal Network**, and a **CamAdapt Fisherwomen Network** (with female members from CFI and CPAs).
3. 27,000 people living in coastal communities (7000 from CPAs and 20000 from CFIs) will benefit from the early warning systems and disaster risk reduction systems that take into account their specific needs related to coastal resource management, also taking into account women's roles (e.g. women fishing in mangrove areas).

The component is divided into four key Outputs. **Output 3.1** will focus on mainstreaming adaptation into the design process of the Community Fishing Area Management Plans (CFAMPs). **Output 3.2** will ensure the integration of adaptation and resilience considerations into the CFMAP implementation process and facilitating climate resilient fisheries management and providing support for alternative livelihoods. **Output 3.3** will focus on enhancing the capacity of Community Fisheries members to monitor the resilience of their plans, and the creation of a **CFI Coastal Network and CamAdapt Fisherwomen Network**, and **Output 3.4** will improve Early Warning Systems for coastal fishing communities (both CFI and CPA members), ensuring that fisheries is taken into account as part of disaster risk reduction plans and increasing the resilience of fishers against climate change.

The approach used under this component will complement the work done under component 2 (based on the EbA) through specific focus on fisheries with the **Ecosystem Approach to Fisheries**. The purpose of the EAF is “to plan, develop and manage fisheries in a manner that addresses the multiple needs and desires of societies, without jeopardizing the options for future generations to benefit from the full range of goods and services provided by marine ecosystems[16]”. FAO has developed technical guidance that provide a comprehensive framework for the implementation of the EAF. It is based on the following principles:

- fisheries should be managed to limit their impact on the ecosystem to the extent possible;
- ecological relationships between harvested, dependent and associated species should be maintained;
- management measures should be compatible across the entire distribution of the resource (across jurisdictions and management plans);
- the precautionary approach should be applied because the knowledge on ecosystems is incomplete; and
- governance should ensure both human and ecosystem well-being and equity.

Most importantly, the EAF process calls for a prioritization of the key issues (a process that is already being carried out by the CFIs as part of their CFMAPs), but considering not only the Ecosystem wellbeing of the fishery (e.g. stock, habitats), but also including activities that are relevant to Human wellbeing (socioeconomics aspects of the fishery, such as

contributions to food security and livelihoods), and Governance wellbeing (which refers to the need of appropriate institutions and management systems in place). The development of a participatory and adaptive monitoring system is also one of the key characteristics of the EAF process. The CamAdapt will include a soft (not prescriptive) style of the EAF for implementation in the coastal CFIs, and the lessons learned will be shared with other inland CFIs.

Based on these considerations, under this component the CamAdapt will focus on four outputs:

Output 3.1 - Integrate adaptation into the development/revision of Community Fishing Area Management Plans (CFAMP) and reflect into CIP and CDP

This project will focus on the integration of adaptation into the Community Fishing Area Management plan process, by assessing vulnerability of CFIs, and by facilitating the integration adaptation and resilience into the CFAMPs.

Indicative Activities

- 3.1.1 Undertake participatory Rapid Vulnerability Assessments of coastal Community Fisheries, building on previous assessments and ensuring they are gender differentiated
- 3.1.2 Facilitate the inclusion of community-based climate change adaptation and DRM initiatives into CFAMPs, following Ecosystem-based Adaptation considerations, also targeting CIP and CDP.

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The CamAdapt project will conduct a participatory rapid vulnerability assessment (**Activity 3.1.1**) for coastal Community Fisheries (linked to Output 2.1 and 1.1), building on previous assessments and ensuring the results are gender differentiated, in order to be gender responsive.

The results of the vulnerability assessment will facilitate the inclusion of community-based climate change adaptation and disaster risk management considerations into the CFAMPs, following ecosystem based adaptation, and also targeting Commune Investment Programmes and Commune Development Plans (**Activity 3.1.2**).

Output 3.2 – Integrate Adaptation during the implementation of the CFMAP process, supporting local level monitoring of resilience to climate change

The CamAdapt project will support the integration of adaptation and resilience considerations as part of the implementation of the CFMAP process, strengthening local level monitoring of resilience.

Indicative Activities

- 3.2.1 Implement gender-differentiated initiatives to **reduce climate risk** of fisherfolk, such as climate proofing fisheries related infrastructure (for example, establishing dikes to avoid saline intrusion or improving siting of landing sites and fish cages); improving freshwater management for coastal communities (e.g. rainwater collection system); improving safety at sea and early warning systems.
- 3.2.2 Facilitate implementation of **alternative and diverse livelihood** options, such as community-based eco-tourism, transitioning to more resilient and energy efficient post-harvest practices and processing of fisheries products, promote mangrove friendly or other small-scale integrated aquaculture (e.g. mud crab, marine fish and shrimp), facilitate the establishment of community financial risk management and livelihood diversification schemes (e.g capacity building) and interventions (e.g. crab-bank) that will enhance resilience and that are gender responsive.
- 3.2.3 Improve **fisheries management** through, for example, demarcation of clear CFI boundaries and identification of marine and coastal conservation and fisheries management tools in line with the ecosystem approach to fisheries and aquaculture (including the installation of artificial reefs where required)

A wide number of adaptation and livelihood actions will be designed and implemented (**Activity 3.2.1**) to reduce the climate risk of fisherfolk, both men and women, and therefore the actions will need to be gender responsive. Some examples of the types of activities that will be implemented include the establishment of fisheries infrastructure that is climate proofed, improving freshwater management (specially for those coastal communities that are most affected by drought and have limited access to freshwater), as well as the design and implementation of early warning systems for fishers, including women who go fishing in mangrove areas, for example.

With regards to livelihood options, the CamAdapt will also facilitate the implementation of alternative and diverse livelihood options (**Activity 3.2.2**) that will help transition to more resilient and energy efficient post-harvest practices, as well as processing fish products (largely focused on supporting women), and promoting/piloting **mangrove friendly aquaculture**[\[17\]](#), and other risk reduction and adaptation options that are gender responsive and will enhance resilience of coastal fishing communities. The project will also support eco-tourism as a way to promote sustainable and resilient livelihood options, and will coordinate with other partners (e.g. CAPFISH, FFI) for the implementation of eco-tourism activities in the coastal area.

In addition, the project will also improve fisheries management (**Activity 3.2.3**) through demarcation of clear CFIs boundaries, and identifying marine and coastal conservation and fisheries management tools, following the ecosystem approach to fisheries and aquaculture, as well as a ecosystem-based adaptation (e.g. by using artificial reefs when required). Where possible, the project will make use of the SMART Tools[\[18\]](#) for zoning and the creation of maps.

Output 3.3. Develop capacity of CFIs members to monitor that their plans are climate change resilient, including the creation of a CFI Coastal Network and the CamAdapt Fisherwomen Network.

The CamAdapt will support the development of capacity of the members of CFis for participatory monitoring of their CFAMP plans, with special emphasis on climate adaptation and resilience, as well as the integration of gender considerations.

Indicative Activities

- 3.3.1 *Incorporate climate-related considerations into the CFAMP monitoring systems*
- 3.3.2 *Support the monitoring of climate related activities in the CFAMPs*
- 3.3.3 *Support the development of community-based monitoring systems, sharing information through a CFi Coastal Network, and a CamAdapt Fisherwomen Network*

Activities under this Output will be directed to the integration of climate related considerations into the existing and new CFAMP, and provide support for participatory community based monitoring – this will require the creation of a CFi Coastal Network, to facilitate the sharing of experience and the methodologies used for community based monitoring. Members of the CFis, will also be invited to participated in the discussions of the CPA Network (Output 2.3), to learn from the network itself and also for better management and coordination of the information about the coastal ecosystems (including those inside and outside protected areas).

Output 3.4 Coastal early warning and disaster risk management systems that increase fishers’ resilience against extreme weather and environmental events

The CamAdapt project will carry out an assessment of the current early warning and disaster risk management systems in Cambodia and their applicability for fisheries and coastal areas, to address the specific needs of coastal fishing communities. This activity will also take into consideration women’s roles (e.g. women in the coastal areas Cambodia are more likely to fish in mangrove areas than offshore). The project will also conduct meetings/awareness campaigns previous to every rainy season to share and reflect weather forecast system and therefore support planning of disaster risk reduction related activities.

Indicative Activities

- 3.4.1 Assess the current early warning and disaster risk management systems and identify gaps relating to fisheries communities’ needs.
- 3.4.2 Ensure coastal DRM plans include fisheries-specific needs and enhance the current EWS/weather forecast system to address the needs of coastal fisheries together with community-based disaster management committee (e.g. Mobile Programme implemented by People in Need and Save the Children)
- 3.4.3 Conduct meeting(s) (preceding the rainy season) among key stakeholders (Community based Management Group, Cfi members, CPA members, representatives from Provincial Disaster Management Committee, and representatives from provincial department of water resources and meteorology, and Fisheries Administration Cantonment, and Provincial Environment Department and local authorities) to share and reflect on the weather forecast system and planning activities (fishing/aquaculture/rice farming, etc.)

Component 4 – Knowledge Management

This component will be delivered through three outputs. Outcome 4 – Monitoring and evaluation and information dissemination. The PPG phase revealed there is lack of understanding of climate change related policies by the fisheries sector, particularly in coastal areas. While the CamAdapt Component 1 will be focused on increasing the capacity of national and provincial stakeholders to improve their knowledge and experience in adaptation planning, this component 4 will be focused on i) ensuring that the project is being monitored and that improvements are being made into ongoing project implementation as part of a continuous and adaptive learning process (Output 4.1), ii) that project achievements, case studies, guidelines, tools, and lessons learned are being widely disseminated through an effective Communications Plan (Output 4.2), and that iii) the project is gender responsive and that meaningful partnerships to promote resilience and adaptation in coastal areas with fisheries communities are being enhanced and created through a Gender and Stakeholder Engagement Strategy (Output 4.3).

Output 4.1 Project Monitoring, Evaluation and Learning (MEAL)

The component 4 has the following outcome: **Outcome 4 – Monitoring and Evaluation and Information dissemination**. By the end of the project, the following activities will be achieved:

1. The CamAdapt MEAL plan for the project is developed and validated, including gender-specific indicators and targets.
2. The CamAdapt Communication Strategy is established and lessons learned and good practices are being documented and shared among the relevant networks (in Cambodia and beyond).
3. The CamAdapt Gender and Stakeholder Engagement Strategy is established and project activities are gender-responsive following the gender analysis, and impacts are being monitored through gender-sensitive indicators.

The activities under this output will ensure systematic data collection from project pilot sites to effectively monitor and evaluate project progress through gender sensitive indicators, monitor risk mitigation measures and collect lessons learned (including successes and failures) to inform future adaptation and LDCF/GEF initiatives.

Indicative Activities

- 4.1.1 Develop and implement the CamAdapt MEAL plan/framework for the project including gender-specific indicators and targets and ensure a link to on-going government M&E systems.
- 4.1.2 Set the baseline for the project (based on agreed gender sensitive indicators).
- 4.1.3 Conduct mid-term review for the project.
- 4.1.4 Conduct final project evaluation.

Output 4.2 Project Communications Plan

Under this output, the CamAdapt Communications Strategy will be designed, established, maintained and strengthened to enable the sharing and exchange of CC related information products on fisheries and aquaculture in coastal areas, highlighting the role of coastal ecosystems in CC adaptation and mitigation, as well as emphasizing the role of women in fisheries and aquaculture. The Communications Strategy will focus on information related to CC in coastal areas, covering both mitigation and adaptation benefits, but it will also share information related to the environment and fisheries and aquaculture with other communication networks, and by making use of the communication platform that will be provided by the CAPFISH project.

Indicative Activities

- 4.2.1 Establish the CamAdapt project Communications Strategy (including website, project factsheets, policy briefs, etc.) in order to share information publicly about the project implementation. Support the integration within existing government communication mechanisms (e.g. FiA website) to ensure sustainability and ownership.
- 4.2.2 Organize annual multi-stakeholder provincial workshop(s) for sharing the experiences with relevant stakeholders along the coastal areas and an annual multi-stakeholder workshop to share information among the four provinces.
- 4.2.3 Document and disseminate lessons learned and good practices through different forums and audience appropriate media (e.g., video, posters or case studies, peer-to-peer study tours to exchange experiences and good practices)
- 4.2.4 Organize a final dissemination workshop at the national level to share the knowledge and experiences of the CamAdapt project implementation to relevant stakeholders.
- 4.2.5 Support the participation of relevant technical officials and community members in relevant regional and global meetings and platforms to disseminate project activities and lessons learned

Output 4.3 Gender and Stakeholder Engagement Strategy

This output will focus on the development of the CamAdapt stakeholder engagement strategy, by identifying synergies that will facilitate regular consultations with other relevant projects/programs and agencies who are working on similar issues (climate change, fisheries and environment, gender issues, etc.). During early implementation, the project will also ensure that the Free, Prior and Informed Consent Guidelines^[19] are being followed, by documenting the willingness to participate in the project by Community Fisheries and Community Protected Areas.

To effectively address the lack of women's representation in decision-making related to fisheries management in coastal areas (and in the rest of the country), the CamAdapt project will need to take into account the real availability of women's time to participate in other non-domestic activities, since they are the primary caregivers in the fisher households. The Gender Action Plan (in Annex) provides a detailed summary of activities, though once is operational the project will need to develop a CamAdapt Gender Strategy.

Indicative Activities

- 4.3.1 Develop a CamAdapt stakeholder engagement strategy including:
- Identify synergies and facilitate regular consultations with other relevant projects/programs and agencies who are working on similar issues (climate change, fisheries and environment, gender issues, etc.)
 - Ensure implementation of the Free, Prior and Informed Consent Guidelines[20]
- 4.3.2 Develop and implement a Gender Strategy for the CamAdapt Project, including gender analyses during the planning of activities and follow up during implementation through gender sensitive indicators

Figure 3 illustrates the theory of change for the CamAdapt project.

[1] The World Risk Report, 2018 <https://weltrisikobericht.de/english-2/> - The WorldRiskReport provides an overview of the links between natural events, climate change, development and preparedness at a global level and to draw future-oriented conclusions regarding relief measures, policies and reporting.

[2] Robyn P. and Jame C., (2017): Climate change impacts on coastal ecosystems (CoastAdapt)

[3] Kai L., et all: Climate Change Impaction Florida's Fisheries and Aquaculture Sectors and Options for Adaptation.

[4] Representative Concentration Pathway (RCP) indicates the different models based on different greenhouse gas concentration (RCP2.6 min and RCP8.5 max) as adopted by the fifth Assessment Report (AR5) of the IPCC in 2014.

[5] Impacts of climate change on fisheries and aquaculture. Synthesis of current knowledge, adaptation and mitigation options. FAO Fisheries and Aquaculture Technical Paper 627

[6] Adapted from Ibid

[7] Ward, R. D., D. A. Friess, R. H. Day, and R. A. MacKenzie. 2016. Impacts of climate change on mangrove ecosystems: a region by region overview. *Ecosystem Health and Sustainability* 2(4).

[8] <https://oceanservice.noaa.gov/facts/coralreef-climate.html>

[9] An example of tools that can be used is in FAO 2018. Toolkit for Vulnerability and Capacity Assessment (VCA) in Caribbean Coastal and Fishing Communities.

[10] Raffaele Vignola, Bruno Locatelli, Celia Martinez, Pablo Imbach. Ecosystem-based adaptation to climate change: What role for policy-makers, society and scientists?. *Mitigation and Adaptation Strategies for Global Change*, Springer Verlag, 2009, 14 (8), pp.691-696. 10.1007/s11027-009-9193-6 . cirad-00699340

[11] Adapted from UNEP (2016). Options for Ecosystem-based Adaptation (EBA) in Coastal Environments: A Guide for environmental managers and planners. UNEP, Nairobi

[12] UNEP (2016). Options for Ecosystem-based Adaptation (EBA) in Coastal Environments: A Guide for environmental managers and planners. UNEP, Nairobi.

[13] <http://www.fao.org/tenure/voluntary-guidelines/en/>

[14] Kep province already applied 1\$ per tourist who visits Kep National Park.

[15] <http://www.fao.org/voluntary-guidelines-small-scale-fisheries/en/>

[16] FAO. 2003. Fisheries Management. 2: The ecosystem approach to fisheries. FAO Technical Guidelines for Responsible Fisheries No. 4, Suppl. 2. Rome. 112 pp

[17] Work on mangrove friendly aquaculture will follow lessons learned by other similar projects, such as the one led by SNV and support of FAO in Viet Nam – <https://snv.org/project/mangroves-and-markets>.

[18] https://smartconservationtools.org/wp-content/uploads/2017/11/SMART_GettingStarted2017_English_sm.pdf

[19] <http://www.fao.org/3/a-i6190e.pdf>

[20] <http://www.fao.org/3/a-i6190e.pdf>

Figure 3 illustrates the theory of change for the CamAdapt project.

