Part I: Project Information

GEF ID
10857

Project Type
FSP

Type of Trust Fund
GET

CBIT/NGI
CBIT **No**
NGI **No**

Project Title
Strategies, technologies and social solutions to manage bycatch in tropical Large Marine Ecosystem Fisheries (REBYC-III CLME+)

Countries
Regional, Barbados, Guyana, Suriname, Trinidad and Tobago

Agency(ies)
FAO

Other Executing Partner(s)
University of West Indies (UWI)

Executing Partner Type
Others

GEF Focal Area
International Waters

Sector
AFOLU

Taxonomy

Transform policy and regulatory environments, Influencing models, Strengthen institutional capacity and decision-making, Convene multi-stakeholder alliances, Demonstrate innovative approache, Community Based Organization, Civil Society, Stakeholders, Non-Governmental Organization, Academia, Communications, Individuals/Entrepreneurs, Private Sector, SMEs, Beneficiaries, Type of Engagement, Local Communities, Gender Mainstreaming, Gender Equality, Participation and leadership, Gender results areas, Awareness Raising, Knowledge Generation and Exchange, Access to benefits and services, Capacity Development, Knowledge Generation, Capacity, Knowledge and Research, Enabling Activities, Learning, Innovation, Knowledge Exchange, International Waters, Focal Areas, Plastics, Pollution, SIDS : Small Island Dev States, Strategic Action Plan Implementation, Coastal, Fisheries, Coral Reefs, Biomes, Large Marine Ecosystems

Rio Markers

Climate Change Mitigation

No Contribution 0

Climate Change Adaptation

Significant Objective 1

Biodiversity

Significant Objective 1

Land Degradation

No Contribution 0

Submission Date

1/31/2023

Expected Implementation Start

10/1/2023

Expected Completion Date

9/30/2027

Duration

48In Months

Agency Fee($)

506,298.00

A. FOCAL/NON-FOCAL AREA ELEMENTS

Objectives/Programs	Focal Area Outcomes	Trust Fund	GEF Amount($)	Co-Fin Amount($)
IW-1-1	Strengthen blue economy opportunities through sustainable healthy coastal and marine ecosystems	GET	2,664,726.00	15,168,106.00
IW-1-2	IW-1-2 Strengthen blue economy opportunities through catalyzing sustainable fisheries management	GET	2,664,726.00	15,168,106.00
		Total Project Cost($)	**5,329,452.00**	**30,336,212.00**

B. Project description summary

Project Objective

To manage bycatch and reduce discards in the Caribbean and North Brazil Shelf Large Marine Ecosystems (CLME+) thereby promoting sustainable and responsible fisheries that provide economic opportunities while ensuring the conservation of marine living resources, supporting country implementation of the CLME+ SAP, and with successful solutions for potential scale up to other LMEs

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
Component 1: Improving fishing practices to manage bycatch and reduce discards and the negative impacts of fishing gears in CLME+ fisheries, supporting countries implementation of CLME+ SAP priorities with a focus on the ecosystem approach to fisheries (Strategy 5)	Technical Assistance	Outcome 1.1: Approaches and tools to manage bycatch and reduce discards widely adopted in target trawl and non-trawl CLME+ fisheries *Indicator 1: Number of target national CLME+ fisheries fleet vessels utilizing new and improved practices and technologies for addressing unwanted bycatch and discards* Outcome 1.2: Effective mitigation measures to reduce adverse fisheries impacts on Endangered, Threatened and Protected (ETP) species implemented in CLME+ target fisheries *Indicator 2: Number of target national CLME+ fisheries fleet vessels utilizing new and improved measures and technologies to address ETP species bycatch* *Indicator 3: Reduced bycatch rates of ETP species (percentage of overall catch) in selected target fisheries compared to baseline data* Outcome 1.3: Specific measures and technologies to address ALDFG developed and adopted and other measures to address adverse impacts of fishing gears on marine benthic habitats promoted *Indicator 4: Number of vessels adopting new standardised gear marking scheme for ALDFG in target fisheries*	Output 1.1.1: Pre-catch losses reduction: smart-gear modifications developed and piloted for both trawl and non-trawl gears, such as gillnets and longlines, for more size- and species-selective fishing practices Output 1.1.2: Lower post-release mortality: Innovative technologies for reducing post-release mortality of unwanted bycatch develope	GET	2,165,669.00	11,462,871.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
			d, tested promoted and adopted in CLME+ fisheries Output 1.1.3: Capacity for key stakeholders to adopt and use new bycatch and discards technologies and approaches for monitoring and reporting bycatch and discards built Output 1.2.1: Strategies, approaches and technical measures to improve pre-catch survival of ETP			

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
			species developed and promoted Output 1.2.2: Procedures, guidelines and tools for improving post-release survival of ETP species developed, promoted and adopted in CLME+ fisheries Output 1.2.3: Capacity of key stakeholders to adopt and use new bycatch technologies and approaches built Output 1.3.1: Data and data			

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
			collection frameworks on ALDFG in target countries improved Output 1.3.2: Risk assessment and feasibility analysis of potential technologies and incentive mechanisms to address ALDFG and ghost fishing carried out for target fisheries in CLME+, including cost-benefit analysis of ALDFG removal Output 1.3.3: Preventative and mitigatin			

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
			g measures to address ALDFG developed, piloted, and promoted in selected CLME+ fisheries Output 1.3.4: Knowledge of fishing impacts on benthic ecosystem and mitigation solutions promoted			

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
Component 2: Strengthening governance and management frameworks and enforcement measures to better manage bycatch and reduce discards in CLME + fisheries, supporting countries implementation of CLME + SAP priorities particularly through improving regional governance	Technical Assistance	Outcome 2.1: Improved policy and legal/regulatory frameworks to manage bycatch and reduce discards and address ALDFG in target countries *Indicator 5: National Fisheries Act and/or Decree updated with bycatch, discards and ALDFG provisions* Outcome 2.2: Marine fisheries management frameworks in participating countries improved for more effective bycatch management, discards reduction and to address ALDFG *Indicator 6: National Fisheries Management plans covering target species updated with bycatch and discards technical measures* *Indicator 7: NPOA for Sharks developed and adopted* *Indicator 8: NPOA for ALDFG developed and adopted* Outcome 2.3: Monitoring and compliance with new measures for managing bycatch, reducing discards and addressing ALDFG in fishing fleets within target CLME+ fisheries strengthened *Indicator 9: Bycatch (including ETP species) and discards related monitoring integrated into inspection procedures as part of annual national MCS programmes* *Indicator 10: Percentage of inspections that include monitoring of updated bycatch (including ETP species) and discards measures in target fisheries (e.g. BRD)*	Output 2.1.1 Guidance on bycatch management, discard reduction and ALDFG mitigation measures formulated to update relevant fisheries policy and regulatory frameworks associated with target fisheries Output 2.1.2: Measures for effective bycatch management, discards reduction and ALDFG mitigation integrate	GET	1,487,000.00	9,851,388.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
arrangements for sustainable fisheries (Strategy 2) and the regional policy coordination mechanisms for governance of the marine environment (Strategy 3			d into relevant national and regional policy and legal/regulatory frameworks and processes Output 2.2.1: Identification of spatial, temporal and other appropriate measures for more effective bycatch management, discards reduction and to address ALDFG Output 2.2.2: Measures for more effective bycatch management, discards reduction and to			

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
			address ALDFG integrated into target fisheries management frameworks at both national and regional levels			
			Output 2.2.3: National Plan of Action for sharks and rays developed and adopted in the four participating countries			
			Output 2.2.4: National Plan of Action for ALDFG developed and adopted in the four			

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
			participating countries Output 2.2.5: Stakeholder participation, especially SSF, in fisheries management decision-making related to bycatch, discards and ALDFG improved Output 2.3.1: Frameworks and tools for improved data collection and monitoring of new and existing measures governing bycatch, discards and ALDFG, including			

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
			on ETP species, designed and adopted Output 2.3.2: Capacity of key stakeholders to use technologies and tools to monitor compliance with relevant regulations and monitoring of bycatch, discards and ALDFG built			

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
Component 3: Encouraging behavioural change for adoption of effective bycatch mitigation, discard reduction and ALDFG management measures in target CLME+ fisheries, supporting the implementation of the CLME+ SAP particularly through actions to encourage responsible	Technical Assistance	Outcome 3.1: Incentives, strategies and measures to support behavioural change of stakeholders towards more responsible fishing practices developed and widely available in target CLME+ fisheries (focused on management of bycatch, reduction of discards and addressing ALDFG) *Indicator 11: Number of new or upgraded target fisheries initiatives focused on bycatch reduction and ALDFG mitigation* *Indicator 12: Number of target fisheries enterprises (including fishing cooperatives) accessing new or improved financial instruments (investments, grants, loans) in support of bycatch management, discard reduction and ALDFG management measures*	Output 3.1.1: Socio-economic (including cost-benefit) analyses associated with adoption of mitigation technologies and measures to manage bycatch and reduce discards and the adverse effects of fishing gears undertaken and promoted, with results communicated to key fishery industry stakeholders in target CLME+ fisheries	GET	900,000.00	4,210,199.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
fisheries practices (Strategy 2)			Output 3.1.2: Strategies, measures and opportunities to encourage fishers and markets to reduce incidental and unwanted bycatch identified, developed and piloted Output 3.1.3: Legal and financial frameworks revised to promote new opportunities related to better bycatch management, discards reduction and to address ALDFG			

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
Component 4: Knowledge Management and lesson learning, supporting implementation of the CLME+SAP at the regional level (Strategy 3)	Technical Assistance	Outcome 4.1: *Knowledge of measures, options and incentives for effective bycatch management, discards reduction and to address ALDFG to improve sustainability of fisheries increased among key stakeholder groups (individual fishers, fishing industry and fish-buying public)* *Indicator 13: Percentage increase in knowledge of issues and solutions related to bycatch, discards and ALDFG among national fisheries staff compared with baseline levels at start of project implementation according to project surveys practice and lessons learned)* *Indicator 14: Level of engagement in IW:Learn activities through participation and delivery of key products (GEF Indicator 7.4**[1]**).* Outcome 4.2: Effective gender-responsive project implementation based on adaptive management *Indicator 15: Recommendations from operational M&E system (including PSC and PIR recommendations) fed back into project implementation* [1] https://www.thegef.org/sites/default/files/documents/2022-05/EN_GEF_C.62_Inf.12_GEF-8%20Results%20Measurement%20Framework%20Guidelines_0.pdf	Output 4.1.1: Outreach Strategy and Plan to promote greater understanding of bycatch management, discards reduction and to address ALDFG and mitigation practices in target fisheries developed and implemented Output 4.1.2: Project successes, experiences, recommendations, and lessons learned for successful impleme	GET	523,000.00	2,597,400.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
			ntation of effective bycatch management, discard reduction and ALDFG mitigation measures identified and disseminated. Output 4.1.3: Roadmap and materials for scaling successful project solutions for better management of bycatch, reduction of discards and addressing ALDFG in CLME+ fisheries and beyond developed and			

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
			promoted by relevant stakeholders, including 1% allocation to IW:LEARN activities. Output 4.2.1: A gender-responsive project Monitoring and Evaluation (M&E) system using data disaggregated by sex, age and ethnicity designed and operational, and in line with FAO and GEF requirements Output 4.2.2. Mid-term Review and			

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
			Terminal Evaluation carried out			
				Sub Total ($)	**5,075,669.00**	**28,121,858.00**
Project Management Cost (PMC)						
		GET	253,783.00			2,214,354.00
		Sub Total($)	**253,783.00**			**2,214,354.00**
		Total Project Cost($)	**5,329,452.00**			**30,336,212.00**

Please provide justification

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	Investment Mobilized	Amount($)
Recipient Country Government	Fisheries Division, Blue Economy Division, Ministry of Environment and National Beautification, Green and Blue Economy, Government of Barbados	In-kind	Recurrent expenditures	3,000,000.00
Recipient Country Government	Fisheries Department, Government of the Cooperative Republic of Guyana	In-kind	Recurrent expenditures	1,500,000.00
Recipient Country Government	Fisheries Department, Ministry of Agriculture, Animal Husbandry and Fisheries, Government of the Republic of Suriname	Grant	Investment mobilized	500,000.00
Recipient Country Government	Fisheries Department, Ministry of Agriculture, Animal Husbandry and Fisheries, Government of the Republic of Suriname	In-kind	Recurrent expenditures	2,000,000.00
Recipient Country Government	Fisheries Division, Ministry of Agriculture, Land and Fisheries, Government of the Republic of Trinidad and Tobago	Grant	Investment mobilized	111,504.00
Recipient Country Government	Fisheries Division, Ministry of Agriculture, Land and Fisheries, Government of the Republic of Trinidad and Tobago	In-kind	Recurrent expenditures	508,053.00
Recipient Country Government	Department of Marine Resources and Fisheries, Division of Food Security, Natural Resources, the Environment and Sustainable Development, Tobago House of Assembly	In-kind	Recurrent expenditures	208,939.00

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount($)
Recipient Country Government	Environmental Management Authority (EMA)	In-kind	Recurrent expenditures	192,501.00
GEF Agency	Food and Agriculture Organization of the United Nations (FAO) - Sub-Regional Office for the Caribbean	In-kind	Recurrent expenditures	224,840.00
GEF Agency	Food and Agriculture Organization of the United Nations (FAO) ? Country Office Guyana	In-kind	Recurrent expenditures	726,120.00
GEF Agency	Food and Agriculture Organization of the United Nations (FAO) ? Country Office Suriname	In-kind	Recurrent expenditures	100,000.00
GEF Agency	Food and Agriculture Organization of the United Nations (FAO) ? Country Office Trinidad and Tobago	In-kind	Recurrent expenditures	100,000.00
Other	Western Central Atlantic Fishery Commission (WECAFC)	In-kind	Recurrent expenditures	144,000.00
Donor Agency	National Oceanic and Atmospheric Administration (NOAA)	In-kind	Recurrent expenditures	8,978,000.00
Donor Agency	International Whaling Commission (IWC)	In-kind	Recurrent expenditures	850,000.00
Donor Agency	UNEP Cartagena Convention Secretariat	In-kind	Recurrent expenditures	950,000.00
Civil Society Organization	Future Fishers, Trinidad and Tobago	In-kind	Recurrent expenditures	815,796.00

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount($)
Civil Society Organization	Centre for Development and Sustainable Fisheries (CeDePesca)	In-kind	Recurrent expenditures	100,000.00
Civil Society Organization	Nature Seekers	In-kind	Recurrent expenditures	92,323.00
Other	Centre for Resource Management and Environmental Studies CERMES	In-kind	Recurrent expenditures	100,000.00
Other	The University of the West Indies St. Augustine Campus, Faculty of Food and Agriculture (UWI-STA-FFA)	In-kind	Recurrent expenditures	561,000.00
Private Sector	Guyana Association of Trawler Owners and Seafood Processors (GATOSP)	In-kind	Recurrent expenditures	1,000,000.00
Private Sector	Surinaamse Seafood Associate (S.S.A)	In-kind	Recurrent expenditures	300,000.00
Civil Society Organization	Guyana National Fisherfolk Organization (GNFO)	In-kind	Recurrent expenditures	600,000.00
GEF Agency	Food and Agriculture Organization of the United Nations (FAO) ? HQ (NFI)	In-kind	Recurrent expenditures	3,000,000.00
GEF Agency	Food and Agriculture Organization of the United Nations (FAO) ? HQ (NFIFO)	In-kind	Recurrent expenditures	1,800,000.00
GEF Agency	Food and Agriculture Organization of the United Nations (FAO) ? HQ (LEGN)	In-kind	Recurrent expenditures	473,136.00
Private Sector	Sujal Trading NV	In-kind	Recurrent expenditures	200,000.00

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount($)
Private Sector	VaYu Fisheries NV	In-kind	Recurrent expenditures	100,000.00
Private Sector	CARIB FISHERIES N.V.	In-kind	Recurrent expenditures	100,000.00
Private Sector	N.V. HOLSU	In-kind	Recurrent expenditures	200,000.00
Private Sector	Marisa Fisheries NV	In-kind	Recurrent expenditures	375,000.00
Private Sector	V.O.F Nathan Fisheries	In-kind	Recurrent expenditures	150,000.00
Private Sector	SURINAME SEA CATCH N.V.	In-kind	Recurrent expenditures	175,000.00
Donor Agency	Global Ghost Gear Initiative (GGGI)	In-kind	Recurrent expenditures	100,000.00
			Total Co-Financing($)	**30,336,212.00**

Describe how any "Investment Mobilized" was identified

Animal Husbandry and Fisheries, Government of the Republic of Suriname is providing: 1. USD$80,000 from the project ?Modernizing fisheries data collection and data management Project? (part of USD$200,000) 2. USD$247,000 from the project ?Improving fisheries research: conducting biomass estimates for target species and monitoring ecosystem impacts? (part of USD$327,500) 3. USD$35,000 from the project ?Capacity building and support for the artisanal fishery? (part of USD$50,0000) 4. USD$138,000 from the project ?Strengthening Monitoring, Control and Surveillance in the battle against IUU fisheries? (part of USD$800,000) For Trinidad and Tobago, some co-financing from Fisheries Division, Ministry of Agriculture, Land and Fisheries, Government of the Republic of Trinidad, and Tobago (USD$ 111,504) was reported as ?Investment Mobilized? because it excludes recurrent expenditures and comes from the Division?s Public Sector Investment Program (PSIP). Note: The dollar amount shown above represent the approximate value of the components relevant for this GEF project of the investments listed above. For this reason, only a fraction of these investments listed in the Co-Financing letters have been listed according to how much falls within the project?s target area and into the relevant time frame.

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	Amount($)	Fee($)	Total($)
FAO	GET	Regional	International Waters	International Waters	5,329,452	506,298	5,835,750.00
			Total Grant Resources($)		**5,329,452.00**	**506,298.00**	**5,835,750.00**

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 **true**

PPG Amount ($)

150,000

PPG Agency Fee ($)

14,250

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount($)	Fee($)	Total($)
FAO	GET	Regional	International Waters	International Waters	150,000	14,250	**164,250.00**
				Total Project Costs($)	**150,000.00**	**14,250.00**	**164,250.00**

Core Indicators

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

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
5,229,500.00	5,299,500.00		

Indicator 5.1 Fisheries under third-party certification incorporating biodiversity considerations

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

Type/name of the third-party certification

Indicator 5.2 Large Marine Ecosystems with reduced pollution and hypoxia

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

LME at PIF	LME at CEO Endorsement	LME at MTR	LME at TE

Indicator 5.3 Marine OECMs supported

Name of the OECMs	WDPA-ID	Total Ha (Expected at PIF)	Total Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)

Indicator 7 Shared water ecosystems under new or improved cooperative management

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Shared water Ecosystem	Caribbean sea, North Brazil Shelf	Caribbean sea, North Brazil Shelf		
Count	**2**	**2**	**0**	**0**

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

Shared Water Ecosystem	Rating (Expected at PIF)	Rating (Expected at CEO Endorsement)	Rating (Achieved at MTR)	Rating (Achieved at TE)
Caribbean sea	4	4		
North Brazil Shelf	4	4		

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

Shared Water Ecosystem	Rating (Expected at PIF)	Rating (Expected at CEO Endorsement)	Rating (Achieved at MTR)	Rating (Achieved at TE)
Caribbean sea	3	4		
North Brazil Shelf	3	4		

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

Shared Water Ecosystem	Rating (Expected at PIF)	Rating (Expected at CEO Endorsement)	Rating (Achieved at MTR)	Rating (Achieved at TE)
Caribbean sea	3	3		
North Brazil Shelf	3	3		

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

Shared Water Ecosystem	Rating (Expected at PIF)	Rating (Expected at CEO Endorsement)	Rating (Achieved at MTR)	Rating (Achieved at TE)
Caribbean sea	3	4		
North Brazil Shelf	3	4		

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

Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)
37,000.00	37,418.00		

Fishery Details

The ?over-exploited marine fisheries moved to more sustainable levels? core-indicator was calculated as the 25% of the overall catch in the target fisheries (landings: 94,800 tons; discards: 55800 tons). Source: P?rez Roda et al. [1]

Indicator 11 People benefiting from GEF-financed investments

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female	2,670	4,480		
Male	6,600	6,267		
Total	9270	10747	0	0

Provide additional explanation on targets, other methodologies used, and other focal area specifics (i.e., Aichi targets in BD) including justification where core indicator targets are not provided

Part II. Project Justification

1a. Project Description

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•1) Global environmental and/or adaptation problems, root causes and barriers that need to be addressed (systems description)

i. Project context

The Caribbean and North Brazil Shelf Large Marine Ecosystems (jointly referred to as ?the CLME+ region?) are bordered by 26 Sovereign States and 18 Overseas Territories (Figure 1) and cover an area of 4.4 million km2. The CLME+ region is regarded as one of the most geopolitically diverse and complex LMEs in the world. The culturally diverse countries and territories that border these LMEs area range from among the largest (e.g. Brazil, Colombia) to among the smallest (e.g. Barbados, St. Kitts and Nevis) and from some of the most developed to the least developed in the world. It also includes the world?s largest grouping of Small Islands Developing States (SIDS), consisting of 23 independent countries and overseas territories. As a result, there is an extremely wide range in national capacities for managing living marine resources.

Figure 1. The CLME+ region as defined under the UNDP/GEF ?CLME+? project.

The marine and coastal systems of the CLME+ region support exceptionally high levels of unique marine biodiversity including many Endangered, Threatened and Protected (ETP) species, including sharks, rays, sea turtles, and marine mammals. The term ETP species refers to those species which are protected under national legislations and international listings and assessments (e.g. the IUCN Red List, the Marine Stewardship Certification (MSC) fishery standard). International listings classifying ETP species include the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and the Convention on the Conservation of Migratory Species of Wild Animals (CMS) . For instance, in a recent assessment, the Wider Caribbean Sea Turtle Conservation Network (WIDECAST) identified in the CLME+ region 1,341 nesting grounds for six sea turtle species, including 592 sites for the green turtle. In addition, approximately 10% of the world?s coral reefs, and around 20% of the remaining mangrove forests are located within the CLME+ region, and it is estimated that at least 25-50% of the world?s seagrass beds are within the CLME+ region. Mangrove forests, seagrass beds and salt marshes provide nursery grounds for regionally and globally important fish stocks, and globally contribute almost 50% of the total organic carbon buried in ocean sediments (known as ?blue carbon?), and consequently these habitats also help in mitigating the rise in atmospheric greenhouse gases (GHG).

The continental shelf and pelagic ecosystems are also of high relevance for fisheries. The CLME+ region supports an important fishing sector (both industrial and small-scale fisheries, as well as recreational), which along with tourism forms the main source of livelihoods for people living in the coastal areas. Indeed, fisheries are a key economic driver for the region?s economy and a significant provider of nutrition and food security, jobs and income. It is estimated that more than 900,000 people are employed directly in capture fisheries, with another 3 million jobs in ancillary activities such as processing, net-making and boat building. Some 890,500 tonnes of fish were caught in 2014 in the region as a whole, worth approximately US$ 2 billion, although these figures are not considered to reflect the true importance of the region?s fisheries as in many CLME+ countries there are significant Small Scale Fisheries (SSF) that are under-reported. Moreover, many SIDS (including those in the CMLE+ region) are highly dependent on fish for food with annual individual per capita consumption rates of twice the world average.

The fisheries of greatest importance are offshore pelagics, reef fishes, lobster, conch, shrimps, continental shelf demersal fishes, deep slope and bank fishes, and coastal pelagics [8]. Demersal fish and shrimp are the main fishery resources in coastal waters and on the continental shelf, and in common with other tropical and sub-tropical regions, they are particularly important for livelihoods and food security [14] and can be an important source of foreign exchange for some of the region?s countries. Indeed, the economic and social importance of fisheries and the need for sustainable fisheries is recognised in many regional and national policies and plans and highlighted in the 10-year Strategic Action Programme (2015-2025) prepared for the CLME+ region, termed the CLME+ Strategic Action Programme (SAP) [15].

ii. Problem/threats

As for many other tropical and sub-tropical LMEs, there are a number of threats to the CLME+ region?s marine ecosystems and challenges to the sustainable use of its marine natural resources, including overexploitation of its fisheries. Despite their importance, most coastal fisheries resources in the CLME region are considered to be overexploited with some 55 percent of the commercially harvested fisheries stocks already overexploited or depleted and some 40 percent of the stocks fully exploited.

In general, both active and passive gears are not 100% efficient. In many fisheries it is not possible to directly target one species without incidentally capturing others ? including fish and invertebrates, marine mammals, and sea turtles ? and/or to entirely avoid the capture of juveniles or other undesired individuals of the target species. In some instances, this bycatch may be retained by the fishery, although it is often returned to the water, where survival rates vary. Bycatch, is compounded by overfishing and a serious threat that causes needless loss of fish along with thousands of individuals of ETP species, particularly sharks and marine turtles. Bycatch is a pervasive problem in world fisheries. Every year the world?s fisheries catch more than 20 million tonnes of bycatch ? an estimated 25 percent of the global marine capture fisheries production ? and discard about 9.1 million tons. This represents significant losses in terms of biomass and biodiversity and, in some coastal fisheries, a large percentage of bycatch are juveniles of commercially important fish which threatens the long-term sustainability of these fisheries. In addition, bycatch represents a wasteful use of natural resources [18], negatively impacts food security and reduces efficiency of fishing operations threatening economic as well as biodiversity and ecological losses.

Box 1: Definitions

1. Bycatch

The definition of bycatch used in this project is adapted from Roda et al. [1]: ***Bycatch*** *is the catch of organisms that are not targeted. This includes organisms that are outside legal-size limits, over-quotas, threatened, endangered and protected species, and discarded for whatever other reasons, as well as non-targeted organisms that are retained and then sold or consumed*. Bycatch can then be divided into the following components:

Retained bycatch - retained catch of non-targeted organisms (landed bycatch or by-product), including juveniles of the target species, excluding ETP species.

Unwanted bycatch - non-desired and discarded portion of the catch because of economic, legal, or personal considerations. These animals are thrown back (alive or dead) into the sea and can also include juveniles of the target species.

Incidental bycatch of Endangered, Threatened, and Protected (ETP) species.

The term ?bycatch? is relatively easy to categorize in industrial fisheries of developed countries but becomes increasingly difficult when considering Small Scale Fisheries (SSF) where almost all components of the catch can have some economic value and may therefore be a target for the fishery [1]. REBYC-III CLME+ project addresses all three subsets of bycatch.

2. Discards

The definition of discards used in this project is: ***Discards****, or discarded catch, is that portion of the total organic material of animal origin in the catch that is thrown away or dumped at sea for whatever reason. It does not include plant materials and post-harvest waste such as offal. The discards may be dead, or alive* [1].

The 1995 FAO Code of Conduct for Responsible Fisheries [20] provides principles and standards for the sustainable use of aquatic ecosystems. Among other provisions, the Code calls on States to adopt measures to minimize catch of non-target species, waste, and discards that include *?to the extent practicable, the development and use of selective, environmentally safe and cost-effective fishing gear and techniques?*. In addition, the voluntary FAO International Guidelines on Bycatch Management and Reduction of Discards [19], adopted in 2011, provide assistance to States in implementing the Code and an ecosystem approach to fisheries management. In addition to addressing bycatch and reducing discards, the FAO International Guidelines on Bycatch Management and Reduction of Discards [19] stress the need to also address the impact of pre-catch mortality and ?ghost fishing?. These impacts, together with fishing mortalities associated with IUU fishing and habitat degradation have been collectively referred to as ?unaccounted fishing mortality? by ICES since 1995 [21, 22] (full details on Annex M).

3. ALDFG

Fishing gears that are abandoned, lost or discarded due to a variety of reasons are collectively referred to as **abandoned, lost or otherwise discarded fishing gear (ALDFG)**. The *Voluntary Guidelines on the Marking of Fishing Gear* [11] authoritatively define ALDFG as:

Abandoned fishing gear - means fishing gear over which that operator/owner has control and that could be retrieved by owner/operator, but that is deliberately left at sea due to force majeure or other unforeseen reasons.

Lost fishing gear - means fishing gear over which the owner/operator has accidentally lost control and that cannot be located and/or retrieved by the owner/operator.

Discarded fishing gear - means fishing gear that is released at sea without any attempt for further control or recovery by the owner/operator.

Incidental bycatch is also a conservation issue in the CLME+ region that affects marine mammals, sea turtles, sharks, and other groups. Bycatches can have an impact on biodiversity by affecting top predators, removing individuals from many species, or eliminating prey. Excessive levels of non-target marine ETP species continue to be caught incidentally during active fishing, negatively impacting their populations with wider impacts on marine food webs and marine biodiversity, including sea turtles and marine mammals. FAO estimates that bycatch of ETP species in marine fisheries adds up to some 8.5 million turtles, 225,000 sea snakes, 650,000 marine mammals and 10 million sharks, accounting for at least around 20 million individuals annually. Fishing gears such

as gillnets, longlines and seines can also produce high levels of unwanted bycatch and, in critical regions, particularly threatened ETP species.

A FAO review of bycatch and discards generated by all legal fishing practices found that bottom trawling tends to have the highest overall levels of discards (accounting for 46% of global discards). Gillnets, longlines and other static fishing gears are often considered to have fewer overall environmental impacts than mobile fishing gears such as trawls, nevertheless there are concerns that they may contribute to stock depletions of specific species as a consequence of bycatch. In addition to the target and non-target catch, fishing gears, including gillnets and longlines, can cause unwanted mortalities (of both commercial and non-target species) due to a variety of effects, including the potential to continue fishing (often referred to as ?ghost fishing mortality?) from Abandoned, Lost or otherwise Discarded Fishing Gear (ALDFG), increased predation or infections of injured fish that escape or drop out of the gear during the capture process, as well as habitat damage. Ghost fishing can continue to catch both commercially important fish species and non-target species, representing an additional loss of fish (bycatch) and therefore potential food, revenue and livelihoods to local fisheries. In the Caribbean region, storms and hurricanes cause substantial loss of fishing gears, particularly passive gears (e.g., gillnets, trammel nets and traps), which are a source of ALDFG. Global climate change is expected to increase the frequency and intensity of storms and hurricanes so this problem is likely to be exacerbated. ALDFG can also entangle and kill non-fish species, such as marine mammals, or through ingestion of fragments of ALDFG (often made of plastic) by turtles and other groups. ALDFG is also known to cause physical damage to marine habitats, including fouling sensitive marine benthic habitats such as coral reefs and seagrass meadow in coastal waters, and can have far-reaching impacts on marine ecosystems, fisheries resources and coastal communities. ALDFG is a significant component of marine litter washed up on beaches and particularly gillnet and trammel nets as well as other passive fishing gears such as longlines, traps and pots. It also poses problems to navigation and safety at sea. Exact figures for the amount of ALDFG in the oceans are not available but recent studies suggest that more than 25 million pots and traps, 218 km2 of trawl nets, 739,583 km of longline mainlines, and roughly 2% of all fishing gear are lost to the ocean each year [36]. Another estimate puts the amount of ALDFG entering the marine system at 875,000 tonnes each year.

Fisheries in the CLME+ region vary widely in terms of their levels of fishing effort, vessel and gear used, and approach to their development and management. A number of fishing techniques are typically employed in small-scale operations including barriers or corrals, longlines, and gillnets, whereas industrial fisheries use lines and large traps to harvest lutjanids and carangids and trawling to harvest shrimp on the continental shelf. All of these can have significant bycatch and produce discards. For example, recent data from the four participating countries [1] show preliminary estimated discard ratios of commercial species around 22% in gillnets fisheries, 7-10% in longline fisheries in Barbados and Trinidad and Tobago, 23% in demersal trawl fisheries in Suriname and 46% in Guyana (targeting demersal fish and crustaceans, respectively). In Suriname, bottom trawl, gillnet and longline fisheries are known to capture marine turtles (the capture of Leatherback turtles is particularly worrying), along with species of rays and sharks, including endangered species (e.g. giant manta ray), and occasionally also dolphins. In Trinidad and Tobago,

there is an especially high level of incidental bycatch of marine turtles in artisanal gillnets on the north-east and east coasts of Trinidad, and preliminary studies from Barbados show that 15 marine turtles (predominately leatherback turtles Dermochelys coriacea) per 100,000 hooks are caught in the country?s artisanal pelagic longline fisheries.

The REBYC-III CLME+ project focuses on the management of bycatch and reduction of discards but also addresses the adverse impacts of fishing gears on marine habitats and biodiversity including caused by ALDFG and ghost fishing mortality. It will introduce new approaches and an increased emphasis particularly on SSF which, given their dominance in the region, have a significant cumulative impact on the sustainability of fisheries and food security in the region. It builds on the results of the REBYC-II LAC project, which advanced best practices in addressing bycatch in bottom trawl fishing in the CLME+ region and expands the scope to address bycatch in other gear types, notably gillnets and longlines, and for other countries in the region.

iii. Causes and Drivers (of the problem)

The problem of bycatch in the CLME+ region is the result of a number of factors, including gaps in fisheries governance and management, inadequate or destructive fishing practices (e.g. fishing in the wrong habitat) and poor gear selectivity across most of fishing fleets (trawl and non-trawl target fisheries). These problems have been well-documented for decades, and indeed, the CLME+ SAP states that ?unsustainable fisheries, habitat degradation and pollution have been identified as the three most important problems impacting the societal benefits obtained from marine ecosystems?. [?] The problem of the unsustainability of fisheries and fishery practices in the region originates from a multitude of causes including the over-harvesting of target stocks and the direct and indirect impacts of activities on species, size groups or life stages that are not directly targeted by the fishery (e.g. ?bycatch?, use of destructive or ?harmful? practices or gear that leads to habitat degradation or destruction). These impacts may be exacerbated by climate change.

The economic reality of the fisheries sector is one of both global and local drivers. The demand for fish and fish products (for human consumption and for animal feed and the aquaculture sectors, as well as for non-food uses such as pharmaceuticals) continues to grow globally, regionally and locally. Essentially, this comes down to excessive demand for a limited resource which threatens long-term sustainability of fisheries.

Unfortunately, a reduction of stocks often leads to an increased fishing effort and decreasing catches, which compounded by increasing costs of fishing operations threatens the long-term viability of these fisheries and the social and economic conditions of coastal fishery dependent communities. Demand for fish and fish products is also fuelled by government policies and incentives (financial, fiscal) that encourage investment in fisheries leading to overcapacity of the fishing fleets (too many boats chasing too few fish) across the region. Related to the latter are government policies that stress fish and marine resources as essential for food security in some countries, particularly as a source of protein (although this can also be seen as a driver for reducing waste in fisheries industry) and as key parts of the economy (providing revenue and jobs) including for lucrative export markets (which can then reduce availability for local consumers). Technological developments, such as improved engines, haulers, more efficient fishing gears, fish

location equipment, combined with increasing costs of fishing operations (such as for fuel), also influence fishing intensity and efficiency encouraging short-term gains and long-term losses.

iv. Barriers

Despite previous attempts to address bycatch in specific fisheries in the CLME+ region, four main barriers continue to frustrate attempts to achieve long-term solutions to effective bycatch management and sustainable fisheries.

Barrier 1. Limited availability and awareness of selective fishing approaches and technologies to address bycatch and discards and other damage to the marine environment

Some bycatch mitigation technologies have been tested and introduced to a small number of fisheries in the CLME+ region, including turtle excluding devices (TEDs) in shrimp fisheries of Trinidad and Tobago, Guyana and Suriname, and bycatch reduction devices (BRDs) for fish trawl fisheries in Suriname. However, selective fishing technologies to avoid bycatch and reduce pre-catch mortality are still of limited availability and effectiveness for many fisheries, particularly for some ETP species and in SSF (including artisanal fisheries). In addition, measures to address ALDFG remain underdeveloped in both industrial and small-scale fisheries. The situation is further compounded by the need to overcome established ways of fishing and risk aversion (inertia) to adopting new untried technology and practices among fisheries stakeholders. Improved knowledge (and its availability) of the positive effects of different bycatch and discard management measures, including technologies, on fish and fisheries is also needed to enable management authorities to better engage in timely evidence-based decision-making. In addition, awareness of potential strategies and technological developments to address bycatch in CLME+ fisheries remain limited among government representatives and fishing communities, and many countries do not have a robust framework for distributing information on bycatch mitigation measures on a regular basis or in an appropriate format.

Barrier 2. Insufficient governance and management addressing bycatch with limited control, compliance and enforcement of current rules governing bycatch and discards

Many countries in the CLME+ regions have not yet fully updated their fisheries policies and regulatory frameworks to reflect international requirements or best practice approaches to address bycatch and incidental mortality (e.g. ICCAT reporting on bycatch for tuna fisheries among member states), or management frameworks related to the implementation of the Ecosystem Approach to Fisheries (EAF). Indeed there is a clear need for better mainstreaming of the EAF concept, including the socio-economic dimensions, into fisheries management policy, regulations and practices. Furthermore, there is limited control, compliance and enforcement of even current rules governing bycatch and discards, including those implemented as part of the recently completed FAO-GEF REBYC-II LAC project in which the current project builds. In addition, poor resources for collecting fisheries data and difficulties in monitoring these fisheries have prevented more effective management actions to address undesirable bycatch levels. Limited monitoring, control and surveillance (MCS) efforts due to low capacity and resources among relevant agencies are a critical barrier, including underdeveloped tracking and reporting technologies (e.g. Electronic Monitoring Systems (EMS)). More generally, there is limited experience with Information and Communication Technologies (ICT) for fisheries reporting and

management. Underlying this barrier is a limited involvement by key stakeholder groups (especially from the community level) in decision-making on fisheries management with few arrangements or opportunities for co-management.

Barrier 3. Lack of incentives and sufficient opportunities to encourage adoption of bycatch and ALDFG management measures

Another critical barrier is the lack of incentives and sufficient opportunities to encourage and support fishers to adopt more responsible fisheries practices such as the uptake of bycatch mitigation approaches/technologies. Incentives, such as supportive government policies, easy access to financing for small scale fishers, fiscal incentives that encourage investment in equipment/technology, better developed value chains for fish products, access to certification schemes and promotion of co-management arrangements are largely lacking. The situation is exacerbated by lack of knowledge of the benefits (financial, social, climate resilience, environmental) from following responsible fishing practices and the opportunities to address bycatch in more sustainable ways, along with poor capacity, especially at the community level, to be able to access existing opportunities. For instance, there is a need for improved small business skills development among fisherfolk communities, with tailored support particularly for women, along with better awareness among financing institutions (credit unions, banks, grant-making bodies) of the benefits of investing in fisheries managed for sustainability and the financial risks from investing in those that are not compliant with EAF practices.

Barrier 4. Lack of knowledge and availability of information on threats posed by bycatch and to promote adoption of effective solutions to manage bycatch, reduce discards and address ALDFG

There is limited awareness among policy makers, fisheries managers, fishing industry and fishing communities on the impact that bycatch and discards can have on livelihoods and the marine environment, and the damage that can be created by ALDFG, or conversely of the multiple benefits that can be derived from adopting responsible fishing practices and the EAF. Underlying this is a lack of easily available, open-access information on good practices, promising technologies and tools, and smart solutions for sustainable management of commercially important fish stocks, including how best to address bycatch and reduce discards and the cost/benefits of their introduction (e.g less energy intensive gears). Also, there is a clear need for better promotion of successful examples of market approaches to incentivising uptake of bycatch mitigation measures and case studies of successful business ventures that address the issue in both SSF and industrial fisheries.

Impact of COVID pandemic on region and fisheries management

A recent event that has acted against wider adoption of sustainable fisheries practices has been the COVID pandemic. COVID-19 has impacted on the life of many Caribbean and South American countries, including Barbados, Guyana, Suriname and Trinidad and Tobago, and exposed deeper vulnerabilities in their economic and social systems. According to the John Hopkins University of Medicine statistics Suriname had 81,581 COVID cases and 1,393 COVID-related deaths, Guyana had 71,757cases and 1,285 deaths, Trinidad and Tobago had 186,000 cases and 4,271 deaths, and Barbados had 105,000 cases and 568 deaths (information accessed on 16 December 2022). Apart from the direct threat to people?s health, the disease has heavily impacted the region?s economy.

As a result, the Caribbean GDP is expected to contract significantly more than the global average as a consequence of Covid-19 increasing the already high vulnerability to climate change, hurricanes and other shocks that affect the region. The developing country status of the participating countries constrains the capacity of local authorities and international agencies to deal with pandemics, making them especially vulnerable to the economic and social impacts of the Coronavirus. As with many crises, the most vulnerable groups, such as coastal communities and informal workers, have suffered the greatest hardship, with decreased incomes and employment, increased poverty and food insecurity. According to the FAO publication Food system and COVID-19 in Latin America and the Caribbean: Towards inclusive, responsible and sustainable fisheries and aquaculture (Bulletin 15 25/09/2020), the pandemic has affected the operation of both the industrial and small-scale sectors of the fishing industry in the region.

The project aims to develop measures to overcome the above four barriers, each of which is addressed by a specific component and associated outcomes and outputs, which help support COVID recovery efforts.

v. Choice of target countries for REBYC-II CLME+ project

Barbados, Guyana, Suriname and Trinidad and Tobago were chosen for a number of reasons, namely:

- The recommendations of the REBYC-II LAC?s Terminal Evaluation [50]. Although Suriname and Trinidad and Tobago participated in REBYC-II LAC project, its Terminal Report and Terminal Evaluation along with feedback from technical staff involved with the REBYC-II LAC project indicated that further support is required to successfully implement bycatch mitigation measures in both countries? trawl fisheries as well for other fishing gears not addressed by REBYC-II but proposed under REBYC-III.
- Barbados and Guyana did not participate to REBYC-II LAC yet have significant issues with bycatch and discards. This was recently flagged in a 2021 NOAA report to the US Congress on Improving International Fisheries Management which identified nations and entities that had inadequate conservation measures to protect from illegal, unreported, and unregulated (IUU) fishing activities and bycatch of protected marine life on the high seas. Barbados, Guyana, and Trinidad and Tobago were listed due to current inadequate management measures to reduce bycatch of sea turtles in their fisheries. This listing could limit the ability of these countries to export seafood products to the US and consequently has potential negative economic/financial impacts.
- The four countries have commonalities in fishing methods employed and target species (such as shrimp and demersal trawl fisheries in Guyana, Suriname and T&T, and flyingfish, tuna and dolphin fish between Barbados and T&T), and common bycatch issues, which facilitates the application and up-scaling of bycatch and discard mitigation measures across the CLME+ region, and exchange of good practices.
- The selected countries also benefit from the presence of political support at ministerial level for sustainable fisheries, which is vital for project success both in the short term, and over a longer period once the project has finished.

2) Baseline scenario and any associated baseline projects

There are a number of key strategies, plans, programmes and other initiatives at regional and national level that provide the baseline for this project, which are outlined below. More background on the fisheries and their current management in Barbados, Guyana, Suriname and Trinidad and Tobago is given in Annex N.

a. Regional or global programmes and interventions

i. CLME+ Strategic Action Programme (SAP)

The proposed project builds on the significant progress made by a series of initiatives and investments (including GEF-funded projects) across the CLME+ region. Chief amongst these is the CLME Transboundary Diagnostic Analysis (TDA) and 10-year (2015-2025) Strategic Action Programme for the Sustainable Management of the Shared Living Marine Resources of the Caribbean and North Brazil Shelf Large Marine Ecosystems (CLME+ SAP). These present the key baseline analyses, programmes and knowledge from which to build discussion on sustainable fisheries opportunities at the national level. The SAP has been endorsed at the political level by 25 countries from the CLME+ region. Three cross-cutting and inter-linked priority transboundary threats were identified by the TDA: (a) unsustainable use of fisheries resources, (b) habitat degradation and modification of the community structure of ecosystems, and (c) pollution, and the SAP identifies 77 priority actions structured under 6 Strategies and 4 Sub-strategies to address these. The catalytic implementation phase of the SAP, which was delivered through the CLME+ Project and involved all four target countries of the proposed project, has recently ended, but the baseline efforts of the CLME+ investments have provided the critical regional roadmap for transboundary management of marine resources for the CLME+.

Box 2: REBYC-III CLME+ project link to the implementation of the CLME+ SAP

The proposed project particularly seeks to support the implementation of the regional governance arrangements for sustainable fisheries (Strategy 2), the regional coordination mechanisms for ocean governance with initial focus on shared CLME+ Living Marine Resources (Strategy 3), and efforts to enhance the governance arrangements for implementing an ecosystem approach for pelagic fisheries (Strategy 5). More specifically, the proposed project will support the implementation of sub-strategy 5B (large pelagics fisheries) through supporting appropriate measures to strengthen integrated and sub-regional Spatial Decision Support Systems (SDSSs) for both small-scale artisanal fisheries (SSFs) and industrial fisheries following an Ecosystem Approach to Fisheries (EAF). Together these will help meet the Ecosystem Quality Objective of the SAP of ?restoration and maintenance of fish stocks at a sustainable level and adoption of responsible fishing operations and fisheries management practices?. In addition, the REBYC-III CLME+ project helps address the wider vision statement of the CLME+ SAP - ?*a healthy marine environment in the CLME+ provides benefits and livelihoods for the well-being of the people of the region?*, and the SAP?s stated Societal Benefits Objective ?*Contribution to*

human well-being, socio-economic development, food security and enhanced livelihoods from goods and services provided by the ecosystems are optimized?.

Current progress on the implementation of the CLME+ SAP is reported on the clmeplus.org website ? SAP Actions Progress Tracking Portal. The most recent progress reported (website accessed on November 2022) indicates that for those actions under Strategy 2 of most relevance to the REBYC-III CLME+ project and which it seeks to contribute to, namely actions 2.4, 2.6, 2.7, 2.8, 2.10, 2.13 and 2.14 there has either been no or only a partial assessment or poor delivery to date. For SAP Strategy 3, current progress is better reported but those actions which the REBYC-III CLME+ project seeks to contribute to - 3.4 and 3.7 - are again only partially reported on but indicate support is still needed. For SAP Strategy 5, again progress on relevant SAP actions (5.2, 5.3, 5.4, 5.5 and 5.6), is limited or there have been no or only partial assessments which indicate that additional support is needed to deliver on this Strategy. For Strategy 5B, actions 5B.1, 5B.2 and 5B.4 are similarly only partially reported on or no assessment has been made. Hence, on the basis of the most recent reporting of implementation of the CLME+ SAP, measures proposed through the REBYC-III CLME+ project to support achievement of SAP actions remain highly relevant.

From a fisheries perspective, all four countries participating in the REBYC-III CLME+ project have been involved in the implementation of the CLME+ SAP. For instance, all four countries were involved with the WECAFC reorientation process and the RPOA-IUU development and have actively participated in capacity building of their fisheries administrations and other government agencies in Monitoring Control and Surveillance (MCS) training, among others (under Strategy 2); Trinidad and Tobago has been particularly active in contributing to the development of the regional policy coordination mechanism for ocean governance (Strategy 3); and Guyana, Suriname and Trinidad and Tobago participated in the CLME+ shrimp and groundfish subproject (covered under Strategy 6). Among other activities, the countries contributed to development of a subregional fisheries strategy and management plan for shrimp and groundfish resources, advanced the development of their national fisheries management plans with Suriname completing the process in early 2021, and these three countries have taken steps to improve their national fisheries statistical systems.

ii. Western Central Atlantic Fishery Commission (WECAFC)

The Western Central Atlantic Fishery Commission (WECAFC) is a Regional Fisheries Body (RFB) established in 1973 under FAO?s constitution to promote effective conservation, management and development of living marine resources within its area of competence. It includes Barbados, Guyana, Suriname and Trinidad and Tobago as members. As a key regional actor, WECAFC has been active in supporting institutional partnerships with other key multilateral organizations promoting the management of fisheries resources of the CLME+ in the WECAFC area. This includes promoting the development of strategies on bycatch and discards management (e.g. in the shrimp and groundfish bottom trawl fisheries). WECAFC has an extensive record of fisheries project implementation in the region. WECAFC is also involved in several joint working groups (WG) with other RFBs, particularly involving the Caribbean Regional Fisheries

Mechanism (CRFM), OSPESCA and the U.S. Caribbean Fishery Management Council (CFMC). Those most relevant to the REBYC-III CLME+ project include the CRFM/OSPESCA/WECAFC-FAO Regional Working Group on Illegal, Unreported and Unregulated Fishing (RWG IUU), the WECAFC-CRFM-OSPESCA - Fisheries Data and Statistics Working Group (FDS WG) and the WECAFC/OSPESCA/CRFM/CFMC Working Groups on recreational fisheries (RF WG), Sharks and Rays (SR WG), and Shrimp and Groundfish (SG WG). WECAFC and its WGs - through the Secretariat, in consultation with partner RFBs - will act as sources of technical inputs to the project as well as providing a channel to upscale project results over a wider geographic area through their member countries. The WECAFC Data Collection Reference Framework (DCRF) is a key instrument for WECAFC and source of information on status and trends of fisheries and stocks in the WECAFC area. It is both a capacity building tool, which can be used by Members as a reference standard to establish national data collection and information systems for aquatic marine species and also an instrument to support the scientific mandate and priorities of WECAFC, CRFM, and OSPESCA. Development of the DCRF is supported by FAO NFI and implemented through the WECAFC FDS WG. Information collected pursuant to this framework will be disseminated through the Western Central Atlantic Fisheries Information System (?WECAFIS?). The WECAFC Working Group on Shrimp and Groundfish in the Northern Brazil-Guianas Shelf provides technical and scientific advisory services relating to these transboundary fishery resources, such as information monitoring, stock assessments, and cross-national communications. The Working Group is also in the process of developing a sub-regional management plan for shrimp and groundfish.

iii. FAO interventions

Regionally relevant interventions

In addition to the WECAFC, FAO also has a number of programmes and projects relevant to the baseline for this project. These include the 5-year Intra-ACP Blue-Growth Programme for Sustainable Fisheries and Aquaculture Value Chains (FISH4ACP) initiative which aims to contribute to economic growth, job creation, food and nutrition security by improving the economic, social and environmental sustainability of fisheries and aquaculture value chains in African, Caribbean and Pacific (ACP) countries. Co-financing partners include the European Union (EU) and the German Federal Ministry for Economic Cooperation and Development (BMZ). The ongoing FISH4ACP has supported improvements to the productivity and competitiveness of the Atlantic seabob fishery in Guyana (the world?s largest producer of Atlantic seabob), a commercially important shrimp captured from the Atlantic coast of the US all the way down to Brazil. FISH4ACP is working to increase small-scale fisheries production in the sector and strengthen the role of women and youth, while seeking to improve safety and workers? rights. At the same time, it will support efforts to reduce bycatch, particularly endangered species such as the electric ray. Trinidad & Tobago and Suriname have also been receiving technical support through the FAO Project GCP/INT/228/JPN - ?Fisheries Management and Marine Conservation within a Changing Ecosystem? since 2016/2017 for the development of an integrated fisheries management information system e.g. the innovative new web-based NFI platform Calipseo , with initial focus on the Vessel Registry and Landings Database. Calipseo is an open-source web application for national fisheries information systems to manage administrative data, collect

fisheries dependent data, store all data in a secured way, compute collected data into statistical indicators, and exchange / disseminate statistics for analysis. FAO has also supported WECAFC with the development and implementation of the WECAFC Data Collection Reference Framework (see above). The FAO Fisheries Global and Regional Processes (NFIFP) team is responsible for providing global support for the implementation of the Agreement on Port State Measures (PSMA) which includes ongoing provision of support to CLME+ countries. The PSMA Secretariat is hosted by FAO at its Headquarters in Rome. The PSMA is the first binding international agreement to specifically target illegal, unreported and unregulated (IUU) fishing. Its objective is to prevent, deter and eliminate IUU fishing by preventing vessels engaged in IUU fishing from using ports and landing their catches. Support provided to States by FAO typically involves a needs assessment visit followed by support for the development/improvement of the national legal framework and trainings to facilitate Monitoring, Control and Surveillance (MCS) activities. FAO receives voluntary contributions from a number of Members to finance these ongoing activities, the EU is one of the major funders. The PSMA entered into force in June 2016 and the majority of CLME+ countries are Parties to the PSMA, including Barbados, Guyana and Trinidad and Tobago.

Actions to address bycatch

The FAO International Plan of Action for the Conservation and Management of Sharks (IPOA?SHARKS) was adopted in 1999 to respond to the widespread concern over the lack of management of shark fisheries and the impact that expanding catches may have on shark populations. This plan aimed at ensuring the conservation and management of sharks and their long-term sustainable use, with particular emphasis on improving species-specific catch and landings data collection, and the monitoring and management of shark fisheries. The IPOA?SHARKS recommends, inter alia, that all States contributing to fishing mortality on an elasmobranch species or stock should participate in its management and should develop a National Plan of Action for the Conservation and Management of Sharks (NPOA-SHARKS) before 2001. Currently a total of 31 national and 6 regional NPOA-SHARKS have been produced. Although gear modification and seasonal closures are considered the most promising measures to reduce the impacts of bycatch on sharks and rays, these measures are rarely implemented in CLME+ areas. Recent FAO activities addressing fishing gear interactions with non-target species include leading the development and publication of the Guidelines to Prevent and Reduce Bycatch of Marine Mammal in Capture Fisheries (FAO, 2021). Since publication of these technical guidelines, FAO has developed a series of marine mammal bycatch prevention factsheets in collaboration with the International Whaling Commission (IWC) to support implementation of the guidelines. These factsheets are due to be published online in the 1st quarter of 2023 as part of the FAO series of fishing technology fact sheets.

FAO Sea Turtle Guidelines

The FAO Guidelines to reduce sea turtle mortality in fishing operations was published in 2009 [55]. Sea turtles are affected by a range of different factors, some natural and others caused by human activities, including fishing operations. As a result, all sea turtle species whose conservation status has been assessed are considered to be threatened or endangered. These guidelines provide assistance for the preparation of national or multilateral fisheries management

measures and industry initiatives that may help to conserve sea turtles by reducing the negative impacts that fisheries may have on them. The guidelines are voluntary and non-binding. Their scope is global, but when they are implemented, national and regional diversity, including cultural and socio-economic differences, should be taken into account. These guidelines present our best understanding of how to reduce interactions between sea turtles and fishing gear and reduce the proportion of caught turtles that are killed as a result of interactions with marine capture fisheries. They include information about how to change fishing gear and fishing methods and how the fishing industry can adopt voluntary approaches to reduce sea turtle mortality. The guidelines make suggestions about implementing management actions, such as input and output controls and bycatch fees and they cover subjects such as bycatch hotspot avoidance, best practices for the handling and release of caught turtles and reducing derelict fishing gear and other marine debris. They also identify fisheries and areas where fishing may be a relatively important cause of sea turtle deaths. Research, monitoring, information exchange, capacity-building, financial support, socio-economic, cultural and legal aspects are also discussed.

Actions to address ALDFG

Measures to address the problem of ALDFG can be broadly divided into three categories; (i) preventative measures - to avoid creating ALDFG; (ii) mitigating measures - to reduce the impact of ALDFG (e.g. ghost fishing); and (iii) curative measures - to remove ALDFG from the environment. Current global efforts to address ALDFG are led by FAO in collaboration with the International Maritime Organisation through a 4.5-year NORAD-funded GloLitter Partnerships (GLP) programme which commenced in early 2020. GLP assists developing countries to prevent and reduce marine plastic litter from the maritime transport and fisheries sectors entering the marine system and identifying opportunities to reduce the use of plastic in both fisheries and maritime transport sectors. The FAO component of GLP specifically addresses concerns about ALDFG. The project helps support development of responsible fisheries in line with the Code of Conduct for Responsible Fisheries and the SDG target 14.1 to achieve significant reduction of marine pollution of all kinds. Although GLP is a global programme including the CMLE+ region, none of the 34 participating countries are REBYC-III CLME+ project target countries. However, lessons learnt to address ALDFG under the GLP will be applied to REBYC-III target countries helping them to successfully address ALDFG. To improve global knowledge on ALDFG estimates, FAO has developed ALDFG questionnaires for a global survey of gear loss and abandonment, with standardized methods and questions for all fishing gear types. To date surveys have been conducted in several countries including Thailand, Pakistan, the Seychelles, and Mexico. FAO provides training on the use of the questionnaires and partners, including the Global Ghost Gear Initiative (GGGI), and conducts surveys. From the data collected FAO produces standardized country and or fishery level reports, and the raw data is submitted to the FAO Global ALDFG Database for further analysis.

Gear marking is considered an important tool to reduce ALDFG and its harmful environmental impacts and also to aid the detection and =the ability to address illegal, unreported and unregulated (IUU) fishing. FAO began to develop guidelines for the marking of fishing gears in the early 1990s and Voluntary Guidelines on the Marking of Fishing Gear (VGMFG) were endorsed by FAO Members at the Thirty-third Session of the Committee on Fisheries in July 2018. Following

publication of the VGMFG in 2019, FAO has developed the following support to facilitate implementation of the VGMFG, which will be published in early 2023 .

- A framework for conducting a risk assessment for a system on the marking of fishing gear - This document will be published as a supplement to VGMFG and provides a framework for conducting a risk assessment to assist in determining the need for, and requirements of, a system for the marking of fishing gear. The development of this document was based on principles outlined in the Annex of the VGMFG and guided by the results of a pilot project for risk assessment on the marking of fishing gear conducted in Grenada.
- A manual for the marking of fishing gear - This technical manual will be published as a supplement to the VGMFG and provides practical instructions on marking methods for the main types of fishing gear to identify ownership .
- Operationalization of FAO Voluntary Guidelines for the Marking of Fishing Gear in the IOTC Area of Competence ? This document will be published as an FAO circular. FAO worked in collaboration with the Indian Ocean Tuna Commission (IOTC) to develop guidelines for the implementation of gear marking within the IOTC area of competency. This document provides a model and inspiration for other Regional Fisheries Bodies to follow.

The VGMFG stresses that a system of fishing gear marking should be considered and implemented in the context of broad fisheries management measures that support sustainable fisheries and healthy oceans including the reduction, minimization and elimination of ALDFG. The VGMFG also promotes actions to recycle recovered ALDFG and fishing gear no longer in use or its disposal responsibly on land. States should ensure the provision of adequate port reception facilities for the disposal of such fishing gear in accordance with MARPOL Annex V. Globally there are many initiatives recycling or repurposing the plastic components of end-of-life fishing gear , but there are currently no such businesses in the project?s participating countries. In Guyana and Trinidad and Tobago old fishing nets from both the industrial and SSF are repurposed for use in aquaculture ponds, within the agriculture sector for use in fencing, runners for vine crops and aquaculture ponds and as covers for garbage disposal skip bins, although it is not clear whether there is a market for these or are simply donated by fishers to others in the local community.

iv. The Caribbean Community Common Fisheries Policy (CCCFP) and the Caribbean Regional Fisheries Mechanism (CRFM)

In addition to the CLME+ SAP, there are several Caribbean Community (CARICOM) policies supporting responsible fisheries. These include the third Caribbean Regional Fisheries Mechanism (CRFM) Strategic Plan (2022-2030) and the Caribbean Community Common Fisheries Policy (CCCFP). The latter was adopted in October 2014 and outlines goals for fisheries, aquaculture, and other living marine resources, coupled with conservation, management and protection of the fish stocks and associated marine habitats and ecosystems. The policy also stresses improvements in social and economic conditions, good governance, fairness, and equity so that sustainable benefits are equitable to all. The CRFM was established in 2002 to coordinate and promote regional cooperation for sustainable use, management and conservation of living marine resources and marine ecosystems and is a key RFB for the Caribbean. The Ministerial Council is the highest decision-making body of the CRFM and is responsible for formulating fisheries policies. The CRFM has 17 members, including the four project countries. The latest Strategic Plan (2022-2030)

has four strategic goals: 1) Sustainable use and management of fisheries and aquaculture resources in the Caribbean region; 2) Improvement of the welfare and sustainable livelihoods of fishing and aquaculture communities in Member States; 3) Contribute to the provision of sufficient, safe, and nutritious fish and seafood that meets the dietary requirements for an active and healthy life of Member States? populations; and 4) Promote development of a regional fishery sector that is resilient to climate change, ocean acidification, natural disasters, and external shocks; and, enhanced through comprehensive disaster risk management and recovery arrangements. The CRFM has an extensive record of fisheries project implementation in the region and is expected to participate in some components of the REBYC-III CLME+ project, particularly those involved in development and adoption of bycatch/discards measures (Component 1), management (Component 2) and dissemination and lesson learning (Component 4).

v. Caribbean Environment Programme (CEP)

The United Nations Environment Programme (UNEP) established the Caribbean Environment Programme (CEP, https://www.unep.org/cep) in 1981 as one of its Regional Seas Programmes in recognition of the importance and value of the Wider Caribbean Region?s fragile and vulnerable coastal and marine ecosystems including endemic plants and animals. Countries of the region then adopted an Action Plan (Barbados, Guyana, Suriname and Trinidad and Tobago), that led to the development and adoption of the Cartagena Convention on 24 March 1983. The Cartagena Convention promotes the protection and development of the marine environment of the Region and provides the legal framework for the CEP, and is the first and only regionally binding treaty of its kind. It is supported by three technical agreements or protocols on oil spills, specially protected areas and wildlife and land-based sources of marine pollution. CEP projects and activities take place under three programmatic areas: 1) assessment and management of environment pollution (AMEP); 2) specially protected areas and wildlife (SPAW); 3) communication, education, training and awareness (CETA). REBYC-III CLME+ is envisaged to collaborate with the CEP in some project components, specifically involving bycatch management and adoption of measures (Component 1 and 2), as well as dissemination, training and awareness (Component 4).

vi. The Wider Caribbean Sea Turtle Conservation Network (WIDECAST)

The Wider Caribbean Sea Turtle Conservation Network (WIDECAST) was founded in 1981, in response to decisions arising from a meeting convened jointly by the Caribbean Conservation Association (CCA) and World Conservation Union (IUCN), which recommended that a ?Wider Caribbean Sea Turtle Recovery Action Plan should be prepared ? consistent with the Action Plan for the Caribbean Environment Programme.? The WIDECAST network, with local partners in more than 40 nations and territories, is dedicated to increasing the capacity of Caribbean organizations, institutions, and governments ? at both national and regional levels ? to reduce threats to marine turtles, facilitating regional capacity to ensure the recovery and sustainable management of depleted sea turtle populations and promoting the survival of endangered marine turtles. The network has been closely affiliated with the UNEP CEP (https://www.unep.org/cep) since its inception. To facilitate and strengthen local involvement, WIDECAST develops pilot projects, provides technical assistance, and supports a variety of initiatives that build capacity within and among range States.

b. GEF-supported projects and programs

The GEF, through its IW Focal Area, has fostered the use of the LME approach since 1995, and the project will build off a number of previous GEF investments that have been delivered in the Caribbean region and beyond.

i. REBYC projects

FAO has developed several previous REBYC projects over the last 15 years which are of particular relevance to the current project - (REBYC (GEF ID: 884), REBYC-II CTI (GEF ID: 3619) and REBYC-II LAC (GEF ID: 5304). These have built on one another and significantly advanced best practices in bottom trawl fishing. Whether by developing appropriate Bycatch Reduction Devices (REBYC), advancing proper management and an ecosystem approach to fisheries (REBYC-II CTI) or combining technological adaptation with strengthened policies, institutions and organizations (REBYC-II LAC), the impact of these initiatives has been substantial . The REBYC projects have been successful in creating enabling environments, such as through national dialogues to establish rules, zoning, best practices for trawl fisheries and co-management arrangements. The projects? interventions have resulted in coastal fishing area maps, improved ability to manage maritime areas, technology transfers, and active testing and implementing of bycatch reduction devices. Efforts to mitigate bycatch of ETP species in bottom trawl fisheries have been undertaken under the REBYC-II LAC project through the development and testing of a suitable sorting grid (to exclude turtles, rays and other large bycatch) in collaboration with the NOAA Harvesting Systems Unit. However, despite the success in developing the grid, the device is currently not yet in use in the fleets. Of most relevance to the current project is the 5-year FAO-GEF project ?Sustainable Management of Bycatch in Latin America and Caribbean Trawl Fisheries (REBYC-II LAC)?. This recently completed project included a partnership between six countries (including Suriname and Trinidad and Tobago) and regional organizations to better manage bycatch and support the sustainable development of trawl fisheries focused on shrimp/bottom trawling and the people who depend on them. The REBYC-II LAC project improved understanding of how to motivate behavioural change among fishers, e.g., engagement of stakeholders in decision-making, promoting dialogue, policy and legislation, demonstrating potential for enhanced livelihoods, increasing awareness, elevating visibility of women in value chain, and building trust among stakeholders. Results have been consolidated and incorporated into national fisheries legislation and management plans, and in the regional strategy and management plan.