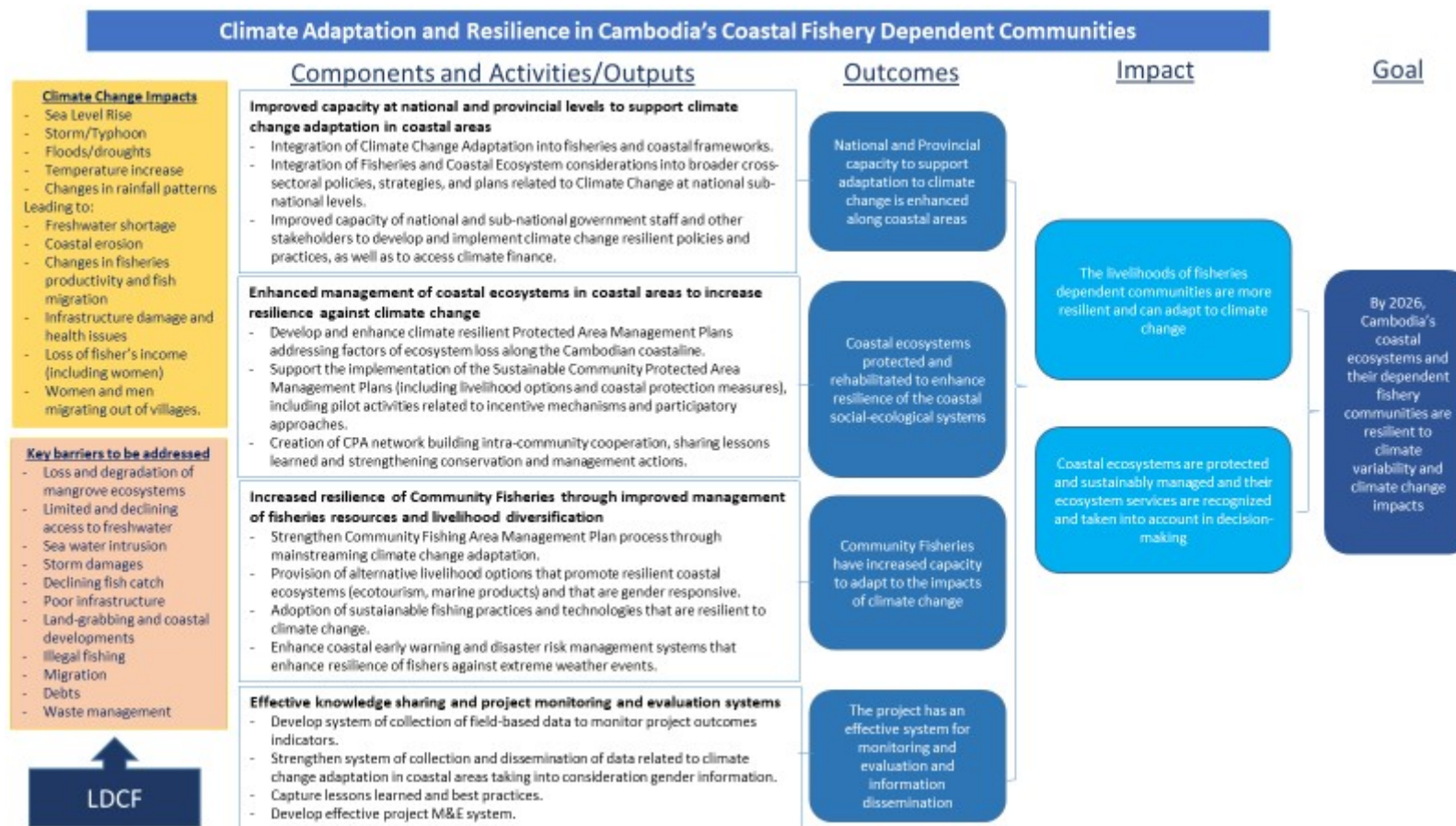


Figure 3 The Theory of change for the CamAdapt project

3) Alignment with GEF focal area and/or Impact Program strategies;

The project is aligned with the LDCF 6 objectives:

- **LDCF Objective 1: Reduce the vulnerability of people, livelihoods, physical assets and natural systems to the adverse effects of climate change.** The project has been designed to increase the resilience of coastal ecosystems and the livelihoods of coastal communities in Cambodia who are largely dependent on fisheries resources for their wellbeing. **Component 2** is focused on the enhancement of coastal ecosystems (through protection and restoration) so they can continue delivering their ecosystem services. **Component 3** is focused in the increase of resilience of community fishery (CFi) members through the inclusion of adaptation options, such as those aiming to reduce climate risk and provide alternative and diverse livelihood options that minimize dependency on fisheries products only. The Gender and Stakeholder Strategy developed by the project as part of **Component 4** will ensure that context specific targeted adaptation interventions will be planned and implemented, responding to people's (women and men's) needs.
- **LDCF Objective 2: Strengthen institutional and technical capacities for effective climate change adaptation.** The project will also address the institutional framework by supporting the enhancement of technical capacities at every level, both of government and key stakeholders, which will be done under **Component 1**, and those of coastal communities, particularly members of CPAs under **Component 2**, and of CFis, under Component 3. Lessons learned, training modules, and other awareness raising materials will be publicly available for key stakeholders and others, through an efficient Communication Strategy that will be developed under **Component 4**.
- **LDCF Objective 3: Integrate climate change adaptation into relevant policies, plans and associated processes.** **Component 1** of the project is largely focused on strengthening the integration of adaptation into fisheries and coastal policy frameworks, as well as the integration of fisheries and coastal ecosystem considerations into the broader climate change policies and frameworks at the national and sub-national levels, to ensure coordination at the different levels. These efforts will be strengthened whenever necessary as part of the implementation of **Component 2** and **Component 3**, particularly with regards to the integration of adaptation into the development/update/implementation of CPAs and CFis management plans, and other related processes such as the CIPs and CDPs as appropriate.

Additionally, alignment with GEF focal area is described under section 5) Global Environmental Benefits and Adaptation LDCF benefits below.

1) **Incremental/additional cost reasoning and expected contributions from the baseline, the GEFTF, LDCF, SCCF, and co-financing;**

Without the LDCF project, the management of coastal ecosystems and fisheries resources will remain largely vulnerable to the impacts of climate change, directly threatening the livelihoods of the coastal fishing communities who rely on these resources. Planning for climate change will not be possible under the current conditions, due to the lack of capacity and understanding of the climatic vulnerability of the fisheries sector and the adaptation options available for CFis and CPAs, and coastal ecosystems. Without the guiding support of the LDCF project, the existing supporting institutions will not have the capacity to interact and work together to provide the broad type of support needed at all levels, and will remain unable to develop a coordinated adaptation response, through the development of participatory climate change adaptation plans, policies and actions that are gender sensitive and responsive to the needs of coastal fishing communities. This lack of integration of adaptation and ecosystem-based approaches is limiting the role of institutions and users for an integrated and climate resilient management and conservation of coastal ecosystems and resources. Without the project, there will be no investments in new adaptation technologies

and nature-based solutions that can diminish the vulnerability of coastal communities to climate change. There will also be no sharing of knowledge or creation of networks that will disseminate good practices and promote adaptive change, and no added emphasis on, or support to, the role of women in fisheries and coastal management in the context of climate change.

With the LDCF project and the co-funding mobilized by the project, there will be a coordinated approach among agencies (FiA and MoE) and at different levels (local, provincial, national) to address the barriers that have been identified by the CamAdapt, and contribute to the achievement of the targets of the **NAPA** and the **Climate Change Priority Action Plan for Agriculture, Forestry and Fisheries Sector (2016-2020)**, as well as the NDC.

In particular, the project will:

- Enhance adaptation capacity in coastal areas through transformative management of fisheries and aquaculture resources, as well as coastal ecosystems, through the use of Ecosystem based Adaptation and similar approaches. Relevant priority government policies and strategies will be supported at different levels, and the capacity of stakeholders will be supported through a wide range of capacity building activities.
- Strengthen the coordination through existing and new networks and work closely with other policy development initiatives, and enhance the collaboration and coordination of activities by the Fisheries Administration and the Ministry of Environment, to ensure coherence of approaches used in the management of coastal ecosystems.
- Enable climate change policy development for the protection of coastal ecosystems and the sustainable use of the resources they provide, focusing on resilience of ecosystems and communities against climate change. Climate change adaptation will be mainstreamed in the development of the Sustainable Community Protected Area Management Plans (CPAMP), and Community Fisheries Management Plans (CFMP).
- Provide climate-proofing examples that increase the resilience of fisheries and aquaculture operations in the coastal areas (including the exploration of early warning systems for fishing communities) as well as the promotion of alternative livelihoods that rely on the conservation of coastal ecosystems and on the enhancing of their role in climate change adaptation and mitigation (e.g. eco-tourism in mangrove areas).

2) Global adaptation benefits (LDCF)

The project has been designed to provide adaptation benefits such as and increase of the resilience of at least 47,000 people (an estimated 23,500 women and 23,500 of men) living in the coastal provinces, whose livelihoods are dependent on coastal natural resources, particularly fisheries, by mainstreaming climate change actions, and diversifying and strengthening livelihoods of these people. These beneficiaries have been calculated including the almost 20,000 members of CFis (14,000 men and 6,000 women), in addition to the 7,000 members of CPAs (information of the numbers of men and women members not available for CPAs), in addition to other 20,000 beneficiaries (family members, other natural resource management users still not members of the CFis or CPAs, students, government staff, etc.).

The project will also enhance the resilience of coastal ecosystems through improved management of natural resources and the conservation of 82,000 ha of coastal ecosystems (including 50,000 ha of mangroves, 30,000 ha of seagrass, and 2,000 ha of coral reefs), ensuring they can continue delivering ecosystem services.

The project will mainstream climate change adaptation and gender issues into at least 15 new CPAMP and 20 revised and/or new CFMAP during the lifetime of the project. The CamAdapt project will also develop 1 Climate Change Action Plan for coastal fisheries dependent communities.

The project will deliver these adaptation benefits by strengthening the policy coordination and developing the capacity of government staff at the different (local, provincial and national) levels, supporting an enabling environment that integrates climate change adaptation into fisheries and coastal frameworks – while also integrating fisheries and coastal ecosystems considerations into the broader discussions for the development of policies, strategies and plans related to climate change.

Following the principles of Ecosystem-based Adaptation, the CamAdapt project will update, develop and implement climate resilient Community Protected Area Management Plans based on community based gender-sensitive vulnerability assessments, including measures for participatory monitoring of the status and trends of coastal ecosystems, increasing the awareness of the role of coastal ecosystem to increase the resilience of coastal communities through gender responsive actions and fostering community networks to share experiences and lessons learned.

Following the principles of the Ecosystem Approach to Fisheries, the CamAdapt project actions will have a holistic focus to fisheries, looking at ecological and human wellbeing, as well as the governance context, helping the fisheries sector, in particular the 20,000 members (nearly 14,000 men and 6,000 women) in Community Fisheries in coastal area, to be better prepared to address the issues of climate change, through the integration of adaptation considerations into the development and implementation of the Community Fisheries Management Plans. This will be through activities that will reduce climate risks, promote resilient and alternative livelihoods that are gender responsive, and improve better fisheries management practices and early warning systems for fishers, along with safety at sea. Women’s participation (specially female fishers, as well as women involved in post-harvest) in particular will be strengthened, following the recommendations of the Gender Strategy that will be developed at the beginning of the project.

In addition to directly supporting adaptation to climate change and increased resilience of people and ecosystems, the project will also generate indirect contributions to climate change mitigation and biodiversity conservation.

Climate change mitigation/carbon sequestration

It is estimated, that about 50,000 ha mangroves, under component 2 (both protected areas, under MoE mandate, and outside protected areas, under the mandate of FiA), and about 30,000 ha of seagrass (located mainly in Kampot Province, under the mandate of FiA), will be under improved management practices.

Table 10 Average Annual Deforestation Rate

	2006	2016	Avg. annual deforestation (Ha)
Mangrove (ha)	32060	31156	90.4

rear-mangrove (ha)	27519	25866	165.3
total	61585	59038	

Taking into account national data and the split between mangrove and rear-mangrove, assuming a 50% reduction in rate of deforestation due to project implementation, and including interventions to reduce the loss of seagrass, the total amount of GHGeq savings is of **763,191 tCO₂eq**, using the estimated Ex-Ante Carbon-Balance tool – (EXACT tool[1]), with 34.4% of uncertainty. The project will monitor the mangrove areas following the lessons learned by REDD+ and FiA establishing a framework for monitoring the effectiveness of mangrove restoration activities in Prey Nob District (Sihanoukville) during 2015 and 2018. The calculations done by the EXACT tool assume the sequestration and avoided emissions from improved management practice of about 49,000 ha of mangroves, and the sequestration from restoration/replanting on 805 ha (areas available for restoration estimated during PPG phase, and assuming of the total area restored/replanted to have 1/3 mortality, 1/3 small improvement, and 1/3 moderate improvement). The EXACT tool with the calculations is in **Annex N**.

Biodiversity

Cambodian coastal areas are highly rich in biodiversity, due to the existence of coastal and marine ecosystems such as mangrove forests, coral reefs and seagrass meadows. As mentioned above, these three ecosystems interact and support each other, creating a rich ecological system and supporting aquatic resources, including iconic and endangered species, such as marine mammals (*Dugong dugon*) Irrawaddy Dolphin (*Orcaella brevirostris*), the IndoPacific Humpback Dolphin (*Sousa chinensis*), Common Dolphin (*Delphinus delphis*), Bottlenosed Dolphin (*Tursiops truncatus*), Shinner Dolphin (*Stenella longirostris*), and Finless Porpoise (*Neophocaena phocaenoides*). The mangroves also provide important habitats for many bird species, including for globally endangered milky stork (*Mycteria cinerea*). The CamAdapt project, by addressing climate change issues in coastal areas and promoting the resilience of coastal communities through the sustainable management of coastal resources, and conservation of protected areas (considering connectivity with other nearby inland protected areas along the coastal provinces) will also contribute to the conservation global biodiversity.

3) Innovativeness, sustainability, potential for scaling up and capacity development[2] .

The project is unique in its approach to addressing climate change adaptation through the combination of ecosystem-based approaches, i.e. Ecosystem-based Adaptation for coastal ecosystems, and the Ecosystem Approach to Fisheries, which will help address climate change issues in the coastal areas in Cambodia, while supporting coastal fishery dependent communities adapt to climate change and enhance their resilience.

The CamAdapt project, through the direct implementation of EbA and EAF approaches, will enhance the role of coastal communities to protect and better manage the coastal ecosystems that secure their livelihoods.

A wide range of **innovative** technologies and practices will be developed during implementation and based on more specific analysis of community needs using the EbA and the EAFM approaches. Some examples include:

- Targeting critical vulnerabilities in Cambodian coastal and mangrove ecosystems and their links to coastal livelihoods and nearshore fisheries; holistic approach to addressing coastal habitat use, maintenance and protection for vital biodiversity, livelihood and climate resilience benefits.
- Valuation of coastal ecosystem services and their role in climate change mitigation and adaptation in Cambodia.
- Analysis of financial and social incentive mechanisms to support climate change mitigation and adaptation options relevant to coastal fishery dependent communities.
- Supporting collaboration between the fisheries and the protected area management sector, in particular at commune and district levels, in order to reach shared objectives. This will be backed by strong networks, collaborative platforms and work planning created at provincial and national level, involving other relevant agencies when required (e.g. Ministry of Land Management, Urban Planning and Construction).
- Undertaking gender-sensitive vulnerability assessments for coastal fisheries and coastal ecosystems, which will lead to the development of a gender responsive Climate Change Adaptation Action Plan.
- Supporting climate resilient and participatory CPAs and CFIs management plans (CPAMP and CFMP) and monitoring systems, and promote networks of CPA and CFIs.
- Developing technical guidance on topics to reduce vulnerability in coastal fisheries socio-ecological systems, such as mangrove/coastal friendly aquaculture, waste management to reduce pollution on coastal ecosystems, participatory environmental monitoring, etc., areas that are mostly new to Cambodia.
- Applying disaster risk reduction measures directed to coastal fishery dependent communities, including Early Warning System for fishers (including measures specifically directed to women fishers and processors).
- Developing a monitoring system that builds upon local knowledge and participatory tools to identify observable changes and their root cause (e.g. whether these impacts are climate driven, environmental and/or other anthropogenic). These results will help first to identify and then reduce, minimize and adapt to potential changes/disruptions in marine fisheries, and will also help inform actions (e.g. coastal management and fishing regulation) addressing multiple factors specific to the needs of individual species and important coastal habitats. This information is also important to establishing and supporting Protected Areas conservation objectives as well as sustainable off-take/utilization potentials. Some minor efforts have been undertaken in the past, but this can be considered mostly ground-breaking;
- Creating awareness on the NDCs discussions related to fisheries, coastal ecosystems and gender mainstreaming in natural resource management.
- Carrying out capacity need assessments to the executing agencies and relevant stakeholders to understand their needs in the delivery of their work (e.g. training, policy support, technical assistance) supporting coastal fishery dependent communities adapt to climate change. The CamAdapt project will ensure that all the knowledge products generated are transferred to the relevant institutions, and that there is a project exit strategy with a handover mechanism to the government.

- Strong focus on promoting women leaders in CPAs and CFIs, through the integration of gender issues into the capacity assessment needs, and by supporting women's leadership in management positions.
- Provision of a dedicated capacity development support related to climate change adaptation and mitigation issues, including, among others, GHG mangrove saving assessments, remote sensing, and adaptation solutions.
- Establishment of satellite-based mangrove/seagrass/coral reef monitoring system and set up historical change estimates to monitor during and after the life of the project.
- Implement gender-differentiated initiatives to reduce climate risk of fisherfolk, such as climate proofing fisheries related infrastructure (for example, establishing dikes to avoid saline intrusion or improving siting of landing sites and fish cages); improving freshwater management for coastal communities (e.g. rainwater collection system); improving safety at sea and early warning systems.
- Facilitating implementation of alternative and diverse livelihood options, such as community-based eco-tourism, transitioning to more resilient and energy efficient post-harvest practices and processing of fisheries products, promote mangrove friendly or other small-scale integrated aquaculture (e.g. mud crab, marine fish and shrimp), facilitate the establishment of community financial risk management and livelihood diversification schemes (through capacity development) and interventions (e.g. crab-bank) that will enhance resilience and that are gender responsive.
- Improving fisheries management through, for example, demarcation of clear CFI boundaries and identification of marine and coastal conservation and fisheries management tools in line with the ecosystem approach to fisheries and aquaculture, and by using SMART Tools to develop maps and zone areas with reliable data. The use of maps can facilitate addressing coastal land tenure issues and conflict resolution. This includes the use of community mapping to demarcate fishing areas and protection zones.