However, despite the successes of past REBYC projects, particularly REBYC-II LAC, there remains a number of outstanding issues. The independent Terminal Evaluation (TE) [50] of the REBYC-II LAC project identified a number of gaps that require follow-up. These include a recommendation that technology transfer between countries and fisheries needs to be extended across gear types and scaled up across the region. The TE also noted that there is still a need to address ?other trawl impacts apart from bycatch (e.g., impact on benthic habitats)? as well as ?ghost fishing, and fundamental differences between small-scale and large-scale trawl fisheries in the design of bycatch reduction strategies and other management measures?. As noted, bycatch and discards are not just a problem in trawl fisheries but are also prevalent in other fisheries using gears such as gillnets, traps and long-lines. Previous evaluations of other REBYC projects also

identified the need for additional efforts to spur behavioural change and innovation and the TE of the REBYC-II LAC project made a recommendation for ?more focus on gender, livelihoods, private sector engagement/co-management, incentives, fishery certification that is appropriate for national and regional contexts?. Previous projects were also lacking specific linkages with biodiversity goals, which the proposed project seeks to address (with special emphasis on ETP species and through support for strengthening marine spatial planning process by providing a special emphasis on spatial data on bycatch and discards). On the social front, previous REBYC projects, including REBYC-II LAC, provided models on how to successfully strengthen fisherfolk organizations to effectively participate in decision-making and management processes. However, additional efforts are required to connect fishing communities, including post-harvest workers, across countries and regions. The proposed project directly addresses the above gaps and with a wider scope than the REBYC-II LAC project.

ii. PROCARIBE+ project

The recently approved ?Protecting and Restoring the Ocean?s natural Capital, building Resilience and supporting region-wide Investments for sustainable Blue socio-economic development (PROCARIBE+)? project has been specifically designed to continue supporting and upscaling the coordinated and synergistic implementation of both the CLME+ SAP and the ?People Managing Oceans? civil society SAP, as well as the associated regional and sub-regional strategies and action plans. The project will produce the next iteration of the regional SAP(s) by 2025. In doing so, the PROCARIBE+ project aims to support effective planning and management of the marine space and its uses in order to protect, restore and sustain coastal and marine ecosystem goods and services, and to achieve ocean-based, climate-resilient, inclusive socio-economic recovery and development, through inter alia the development of ?blue economies?. The proposed REBYC-III CLME+ project compliments the delivery of this project through supporting its sustainable management of marine resources aim.

iii. CAF-FAO-GEF Blue economy project

The recently approved CAF-FAO-GEF Promoting National Blue Economy Priorities Through Marine Spatial Planning in the Caribbean Large Marine Ecosystem Plus (BE-CLME+) project supports national and regional development priorities and will contribute ?blue economy? development and implementation plans for the Caribbean/CARICOM region, with tailored national blue economy and financing strategies to support sustainable development, and includes the use of Marine Spatial Planning to inform establishment of MPAs and promotion of ecosystem-based fisheries management. The proposed REBYC-III CLME+ project complements the delivery of this project through supporting development of new opportunities for small business development (and the capacity to deliver these) focused on management of bycatch and discards, particularly for SSF.

c. Other GEF-funded fisheries-focused projects in the CLME+ region

The proposed project builds on several other GEF-funded fisheries-focused projects operating in the CLME+ region. These include the FAO-GEF ?Climate Change Adaptation in the Eastern Caribbean Fisheries Sector (CC4FISH)? project, which includes Trinidad and Tobago. This project seeks to address climate change impacts on food security, livelihoods and household

income. The project?s main approaches to increase resilience of the fisheries sector to climate change are through: i) increased awareness and knowledge on climate change vulnerability of the fisheries sector; ii) capacity building of fisherfolk, fisherfolk organizations and aquaculturists; and iii) mainstreaming of climate change into fisheries policies, plans and legislation. The REBYC-III CLME+ project will draw on the CC4FISH results and lessons learned relating to climate change adaptation in the fisheries sector to improve resilience of the fisheries sector and the uptake of new ICT, but it also complements the CC4FISH project by adding value, opportunities, and capacity for fisherfolk engaged in CC4FISH to realize national responsible fisheries opportunities for Eastern Caribbean island nations, principally in relation to bycatch mitigation.

Other baseline GEF-funded projects in the region relevant for the REBYC-III CLME+ project include the ?StewardFish? project, which includes Barbados and Guyana. This seeks to empower fisherfolk throughout fisheries value chains to engage in resource management, decision-making processes and sustainable livelihoods, with strengthened institutional support at all levels. The key baseline elements supporting the REBYC-III CLME+ project are: i) development of organizational capacity for fisheries governance; ii) enhancing ecosystem stewardship for fisheries sustainability; and iii) securing sustainable livelihoods for food and nutrition security. Another relevant baseline and complementary project is the ?Enhancing capacity for the adoption and implementation of EAF in the shrimp and groundfish fisheries of the North Brazil Shelf Large Marine Ecosystem (EAF4SG)? project which has been submitted for GEF approval. The project aims to enhance the capacity of three beneficiary countries (Guyana, Suriname and Trinidad and Tobago) for sustainable shrimp and groundfish fisheries management, with support for technical measures for stock conservation and protection of biodiversity, and particularly focused on improving the co-management and performance of SSF. The EAF4SG project is viewed as the ?sister project? to the REBYC-II CLME+ project with overlap in countries and key stakeholders, and both projects have been developed by FAO and the participating Governments in parallel.

d. National fisheries efforts to address bycatch

National baseline efforts to implement EAF and sustainable fisheries management have relied heavily on funding from the regional initiatives above. In terms of the countries participating in the REBYC-III CLME+ project, each nation differs in the extent to which effective bycatch management, discard mitigation and ALDFG measures have been developed, adopted and implemented, and the degree of governance and institutional development necessary for the successful management of bycatch in their fisheries.

However, relevant projects and initiatives are being conducted in all four project countries with the involvement of a range of stakeholders including the public sector as well as the private sector, civil society, and fisherfolk organizations. These stakeholder groups will be instrumental in supporting improved bycatch management, discard reduction and to address ALDFG at the national and local levels. The latter group is a crucial source of local knowledge on fishing practices, bycatch, discards and ALDFG and will be engaged in project activities to address these (under Component 1), in the development and implementation of strengthened legal/regulatory and institutional frameworks and monitoring and compliance (under Component 2), and in value chain analysis and the development of new business opportunities based on more sustainable

practices (Component 3). Further details on their activities of relevance to the project are provided below.

i. Bycatch, discards and ALDFG mitigation techniques and measures and uptake within the CLME+ region

There are various types of approaches and measures to manage bycatch and to protect juveniles and reduce discards of unwanted or ETP species, including modifications to fishing gear or fishing practices, spatial and temporal measures (time and area restrictions), bycatch limits, fishing effort restrictions and discard bans (e.g., European landing obligations). A variety of bycatch reduction devices have been developed over recent years to address marine bycatch of (i) juvenile target and non-target fish; (ii) sea turtles; (iii) elasmobranchs (sharks and rays); and (iv) marine mammals. Among the most common and successful bycatch reduction devices developed to date are large circle hooks and TEDs (e.g. the Super Shooter) for marine turtles, marine mammals and elasmobranchs (sharks and rays), Fisheye and the square-mesh window for non-target fish species and a variety of grid systems for marine mammals. In addition, discards can be reduced through fleet communication, awareness raising, training, and economic incentives [30, 67, 68].

The main previous efforts to address bycatch in the CLME+ region have been through the FAO-GEF REBYC-II LAC project (described above), although this only targeted the bottom trawl fisheries. Significant efforts were made under this project to reduce bycatch and discards in many shrimp fisheries (e.g., Brazil, Suriname). This includes testing Turtle Excluding Devices (TEDs), Bycatch Reduction Devices (BRD), square-mesh panels and fisheye, and reported results indicated a minimum 20% bycatch reduction in BRD trials in the countries involved in the REBYC-II LAC project. However, there were significant differences between countries in the experimental designs for evaluating the performance of the gear modifications, making comparisons problematic. In addition, outreach and extension efforts were poorly undertaken and documented, and it appears that only a few countries engaged in comprehensive programs to share information with fishers and others. Under the REBYC-II LAC project, Suriname undertook various activities related to trawler bycatch, including studies to quantify and characterize bycatch in various fish and shrimp trawling fleets, reduce bycatch through the development of TEDs and BRDs and participated in experiments related to the utilization of bycatch. However, work on bycatch in fisheries other than trawling has been very limited in Suriname.

Most of the bycatch work in Trinidad and Tobago to date has focused on the shrimp trawl fishery. Bycatch statistics in the artisanal gillnet and pelagic longline fisheries do not appear to be well documented. Understanding of the bycatch issues in these fisheries may therefore be largely anecdotal and requires further study, except for the incidental capture of leatherback turtles in the coastal gillnet fishery which has benefited from at least three studies. These studies estimated that yearly more than 3,000 leatherbacks are captured incidental to gillnet fishing in the coastal waters of Trinidad and that more than half likely die as a result of such an encounter. There has been some research into bycatch mitigation approaches in Trinidad and Tobago. For instance, square mesh paneling to facilitate the release of unwanted bycatch, including juveniles has been successfully tested on the double-rigged non-artisanal trawlers, and there are plans to incorporate the mandatory use of BRD in all non-artisanal trawlers (both double-rigged and single stern) in the regulations. However, appropriate BRDs remain to be identified and tested for the artisanal

trawlers. In addition, preliminary joint discussions were held in 2021 between the National Sea Turtle Task Force (NSTTF) of Trinidad and Tobago, Fisheries Division and researchers from NOAA, Arizona State University and others to develop leatherback bycatch reduction solutions that will benefit both fisherfolk and turtles. Also, during the CLME+ Shrimp and Groundfish Sub-Project, a process was initiated to develop an integrated fisheries management plan for Trinidad and Tobago, incorporating updates from the REBYC-II LAC BRD gear trials and shrimp trawl bycatch value chain study.

Some countries in the CLME+ region have now introduced TED regulations to protect sea turtles, with associated monitoring, control, and surveillance actions. This has partly been in response to Section 609 of Public Law 101-162 of the United States of America which requires fisheries to reduce marine turtle bycatch in order to export wild shrimp to the United States, as well as the US Marine Mammal Protection Act which is helping to reduce bycatch of marine mammals. However, regulations to reduce other bycatch including ETP bycatch in other fisheries and non-target fish bycatch, are much less developed or non-existent in the region. Appropriate technology is often inaccessible, and most countries require additional technical support and guidance on bycatch management and discard reduction, particularly those countries that have made only modest, slow, or no gains due to lack of awareness, capacity or funding.

Concerns associated with incidental bycatch from gillnets and longlines in the CLME+ region have been sufficient to warrant numerous attempts at mitigation. Previous research has also been conducted in the CLME+ region by WIDECAST, including recommendations for gillnet modifications to reduce incidental bycatch of sea turtles, the introduction of alternative line fishing methods and the identification of potentially important areas for management.

Although the governments of all the participating countries are looking for ways to introduce mandatory marking of fishing gear to address ALDFG, these have yet to be developed and implemented. To date, measures are largely focused on prohibiting certain gears, e.g. the use of monofilament nets in Suriname is prohibited in most fisheries since these are notorious for causing ghost fishing when lost in the environment. In Trinidad and Tobago, a draft Hard-substrate Demersal Fisheries Management Plan (2014-2019) includes a proposal to ban monofilament bottom-set gillnets in hard-substrates, and the Fisheries Management Bill 2020 makes provisions for regulations to be drafted to address registration, identification, use and management of fishing gear, including retrieval of lost fishing gear, although the 2020 Bill has not yet been approved by Cabinet. In Barbados new legislation has been developed which includes provisions for the Protection of Endangered Species.

ii. Policy and regulatory frameworks, and institutional capacity for MCS

Fisheries monitoring, control, surveillance (MCS) and enforcement, including of bycatch management measures, are generally weak in the region and need significant strengthening in all four participating countries, especially in relation to skills and expertise for inspections (at sea and in port) on industrial vessels (inspection of trawl gear, longlines, engine capacity, etc.). Trinidad and Tobago, for instance, has developed a National Strategy and Road Map to implement provisions of the Port State Measures Agreement (PSMA) and other complementary international

instruments and mechanisms to combat IUU fishing, but lacks sufficient resources to effectively implement it. Specific needs identified include training for staff of the Fisheries Division and other relevant national agencies in implementation of national fisheries laws, use of MCS tools such as use of EMS, VMS and e-logs as well as species identification (whole and dressed product form), sampling techniques, and preservation of samples (i.e. for further species identification and evidence). An updated national Fisheries Management Plan (2021-2025) was recently endorsed by the Surinamese Ministry, largely based on EAF principles (e.g. including precautionary management of fishing effort), and the Suriname Fisheries Act is currently under revision with support of FAO and will incorporate EAF elements.

It is impossible to properly manage fisheries without adequate and timely information, but current fisheries data collection remains inadequate throughout the region and there is a need to expand data collection (e.g., recording of catches and effort through logbooks), reporting, and analysis for effective assessment and management. WECAFC?s DCRF (see above) establishes the foundation for comprehensive fisheries data and statistics collection and collation in the WECAFC area. Recent developments and emergent technologies?which often leverage the portability and ubiquity of smart devices and the growing accessibility of cloud?based computing?have the potential to expand or streamline fisheries data collection, automate data processing and analysis, and facilitate the communication of results to relevant stakeholders. This also supports easy sharing of data in different formats to different national and regional/international entities, such as the International Commission for the Conservation of Atlantic Tunas (ICCAT) and WECAFC. Availability of detailed socio-economic data will support fisherfolk in accessing insurance and loans, while investors will be more likely to invest in the sector and governments have a better understanding of the importance of the sector to the overall economy.
The proposed REBYC-III CLME+ project will address the above policy, regulatory and institutional capacity needs in relation to bycatch, discard management and ALDFG. More detail on the national policy, legal and regulatory frameworks in relation to fisheries is given in the Consistency with National Priorities section below.

iii. Incentives to address unsustainable bycatch

Few specific incentives currently exist to encourage adoption of bycatch mitigation measures in any of the target countries. Certification of sustainable fisheries is not common or widespread in the CLME+ region. In Suriname, the trawl fishery for Atlantic seabob shrimp has been MSC certified since 2011, and recently a Fishery Improvement Programme (FIP) was launched for the gillnet and trawl fishery on groundfish (industry in collaboration with the NGO CeDePesca), which aims to improve a fishery across the 28 MSC indicators. Both of these are private sector initiatives. Other approaches include the exemption of Value Added Tax on Turtle Exclusion Devices (TEDs), the mandatory use of which in the non-artisanal trawl fishery in Trinidad and Tobago will be included in new national legislation. Similar tax incentives also apply to other BRDs, such as circle hooks and square mesh panel devices, proven to minimize bycatch, although these are not yet mandatory in the target fisheries. However, such measures are not widespread in the region. In Barbados, a small pilot with the use of circle-hooks in the longline fishery was carried out in 2022, which demonstrated an interest among various stakeholders but requires

scaling up to the whole fleet. The REBYC-III CLME+ project will look to further develop and promote a suite of incentives to manage bycatch more sustainably.

e. Private sector and civil society baseline in relation to bycatch mitigation and discard management

In all the four countries, private sector, civil society and fisherfolk organizations will be instrumental in supporting bycatch management at the national and local levels. Furthermore, they are a crucial source of local knowledge on fishing and will be engaged in project activities to design and test BRDs (under Component 1), strengthen bycatch management measures (under Component 2), and conceptualize and pilot potential economic opportunities related to bycatch reduction and addressing ALDFG issues (Component 3).

In Barbados and Guyana, for example, the Barbados National Union of Fisherfolk Organizations (BARNUFO) and Guyana National Fisherfolk Organization (GNFO) play important roles in fisheries governance as the national umbrella organizations representing small-scale fisherfolk?s socioeconomic interests. In Guyana, the GNFO is formally represented on the Fisheries Advisory Committee, which is comprised of representatives of the Fisheries Department, various ministries, Coast Guard, Guyana Association of Trawler Owners and Seafood Processors (GATOSP), and artisanal fishers, among others. Both BARNUFO and GNFO have actively participated in several national and regional fisheries initiatives aimed at strengthening fisheries management, including the FAO-GEF StewardFish project during which the organisations undertook efforts engage their members in practical ecosystem stewardship activities. BARNUFO and GNFO are also members of the Caribbean Network of Fisherfolk Organizations which plays a significant role in fisheries governance at the regional level. Another mechanism in Guyana is the Seabob Working Group (SWG), which was established in 2012 to oversee the MSC certification process for the Atlantic seabob fishery. Its members include representation from the GATOSP, artisanal fishers, small-scale processors, WWF, FAO, and the Fisheries Department. The fisheries private sector (represented by GATOSP) is especially active in the seabob MSC certification process to ensure sustainable exploitation of the seabob.

In Suriname, several private sector fishing companies (e.g. Suriname Seacatch N.V., Marisa Fisheries N.V., VaYu Fisheries N.V.) and the Surinaamse Seafood Associate which plays a key role in representing the socioeconomic interests of industrial fishers and fish processors, and has expressed particular interest in the economic aspects of the project (under Component 3). The Associate is a member of Suriname?s FAC and participated in stakeholder meetings under the previous REBYC-II LAC project. The above companies are a key source of knowledge on fishing, fish processing and marketing and would be important to engage on opportunities for development of sustainable fisheries value chains and blue growth under Component 3. Additionally, the Associate is a member of Suriname?s Fisheries Advisory Committee and participated in stakeholder meetings under the previous REBYC-II LAC project.

In Trinidad and Tobago civil society organizations play important roles in supporting fishing industry development through advocacy, research and capacity building targeted at small-scale fisherfolk. Future Fishers, for instance, is a registered non-profit organization established to

improve sustainable use and management of Trinidad and Tobago?s coastal and marine resources, while supporting opportunities for better governance, economic growth and social advancement of the fishing community. The organization has been successful in mobilizing resources from government and private sector sources, including from Trinidad and Tobago?s Green Fund and BHP Billington Trinidad and Tobago, to implement projects aimed at building awareness of ecosystem management and improving fisheries value chain and production processes targeted at fishing communities on the east and north-east coasts of Trinidad. Future Fishers is currently implementing the first phase of the project ?Capacity Building of Fishers Initiative for Sustainable Harvest, Education and Research? which includes development of a local action plan to reduce bycatch. The organization is also collecting important local fishing data on the gillnet fishery, including on turtle bycatch, on the north-east coast of Trinidad which is a target fishery and geographic area for this project. Similarly, Nature Seekers, is a community-based organization focused on leatherback turtle conservation based in Matura, Trinidad. It has created a cluster of community enterprises which generate jobs and multiple income streams to support turtle and ecosystem conservation. Nature seekers has previously undertaken projects, funded by the GEF Small Grants Programme, geared towards reducing the incidental
gillnet capture of marine turtles off the north-east coast of Trinidad . Given its more than 30 years of experience, the organization has a wealth of knowledge on turtle behaviour, conservation and sustainable natural resource livelihoods that will benefit the project.

Private sector engagement in addressing bycatch reduction and discard management in the CLME+ region was considered relatively little before the REBYC-II LAC project. In Suriname, private sector engagement with addressing responsible fisheries has been quite strong in one specific segment of the fishing sector, namely the seabob shrimp trawl fleet (which is MSC certified). During the REBYC-II LAC project, the level of engagement expanded to other segments of the fleet, notably the demersal fish trawl fleet and the artisanal gillnet fleet. Engagement primarily occurred through a National Working Group (NWG), specifically established for the project, which included representatives from the private sector, the Government and NGOs. Towards the end of the REBYC-II LAC project in Suriname this NWG was transformed into a formal national Working Group on Shrimp and Groundfish Fisheries, installed by the Minister of Agriculture, Animal Husbandry and Fisheries. In addition, REBYC-II LAC also contributed to the establishment of several local and one overarching national fisherfolk organisations, significantly improving the communication with and engagement of the artisanal (primarily gillnet) fleet. Similarly, in Trinidad and Tobago, the private fishing sector was engaged in measures to address bycatch and better manage discards through the REBYC-II LAC project and a working group was formed with representatives from the Fisheries Division and members of the fishing community including the private fisheries sector to address BRD design and trials. In Guyana, there has been less private sector engagement but there is a commitment to move towards MSC certification for the seabob trawl industry.

In the wider CLME+ region, FAO has worked within the Billfish project and CC4FISH project with the private sector in Grenada on reducing bycatch in the pelagic longline fishery. This collaboration included a trial on the use of circle hooks as well as funding of an MSC pre-assessment which resulted in the fishery entering into a FIP (the first FIP for tuna fisheries in the

Atlantic) and the development of a public-private-partnership (PPP) between fisherfolk organizations, the Government and the private sector. This PPP has attracted various private sector investors and has allowed for the development of the first tuna processing facility which is third-party audited and which can export tuna loins from the Caribbean to the US. An assessment (funded by FAO HQ) has also been carried out engaging private sector partners to develop a business and financial plan for the pelagic fishery in Barbados to transition from production of headed and gutted tuna to tuna loin, providing greater economic, social and environmental benefits.

3) Proposed alternative scenario with a brief description of expected outcomes and components of the project and the project?s Theory of Change

The proposed project responds to the regional and national needs to manage bycatch and reduce discards and adverse effects of fishing on habitats in the Caribbean and North Brazil Shelf Large Marine Ecosystems (CLME+). In doing so the project promotes more responsible fisheries and the conservation of marine living resources (particularly ETP species), while at the same time providing economic (particularly blue growth) opportunities for fishers as well as offering successful solutions to other LMEs. By addressing the four barriers identified above and fostering local, national, regional and international linkages as well as public-private partnerships, the proposed project will create significant changes above the baseline scenario with respect to long-term solutions for environmentally, economically and socially sustainable utilization of marine resources. The project aims to strengthen integrated fisheries management that follows the EAF concept incorporating ecological, human well-being and governance and including increased stakeholder involvement.
The REBYC-III CLME+ project the project looks to eliminate unsustainable bycatch and discards while maintaining economic and social viability for fisheries stakeholders in target fisheries and provides an opportunity for strengthening of participatory and responsible fisheries and bycatch management within the ecologically, economically, and socially important fisheries sector in the CLME+ region. The project will help support the implementation of ecosystem-based fisheries management and more sustainable seafood value chains in Barbados, Guyana, Suriname, and Trinidad and Tobago, contribute to the advancement of national economic and food security strategies, but also has benefits for the wider region and beyond. In doing so, the project will help build further country ownership and commitment to the implementation of the CLME+ SAP at the national level. The project will promote capacity, collaboration and coordination between stakeholders on responsible fisheries and bycatch issues through seeking institutional, technical, and developmental solutions that are appropriate at the local, national, and sub-regional level.

The involvement of diverse actors in the project including the fisherfolk, coastal communities and the industrial fisheries sector, Government fisheries agencies and other stakeholders from the public sector, private sector, civil society and academia is key to its successful implementation. The project will also strengthen institutional arrangements and collaboration through existing Regional Fisheries Bodies such as the WECAFC and the CRFM. It also offers an opportunity to build better resilience to climate change impacts, particularly for SSF and associated coastal communities through capacity building, empowerment and diversification of livelihood

opportunities, including increasing direct benefits to women and other marginalised groups (e.g. youth).

The project?s proposed policy reforms and capacity building efforts to support implementation of elements of EAF will also contribute to addressing IUU fishing and overfishing through incentivizing the sustainable management of marine capture fisheries. At the same time, the project will strengthen sustainable blue economy opportunities through supporting new opportunities and incentives to manage bycatch and reduce discards, including market mechanisms to support sustainable fisheries value chains, new bycatch mitigation related business opportunities, improved collaboration with the private sector, enhanced stewardship through co-management and other socio-economic initiatives among fisherfolk communities that will encourage greater adoption of more responsible fishing practices.
The proposed US$ 5.3 million four-year project has been designed to deliver GEF Global Environmental Benefits, and to assist countries to address key transboundary environmental threats highlighted by the CLME+ SAP, notably unsustainable fisheries. This project will enable participating countries to progress towards more sustainable seafood systems (reflected in GEF-7, Indicator 8) as well as benefiting more biodiversity (contributing to GEF-7 Indicator 5).
The project will also support the COVID-related recovery process and improve the long-term resilience of communities to future shocks. The project will offer opportunities to contribute to the rebuilding of more resilient, sustainable and equitable post-COVID societies specifically through improving livelihood opportunities, empowering communities and providing other social and environmental benefits based on supporting ?blue economy? initiatives, especially through project Component 3. A recent study undertaken on behalf of the High-Level Panel for a Sustainable Ocean Economy [75], has proposed a set of priority opportunities to support such blue recovery, including ?invest in coastal and marine ecosystem restoration and protection?. The project will contribute to this aim.

Objective of the REBYC-III CLME+ project

The project objective is to manage bycatch and reduce discards in the Caribbean and North Brazil Shelf Large Marine Ecosystems (CLME+) thereby promoting sustainable and responsible fisheries that provide economic opportunities while ensuring the conservation of marine living resources, supporting country implementation of the CLME+ SAP, with successful solutions for potential scale up to other LMEs. This will contribute to the longer-term global environmental goal of a healthy, resilient and productive fisheries that are well-governed and managed following an EAF approach in the CLME+ region.

Target fisheries
The project will target a range of fisheries in the four participating countries. Following an initial analysis of the region?s fisheries based on catch quantity and discard rates largely from official FAO statistics [1] some fisheries were short-listed during the project concept (PIF) stage. A final assessment of bycatch issues across all fisheries was undertaken during the Project Preparation Grant (PPG) phase to identify/confirm the key fisheries to target based on several selection criteria: (i) bycatch issues; (ii) priority for development; (iii) a shared stock; (iv) value chains

opportunities; and (v) degree of problem with ALDFG. The REBYC-III CLME+ project will focus on identifying best options and technologies to improve bycatch management, and the reduction of some sources of the unaccounted fishing mortality (e.g., discard mortality, escape mortality, post-release mortality, ghost fishing) and other negative impacts of fishing gears on marine habitats (ALDFG and ?ghost fishing?) in the target fisheries listed below.

- Pelagic longline in Barbados and Trinidad and Tobago. Overlap of longline fisheries with sea turtle high use areas is of growing concern, and the extent to which these endangered species interact with fishing gear needs to be minimized [39]. The Barbados and Trinidad and Tobago longline fleets operate in sea areas through which leatherbacks pass on their way to and from important nesting beaches in the CLME+ region, and in which they reside during the pre-nesting period as well as throughout the nesting season [39]. Recent studies in the regional CLME+ area found a bycatch per unit effort (BPUE) rate ranging between 0.002 and 0.15 sea turtles per 1000 hooks [39, 76]. Although most sea turtles caught as bycatch might be released alive, they often remain hooked with trailing lines and mortality is unknown but is a cause for concern. REBYC-III CLME+ will focus on the development and implementation of mitigation measures (e.g., novel stimuli, size of the bait and hook type) and strategies (e.g., fish only at deeper layers, limiting fishing period to certain times of day) to reduce incidental bycatch of marine mammals, sea turtles, and sharks.
- Trawl fisheries targeting crustaceans and demersal finfish species, in Guyana and Suriname respectively. Most trawl fisheries are mixed fisheries directed at only a few commercial target species (e.g., seabob fishery in Guyana). However, a wide variety of bycatch species are captured along with the target species. Some of these species have economic value and can be retained and commercialised, while others are discarded overboard for a variety of reasons. Work under the REBYC-III CLME+ project will focus on development and promotion of more selective trawl gears to mitigate bycatch of ETP species including skates, rays and sharks for Suriname, and for Guyana, appropriate BRDs will be investigated to facilitate the release of juveniles captured in artisanal shrimp trawl fisheries.
- Gillnets/Driftnets targeting demersal fish in Guyana, Suriname, and Trinidad and Tobago. Although commercially intensive fisheries exist, gillnet fisheries are generally associated with small-scale activities. Estimating the scale of the artisanal gillnet fisheries is notoriously complex, because it employs both fishers and a large number of people involved in related activities, such as fish processing, distribution and marketing. The demersal gillnet fisheries mainly suffer from bycatch of ETP species. While this bycatch has been documented to some extent (mainly on marine turtles), little to no efforts have been made to address bycatch issues. REBYC-III CLME+ project will focus on the development and implementation of mitigation measures (e.g., novel stimuli, acoustic deterrents) and strategies (e.g., limiting fishing period to night hours, switching gears to those with less bycatch potential) to reduce incidental bycatch with a particular focus on sharks and turtles. In the case of Trinidad and Tobago, the pelagic gillnet fishery has also been chosen based on the selection criteria.

Project Components and Outcomes

The key elements of the project ? components, outcomes, outputs, and activities - are presented below, along with the project?s causal logic and how its immediate project outcomes lead to longer-term changes. The latter is summarized in the Theory of Change (ToC, see Figure 2 below) which sets out the project?s causal logic and relationships between the project?s outputs (goods and services delivered by the project) and immediate project outcomes (changes resulting from the use of project outputs by key stakeholders), medium and longer-term changes and states (changes not deliverable through efforts of the project alone), and the project?s ultimate desired impact (fundamental, durable changes in environmental and social benefits).

The project aims to achieve its objective through four interlinked, overlapping approaches/strategies, each addressing one of the four key barriers acting against the achievement of more responsible, sustainable fisheries identified above. Each of these is reflected in a specific project Component (?area of action?) comprising sets of project activities and their outputs that will deliver several immediate project outcomes. The project will also contribute to wider development objectives and socio-economic and cultural co-benefits such as supporting more diversified livelihoods, greater empowerment and access to marine resources by fishing communities (particularly for women), reduced vulnerability to economic and environmental shocks, and improved food and income security for fisherfolk communities (again especially for women), enhancing resilience to climate change, as well as contributing to the achievement of several Sustainable Development Goal targets.

Component 1. Improving fishing practices to manage bycatch and reduce discards and the negative impacts of fishing gears in CLME+ fisheries, supporting countries implementation of CLME+ SAP priorities with a focus on the ecosystem approach to fisheries (Strategy 5)

Component 1 will address Barrier 1 by delivering more effective approaches and technologies to manage bycatch and reduce discards and reduce the catch and mortality of ETP species. It will achieve this through identifying and developing smart-gear modifications for trawl and non-trawl gears. In addition, the project will develop innovative approaches to address abandoned, lost and discarded fishing gear (ALDFG ? see Box 1), which is being increasingly recognized as cause of ghost fishing mortality (e.g., mortality of organisms that are caught in discarded or lost components of ?derelict? fishing gears) but which to date has received relatively little attention in the CLME+ region. Component 1 has three immediate project outcomes.

<u>Outcome 1.1. Approaches and tools to manage bycatch and reduce discards widely adopted in target trawl and non-trawl CLME+ fisheries</u>

The project will provide technical/technological solutions to reduce the adverse impacts of trawl and non-trawl fisheries on the marine environment, reducing both pre-catch and post-release mortality of unwanted bycatch. The project will focus on the quick adaptation and uptake of existing methods that have already been shown to be effective in other fisheries/regions to reduce unwanted bycatch to identify potentially suitable solutions for each of the project?s target fisheries but will also develop and pilot new innovative smart-gear modifications and particularly innovations for non-trawl gears for more size- and species-selective fishing practices. The fishing industry (including netmakers and gear technologists), and particularly fisherfolk communities for

SSF, will be jointly involved in developing and piloting solutions that help achieve the stated fisheries-management or ecosystem objectives.

The Outcome will be achieved through the following three outputs.

Output 1.1.1. Pre-catch losses reduction: smart-gear modifications developed and piloted for both trawl and non-trawl gears, such as gillnets and longlines, for more size- and species-selective fishing practices

Improved selectivity of fishing gears to reduce unwanted catch is a key part of bycatch and discard mitigation. This will include the development of technologies and fishing practices that improve pre-catch survival, and appropriate BRDs will be investigated to facilitate the release of juveniles captured in trawl fisheries. This will also benefit fishers in terms of workload onboard, e.g. more selective fishing reduces catch sorting time, and thus have positive cost benefits for fishing boat crews and their owners. REBYC-III will mobilize knowledge of fishers, netmakers and gear technologists to increase awareness of existing solutions, adapting methods that have already been shown to be effective in reducing unwanted bycatch in other fisheries/areas facilitating quick uptake of smart-gear modifications and innovations in target fisheries.

Technologies that significantly reduce the negative impact of fishing operations on marine biodiversity are rapidly developing. Recent projects in the USA, Europe (such as Benthis and Discardless), Australia and several other countries have developed a wide variety of practical, fisher-led solutions to bycatch that did not exist even ten years ago. The REBYC-III CLME+ project offers considerable potential for adapting some of these emerging bycatch management and discard mitigation approaches along with developing completely new ones. Activities will include:

Activity 1.1.1.a. Assess the efficacy of current available technologies/approaches to reduce unwanted bycatch in the selected fisheries at the national and sub-regional level. This will include a review and an assessment of the current gear selectivity in the selected fisheries towards the target and unwanted species, and potential gear modifications and strategies to improve selectivity.

Activity 1.1.1.b. Development and execution of participatory pilots to study the effect of gear modifications (identified in Activity 1.1.1.a). Selectivity pilot trials will provide valuable data to fishery managers to investigate the effect of the major factors affecting the fishing gear behaviour., The project will develop and pilot a number of unwanted bycatch mitigation technologies and strategies for key gears (gillnets, longlines) used in the target fisheries, with a principal focus on improving the selectivity of fishing gears to reduce unwanted bycatch, such as:

- Deep-set tuna longline technology in Barbados waters to mitigate unwanted bycatch of juvenile swordfish (Xiphias gladius) and undersized tuna; e.g., yellowfin tuna (Thunnus albacares), bigeye tuna (T. obesus);

- Assessment whether change of hook size and hook design (e.g., J-hook vs. circle hook), piloted in Activity 1.2.1.b to reduce the risk of incidental bycatch in longline fisheries in Barbados and Trinidad and Tobago, will affect catch rates of target species;

- In the three selected gillnet fisheries (i.e., Guyana, Suriname, and Trinidad and Tobago) pilot trials will focus on the effect of gear dimensions and design (e.g., mesh size, netting material, and hanging ratio) on both the effect of unwanted bycatch and catch rates of target species;

For trawl fisheries, specific pilot trials will be performed to provide valuable information to fishery managers on the effect of the major factors affecting trawl selectivity, such as:

- Appropriate codend designs (e.g., mesh size/shape, twine thickness, netting material, codend dimensions) in combination with more sophisticated alternative of selective devices, such as grids or square-mesh panels will be developed and piloted in Guyana and Suriname trawl fisheries;

- Similarly designed, alternative devices (e.g.., Fisheye) and smart-gear modifications to improve size- selectivity of fish and shrimp species will be developed and tested in collaboration with fishers in Guyana and Suriname.