Sustainability of the project interventions will draw from two strategic approaches, one aiming at the target communities and one aiming at the national agencies that support natural resource management in coastal areas. The first strategy is to focus the project on the empowerment of communities and to enhance their capacity to adapt to climate change and increase their collective resilience. The sustainability of natural resource management plans requires community buy-in, and will initially and in part be secured through shorter-term but tangible project benefits. With this in mind, project income generation and sustainable livelihood improvement activities will be developed in parallel to planning processes. These will contribute to reducing vulnerability and building resilience. The project, working with the Community Fisheries and the Protected Area Communities, will develop technical and organizational capacity. With this enhanced capacity, once the project support is completed, the communities will be better able to engage with government and private sector and where consultative platforms, improved local information and knowledge systems, collaborative management approaches, outreach and capacity will enable household and communities improved voices in those decisions that directly impact their lives (e.g. the resilience and sustainability of the coastal ecosystems and natural resources upon which they rely).

The second sustainability strategy comes through regulatory and strategy framework improvements and **capacity development**, notably at provincial and national level. The policies and investment strategy developed supporting CCA in coastal areas, the individuals trained, the coordination networks created, and the maps and the guidelines produced, will remain effective after the project. This should not only facilitate sustainability, but also replication.

Coastal fishery and mangrove resources will benefit from improved stewardship and the development of community level norms on exploitation. There have been a number of pilot activities over the past seven years exploring the potential for development of community management plans for coastal fishery and mangrove resources. These have resulted in agreements being developed on sustainable exploitation and the non-use of destructive fishing gears; demarcation of fishing areas and communities’ traditional use mangrove forest. However, sustainability of management plans for coastal natural resources requires a high degree of community buy-in, and this entails shorter -term tangible benefits. Income generation, livelihood improvement activities (including financial literacy, safety at sea, post-harvest processing training) are supported by the project in parallel to the planning processes. These activities also directly contribute to reduce vulnerability and build greater resilience. In the medium term, recovery of fishery and mangrove based resources is also expected to deliver such tangible benefits and will provide an improved resource base for income generating activities based on sustainable exploitation of these natural resources.

Outcomes 1 and 4 are to help **upscaling**, and improve coordination mainly among the two agencies, MoE and FiA, and other partners. Outcome 1 will lead to tools that can be used broadly across the coast (i.e. the assessments, guidelines and the capacity). Outcome 1 will also lead to integration of CCA activities into CDPs and CIPs – a means of directly achieving upscaling beyond the life of the project. Also, Outcome 4 focuses on capturing lessons and best practices. This will facilitate the replication of best practices across pertinent areas in Cambodia, as well as to other countries as appropriate. The project will coordinate closely with the CAPFISH project to ensure upscaling of the project into the national fisheries management and share lessons learned of supporting other CFIs.

4) Summary of changes in alignment with the project design with the original PIF

Summary of changes to the ProDoc from the initial PIF – Project Framework

PIF text	ProDoc Text	Comments
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<p>Project Components:</p> <ol style="list-style-type: none"> 1. Capacity Development 2. Sustainable ecosystem management 3. Fishing community adaptation capacity 4. Knowledge management 	<p>Component 1 – Strengthening policy coordination and capacity development for an adaptive enabling environment</p> <p>Component 2 – Sustainable Ecosystem Management for coastal resilience</p> <p>Component 3 – Fishing Community Adaptation Capacity strengthened</p> <p>Component 4 – Knowledge Management</p>	<p>The text of the component has been slightly modified for a better explanation of the work to be done under each component.</p>
<p>Outcome 1</p> <p>National and provincial capacity to support adaptation to climate change is enhanced along coastal areas.</p>	<p>Outcome 1 – National and provincial capacity to support adaptation to climate change is enhanced along coastal areas.</p>	<p>The outcome remains the same.</p> <p>Indicators have been adjusted based on the new outputs.</p>

<p>Output 1.1 Assessment of the vulnerability of the coastal fishing communities to climate change and of the potential socio-economic impacts (including assessment of mangrove ecosystems). This will build on, not duplicate, previous assessments.</p> <p>1.2. Joint (FiA/MoE) strategy to support Protected Area Communities and Fishing Communities as they adapt to climate change in coastal areas. This will include clearer definition of zones, improved maps and clearer rules and regulations. This will also include financial models.</p> <p>1.3 Technical guidelines on (i) how to implement mangrove/coastal habitat friendly aquaculture and (ii) how to restore coastal habitat and replant mangroves along Cambodian coast.</p> <p>1.4 Government technical staff trained in climatesensitive fisheries and mangrove/coastal habitat restoration in fisheries and environment units at commune, district and provincial levels across the four coastal provinces.</p> <p>1.5 Measures to adapt marine fishery communities to climate change integrated into Commune Development Plans (CDP) and Commune Investment Plans (CIP) for coastal communes</p>	<p>Output 1.1 Climate Change Adaptation is incorporated into fisheries and coastal frameworks</p> <p>Output 1.2 Fisheries and coastal ecosystem considerations integrated into the broader cross-sectoral policies, strategies and plans related to Climate Change at national and sub-national levels</p> <p>Output 1.3 Capacity of national and sub-national government staff and other stakeholders enhanced to develop and implement climate change resilient policies and practices, as well as to access climate finance, and regularly assess their capacity over the project lifetime.</p>	<p>As the result of the PPG consultations, these outputs have been modified to better strategize the actions for achieving the Outcome. This will be done through the integration of CCA into fisheries and coastal frameworks (Output 1.1), the integration of fisheries and coastal considerations into broader CCA plans and strategies (Output 1.2), and through capacity development related to adaptation planning of key fisheries and coastal stakeholders at the different levels (Output 1.3).</p>
<p>Outcome 2</p> <p>Mangrove ecosystems in protected areas provide increased protection against climate change and provide enhanced livelihoods for communities using protected area natural resources.</p>	<p>Outcome 2 - Coastal ecosystems protected and rehabilitated to enhance resilience of the coastal social-ecological systems</p>	<p>This Outcome has been changed as a result of the PPG consultations, in which project stakeholders indicated the importance to focus on coastal ecosystems more broadly, and not just mangrove ecosystems in protected areas. Healthy coastal ecosystems can enhance resilience of coastal fishing communities against the impacts of climate change.</p>

<p>2.1 Six Protected Area Communities in the three coastal protected areas have fully completed the Community Protected Area Management Plan (CPAMP) approval process;</p> <p>2.2 In line with the approved CPAMPs, 65 hectares of mangrove sustainably planted (inside protected areas), as a measure to increase ecosystem resilience;</p> <p>2.3 In line with the approved CPAMPs, 11,000 hectares of existing coastal mangrove ecosystems protected and naturally regenerating (inside protected areas), as measures to increase ecosystem resilience;</p> <p>2.4 In line with the approved CPAMPs, a series of other outputs that increase the climate resistance of the 10,000 persons. This will notably include collaborative management and benefit sharing activities - with at least some activities inside protected areas - to ensure livelihoods are adapted to climate change;</p> <p>2.5 In line with the approved CPAMPs, coastal protection measures implemented.</p>	<p>2.1 Climate resilient Protected Area Management Plans put into place and addressing the factors of ecosystem loss along the coastline</p> <p>2.2 Support Implementation of the Sustainable Community Protected Area Management Plans (including livelihood options and coastal protection measures) - include activities related to piloting of incentives mechanisms and promote participatory community based management plans.</p> <p>2.3 CPA Network created to build intra-community cooperation for natural resources (and other issues, as for example gender mainstreaming), share lessons learned and strengthen conservation and management actions (vertical and horizontal integration).</p>	<p>Due to the result of the PPG consultations, these outputs have been modified to better strategize the actions for achieving Outcome 2. This will be achieved through assessments of gender-sensitive climate change vulnerabilities, and the trends of the coastal ecosystems due to climate change, with ultimately CPA management plans and monitoring systems (Output 2.1), supporting the implementation of adaptation actions under the CPAMPs (Output 2.2), and supporting CPA Network (Output 2.3). Even though the focus of this component is on CPA, the project will also emphasize the conservation and good management practices in areas outside the protected areas and under the management of other institutions (e.g. mangroves and seagrass areas, and coral reefs that are under the management of FiA, and are not under protected areas). To achieve this, the project will focus strongly on enhancing coordination and collaboration between FiA and MoE and other insitutions as required, particularly aligning the strategies for ecosystem restoration (e.g. mangrove areas that need to be restored).</p>
<p>Outcome 3</p> <p>Community Fisheries have increased capacity to adapt to the impacts of climate change.</p>	<p>Outcome 3 - Community Fisheries have increased capacity to adapt to the impacts of climate change</p>	<p>No change</p>

<p>3.1 All fishery Communities fully complete the Community Fishing Area Management Plans approval process (CFAMP);</p> <p>3.2 In line with the approved CFAMPs, 500 hectares of coastal mangrove sustainably planted or naturally regenerating (outside protected areas), as a measure to increase ecosystem resilience;</p> <p>3.3 In line with the approved CFAMPs, 10,000 fishermen/women adopt climate resilient fishery practices and technologies.</p> <p>3.4 In line with the approved CFAMPs, a series of other outputs that increase the climate resistance of 20,000 fishermen/women (both members and non-members of communities). This will include support to engaging in improved livelihood activities, to ensure livelihoods are adapted to climate change.</p> <p>3.5 In line with approved CFAMPs, medium-sized mangrove friendly aquaculture investments implemented. These will be providing climate adapted livelihoods to local communities, thereby increasing resilience.</p>	<p>3.1 Integrate adaptation into the development/revision of Community Fishing Area Management Plans (CFAMP) and reflect into CIP and CDP.</p> <p>3.2 Integrate Adaptation during the implementation of the CFMAP process, supporting local level monitoring of resilience to climate change.</p> <p>3.3 Develop capacity of CFIs members to monitor that their plans are climate change resilient.</p> <p>3.4 Coastal early warning and disaster risk management systems that increase fishers resilience against extreme weather and environmental events.</p>	<p>Due to the results of the PPG consultations, these outputs have been modified to better strategize the actions for achieving Outcome 3, with a stronger focus on addressing the vulnerability and improving resilience of CFi members. This will be done through the strengthening of policy processes, such as integrating adaptation as part of the CFAMPs), (Output 3.1), as well as supporting initiatives that reduce risks and provide alternative and diverse livelihood options, and climate resilient fisheries management (Output 3.2), developing the capacity of CFi members to monitor their plans (Output 3.3), and addressing issues of coastal early warning and disaster risk reduction systems (Output 3.4).</p>
<p>Outcome 4</p> <p>Monitoring and evaluation and information dissemination</p>	<p>Outcome 4 – Monitoring and evaluation and information dissemination</p>	<p>No change</p>

<p>4.1 System for systematic collection of field-based data to monitor project outcome indicators;</p> <p>4.2 Strengthened system for the storage and free dissemination of data and information and lessons learnt related to adaptation in coastal areas;</p> <p>4.3 Mid-term and final evaluations;</p> <p>4.4 Project-related “bestpractices” and “lessons learned” for enhanced adaptation to climate risk are disseminated via publications, project website and others.</p>	<p>4.1 Project Monitoring, Evaluation and Learning (MEAL)</p> <p>4.1 Project Communications Plan</p> <p>4.3 Gender and Stakeholder Engagement Strategy</p>	<p>Changes have been done in the terminology of the Outputs under Outcome 4 to ensure there is an efficient project monitoring system that feeds into learning for the project (Output 4.1), and that will include the systematic collection of field-based data for monitoring, a broad scope communications strategy and plan (Output 4.2), and a cross-cutting Gender and Stakeholder Strategy (Output 4.3).</p>
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[1] The Ex-Ante Carbon-balance Tool (EX-ACT) is an appraisal system developed by the Food and Agriculture Organization of the United Nations (FAO) providing estimates of the impact of agriculture and forestry development projects, programmes and policies on the carbon-balance. The carbon-balance is defined as the net balance from all greenhouse gases (GHGs) expressed in CO2 equivalent that were emitted or sequestered due to project implementation as compared to a business-as-usual scenario - <http://www.fao.org/tc/exact/ex-act-home/en/>

[2] System-wide capacity development (CD) is essential to achieve more sustainable, country-driven and transformational results at scale as deepening country ownership, commitment and mutually accountability. Incorporating system-wide CD means empowering people, strengthening organizations and institutions as well as enhancing the enabling policy environment interdependently and based on inclusive assessment of country needs and priorities.

- Country ownership, commitment and mutual accountability: Explain how the policy environment and the capacities of organizations, institutions and individuals involved will contribute to an enabling environment to achieve sustainable change
- Based on a participatory capacity assessment across people, organizations, institutions and the enabling policy environment, describe what system-wide capacities are likely to exist (within project, project partners and project context) to implement the project and contribute to effective management for results and mitigation of risks.
- Describe the project’s exit / sustainability strategy and related handover mechanism as appropriate.

A.2. Child Project?

If this is a child project under a program, describe how the components contribute to the overall program impact.

No

A.3. Stakeholders

Please provide the Stakeholder Engagement Plan or equivalent assessment.

Please see below

Documents

Title

Submitted

In addition, provide a summary on how stakeholders will be consulted in project execution, the means and timing of engagement, how information will be disseminated, and an explanation of any resource requirements throughout the project/program cycle to ensure proper and meaningful stakeholder engagement.

Project Development Phase

During the Project Development Phase, FAO/GEF/LCDF team, accompanied by staff from MoE and FiA, conducted the stakeholder consultations through different approaches including consultative workshops, provincial and community field consultations, face to face meetings with individual respondents and focus group discussions. Stakeholders interviewed are from different levels including national government ministries (Environment and Fisheries Administration of Ministry of Agriculture, Forestry and Fisheries), provincial government (provincial governing board and line departments), local government (commune councils), other development partners, local NGOs, community fisheries, community protected areas and other local marginalized groups. The main stakeholder consultation events during the Project Development Phase included:

- A national inception workshop of CamAdapt project organized in Phnom Penh on 30 October 2018, and was attended by representatives of FiA and MoE (at the national and provincial levels), FAO, FFI, FACT, PIN, WorldFish, IUCN, and private sector actors such as Heng Heng Aquaculture and Vitmar.
- Face to face meeting with focal points from Ministry of Environment to present theory of change, the overall project framework and proposed institutional arrangement on 30 April 2019.
- Face to face meeting with focal points from Fisheries Administration to present theory of change, the overall project framework and proposed institutional arrangement on 2 May 2019.
- Face to face meeting with FFI on activities relevant to coastal resources protection in Koh Kong and Preah Sihanouk province on 3 April 2019 in Phnom Penh.
- Face to face meeting with provincial NGOs (e.g. CWDC and BCV) on activities relevant to livelihood diversification and enforcement of the legal instruments in Kampot and Kep province on 2 May 2019 in Phnom Penh.
- Meeting with PEMSEA-ICM Project Management Office (PMO) in Kampot on 27 May 2019, in Kep on 28 May 2019 in Kep and Kampot province.

- 4 provincial consultation meetings with provincial governing boards of Kep, Kampot, Preah Sihanouk, and Koh Kong province on provincial development context and challenges as well as activities relevant to climate change adaptations and livelihood diversification on 26 February 2019 in Kep, 28 February 2019 in Kampot, 19 March 2019 in Preah Sihanouk, and 21 March 2019 in Koh Kong province.
- Thematic meetings on activities relevant to fisheries related climate change issues and its impacts, fisheries resource management with Fisheries Administration Cantonment and activities relevant to climate vulnerability and protected area management with Provincial Department of Environment in 4 coastal provinces including 6 February and 11 March 2019 in Kep, 28 February and 13 March 2019 in Kampot, 19 March 2019 in Preah Sihanouk, and 21 March 2019 in Koh Kong province.
- 18 Community consultations have been conducted, covering discussions on overall issues affecting community fisheries and community protected areas, issues related to climate change, issues related to gender and livelihood development and climate change adaptation etc. with local government (commune councils) and project beneficiaries in the four coastal provinces from 11 to 16 March 2019 in Kep and Kampot province and from 18 to 24 March and 3 to 7 April 2019 in Preah Sihanouk and Koh Kong province (see table below).
- 4 provincial validation workshops have been conducted in order to verify the findings from community consultations started from 6 to 11 May 2019 in Kep, Kampot, Preah Sihanouk and Koh Kong province.
- Presentation of draft results framework and implementation framework to all relevant stakeholders was conducted at the national validation workshop on 14 June 2019 in Phnom Penh, and was attended by representatives of FiA and MoE (at the national and provincial levels), FAO, the Cambodia Agriculture Value Chain Program (CAVAC), UNDP, UNIDO, UNWOMEN, EU, SDC, ADB, WB, SIDA, World Fish, AFD, JICA, USAID, IUCN, FFI, CI, WCS, WWF, FACT, Save the Children Australia, MCC, and People In Need (PIN).

Summary of people interviewed during the consultations at the local level (women consulted represented 37 % of the total participants).