Activity 1.1.1.c. Data analysis and estimation of the effect of gear modifications on target and unwanted species. A systematic and standardized statistical analysis of the pilot data collected in Activities 1.1.1.b will be undertaken, to produce recommendations and guidelines to improve the selectivity and catch performance (e.g., catch comparison, landing probability, exploitation pattern) of the gears used in the target fisheries. The guidelines will provide information that can be used to modify or design gears with improved size- and species-selection ability and has the potential to be scaled-up to other similar fisheries in the region and beyond.

Output 1.1.2. Post-release mortality: Innovative technologies developed and tested for reducing post-release mortality of unwanted bycatch developed, promoted and adopted in CLME+ fisheries

Post-release fishing mortality occurs when catch is retrieved and then released alive but stressed and injured to a degree that causes it to die later. In some instance, there is a particular interest to address this issue. In Trinidad and Tobago, for instance, there is strong incentive for the longliners to engage in the trials, since the fleet needs to transition to using circle hooks by 2024 to maintain their export market with the USA. Activities will include:

Activity 1.1.2.a. Review to assess the efficacy of current available technologies/approaches to reduce post-release mortality of unwanted bycatch in the selected fisheries at the national and sub-regional level. Specifically, the review will improve the knowledge on the available technologies and approaches used in other fisheries to reduce post-release mortality of unwanted bycatch and identify options that can be applied in the project?s target trawl- and non-trawl fisheries.

Activity 1.1.2.b. Participatory pilots to assess the effects of the gear techniques identified in Activity 1.1.2.a on relative post-release survival of unwanted species. An accurate accounting of

post-release mortality is necessary for fisheries conservation and management, especially when release (no retention) mandates are a component of active management. Depending on the fishery and the country, this activity will include pilot trials to develop effective release techniques to reduce stress to the fish and increase the chance of survival. Circle hooks, barbless hooks, or hooks with crimped barbs are potential solutions that can increase survival rates and make hook removal easier will be investigated. In addition, potential trials to pilot soft knotless mesh or a rubber landing net, which have been demonstrated to cause less damage to fish?s eyes, fins, scales, and protective mucus coating, will be investigated. Discussions with stakeholders during the PPG phase showed private Sector interest in all four countries to take part in pilot trials.

Activity 1.1.2.c. Adapt existing and/or develop new (as necessary) procedures, guidelines and tools for improving post-release survival of unwanted species in the selected fisheries at the national and sub-regional level, that can be used or adapted for outreach. Based on the information and results obtained in Activities 1.1.2. a, b, guidelines linked to reducing post-release mortality of unwanted species that can be directly implemented by fishers will be developed and promoted.

Output 1.1.3. Capacity for key stakeholders to adopt and use new bycatch and discards technologies and approaches for monitoring and reporting bycatch and discards built

A feasibility assessment of the uptake of proposed bycatch approaches and technologies by both SSF and non-artisanal fisheries (identified through Outputs 1.1.1 and 1.1.2) will be undertaken, including identification of barriers (e.g., financial, capacity, socio-economic, cultural) that could impede adoption along with measures to overcome these. Addressing bycatch and discards has traditionally been low on the fisheries management agenda in the target countries. While some training and capacity building has been held under the REBYC-II LAC project, knowledge of technologies and approaches to reduce bycatch related fishing mortality is limited beyond the trawl fleet. Activities will include:

Activity 1.1.3.a. Development and delivery of capacity building courses and sub-regional training workshops to key target audiences to adopt and use new bycatch and discards technologies and approaches for monitoring bycatch and discards. Areas to be covered will include procedures, guidelines and tools for using smart-gear modifications, more selective practices (developed and tested in Activities 1.1.1.a,b,c and Activities 1.1.2.a,b,c) for unwanted bycatch species. Capacity will be built for the implementation of improved national and regional monitoring of bycatch and discards to identify high risk fisheries and areas for mitigation.

Outcome 1.2. Effective mitigation measures to reduce adverse fisheries impacts on Endangered, Threatened and Protected (ETP) species implemented in CLME+ target fisheries

This Outcome aims to reduce incidental bycatch of ETP species in CLME+ target fisheries, including improving pre-catch and post-release survival of sharks, rays, sea turtles, and marine mammals. This will include the examination of more selective fishing gears and strategies, such as modifications to hooks and/or bait, novel stimuli (including possible use of magnets to deter

sharks, depending on the country and fishery), acoustic deterrents, fishing only at deeper layers, and limiting fishing periods to certain times of day or areas to reduce ETP species interactions, and with procedures demonstrated and promoted. Project activities will also include training on safe handling and release practices for ETP species. Finally, the feasibility of introducing alternative fishing methods will be assessed in selected fisheries if the above-mentioned strategies are deemed ineffective in reducing adverse impact on ETP species.

A secondary aim of this Outcome is to obtain an estimate of marine turtle bycatch and other ETP species in the pelagic longline fisheries, to document interactions between the fisheries and sea turtles, particularly leatherbacks, and other ETP species. This would help support the reporting requirements of Barbados and Trinidad and Tobago to provide ICCAT with the information on ETS interactions (mostly turtles and sharks) from the longline fleet.

The project will address discard mortality of unwanted bycatch by incentivizing the adoption of innovative technologies and fishing practices that promote survival of discards and pre-catch losses. This outcome will be achieved through three outputs.

Output 1.2.1. Strategies, approaches and technical measures to improve pre-catch survival of ETP species developed and promoted

This output will focus on the implementation of proven mitigation measures and strategies, such as more selective fishing gears, use of novel stimuli and acoustic deterrents, fishing only at deeper layers, limiting fishing period to nighttime or certain areas to reduce interaction with ETP species in the target fisheries. Where measures do not exist, new strategies will be developed and tested. Activities will include:

Activity 1.2.1.a. Review of currently available effective technologies and approaches (e.g., reduction of soaking time, hook and bait types, excluder devices, gears with increased reflectivity, deterrent devices) to reduce pre-catch mortality of ETP species in the selected fisheries at the national and sub-regional level. Apart from benefiting the target fisheries, the review will help increase the knowledge base on appropriate technologies and approaches to help reduce pre-catch mortality of incidental bycatch in other trawl- and non-trawl fisheries around the world.

Activity 1.2.1.b. Participatory pilots to study the effect of smart-gear technologies to reduce the escape mortality (pre-catch) of ETP species (identified in bycatch assessment Activity 1.2.1.a) with a particular focus on dolphins, sea turtles, and sharks. For static gears, focus will be on trials to study the effect of deterrent devices on fishing gears that can prevent depredation and also reduce the risk of incidental bycatch depending on the country and fishery. These trials will be undertaken in partnership with the private sector, who have confirmed an interest in this activity particularly in Barbados, Guyana and Suriname. This activity may include:

- Increase the acoustic reflectivity of the fishing gears adding for example metallic-based coating to the main rope of the longline or additional objects such as small acrylic glass spheres on the nets for marine mammals, or permanent magnets as repellents for sharks;

- Novel stimuli and active acoustic deterrents or ?pingers? in gillnet fisheries, and light-emitting devices or ultraviolet illumination, such as in the Barbados longline fishery;

- Use of circle hooks, live finfish bait, and hook timers in Barbados and Trinidad and Tobago longline fisheries;

- Fishing strategies in tuna longline fisheries: limiting fishing period to night hours [78], net soaking time, and deep-set longlines in Barbados to mitigate bycatch of sea turtles and sharks, avoidance of fishing in sensitive areas (Barbados) which have been verified to be breeding areas and feeding grounds for sea turtles.

For trawl fisheries in Guyana and Suriname, proposed pilot trials will focus on the use of TEDs to improve the escape of adult turtles, and shark and ray bycatch while maintaining catch rates of target species.

Activity 1.2.1.c. Assessment of the effect of smart-gear technologies and strategies on pre-catch mortality of ETP species. These will include evaluation of the results achieved in Activities 1.2.1.b, which have the potential to be extended and scaled-up to other similar fisheries. Final recommendations and guidelines will provide information on available technologies that can be used directly by fishers to modify their fishing gears to reduce the interaction with ETP species.

Activity 1.2.1.d. Assessment whether certain areas within target fisheries in CMLE+ region have more sea turtle interactions than others. Sea turtles are one of the main ETP species that interact with SSF fishing gear particularly with static nets (driftnet and gillnets) and set longlines, causing damage to both the fishing gear and the catch of fishers. Avoidance of fishing in known breeding habitats and feeding grounds for ETP species will lead to a reduction in interactions. An analysis of spatial bycatch information (with additional data collection if necessary) will support development of spatial-temporal measures (e.g. closed areas/seasons; no trawling zones) to reduce ETP bycatch.

Activity 1.2.1.e. Promotion of alternative fishing methods (including gear configurations and bait types) to reduce ETP bycatch through changes in the operational characteristics of the fleet. The project will promote technology transfer across national boundaries and among fisheries. Various interrelated components of fishing technology (e.g., materials, technique, know-how, information), human capacity, organizational and management aspects and the final product will be made accessible to relevant stakeholders.

Output 1.2.2. Procedures, guidelines and tools for improving post-release survival of ETP species developed, promoted and adopted in CLME+ fisheries

This output will focus on the demonstration and promotion of procedures for the post-release survival of incidental bycatch. The feasibility of post-release survival assessment, such as tagging, for taxa that are likely to have a high survival will be investigated. Catch identification tools and gear designs to avoid post-harvest mortality of incidental bycatch will be developed and tested. For example, using circle-shaped hooks can reduce the likelihood of post-release mortality of ETP

species (e.g., sea turtles) compared to more conventional J-shaped hooks [79]. Activities will include:

Activity 1.2.2.a. Review of effective handling and release methods, as well as identification of the gear characteristics, affecting the likelihood of post-release survival of sharks and marine turtles in the selected CLME+ fisheries. As these have been well-studied and there are handling and release methods that are known to be effective the project will focus on applying these methods rather than re-reviewing the effectiveness of a wide range of methods.

Activity 1.2.2.b. Pilot trials on handling of gear modifications and practices (e.g. circle hooks, corrodible hooks, soak time of gillnets/longlines and use of live/whole finfish bait). Pilot trials with gear modifications will be carried out in collaboration with fishers to test effectiveness in reducing interaction and post-release mortality. It is envisaged that the project will engage NOAA experts in the design of these experiments.

Activity 1.2.2.c. Analyse data collected in Activities 1.2.2.a,b to assess the performance of the identified and tested bycatch and threat mitigation technologies and methods to improve knowledge of bycatch interactions and conservation status of ETP species and develop recommendations. Methods, measures and guidelines will be developed and delivered to improve post-release survival of ETP species in the selected fisheries at the national and sub-regional levels. Results from Activities 1.2.2.a and 1.2.2b and subsequent data analysis will be communicated throughout the community, stakeholder groups and regional forums to improve knowledge and skills on post-release survival of ETP species available to fishing gear operators, including training on best-practices to handle ETP species onboard.

Output 1.2.3. Capacity of key stakeholders to adopt and use new bycatch technologies and approaches built

Although mortality rates are very species-specific and related to gear-type, improvement of handling practices can significantly increase the chances of post-release survival. This output will focus on training fishers in safe handling and release techniques for captured sea turtles and other ETP species to increase survival probability after release from fishing gears. Activities will include:

Activity 1.2.3.a. Collaboration with fishers on the development of gear modifications and promotion of gear technology and innovation. In cooperation with the fishing sectors, potential activities will include: (i) training on the use of gear modifications and innovations (smart gear) to reduce incidental bycatch, with specific focus on mitigating the adverse impacts in gillnet/driftnet fisheries and effective and acceptable alternative gears and methods with low environmental impact; (ii) demonstration of the efficiency and cost effectiveness of technology and gear innovations developed.

Activity 1.2.3.b. Improve knowledge on the issue of bycatch and to provide an informed basis for the formulation of national/regional strategies to reduce incidental bycatches, preserve ETP species and support the sustainability of fisheries. The project will provide training for identifying

and collecting information on ETP species as well as their handling ETP, including instruction of national on-board observers where such programme currently exist on bycatch sampling procedures and for fishers in self- sampling procedures. A better understanding of the magnitude of the issues at stake, as well as enhanced stakeholder engagement, involvement and action, will be achieved.

Outcome 1.3. Specific measures and technologies to address ALDFG developed and adopted and other measures to address adverse impacts of fishing gears on marine benthic habitats promoted

The project will enhance data collection for ALDFG and other adverse impacts of fishing gears on marine benthic habitats (e.g., identification and use of appropriate standards and quality of survey data sources) and will develop risk assessment and feasibility analysis of potential innovative technologies and incentive mechanisms to address losses caused by ghost fishing from ALDFG carried out for the selected fisheries, including cost-benefit analysis of ALDFG removal (curative measures), as well as the piloting and promotion of preventative and/or mitigating measures to address ALDFG. Risk assessment analysis to assess likely impacts and prioritize high risk/sensitive areas for ALDFG recovery, will be undertaken for specific fisheries/pilot areas to provide accurate baseline information to decision-makers. These analyses will help support the development of effective local-level disposal solutions that consider aspects such as costs (including consideration of ALDFG removal and clean-up and habitat restoration costs) and identify potential barriers including the likelihood of stakeholder acceptability and enforcement of the measures.

FAO have developed standardized ALDFG questionnaires which are being used to conduct surveys globally (see baseline section above) and contribute to the FAO Global ALDFG survey database. FAO has developed a framework for conducting a risk assessment for determining the need for a system to mark fishing gear to support implementation of the FAO Voluntary Guidelines on The Marking of Fishing Gear (VGMFG). FAO has also developed a technical manual for marking of fishing gear. Both the framework for risk assessment and the technical manual are due to be published in early 2023 and, together with the FAO ALDFG survey questionnaires, will be used in the delivery of Outcome 1.3. This outcome will be achieved through three outputs.

Output 1.3.1. Data and data collection frameworks on ALDFG in target countries improved

Data on ALDFG are essential for the effective management and mitigation of ALDFG and ghost fishing within national and regional fishery and management. Using FAO ALDFG survey forms, the project will collect information on ALDFG in the selected fisheries, to inform the development of a strategy and plan and measures to reduce its prevalence and impacts. Based on the results of an assessment of ALDFG, an estimate of the overall amount in the target fisheries will be made. This assessment will be used to guide mitigation actions (contributing to NPOA-ALDFG) in the CLME+ region, (based on guidelines developed by FAO for other countries). Activities will include:

Activity 1.3.1.a. Design and pilot the implementation of a data collection framework for ALDFG using a participatory approach. The project will design and pilot standardized logbook and observer protocols for ALDFG data collection and develop collecting guidelines. This will help improve both national and regional monitoring of ALDFG and help identify high risk/sensitive areas for ALDFG mitigation.

Activity 1.3.1.b. Information gathering on ALDFG to support policy planning and management. Information will be gathered (using the FAO ALDFG survey scheme) at pilot sites (selected fishing harbours) in the participating countries to estimate the amount of ALDFG, and monitoring of ALDFG. FAO will produce a standardised country ALDFG reports from the survey data.

Activity 1.3.1.c. Build capacity of ALDFG data collectors/observers, fishers and other relevant stakeholders to collect primary ALDFG data. The project will provide training and technical support to build the operational capacity of observers and fishers for standardized ALDFG data collection and processing. Assistance will focus on enhancing capacity to implement ALDFG data collection and verification at national and regional level, observer programmes, and data analysis to encourage adoption of ALDFG management measures.

Output 1.3.2. Risk assessment and feasibility analysis of potential technologies and incentive mechanisms to address ALDFG and ghost fishing carried out for target fisheries in CLME+, including cost-benefit analysis of ALDFG removal

The project will undertake a risk assessment to identify fishing gears of higher risk for ALDFG, including risk of ghost fishing, and a feasibility (costs-benefits) analysis to identify the opportunities and barriers for fishers to adopt mitigation measures, including the need and potential for local-level solutions. Activities will include:

Activity 1.3.2.a. Risk assessment and feasibility analysis of potential technologies and incentive mechanisms to address ALDFG and ghost fishing. The risk assessment will be based on a set of criteria including ecological, economic and technological criteria, as well as safety and navigation risks. The FAO framework for conducting a risk assessment of marking systems for fishing gear described in the annex of the FAO Voluntary Guidelines on The Marking of Fishing Gear (VGMFG) [80] will be adopted by the project. The risk assessments will help policymakers better understand the issue and the effectiveness of technologies and incentives to address ALDFG, and marking of fishing gear will also facilitate reporting, retrieval, and traceability. A set of guidelines will be developed that will stress the importance of a preventive risk assessment associated with ghost gear to target those fisheries that need gear marking as a priority.

Output 1.3.3. Preventative and mitigating measures to address ALDFG developed, piloted, and promoted in selected CLME+ fisheries

Based on the results of the risk and feasibility assessments undertaken under Output 1.3.2, fishing gear-marking systems will be developed and piloted (considering local specificities). Various solutions that have already been shown to reduce incidental bycatch in other areas, such as those supported through WWF?s International Smart Gear Competition (www.smartgear.org), will be

trialled. These may include use of low-strength ropes that break under strain from marine mammals, magnets attached to longlines to repel sharks, passive pingers that retain effectiveness even when the gear is lost, as well as fishing gear-marking technologies, lost gear tracking and reporting systems (preventative measures), and smart-gear technologies to minimize the potential of ghost fishing as well as improved management of fishing gear when it is being actively used (mitigating measures). Activities will include:

Activity 1.3.3.a. Assessment of potential gear marking solutions and participatory field trials to make sure the identified and tested solutions achieve the desired results. Pilots on gear marking in the selected fisheries will include trials on the application of different gear tags.

Activity 1.3.3.b. Capacity building courses and sub-regional training workshops for key stakeholders to adopt gear marking solutions and approaches. Areas to be covered will include procedures, guidelines developed in Activities 1.3.2.a and technologies tested in Activities 1.3.3.a.

Output 1.3.4. Knowledge of fishing impacts on benthic ecosystem and mitigation solutions promoted

There is generally very little awareness or concern among fishers over potential negative impacts of fisheries gears and activities on benthic ecosystems, and mitigation measures to address negative impacts are currently not in place in the targeted countries. This issue has received little attention by the region?s fisheries agencies and impacts are poorly known. However, fisheries departments acknowledge that there is a risk of underestimating the negative impact of demersal trawl gears on benthic habitats. Activities will include:

Activities 1.3.4.a. Development and delivery of capacity building training and sub-regional workshops to target audiences on the adverse impact of fisheries on benthic ecosystems. The newly acquired knowledge will be synthesized in a number of generic innovations/gear modifications that will be combined into a fishing/seabed habitat risk assessment method that will be applied to the selected fisheries in the CLME+ region.

Component 2. Strengthening governance and management frameworks and enforcement measures to better manage bycatch and reduce discards in CLME+ fisheries, supporting countries implementation of CLME+ SAP priorities

Component 2 will address Barrier 2 by strengthening governance and management frameworks and compliance to reduce bycatch and discards in target CLME+ fisheries. Specific guidance and advocacy materials on appropriate effective bycatch management and discard reduction measures will be formulated to inform decision-makers for mainstreaming into fisheries and marine conservation policy, regulatory and management processes. The project will also help build capacity for the implementation and enforcement of monitoring, control and surveillance (MCS) measures for bycatch management and discard reduction, as well as improving and standardizing data collection frameworks. This Component will support countries implementation of CLME+

SAP priorities particularly through improving regional governance arrangements for sustainable fisheries (Strategy 2) and the regional policy coordination mechanisms for governance of the marine environment (Strategy 3). Component 2 has three immediate project outcomes.

Outcome 2.1. Improved policy and legal/regulatory frameworks to manage bycatch and reduce discards and address ALDFG in target countries

This Outcome aims to improve the enabling policy and regulatory environment with a focus on providing targeted guidance for decision-makers on effective bycatch mitigation and discard reduction measures to strengthen relevant national and regional fisheries policy, regulatory frameworks associated with the target fisheries and protection of marine environment. In terms of measures to reduce ALDFG (supporting Outcome 1.3), consideration will be given to strengthening policy and regulations aimed at reducing abandonment at sea of those gear types with high ghost fishing impact potential, and promoting specific gear designs, gear marking and technology to track gear position, prevent/reduce gear loss and establish adequate end-of-life fishing gear port reception facilities and recycling options. This Outcome will be achieved through two outputs.

Output 2.1.1. Guidance on bycatch management, discard reduction and ALDFG mitigation measures formulated to update relevant fisheries policy and regulatory frameworks associated with target fisheries

The guidance will provide concepts, principles, practical measures and recommendations to complement and update relevant policy and regulatory frameworks associated with Management Plans. Activities will include:

Activity 2.1.1.a. Review of current policy, legal/regulatory frameworks to identify further measures needed for effective bycatch, discards and ALDFG management.

Activity 2.1.1.b. Development and drafting of recommendations/guidance to strengthen the legal/regulatory framework for more effective bycatch, discards and ALDFG management. This activity will be informed by earlier data collected on most effective ways of addressing bycatch/discards/ALDFG (under Component 1).

Output 2.1.2. Measures for effective bycatch management, discards reduction and ALDFG mitigation integrated into relevant national and regional policy and legal/regulatory frameworks and processes

According to the fisheries agencies there is a need to revise fisheries regulations in relation to bycatch and discard management and to address ALDFG, particularly for driftnet/gillnet fisheries in the target countries. For instance, regulations setting out technical specifications of the fishing gears are needed with clear and unambiguous gear definitions. Revision of driftnet fisheries

regulations is essential and should include technical parameters for reducing unwanted and incidental bycatch.

Activity 2.1.1.a. Drafting and promotion of advocacy materials identifying specific recommendations to strengthen current national and regional policy, legislation/regulatory frameworks for effective bycatch, discards and ALDFG management. This may include, for instance, the development of legislative templates to facilitate implementation of bycatch, discards and ALDFG mitigation measures. This activity will pay particular attention to regional policy frameworks.

Activity 2.1.2.b. Engagement with fisheries-sector legislation/regulatory frameworks processes to mainstream effective bycatch, discards and ALDFG measures. The programming of this activity will in part depend on the timing of scheduled national and regional processes to update the relevant fisheries policy or regulations in each target country. This activity will particularly focus on national-level measures.

Outcome 2.2. Marine fisheries management frameworks in participating countries improved for more effective bycatch management, discards reduction and to address ALDFG

This outcome will focus on the integration of measures to address unsustainable bycatch and discards into fisheries management frameworks, and include a focus on linkage with marine spatial planning (MSP) and fisheries management planning, strengthening both these processes. Bycatch problems can be ameliorated through ocean zoning that prohibits use of non-selective fishing gear in critical areas, as well as through the development and deployment of more selective and less damaging fishing technologies, and fishing practices. Using existing data sets, the project will identify and quantify spatial factors that influence the species composition of selected fisheries with a focus on ETP species.

A set of guidelines will be produced to provide concepts, principles and practical measures to manage bycatch and address discards when considering development of Fisheries Management Plans, Marine Spatial Plans and other spatial planning processes which cover coastal and/or marine areas. For instance, the project will investigate the feasibility of a multi-criteria spatial approach with consideration of catch and discard information that provides fishing vessels with maps of bycatch and ETP species ?hotspots? to be avoided. The project will target on-going initiatives in the participating countries and target fisheries, e.g. the CAFF-FAO-GEF BE-CLME+ project which has a specific focus on MSP.

Output 2.2.1 Identification of spatial, temporal and other appropriate measures for more effective bycatch management, discards reduction and to address ALDFG

Spatial-temporal data on bycatch, discards and ALDFG will help to improve sustainable fisheries resource exploitation by identifying high-risk areas and/or seasons for certain (ETP) bycatch species that can/should be avoided by certain fishing vessel- and gear types.

Activity 2.2.1.a. Collection and analysis of spatial-temporal data on bycatch, discards and ALDFG in target fisheries based on established data collection frameworks (e.g., DCRF). The appropriateness of several different methods will be examined for the collection of this spatial-temporal data on bycatch, discards and ALDF, including use of onboard observers, fishers-as-observers (self-sampling, including the use of logbooks or a smartphone app), onboard CCTV, etc, with selection based on further discussions and agreement with the fisheries agencies and fishers/fisher groups. The project will also examine the feasibility of supporting (through capacity building) existing or planned scientific observer schemes [81], initially in Suriname and Guyana where such structures exist.

Activity 2.2.1.b. Development of spatial-temporal mitigation measures, including maps identifying key bycatch, discard and ALDFG areas for the target fisheries.

Activities under this output will particularly employ participatory methods that encourage local engagement and capture of local knowledge, such as 'participatory three-dimensional modelling (P3DM)'. P3DM facilitates engagement of a range of stakeholders in three-dimensional mapping exercises and encourages and supports capture of local knowledge in an engaging way .

Output 2.2.2. Measures for more effective bycatch management, discards reduction and to address ALDFG integrated into target fisheries management frameworks at both national and regional levels

The activities conducted under Component 1, as well as Output 2.2.1, will produce fishery-specific management recommendations to address bycatch, discards and ALDFG. The project will promote the incorporation of these recommendations into national as well as (sub)-regional management frameworks such as fisheries management plans and strategies.

Activity 2.2.2.a. Engagement with fisheries-sector management frameworks processes to mainstream more effective bycatch, discards and ALDFG measures into national fisheries management processes. The programming of this activity will in part depend on the timing of scheduled national processes to update the relevant fisheries management and planning in each target country.

Activity 2.2.2.b. Engagement with fisheries-sector management processes to mainstream more effective bycatch, discards and ALDFG measures into regional fisheries management frameworks. The programming of this activity will in part depend on the timing of scheduled regional processes to update the relevant regional and sub-regional fisheries management and planning.

Output 2.2.3. National Plan of Action for sharks and rays developed and adopted in the four participating countries

The project will support Barbados and Guyana to develop, and in the case of Trinidad and Tobago to finalise, a National Plan of Action for sharks and rays (NPOA-Sharks). For Suriname, the national fisheries management plan will be revised to incorporate measures for sharks and rays. A regional Plan of Action for sharks and rays has been approved by WECAFC (by all member

states) [82] and there is therefore an existing agreement on the need for NPOAs for sharks and rays.

Activity 2.2.3.a. Develop and/or finalize and adopt NPOA-Sharks and fisheries management plans, as appropriate, to support the WECAFC Regional Plan of Action for Sharks. This process will be highly participatory involving representatives of key stakeholder groups and include identification of opportunities and development of effective recommendations to strengthen current national and regional policies for sharks and rays bycatch management. This activity seeks to identify key measures in the target fisheries which will also ultimately support the development of a regional NPOA-Sharks.

Activity 2.2.3.b. Identify strategies to implement the NPOA-Sharks recommendations. This activity will build on Activity 2.2.3.a by developing specific measures to strengthen national policies that support the conservation and management of sharks and rays and align with existing international obligations.

Output 2.2.4. National Plan of Action for ALDFG developed and adopted in four participating countries

Based on experience gained in other countries , NPOA-ALDFG will be developed with a special focus on the target fisheries for the four target countries (based in part on data and analysis from 2.2.1.a,b).

Activity 2.2.4.a. Develop a NPOA-ALDFG including identification of recommendations to strengthen current national and regional policies for ALDFG management and mitigation. This activity seeks to identify key measures needed in the target fisheries to support the development of NPOA-ALDFG.

Activity 2.2.4.b. Identify and implement strategies to encourage the adoption of NPOA-ALDFG recommendations in target fisheries. This activity will build on results from Outcome 1.3 and Outputs 2.2.1 and 2.2.2. To facilitate their adoption, the development of recommendations for improving NPOA-ALDFG will be highly participatory, involving representatives of key stakeholder groups.

Output 2.2.5 Stakeholder participation, especially SSF, in fisheries management decision-making related to bycatch, discards and ALDFG improved

This output will support efforts to improve national engagement and collaboration with regional and international agreements, as well as co-management of the target fisheries particularly strengthening the input from local communities/FFOs in decisions relating to SSF management.

Activity 2.2.5.a. Support for improved participation in, and collaboration on, regional and international agreements, such as ICCAT, with regional meetings as needed to discuss issues of common interest, including bycatch, discards, ALFDG, and related efforts to improve data

collection and reporting. This activity aims for strengthened cooperation between the countries and at regional level to support the implementation of relevant international obligations.

Activity 2.2.5.b. Support for improved participation of national and local level stakeholders in decision-making related to bycatch, discards and ALDFG. Actions under this activity will be linked to the project?s Stakeholder Engagement Plan. Support may include convening of national project Working Groups on bycatch, discards and ALDFG that include a range of stakeholders including resource users and other representatives of local communities. Local stakeholders may be directly supported for face-to-face meetings, e.g. covering cost of transport, meals and accommodation (where applicable), or through internet support if meetings are held virtually, and will include hosting community/local level consultations and a focus on communicating information that it is understandable by laypersons.

Outcome 2.3. Monitoring and compliance with new measures for managing bycatch, reducing discards and addressing ALDFG in fishing fleets within target CLME+ fisheries strengthened

The effectiveness of any policy, regulation or management directive depends to a large extent on its enforcement. According to the CLME+ SAP, current enforcement systems remain inefficient, expensive, complex and ineffectual. Responding to this, this outcome will support activities to improve the Monitoring, Control and Surveillance (MCS) systems in targeted CLME+ fisheries. This outcome will both strengthen and monitor the compliance with fisheries management measures to mitigate bycatch, discards and ALDFG, including existing measures as well as new measures identified and adopted through the project. The Component will focus on a variety of measures including increasing capacity for port-side inspections as well as introducing new monitoring technology, such as through piloting new and cost-effective VMS systems, and smart forms (developed by the FAO Information and Knowledge Management Team) for improved monitoring and reporting of bycatch and discards, building on experience and capacity within FAO and tailored according to country needs and circumstances. This will help support efforts to implement port state inspection obligations, by providing the means to conduct risk assessments of vessels so that resources (inspectors) can be allocated to vessels viewed as higher risk, for example those vessels fishing within identified bycatch hotspots (identified through Output 2.2.2). Improved inspections will also give better quality data on catches of bycatch species to address scientific and management information needs. The project?s MCS-related activities will also support efforts to fight IUU fishing through improved data collection, monitoring and sharing and help improve cooperation among authorities that are responsible for MCS. This outcome will be achieved through the following two outputs.

Output 2.3.1. Frameworks and tools for improved data collection and monitoring of new and existing measures governing bycatch, discards and ALDFG, including on ETP species, designed and adopted

This output consists of a series of activities and deliverables to improve the data collection framework for providing data on and monitoring of bycatch, discards and ALDFG in relation to

national and international requirements. Any new systems will be harmonized with existing ICCAT recommendations. For instance, the project will include an improved data collection framework for tracking compliance in the pelagic longline fisheries of Barbados and Trinidad and Tobago as required by ICCAT. The project countries may also benefit from participation in ICCAT Working Groups, such as the WG on Electronic Monitoring. It will also include an improved data collection framework in support of tracking compliance with new requirements to monitor and regulate the international trade of sharks and rays following the recent agreement to list around 100 additional species on Annex II of CITES, as well as recent requirements for monitoring of marine mammal bycatch under the US Marine Mammal Protection Act.

Activity 2.3.1.a. Identification, development and promotion of innovative, cost-effective technology and tools for monitoring of compliance with bycatch and discard regulations developed and tested within the selected fisheries. Trinidad and Tobago has an interest in introducing Electronic Monitoring (EM) using cameras for a portion of its longline fleet. The project will explore the feasibility of supporting some capacity building of its Fisheries Division for EM such as peer exchange with other countries where EM is already developed.

Activity 2.3.1.b. Development and promotion of innovative or improved ALDFG data collection and monitoring systems based on standardized protocols at the institutional and local level for selected fisheries. This will include a focus on ALDFG using the FAO survey methodology that can be repeated every 2-5 years to monitor trends and guide mitigation measures/activities. This would also support the NPOA-ALDFG which would include an ALDFG surveys programme.

Output 2.3.2. Capacity of key stakeholders to use technologies and tools to monitor compliance with relevant regulations and monitoring of bycatch, discards and ALDFG built

Lack of technical skills and expertise on fishing gear, bycatch reduction technology and species identification within the enforcement agencies are recognised as a key challenge to effective MCS [83]. Given the capacity in the participating countries, simple and cost effective MCS interventions will be a key focus for the project. This output focuses on building capacity of key stakeholder groups, particularly fisheries inspectors, to enable them to verify the extent to which bycatch and ALDFG mitigation measures (gear) have been adopted (vessels in port) and used (vessels at sea) in compliance with new and current regulations, using the frameworks and tools developed in Output 2.3.1.

Activity 2.3.2.a. Training of inspectors at port and landing sites in gear inspections and species identification to support new and existing regulations

Activity 2.3.2.b. Provision of, and training in, improved technologies and tools to monitor and control bycatch in the target fisheries to key stakeholders. Target stakeholder groups include MCS personnel and fishers, and this activity will include monitoring of bycatch rates.

Activity 2.3.2.c. At-sea observer scheme piloted in one country. A final decision on which country will be targeted for this activity will be taken at the project inception stage.

Component 3. Encouraging behavioural change for adoption of effective bycatch mitigation, discard reduction and ALDFG management measures in target CLME+ fisheries, supporting the implementation of the CLME+ SAP particularly through actions to encourage responsible fisheries practices (Strategy 2)

Component 3 will address Barrier 3 and recognises the need to encourage behavioural change for adoption of effective bycatch mitigation and discard measures, addressing ALDFG, and wider uptake of more responsible fisheries practices in target CLME+ fisheries. This will be achieved through a range of project activities that build on initial assessments to better understand the use of bycatch and discards and their importance to fisher communities (for livelihoods, income, food security and nutrition, and how they vary between men and women and SSF and industrial fisheries), as well as the costs and benefits of the adoption and use of bycatch mitigation and discard measures. The project will also consider the long-term benefits of adopting these devices and approaches as it relates to maintaining important end market access for example through the USA TED programme, the Marine Mammal Protection Act, MSC certification, new CITES rules related to sharks and rays , and other important market requirements. In addition, this component will also examine and encourage opportunities to develop small business ventures related to ALDFG, such as gear marking and recycling/repurposing of old gear.

This component is expected to include a range of project activities such as support for new value chains for landed discards (particularly targeted at women fish workers in post-harvest segments of fisheries value chains) as well as exploration of financial and other incentives to encourage behavioural change. The project recognizes the dependence of target coastal communities on fisheries for local livelihoods and food security, and the potential adverse impacts of reductions in the quantity of non-target catch on these communities. The project seeks to minimize these impacts through incorporating the principles of EAF and the SSF Guidelines and FAO International Guidelines on Bycatch Management and Reduction of Discards. Additionally, this project seeks to address food security and poverty eradication through livelihoods enhancement and diversification. The project also focuses on the interpretation of wider, overarching environmental objectives (i.e. CLME+ SAP) in local and regional contexts (for e.g. the WECAFC Regional Strategy on the Management of Bycatch and Discards in Latin American and Caribbean bottom trawl fisheries). Throughout this component the priority is on firstly supporting measures that actively reduce bycatch and secondly to promote full utilization of unavoidable bycatch of non-ETP species. This is to not create perverse incentives related to the harvest of bycatch species. Component 3 has one immediate project outcome.

<u>Outcome 3.1. Incentives, strategies and measures to support behavioural change of stakeholders towards more responsible fishing practices developed and widely available in target CLME+ fisheries (focused on management of bycatch, reduction of discards and addressing ALDFG)</u>

The REBYC-II LAC project improved understanding of how to motivate behavioural change among fishers, e.g., engagement of stakeholders in decision-making, promoting dialogue, policy and legislation, demonstrating potential for enhanced livelihoods, increasing awareness, elevating visibility of women in value chains, and building trust among stakeholders. Building on the results of the REBYC II project, this project will seek to incentivize and encourage individual fishers, fishing communities and fishing companies, including processors and distributors, to adopt bycatch mitigation strategies, measures, stewardship/conservation approaches, and other approaches to reduce the adverse effects of fishing gears in both SSF and industrial fisheries.

Project activities will include: (i) an initial assessment of the use of bycatch and the composition of discards (and their potential use) and fisherfolk? perceptions on bycatch/discard use and responsible fisheries; (ii) value chain analysis; and (iii) socio-economic cost-benefit analyses, to better understand the lives, practices, habits and livelihoods of the target fishing communities and the extent of their reliance on these fisheries and associated bycatch and discards. In cases, for example, where alternative fishing methods or livelihood strategies can be employed to avoid and minimise bycatch, especially of ETP species, and reduce discards, realistic alternatives will be identified, developed and made available to affected fisherfolk, with special attention given to small-scale women fish workers. This will be coupled with an assessment of Knowledge, Attitudes, Practices (KAP) and likely barriers to the adoption of any bycatch mitigation technologies and other measures to reduce unnecessary fishing mortality. This will include examining whether there would be any financial costs for SSF and the potential impact on livelihoods, food security and nutrition, and whether such measures would create a barrier to access the resource on which SSF livelihoods depend. Possible alternative livelihoods, new fisheries practices and technology, and new valued added products will be identified and promoted to the key fishery industry stakeholders, including their financiers (e.g. investors, micro-credit facilities, banks), using a participatory approach. Strong working relationships will be established with a range of stakeholders to build consensus on effective mitigation measures and to promote behavioural change to reduce unwanted and incidental bycatch mortality. Particular attention will be paid to developing opportunities for women fish workers, vulnerable and marginalized groups such as unemployed youth.

For SSF communities, a range of support and opportunities will be examined and developed as appropriate, which may include:

- Developing new businesses ventures such as manufacture of bycatch mitigation devices, and possible use of under-utilised species, e.g. catfish and flatfish in Trinidad and Tobago, with capacity building activities to support small business enterprise development, including new value chain, value addition and market development (with potential job creation in processing, packaging, marketing, distribution and sale of fish products), and training in business skills, etc;
- Facilitating linkage linkages between fisheries and other sectors through alternative and complementary livelihood/income generating activities (diversifying sources of income to build community resilience) such as local agricultural and rural development initiatives and programmes, as well as marine conservation schemes and ecotourism initiatives that include

fisherfolk in the protection and conservation of ETP species. This may also include improving links with responsible tourism such as including fishers in the promotion of activities related to ETP species for ecotourism;

- Facilitating linkages between fisherfolk, including women and fish workers and rural and agriculture banks and other financial institutions to promote greater investment in ventures based on more responsible fishing practices and technologies; and
- Identifying, developing and promoting new or strengthened policies to support investments in SSF and bycatch mitigation measures, such as tax breaks for responsible fisheries.

In terms of engagement with the industrial fisheries sector, (including fish processors, marketers, retailers and the institutions financing fisheries) project activities will include efforts to promote responsible fisheries as part of corporate Environmental and Social Governance priorities, development of guidance on best practice responsible fisheries, and facilitating access to improved knowledge on commercial solutions for addressing bycatch. Financial institutions providing funding for the fisheries sector (both to small- and industrial fisheries) will be engaged by the project to encourage their financing of sustainable fisheries ventures and to highlight the risks from a ?business as usual? model.

In addition to supporting fisherfolk to adopt responsible fisheries practices (specifically unwanted and incidental bycatch mitigation) to reduce discards and ALDFG, project activities will support livelihood diversification and local and national blue economy growth objectives in the participating countries. In some circumstances where ALDFG gear is perceived to be a particular problem, positive incentives through reward schemes for disposal and/or recycling/repurposing of old and unwanted gears in appropriate facilities will be explored and developed where feasible. Together, the above efforts will also help support the post-Covid 19 recovery process in fishing communities in the participating countries.

Given the small-scale nature of most fisheries in the participating countries, project activities under this Outcome will be guided by the Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication (SSF Guidelines) [11]. Both fisherfolk communities and industrial fisheries will be involved in the project?s efforts to design, develop and test new bycatch mitigation technologies and approaches from the very beginning of project implementation. Based on the lessons learned during the REBYC-II LAC, the project will follow a participatory approach in how to deal with the bycatch mitigation, allowing for the use of the community stakeholder knowledge in the development, testing and modifying proposed devices, and identifying the best strategy for full utilization of unavoidable bycatch of non-ETP species.

This outcome will be delivered through three outputs focused on the target fisheries in project countries which include: pelagic longlines in Barbados and Trinidad and Tobago, Trawl fisheries targeting crustaceans and demersal finfish species in Guyana and Suriname and Gillnets/Driftnets in Guyana Suriname and Trinidad and Tobago. For each of the outputs under this component, the focus will be placed on these target fisheries, and the value chains (existing and potential) associated with them.

Output 3.1.1. Socio-economic (including cost-benefit) analyses associated with adoption of mitigation technologies and measures to manage bycatch and reduce discards and the adverse effects of fishing gears undertaken and promoted, with results communicated to key fishery industry stakeholders in target CLME+ fisheries

This output will focus on identifying the main costs and benefits associated with the adoption of identified and prioritised mitigation measures to manage bycatch and reduce discards, based on an improved understanding of the use of bycatch and discards and their importance to fisherfolk communities (for livelihoods, income, food security and nutrition, and how they vary between men and women and SSF and industrial fisheries). This will help to better communicate the potential benefits to stakeholders targeted for the uptake of these practices, communicate environmental benefits to consumers, identify the most cost-effective approaches of adopting mitigation measures, and address the main cost barriers associated with the adaption of these measures. Fisherfolks? knowledge attitude and practices (KAP) towards various mitigation measures will be particularly assessed. Activities under this output will include:

Activity 3.1.1a. Review of the importance of the use of bycatch and discards to fisherfolk communities (for livelihoods, income, food security and nutrition). This review will first map all relevant stakeholders to target fisheries, and the value chains associated with them, to understand the current importance and use of bycatch and discards, and how this use varies between men and women and SSF and industrial fisheries.

Activity 3.1.1.b. Cost-benefit analysis of adoption of mitigation technologies and measures to manage bycatch and reduce discards. This activity will estimate the social, environmental and economic costs of adopting and maintaining compliance with prioritised recommended mitigation technologies and measures, including, but not limited to, initial capital costs, recurrent costs associated with mitigation technology operation, repair, replacement and maintenance costs, and labour costs and time effort for the specific fisheries targeted under this project. This activity will also estimate the potential short term and long-term benefits associated with adoption of mitigation technologies and measures, including, but not limited to, financial/economic, social (e.g. benefits for women, local community empowerment), the economic benefits associated with ecological and stock health improvements, and international market access benefits for the fisheries targeted under this project.

Activity 3.1.1.c. A knowledge attitude and practice (KAP) survey of fisherfolk, industrial fisheries operators, consumers and distributors on the barriers to adoption and use of BRT, methods of protection of ETP species, and ALDFG collection approaches and end products. The survey results will be used to develop recommendations to advance the adoption of mitigation technologies and measures to manage bycatch and reduce discards and the adverse effects of fishing gears, including an articulation of challenges and opportunities related to proposed mitigation approaches.

Output 3.1.2. Strategies, measures and opportunities to encourage fishers and markets to reduce incidental and unwanted bycatch identified, developed and piloted

At the PPG stage several opportunities were provisionally identified as having potential for further development but require further analysis to determine feasibility. These include producing value-added products withs such as fish silage from fish waste, and associated products such as liquid and pelleted fertilizer; developing novel eco-labels relevant to local/regional consumer demands and preferences; meeting key export requirements to access external markets and developing consumer products/ raw materials for recycled goods from ALDFG gear. For each of these opportunities and other relevant opportunities explored in Output 3.1.2. a participatory approach will be used to prioritise end markets and products that will be pursued using pilots under this component.

Additionally, this output will conduct a market and consumer analysis for potential end products and will also consider existing and potential production capacity at both the industrial and small scales for these products. Challenges and opportunities to be addressed and explored in capacity building programmes and pilot projects for the production and sale of these products will also be analysed.

Pilot projects will be implemented by building stakeholders? (fisherfolk, industrial producers, distributors and retailers) capacity in priority areas identified as necessary to test the adoption of approaches to manage bycatch and reduce discards and the adverse effects of fishing gears, which can be eventually scaled up.

Capacity building programmes will be built with target communities in a participatory manner, taking in account the knowledge and any past experiences with bycatch reduction technologies and methods, consumer response to new products and marketing, potential of success in accessing new end markets (domestic, regional, and international), and the potential of proposed capacity building activities to support the realisation of environmental benefits. Where possible support will be given to enable the development of new trade relationships and end markets, such as participation in seafood expositions in Canada and the United States, and national/regional seafood fairs with food distributors, restaurants, and tourism markets. This will encourage the scaling up of livelihoods relevant for the adoption of mitigation technologies and approaches to address bycatch and ALDFG.

Activity 3.1.2.a. Identification and development of potential markets and product identifiers associated with the adoption of bycatch mitigation and discard management measures in domestic and international markets. Potential market/product identifiers could include ?Products made with ALDF gear?, ?products made with recovered oceans plastics?, ?made using bycatch reduction approaches?, ?ETP free?, ?produced using ETP bycatch reduction approaches?. For International markets, potential market identifiers include MSC certification or other established third-party certification. For domestic and regional (CARICOM) markets, focus will be placed on developing new direct to consumer and business-to-business value chains, particularly linked to the tourism and restaurant industries. For international markets, focus will be placed on high-value low-volume export markets (for example, loined tuna in Barbados), with a focus on regional/CARICOM markets where products imported from outside the region can be substituted for products produced within the CARICOM region. These potential end markets and product identifiers will be presented to relevant stakeholders

Activity 3.1.2.b. Participatory identification and prioritisation of potential economic opportunities explored in output 3.1.2.a, related to bycatch reduction, addressing ALDFG gear issues and waste minimisation, and other environmental goals of REBYC. Relevant stakeholders (with a focus on SSF producers including women, vulnerable and marginalised groups) involved in the target fisheries will first be mapped and then asked to prioritise potential bycatch mitigation approaches, potential end markets, and potential value-added products for capacity building and piloting of market-based approaches.

Activity 3.1.2.c. Participatory design and implementation of capacity building plan for target fisheries and stakeholders. Based on prioritised economic opportunities, a participatory capacity building plan for target fisheries and stakeholders will be developed. Capacity building programmes will use hands on training events to build capacity in identified target areas that can include (but are not limited to), production and processing methods, packaging, distribution, cold chain management, small business management, business plan development, promotion, marketing and product development skills, communal organisation for joint procurement. Capacity building activities and training events will focused on the main objectives (i.e., to minimize bycatch and discards in specific fisheries). They will be appropriately documented using approaches tailored to local stakeholders to ensure they can be replicated in the future. This may involve the generation of written or multimedia (video/audio) manuals based on stakeholder needs. Where possible the project will collaborate with the relevant national and international institutions to dovetail with existing capacity building efforts and utilise publicly available infrastructure (for example using processing facilities available to small scale fishers in public markets and landing sites in Trinidad, currently being developed by NAMDEVCO - the National Agricultural Marketing and Development Corporation.

Activity 3.1.2.d. Implementation of pilot projects as proof of concept for newly developed enterprises. Further at least two pilot projects will be identified per country based on criteria agreed upon by the project steering committee for direct mentorship support. This approach involves each of these communities/enterprises working with a business or technical mentor who can provide capacity building in the priority areas identified for pilot projects related to the development and domestic/regional and international marketing of novel and value-added fisheries products produced using bycatch management and ALDFG recovery approaches in the target countries using the recommendations produced from economic analysis for target fisheries. Pilot projects will be carried out under the instruction of capacity building mentors assigned to target communities/enterprises. At least one pilot project per country will focus on women and vulnerable peoples. Pilot projects in the target countries could include but are not limited to:

- Upgrading tuna processing capacity to enabling loining and sale of value-added products for the pelagic longline fisheries of Barbados and Trinidad and Tobago
- Generating value from waste, using fish silage in Barbados and Trinidad and Tobago to generate liquid fertilizer for local agricultural industries
- Generating value from waste, using shrimp shells from industrial Trawl fisheries targeting crustaceans to create dried and liquid fish stock

- Generating art and recycled plastic from at sea recovered ALDFG targeting local tourists and international recycled plastic markets (all countries).

Activity 3.1.2.e. Communication of economic benefits associated with shifting towards bycatch reduction methods and ALDFG recovery efforts to fishery stakeholders. Communication of the economic benefits associated with shifting towards fishing products and methods that reduce incidental bycatch and recommendations on how to access these benefits disseminated to target fisheries producers, current and potential consumers of these value-added products and any other relevant stakeholder including supermarkets and retailers, restaurants, government agencies and providers of financial capital/ financiers of fishing activities in project. Using the lessons learnt from the pilot projects, and publicly available training information generated under activity 3.1.2.c, this activity will aim to promote the scale up and expansion of bycatch reduction methods and ALDFG recovery efforts in the target fisheries.

Output 3.1.3. Legal and financial frameworks revised to promote new opportunities related to better bycatch management, discards reduction and to address ALDFG

Activities to deliver this output will focus on reviewing and updating current policies and financial frameworks relevant to investing in sustainable fisheries (with a focus on those relevant to the project?s target fisheries), with identification and promotion of policies, strategies and measures to encourage fisherfolk and markets to adopt and expand bycatch reduction approaches and ALDFG recovery efforts. Currently, fisheries operators require a more supportive enabling environment from both a financial and regulatory perspective. To implement and scale up the various actions/activities required for impactful reduction of bycatch and ALDFG, additional financial capital will be required both during and beyond the duration of this project. This output aims to facilitate a supporting enabling environment by providing relevant actors with information on various benefits (environmental, social, economic and financial) of providing investment and support to fisheries adopting bycatch, discards and ALDFG management measures.

Activity 3.1.3.a. Review of existing legislative, regulatory and financial/funding frameworks relevant for market-based approaches to promoting adoption of bycatch mitigation and other responsible fisheries measures. The review, together with consideration of regional and global best practices of regulatory and financial funding measures (including insurance mechanisms) used to support market-based approaches for the promotion of responsible fisheries, will identify recommendations on how to improve the existing legislative, regulatory and financial funding frameworks.

Activity 3.1.3.b. Development and implementation of education and awareness-raising campaigns targeted at existing and potential funders/financiers of fisheries enterprises on tools and approaches for funding of business and activities related to bycatch reduction and ALDFG gear recovery. This campaign will be built based on the review and recommendations generated in activity 3.1.3.a.

Activity 3.1.3.c. Piloting of an incentive scheme for recovering of ALDFG gears for SSF in participating project countries.

Component 4. Knowledge Management and lesson learning, supporting implementation of the CLME+SAP at the regional level (Strategy 3)

The management of project-derived information and knowledge is an integral part of the project operations, essential for generating content for up-scaling of project achievements, lessons and good practices, strengthening institutional memory, and supporting stakeholder engagement. The use of knowledge to strengthen capacity is seen as particularly critical to the project?s success (seen across Components 1-3).

The project seeks to identify and disseminate its experiences, achievements, lessons learnt and best practices to a range of stakeholders in the CLME+ region and beyond (individual fishers, fishing industry (capture, processing and distribution) and the wider fish-buying public) to promote greater awareness, understanding and acceptance of solutions for addressing bycatch, discards and ALDFG, and make knowledge of these more widely and easily available. Component 4 will address Barrier 4 and focuses on improving knowledge and knowledge management to enable more informed decisions on bycatch management, discard reduction and effective ways to address ALDFG, drawing on key project results and lessons learned from Components 1-3 as well as other parallel initiatives. The project will also be able to draw upon the experiences and lessons learned from past FAO-GEF projects, notably the REBYC-II LAC project, and will be able to link and exchange experiences with the Communications Team of the recently approved GEF-7 FAO-led Common Oceans ABNJ programme. Component 4 will include a road map for scaling up project results. It also includes project management activities related to adaptive management, based on monitoring, evaluation, lesson learning and project oversight.

A part-time project Knowledge Management and Communications (KMC) Officer (KMCO), to be embedded in the Project?s Management Unit, will be employed by the project for its entire 4-year duration, to organize and execute its knowledge management, outreach and communications activities, and support outreach efforts undertaken through the national fisheries agencies. A KMC Working Group will also be established to advise on the development and to coordinate KMC activities across the project and with the EAF4SG project. This group will be established with representatives from each of the key stakeholder groups, e.g. outreach/communication officers from the participating fisheries agencies. The KMC Working Group will meet on a bi-annual basis, organized by the KMCO who will provide secretarial functions to the group. It is expected that the working group will be operated online only (no face-to-face meetings unless non-project funded opportunities arise). Component 4 has two immediate project outcomes.

Outcome 4.1. Knowledge of measures, options and incentives for effective bycatch management, discards reduction and to address ALDFG to improve sustainability of fisheries increased among key stakeholder groups (individual fishers, fishing industry and fish-buying public)

REBYC-III aims to contribute significantly to the modernisation and development of fisheries policy, management, technology and best practices at local, national and CLME+ levels. It seeks to improve decision-making in relation to addressing unsustainable bycatch by building the knowledge base among relevant stakeholders on lessons and best practices on effective bycatch management and discards reduction technologies and approaches, as well as the problem of ALDFG and ways to address the threat. As such external communication and dissemination of information on these issues is core both during and after the project. This outcome will be delivered through three outputs.

Output 4.1.1. Outreach Strategy and Plan to promote greater understanding of bycatch management, discards reduction and to address ALDFG and mitigation practices in target fisheries developed and implemented

The project will seek to communicate measures to address issues around bycatch, discards and ALDFG and the need to move towards more sustainable practices in the target fisheries, across a range of stakeholder groups. This will include targeted capacity building and resources for effective communications in the four national fisheries agencies, building on initial capacity needs identified by their fisheries agencies and lessons from previous communications/awareness-raising/outreach initiatives (see baseline section).

Activity 4.1.1a. Development of a Bycatch, Discards and ALDFG Outreach Strategy and Plan focused on the target fisheries, with clear identification of roles and responsibilities, deliverables, resources and timing (what, how, when, who and with what resources)

Activity 4.1.1.b. Development of Bycatch, Discards and ALDFG outreach and awareness-raising materials for the target fisheries and their key stakeholder groups (varying according to country needs and defined in the Strategy and Plan)

Activities 4.1.1c. Outreach training programme for the four national fisheries agency staff in effective techniques and approaches for communicating selected bycatch, discards and ALDFG messages (e.g. communicating messages through stories, effective use of social media)

Activities 4.1.1d. Development of a plan with identified funding for long-term support for fisheries outreach activities in each country (e.g. through tailored courses through the University of the West Indies campuses in the region or through national universities in Suriname and Guyana).

Special attention will be given to disseminating lessons learned and recommendations for successful implementation of effective bycatch management and discard and ALDFG reduction measures in similar communities and fisheries to those targeted by the project, with the identification of individual ?champions? and institutions to promote project results.

Output 4.1.2. Project successes, experiences, recommendations, and lessons learned for successful implementation of effective bycatch management, discard reduction and ALDFG mitigation measures identified and disseminated

The management of project-derived information and knowledge is an integral part of the project operations, essential for generating content for up-scaling of project achievements, lessons, good practices and recommendations on appropriate mitigation measures; strengthening institutional memory; and supporting stakeholder engagement. The use of knowledge to strengthen capacity is seen as particularly critical to the project?s success. The project will identify and disseminate its experiences, achievements and lessons learnt, to a range of stakeholders in the project countries, wider CLME+ region and beyond to promote greater awareness, understanding and acceptance of solutions for addressing bycatch, discards and ALDFG management in tropical fisheries, and make knowledge of these more widely and easily available.

This output will coordinate all project knowledge management and communication needs across the project (including those in components 1-3). To achieve this a core element of Component 4 will be the development of a project Knowledge Management and Communication (KMC) Plan that will direct the generation, storage, lesson learning and sharing/exchange of project-generated information, as well providing a coherent, coordinated framework for the project communication activities, and to maximize the impact through strategic identification of KMC activities, events and stakeholder participation opportunities.

Activity 4.1.2.a. Development of a project KMC Plan. This will identify and promote key project messages, results and successes, target audiences, partner relationships, resources needed, and timing identified, and include a digital media strategy. It will identify mechanisms and tools for effective knowledge-sharing across the project, and include sections on: objectives and approach; target audiences (with a mapping exercise of stakeholder interests, areas of expertise and communication platforms and resources in relation to KM and communications); key messages; tools, channels and mechanisms (dedicated websites, knowledge-sharing platforms, meetings and events, social media, other media); knowledge management activities; communication activities; roles and responsibilities; human and financial resources; monitoring and reporting; and timetable/programming. Furthermore, it will provide guidance on how to collect and share best practices, lessons learned, and innovative solutions to bycatch, discards and ALDFG issues. The KMC approach builds on acknowledged best practices widely employed by FAO, such as the Knowledge Sharing Toolkit and be in line with the principles of the FAO Knowledge Strategy (2011) and GEF?s Knowledge Management Strategy and associated guidance. It also takes recent experiences of other FAO-GEF programs where KMC activities have had a significant focus, including the FAO-GEF Coastal Fisheries Initiative (CFI), into consideration. The KMC Plan will be developed during the first three months of implementation. It will be led by the KMC Officer and reviewed and updated annually as required.

Activity 4.1.2.b. Project-generated knowledge and communication products developed and shared through available knowledge-sharing platforms and processes to facilitate exchange of lessons, best practice, and expertise generated during project implementation, including information packages, media packs, with establishment and operation of project website (linked to relevant

national fisheries agency websites) acting as a project knowledge-sharing hub. It is expected that a range of media and channels will be employed to promote project results including through newspapers, TV (largely their websites), social media and newsletters, as well as through videos (e.g. video footage of project activities) and still photography (collection of stock images), infomercials, posters, infographics, project participation in public events such as expos, meetings, fisher folk observances and other PR activities that engage with target audiences. Knowledge products will cover the mainstreaming of gender in project activities.

Activity 4.1.2.c. A project-specific ?visual identity? developed, including design guidelines, templates and layouts for use in knowledge management and communication activities, and a standard 1-page fact sheet on the project (initially covering aims and expected results, partners, etc.), will be developed during the first 3-months of the project implementation.

Activity 4.1.2.d. A structured lesson-learning framework designed and applied to the project with regular reviews of project results (tied to the project?s M&E plan, see section 9 below). This will be undertaken through a participatory mapping exercise of shared experiences and good practices with project partners and key stakeholder groups directly involved with the project, undertaken as a part of an annual project review (linked to development of the GEF Project Implementation Review, see section 9). This is considered a key tool for documenting and disseminating project-generated knowledge.

The project aims to promote lessons learned in ways to effectively address incidental bycatch, discards and ALDFG to a wide range of GEF-eligible countries in the CLME+ region and in other LMEs, and a broader dissemination of experience and lessons learnt generated by the project will be pursued through engaging national and regional technical and educational institutions (e.g. through UWI partner network), and regionally and internationally through South-South cooperation mechanisms. Consequently, the project?s knowledge management approach will place particular emphasis on stakeholder engagement and the KMC Plan will be linked to the project?s Stakeholder Engagement Strategy and Plan (see section 2 of Project Document) to ensure robust information dissemination and exchange to increase awareness and engagement on the topics of bycatch, discards and ALDFG in the public domain.

Although the project specifically addresses knowledge management activities under this Component, the project employs knowledge management to support capacity building and training actions under all the components. In this regard, in collaboration with the FAO e-learning Academy, the KMC will also support the development of online KMC tools, including tools to facilitate courses and material to advance the project?s requirements on capacity building.

Monitoring of, and reporting on, project knowledge management and communications activities will be embedded in the project M&E Plan (see Section 9) to support adaptive management of the project. They will feed into project reports, with descriptions of the activities, following the reporting requirements of the relevant implementing agencies and the GEF.

Regular consultation with all stakeholders through this Component will also increase support and ownership of proposed bycatch, discard and ALDFG management options, which is essential to effective co-management.

Output 4.1.3. Roadmap and materials for scaling successful project solutions for better management of bycatch, reduction of discards and addressing ALDFG in CLME+ fisheries and beyond developed and promoted by relevant stakeholders, including1% allocation to IW:LEARN activities

Lessons learned for successful implementation of more effective mitigation of incidental bycatch and management to reduce discards and ALDFG in the target fisheries will provide valuable guidance for their eventual scaling up through multiple partnerships and links with other larger projects. Mitigation and management options tested in targeted CLME+ fisheries will be promoted and scaled-up in different forms, pathways and mechanisms to influence policies and changing people?s behaviours. REBYC-III will create and transfer state-of-the-art and transdisciplinary knowledge between the CLME+ countries, which will be available to educate a new generation of fisheries scientists and managers on meeting the challenges of future fisheries management. REBYC-III will ensure cooperation for data/information sharing, bycatch, discards and ALDFG assessments, and risk evaluations with all relevant stakeholders (e.g., fishing agencies and private sector, NGOs and the broader community) will lead to potential scale up innovative solutions to bycatch issues in other LMEs.

Activity 4.1.3.a. A ?roadmap? for scaling up project successes and experiences to neighbouring countries with similar or shared CLME+ fisheries and bycatch, discard and ALDFG challenges, such as Brazil, Venezuela, French Guyana and Eastern Caribbean islands, and the wider Caribbean region and globally.

Activity 4.1.3.b. A key element of the ?roadmap? will include active engagement with IW:LEARN and the CLME+HUB. This will further effective dissemination of knowledge and project successes and lessons learned in bycatch mitigation and management of discards and ALDFG in the wider Caribbean and to other LMEs and the wider IW community. The project will also draw on the profound expertise and experiences available via these platforms especially participating in exchanges on topics related to broader EAF issues, industrial and small scale fisheries development, and marine conservation issues at the national and regional levels and be an active learner from past experiences in other regions by participating in trainings, workshops, IW Conferences and any other exchange formats pertaining to sustainable fisheries at the national and regional levels.

Activity 4.1.3.c. Contribute to GEF Experience Notes and Results Notes (at least two experience notes and one results note), Good Practice Briefs and other relevant knowledge products during project implementation to the IW:LEARN platform following IW:LEARN guidance. The Project Management Unit will also facilitate partner participation (e.g. by fisheries agency representatives from each participating country) in external knowledge-sharing exchanges such as the IW:LEARN biennial conferences and any relevant regional events hosted by IW:LEARN. A minimum of 1%

of the GEF IW grant financing will be ring-fenced to support participation in IW:LEARN activities (see project budget in Annex A2).

At the global level, the findings and recommendations of the project will be shared through IW:LEARN and other relevant global knowledge platforms and with the FAO Committee on Fisheries (COFI), which will provide opportunities to promote project experiences and lessons learned on bycatch mitigation globally. Through the Regional Secretariats Network (RSN) the project will share experiences and team up with all RFBs. Promotion of results to environmental NGOs will take place largely at the global level through the Global Ghost Gear Initiative (GGGI), while scientific community ties will be secured through the ICES-FAO Working Group on Fishing Technology and Fish Behaviour.

Outcome 4.2. Effective gender-responsive project implementation based on adaptive management

This outcome aims to facilitate the effective and efficient implementation of the project by establishing appropriate management procedures, including coordination between partners and adaptive management based on a high-quality M&E framework.

A comprehensive, gender-sensitive project Monitoring and Evaluation (M&E) system will be applied to the REBYC-III CLME+ project (see Section 9). In line with the Minimum Fiduciary Standards for GEF Partner Agencies and the 2019 GEF Evaluation Policy, GEF Agencies are responsible for ensuring that projects are properly designed with M&E plans and that projects are adequately monitored during implementation. These monitoring plans should include appropriate performance and results indicators for projects and programmes needed to adequately monitor project activities, production of outputs and progress toward outcomes. Gender concerns are integrated into the M&E framework, e.g., through specific indicators (especially through the Gender Action Plan ? see Annex R) with allocated M&E budget to ensure they are monitored, to ensure that benefits to women (and youth and disadvantaged groups) are tracked and flow from the project. It should be noted that gender concerns are mainstreamed across all four components, outcomes and outputs and will be integrated into the M&E framework to ensure that women (and youth and disadvantaged groups) are direct beneficiaries of the project. This Outcome will be delivered through two outputs.

Output 4.2.1. A gender-responsive project Monitoring and Evaluation (M&E) system using data disaggregated by sex, age and ethnicity designed and operational, and in line with FAO and GEF requirements

The project will implement a gender-responsive project M&E and lesson learning framework that will feed results into the project?s communications activities (helping to identify successes and lessons learned), as well as supporting effective, adaptive management of the project.

Activity 4.2.1.a. Establishment of the Project Steering Committee (PSC) as the project oversight body and convened at least once a year.

Activity 4.2.1.b. Inception workshop with review and endorsement of M&E Plan by the PSC.

Activity 4.2.1.c. Regular monitoring of project indicators (according to the M&E Plan ? see section 9), and reporting on project results (including the annual GEF Project Implementation Review -PIR, and 6-monthly FAO Project Progress Report- PPR).

Output 4.2.2. Mid-term Review and Terminal Evaluation carried out

A Mid Term Review (MTR) of the project will be undertaken for adaptive management purposes at the 2-year point following the start of project implementation, and the project will also be subject to an independent Terminal Evaluation (TE) within 6 months of official closure of the project.

Activity 4.2.2.a. MTR conducted within two years of the start of implementation of the project

Activity 4.2.2.b. TE conducted before the official closure of the project, with TE report with results and recommendations to FAO, GEF and the participating governments.

Linkages, assumptions, drivers and longer-term outcomes and impacts of the project

Several of the above Outcomes both within and between components interlink and work together or are dependent on the progress and results of others (as depicted by the network of arrows in Figure 2, the graphic representation of the Theory of Change). For instance, identification of potential incentives under Outcome 3.1 will inform the development of policy guidance on bycatch measures under Outcome 2.1, and the uptake of bycatch measures under Outcomes 1.1 ? 1.2 will be facilitated by successful delivery of project measures to integrate bycatch mitigation recommendations into policy and legal frameworks (Outcome 2.1) and specific incentives (such as new business opportunities and possible tax incentives) identified under Outcome 3.1.