Location	CBOs	Total people consulted	Women	Men
Kep	Angkoal Cfi	30	12	18
	Kep Cfi	21	8	13
Kampot	Trapaing Ropov Cfi	18	8	10
	Koh Kreusna Cfi	22	14	8
	Lork Cfi	5	0	5
Preah Sihanouk	Chong Ou Cfi	25	4	21

	Champou Khmao Cfi	15	10	5
	Bek Krang Cfi	13	3	10
	Banteay Prey Cfi	12	4	8
	Boeung Raing Cfi	14	5	9
	Koh Kchhong CPA	9	2	7
	Koh Rong Sanlem Cfi	13	4	9
Koh Kong	Koh Sdach Cfi	12	6	6
	Ta Meak Cfi	19	5	14
	Koh Kapik CPA	22	5	17
	Koh Sralao CPA	20	10	10
Total from Cfi and CPA members		270	100	170

Summary of people interviewed (women consulted represented 27 % of the total participants)

Location	Workshop	Total people consulted	Women	Men
Phnom Penh	Inception	48	9	39
Kep	Validation workshop	44	11	33
Kampot	Validation workshop	37	7	30
Preah Sihanouk	Validation workshop	45	10	35
Koh Kong	Validation workshop	35	7	28
Phnom Penh	National validation	63	14	49
Total provincial and national stakeholders		272	58	214

1) Stakeholder Consultation in project formulation -

Stakeholder Name	Stakeholder Type	Stakeholder profile	Consultation Methodology	Consultation Findings	Date	Comments
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Community fisheries and Community protected areas in 4 provinces (18 communities)	Direct beneficiary	<i>Local community</i>	<i>Focus group discussion (including livelihoods and gender analysis)</i>	<i>Ref. report of community consultations</i>	<i>12 – 16 March 2019 20 – 23 March 2019 4 – 6 April 2019</i>	<i>Completed</i>
Fisheries Administration Cantonment in 4 provinces	<i>Partner</i>	<i>Local Government Institution/body</i>	<i>Meeting</i>	<i>Ref. report of provincial consultations</i>	<i>26 – 28 February 2019 19 and 21 March 2019</i>	<i>Completed</i>
Provincial Department of Environment in 4 provinces	<i>Partner</i>	<i>Local Government Institution/body</i>	<i>Meeting</i>	<i>Ref. report of provincial consultations</i>	<i>26 – 28 February 2019 19 and 21 March 2019</i>	<i>Completed</i>
Ministry of Environment	<i>Partner</i>	<i>National Government Institution body</i>	<i>Meeting</i>	<i>Ref. minute noted</i>	<i>30 April 2019</i>	<i>Completed</i>
Fisheries Administration	<i>Partner</i>	<i>National Government Institution body</i>	<i>Meeting</i>	<i>Ref. minute noted</i>	<i>2 May 2019</i>	<i>Completed</i>
FFI	<i>Partner</i>	<i>Non-Governmental Organization</i>	<i>Meeting</i>	<i>Ref. minute noted</i>	<i>3 May 2019</i>	<i>Completed</i>
PEMSEA ICM project in Kep and Kampot provinces	<i>Partner</i>	<i>Non-Governmental Organization</i>	<i>Meeting</i>	<i>Ref. minute noted</i>	<i>27 – 28 May 2019</i>	<i>Completed</i>
CWDDC and BCV	<i>Partner</i>	<i>Non-Governmental Organization</i>	<i>Meeting</i>	<i>Ref. minute noted</i>	<i>2 May 2019</i>	<i>Completed</i>
Provincial Governing Board of 4 provinces	<i>Partner</i>	<i>Local Government Institution/body</i>	<i>Meeting</i>	<i>Ref. report of provincial consultations</i>	<i>26 and 28 February 2019 19 and 21 March 2019</i>	<i>Completed</i>

(+) Add stakeholders as necessary

Indicative Stakeholder involvement in project Implementation –

Stakeholder Name	Stakeholder Type	Stakeholder profile	Consultation Methodology	Expected timing	Comments
All community fisheries and community protected areas	Direct beneficiary	<i>Local community</i>	<i>Follow up assessment</i>	<i>1st and 2nd quarter 2020</i>	<i>Review the issues and needs</i>
FFI	<i>Partner</i>	<i>Non-Governmental Organization</i>	<i>Meeting</i>	<i>1st quarter 2020</i>	<i>Resource Conservation and Protection</i>

WCS	<i>Partner</i>	<i>Non-Governmental Organization</i>	<i>Meeting</i>	<i>1st quarter 2020</i>	<i>Resource Conservation and Protection</i>
PEMSEA ICM project	<i>Partner</i>	<i>Non-Governmental Organization</i>	<i>Meeting</i>	<i>1st quarter 2020</i>	<i>Zoning</i>
National Committee for Management and Development of Coastal Areas	<i>Partner</i>	<i>National Government Institution body</i>	<i>Meeting</i>	<i>1st quarter 2020</i>	<i>Zoning</i>
IUCN	<i>Partner</i>	<i>Non-Governmental Organization</i>	<i>Meeting</i>	<i>1st quarter 2020</i>	<i>Mangrove Conservation and Climate Change Adaptation</i>
Registered local aquaculture companies in Cambodia	<i>Partner</i>	<i>Other</i>	<i>Meeting</i>	<i>1st quarter 2020</i>	<i>Inputs for aquaculture</i>
Marine Aquaculture Research and Development Centre (MARDEC)	<i>Partner</i>	<i>National Government Institution body</i>	<i>Meeting</i>	<i>1st quarter 2020</i>	<i>Mangrove Friendly Aquaculture</i>
SCS/GEF	<i>Partner</i>	<i>Resource Partner/Donor</i>	<i>Meeting</i>	<i>1st quarter 2020</i>	<i>Marine Habitats Conservation and Climate Change Adaptation</i>
EU/EC	<i>Partner</i>	<i>Resource Partner/Donor</i>	<i>Meeting</i>	<i>1st quarter 2020</i>	<i>Fisheries Management</i>
SEAFDEC/UNEP/GEF	<i>Partner</i>	<i>Resource Partner/Donor</i>	<i>Meeting</i>	<i>1st quarter 2020</i>	<i>Fishery refugia management</i>

The CamAdapt project will collaborate with private sector actors that are interested in promoting sustainable and climate resilient practices in the coastal area in Cambodia. The project will dedicate funds to engage with private aquaculture firms that have the aim of investing in mangrove friendly aquaculture and promote climate resilience and sustainable livelihoods of fishing communities. The project will also engage will agencies working on eco-tourism, and that can help set up and publize the eco-tourism destination, ensuring that the revenues generated by these activities are absorbed by the community themselves, enhancing the role of women in these type of activities.

In particular, the project will be working closely with the national company Investco Holding Co., Ltd. The project will directly benefit from the activities that will be implemented by Investco Holding Co., such as the development of an eco-resort in the mangrove forest, including: aquaculture activities (e.g. fish culturing, seashells and crab bank), stablishment of the information center for mangrove protection and community training center, development of fish market and a floating restaurants, as well as a biodiversity center and promotion of ecotourism. Other activities include the improvement of relevant infrastructure. This engagement will be considered under **Outcome 3**, as part of the strategies to promote livelihood enhancement and diversification options.

[1] See [FAO Operational Guidelines for Stakeholder Engagement](#)

Select what role civil society will play in the project:

Consulted only;

Member of Advisory Body; Contractor;

Co-financier;

Member of project steering committee or equivalent decision-making body; Yes

Executor or co-executor; Yes

Other (Please explain)

CFIs and CPAs are both community based organizations – they will be key co-executors of several project activities (especially under Components 2 and 3) in close coordination with government agencies (MoE and FiA). Other partners, such as the IUCN, FII and WCS will also be invited to participate in the project steering committee to provide guidance on the work being carried out at the local level.

A.4. Gender Equality and Women's Empowerment

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

The ecological degradation and climate change issues in Cambodia is exacerbating where ecological and social systems are more fragile and less resilient such as those in rural areas, where fisheries products can provide a safety net for people if agriculture fails. Nonetheless, when these alternative resources also get depleted, rural people, and particularly women, face disproportionate challenges. Women in Cambodia are physically burdened while collecting and processing essential commodities such as food, water, energy, and medicine while performing their care-giving roles and ensuring the nutrition and health of the family.

Cambodian women face vulnerability and limited capacity, and also lack the knowledge and skills to adapt to climate change.

Four main reasons are identified as the sources of women's vulnerabilities including:

- Limited access to and control over resources (e.g. credit, land, information, and health & sanitation services)
- Risks in coping strategies (e.g. migration of women and/ or their spouses)

- Gender roles/gender division of labor
- Low education, illiteracy and disadvantaged background.

Women play an important role in fisheries. Contrary to the image that fisheries are a male dominated occupation, around 57% of fishers and fish workers in Cambodia are found to be women[1]. Women fishers or fish workers in Cambodia are mainly focused on trade and processing activities. They often own and manage fishing boats and some even have their own fishing gear. Hence, fisherwomen in Cambodia also contradict the perceived role of females as gleaners only.

Mainstreaming gender equality is an underlying condition for adaptation planning to be effective and lead towards sustainable development. Women's participation in adaptation efforts in fisheries and coastal areas is critical for identifying solutions to the problems that climate change poses for livelihoods, health, water and natural resources management, including fisheries and aquaculture in coastal areas. Adaptation investments provide opportunities for transforming production patterns, economic activities, divisions of labor, and decision-making structures in ways that can create opportunities to change gender dynamics and contribute to women's empowerment[2].

CamAdapt alignment with the GEF and FAO Gender Policies

The **GEF Gender Policy (2017)** provides the guiding principles and mandatory requirements for mainstreaming gender across the GEF's governance and operations with a view to promoting Gender Equality and the Empowerment of Women and Girls in support of the GEF's mandate to achieve global environmental benefits. Furthermore, the policy aims to ensure equal opportunities for women and men to participate in, contribute to and benefit from GEF-Financed Activities in support of the GEF's efforts to achieve global environment benefits.

The GEF Policy on Gender Equality sets out a number of principles to ensure that gender mainstreaming efforts are in line with national and international commitments. Those principles include:

- Efforts to mainstream gender and promote gender equality and the empowerment of women are pursued in accordance with the decisions on gender under the MEAs that the GEF serves, and in recognition of related international and national commitments to gender equality and human rights.
- GEF-Financed Activities address and do not exacerbate existing gender-based inequalities.
- Stakeholder engagement and analyses are conducted in an inclusive and gender responsive manner, so that the rights of women and men and the different knowledge, needs, roles and interests of women and men are recognized and addressed.
- GEF-Financed Activities are conducted, designed, and implemented in an inclusive manner so that women's participation and voice are, regardless of background, age, race, ethnicity or religion, reflected in decision-making, and that consultations with women's organizations, including indigenous women and local women's groups, are supported at all scales.
- A gender-responsive approach is applied throughout the identification, design, implementation, monitoring, and evaluation of GEF projects.
- Opportunities to address gender gaps and support the empowerment of women are seized in order to help achieve global environmental benefits.

The goal of **FAO's Policy on Gender Equality (2012)** is to achieve equality between women and men in sustainable agricultural production and rural development for the elimination of hunger and poverty. FAO puts in actions as below to achieve gender equality:

- All major FAO statistical databases incorporate sex-disaggregated data where relevant and available.
- FAO invests in strengthening member countries' capacity to develop, analyses and use sex-disaggregated data in policy analysis and programme and project planning and evaluation. In particular, technical support to in-country data collection activities, such as agricultural censuses and surveys, will promote the mainstreaming of gender issues.
- For all strategic objectives, a gender analysis is carried out and a gender action plan developed; progress on gender equality is measured for all corporate outcomes.
- A financial target for resource allocation to the FAO Policy on Gender Equality is set and met.
- A country gender assessment is undertaken as part of country programming.

- A gender equality stock-taking exercise is conducted for all services, to provide a basis for better implementation of gender mainstreaming, including progress and performance measurement.
- Gender analysis is incorporated in the formulation of all field programmes and projects, and gender-related issues are taken into account in project approval and implementation processes.
- All programme reviews and evaluations fully integrate gender analysis, and report on gender-related impacts in the areas they are reviewing.
- A mandatory gender equality capacity development programme is developed and implemented for all professional staff and managers.
- Minimum competencies in gender analysis are specified, and all managers and professional staff are required to meet them.
- Each technical department establishes a gender equality screening process for all normative work, programmes and knowledge products.

At the **regional level in Asia and Pacific**, **FAO** focuses on achieving gender equality through:

- Developing improved understanding of gender dynamics in changing agriculture-food systems,
- Increasing the benefits that women and men receive from FAO and partner programmes in key productive systems, including rice farming, fisheries and aquaculture
- Advancing gender equality in food and nutrition security programming, and
- Improving protection from and resilience to disasters and climate change risks for women and men

The CamAdapt will also be aligned and promote the implementation of the the **Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication** (SSF Guidelines), which are a complement to the 1995 FAO Code of Conduct for Responsible Fisheries (the Code). These Guidelines have been developed to provide complementary guidance with respect to small-scale fisheries in support of the overall principles and provisions of the Code. The Guidelines are intended to support the visibility, recognition and enhancement of small-scale fisheries and to contribute to global and national efforts towards the eradication of hunger and poverty. Gender equality is a key principle for the implementation of the SSF Guidelines.

Additionally, as mentioned above, the CamAdapt project will also promote and follow the principles of the **Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security** (Land Tenure Guidelines). The purpose of these Voluntary Guidelines is to improve the governance of tenure of land, fisheries and forests with the overarching goal of achieving food security for all and to support the progressive realization of the right to adequate food in the context of national food security. The Land Tenure Guidelines also promote gender equality, and that women and girls have equal access to land, fisheries and forests.

[1] De Pryck (2013) Good practice policies to eliminate gender inequalities in fish value chains. FAO, Rome.

[2] ADB (2018). Mainstreaming Climate Resilience in Development Planning Project: Semester Progress Report.

Documents

Title

Submitted

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

Yes

If yes, please upload document or equivalent here

Gender Action Plan for the CamAdapt

Key Findings from the CamAdapt PPG Gender Analysis:

Component 1:

- Women have less decision-making power than men, including representation in management committees – this seems to be due to discriminatory biases, as well as lack of awareness and a lack of confidence to participate in fisheries management related activities, though in some communities (e.g. CFi **Trapaing Ropov, Chong O,** and **Koh Sralaow**), women seem to be more aware and active in decision-making than in other communities. This kind of knowledge should be promoted among the other CFIs, so women in other communities can learn from their experiences.
- Another problem is the real availability of women’s time to participate in other non-domestic activities. This lack of time to dedicate to productive activities was apparent in all the activity profiles carried out – the CamAdapt project needs to include strategies to address this lack of time and facilitate the participation of women in project activities, particularly those aimed at strengthening their livelihoods and improve their participation in decision-making.

Component 2

- Women are often found fishing with their husbands offshore and inshore, or fishing by themselves in mangrove areas. They are also responsible for collecting water for family consumption – however, they are very often excluded of decision-making for the management of these coastal resources.
- Coastal erosion can decrease women’s income derived from visiting tourists.
- Women are less involved in decision-making processes related to the sustainable management of coastal resources.

Component 3

- Women are highly involved in fisheries activities, including hand fishing in mangrove areas, as well as processing activities (such as shrimp processing and crab peeling).
- Some women (especially younger women, from 18 up to 45-year-old) work as garment factory workers, and some others work as food service providers for tourists.
- Women are also highly responsible for the domestic activities, including caring for the health and nutrition needs of the family, as well as the management of cash in the households.
- During frequent or unpredictable storms and typhoons (which often happen from June to August), the community (both men and women) is affected, with severe impacts on infrastructure, including damages to houses, and fishing boats. In such conditions, both men and women do not go to fish, with the subsequent loss of income. Early Warning Systems for fishers need to take into account that women also go out to fish, either accompanying men in boats, and also by themselves in mangrove areas.

Component 4

- There is a lack of knowledge and awareness of community people (both men and women) related to climate change issues. As women may have different communication channels than men, it is important to tailor the communication materials by understanding the audience to whom information is directed, and target climate change information (including Early Warning Systems) taking into account gender roles (e.g. men usually go out fishing offshore, though some women may go fishing with their husbands offshore or inshore, or alone in mangrove areas – however, their communication channels might be different to those of men).

Project activities to respond to the identified gaps	Indicators and Targets	Timeline	Responsibilities	Budget
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<p>Output 1.1. Climate Change Adaptation is incorporated into fisheries and coastal framework.</p> <ul style="list-style-type: none"> - Revision of fisheries and coastal policies and legal frameworks (Activity 1.1.1) will also investigate gender policies. - The valuation of ecosystem services (Activity 1.1.2) will be done gender-disaggregated, to ensure the perceptions of both men and women are considered. - The Vulnerability Assessment (Activity 1.1.3) will be gender-differentiated. - The best practices will also look into how to address gender considerations in fisheries and aquaculture projects, related to climate change vulnerability (Activity 1.1.4, and linked to Component 4) - The analysis of social incentives (Activity 1.1.5) will look into the role of fisher women in climate change mitigation and adaptation in coastal areas. - The Climate Change Adaptation Plan (Activity 1.1.6) will be developed through consultations to both men and women in fishing communities, and will design actions that are gender responsive. - The project will also promote the inclusion of gender budgeting considerations into CPAs and CFIs management plans (Activity 1.1.7). - The technical guidance developed under Activity 1.1.8 will also be directed to women as trainees, and the project will ensure that gender issues are also taken into account as part of any training materials developed. 	<p>Gender Mainstreaming in Climate Change Adaptation in all intervention areas.</p> <p>Degree of gender gaps fulfilled through coastal ecosystem policy and legal framework.</p> <p>Number of women and men from coastal community management committee trained on gender and climate change policies and legal framework.</p> <p>Number of climate change adaptation initiatives implemented by women and men along the coastal communities.</p> <p>% of women and men leaders and their members integrated in the climate change adaptation action plans of the coastal communities.</p> <p>Technical guidance on gender and climate change vulnerability for coastal fishing communities published.</p> <p>% of budget allocated for gender related activities in climate change adaptation for coastal communities.</p> <p>Number of specific women's climate change adaptation activities in each community of interventions implemented.</p>	<p>In line with the Activity Plan</p>	<p>Project team, FiA, MoE and partners</p>	<p>Integrated as part of the Activities under the Output</p>
<p>Output 1.2. Fisheries and coastal ecosystem considerations integrated into the broader cross-sectoral policies, strategies and plans related to Climate Change at national and sub-national levels.</p> <ul style="list-style-type: none"> - Integrate gender considerations (e.g. through a checklist) as part of the gap analysis of the policies (related to Activity 1.2.1). 				

Output 2.1. Climate resilient Protected Area Management Plans put into place and addressing the factors of ecosystem loss along the coastline

- Ensure that women’s and men’s voices are taken into consideration for climate resilient protected area management plan development/modification as well as the participatory rapid vulnerability assessment (PRVA) of coastal communities (as part of activities under Output 2.1)
- Design and implement specific activities for women as part of the Community Protected Area Management Plans (linked to Activity 2.2.1)
- Promote the participation of women in public awareness raising events, and their involvement in the CPA networks as members, providing training (linked to Activity 1.3.3) to ensure their full participation and engagement as leaders, taking into consideration their domestic responsibilities (this will require flexibility organizing the trainings).