In addition, the achievement of the project outcomes and progress towards the project objective and longer-term impacts depends on a number of wider assumptions being met. Assumptions that directly relate to achievement of the project?s immediate outcomes are that:

A1 ? Government fisheries agencies, fishing communities and private sector fishery groups are willing to engage in participatory co-management of fisheries and marine resources

A2 ? Social and cultural barriers do not prevent women from effectively participating in the sustainable management of fisheries

A3 ? The private sector is willing (or can be encouraged) to invest in activities to address bycatch and discards and measures to address ALDFG and continues to have a supporting enabling environment.

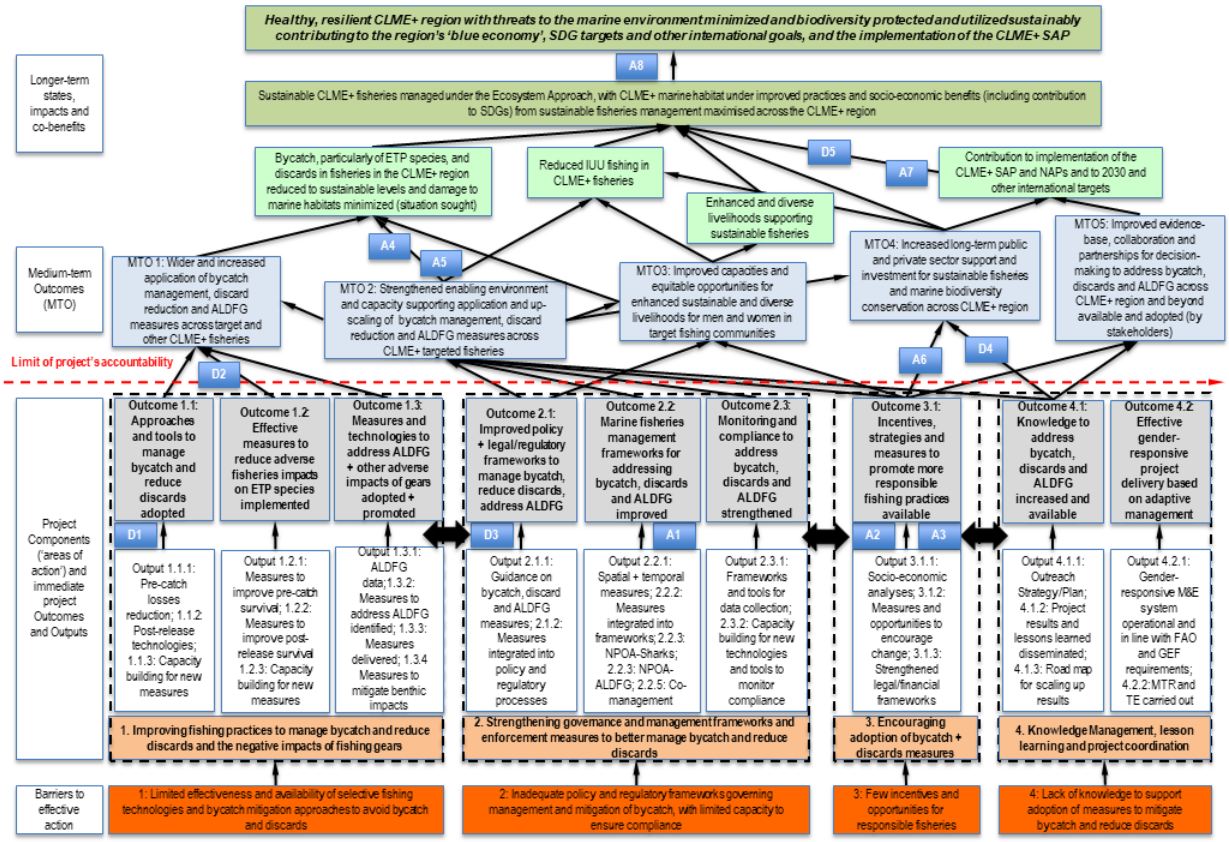


FIGURE 2. THEORY OF CHANGE FOR THE PROPOSED REBYC-III CLME+ PROJECT

(A = Assumption; D = Driver)

In addition, operation of the project itself rests on several preconditions including that: (i) the project can secure the external expertise and technical assistance required for a full and timely implementation of project activities (needed for delivery of all Components); (ii) there is continued commitment of the participating institutions and actors from national to community level during the project lifetime, manifest through their continued staff involvement and co-financing contributions; (iii) there are no major political changes in participating countries that would prevent the project?s institutional framework from continuing to operate and deliver project results; and (iv) the Covid-19 pandemic does not continue to have significant negative impacts on the ability of key stakeholders to engage with the project and deliver results, or adaptive management measures are not able to mitigate these impacts.

In addition, it is assumed that fishing communities will grasp the opportunities offered by sustainable co-management and are willing to invest the required time and energy to adopt bycatch and discards measures.

There are also several impact drivers that may make progress along the causal chain more likely:

D1 ? The fishing industry (particularly the industrial fisheries subsector) is keen to reduce operational (ultimately financial) costs and losses owing to unwanted and incidental bycatch, discards and ALDFG

D2 - Obligations under international/regional policy and legal frameworks, such as the Landing Obligations under the EU Common Fisheries Policy (CFP) and the US Marine Mammal Protection Act ? Fish and Fish Product Import Provisions, which encourage more responsible fishing practices to maintain fish exports

D3 ? Increased awareness among government decision and policy makers about the value of marine ecosystems and their role in sustainable development and climate change mitigation, the opportunities offered by the blue economy and need to manage coastal and marine resources sustainably, together with increased promotion of the value of marine ecosystems by number of global level initiatives such as the High-Level Panel on Sustainable Ocean Economy.

If the project outcome-level assumptions and impact drivers (A1-3 and D1-3) are met, then delivery of the four project Components will result in further gains along the causal pathway to achieving improved management of bycatch, a reduction in discards and mitigation of ALDFG impacts contributing to more responsible fisheries. Together the four Components and their nine Outcomes combine to affect several medium-term outcomes (MTO). The outcomes associated with Components 2 and 3 combine to strengthen the enabling environment to support application and up-scaling of bycatch mitigation, discard and ALDFG measures across CLME+ fisheries and beyond (MTO2), which combined with measures under Component 1 should lead to wider and increased application of such measures across target and other CLME+ fisheries (MTO1). Similarly, the strengthened enabling environment (MTO2) together with improved value chains and other incentives delivered through Component 3 should help improve capacities and equitable opportunities for enhanced diverse and sustainable livelihoods for men and women in target fishing communities (MTO3) and increase long-term public and private sector support and investment for sustainable fisheries and marine biodiversity conservation across CLME+ region (MTO4). Together these medium-term outcomes supported by other non REBYC-III CLME+ project interventions and resources (e.g. efforts through other GEF-funded IW projects in the region) will lead to the eventual reduction of bycatch, particularly of ETP species, and discards in the fisheries of the CLME+ region to sustainable levels, with and actions to address ALDFG and reduced levels of damage to marine habitats, whilst also contributing to reducing IUU fishing in the CLME+ region (especially through Component 2 related activities), and enhanced and diverse livelihoods supported through more sustainable fisheries. Apart from gains in specific countries and fisheries, the delivery of project outcomes would also improve the evidence base for more effective decision-making, collaboration and partnerships for addressing bycatch, discards and ALDFG across CLME+ region and beyond (MTO5), contributing, for instance, to implementation of the CLME+ SAP and to the 2030 and other international targets. Achievement of these longer-term outcomes, which is beyond the immediate accountability of the project is subject to further assumptions (A4-A8) and two additional divers (D4-D5), namely that:

A4. There is sufficient and continued commitment (political support, staff, resources, etc) by national government institutions responsible for fisheries policy, legislation and management for actions to implement EAF, including the desire to better manage bycatch and reduce discards and other associated damage through ALDFG

A5. Perverse subsidies can be eliminated and do not continue to reward unsustainable fishing and encourage overcapacity of fishing fleets

A6. Domestic and international markets for bycatch and discard value chain products can be sufficiently developed and maintained to provide long-term secure sources of income for local fishing communities, particularly for the benefit of women (so low likelihood of an economic crash)

A7. Countries continue to see the value of, and commit resources for, regional cooperation and collaboration to address bycatch, discards and ALDFG, and more generally promote adoption of the EAF

A8. Future climate change impacts do not irreversibly affect the structure and function of the CLME+ marine and coastal ecosystems and habitats

D4. Increasing global demand for premium certified sustainable fish products and/or those which meet national legislation of import countries that require no/mitigated bycatch (especially ETP species such as marine mammals)

D5. Regional initiatives and forums, notably the CLME+ SAP, promoting regional visions, building capacity and facilitating increased inward investment for sustainable management of marine resources, along with international legal obligations, such as national commitments to the CLME+ SAP, SDGs, UNFCCC and CBD

Together with additional external inputs (e.g. other national and donor-funded initiatives), these would be expected to lead to the long-term ?situation sought? of ?Bycatch, particularly of ETP species, and discards in fisheries in the CLME+ region managed to sustainable levels and adverse impacts of fishing on marine habitats minimized, as well as contributing to the GEF IW Objective 1 to strengthen national Blue Economy opportunities to reduce threats to marine and coastal waters. Over the longer term and with additional external inputs (e.g. other national and donor-funded initiatives) the project will contribute to?sustainable CLME+ fisheries managed under the Ecosystem Approach, with CLME+ marine habitat under improved practices and socio-economic benefits from sustainable fisheries management maximised across the CLME+ region? and the wider aim of a ?healthy, resilient CLME+ region with threats to the marine environment minimized and biodiversity protected and utilized sustainably contributing to the region?s ?blue economy?, SDG targets and other international goals, and the implementation of the CLME+ SAP?.

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

The proposed project is aligned with GEF-7 International Waters objectives, principally through reducing key threats to marine and coastal waters (from incidental and unsustainable fisheries bycatch and discards and marine plastics pollution from ALDFG) and helping to sustain healthy coastal and marine ecosystems that continue to deliver vital ecosystem services through catalysing implementation of EAF measures and more sustainable fisheries. The project?s proposed policy reforms and capacity building efforts to support more responsible fisheries practices that address bycatch, discards and ALDFG will also contribute to addressing IUU fishing and overfishing and incentivize the management for sustainable marine capture fisheries. At the same time, the project will strengthen sustainable blue economy opportunities through supporting new financial, economic and market-based initiatives and incentives to address bycatch, discards and ALDFG, including supporting sustainable fisheries value chains, new bycatch and discard management related business opportunities, and other socio-economic initiatives among fisherfolk communities that will encourage greater adoption of more responsible fishing practices. National stakeholders in all four project countries have underscored the significant level of concern about the overfished status of many fish stocks (some of which are shared) and the impacts of a range of fisheries on the health and productivity of the marine ecosystem and biodiversity. Selection of the project?s target fisheries was based on these and other concerns, which are also highlighted in the CLME+ TDA and SAP.

The proposed activities will also contribute to addressing IUU fishing and overfishing and incentivize management for more sustainable fisheries. At the same time, the project will assist the countries in identifying sustainable public and private national investments in the blue economy through supporting new initiatives and incentives to adopt more responsible fishing practices that address bycatch, discards and ALDFG, particularly among SSF (under Component 3), including market mechanisms to support sustainable fisheries value chains with new business opportunities that are expected to catalyze wider adoption of sustainable fisheries management. Greater adoption of sustainable fisheries practices by small-scale fishers through the value chain/livelihood/small business development approach will lead, in the longer term, to environmental benefits (healthy marine ecosystems and fish stocks), which underpin productive shrimp and groundfish fisheries in the CLME+.

The project?s efforts to support improving stewardship through co-management will also contribute to these aims. Specifically, the project aligns with two areas of strategic action under IW Strategic Objective 1 (Strengthening Blue Economy Opportunities), namely IW-1 Sustaining healthy coastal and marine ecosystems and IW-2 Catalyzing sustainable fisheries management, but also contributes to IW-3 Addressing pollution reduction of both nutrients and marine plastics. Of particular relevance to the IW Focal area is the shared nature of the CLME+ and its living marine resources including many shared fish stocks. This calls for cooperation among the countries in the management of these shared resources. Thus, the project will strengthen transboundary cooperation among the four countries in the sustainable management of the CLME+ fisheries, which has been already initiated through frameworks such as the CLME+ SAP and which the four countries have endorsed. A key GEF priority within the IW Focal Area is to invest in projects that support SAP implementation. The REBYC III LCME+ project directly supports many Strategies and associated Actions of the CLME+ SAP, as listed in Box 2 above. The project contributes to

IW:LEARN (detailed in Component 4 and the Knowledge Management section), which will be used to disseminate knowledge and lessons learned in EAF implementation to other countries fishing in the CLME+, among others.

The proposed project is consistent with, and supports, several other GEF-funded interventions, including the GEF-7 ?BE-CLME+? project and the FAO-GEF EAF4SG project where there are complementary activities addressing adoption and implementation of various aspects of EAF, including critical capacity development for responsible fisheries management and socio-economic (blue economy) support, improved cross-sectoral and regional collaboration, and promoting stewardship for sustainable fisheries management. The REBYC-III CLME+ project is particularly complementary to the FAO-GEF EAF4SG project, with which it shares a common Project Management Unit (see Institutional Arrangements section below).

Although not funded from national GEF Biodiversity Focal Area contributions, the project will also contribute to GEF-7 BD 1-1 Mainstream biodiversity across sectors as well as landscapes and seascapes, and BD 2 Address direct drivers to protect habitats and species. It will largely achieve this through strengthening national fisheries policies and regulatory frameworks to address incidental bycatch reducing the threat of unsustainable capture of non-target species (especially ETP species ? see below), and the wider negative impacts of ALDFG on marine and coastal habitats and biodiversity, such as coral reefs.

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

An incremental GEF investment is essential to continue to advance the adoption and implementation of measures to address unwanted and incidental bycatch and ALDFG in Caribbean and North Brazil Shelf Large Marine Ecosystems (CLME+) fisheries. The central problem the project seeks to address is the high levels of unsustainable, incidental, unwanted bycatch and discards in fisheries in Barbados, Guyana, Suriname and Trinidad and Tobago, and the related issue of ?ghost fishing? and damage to marine habitats caused by ALDFG in the target fisheries. Current fishing practices in these countries continue to have a significant negative impact on non-target species (ETP species, such as sharks and marine turtles, are of particular concern) and, depending on the gear type, adverse knock-on wider impacts on CLME+ marine habitats and ecosystem through ALDFG. Current fishing practices that catch high levels of unwanted and incidental bycatch are also wasteful in terms of fishing efficiency and operations. Without the GEF investment these trends will continue.

The GEF investment builds on a series of previous GEF investments at the national and regional levels aimed at supporting more sustainable fisheries in CLME+ countries, and investments in other parts of the world that have targeted bycatch reduction and addressing ALDFG (outlined in baseline section above). The proposed project particularly builds on a series of former REBYC projects (REBYC, REBYC-II CTI and REBYC-II LAC) undertaken over the last decade. However, whilst these previous efforts have shown some good results they have been limited and/or successes remain to be scaled up. The recently completed FAO-GEF REBYC-II LAC project, for instance, focused on bottom trawl fisheries, but other gear types, e.g. gill nets,

longlines, seine nets, traps and pots, also generate high bycatch and discards as well as negative impacts on other marine biodiversity and habitats (and so impede moves to sustainable fisheries). Indeed, all these other gear types and their associated fisheries in the CLME+ region require similar attention and investments. In addition, non-target species mortality and marine habitat damage associated with ALDFG remains largely unaddressed in the CLME+ region but is increasingly recognized as an issue that needs to action, not just because of its impact due to ?ghost fishing? but also because it is a source of marine plastics.

Despite baseline efforts described above, four main barriers continue to act against the achievement of more responsible, sustainable fisheries: (i) limited effectiveness and availability of selective fishing technologies and bycatch mitigation approaches to avoid bycatch and discards and address ALDFG and the capacity to employ these; (ii) inadequate policy, regulatory and management frameworks for mitigation of bycatch, with limited capacity to ensure compliance; (iii) limited incentives and opportunities to encourage and support responsible fisheries and move away from unsustainable practices; and (iv) limited knowledge to support adoption of measures to mitigate bycatch, reduce discards and address ALDFG.

The GEF-funded alternative will address the above constraints and barriers through concerted action with national and regional elements, focusing on selected fisheries with pilot cases in four countries. Building on the baseline, the GEF intervention will lead to improved bycatch management and a reduction in discards in fisheries in the CLME+ region, including a drop in the catch of vulnerable and ETP species, reduced ALDFG and ghost fishing, and lower impacts of target fisheries on other coastal marine biodiversity and vulnerable benthic habitats. These will be achieved through a wider transition to more sustainable fishing operations and gears, including increased use of effective bycatch reduction technologies and devices and, for ALDFG, through implementation of fishing gear marking systems. National enabling policy, regulatory and fisheries management frameworks will be strengthened through the project, with added-value project contributions to support fisheries management planning not available without the GEF financing (including support for management plans that incorporate bycatch and other management measures such as area and seasonal closures within an EAF framework).

The GEF financing will also be used to improve the knowledge base and exchange of lessons on effective bycatch management, discard reduction and mitigation of ALDFG, and to strengthen knowledge networks such as e-learning hubs, and to build capacity for the use of innovative ICT tools (under Component 4). This will support more effective decision-making on sustainable fisheries management at government, private sector and fisher communities? levels. Through the GEF initiative, new techniques and tools (and training to employ these) for reporting on adoption of bycatch, discards and ALDFG, control and surveillance will be explored and deployed as appropriate, helping to strengthen MCS capacity which remains weak in the region (under Component 2). Under Components 2 and 3, incentives to encourage greater public and private sector investments in, and uptake of, more selective and innovative fishing technologies will be identified, developed and promoted, aimed at both small-scale fisheries and industrial fisheries. Measures to strengthen stewardship through co-management of fishing resources and direct support to local fisherfolk communities will also be supported, including measures to build

capacity to improve access to financial services (credit, insurance) for small scale fisheries and linkage between fisherfolk organizations and markets for responsibly caught fish. The GEF financing will support identification and development of new bycatch/discards value chains (e.g. innovative processing techniques for discard species), and explore possibilities for developing small businesses to address ALFDG (through recycling and repurposing old gear), while encouraging greater adoption of more responsible fishing practices and developing stakeholders? capacity to apply responsible fisheries. The project will also deliver development, social and economic co-benefits through diversified livelihood opportunities, improved food and income security for fisherfolk communities, reduced vulnerability to economic and environmental shocks, and greater involvement of communities in fisheries management decision-making (particularly for women), based on adoption of more responsible fishing practices.

As a result, the GEF incremental investment will strengthen sustainable blue economy opportunities and support decent work opportunities, encouraging technical and financial innovation, as well as supporting national post-Covid recovery efforts in the participating countries, support which under the baseline would not have been available. Without the GEF investment, actions to address the above will be much more limited, especially for the next few years as the region recovers from the financial impacts of COVID. The alternative through the GEF will allow collective actions to align conservation and economic goals, creating significant incremental benefit above the baseline, 'non-project' option with respect to the provision of ecosystem goods and services in the CLME+. Indeed, for a relatively small investment, the project will result in significant positive impacts, including over 5,299,500 hectares of globally significant marine habitat under improved management and an estimated 37,418 tons of globally over-exploited marine fisheries moved to more sustainable levels, as well as contributing to addressing Illegal, Unreported and Unregulated (IUU) fishing concerns.

Under the ?business as usual? scenario, full adoption of important elements of ecosystem-based fisheries management (bycatch and discards management and mitigation of ALDFG) will be stalled or only undertaken on an ad hoc basis. Given most fish stocks are shared between several countries in the CLME+ region (such as shrimp trawl fisheries between Guyana and Suriname) the participation of a broad range of stakeholders with the requisite knowledge, skills, and abilities to meaningfully engage in participatory decision-making, co-management, and fisheries value-chain development is essential. The GEF intervention is required to build the capacity of not only government stakeholders, but also of civil society, fishing industry, and private sector stakeholders who play important roles in sustainable fisheries management at the regional, national, and local levels.

The GEF intervention seeks to specifically strengthen capacity and resources for bycatch management and to address ALDFG among these group . IN the case of national and local fisherfolk organisations, such as BARNUFO, GNFO and Surinaamse Seafood Associate, this will include supporting their participation in piloting of smart-gear modifications and development of data collection frameworks on ALDFG (under Component 1), their meaningful engagement in multi-stakeholder decision-making processes related to the management of bycatch, discards and ALDFG (through Component 2), and strengthening of their organizational and business

development and management capacities (through Component 3). For civil society organisations, such as Nature Seekers and Future Fishers in Trinidad and Tobago, the GEF intervention will support their own local-level programme to reduce turtle bycatch from gillnets in the north-east coast of Trinidad as well as build their knowledge in ALDFG. Discussion with these groups during the PPG, indicated that with the GEF financing these groups will be able to considerably expand their efforts to reduce turtle bycatch but also to engage in actions to address ALDFG which is an issue that has not received attention in Trinidad and Tobago. Without the GEF support, these groups are likely to continue to suffer from low capacity, rendering them ineffective in supporting measures to better manage bycatch, reduce discards and address ALDFG.

Furthermore, under the ?business as usual? scenario, financing and capacity opportunities to address bycatch, discards and ALDFG are likely to be uncoordinated and not strategic, failing to take advantage of economies of scale and experiences from other CLME+ nations and others in the IW community. Investments by national governments in fisheries would be directed to largely maintaining core functions with ad hoc and non-strategic projects used to fill urgent gaps which would likely fail to address the overarching and long-term needs of the fisheries and the fisherfolk who depend on them for their livelihoods. In the absence of the GEF incremental investment, this baseline is particularly likely following the Covid-19 pandemic, which has had significant economic and societal impacts on CLME+ countries. During this post-Covid-19 period governments are likely to focus their attention on other immediate human development challenges over the next few years, and private sector investors will remain cautious due to the uncertainties over Covid recovery.

In terms of private sector, it will continue to view responsible fisheries approaches as costly and with limited benefits. However, the GEF intervention will provide private sector fishing companies, such as Suriname Seacatch N.V., Marisa Fisheries N.V., VaYu Fisheries N.V in Suriname, with opportunities to learn of and explore technical solutions to address bycatch and discards that can lead to improvements in the efficiency of their operations. For example, improving fishing gear selectivity (through Component 1) would likely reduce sorting time for their fishing crews as well as improve fuel efficiency and the quality of the fish harvested for sale. Additionally, by participating in the project (funded through their own co-financing), the companies will be able to demonstrate their interest in sustainability which can help them maintain and/or access new domestic and export markets. Without the GEF support, these stakeholder groups are likely to continue to suffer from limited technical knowledge and capacity and effectiveness in these areas.

In addition, without the GEF intervention, the countries? ability to more effectively manage bycatch, reduce discards and address ALDFG in the target fisheries will continue to be hindered by ineffective inter-agency collaboration and the absence of, or weak multi-stakeholder input to decisions on fisheries management. Overall, the GEF intervention will also support the formation and/or strengthening of partnerships and relationships among a range of stakeholders from the public, private, academic, civil society and fishing industry sectors through participatory and inter-sectoral approaches. This will be especially beneficial to small-scale fishing industry stakeholders,

which without the GEF intervention will continue to have limited opportunities to develop strategic partnerships.

The GEF funds will leverage a range of additional commitments, inputs and investments from FAO, UWI, WECAFC, other international donors and the participating countries? fisheries agencies, as well as from the fisheries sector including private sector (e.g. commercial vessel operators and financiers), fisherfolk communities and national and regional fisheries associations, and civil societies, and will connect with other areas of major policy implementation and development investment. The project?s total co-financing is US$ 30,336,211.82 (more than the original expected total at the PIF stage) comprised of both in-kind and cash contributions from project partners. The four countries collectively through their liaison ministries for the project are providing a combined US$ 8,020,997 of in-kind and cash co-financing in the form of staff time, use of equipment, office space, etc. The University of the West Indies (UWI) is providing a co-financing contribution of US$ 661,000, NOAA US$ 8,978,000, WECAFC Secretariat US$ 144,000 (in-kind). The GEF Implementing Agency FAO is also providing in-kind contributions totaling US$ 6,199,256. The expected co-financing from the private fisheries sector did not materialize due to uncertainty among potential donors over their exact involvement in the project. However, discussions during the PPG stage with key private sector business were extremely positive with commitments to provide co-financing, mostly in the form of in-kind at-sea boat time for piloting bycatch mitigation equipment, once project implementation begins when there is more certainty over exactly which bycatch technologies will need testing, where, when and for how long. On the basis of these discussions, it is expected that an additional approximately US$2 million in co-financing will be raised from the fisheries private sector (both industrial and SSF).

6) Global environmental benefits (GEFTF) and/or adaptation benefits (LDCF/SCCF)

The project will contribute to several GEF-7 Core indicators targets, principally those related to the GEF International Waters Focal Area. These include: GEF Core indicator 8 ? Globally over-exploited marine fisheries moved to more sustainable levels through reducing the levels of bycatch and discards with a conservative estimate of roughly 30,682 metric tonnes of over-exploited fisheries moving towards more sustainable levels; GEF Core indicator 5 - Area of marine habitat under improved practices (excluding protected areas) covering approximately 5,299,500 ha through supporting the implementation of fisheries management and marine biodiversity conservation plans within the EEZs of the target countries that aim to deliver more sustainable fisheries (including supporting the National Action Plans for the CLME+ SAP, see fit with national and regional priorities section below); and GEF Core indicator 7 - Number of shared water ecosystems (fresh or marine) under new or improved cooperative management, contributing to two LMEs ? the combined CLME+ system ? through implementation of some of the key aims of the CLME+ Strategic Action Programme relating to sustainable fisheries including strengthened EAF and fisheries co-management (particularly sub strategies 5a and 5b). Finally, the project will also yield co-benefits under GEF Core indicator 11: Number of direct beneficiaries disaggregated by gender, with an initial goal to generate direct benefits to 6,267 men and 4,480 women across the four participating countries. This includes the important part-time and seasonal labour forces in the fisheries, and those involved in proposed value chain development for bycatch and discards.

As noted above, the project will contribute to GEF Biodiversity Focal Area priorities. The project?s target fisheries have, in part, been selected based on known issues and challenges relating to bycatch of specific species that could be addressed during the project. Of particular concern are marine Endangered, Threatened and Protected (ETP) species, which are known to occur in all the target fisheries in the four project countries. ETP is a broad concept, but reference is generally made to the IUCN Red List of Threatened Species (IUCN, 2022). Longline fisheries in Barbados and Trinidad and Tobago are known to have bycatch interactions with Leatherback Sea Turtle Dermochelys coriacea (VU) and a variety of shark species including Blue Shark Prionace glauca (VU) and Tiger Shark Galeocerdo cuvier (NT). Demersal driftnet and trawl fisheries in Trinidad, Guyana and Suriname have known bycatch of various ETP species including Green Turtle Chelonia mydas (EN), Olive Ridley Lepidochelys olivacea (VU), Nurse Shark Ginglymostoma cirratum (VU), Scalloped Hammerhead Sphyrna lewini (CR), Spotted Eagle Ray Aetobatus narinari (VU), Manta Ray Manta birostris (EN), Guiana Dolphin Sotalia guianensis (NT), Goliath Grouper Epinephelus itajara (VU) and others (see Annex O for a full list of ETP species known to occur in the region). The project will reduce fishing-related mortality of these ETP species by piloting and promoting techniques and practices that both reduce the likelihood of their capture and increase their post-release survival. This will help to protect and restore populations of vulnerable marine species, and the measures will positively affect species that were previously common in fisheries bycatch but are now rarely seen because their populations have already been severely decimated through fishing-related mortality including Smalltooth Sawfish Pristis pectinata (CR) and the restricted-range Daggernose Shark Isogomphodon oxyrhynchus (CR). Through bycatch, discard and ALDFG related Conservation management Measures (CMMs), building on prior efforts of the REBYC II LAC project, the project will reduce fishing-related mortality of ETP species by piloting and promoting techniques and practices that both reduce the likelihood of their capture (either through active fishing or through passive ?ghost fishing?) and increase their post-release survival. Thus, the project will help to protect and restore populations of target and non-target fish and invertebrates as well as of vulnerable and ETP species that have been decimated through fishing. Benthic habitats and associated faunal communities in the CLME+ region will also be protected and restored through raising the awareness of potential damage from bycatch and ALDFG and solutions to these problems with less ecological impact.

In addition, climate change issues will be addressed through the development of improved and more efficient vessel and selective gear technologies, which will potentially reduce energy use and greenhouse gas (GHG) emissions (less fuel used due to less bycatch and discards in nets) supporting the GEF Climate Change Focal Area, and through improving the health of marine ecosystems thus increasing their resilience to climate change impacts and their capacity to sequester and store carbon . The project will also strengthen the resilience of fisher communities to climate change impacts by creating opportunities to enhance and diversify livelihoods and improve food and nutrition security, and indirectly by also improving the resilience to climate change impacts of marine ecosystems and living marine resources on which fisher communities are highly dependent. Also, as most modern fishing gear is manufactured from plastics, reducing the amount of ALDFG entering the ocean will help reducemarine plastic pollution in the CLME+ region (supporting GEF Chemicals and Waste Focal Area goals).

The proposed project will address wider Sustainable Development Goals (SDG), especially SDG Goal 14 ? Life below Water - which calls for specific actions in fisheries inter alia: effectively regulate harvesting including destructive fishing practices; address overfishing and illegal fishing; increase economic benefits from sustainable management of fisheries and aquaculture; provide access for small-scale fisherfolk to resources and markets and implement UN Convention on the Law of the Sea (UNCLOS) provisions. The project will particularly address targets 14.2 (Protect and restore ecosystems), 14.4 (Sustainable fishing), 14.7 (Increase economic benefits from sustainable use of marine resources), and 14.a (Increase scientific knowledge, research and technology for ocean health) and 14.b. (Support small-scale fishers), as well as contributing to target 4.1 (reduce marine pollution) through activities to address ALDFG.

The project is in support of the CBD?s Post-2020 Global Biodiversity Framework (Kunming-Montreal Global Biodiversity Framework), particularly with respect to Goal B: ?Biodiversity is sustainably used and managed and nature?s contributions to people, including ecosystem functions and services, are valued, maintained and enhanced, with those currently in decline being restored, supporting the achievement of sustainable development for the benefit of present and future generations by 2050? and targets including

- Target 2: ?Ensure that by 2030 at least 30 per cent of areas of degraded terrestrial, inland water, and coastal and marine ecosystems are under effective restoration, in order to enhance biodiversity and ecosystem functions and services, ecological integrity and connectivity?; and
- Target 9. ?Ensure that the management and use of wild species are sustainable, thereby providing social, economic and environmental benefits for people, especially those in vulnerable situations and those most dependent on biodiversity, including through sustainable biodiversity-based activities, products and services that enhance biodiversity, and protecting and encouraging customary sustainable use by indigenous peoples and local communities.?

The project is also relevant to the UN?s Decade of Ocean Science (2021-2030), specifically the priority area of ?A Clean Ocean? where the sources of pollution are identified and removed. The project?s efforts to address ALDFG in the CLME+ region are directly relevant to the latter priority. The project also supports the priority area of ?A sustainably harvested and productive ocean?. The proposed project will also contribute to the relevant proposed post-2020 Biodiversity targets (notably successor to Aichi target 6), through the project?s focus on addressing unsustainable bycatch and discards, ALDFG and promoting the EAF approach to fisheries management to ensure sustainable use of marine resources.

7) Innovativeness, sustainability, potential for scaling up and capacity development

Innovation: Innovation is evident in each of the components of the project. Component 1 focuses on adapting existing and/or piloting new technologies to better manage bycatch and reduce discards in fisheries where bycatch/discards has not been addressed or fully addressed. This particularly applies to gear types that have not been targeted by previous REBYC projects and other initiatives, notably bycatch associated with gillnets and longlines. It also seeks to address lost

and discarded fishing gear (a cause of ?ghost fishing? and plastics pollution) through pilot activities focusing on gear marking and registration which is innovative for the CLME+ region, particularly if, as planned, they can be developed with local materials. More generally, any adaptation of fishing gears to mitigate the risk of ghost fishing (should it become ALDFG) can be considered novel.

Particularly innovative elements associated with Component 2 include introducing new policy directives that support investments in better management of bycatch and reduction of discards as well as piloting of improved monitoring and data collection on bycatch and discards in target fisheries using new digital approaches, including recording systems using mobile phone/tablet apps for SSF (e.g. for ETP species) and port-based inspectors and other staff (supporting PSMA measures), training for recording species identification to improve data collection (with possible development of an AI system for fish id), and development of near real-time maps of bycatch and discard hotspots.

For Component 3, encouraging and supporting behavioural change by identifying and promoting incentives and supporting improved value chains related to bycatch and discards use and building capacity for small business development skills among fisher communities are innovative for the target fisheries. Together these will support opportunities for local sustainable blue economy development, underpinned by decent work. The implementation of the blue economy concept is still relatively new in the CLME+ region and thus project successes and lessons will be transferable to other neighbouring coastal and island states. These will include experience of project activities to increase access to finance and insurance and develop market approaches, and lessons on effective training in SSF business skills and value chain development for new value-added fish products based on bycatch/discards, and lessons on improving opportunities for women and youth. By following up capacity building with direct mentorship in business development, this project will maximize the possibility of success for target fisheries enterprises, which innovates away from simply providing technical capacity building. Furthermore, by understanding private investors? needs, the project aims to support de-risking of loans to fisherfolk (SSF) in support of new local entrepreneurial enterprises, up to large private investments in regional and international firms, as innovative new business opportunities are realized. By enabling responsible investment approaches which do not currently exist in the target countries and communities, this project will support innovation in the local fisheries financing landscape.

Sharing of knowledge on successful development of real-world smart solutions to bycatch management is a key feature of the project, and the transfer and scaling up of project-generated knowledge through the direct involvement of multiple end-users (fishers, managers, fishing agencies, environmental NGOs, etc) will be facilitated in Component 4. Sharing of information and knowledge will be achieved through greater use of tools and technology that were previously unavailable or not widely used, e.g. whatsapp, Zoom.

Sustainability: Actions to minimize the risks to sustainability of project results are built into the project design. Experience from previous GEF-funded initiatives, such as the GEF-5 Common Oceans/Areas Beyond National Jurisdiction (ABNJ) programme and previous REBYC projects, shows that demonstration of the benefits of adopting EAF and more responsible fishing practices

by addressing bycatch/discards, and adoption of mitigation approaches and technologies (e.g. less crew time spent dealing with bycatch, increased target species catch due to less bycatch) will encourage their integration as standard operating practices within the fisheries industry. Similarly, the ability to demonstrate that fish is sourced from fisheries employing bycatch mitigation (following EAF and marine fisheries certification standards) will make the fishing industry business more competitive on regional and world markets and can help build national markets for responsibly sourced fish products. Indeed, recent fish import requirements by some developed countries to prohibit the intentional mortality or serious injury of some bycatch species/groups in the course of commercial fishing operations in the fisheries (including longline, gillnet and seine) or the requirement to have procedures in place to reliably certify that a country?s exports of fish and fish products are not the product of an intentional killing or serious injury e.g. the US Marine Mammal Protection Act ? Fish and Fish Product Import Provisions, also support sustainability aims. Enshrining the requirement to deploy bycatch mitigation technologies in different fisheries within national fisheries policy and regulations in the four target countries (Component 2) will help create the enabling platform for industry wide use of bycatch technologies and discard management.

The project?s capacity building efforts (in all four Components) to employ bycatch mitigation and address discards, including strengthening national fisheries authorities to undertake MCS-related activities to ensure compliance with bycatch regulations (under Component 2) and supporting new livelihood opportunities (under Component 3) are key elements of the project. It is expected that by the end of the project (year 4), the key fisheries-related institutions, organizations and stakeholders will have sufficient capacity to ensure continuity of the project results. A ?training of the trainer? approach and learning-by-doing methodologies, combined with an effective Knowledge Management programme (Component 4) promoting wide sharing of project-generated information (with project data base/knowledge repository), lessons learned and good practice including linkage with well-established knowledge platforms and the websites of project partners, will ensure that capacity and knowledge generated by the project will be sustained over the longer-term.

The project is designed to reduce socio-economic risks to the sustainability of project results through empowering fisherfolk and fishing communities and promoting co-management of fisheries that takes into account the local dynamics of social-ecological systems which are critical to the successful application of the EAF approach. The project aims to encourage/support fisherfolk's participation in decision-making (e.g. supporting their participation in Working Groups and NICs) and using participatory approaches to engage fisherfolk in implementing management measures, for example in the development and testing of gears and mapping of bycatch, discard and ALDFG areas. These all fall within the spectrum of co-management.

Integral to this are project efforts to promote gender equality and gender mainstreaming throughout its components, strengthening capacity from the ground up (see Gender Action Plan Annex R). Developing the potential of alternative livelihoods, building better connections to relevant markets, and enhancing capacity in fisheries value chain analysis (through under Component 3), will help ensure more sustainable livelihoods and improved local food security and

nutrition as well as increasing the resilience of the target coastal communities and support sustainability aims. These actions will offer the potential for fair and decent work including improved working conditions in the fisheries industry and therefore promote a better quality of life quality for workers (particularly for women) and their families, further supporting sustainability of project results. In this context, the FAO Voluntary Guidelines for Securing Small-Scale Fisheries, and the Code of Conduct for Responsible Fisheries (CCRF) have provided guiding principles for the design and implementation of the project.

Further support for the sustainability of project results comes from the strong project partnerships with well-established regional and national technical entities, such as with WECAFC and CRFM, which share similar aims and mandates for achieving responsible fisheries. For instance, the project has been designed in close alignment with already endorsed policies and mechanisms, such as the CLME+ SAP, the Caribbean Community Common Fisheries Policy (CCCFP), and the CRFM Strategic Plans. Consequently, the project does not rely heavily on establishing new policy and institutional frameworks that would be required to promote project goals after the project concludes. Institutional sustainability will be further promoted by the involvement of the WECAFC Secretariat in the project, providing the opportunity to ensure that the project results are embedded in its strategy and programmes and also helping to facilitate scaling up through WECAFC?s wide membership.

The project is also compliant with the FAO Environmental and Social Standards (ESS) and rated as ?low risk? given its overall focus on bycatch reduction and promoting responsible fisheries, which supports environmental sustainability aims.

Scaling-up: Project successes will be translated to other non-participating countries (both coastal and island states) in the CLME+ region as well as other tropical and sub-tropical LMEs and is a major element of Component 4. Project results, successful lessons and good practices will be disseminated and scaled up through both national, regional and global level partners and initiatives. At the regional level, potential opportunities for scaling up and wider dissemination of results include measures to implement the CLME+ SAP, and project linkage through non-participating member countries of WECAFC, CRFM, and CARICOM. In addition, other GEF-financed projects including the UNDP-GEF PROCARIBE+ project (a follow-up to the UNDP-GEF CLME+ project), the CAF-FAO-GEF BE-CLME+ project and the FAO-GEF EAF4SG project, all of which support measures for sustainable use of natural resources in the CLME+ region, provide an unprecedented opportunity for scaling up through linkages and networking and potential leverage to achieve greater economies of scale depending on the sequencing of activities. The FAO-GEF EAF4SG project is of particular relevance given its focus on EAF and the overlap in target countries ? both the REBYC-III CLME+ and EAF4SG projects include Guyana, Suriname and Trinidad and Tobago, and will share a common PMU. The project will also maintain close ties with the regional fishery bodies (WECAFC, CRFM, OSPESCA, ICCAT for pelagics, and others in the RFB network linked to FAO), as well as Fishery Advisory Committee and the National Inter-sectoral Coordination Mechanism in the target countries, the SPAW?RAC (based in Guadeloupe), research institutions (notably CERMES) and NGOs (e.g. CANARI, CNFO) as well as global initiatives such as FAO-GEF Coastal Fisheries Initiative project. The

selection of UWI Faculty of Food and Agriculture as the executing agency for the project (and UWI will host the Project Management Unit) will offer opportunities for further scaling-up and long-term dissemination of key project results and lessons though the institution?s education and vocational training courses (these will be investigated during project implementation under Component 4). At the global level the project will achieve dissemination through sharing results with the IW:LEARN and LME:LEARN communities and through FAO-supported fisheries networks.

The project also offers the potential to scale up impact through activities to attract private sector investments in responsible fisheries at the local, national, regional levels, including new or strengthened policies supporting private sector investments in SSF, the development of incentives for new business opportunities, strengthening capacity in value chains, and facilitating access to improved knowledge on commercial solutions to achieving responsible fisheries through a mixture of online content and targeted awareness-raising activities. For instance, there will be targeted awareness-raising of financial bodies (micro-credit unions and commercial banks) on the benefits of investing in sustainable fisheries and the risks to financing of fisheries that do not adopt responsible fishing practices. Related to this, it is expected that follow-up bankable proposals will be developed to scale-up the key achievements of this project during the final year of the project as part of a sustainability strategy.

Capacity development. The REBYC-III CLME+ project seeks to build capacity of key stakeholders at all levels to better manage bycatch and discards, as well as reduce the negative impacts of ALDFG, and is incorporated across all components of the project. Capacity strengthening efforts will address the identified needs in the four participating countries as well as at the regional level. The key audiences targeted for capacity development opportunities by the project include national fisheries-related state agencies (technical personnel and decision makers), fishers and fish workers (small-scale and industrial) along the entire fisheries value chain including representatives of national FFOs, and financial institutions. Special effort will be made to ensure that women and the youth are adequately represented among the major beneficiaries of capacity development efforts. In addition to strengthening individual capacity through the provision of training and hands-on activities, the project will enhance institutional capacity, for example, through the provision of appropriate tools and technology and software. The project?s capacity building will be multi-faceted and include:

- Providing tools and technology and associated training, knowledge and skills to utilise new approaches and equipment for reducing incidental bycatch, better managing discards and mitigating ALDFG impacts in target fisheries, with technical capacity building of national fisheries agencies in the collection, analysis and interpretation of data required for bycatch and discards management (under Component 1);
- Providing training and new tools to improve monitoring and reporting on bycatch, discards and ALDFG targeted particularly at port inspectors, along with new data on ?bycatch and discards hotspots? that can provide key spatial information for fisheries management and planning (under Component2);

- Strengthening governance arrangements and stakeholder capacity for engagement in collaborative decision-making for bycatch and discard management, focusing on empowering fishers from target communities to participate in co-management (under Component 2);
- Strengthening the frameworks for bycatch and ALDFG management including development of participatory National Plan of actions (NPOA) for sharks and rays and for ALDFG (under Component 2);
- Market and value chain analysis and development combined with provision of training and mentoring in small business development, post-production value-addition to fisheries products, packaging, promotion and marketing to enable target fishing communities to take advantage of new opportunities for new business enterprises related to the utilisation and management of bycatch, discards and ALDFG (under Component 3);
- Updating of national policies and financial frameworks to support investments in sustainable small-scale fisheries and to encourage fishers and markets to adopt and promote responsible fisheries practices. For instance, the project will work to enhance potential access to micro-credit and insurance for SSF ventures supportive of sustainable fisheries (under Component 3);
- Strengthening knowledge management and communications to improve adoption and implementation of measures to better manage incidental bycatch, discards and ALDFG in the target fisheries. This will include targeted training programmes and resources for the four national fisheries agencies in outreach and effective techniques and approaches for communicating responsible fishing practice messages (under Component 4);
- More general awareness-raising on the threats posed by bycatch and ALDFG and potential ?win-win? solutions to key decision-makers as well as the general public (under Component 4); and
- A particularly important output to support capacity development in the longer term will be lessons and experiences from the project on the adoption and implementation of best practice measures to address incidental bycatch, managing discards and mitigating ALDFG (including those derived from pilot demonstration projects), for dissemination at the national, sub-regional, regional and international levels (through South-South cooperation mechanisms) (under Component 4).

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

The main changes that have occurred following approval of the Project Identification Form (PIF) for the REBYC-III CLME+ project, reflected in this Project Document, are presented in Table 1.

Table 1. Summary of changes in project design between the PIF and Project Document

Subject	PIF	Project Document	Justification
Executing Agency (EA) arrangements	FAO was to be the Implementing Agency (IA) for the project but no executing agency was identified at the PIF stage. Several possible candidates were provisionally identified e.g. UWI, CRFM, CANARI, but the selection was left until the PPG period when an assessment and negotiations could be undertaken.	The University of the West Indies (UWI)) will be the project?s Executing Agency (EA) and have the overall executing and technical responsibility for the Project, with FAO providing oversight as GEF IA.	UWI ? specifically the Faculty of Agriculture - was chosen as the EA due its reputation for vocational training and capacity building, as the host for one of the most respected technical institutions (CERMES) for marine fisheries in the Caribbean, and its capacity and successful record of management and delivery of large-scale regional projects through its Business Development Unit (BDU, which will host the Project Management Unit (PMU) within the Faculty of Agriculture. This arrangement will ensure a clear separation of functional and financial responsibilities between the project?s Implementation Agency (FAO) and Executing Agency (UWI).
Co-finance	Total co-financing estimated in the PIF was US $ 24,565,884 of which an estimated US $ 1,287,181 was as cash co-financing.	Total amount of co-financing US $ 30,336,211.82, which is significantly more than the original amount. However, only US $ 500,000 is cash/grant co-financing, although an additional amount of US$111,504 is identified as public investment.	Some co-financiers contributed more than indicated at the PIF stage and other potential partners/co-financiers dropped out (e.g. some of the group of international donors such as WWF, IFREMER). However, some of these co-financiers (or potential co-financiers) have indicated that they may be able to provide additional co-financing during the first or second year of the project e.g. IFREMER. In addition, other new co-financing sources, not identified at the PIF stage, were identified and captured during the development of the Project Document (PPG phase) e.g. International Whaling Commission (an additional US$ 850,000). The private sector did not contribute as much as originally envisioned. However, discussions with key private sector actors during the PPG phase indicate they may also be able to provide additional co-financing during the first or second year of the project once the project?s technical activities begin.

Subject	PIF	Project Document	Justification
Project targets *Core indicator 8*	37,000 mt	37,418 mt	The small difference of 418 mt is due to recalculation based on more recent (2020) data not available at the PIF stage and a better understanding of the target fisheries (formerly confirmed by the participating fisheries agencies during the PPG stage) than was available at the PIF stage.
Project targets *Core indicator 11*	6,660 males; 2,670 females	6,267 males; 4,480 females	The small reduction in the number of males but larger increase in number of females is due to recalculation based on more recent (2021) data not available at the PIF stage and a better understanding of the target fisheries (formerly confirmed by the participating fisheries agencies during the PPG stage) than was available at the PIF stage, particularly the role of women in the target fisheries and opportunities for them to participate in/benefit from the project the activities of which have been more fully developed during the PPG phase.
Project framework and targets *Outcome 1.1 indicators*	*Indicator 1: Reduced level of bycatch and discards compared to baseline in target fisheries estimated to be of around 37,000 tons* *Indicator 2: Percentage of fleet in pilot sites utilizing updated and sustainable fishing practices and technologies (target to be identified during PPG phase)*	*Indicator 1: Number of target national CLME+ fisheries fleet vessels utilizing new and improved practices and technologies for addressing unwanted bycatch and discards*	The PIF Indicator 1 was considered more relevant to the project objective and was therefore loved to the objective level (see project logframe in Annex A1). After consultation with partners, Indicator 2 was modified to make it easier to measure (collect data on, based on official available statistics, more specific/SMARTer).

Subject	PIF	Project Document	Justification
Project framework and targets *Outcome 1.2 indicator*	*Indicator 3: Reduced bycatch (tons or percentage) of vulnerable species (e.g. ETP species) in selected target fisheries compared to baseline data (collected at PPG phase, or based on other recent studies/data sources)*	*Indicator 2: Number of target national CLME+ fisheries fleet vessels utilizing new and improved measures and technologies to address ETP species bycatch* *Indicator 3: Reduced bycatch rates of ETP species (percentage of overall catch) in selected target fisheries compared to baseline data*	After consultation with partners, the original PIF indicator (3) was modified as it was considered too difficult/costly to measure (requiring a project in itself). Instead two other indicators (2 and 3) were designed based on what could be measured relatively easily or where some official data is already collected.
Project framework and targets *Outcome 1.3*	*Outcome 1.3 Specific measures and technologies to address ALDFG and other adverse impacts of fishing gears on marine benthic habitats adopted*	*Outcome 1.3: Specific measures and technologies to address ALDFG developed and adopted and other measures to address adverse impacts of fishing gears on marine benthic habitats promoted*	The wording of the Outcome was changed to reflect that the project has limited resources to address the impacts of fishing gears on marine benthic habitats specifically. The focus of the project is on addressing bycatch and discards. Project measures to address damage to benthic habitats are limited to addressing ALDFG which can cause such damage and then promoting such measures.
Project framework and targets *Outcome 1.3 indicator*	*Indicator 4: Percentage of fishers adopting ALDFG mitigation measures in target fisheries (specific measures and targets to be identified during PPG phase)*	*Indicator 4: Number of vessels adopting new standardised gear marking scheme for ALDFG in target fisheries*	Following review by project partners the indicator was made more specific that it is vessels that are fitted with gear marking for ALDFG not the number or percentage of individual fishers.

Subject	PIF	Project Document	Justification
Project framework and targets *Outcome 2.1 indicator*	*Indicator 5: Bycatch management and discards reduction recommendations adopted at regional level by the WECAFC*	Indicator removed	Following discussions with fisheries agencies it was agreed that the focus of the outcome should be on the national fisheries legislation, over which the project had some control, rather than recommendations to be adopted by WECAFC as the latter is a regional body with representatives from many more than just the four target countries, so not reflective of the wording of the outcome.
Project framework and targets *Outcome 2.1 indicator*	*Indicator 6: Fisheries legal frameworks at national level in the four countries extended with bycatch, discards and ALDFG regulations*	*Indicator 5: National Fisheries Act and/or Decree updated with bycatch, discards and ALDFG provisions*	Following discussions with the national fisheries agencies, the indicator was made SMARTer and more in line with the legal terminology employed in the target countries.
Project framework and targets *Outcome 2.2*	Outcome 2.2: Integration of bycatch mitigation measures in marine fisheries management frameworks and Marine Spatial Planning in participating countries improved	Outcome 2.2: Marine fisheries management frameworks in participating countries improved for more effective bycatch management, discards reduction and to address ALDFG	Indicator reformulated to make it clearer that the target includes discards and ALDFG as well as bycatch measures, and Marine Spatial Planning (MSP) was removed as it is uncertain whether existing MSP could be accessed given they are usually not being led by fisheries agencies in the Caribbean.

Subject	PIF	Project Document	Justification
Project framework and targets *Outcome 2.2 indicator*	*Indicator 7:* *National policy and legislation updated, and MSPs developed which incorporate any relevant spatial-temporal measures addressing bycatch management and discards reduction* -	*Indicator 6: National Fisheries Management plans covering target species updated with bycatch and discards technical measures* *Indicator 7:* *NPOA for Sharks developed and adopted* *Indicator 8:* *NPOA for ALDFG developed and adopted*	PIF indicator was modified to exclude specific reference to MSP as after discussions with the fisheries agencies it was agreed this should not be a focus of the project given the MSP process is not part of the remit of the fisheries agencies. Additional indicators 7 and 8 were added to reflect project aims to develop NPOAs for Sharks and NPOAs for ALDFG, which had not been considered at the PIF stage but follow from stakeholder interest during the PPG stage of project development.
Project framework and targets *Outcome 2.2 indicator*	*Indicator 8: Area of marine habitat under improved practices (excluding protected areas) expected to be around 10% of the overall EEZ (529,950 km2)*	Indicator removed	Indicator moved to objective level as considered more appropriate to the project objective than Outcome 2.2 during review by stakeholders during the PPG period.
Project framework and targets *Outcome 2.3*	Outcome 2.3: Monitoring, control, compliance and enforcement frameworks governing bycatch management and discards reduction in fishing fleets within CLME+ fisheries strengthened	Outcome 2.3: Monitoring and compliance with new measures for managing bycatch, reducing discards and addressing ALDFG in fishing fleets within target CLME+ fisheries strengthened	The outcome was reworded following review with stakeholders during the PPG phase to focus on new measures (developed from the project) covering ALDFG as well as bycatch and discards. The word ?compliance? includes the need for ?enforcement?, so the latter was removed from the formulation of the indicator.

Subject	PIF	Project Document	Justification
Project framework and targets *Outcome 2.3 indicator*	*Indicator 9:* *Increased uptake of responsible fishing practices that better manage bycatch and reduce discards through targeted incentives, strategies and measures among fishing communities*	*Indicator 9: Bycatch (including ETP species) and discards related monitoring integrated into inspection procedures as part of annual national MCS programmes* *Indicator 10: Percentage of inspections that include monitoring of updated bycatch (including ETP species) and discards measures in target fisheries (e.g. BRD)*	Indicator split into two parts and reworded to make it SMARTer with first indicator covering new monitoring regime for bycatch and discards and second the implementation of this by inspectors.
Project framework and targets *Outcome 3.1*	Outcome 3.1: Incentives, strategies and measures to support behavioural change of stakeholders towards more responsible fishing practices (focused on bycatch mitigation) developed and widely available in target CLME+ fisheries	Outcome 3.1: Incentives, strategies and measures to support behavioural change of stakeholders towards more responsible fishing practices developed and widely available in target CLME+ fisheries (focused on management of bycatch, reduction of discards and addressing ALDFG)	Scope of indicator expanded to include discards and ALDFG, which was missing at the PIF stage.

Subject	PIF	Project Document	Justification
Project framework and targets *Outcome 3.1 indicator*	*Indicator 10:* *Number of income-generating opportunities that address bycatch mitigation provided at selected pilot sites (to be identified in the PPG phase)*	*Indicator 11: Number of new or upgraded target fisheries initiatives focused on bycatch reduction and ALDFG mitigation* *Indicator 12: Number of target fisheries enterprises (including fishing cooperatives) accessing new or improved financial instruments (investments, grants, loans) in support of bycatch management, discard reduction and ALDFG management measures*	After discussions with fisheries agencies, the indicator was slightly reworded to include opportunities for initiatives that include ALDFG mitigation as well as bycatch reduction, and to be more specific that opportunities can consider upgraded existing fisheries initiatives as well as new ones. After discussion with stakeholders, an additional, related indicator (12) was added to measure success in attracting financial investment in support of bycatch management, discard reduction and ALDFG management measures, which is often a barrier to fishers (particularly SSF) adopting new fishing practices.
Project framework and targets *Outcome 3.1 indicator*	*Indicator 11: Number of discards reduction and ALDFG good practices adopted by fisherfolk organizations and fish processing industry organizations in target fisheries (to be identified in the PPG phase)*	Indicator removed	Following discussions with the fisheries agencies, it was agreed to remove this indicator as a reduction in discards may not occur if a market/value chain was developed for some current discard species and the second part of the indicator was measuring a separate feature - ?ALDFG good practices? ? so the indicator was judged too complex.
Project framework and targets *Outcome 3.1 indicator*	*Indicator 12: Number of direct beneficiaries working in the harvesting and post-processing sectors benefiting directly and indirectly from the project (target estimated to be of around 6,660 males and 2,670 females)*	Indicator moved	Following review, indicator considered to be more directly related to objective level and moved to that level.

Subject	PIF	Project Document	Justification
Project framework and targets *Outcome 4.1 indicator*	*Indicator 13: Number of webinars/reports/ publications/local awareness-raising events and other knowledge products delivered to disseminate knowledge from the project (results, good practice and lessons learned).*	*Indicator 13: Percentage increase in knowledge of issues and solutions related to bycatch, discards and ALDFG among national fisheries staff compared with baseline levels at start of project implementation according to project surveys practice and lessons learned)* *Indicator 14: Level of engagement in IW:Learn activities through participation and delivery of key products (GEF Indicator 7.4**[1]**[1])*	The original indicator only indicates achievement at the output level and not whether recipients of project information and awareness-raising activities have acted on it. The new indicator requires measurement of whether national fisheries staff have actually gained any knowledge from the project. The additional indicator was added to measure engagement with IW:LEARN and the opportunity for the project to
Project framework and targets *Outcome 4.2*	Outcome 4.2: Effective project implementation based on adaptive management	Outcome 4.2: Effective gender-responsive project implementation based on adaptive management	The term ?gender-responsive? was added to the outcome statement to indicate that gender equality is integrated throughout the project?s implementation (including gender-specific indicators in the Gender Action Plan ? Annex R)
Project framework *Output 1.1.1*	Output 1.1.1: Development and piloting of smart-gear modifications for both trawl and non-trawl gears (such as gillnets and longlines) for more size- and species-selective fishing practices	Output 1.1.1: Pre-catch losses reduction: smart-gear modifications developed and piloted for both trawl and non-trawl gears, such as gillnets and longlines, for more size- and species-selective fishing practices	The wording of the output was revised following feedback by reviewers to make it clearer that this output addresses pre-catch losses

Subject	PIF	Project Document	Justification
Project framework *Output 1.1.2*	Output 1.1.2: Innovative pre-catch technologies developed and tested to assess the composition of target schools of fish before they are harvested	Output 1.1.2: Lower post-release mortality: Innovative technologies for reducing post-release mortality of unwanted bycatch developed, tested promoted and adopted in CLME+ fisheries	The wording of the output was revised following feedback by reviewers to make it clearer that this output addresses post-release losses. It was decided following discussions with technical experts to clearly separate project work focused on pre-catch and post-release losses, so two separate outputs were created (1.1.1 and 1.1.2) to reflect this.
Project framework *Output 1.1.3*	Output 1.1.3: Capacity building for key stakeholders to adopt, use and monitor new bycatch and discards technologies and approaches delivered	Output 1.1.3: Capacity for key stakeholders to adopt and use new bycatch and discards technologies and approaches for monitoring and reporting bycatch and discards built	The wording of the output was slightly revised to make it clearer what the new capacity would be used for and reformulate as a project output statement.
Project framework *Output 1.2.1*	Output 1.2.1: Strategies, approaches and technical measures to reduce opportunities for bycatch of vulnerable and ETP species developed and promoted	Output 1.2.1: Strategies, approaches and technical measures to improve pre-catch survival of ETP species developed and promoted	Following discussions with technical experts, the wording of the output was revised following feedback by reviewers to make it clearer that this output would specifically address pre-catch survival.
Project framework *Output 1.2.2*	Output 1.2.2: Procedures, guidelines and tools for improving post-release survival of unwanted and incidental ETP species developed, promoted and adopted in CLME+ fisheries, including capacity building to enable their use	Output 1.2.2: Procedures, guidelines and tools for improving post-release survival of ETP species developed, promoted and adopted in CLME+ fisheries	The output was reworded to make clear that the focus of this output is only on ETP species and not on other ?unwanted species?, and the capacity building element of this output has been removed and another separate output (1.2.3) created to address this

Subject	PIF	Project Document	Justification
Project framework *Output 1.2.3*	Relevant capacity addressed through previous output 1.2.2	Output 1.2.3: Capacity of key stakeholders to adopt and use new bycatch technologies and approaches built	After discussions with fisheries agencies, it was felt that the capacity element of output 1.2.2 should be considered as a separate output (1.2.3)
Project framework *Output 1.3.1*	Output 1.3.1: Data and data collection frameworks on ALDFG and other adverse impacts of fishing gears on marine benthic habitats in target countries strengthened	Output 1.3.1: Data and data collection frameworks on ALDFG in target countries improved	The wording of the output was revised following feedback by reviewers to remove a focus on the adverse impacts of fishing gears on benthic habitats as this was addressed in a separate output (1.3.4)
Project framework *Output 1.3.3*	Output 1.3.3: Mitigating measures to address ALDFG developed, piloted, and promoted in selected CLME+ fisheries	Output 1.3.3: Preventative and mitigating measures to address ALDFG developed, piloted, and promoted in selected CLME+ fisheries	The wording of the output was revised following feedback by reviewers to make it clearer that preventing ALDFG was also a focus of the project as well as trying to mitigate its effects.
Project framework *Outputs 1.3.4*	Output 1.3.4: Technological innovations for the mitigation of fishing impacts on benthic ecosystem developed and promoted	Output 1.3.4: Knowledge of fishing impacts on benthic ecosystem and mitigation solutions promoted	Following discussions with fisheries agencies and other technical experts, it was agreed to limit the ambition of this output as it was unclear what technological innovations could be developed within the project?s limited budget, especially as there has been little research into this area in the CLME+ region so solutions are not well developed. Instead, it was agreed that the focus of this output should be on improving knowledge of fishing impacts on the benthic ecosystem in the CLME+ region (and beyond) and promoting mitigation solutions available from elsewhere in the world.

Subject	PIF	Project Document	Justification
Project framework *Output 2.1.2*	Output 2.1.2: Recommendations on effective bycatch management, discards reduction and ALDFG mitigation mainstreamed into relevant national, and regional policy processes	Output 2.1.2: Measures for effective bycatch management, discards reduction and ALDFG mitigation integrated into relevant national and regional policy and legal/regulatory frameworks and processes	The wording of the output was revised following feedback by reviewers to make it clearer that legal/regulatory frameworks would also be targeted through the project, and also to make a clearer output statement.
Project framework *Output 2.2.1*	Output 2.2.1: Spatial-temporal study of environmental, social and economic drivers of species bycatch and discards composition	Output 2.2.1: Identification of spatial, temporal and other appropriate measures for more effective bycatch management, discards reduction and to address ALDFG	The wording of the output was revised following feedback by reviewers to make it clearer what would be delivered through the project, including the focus on ALDFG which was absence from the PIF formulation of the output.
Project framework *Output 2.2.2*	Output 2.2.2: Maps identifying key bycatch and discard areas designed, developed and deployed in target fisheries	Output 2.2.2: Measures for more effective bycatch management, discards reduction and to address ALDFG integrated into target fisheries management frameworks at both national and regional levels	The wording of the output was revised following feedback by reviewers to reflect that while the project will collect and analyse spatial-temporal data on bycatch, discards and ALDFG, the focus is on identifying a range of relevant measures to improve management under this output and having these integrated into fisheries management frameworks.
Project framework *Outputs 2.2.3, 2.2.4*	Not in PIF	Output 2.2.3: National Plan of Action for sharks and rays developed and adopted in the four participating countries Output 2.2.4: National Plan of Action for ALDFG developed and adopted in the four participating countries	Two new outputs were added under Outcome 2.2 following discussions with fisheries experts during the PPG stage on priorities for addressing bycatch and ALDFG at the national level. Proposals were made to develop NPOAs for Sharks and another for ALDFG, which would be innovative for the CLME+ region.

Subject	PIF	Project Document	Justification
Project framework *Output 2.2.5*	Not in PIF	Output 2.2.5: Stakeholder participation, especially SSF, in fisheries management decision-making related to bycatch, discards and ALDFG improved	Following discussions with stakeholders, this output was added to ensure that there was increased local and SSF participation in the fisheries management decision-making as this was not viewed as sufficiently targeted at the PIF stage.
Project framework *Output 2.3.1*	Output 2.3.1: Innovative, cost-effective technology and tools for controlling, tracking and monitoring of compliance with bycatch regulations developed and widely adopted within target fisheries	Output 2.3.1: Frameworks and tools for improved data collection and monitoring of new and existing measures governing bycatch, discards and ALDFG, including on ETP species, designed and adopted	The wording of the output was revised following feedback by fisheries agencies and other fisheries experts to make it clearer that the focus of this output is on improving data collection and monitoring systems for the uptake of measures to address discards and ALDFG and not just bycatch.
Project framework *Output 2.3.2*	Output 2.3.2: Capacity building for key stakeholders to use adopted technologies and tools to control and monitor bycatch and discards delivered	Output 2.3.2: Capacity of key stakeholders to use technologies and tools to monitor compliance with relevant regulations and monitoring of bycatch, discards and ALDFG built	The wording of the output was revised following feedback by reviewers to make it clearer that monitoring of ALDFG would be delivered through the project as well as bycatch and discards and to make it more of an output-level statement.
Project framework *Output 3.1.3*	Output 3.1.3 Capacity building for fisher communities to engage with new opportunities associated with addressing bycatch and ALDFG delivered	Output 3.1.3: Legal and financial frameworks revised to promote new opportunities related to better bycatch management, discards reduction and to address ALDFG	Following discussions with stakeholders it was agreed that the output needed to be refocused on addressing weaknesses in the current legal and financial frameworks to support new business opportunities related to better bycatch management, discards reduction and to address ALDFG. It was agreed that the capacity building activities identified in the PIF formulation were built into the activities across all the outputs under this Outcome.

Subject	PIF	Project Document	Justification
Project framework *Output 4.1.1*	Output 4.1.1: Knowledge Management, awareness-raising and communication strategy and action plan to promote greater understanding of bycatch mitigation practices developed and implemented	Output 4.1.1: Outreach Strategy and Plan to promote greater understanding of bycatch management, discards reduction and to address ALDFG and mitigation practices in target fisheries developed and implemented	Output reworded for increased clarity and succinctness to better describe what the project would actually deliver and with a focus for this output on supporting the much-needed outreach activities of the fisheries agencies to address bycatch, discards and ALDFG.
Project framework *Output 4.1.2*	Output 4.1.2: Project lessons learned and recommendations for successful implementation of effective bycatch mitigation and discard measures identified and disseminated	Output 4.1.2: Project successes, experiences, recommendations, and lessons learned for successful implementation of effective bycatch management, discard reduction and ALDFG mitigation measures identified and disseminated	Output reworded to make it clearer that focus includes the results and experiences from the project as well as lessons and ?recommendations for successful implementation of EAF management measures?, is included in Output 4.1.3
Project framework *Output 4.1.3*	Output 4.1.3: Roadmap for scaling successful solutions for better management of bycatch and reduction of discards in CLME+ fisheries and beyond developed and promoted by relevant stakeholders	Output 4.1.3: Roadmap and materials for scaling successful project solutions for better management of bycatch, reduction of discards and addressing ALDFG in CLME+ fisheries and beyond developed and promoted by relevant stakeholders, including1% allocation to IW:LEARN activities	Output text expanded to include ?material? for scaling up developed from the roadmap, and to include specific reference to involvement in IW:LEARN activities under this output.