Output 2.2. Support Implementation of the Sustainable Community Protected Area Management Plans (including livelihood options and coastal protection measures)

- Include activities related to piloting of incentives mechanisms and promote participatory community-based management plans, ensuring women actively participate in the discussions.

Output 2.3. CPA Network created to build intra-community cooperation for natural resources (and other issues, as for example gender mainstreaming), share lessons learned and strengthen conservation and management actions (vertical and horizontal integration).

- Create a “CamAdapt Fisherwomen” Network to exchange lessons learned among women and their experiences fishing/managing resources/participating in decision making and processing fishery products (linked to Activity 2.3.1 and 2.3.2).

% of women participating in the development/modification of the climate resilient protected area management plan and the participatory rapid vulnerability assessment (PRVA).

Gender responsive CPAMP developed, including specific activities for women.

% of women participating in public awareness raising events

CamAdapt Fisherwomen Network created

In line with the Activity Plan

Project team, FiA, MoE and partners

Integrated as part of the Activities under the Output

Output 3.1. Integrate adaptation into the development/revision of Community Fishing Area Management Plans (CFAMP) and reflect into CIP and CDP

- Facilitate the women's and men's representation and participation in the process of Rapid Vulnerability Assessments of coastal Community Fisheries as well as CFiAMP strengthening.
- Address women's (and men's) needs as part of the Rapid Vulnerability Assessment (Activity 3.1.1) and community-based adaptation/DRM initiatives (Activity 3.1.2)

Output 3.2. Integrate Adaptation during the implementation of the CFMAP process, supporting local level monitoring of resilience to climate change.

- Promote the implementation of specific women's and men's livelihood diversification options including marine fisheries processing group and ecotourism services through CFI's management plan (Activity 3.2.2, and Activity 3.2.3)
- Assess the effectiveness and efficiency of women's and men's livelihood outcomes resulting from reduction of climate risk (linked to Activities under Output 3.3).
- Facilitate the promotion of gender sensitive CFI's monitoring plan in all target coastal fishing communities (linked to Activity 3.2.3).

Output 3.3. Develop capacity of CFIs members to monitor that their plans are climate change resilient.

- Ensure women actively participate in the monitoring of the plans, and that the plans have gender sensitive indicator.

Output 3.4. Coastal early warning and disaster risk management systems that increase fisher's resilience against extreme weather and environmental events.

- Ensure the inclusion of women in the design and implement of early warning system and disaster risk reduction plan (linked to Output

% of women's and men's representation in the process of Rapid Vulnerability Assessments of coastal Community Fisheries as well as CFiAMP strengthening.

Gender responsive Rapid Vulnerability Assessment developed.

% of specific women's and men's livelihood diversification options implemented including marine fisheries processing group and ecotourism services through CFI's management plan.

Improved perception of women's and men's livelihood resulting from reduction of climate risk.

% of women and men participating in CFI's monitoring plan in all target coastal fishing communities.

Improved capacity (based on pre and post assessment) of women and men in fisheries management and post-harvest

% of women participating in the design and implementation of early warning system and disaster risk reduction plan.

Women's perception of the usefulness of the early warning system and disaster risk reduction plan.

% of women and men participating

In line with the Activity Plan

Project team, FiA, MoE and partners

Integrated as part of the Activities under the Output

<p>Output 4.1. Project Monitoring, Evaluation and Learning (MEAL) Develop system of collection of field-based data to monitor project outcomes indicators.</p> <ul style="list-style-type: none"> - Design and implement the gender responsive MEAL system, with the use of gender sensitive indicators. <p>Output 4.2. Project Communications Plan</p> <ul style="list-style-type: none"> - Facilitate the participation of women in data collection process (women respondents). - Organize the gender workshops to specific collection of women's best practices on climate change adaptations or success stories. - Include specific gender evaluation in the MEAL related reporting. 	<p>Gender indicators developed as part of the MEA system</p> <p>% of women and men in data collection process (women respondents).</p> <p>Gender workshops organized</p> <p>Case study on best practices/lessons learned on mainstreaming gender related to climate change adaptation in coastal fisheries.</p> <p>Gender evaluation questions included in the MEAL related reporting</p>	<p>In line with the Activity Plan</p>	<p>Project team, FiA, MoE and partners</p>	<p>Integrated as part of the Activities under the Output</p>
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If possible, indicate in which results area(s) the project is expected to contribute to gender equality:

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

Improving women's participation and decision making Yes

Generating socio-economic benefits or services or women Yes

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

Yes

A.5. Risks

Elaborate on indicated risks, including climate change, potential social and environmental risks that might prevent the project objectives from being, achieved, and, if possible, the proposed measures that address these risks at the time of project implementation.

Risk management is a structured, methodical approach to identifying and managing risks for the achievement of project objectives. The risk management plan will allow stakeholders to manage risks by specifying and monitoring mitigation actions throughout implementation. Part A of this section focuses on external risks to the project and Part B on the identified environmental and social risks from the project.

Section A: Risks to the project

Description of risk	Impact ^[1]	Probability of occurrence ³	Mitigation actions	Responsible party
National level coordination among the different agencies (Forestry, Environment, Fisheries) remains weak.	M	M	The project has been designed to facilitate coordination among the different agencies. Also, most of the work will be implemented at the local (commune and province) levels, where the coordination and collaboration are generally stronger	Project Team, FAO, FiA, MoE
Local disputes prevent rationale decision-making	L	H	The project will directly address this issue where it meets it, through the design of win-win solutions.	Project Team, FAO, FiA, MoE
Strong economic forces lead to irrational use of coastal resources (e.g. rampant coastal development)	H	H	These issues are beyond the project scope, though the project will try to address them by: <ul style="list-style-type: none"> - Collecting accurate data and information on land use and ownership. - Provide valuation reports of ecosystem services to showcase coastal ecosystem services and promoting the need to protect them. - Focus on empowering local communities so they are better equipped to defend their own interests. 	FiA, MoE, CFis, CPAs
Conflicts among neighbouring CFis prevent the implementation of key activities (e.g. creation of networks)	M	M	The project will create neutral platforms for discussion on key issues affecting the CFIs, including illegal fishing from other neighboring CFIs	Provincial Fisheries Cantonments, Project Implementation Team

Significant natural disasters or crises prevent planned programme delivery.	H	M	The project will develop a climate adaptation strategy that will need to include disaster risk reduction measures to help communities respond and cope with these type of impacts. For its part, the project will accommodate with rescheduling or modification of activities as required	National and sub-national government departments, CFis and CPAs, and project team
Extreme climate events affect livelihoods of stakeholders.	H	M	The project mitigates this risk through its support to the development of CC adaptation technologies and approaches. The project focus on increasing the capacity coastal communities and the government to better deal with the ongoing climate variability including extremes and future climate change through adaptation practices	National and sub-national government departments, CFis and CPAs, and project team
Coastal fishery dependent communities and other relevant stakeholders do not adopt or implement the CC adaptation practices developed by the project.	H	L	The project mitigates this risk through its planned capacity development programme and awareness raising for the implementation of the EbA and EAF. Ownership will be built with stakeholders at all levels (fishers, coastal communities, women's groups, Government, and partners) who will be encouraged and supported in piloting and developing the technologies and practices needed. Knowledge and good practice generated will be shared broadly through the appropriate networks.	Project team in close consultation with the government agencies and CPAs/Cfis
Community members (in CFis and/or CPAs) are reticent to address gender issues that exist in their communities	M	M	The project mitigates this risk through the development and monitoring of its own gender strategy that will include awareness raising on gender issues. The project will have the support of other key partners working on gender issues (e.g. Ministry of the Women's Affairs) to guide on any potential setbacks.	Project team in close consultation with the government agencies and CPAs/Cfis

Section B: Environmental and Social risks from the project – ESM Plan

The project was initially classified as low risk at PIF stage. However, following the risk reassessment against the ES Guideline/Checklist, the project falls under a high risk project due to its physical activities (site-specific restoration, afforestation/reforestation activities in the mangrove, demarcation, and installation of mangrove area, eco-tourism, industries and other business opportunities, through engagement of private sector) to be implemented within a legally designated protected area or its buffer zone.

Nevertheless, the ESM deemed the project **risk moderate** because the project's environmental and social impacts are expected to be positive and the potential adverse impacts can be addressed by the use of recognized good management or pollution abatement practices. In addition, the project design includes the following environmental enhancement practices: i) mangrove friendly aquaculture, ii) restoration of coastal habitats, iii) provision of recommendations for waste management to reduce pollution on coastal and marine ecosystems, iv) safety at sea, v) participatory monitoring and evaluation (M&E).

The project will prepare an Environmental and Social Management Framework (ESMF) as a relevant Environmental and Social Impact Assessment (ESIA) during the first year of implementation of the project, once the subproject details and specific intervention sites are well identified and defined.

[1] H: High; M: Moderate; L: Low.

A.6. Institutional Arrangement and Coordination

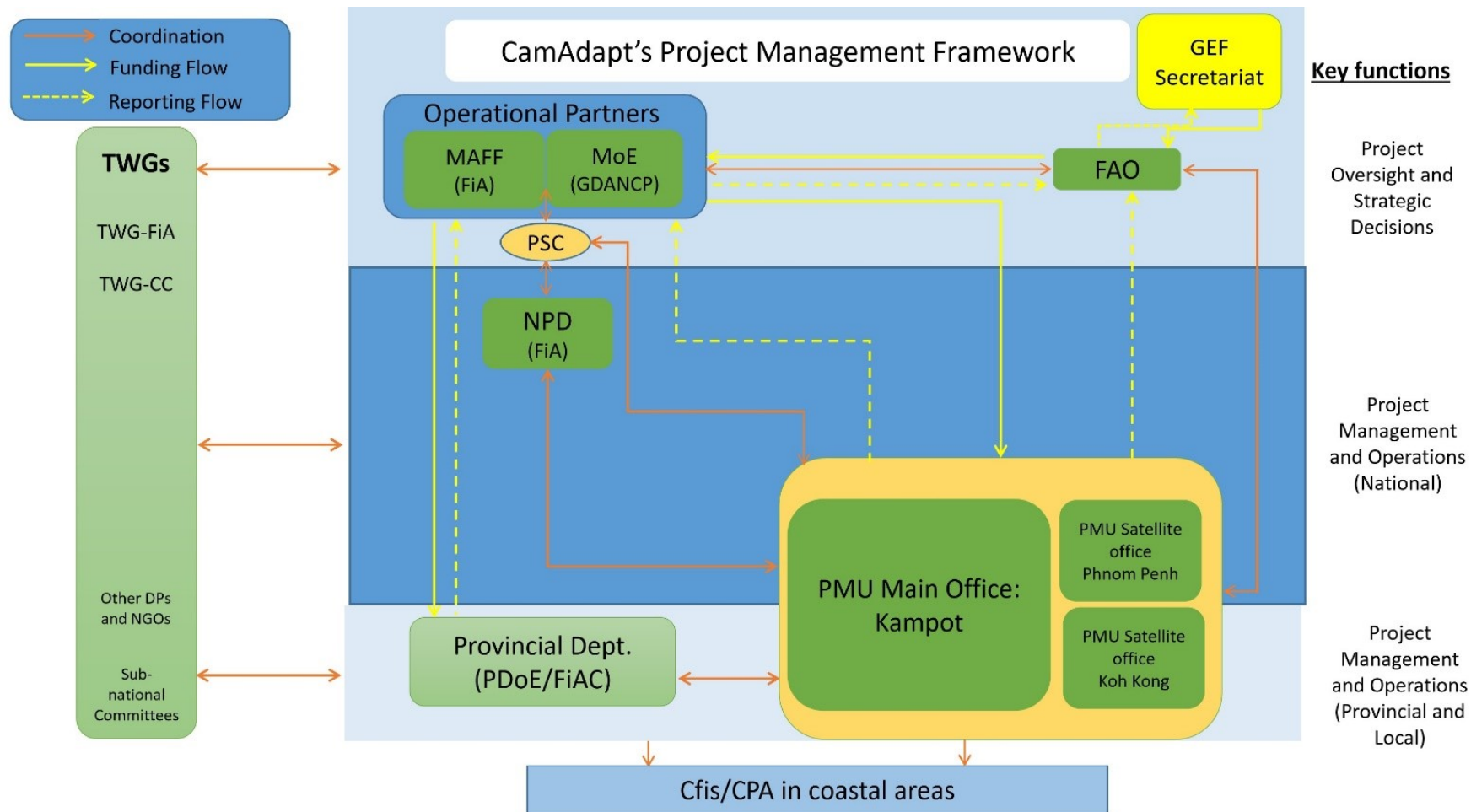
Describe the Institutional arrangement for project implementation. Elaborate on the planned coordination with other relevant GEF-financed projects and other initiatives.

The **Fisheries Administration (FiA)** under the Ministry of Agriculture, Forestry and Fisheries (MAFF), and the **General Directorate of Administration for Nature Conservation and Protection (GDANCP)** under the Ministry of Environment will be the lead executing partners. Both FiA and GDANCP will act as the lead executing agencies and will be responsible for the day-to-day management of project results entrusted to them in full compliance with all terms and conditions of the Operational Partnership Agreement signed with FAO. As OPs of the project, the FiA and GDANCP are responsible and accountable to FAO for the timely implementation of the agreed project results, operational oversight of implementation activities, timely reporting, and for effective use of GEF resources for the intended purposes and in line with FAO and GEF policy requirements. The MAFF as lead agency will designate a **National Project Director (NPD)** located in the **Fisheries Administration**. The NPD will be responsible for coordinating the activities with all the national bodies, particularly FiA and GDANCP, related to the different project components, as well as with the project partners. S/he will also be responsible for supervising and guiding the Project Coordinator (see below) on the government policies and priorities.

The NPD (or designated person from lead national institution) will chair the Project Steering Committee (PSC) which will be the main governing body of the project. The PSC will approve Annual Work Plans and Budgets on a yearly basis and will provide strategic guidance to the Project Management Team and to all executing partners. The PSC will be comprised of representatives from the PMU, GDANCP, FiA, and FAO. The members of the PSC will each assure the role of a Focal Point for the project in their respective agencies. Hence, the project will have a Focal Point in each concerned institution. As Focal Points in their agency, the concerned PSC members will: (i) technically oversee activities in their sector; (ii) ensure a fluid two-way exchange of information and knowledge between their agency and the project; (iii) facilitate coordination and links between the project activities and the work plan of their agency; and (iv) facilitate the provision of co-financing to the project.

The project organization structure is as follows:

Figure 5 CamAdapt's Project Management Framework



The **Food and Agriculture Organization of the United Nations (FAO)** will be the GEF Implementing Agency (IA) for the Project, providing project cycle management and support services as established in the GEF Policy. As the GEF IA, FAO holds overall accountability and responsibility to the GEF for delivery of the results. In the IA role, FAO will utilize the GEF fees to deploy three different actors within the organization to support the project (see Annex K for details):

- the Budget Holder, which is usually the most decentralized FAO office
- the Lead Technical Officer, will provide oversight/support to the projects technical work in coordination with government representatives participating in the Project Steering Committee;
- the Funding Liasion Officer within FAO will monitor and support the project cycle to ensure that the project is being carried out and reporting done in accordance with agreed standards and requirements.

FAO responsibilities, as GEF agency, will include:

- Administrate funds from GEF in accordance with the rules and procedures of FAO;
- Oversee project implementation in accordance with the project document, work plans, budgets, agreements with co-financiers, Operational Partners Agreement(s) and other rules and procedures of FAO;
- Manage the procurement required by the project whenever so required by the OPs.
- Provide technical guidance to ensure that appropriate technical quality is applied to all activities concerned;
- Conduct at least one supervision mission per year; and
- Reporting to the GEF Secretariat and Evaluation Office, through the annual Project Implementation Review, the Mid Term Review, the Terminal Evaluation and the Project Closure Report on project progress;
- Financial reporting to the GEF Trustee.

Both FiA and GDANCP will be the Operational Partners (OP) for the project based on the standard Operational Partners Agreement (OPA) to be signed between FAO and the two OPs. The OPs will be responsible for the day-to-day management of project results entrusted to it in full compliance with all terms and conditions of the Operational Partners Agreement to be signed by the OPs, and following GEF relevant requirements.

As OPs of the project the FiA and MoE are responsible and accountable to FAO for the timely and quality implementation of the agreed project results, operational oversight of implementation activities, timely reporting, and for effective use of GEF resources for intended purposes. The implementation of all agreed results and activities in full compliance with the OPA provisions and due diligence with regard to FAO Social and Environmental Quality Standards will be ensured by both OPs.

The OP will bear full fiduciary and programmatic risk and will be administratively and technically responsible to FAO for the implementation of the agreed results of the project, monitoring and financial management in accordance with the rules and procedures as established in the signed OPA. Such responsibility extends over all funds disbursed by the OP to any entity under contract with the Operational Partner. The FAO will conduct a second Audit of both partners as part of the Midterm Evaluation, about halfway through the project according to the OPIM requirement and risk mitigation plan dually signed by the OPs and FAO. The results of the OP risk assessment are moderate for FiA and low for GDANCP.

With technical support of PMU, the Operational Partners (FiA and GDANCP) will coordinate their efforts to implement the project's components, aligning with other initiatives and assuring that all deadlines are achieved in a timely manner and that the project's results are discussed with national and local institutions involved. In this project the role of the decentralized institutions, such as the Provincial Departments of Environment and the Fisheries Cantonments are key to the success of the field activities.

The **Senior National Specialist** (also known as the National Project Coordinator, but using the term SNS to avoid confusion with the NPD) will be the Secretary to the PSC. The PSC will meet at least twice per year to ensure: i) Oversight and assurance of technical quality of outputs; ii) Close linkages between the project and other ongoing projects and programmes relevant to the project; iii) Timely availability and effectiveness of co-financing support; iv) Sustainability of key project outcomes, including up-scaling and replication; v) Effective coordination of government partner work under this project; vi) Finalization of the six-monthly Project Progress and Financial Reports, the Annual Work Plan and Budget; vii) Making by consensus, management decisions when guidance is required by the National Project Coordinator of the PMU.

A **Project Management Unit (PMU)** will be co-funded by the GEF and established within Kampot (Kampot Province), with three additional satellite offices, **one** in Koh Kong, and **one** in Sihanoukville, with 1 field office in each, and one additional space will be located in Phonm Penh in the FiA premises, where the project staff will be able to work at the national level. The main functions of the PMU, following the guidance of the Project Steering Committee, are to ensure overall efficient management, coordination, implementation and monitoring of the project through the effective implementation of the annual work plans and budgets (AWP/Bs). The PMU will be composed of a **Senior National Specialist** (SNS) who will work full-time for the project lifetime, and an **international Programme Manager** to operationally and technically support the project implementation and ensure alignment with other initiatives, in particular, the EU CAPFISH project. In addition, the PMU will include *a* **National M&E and Communications Officer**, and *a* **National Gender and Livelihoods Officer**. The project will have *three* (3) **Field Officers** (1 in Kampot/Kep, 1 in Sihanoukville, and 1 in Koh Kong), and *two* drivers. There will be *two* (2) support officers ensuring quality administration, one in FiA, and one (half-time) in GDNCP/MoE. Additional project staff will be mobilized to cover the specific technical requirements of the project, including international and national consultants as required to cover topics related to Climate Change Adaptation in Coastal Areas (both on carrying out Vulnerability Assessments, and also on designing Livelihood Adaptation Options), Ecosystem Restoration and GIS, EWS for fisheries and Safety at Sea, Mangrove Friendly Aquaculture, Ecotourism, Environmental Economics and Ecosystem Valuation (including GHG savings), among others, to ensure the successful implementation of CamAdapt project activities.

The SNS will be in charge of daily implementation, management, administration and technical supervision of the project, on behalf of the Operational partner and within the framework delineated by the PSC. S/he will be responsible, among others, for:

- i) coordination with relevant initiatives;
- ii) ensuring a high level of collaboration among participating institutions and organizations at the national and local levels;

- iii) ensuring compliance with all OPA provisions during the implementation, including on timely reporting and financial management;
- iv) coordination and close monitoring of the implementation of project activities;
- v) tracking the project's progress and ensuring timely delivery of inputs and outputs;
- vi) providing technical support and assessing the outputs of the project national consultantshired with GEF funds, as well as the products generated in the implementation of the project,;
- vii) approve and manage requests for provision of financial resources using provided format in OPA annexes;
- viii) monitoring financial resources and accounting to ensure accuracy and reliability of financial reports;
- ix) ensuring timely preparation and submission of requests for funds, financial and progress reports to FAO as per OPA reporting requirements;
- x) maintaining documentation and evidence that describes the proper and prudent use of project resources as per OPA provisions, including making available this supporting documentation to FAO and designated auditors when requested;
- xi) implementing and managing the project's monitoring and communications plans;
- xii) organizing project workshops and meetings to monitor progress and preparing the Annual Budget and Work Plan;
- xiii) preparing the six-monthly Project Progress Reports (PPRs) with the AWP/B for OP to submit to the PSC and FAO;
- xiv) preparing the first (initial) draft of each year's Project Implementation Review (PIR);
- xv) supporting the organization of the mid-term and final evaluations in close coordination with the FAO Budget Holder and the FAO Independent Office of Evaluation (OED);
- xvi) submitting the OP six-monthly technical and financial reports to FAO and facilitate the information exchange between the OP and FAO, if needed;
- xvii) inform the PSC and FAO of any delays and difficulties as they arise during the implementation to ensure timely corrective measure and support.
- xviii) Assume the role as the PSC secretary and draf PSC meeting report.
- xix) Draft project terminal report

Coordination with other relevant GEF-financed projects and other initiatives.

The GEF project “*Implementing the Strategic Action Programme for the South China Sea*” (2016-2021), is being implemented by UN Environment, and executed by the Coordinating Body on the Seas of East Asia (COBSEA) and the Southeast Asian Fisheries Development Center (SEAFDEC), in partnership with the Ministries of Environment in **Cambodia**, China, Indonesia, Philippines, Thailand and Viet Nam. The overall objective of the SCS-SAP project is to assist participating country governments in meeting the targets of the approved Strategic Action Programme (SAP) to reverse environmental degradation trends in the South China Sea. Project activities aim to reduce environmental stressors through actions establishing sustainable management of coastal ecosystems (mangroves, coral reefs and seagrass, as well as coastal wetlands), reducing land-based pollution and supporting regional cooperation in the management of marine and coastal environment. The CamAdapt will work closely with the implementation team of the COBSEA project to avoid any potential duplication of efforts and ensure that best practices and lessons learned are being shared. The project will be particularly relevant to showcase efforts of climate change adaptation in coastal areas through the use of EbA and EAFM frameworks, which will be relevant to other COBSEA countries.

The GEF/UN Environment project “*Establishment and Operation of a Regional System of Fisheries Refugia in the South China Sea and Gulf of Thailand*” (2015-2020) was developed to implement the fisheries component of the Strategic Action Programme for the South China Sea, and it is executed regionally by SEAFDEC in partnership with the government agencies responsible for fisheries in the 6 participating countries (**Cambodia**, Indonesia, Malaysia, Philippines, Thailand and Vietnam). The project has the following 4 project components: Component 1, on the establishment of operational management of 14 priority fisheries refugia; Component 2, on strengthening the enabling environment for the formal designation and operation management of refugia; Component 3, on strengthening information management and dissemination aimed at enhancing the national uptake of best practices in integrating fisheries management and biodiversity conservation and in improving community acceptance of area-based approaches to fisheries and coastal environmental management, and; Component 4, on strengthening cross-sectorial coordination for integrated fisheries and environmental management, and foster regional cooperation for the establishment and operation of a regional system of fisheries refugia. The long-term goals of the project are to contribute to improved integration of habitat and biodiversity conservation considerations in the management of fisheries in the South China Sea and Gulf of Thailand, as well as to develop the capacity of fisheries departments to engage in meaningful dialogue with the environment sector regarding the improvement of fisheries and management of the interactions between fisheries and critical marine habitats. In Cambodia, the Fish Refugia project has recently achieved and endorsed the Proclamation of the Establishment of Management Area of Mackerel Fisheries Refugia in **Koh Kong province**, and the Establishment of Management Area of Blue Swimming Crab Fisheries Refugia in **Kep province**. During 2020, the project will work on the development of the fisheries refugia profile reports, including GIS maps and site characterisation in the priority sites. It is also expected the adoption of the Standardized Methods for Collection and Analysis of Data and Information for the use in Assessing the Impacts of Fisheries Refugia and in the Designing of Appropriate Indicators for Long Term Management of the Regional System of Fisheries Refugia, as well as the adoption of the Regional Action Plan for the Management of Short Mackerel, and the Regional Guidelines for the Management of Fishwries Refugia. The CamAdapt project will coordinate activities with the Fisheries Refugia, helping disseminate information and lessons learned of the project, and making use of the findings when developing the CFMAP plans (in Koh Kong and Kep provinces) through an ecosystem perspective.

The CamAdapt project will also learn from the work carried out by the **UNDP-GEF project on Strengthening climate information and early warning systems in Cambodia to support climate resilient development and adaptation to climate change**. This project has been working to establish an effective early warning system (EWS) for the timely preparation for extreme events, as well as climate resilient development planning. The project has also been working on risk mapping and the delivery of observation equipment, enabling the collection of environmental, climate and weather data, and the generation of tailored climate/weather products, which take into account local conditions, risks and vulnerabilities. Work implemented by the CamAdapt on EWS must take into consideration the lessons learned and products produced by the EWS project, including a website for weather prediction for fishers^[1].

The **GEF-UN Environment project "Building Resilience of Cambodian Communities Using Natural Infrastructure and Promoting Diversified Livelihood"** will be implemented in Sihanouk Province (Prey Nob). The project is focused on addressing the challenges of water resources management as a contribution to the water, food, energy, ecosystem security nexus through natural infrastructure (including restoration and protection of mangroves). The CamAdapt project and the Natural Infrastructure project will work closely to coordinate activities aimed at building the resilience and improving the livelihoods of coastal communities, specially in Preah Sihanoukville province. The CamAdapt project will bring a clear climate resilience and adaptation focus to coastal and fishing communities, promoting the role of women fishers.

The **GEF-UN Environment project "Building climate resilience of urban systems through Ecosystem-based Adaptation (EbA) in the Asia-Pacific region"** is being implemented in Bhutan, Cambodia, Lao PDR, and Myanmar. The project is focused on the 1) Institutional strengthening and capacity building of city management authorities in pilot cities to plan and implement urban EbA, 2) Demonstrating urban EbA interventions in pilot cities (including Kep city, in Cambodia), and 3) Disseminating knowledge and raising public awareness on urban EbA in pilot cities (e.g. Kep). The project will be focused on EbA approaches to reduce climate vulnerability of urban and peri-urban communities. The CamAdapt project and this Urban-Eba project will work closely for the planning and implementation of activities, particularly those related to planting/conservation of mangroves, and sharing achievements and lessons learned regarding EbA approaches.

[1] The website can be accessed here: <http://www.cambodiameteo.com/productview/index/embed?menu=124&lang=en&productid=41>

Additional Information not well elaborated at PIF Stage:

A.7. Benefits

Describe the socioeconomic benefits to be delivered by the project at the national and local levels. How do these benefits translate in supporting the achievement of global environment benefits (GEF Trust Fund) or adaptation benefits (LDCF/SCCF)?

The project will benefit at least 47,000 people (50% women) from CPAs and CFIs (including members and their families) and other coastal communities not yet members will benefit from strengthened and diversified livelihoods, and resilient coastal ecosystems. In addition, project's support to ha of Coastal ecosystems (including 50,000 ha of mangroves, 30,000 ha of seagrass, and 2,000 ha of coral reefs) will also benefit others outside the communities - such as tourism entrepreneurs and global community through carbon sequestration.

The project will facilitate the establishment of sustainable financial mechanisms from eco-tourism (for both CPAs and CFIs), industries and other business opportunities through engagement of the private sector as well as the implementation of alternative and diverse livelihood options such as energy efficient post-harvest and mangrove friendly aquaculture. The CamAdapt project will be highly focused on increasing the participation of women in decision-making, and to actively implement project activities.

At the national level, the socio-economic benefit from the project is an enabling environment through enhanced capacity of key institutions providing support to local communities dependent of coastal resources. The fisheries and coastal policy frameworks will be made more resilient and able to respond to climate change thanks to climate change mainstreaming (Output 1.1), while fisheries and coastal considerations will also be integrated into the overall climate change policy discussion (Output 1.2), which will benefit coastal communities by better coordination of adaptation and management options. The capacities of government (and other agencies) staff will be improved through a better understanding of climate change risks and response actions, so they can better deliver their support to CPAs and CFi (Output 1.3), and promote a climate resilient interventions in coastal areas that can also generate income, including involvement with the private sector to learn from experiences on mangrove friendly aquaculture, among other options. Through a better understanding of the threats that coastal ecosystems and community protected areas (CPAs) face due to climate change, and the assessment of the adaptation options available to them, project stakeholders will design (Output 2.1) and implement (Output 2.2) climate resilient area management plans that can respond to climate change impacts, and have opportunities to generate financial benefits through sustainable practices (e.g. eco-tourism, linkages with PES, etc.).

Members of Community Fisheries will also obtain socio-economic benefits by also addressing their level of vulnerability through vulnerability assessments (Output 3.1) and defining alternative and diverse livelihood options (including ecotourism, post-harvest, etc.) that can ensure additional support to incomes obtain from fishing (Output 3.2). These strategies will be monitored (Output 3.3) at the community level, ensuring that the key findings, recommendations and lessons learned are fed into the project's MEAL (M&E) system. Both national and local project stakeholders will benefit from robust monitoring and knowledge management system (Component 4) that learns from the community monitoring, and feeds into the overall project monitoring, to share the best practices and best information for adaptation interventions in the coastal areas. The creation of specific networks (e.g. the CPA network) will facilitate this sharing among communities.

The project's strong focus on gender equity and on ensuring free prior informed consent are also expected to strengthen social sustainability. With equal rights and opportunities to participate and benefit from the project, women and men (including youth and elders) can become agents of change for sustained socio-economic development in their communities, so they are more resilient to the impacts of climate change. The socioeconomic benefits of healthy and well managed coastal ecosystems will be felt in other sectors and locations in Cambodia, not only in the coastal areas, which makes this project a key contributor the NAP and NDC targets (including the mitigation benefits of mangroves). It is estimated, that about 50,000 ha mangroves, under component 2 (both protected areas, under MoE mandate, and outside protected areas, under the mandate of FiA), and about 30,000 ha of seagrass (located mainly in Kampot Province, under the mandate of FiA), will be under improved management practices. Taking into account national data and the split between mangrove and rear-mangrove, assuming a 50% reduction in rate of deforestation due to project implementation, and including interventions to reduce the loss of seagrass, the total amount of GHGeq savings is of **763,191 tCO₂eq**, using the estimated Ex-Ante Carbon-Balance tool – (EXACT tool[1]), with 34.4% of uncertainty.

The CamAdapt project will contribute to **decent rural employment**[2], which is the practical application of the concept of decent work to the realities of the agricultural sector (in this case, the fisheries sector), and rural areas more generally. Decent rural employment refers to any activity, occupation, work, business or service performed by women and men, adults and youth, in rural areas that respects the core labour standards as defined in ILO Conventions. This will include “no child labour”, “no forced labor”, as well as no discrimination at work, which is also linked to gender equality. It also guarantees freedom of association and the right to collective bargaining. The CamAdapt project will ensure that the ILO Convention is being followed and will work with local organizations to address any existing issues of child or forced labor that become apparent during project implementation. The concept of Decent Rural Employment calls for an adequate living income, as well as a certain degree of employment, security and stability. The CamAdapt

project will work with partners on linkages and promotion of social protection programmes for the fisheries sector in coastal areas, ensuring that the specific needs of fishing and coastal vulnerable communities are taken into account. By working on issues related to safety at sea, and early warning systems, the CamAdapt project will also help address sector-specific risks and hazards. The CamAdapt project will also address issues related to excessive working hours (especially for women that are the ones often facing double burden by being asked to engage in project activities, while also having to continue with the domestic responsibilities inside the households), and promote access to vocational training, including the provision of entrepreneurial skills.

[1] The Ex-Ante Carbon-balance Tool (EX-ACT) is an appraisal system developed by the Food and Agriculture Organization of the United Nations (FAO) providing estimates of the impact of agriculture and forestry development projects, programmes and policies on the carbon-balance. The carbon-balance is defined as the net balance from all greenhouse gases (GHGs) expressed in CO2 equivalent that were emitted or sequestered due to project implementation as compared to a business-as-usual scenario - <http://www.fao.org/tc/exact/ex-act-home/en/>

[2] Information on FAO's work on decent rural employment and related guidance materials is available in the FAO thematic website at: <http://www.fao.org/rural-employment/en/>.

A.8. Knowledge Management

Elaborate on the Knowledge management approach for the project, including, if any, plans for the project to learn from other relevant projects and initiatives (e.g. participate in trainings, conferences, stakeholder exchanges, virtual networks, project twinning) and plans for the project to assess and document in a user-friendly form (e.g. lessons learned briefs, engaging websites, guidebooks based on experience) and share these experiences and expertise (e.g. participate in community of practices, organize seminars, trainings and conferences) with relevant stakeholders.

FAO together with the government counterparts will ensure the preparation of the necessary documentation and publications detailing the project progress and achievement of project activities and posted on project website and other channels. At the end of the project activities, a dissemination workshop will be organized for the presentation of project achievements and suggestions for possible follow up/development interventions, to be submitted to the GEF. **Component 4** is focused on knowledge management for the project.

The CamAdapt project is integrating the lessons learned with other projects. For example, the **Regional Fisheries Livelihoods Programme**[1] highlighted the need for consistent time and resources that can address co-management issues, including the value of developing Community Fisheries Area Management Plans – the CamAdapt will focus on strengthening these CFAMPs by integrating climate change adaptation considerations. Other lessons include the attention to basic needs (e.g. ensure water supply and sanitation), and make sure they are in place before engaging in other livelihood activities (e.g. promoting good hygienic practices in post-harvest activities without access to reliable water supply and basic sanitation). With regards to planting of mangroves, the CamAdapt will also take into account the lessons from the **Mangrove Action Project**, for the suitable selection of mangrove species, a focus on the restoration of mangrove hydrology (and not just “planting trees”), and therefore the selection of appropriate restoration areas, and the design of a restoration programme. For mangroves forests to be restored it will be necessary to minimize the disturbances that caused mangrove degradation this is also the case for seagrass and coral reefs.

Cambodia was one of the countries selected by FAO to carry out fieldwork (during 2012 to 2015) in the context of the development and implementation of the **Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication**^[2] (known as the SSF Guidelines), which were endorsed by the FAO Committee on Fisheries in July 2014. The SSF Guidelines complement the Code of Conduct for Responsible Fisheries and other related international instruments, setting out objectives such as: the enhancement of the contribution of small-scale fisheries to global food security and nutrition; the equitable development of small-scale fishing communities and poverty eradication; and the sustainable utilization, prudent and responsible management and conservation of fisheries resources. The CFIs in Cambodia provide a good example of opportunities for community empowerment through community-based organizations, following the principles of the SSF Guidelines. A key priority identified in the CFIs related to the SSF Guidelines was the need to strengthen the capacity of CFI members to maintain their livelihoods, and addressing illegal fishing activities through demarcation and clear tenure rights, and the provision of effective patrolling support. Work for the implementation of the SSF Guidelines in Cambodia can be strengthened attending to the following lessons learned^[3]:

- Initiatives in support of small-scale fisheries need to be participatory and people centered, and must provide attention to ensuring access rights to resources
- Resource conservation is a key factor for the successful management of small-scale fisheries.
- Conservation of aquatic ecosystem requires strong institutional and infrastructure support.
- Good leadership is the bedrock of successful organizations for small-scale fishers. Leadership can be cultivated through practice and training.
- Women's involvement must be central to any effort for small-scale fisheries development and management.
- Management plans for small-scale fisheries should become a central part of any fisheries development programme – their development and implementation processes should be participatory and with a keen understanding of local natural resources and viable governance structures.

Project Communication Strategy: The CamAdapt Project will enhance communication and visibility of coastal ecosystems and fisheries adaptation at all levels. At national level, through the dissemination of best practice and lessons learned that are being captured as part of Component 4, supporting the communication strategy and setting up the appropriate communication tools (website, project newsletters, social media strategy, etc.), and sharing through the different knowledge platforms (within Cambodia and beyond with other countries) all the technical reports, case studies, policy briefs, etc. At the field and provincial levels, the project will make use of community-led and gender differentiated dissemination systems, through the use of coastal and fisheries networks (those created and supported by the project, and others).

In summary, the proposed tools for enhancing visibility include:

- **General aspects** – PMU will ensure that general aspects of project visibility are fulfilled, such as: (i) visual identity of project and partners; (ii) highlighting the project's partners in media interviews, press releases, etc.); (iii) supporting documents such as photos of logos in the field, photos of activities, copies of press releases will be included in the progress and final reports.

- **Basic visibility at field level** – At this level visibility strategy will consider: (i) signboards, display panels and banners; (ii) operational publications and materials such as training manuals and posters; (iii) supplies and equipment.
- Printed publications – Brochures, leaflets, flyers, newsletters and other publications to project activities and results.
- **Website and webpage** – It will include: (i) partnerships and links; (ii) project information (objectives, activities, expected results, etc.).
- **Audiovisuals** – (i) Films for distribution by the media (mainly for television, campaigns and Internet); (ii) operational films (films to provide technical information and practices to local population, project partners and authorities).
- **Public events** – Many types of events are possible and attracting media interest will always be a key consideration in making the events cost-effective. Press release will be an integral part of the events.

[1] <http://www.fao.org/fishery/rflp/en>

[2] FAO. 2015. Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication. Rome, Italy

[3] FAO 2017. Community fisheries organizations of Cambodia. Sharing processes, results and lessons learned in the context of the implementation of the SSF Guidelines, by John Kurien. FAO Fisheries and Aquaculture Circular No. 1138. Rome, Italy.

B. Description of the consistency of the project with:

B.1. Consistency with National Priorities

Describe the consistency of the project with nation strategies and plans or reports and assessments under relevant conventions such as NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, INDCs, etc.

The overall development programme in Cambodia is **The Rectangular Strategy – Phase IV (2018 – 2023)**, which one of the priorities is the Inclusive and Sustainable Development (Rectangle 4), and particularly relevant is the Sustainable Management of Natural Resource and Culture (Side 2). In particular, the document indicates the focus on “Continuing to promote the preservation and management of fisheries resource through combatting fisheries crimes, improving the fishing community, and increasing the aquaculture” and “Further protecting the ecosystem and natural areas by emphasizing on the protection of biodiversity, wet land and coastal areas in order to ensure the land quality and sustainable water

resource”. The same document refers to the need to strengthen capacity to address the issues of climate change, and strengthening the management of protected areas, biodiversity conservation, natural resource conservation, especially the ecosystems of Tonle Sap lake, Mekong river and coastal areas. This proposed project is in line with that Strategy.

The Government of Cambodia completed its **National Adaptation Programme of Action (NAPA)** in October 2006. Although some of the baseline data is now dated, the main objectives remain valid. The NAPA identified 20 high priority projects, and this proposed project contributes directly to three of those, i.e.:

- Community mangrove restoration and sustainable use of natural resources (no. 29);
- Rehabilitation of coastal protection infrastructure (no. 26);
- Community and household water supply in coastal provinces (no. 27).

Subsequently, the Government of Cambodia completed the **Cambodia Climate Change Strategic Plan, 2014 – 2023 (CCCSP)**. The CCCSP defines the institutional framework and it defines major sectoral and cross-sectoral priorities. The implementation framework includes the National Climate Change Committee (NCCC), the Climate Change Technical Team (CCTT) and the Climate Change Department (in MoE). FiA is a member of NCCC and CCTT – and this project will be implemented in line with the existing institutional framework.

This proposed project notably contributes to the following strategic objectives in the CCCSP: Promote climate resilience through improving food, water and energy security (no. 1); Reduce vulnerability of sectors, regions, gender and health to climate change impacts (no. 2), and; Ensure climate resilience of critical ecosystems (includes coastal ecosystems), biodiversity, protected areas and cultural heritage sites (no. 3).

The project will also contribute to the implementation of Cambodia’s **Nationally Determined Contributions (NDC)**, which identified coastal zones as a sector highly vulnerable to climate change, and indicated a number of priority adaptation actions, specially those with particular climate change impact mitigation co-benefits. These priority actions focus on the enhancement of adaptive capacity of communities, restoring the natural ecology system to respond to climate change, implement management measures for protected areas, strengthening early warning systems and climate information dissemination, rehabilitation and development of flood protection dykes for agriculture and urban areas, set up mobile and permanent pumping stations to address drought, and the promotion of climate resilient agriculture in coastal areas, and overall the mainstreaming of climate change into sector and sub-sector development plans, which also includes fisheries and aquaculture. The protection and restoration of mangrove areas will also contribute to the achievements of the mitigation objectives of the NDC, related to Land Use, Land Use Change and Forestry (**LULUCF**), which is “Increasing the forest cover to 60% of national land area by 2030, and maintaining it after 2030”. The project will also coordinate and contribute to the national REDD+ Strategy for Cambodia.

The project is aligned with the **Master Plan on Gender and Climate Change (2018-2030)**, and will provide guidance and lessons learned for the institutionalization of gender mainstreaming into climate change adaptation, mitigation and disaster risk reduction investments for contributing to equitable, climate resilience and sustainable society of Cambodia.

The CamAdapt will also contribute to the implementation of the **Climate Change Priority Action Plan for Agriculture, Forestry and Fisheries Sector (2016-2020)** by directly addressing climate change impacts and reducing the vulnerability and increase the resilience of coastal communities dependent on fisheries resources.

The project is coherent with, and will contribute to, achieving the **National Biodiversity Strategies and Action Plan (NBSAPs)** in Cambodia, and the **Aichi Biodiversity Targets**. The project will also contribute to a range of important socio-economic and environmental **Sustainable Development Goals (SDG)** targets, especially SDG14: Conserve and sustainably use the oceans, seas and marine resources. The project will also provide foundational, evidence-based and preparatory work and case studies for the **UN Decade on Ecosystem Restoration (2021-2030)**, which will be focused on increasing the resilience of livelihoods through the restoration of ecosystems[1].

[1] Ecosystem restoration is generally focused on solving environmental problems (such as restoring water quality, reducing pollution/nutrient runoff, better land cover to reduce erosion, restoring mangrove buffer zones, etc.). FAO and UN Environment are the lead agencies for the UN Decade on Ecosystem Restoration.

C. Describe The Budgeted M & E Plan:

Project monitoring will be carried out in accordance with the established FAO, GEF and the Government of Cambodia procedures, through the Project Management Unit (PMU) and the FAO budget holder. Project performance will be monitored using the project results matrix, including indicators (baseline and targets) and annual work plans and budgets. At inception the results matrix will be reviewed to finalize identification of: i) outputs ii) indicators; and iii) missing baseline information and targets. A detailed M&E plan, which builds on the results matrix and defines specific requirements for each indicator (data collection methods, frequency, responsibilities for data collection and analysis, etc.) will also be developed during project inception by the M&E specialist with the support the rest of the project team.

Project oversight will be carried out by the Project Steering Committee (PSC), the FAO GEF Coordination Unit, and relevant Technical Units in FAO-KH, RAP and HQ. Oversight will ensure that: (i) project outputs are produced in accordance with the project results framework and leading to the achievement of project outcomes; (ii) project outcomes are leading to the achievement of the project objective; (iii) risks are continuously identified and monitored and appropriate mitigation strategies are applied; and (iv) agreed project global environmental benefits/adaptation benefits are being delivered.

The FAO GEF Unit and HQ Technical Units will provide oversight of GEF-financed activities, outputs, and outcomes largely through the annual Project Implementation Reports (PIRs), periodic backstopping, and supervision missions.

The project will ensure transparency in the preparation, conduct, reporting and evaluation of its activities. This includes full disclosure of all non-confidential information, and consultation with major groups and representatives of local communities. The disclosure of information shall be ensured through posting on websites and dissemination of findings through knowledge products and events. Project reports will be broadly and freely shared, and findings and lessons learned made available.

Reporting

Specific reports that will be prepared under the M&E program are: (i) Project inception report; (ii) Annual Work Plan and Budget (AWP/B); (iii) Project Progress Reports (PPRs); (iv) annual Project Implementation Review (PIR); (v) Technical Reports; (vi) co-financing reports; and (vii) Terminal Report. All project narrative and financial reports will follow FAO's established reporting procedures. In addition, assessment of the GEF Monitoring Evaluation Tracking Tools against the baseline (completed during project preparation) will be required at midterm and final project evaluation.

Project Inception Report. It is recommended that the PMU prepare a draft project inception report in consultation with the LTO, BH and other project partners. Elements of this report should be discussed during the Project Inception Workshop and the report subsequently finalized. The report will include a narrative on the institutional roles and responsibilities and coordinating action of project partners, progress to date on project establishment and start-up activities and an update of any changed external conditions that may affect project implementation. It will also include a detailed first year AWP/B, a detailed project monitoring plan. The draft inception report will be circulated to the PSC for review and comments before its finalization, no later than one month after project start-up. The report should be cleared by the FAO BH, LTO and the FAO GEF Coordination Unit and uploaded in FPMIS by the BH.

Results-based Annual Work Plan and Budget (AWP/B). The draft of the first AWP/B will be prepared by the PMU. The draft AWP/B should be circulated to PTF members before the inception workshop, and the updated plan should be presented at the project Inception Workshop for wider stakeholder input. The Inception Workshop (IW) inputs will be incorporated. Once finalized it is submitted to the PSC for approval. The approved AWP/B is to be delivered and it should be uploaded in FPMIS. For subsequent AWP/B, the PMU will organize a project progress review and planning meeting for its review. Once comments have been incorporated, the BH will circulate the AWP/B to the LTO and the GEF Coordination Unit for comments/clearance prior to uploading in FPMIS by the BH. The AWP/B must be linked to the project's Results Framework indicators so that the project's work is contributing to the achievement of the indicators. The AWP/B should include detailed activities to be implemented to achieve the project outputs and output targets and divided into monthly timeframes and targets and milestone dates for output indicators to be achieved during the year. A detailed project budget for the activities to be implemented during the year should also be included together with all monitoring and supervision activities required during the year. The AWP/B should be approved by the Project Steering Committee and uploaded on the FPMIS by the BH. The approved AWP/B will be uploaded in the FPMIS by BH.

Half Yearly Project Progress Reports (PPR): Results-based Annual Work Plan and Budget (AWP/B). The draft of the first AWP/B will be prepared by the PMU in consultation with the FAO Project Task Force and reviewed at the project Inception Workshop. The PMU will submit a final draft AWP/B to the BH, LTO and PTF members for comments. The PMU will organize a project progress review and planning meeting for its review then to finalize the draft AWP/B and submit it to the Inception Workshop for discussion by the stakeholders. After that the PMU will eventually submit to the PSC meeting for review and final approval. . The AWP/B must be linked to the project's Results Framework indicators so that the project's work is contributing to the achievement of the indicators. The AWP/B should include detailed activities to be implemented to achieve the project outputs and output targets and divided into monthly timeframes and targets and milestone dates for output indicators to be achieved during the year. A detailed project budget for the activities to be implemented during the year should also be included together with all monitoring and supervision activities required during the year. The AWP/B should be approved by the Project Steering Committee and uploaded on the FPMIS by the BH.

Annual Project Implementation Review (PIR): The OP (in collaboration with the PMU and the LTO) will prepare an annual PIR covering the period July (the previous year) through June (current year) to be submitted to the BH and Liaison Officer (FLO) for review and approval **no later than (check each year with GEF Unit but roughly end June/early July each year)**. The PIR should also be shared with the country's GEF OFP and PSC. The FAO GEF Coordination Unit will submit the PIR to the GEF Secretariat and GEF Evaluation Office as part of the Annual Monitoring Review report of the FAO-GEF portfolio. PIRs will be uploaded on the FPMIS by the TCI GEF Coordination Unit.

Key milestones for the PIR process:

- **Early July:** PMU/OP to provide draft PIR to LTO, BH and FLO in mid-July. The LTO to submit the draft PIRs (after consultations with BHs, project teams) to the GEF Coordination Unit (faogef@fao.org , copying respective GEF Unit officer) for initial review;
- **Mid July:** GEF Unit responsible officers review main elements of PIR and discuss with LTO as required;
- **Early/mid-August:** GEF Coordination Unit prepares and finalizes the FAO Summary Tables and sends to the GEF Secretariat by (date is communicated each year by the GEF Secretariat through the FAO GEF Unit);
- **September/October:** PIRs are finalized. PIRs carefully and thoroughly reviewed by the GEF Coordination Unit and discussed with the LTOs for final review and clearance;
- **Mid November:** (date to be confirmed by the GEF): the GEF Coordination Unit submits the final PIR reports -cleared by the LTU and approved by the GEF Unit- to the GEF Secretariat and the GEF Independent Evaluation Office.

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Technical Reports: Technical reports will be prepared by national, international consultants (partner organizations under LOAs) as part of project outputs and to document and share project outcomes and lessons learned. The drafts of any technical reports must be submitted by the PMU to the BH who will share it with the LTO. The LTO will be responsible for ensuring appropriate technical review and clearance of said report. The BH will upload the final cleared reports onto the FPMIS. Copies of the technical reports will be distributed to project partners and the Project Steering Committee as appropriate.

Co-financing Reports: The BH, with support from the PMU, will be responsible for collecting the required information and reporting on co-financing as indicated in the Project Document/CEO Request. The PMU will compile the information received from the executing partners and transmit it in a timely manner to the LTO and BH. The report, which covers the period 1 July through 30 June, is to be submitted on or before 31 July and will be incorporated into the annual PIR. The format and tables to report on co-financing can be found in the PIR.

Terminal Report: Within two months before the end date of the project, and (as far as possible) one month before the Final Evaluation, the PMU will submit to the BH and LTO a draft Terminal Report. The main purpose of the Terminal Report is to give guidance at ministerial or senior government level on the policy decisions required for the follow-up of the

project, and to provide the donor with information on how the funds were utilized. The Terminal Report is accordingly a concise account of the main products, results, conclusions and recommendations of the project, without unnecessary background, narrative or technical details. The target readership consists of persons who are not necessarily technical specialists but who need to understand the policy implications of technical findings and needs for insuring sustainability of project results.

Evaluation

For full-sized projects, an independent Mid-Term Review will be undertaken at project mid-term to review progress and effectiveness of implementation in terms of achieving the project objectives, outcomes and outputs Findings and recommendations of this review will be instrumental for bringing improvement in the overall project design and execution strategy for the remaining period of the project's term. FAO will arrange for the mid-term review in consultation with the project partners. The evaluation will, *inter alia*:

- (i) review the effectiveness, efficiency and timeliness of project implementation;
- (ii) analyze effectiveness of partnership arrangements;
- (iii) identify issues requiring decisions and remedial actions;
- (iv) propose any mid-course corrections and/or adjustments to the implementation strategy as necessary; and
- (v) highlight technical achievements and lessons learned derived from project design, implementation and management.

FAO Representative will be responsible to field the mid-term review, in consultation with FAO PTF and the PSC. TOR for the mid-term review will be developed, based on guidance from FAO_GEF Coordination Unit.

An independent Final Evaluation (FE) be carried out three months prior to the terminal review meeting of the project partners. The FE will aim to identify the project impacts and sustainability of project results and the degree of achievement of long-term results. This evaluation will also have the purpose of indicating future actions needed to sustain project results and disseminate products and best-practices within the country and to neighbouring countries. FAO's Office of Evaluation (OED) will be responsible for coordinating the final evaluation. This evaluation will be based on GEF's Terminal Evaluation Guidelines[1].

M&E Plan

The table below presents an overview of the M&E plan. This will be detailed during project inception.

Type of M&E Activity	Responsible Parties	Time-frame	Budget
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Type of M&E Activity	Responsible Parties	Time-frame	Budget
Inception Workshop	PMU, FAO Cambodia	March 2020	5,000 USD
Project Inception Report	PMU	April 2020	Included in PMU ToRs
Inception Workshop in Project Areas	PMU, FAO Cambodia	April 2020	8,000 USD
Field based impact monitoring	M&E, Livelihoods and Gender officer	Periodically - to be determined at inception workshop.	USD 150,000
Monitoring of indicators outlined in project results chain	M&E Expert, PMU	Bi-Annually	
Supervision visits by FAO	FAO Cambodia, LTO, FLO	Annually	Covered by GEF fees
Sixth monthly Project Progress Reports	PMU, with inputs from project partners	Semi-annually	Covered by staff costs
Project Implementation Review report	PMU, with inputs from project partners as well as FAO PTM, LTO	Annually	Covered by staff costs
Co-financing Reports	BH with support from PMU with input from other co-financiers	Annually	Completed by PMU
Set the project Monitoring, Evaluation and Learning plan for the project	PMU with inputs from project partners	Set up at the beginning of the project, then as part of regular monitoring	USD 18,000
Set project baseline	PMU with inputs from project partners	During the first 6 months of the project	USD 45,000
Mid-term Review	MTR: FAO Cambodia Representative, project task force, including the FAO-GEF Coordination Unit and others- in consultation with PMU and PSC	At mid-point of project implementation	USD 45,000 for independent consultants and associated costs. In addition, the agency fee will pay for expenditures of FAO staff time and travel

Type of M&E Activity	Responsible Parties	Time-frame	Budget
Final evaluation	Under the responsibility of FAO Office of Evaluation OED in consultation with the project team including the GCU and other partners	At the end of project implementation	USD 65,000 for external, independent consultants and associated costs. In addition, the agency fee will pay for expenditures of FAO staff time and travel
Terminal Report	PMU, LTO, TCSR Report Unit	At least two months before the end date of the Execution Agreement	Covered by MTR TORs
Total Budget			336,000 USD

[1] <https://www.gefio.org/sites/default/files/ieo/evaluations/files/gef-guidelines-te-fsp-2017.pdf>

PART III: Certification by GEF partner agency(ies)

A. GEF Agency(ies) certification

GEF Agency Coordinator	Date	Project Contact Person	Telephone	Email
Jeffrey Griffin	2/25/2020	Sameer Karki		Sameer.karki@fao.org

ANNEX A: PROJECT RESULTS FRAMEWORK (either copy and paste here the framework from the Agency document, or provide reference to the page in the project document where the framework could be found).

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
<p>Objective: Coastal fishery-dependent communities adapt to climate change through strengthening the resilience of the coastal ecosystems upon which they depend and through adapting their livelihoods and practices to reduce their vulnerability.</p> <p>Key Indicators:</p> <ul style="list-style-type: none"> - At least 47,000 people (50% women) from CPAs and CFIs (including members and their families) and other coastal communities not yet members will benefit from strengthened and diversified livelihoods, and resilient coastal ecosystems. - 82,000 ha of Coastal ecosystems (including 50,000 ha of mangroves, 30,000 ha of seagrass, and 2,000 ha of coral reefs) are being protected and rates of degradation have been halted. 							
<p>Component 1: Strengthening policy coordination and capacity development for an adaptive enabling environment</p>							

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
<u>Outcome 1</u> National and provincial capacity to support adaptation to climate change is enhanced along coastal areas.	<p>Indicator 1.1</p> <p>Number of fisheries and coastal planning frameworks, including gender sensitive climate change adaptation and disaster risk reduction considerations.</p> <p>Indicator 1.2</p> <p>Number of national, provincial and district decision makers (women and men) with improved capacity and knowledge to promote climate resilient capture fisheries, aquaculture, and coastal management</p>	<p>Lack of understanding of the impacts of climate change.</p> <p>Lack of an enabling environment to support the fisheries sectors and coastal ecosystems to adapt</p>	Draft policy documents	<p>1 Climate Change Adaptation Action Plan for coastal fishing communities developed</p> <p>800 staff (40 % women) from government (FiA and MoE at national, provincial, and local levels), other key organizations and community leaders have increased their capacity to effectively deliver their work giving attention to climate change adaptation needs in coastal areas</p>	<p>Policy documents (including gender related policies)</p> <p>Capacity Assessment Surveys (gender disaggregated data)</p> <p>Interviews (with gender disaggregated data, and gender related questions)</p>	Political stability	MoE, FiA, Project Team

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
<u>Output 1.1</u> Climate Change Adaptation is incorporated into fisheries and coastal frameworks -	Indicator 1.1 # of fisheries/coastal planning frameworks (plans/policies) that have incorporated climate change adaptation actions	Despite the existence of overarching climate change policies by MoE[1] and MAFF[2] there is effectively little guidance on how to mainstream adaptation into local/provincial level.	Draft policy proposals prepared with participation by relevant authorities at national and provincial level and submitted to appropriate officials and institutions.	At least one high level policy document (at the national and provincial levels) developed addressing climate change issues in fisheries and in coastal areas	Policy document and project reports Meeting reports showing number of men and women who participated in the consultations	The government is open to receive and act upon policy recommendations generated by the project.	FiA, Project Team
<u>Output 1.2</u> Fisheries and coastal ecosystem considerations integrated into the broader cross-sectoral policies, strategies and plans related to Climate Change at national and sub-national levels	Indicator 1.2 # of key policies, strategies and plans related to climate change (national and sub-national levels) that have incorporated fisheries and coastal ecosystem considerations	Despite the impact that climate change will have on coastal areas, adaptation planning does not fully integrate coastal and fisheries ecosystem considerations	Draft policy proposals prepared with participation by relevant authorities at national and regional level and submitted to appropriate officials and institutions.	At least 4 provincial climate change documents (1 per province) takes into account fisheries/coastal ecosystem considerations, and 1 at the national level	Policy documents, project reports Meeting reports showing number of men and women who participated in the consultations	New climate change documents are being developed	MoE, FiA, Project Team

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
<u>Output 1.3</u> Capacity of national and sub-national government staff and other stakeholders enhanced to develop and implement climate change resilient policies and practices, as well as to access climate finance, and regularly assess their capacity over the project lifetime.	Indicator 1.3 Capacity needs assessments every two years directed to government staff at different levels (and other stakeholders) to assess their level of understanding in the development and implementation of climate resilient policies	Very limited capacity (based on the Capacity Assessment Report)	30% improvement in the results of the assessment	70 % improvement in the results of the assessment	Capacity Need Assessment Results (activities under this Output), including among others, the number of male and female respondents and gender differences in capacity needs and improvement	Government staff have the interest and availability to attend trainings and other capacity building opportunities	Project Team, FiA, MoE
Component 2: Sustainable Ecosystem Management for coastal resilience							
<u>Outcome 2</u> Coastal ecosystems protected and rehabilitated to enhance resilience of the coastal social-ecological systems	Indicator 2 Area of coastal ecosystems (seagrass, coral reefs and mangroves) that are being monitored through participatory processes and integrating CCA related actions	No tracking of ecosystem status and trends	Coastal ecosystem being monitored through participatory processes	82,000 ha (50,000 ha mangroves, 30,000 ha of seagrass and 2,000 ha of coral reefs) under management with CCA mainstreamed into management plans	Monitoring system that will be developed as part of the project [Output 2.1, activity 2.1.1]	Trends of ecosystem loss do not increase during the life of the project due to other issues (e.g. development plans, etc)	Project Team, MoE and FiA

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
<p>-</p> <p><u>Output 2.1</u></p> <p>Climate resilient Protected Area Management Plans put into place and addressing the factors of ecosystem loss along the coastline</p> <p>-</p>	<p>Indicator 2.1</p> <p>Ecosystem health participatory monitoring system for mangroves, coral reef and seagrass:</p> <ul style="list-style-type: none"> - area of mangroves replanted - area of mangroves under sustainable management measures - area of coral reefs protected - area of seagrass protected 	Coastal ecosystem health not being monitored	Systems for regular monitoring of coastal ecosystem health in place (satellite-based) – links with Output 2.2	Systematic tracking of coastal ecosystem through the CMP management plans	Monitoring system created as part of the project	<p>Political stability</p> <p>Climate change adaptation continues to be a priority for the government</p>	MoE, FiA, Project Team, FFI, MCS, Academic institutions

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
<u>Output 2.2</u> Capacity of coastal Communities in Protected Area is enhanced to implement and monitor the Sustainable Community Protected Area Management Plans (including livelihood options and coastal protection measures) - include activities related to piloting of incentives mechanisms and promote participatory community based management plans -	Indicator 2.2 # of CPA with a participatory monitoring system as part of their CPAMP	No systematic monitoring as part of the CPA Management Plans	Participatory monitoring system integrated as part of the CPA Management Plans – links with Output 2.1	At least 15 with CPAMAs updated and being implemented	MoE official data	Other external factors to the project (e.g. coastal development) do not jeopardize the implementation of the CPAMPs	MoE, Project team

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
<u>Output 2.3</u> CPA Network created to build intra-community cooperation for natural resources (and other issues, as for example gender mainstreaming), share lessons learned and strengthen conservation and management actions (vertical and horizontal integration)	Indicator 2.3 # of men and women who are part of the CPA Network # of meetings of the CPA Network	CPA Network does not exist	CPA Network created	One CPA Network formed and meeting at least once a year, with an increase in number of members of 50% by the end of the project (CPA Network to include sub-groups of mangroves, coral reefs and seagrass), and at least 40 % of women's participation	Meeting Minutes (including number of people, with gender disaggregated information)	Political stability	MoE and Project Team
Component 3: Fishing Community Adaptation Capacity							
<u>Outcome 3</u> Community Fisheries have increased capacity to adapt to the impacts of climate change -	Indicator 3 % of coastal fisheries households with increased access to livelihood opportunities to cope with climate change impacts	0	5,000 households (involving both female and male participants)	At least 10,000 households (half of the CFi members, involving both female and male participants)	Baseline with Mid-term and Final Evaluation findings	Stakeholders provide consent to share information about their livelihoods through the project	FiA, Project team, FII, WCS and others

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
<u>Output 3.1</u> Integrate adaptation into the development/revision of Community Fishing Area Management Plans (CFAMP) and reflect into CIP and CDP	Indicator 3.1 # of CFAMPs that include climate change adaptation/DRM actions	Adaptation is not being mainstramed into the CFAMPs and DRMs plans	20	40	CFAMPs (and CDPs and CIPs)	CDPs and CIPs process are open to integrate recommendations from the CamAdapt project	FiA, Provincial Governments, Project Team
<u>Output 3.2</u> Integrate Adaptation during the implementation of the CFMAP process, supporting local level monitoring of resilience to climate change -	Indicator 3.2 # of successful adaptation activities implemented as part of the CFMAP (50 % targeting women) with the purpose of reducing climate risk and diversify livelihoods	CFMAP does not include adaptation actions	20 (with 10 activities directly targeted to 70 % women)	40 (with 10 activities directly targeted to 70 % women)	Project records, CFMAPs, Government records	Macroeconomic conditions of economic growth remain stable	FiA, Provincial Government, Project team

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
<p><u>Output 3.3</u></p> <p>Develop capacity of CFIs members to monitor that their plans are climate change resilient, including the creation of a CFi Coastal Network and the CamAdapt Fisherwomen Network.</p> <p>-</p>	<p>Indicator 3.3</p> <p># of Adaptation and Resilience actions included in the CFMAPs</p>	CFMAP do not include sections for participatory adaptation monitoring	Monitoring framework (with adaptation and resilience considerations) created	Participatory monitoring Framework is functional and effective	<p>Project records</p> <p>CFis records and CFMAPs, showing among others, number of men and women involved in the consultations and monitoring activities</p>	CFi leaders and government officers support the participatory monitoring framework	CFis, FiA, Project Team
<p><u>Output 3.4</u></p> <p>Coastal early warning and disaster risk management systems that increase fishers resilience against extreme weather and environmental events</p> <p>-</p>	# and reach of functional early warning systems put in place	n/a	25 %	70 % coverage of EW system for fishers (including women fishing in inshore and mangrove areas)	Existence of operational EW system and project reports	Sustainable financing for setting up the EWS needs to be in place (beyond project funds) to ensure long-term use	FiA, CFIs, Project Team, others
- Component 4: Knowledge Management							

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
<u>Outcome 4</u> Monitoring and evaluation and information dissemination	Indicator 4 Project monitors progress, including adaptation and women's empowerment			100 % implementation of the plan	Project Documents	Information generated by the project is integrated into the governmental planning processes	Project Team
<u>Output 4.1</u> Project Monitoring, Evaluation and Learning (MEAL)	Indicator 4.1 MEAL plan fully operational throughout the lifetime of the project	n/a	MEAL plan fully operational with a clear and realistic set of indicators	100 % implementation of the plan	Project Documents		Project Team, FiA and MoE
<u>Output 4.2</u> Project Communications Plan	Indicator 4.2 Project communication plan operational and providing relevant information	n/a	Project website	# of communication materials developed, trainings documented, etc	Project Documents Project website	Documents produced are of the interest of the beneficiaries	Project Team, FiA and MoE
<u>Output 4.3</u> Gender and Stakeholder Engagement Strategy - -	Indicator 4.3 Gender targets defined	n/a	50 % of gender targets achieved	75 % of gender targets achieved	Project Documents	There is willingness by the government to work on gender issues	Project Team, FiA and MoE

[1] Cambodia Climate Change Strategic Plan 2014 – 2023

[2] Cambodia's Climate Change Priorities Action Plan for Agriculture, Forestry and Fisheries 2014-2018

ANNEX B: RESPONSES TO PROJECT REVIEWS (from GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion and the Convention Secretariat and STAP at PIF).

Comments from the STAP	Response
<p><i>In its current form, the proposal, though referring to the national priorities of Cambodia, does not mention the country's NDC and only partly relates to the policies included therein. It is therefore highly recommended to update the respective sections on the policy and legal framework as well as the consistency with national priorities to confirm the project's alignment with the NDC of Cambodia at the proposal finalization stage.</i></p>	<p>This has been done in the main text of the ProDoc.</p> <p>As part of Component 1, the project will support provincial representatives in each country to participate in the discussions related to the National Determined Contributions (NDCs), to ensure that coastal resources (specially mangroves) are taken into consideration and their roles in climate change mitigation and adaptation are properly acknowledged (Activity 1.2.4). As a result, the specific needs of coastal and fisheries resources and dependent communities will be taken into account in the negotiations pertaining to the National Adaptation Plan (NAP) process and the National Determined Contribution (NDC), as well as in other relevant Technical Working Groups. The project will also create awareness on the NDCs discussions related to fisheries, coastal ecosystems and gender mainstreaming in natural resource management.</p>
<p><i>Although the goal of increasing income is mentioned in the proposal, it could be given more prominence with regard to the employment issues. The joint development of the value chain by the companies mentioned in the proposal could be a suitable approach in this regard.</i></p>	<p>Activities have been designed to improve the livelihoods and consequently the employment and income of project beneficiaries, particularly under Component 3, and under Component 2.</p> <p>In particular, the project will facilitate the establishment of sustainable financial mechanisms from eco-tourism, industries and other business opportunities, through engagement of private sector for co-financed schemes and ensuring employment of local people.</p>

<p><i>The issue of land rights is mentioned under 1.2.4 under Cross-Cutting Issues and Risks, and the Ministry of Interior and the Ministry of Land Management are to be involved in the case of conflicts. In this respect, Germany would like to stress that smooth coordination between these ministries will play a major role to achieve successful implementation.</i></p>	<p>The project will address land management issues through strong coordination between the Ministry of Land Management and the Ministry of Interior when proceeding with the demarcation of coastal protected areas (Community Protected Areas, designated by MoE) under Component 2, and Community Fisheries (CFi) management areas (which are designated by FiA), under Component 3. The development of a Adaptation Plan for coastal fisheries communities will look into the issues related to coastal land management in more detail.</p>
<p><i>Germany appreciates the PIF section on the project's global environmental benefits, noting that the project will not only support adaptation but also contribute indirectly to climate change mitigation and biodiversity conservation. As for the potential GHG savings, the calculated contributions are reported to be "very preliminary estimates" and it is therefore recommended to identify and quantify them in more detail during the proposal finalization phase.</i></p>	<p>As indicated in the ProDoc, taking into account national data and the split between mangrove and rear-mangrove, assuming a 50% reduction in rate of deforestation due to project implementation, and including interventions to reduce the loss of seagrass, the total amount of GHGeq savings is of 763,191 tCO₂eq, using the estimated Ex-Ante Carbon-Balance tool with an 34,4% of uncertainty. The project will monitor the mangrove areas following the lessons learned by REDD+ and FiA establishing a framework for monitoring the effectiveness of mangrove restoration activities in Prey Nob District (Sihanoukville) during 2015 and 2018. The assumptions have been included in the relevant section, and the EXACT file has been provided in Annex N.</p>
<p><i>With regard to indicators, the PIF states for several project outcomes that the selection of actual indicators, including AMAT indicators, will be made during the formulation phase. For those indicators that are not yet linked to a determined target, Germany considers it important to assign clear and realistic targets that are measurable for the project monitoring and evaluation (e.g. Component 1 sub-component 1.i, Component 2 sub-component 2.i, Component 3 sub-component 3.iii).</i></p>	<p>Specific indicators and targets have been included as part of the project framework.</p>
<p><i>As the proposal states that the planned activities under Component 4 will be to a high extent covered by co-financing (page 21 of the PIF), it may be helpful to specify the concrete additional value of those activities that are planned to be financed by the LDCF under this Component.</i></p>	<p>The ProDoc provides a detail M&E system (Project Monitoring, Evaluation and Learning, MEAL System), which includes responsible parties, tentative time-frame and an estimated budget.</p>
<p><i>Noting that the letter of endorsement dates back to 2015, requesting a new letter of endorsement is recommended.</i></p>	<p>In lieu of the letter of endorsement (which was submitted with the PIF), the OFP has submitted a supporting letter of the implementation arrangement of the project.</p>

ANNEX C: STATUS OF IMPLEMENTATION OF PROJECT PREPARATION ACTIVITIES AND THE USE OF FUNDS.

A. Provide detailed funding amount of the PPG activities financing status in the table below:

PPG Grant Approved at PIF: 150 000			
<i>Project Preparation Activities Implemented</i>	<i>GETF/LDCF/SCCF Amount (\$)</i>		
	<i>Budgeted Amount</i>	<i>Amount Spent To date</i>	<i>Amount Committed</i>
<i>Salary professionals (ICRU and Financial Management Analysis (FPU))</i>	10 389	0	
<i>Salaries for national consultants and International Consultant</i>	85 600	94,060	8004
<i>Contract</i>	4 153	3 500	
<i>National Workshops and provincial consultatations</i>	16 000	5 843	
<i>Travel</i>	33 000	21 222	
<i>GOE</i>	858	2 920	
Total	150 000	127 545	8004

ANNEX D: CALENDAR OF EXPECTED REFLAWS (if non-grant instrument is used)

Provide a calendar of expected reflows to the GEF/LDCF/SCCF/CBIT Trust Funds or to your Agency (and/or revolving fund that will be set up)

ANNEX E: GEF 7 Core Indicator Worksheet

Use this Worksheet to compute those indicator values as required in Part I, Table G 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.

Please see CCA indicator uploaded separately.

ANNEX: 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

See taxonomy uploaded in section 1



Submitted to GEF Secretariat Review

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