Subject	PIF	Project Document	Justification
Project framework *Output 4.2.1*	Output 4.2.1: A gender-sensitive project Monitoring and Evaluation (M&E) system designed and operational	Output 4.2.1: A gender-responsive project Monitoring and Evaluation (M&E) system using data disaggregated by sex, age and ethnicity designed and operational, and in line with FAO and GEF requirements	Additional text added to wording of output to make clear that the M&E system will monitor and report on sex, age and ethnicity and be in line with FAO and GEF requirements.

1b. Project Map and Coordinates

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

Coordinates

24?40? N, 89?45? W
01?00? S, 89?45? W
01?00? S, 45?04? W
24?40? N, 45?04? W

The CLME+ region as defined under the UNDP/GEF ?CLME+? project. The CLME+ region consists of 26 Sovereign States and 18 Overseas Territories within two Large Marine Ecosystems. Disclaimer: geographic features and boundaries depicted in the figure are purely a graphical representation and are only intended to be indicative.

1c. Child Project?

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

N/A

2. Stakeholders

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

Civil Society Organizations Yes

Indigenous Peoples and Local Communities Yes

Private Sector Entities Yes

If none of the above, please explain why:

Please provide the Stakeholder Engagement Plan or equivalent assessment.

A detailed Stakeholder Engagement Plan for the implementation of the project is provided at Annex I2. This section provides a summary of the stakeholder engagement plan by briefly describing how stakeholders will be consulted in project implementation, the means and timing of engagement, how information will be disseminated, and an explanation of any resource requirements throughout the project cycle to ensure proper and meaningful stakeholder engagement. This section also briefly describes the stakeholders who were engaged in project formulation during the PIF and PPG phases. A matrix describing the stakeholder consultations that were carried out during project formulation is also provided at Annex I2.

This project will draw together a large and diverse group of stakeholders who play important roles in fisheries in the CLME+ region, including fisheries management and regulatory authorities, fisherfolk communities, academic and private sector groups involved in developing and testing bycatch mitigation technologies, those involved in financing fisheries (e.g. agricultural development banks), and stakeholders involved along target fisheries value chains. The project will build on existing collaborations (particularly through those developed through the FAO-GEF REBYC-II LAC project). Key stakeholders at the national levels include the national fisheries authorities of the four target countries (Fisheries Division, Ministry of Maritime Affairs and the Blue Economy, Barbados; Fisheries Department, Ministry of Agriculture, Guyana; Fisheries Department, Ministry of Agriculture, Animal Husbandry & Fisheries, Suriname; and Fisheries Division, Ministry of Agriculture, Land and Fisheries, Trinidad and Tobago), as well as fisherfolk organisations (national and local) and private sector fishing enterprises (SSF as well as industrial fisheries companies operating in the target fisheries), including processors, marketers and retailers as well as the institutions financing their fisheries.

At the regional level, linkages with Regional Fisheries Bodies, including the CRFM, NOAA, the French Research Institute for the Exploration of the Sea (IFREMER), the Caribbean Network of Fisherfolk Organizations (CNFO) and the Cartagena Convention SPAW Protocol/RAC will help facilitate the scaling up and wider impact of project successes across the CLME+ area.

Strong linkages are also foreseen with civil society organisations including the Caribbean Natural Resources Institute (CANARI), Wider Caribbean Sea Turtle Conservation Network (WIDECAST), Barbados Sea Turtle Project, Future Fishers and Nature Seekers in Trinidad and Tobago, together with regional academic institutes such as the University of the West Indies in Trinidad and Tobago and Centre for Resource Management and Environmental Studies (CERMES) of the University of the West Indies in Barbados.

During project implementation, stakeholder participation will include the provision of co-financing; participation in and facilitation of project activities such as workshops, trainings, working groups and value chain assessments; provision of project oversight through participation on the Project Steering Committee; provision of technical expertise and guidance on a range of topics including development of smart gear modifications for both trawl and non-trawl gears, sustainable fisheries value chain development and gender mainstreaming; and participation in knowledge management through the institutionalization of project results and lessons learned to allow for up-scaling, replication, and sustainability. A detailed stakeholder identification and analysis matrix that includes the expected roles and responsibilities of stakeholders during project implementation is provided in the stakeholder engagement plan at Annex I2.

Stakeholders will be engaged in project implementation using a range of engagement methods. The specific engagement methods used will depend on the target stakeholder group, the engagement purpose and the capacity of the targeted stakeholder group to effectively receive information using a specific method. As part of the stakeholder analysis for the stakeholder engagement plan, stakeholders were placed into four broad categories described in Table 2. In general, stakeholder Categories 1, 3 and 4 consist of national government agencies, academic institutions, private sector and industry associations, national and international civil society organizations and regional and international intergovernmental agencies. Stakeholder Category 2 generally small-scale fisherfolk (i.e. vessel owners, fishers, processors and traders) and their organizations; rural fishing communities and their organizations; vessel owners and crews in non-artisanal commercial fishing fleets and their organizations; micro, small, medium and large fish processing enterprises and their organizations. Table 3 briefly describes how different stakeholders will be engaged under the project based on their categorization.

Table 2: Categorization of project stakeholders

Category	Description
Category 1 ? Stakeholders who will directly use the outputs of the project to improve decision-making, management and monitoring, control and surveillance (MCS) for bycatch and discard reduction at the national and sub-regional levels	These stakeholders have very high interest in the project and will need to be significantly involved in the delivery of the project?s outputs to ensure successful and sustainable outcomes. E.g national fisheries agencies, regional fisheries bodies, national and international civil society organizations, including fisherfolk organizations and private sector and industry associations.
Category 2 ? Stakeholders who will be expected to directly use the outputs of the project to reduce bycatch and discards in the target fisheries in which they operate and whose livelihoods, operational costs, income earning capacity and/or food and nutrition security may be directly affected by new bycatch and discard reduction measures and technologies introduced under the project.	These stakeholders have very high interest in the project and include vulnerable and marginalized groups. They will need to be regularly consulted and engaged in participatory approaches to determine and identify solutions to any potential undesirable impacts on their livelihoods, operational costs, income earning capacity and/or food and nutrition security. Their power to influence or decide on project implementation and execution is lower than Category 4 stakeholders, but they can significantly impact the success of the project through their non-participation in project activities. E.g. small-scale fisherfolk (i.e. vessel owners, fishers, processors and traders); rural fishing communities; vessel owners and crews in non-artisanal commercial fishing fleets; micro, small, medium and large fish processing enterprises. In cases where these stakeholders are organised, they may be engaged via their organisations or associations that represent their socioeconomic interests.
Category 3 ? Stakeholders whose interests/mandates/responsibilities are indirectly linked to the project?s outputs/outcomes	These stakeholders have lower interest in the project than stakeholders in Category 1 and Category 2. They will likely be the least involved in implementing/executing the project, however, given the indirect links of the project?s outputs and outcomes to their interests/mandates/responsibilities, may be important to consult for technical input and guidance based on the subject-matter. E.g. gender mainstreaming, small and micro enterprise development.

Category 4 ? Stakeholders that have the power to directly influence or decide on project implementation/execution	These stakeholders have the highest influence on the implementation and execution of the project. These stakeholders are responsible for providing financial resources and technical oversight for the implementation of the project to ensure that it achieves its intended results. This category includes the members of the project team i.e. the donor, implementing partner, operational partner, executing partner(s), regional and national project coordinators and project steering committee.

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

Table 3: Methods and frequency to engage with target project stakeholder groups

Stakeholder category	Engagement purpose	Engagement method	Frequency	Responsible entity

Category 1	Participate in joint planning and collaboration for delivery of project outputs Participate in the review and validation of technical reports Champion the project in national and regional technical advisory and decision-making fora Participate in project activities Share technical and scientific knowledge Keep updated on project implementation and status Share lessons learned Participate in project evaluation	Direct emails Workshops/webinars Project working group meetings One-on-one interviews (in-person or virtual) Targeted communication products (electronic and/or hardcopy) Project webpage Social media Traditional media (television, newspaper) Caribbean listservs	Direct emails and one-on-one meetings on a continuous basis Workshops/webinars and/or project working group meetings at least quarterly Targeted communication products on a continuous basis Project webpage and social media on a continuous basis Traditional media as needed Caribbean list servs on a continuous basis Project mid-term review at end of Year 2 Project evaluation at end of Year 4 Submit and receive feedback on grievances on an as needed basis	Operational partner Executing partner (s) Regional coordinator National coordinators

	Submit and receive feedback on grievances			

Category 2	Share local knowledge Participate in project activities Champion project at local/community level Assist with mobilization of community stakeholders Keep updated on project implementation and status Share lessons learned Participate in project evaluation Submit and receive feedback on grievances	Direct emails One-on-one interviews (in-person or virtual) Small focus groups in the community Workshops/webinars Trainings Project working group meetings Project webpage WhatsApp Social media Traditional media (television, newspaper) Targeted communication products (electronic and/or hardcopy)	Direct emails and one-on-one meetings on a continuous basis Workshops/webinars, Trainings and/or project working group meetings at least quarterly Small focus groups in the community at least twice annually Targeted communication products on a continuous basis Project webpage, social media and WhatsApp on a continuous basis Traditional media as needed Project mid-term review at end of Year 2 Project evaluation at end of Year 4 Submit and receive feedback on grievances on an as needed basis	Operational partner Executing partner (s) Regional coordinator National coordinators

Category 3	Provide technical input and guidance on specific topics relevant to the project Participate in the review and validation of technical reports Participate in the design and delivery of topic-specific capacity building activities for target stakeholders (in collaboration with executing partners) Keep updated on project implementation and status Submit and receive feedback on grievances	Direct emails Meetings One-on-one interviews (in-person and/or virtual) Project webpage Social media Workshops/ webinars Trainings Caribbean listservs	Direct emails and one-on-one meetings on a continuous basis Workshops/webinars, trainings, project working group meetings at least quarterly Targeted communication products on a continuous basis Project webpage and social media on a continuous basis Traditional media as needed Caribbean list servs on a continuous basis Submit and receive feedback on grievances on an as needed basis	Operational partner Executing partner (s) Regional coordinator National coordinators

Category 4	Review project work plans and budgets Provide guidance for and approve amendments to project budget and work plan Review and approve project progress reports Review and approve project mid-term and evaluation reports Provide oversight and guidance on project implementation to ensure timely completion of the project within budget Approve requests for disbursement funds Facilitate conflict resolution	Project steering committee meetings Written progress reports Official project emails Official letters Written grievance reports	Project steering committee meetings semi-annually Written progress reports quarterly Project mid-term review at end of Year 2 Project evaluation at end of Year 4 Official project emails on an ongoing basis Official letters as needed Requests for disbursement of funds submitted annually Facilitate conflict resolution on an as needed basis Grievance deliberations on an as needed basis	Project Steering Committee Implementing partner Operational partner Executing partner (s) Regional coordinator National coordinators

	Keep updated on project implementation and status Register, analyze and address stakeholder grievances			

Stakeholder consultations during the project design phase (both PIF and PPG stages) were constrained by COVID-related lockdowns and restrictions. Nevertheless, the project engaged with a variety of key stakeholders at the national and regional levels during the initial project development phase. This included the national fisheries agencies of Barbados, Guyana, Suriname and Trinidad and Tobago, notably officials at the decision-making level (Permanent Secretaries/Ministries and GEF OFP, and Chief Fisheries Officers), FAO (sub-regional office in Barbados as well as FAO Country Offices in Guyana, Suriname and Trinidad and Tobago), and the WECAFC Secretariat. In addition, the project had exchanges with the design teams of the GEF-funded PROCARIBE+, BE-CLME+ and proposed EAF4SF projects to explore possible collaboration and synergies. Project development was also informed by other regional GEF projects, including the FAO-GEF CC4Fish project. Discussions included assessment of the current situation, identification of specific needs and prioritization of project needs and activities based on an outline project concept document and then later reviews of drafts of the PIF and Project Document.

During the PPG phase, key international, regional, national and local project stakeholders were engaged in project formulation via bilateral meetings, email exchanges and virtual regional workshops. A range of stakeholders from the inter-governmental, government, civil society (including fisherfolk organizations) and private sectors were targeted to get more detailed information on the project baseline, identify and prioritize target fisheries for the project, identify project stakeholders, provide co-financing and provide specific inputs to the project formulation process. Additionally, selected project stakeholders, including national focal points, had the opportunity to review, comment on and validate the final draft of the project document. For instance, in Suriname, the project has been discussed in several times in the National Shrimp and Groundfish Working groups, which includes two representatives of ?local? FFO?s.

During the PPG phase, two virtual regional workshops were convened. A regional PPG Virtual Inception workshop was held on 28 April 2022 to: (i) present the project concept that was accepted by the GEF; (ii) outline the project preparation process; (iii) identify key sources of information,

stakeholders and partners to support drafting of the full project document; (iv) identify potential target fisheries for the project (v) present a work plan for the development of the project document and agree on roles and responsibilities. The inception workshop was attended by approximately 86 persons (51 women, 35 men) from across the four target countries and CLME+ region. A regional Virtual Validation workshop was held on 18 January 2023 to: (i) present the components of the final draft of the project document, including the activities, that would be submitted to the GEF (ii) discuss and confirm the institutional arrangements, workplan, budget and co-financing for the project and (iii) discuss next steps. The validation workshop was attended by 53 persons (26 women, 27 men) across the four target countries and CLME+ region. In total, 50 stakeholder organizations were engaged during the PPG phase. A matrix describing the stakeholder consultations that were carried out during project formulation is provided at Annex I2 i.

Select what role civil society will play in the project:

Consulted only;

Member of Advisory Body; Contractor;

Co-financier; Yes

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

Executor or co-executor; Yes

Other (Please explain)

3. Gender Equality and Women's Empowerment

Provide the gender analysis or equivalent socio-economic assesment.

FAO is committed to gender equality and women?s empowerment and has a specific gender policy and strategy that is integrated across all of its programmes and projects. The project will follow both FAO and GEF gender policies to ensure that the project maximizes participation, inclusion, opportunities and benefits to women in all project activities, whilst respecting the norms, values and customs of targeted communities. The FAO Policy on Gender Equality 2020-2030 is set on a foundation of four objectives that seek to promote gender equality for development and natural resource management, and on which the gender-related objectives of the project are focused. The project will also complement the implementation of CRFM?s gender mainstreaming strategy and action plan for the fisheries sector, a regional protocol on securing sustainable small-scale fisheries for Caribbean Community fisherfolk and societies. The project also draws on experience and knowledge gained from relevant regional projects including the lessons learned from the recently completed REBYC-II LAC project and the ?Mainstreaming Gender Equality in Fisheries in the Caribbean? project which had a focus on

improving governance for gender-responsive fisheries planning and decision-making and enhancing national capacities for mainstreaming gender into fisheries management within the CLME+ sub-project ?EAF for the Eastern Caribbean Flyingfish?.

A gender-sensitive approach will be adopted across the project and throughout its life cycle, with representation of, and consultations with, women, youth and other vulnerable groups emphasized. The goal of gender equality will guide the selection of participants in project activities as well as in project staffing (particularly leadership positions), and specific opportunities and activity sets at both national and fishing community levels to help empower and directly benefit women giving them an equal voice and participation in decision-making (which link to FAO gender objectives 1 and 2) and also benefit other minority or marginalised groups such as unemployed youth. Special attention will be given to complementing post-Covid-19 recovery measures to ensure women and men?s diverse needs are met.

During the PPG phase a desktop gender analysis was conducted which informed the development of a Gender Action Plan (GAP, Appendix R) for the project. The GAP includes actions to be taken under each component, specific gender targets and gender-specific indicators which will form part of the project?s M&E framework. Necessary provisions to support implementation of the GAP Plan are included in the overall project budget. This includes a budget allocation for a gender specialist who will monitor and support implementation and reporting on the GAP, in collaboration with assigned national fisheries gender focal points from the fisheries departments in each of the project countries.

Gender is particularly important when considering improvements to market and processing facilities, value adding activities (in particular in relation to bycatch and fish waste (e.g. fish silage). In addition, providing improved food safety training results in less post-harvest losses and improved livelihoods of processing workers, which are mostly women. The project will also promote a participatory, climate- and gender-sensitive approach to any fisheries management plans, policies or legislation targeted under the project for improvement through bycatch management measures.

Project activities targeted at women are included in all four Components, but Component 3 has a specific emphasis on socioeconomic and livelihood opportunities for women fish workers, as women frequently play the major role in processing, packaging, marketing, distribution and sale of fish products in SSF. This includes a focus on support for new value chain and market development with a focus on the utilization of unwanted bycatch, promotion of alternative income-generating activities, improving access to micro-credit facilities and insurance for existing or new bycatch/discard fish processing or waste product ventures, or alternative livelihood marine conservation schemes, as well as associated capacity enhancement for small business enterprise development specifically targeted at women (supporting FAO gender objectives 3 and 4). For instance, small businesses could be established to support community-based recycling/repurposing of ALDFG, which being land-based may offer more attractive opportunities for women. The Gender Action Plan (Annex R) emphasises the need to conduct detailed assessments of the current situation of women in the sector and identification of opportunities for more sustainable livelihoods based on addressing bycatch/discards during the initial 6 months of project implementation. The project has set an initial Core Indicator 11 target of generating direct benefits to approximately 6,267 males (out of a total of 25,068) and 4480 females (out of 17,971) across the four countries participating in the project.

In implementing gender-responsive project activities, the project will draw on FAO?s long-standing technical capacity in its Fisheries Division in assisting FAO Members in the development of gender-responsive fisheries programmes and projects and supporting women?s empowerment in the fisheries sector. FAO will provide guidance on gender mainstreaming for the project?s activities and events, gender-sensitive knowledge product development, and gender-targeted awareness raising and capacity development activities including supporting improved capacity for collecting and reporting gender statistics and fostering women?s economic empowerment throughout the value chains of fisheries, thus contributing to all project components. In addition, project communication products will ensure appropriate mainstreaming of gender into all communication products, with targeted effective communication products developed for women and distributed through the most gender appropriate communication channels. Gender will have a special focus in the Knowledge management, awareness-raising and communication strategy and action plan of the project which will include the establishment of a ?Regional Gender in Fisheries Action Learning Group ? to share knowledge and raise awareness on gender mainstreaming in fisheries and the links between gender equality, sustainable fisheries and food and nutrition security among a range of stakeholders.

The project will also consider how best to engage and include groups representing youth (as agents of change through awareness creation) and persons with disabilities within the project.

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

Yes

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

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

Yes

4. Private sector engagement

Elaborate on the private sector's engagement in the project, if any.

Private sector engagement is essential for achieving successful outcomes and impact of this project, particularly for changing fisher attitudes, behaviours and investments towards more ecosystem-based fisheries management, and importantly for the scaling up and sustainability of project successes, as almost all of the fishing vessels operating in the participating countries waters are privately owned.

The private sector will be instrumental in the delivery of each project component. Fishing companies will be directly involved in Component 1 through the co-design, piloting and adoption of bycatch mitigation approaches and technologies on vessels, and the piloting of gear marking (especially for gill

and trawl nets) to tackle ALDFG. A number of potential private sector companies with vessels operating in the region have been provisionally identified as partners to test and refine the mitigation technology, based on their previous involvement in bycatch mitigation initiatives. In Suriname, for instance, most of the companies involved in industrial trawl fishing, have indicated their willingness to partner with the Fisheries Division (7 private sector companies committed to support the project through co-financing letters). In partnership with these companies, a small number of industrial fishing vessels will also be fitted with innovative systems to improve MCS capacity and performance, and the private sector will also be co-partners in the design of strengthened fisheries policy, regulatory and management frameworks including improving key fisheries data collection and analysis (both under Component 2). The final choice of companies to be involved in these bycatch mitigation activities will be decided early in project implementation as it depends on which gear trials will be prioritised. It should be noted that the private sector fisheries industry operating in the CLME+ region is increasingly aware of, and acting on, the need for management for sustainable fisheries and adoption of responsible fisheries practices. Many of the larger private sector companies who were involved with the REBYC-II LAC project follow the FAO Code of Conduct for Responsible Fisheries and have some form of Environmental, Social and Governance (ESG) policies and strategies. Some of these are interested in engaging with the REBYC-III CLME+ project. It should be noted that involvement of these fishing sector companies will also allow for additional co-financing (leveraged co-financing) to be captured during project implementation.

The project will help to stimulate private sector engagement through market-based approaches to manage bycatch and reduce discard impacts through Component 3, working with both large-scale commercial fishing fleets as well as SSF and identifying new investment opportunities for responsible fisheries. The project particularly aims to facilitate increased private investment in Small-scale Fisheries (SSF) under Component 3, through identifying and strengthening value chains and associated business skills, and opportunities for alternative livelihoods and decent work. It will also engage with the private sector through awareness-raising on approaches and technologies for sustainable fisheries (helping to de-risk private sector investment and finance). Also included here is the potential to support marine conservation efforts such as small-scale ventures for clean-up, recycling and repurposing ALDFG.

The private sector will also be engaged in project Knowledge Management and lesson learning activities (under Component 4) and the private sector represents a key focus for dissemination and upscaling of project results, through individual fisheries companies, trade bodies and fisher associations.

Along with supporting measures to better manage bycatch and reduce discards and mitigate ALDFG, project efforts will also engage the private sector in greater efforts to address IUU fishing and support wider adoption of EAF within the fisheries sector.

FAO will provide expertise on private sector engagement at the international and regional levels, and project partner WECAFC works closely with key industry organizations in the fisheries sector, so strong engagement of the private fisheries sector is expected. In addition, UWI, the project executing partner, has strong private sector links with educational and training establishments throughout the

region. The project responds to the GEF?s Private Sector Engagement Strategy (PSES). In line with PSES guidance private sector stakeholders will be engaged through a variety of approaches and mechanisms, including:

- Targeting communication activities and channels to inform private sector partiers of the GEF process, objectives of the IW focal area and entry points for the private sector;
- Providing guidance on potential private sector roles and support for the REBYC-III CLME+ project based on identification of individual private sector company priorities and their alignment with (mapping to) the project objectives and GEF country and focal area priorities;
- Use of tailored private sector-specific workshops, consultations, and working groups to explore possible matching of their interests with those of the project, as well as direct capacity building with project staff (costs met through co-financing);
- Ensuring communication of private sector interest and engagement among the project partners;
- Sharing lessons learned from the project?s experience with private sector engagement with partners and more widely (e.g. through IW:LEARN);
- Providing accurate and timely information for guidance documents, such as case studies;
- Exploring barriers to private sector involvement in the project and potential solutions to these;
- Ensuring project representation and promotion of project results at key fishing industry fora held in the participating countries and wider CLME+ region, such as meetings of the regional fisheries bodies (WECAFC, CRFM and OSPESCA), and
- Arranging co-hosted project events with senior fisheries industry leadership.

The principle approaches to strengthen communication and coordination with the private sector on the project will be through regular briefings to private sector partners by the project management unit staff, their representation on the Project Steering Committee, as well as direct interaction on key technical aspects of the project, such as the partnership with key fishing company vessels for the sea trials of bycatch mitigation technologies, discard reduction measures and responsible fishing practices (under Component 1). The project will develop a Partnership and Stakeholder Strategy (building on the Stakeholder Engagement Strategy ? see section above), which, along with the project?s Knowledge Management and Communications Strategy (under Component 4) will have a specific focus on the private sector, supporting effective engagement and communications with the private sector.

5. Risks to Achieving Project Objectives

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.(table format acceptable):

The table below shows the main risks to project results being delivered and achieving longer term impacts.

Risk	Impact [1]	Proba-bility[2][2]	Mitigation measures	Responsible party
Low commitment and engagement in project (poor political support, staffing, co-financing, and/or changed priorities due to adverse economic conditions) from key partners and government institutions responsible for fisheries management	M	L	The project has been designed to respond to, and directly supports, the priorities of WECAFC, CRFM and CARICOM and their member states participating in the project. The project will leverage existing coordinating and cross-cutting intergovernmental and transboundary mechanisms that govern these institutions to ensue participation remains strong. The project supports regional and national fisheries priorities addressing EAF, SSF and blue growth, including helping to strengthen capacity of the national fisheries authorities as well as the needs of local fishing communities and associations. As an example, the CLME+ SAP explicitly calls for national actions to support sustainable fisheries in the region, which the project can help deliver. The need to adopt EAF and move towards more sustainable fisheries, including reducing unwanted and incidental bycatch, particularly of ETP species, and addressing ALDFG, is well recognized in the region having had awareness raised on this issue through previous EAF and marine conservation initiatives, including the REBYC-II LAC. In addition, FAO has extensive experience in working with many of the main project partners and there are FAO representations in each of the participating countries which will facilitate continued engagement in the project during implementation. Political buy-in will also be maintained through strategic and periodic awareness-raising and communication with key decision-makers including parliamentarians, and through carefully crafted messages to targeted audiences at the national level. The fact that two of the four participating countries (Suriname and Trinidad and Tobago) participated in the REBYC-II LAC project and requested a follow-up project demonstrates good political interest. The establishment of the Project Steering Committee (PSC) during the project inception phase will also ensure participation, ownership and engagement of key partners and maintain attention on the project.	Project Management Unit (PMU), National Fisheries Focal Points (NFFPs), Project Steering Committee (PSC)

Risk	Impact [1]	Proba-bility[2][2]	Mitigation measures	Responsible party
Low participation of local fishing communities, particularly the engagement of women, during the life of the project	M	L	Careful attention will be given to ensure involvement of relevant local stakeholders, including fisherfolk, throughout the project implementation process. Stakeholder engagement is set out in the project?s Stakeholder Engagement Plan (see section 2 in main text). Special attention will be paid to ensuring that social and cultural barriers do not prevent women from effectively participating in the project (also set out in the project?s Gender Action Plan - Annex R). Specific activities and incentives are aimed at encouraging and supporting engagement, including promotion of fisheries co-management, a ?bottom-up? participatory approach and negotiated agreements, as well as demonstration of socio-economic benefits and use of trust-building and conflict resolutions mechanisms. Capacity building and training of local fishers will take place as much as possible to fit with their work calendar. Women tend to bear the bulk of household responsibilities, consequently project activities targeted specifically at women will be programmed to ensure they are not excluded due to any family commitments (see Gender Action Plan ? Annex R). The project will carry out a structured Knowledge Management and Communications programme (under Component 4) and targeted awareness-raising campaign to increase public understanding and awareness of the benefits of addressing bycatch, discards and ALDFG and more generally EAF. The project?s National Technical Coordinator in each country (see Institutional Arrangements section) will act as fishing community liaisons/contacts and similarly specific individuals within the communities (project ?champions?) will be identified as focal points for the SSFs targeted by project.	National Technical Coordinators, National Fisheries Focal Points (NFFPs), FFOs

Risk	Impact [1]	Proba-bility[2][2]	Mitigation measures	Responsible party
Private sector is hesitant to engage or invest in sustainable fisheries management improvements, particularly to address bycatch and discards and address ALDFG, and support additional data collection and compliance (MCS activities), because of short-term financial interests and/or fear of legal action	H	L	Engagement and support by the private sector is important and will require dedicated attention by the project. Consequently, the project has engaged private sector groups directly from early in project design. There is growing pressure (drivers) for the fishing sector regionally and globally to demonstrate sustainable fishing practices, which can command a premium on fish prices. The benefits of bycatch mitigation and opportunities from addressing excessive discards will be demonstrated to both large- and small-scale fisheries. Financial institutions providing funding for the fisheries sector will be engaged by the project to encourage their financing of sustainable fisheries and the risks from not doing so highlighted. For example, the recently completed GEF-financed Caribbean Billfish Project has successfully shown that if interventions are designed to specifically address and respond to the needs of the private sector, uptake and sustainable management improvements can be made in a very short period of time. This is particularly the case if those improvements lead to both fisheries conservation advances and increased efficiency and profitability. In addition, a small number of companies will provide vessels for piloting bycatch mitigation and MCS technologies and act as ?champions? in the private sector to promote the financial, social and environmental advantages to be gained from supporting moves towards more responsible fishing practices and EAF. The project will identify financial and risk barriers to encourage market interventions, while also empowering fisherfolk (especially women and youths) with skills and financing to engage in entrepreneurial programmes (especially under Component 3). This combined bottom-up and top-down approach will support a strong enabling environment for investors and the private sector generally. All four of the national fisheries agencies have strong existing partnerships with commercial fisheries companies as well as FFOs which will further facilitate engagement of the private sector in the project.	Project Management Unit (PMU), national Technical Coordinators, National Fisheries Focal Points (NFFPs), Project Steering Committee (PSC), Private sector fisheries companies

Risk	Impact [1]	Proba-bility[2][2]	Mitigation measures	Responsible party
Insufficient capacity to support the proposed transformational changes, particularly with regard to institutional and administrative support	M	M	The scope of the project has been agreed with the relevant stakeholders and, by focusing on a selected number of issues in a limited number of countries and locations, it will be possible to achieve results without putting undue pressure on the existing government institutions. Capacity building at both the individual and institutional levels is a central element of the project within each component. Capacity needs of the national fisheries agencies was assessed during the project design process and capacity support to enable them to undertake the project and deliver the results has been built into the project design (e.g. in the form of a National Technical Coordinators and part-time support officer assigned to each fisheries agency). In addition, project partnerships with non-governmental and academic institutions will also help cushion the impacts of any changes to changes in national policy and political administrations. The project?s PMU will be housed at the UWI?s St.Augustine campus, so should be less influenced by national political influences.	Project Management Unit (PMU), National Technical Coordinators, national fisheries agencies, Project Steering Committee (PSC)
Large number and diversity of stakeholders constrain efficient coordination and implementation of the project?s activities	L	L	Key stakeholders will actively support the project activities through the establishment of regional networks and partnerships. A project Stakeholder Engagement Strategy has been developed during the project design period to ensure effective, coherent stakeholder coordination (see section 2 in main text). Addressing the issues of particular concern to stakeholders and demonstrating the socio-economic benefits will contribute to greater collective engagement among key stakeholders. The establishment of a Project Steering Committee with appointment of National Focal Points, will also support coordination and continued participation of the key partners. An effective Knowledge Management and Communication Strategy will also support stakeholder engagement and coordination.	Project Management Unit (PMU), National Technical Coordinators, National Fisheries Focal Points (NFFPs), Project Steering Committee (PSC)

Risk	Impact [1]	Proba-bility[2][2]	Mitigation measures	Responsible party
Women may be less able to participate and benefit from the project due to their generally greater child-care and family responsibilities compared with men.	L	M	Special attention will be paid to ensuring that social and cultural barriers do not prevent women from effectively participating in the project. The project will focus on promoting participation of women; empowering them to engage in planning and decision-making within the project sphere and encouraging them to do similarly outside of the project; and to improve their productivity, income and living conditions. Project activities targeted specifically at women will be programmed to ensure they are not excluded due to any family commitments. Participation of women, but also of youth, will be promoted through multi-stakeholder workshops, consultation and validation processes used in project activities, and the employment of a gender officer within the project who will particularly focus on supporting women?s engagement and enterprise opportunities. A specific Gender Action Plan (Annex R) has been developed for the project that will ensure women have the opportunity to benefit from the project (see section 3 in main text).	Project Management Unit (PMU), National Technical Coordinators, National Fisheries Focal Points (NFFPs), Project Steering Committee (PSC)
Difficulty in defining sustainable fisheries value chains results in ineffective project interventions with poor engagement of local fisher groups	M	M	Providing increased opportunities that benefit from better bycatch management, ways to address discards and mitigate ALDG at the fishing community level is seen as important and the project has several approaches to address this. Specific value chains and opportunities to strengthen these will be identified and comprehensive training workshops and other targeted capacity building and an information campaign launched early in project implementation to ensure the buy-in necessary for a successful project intervention.	Project Management Unit (PMU), National Technical Coordinators, National Fisheries Focal Points (NFFPs), commercial businesses involved in selected value chains

Risk	Impact [1]	Proba-bility[2][2]	Mitigation measures	Responsible party
The current Covid-19 pandemic continues to have significant negative impacts on the ability of key stakeholders to engage with the project and deliver results (including delays, shortage of technical staff, reallocation of Government resources for other post Covid recovery measures with risk to project co-financing, etc), or adaptive management measures are not able to mitigate these impacts	M	L	The project?s mitigation strategies to address the Covid-19 pandemic will be guided by both GEF and FAO policies and guidelines on operating during the pandemic, and lessons learned through execution of other projects in the CLME+ region during 2020-2022 period. In addition, the project?s strategy of not overly relying on individual staff, but on institutions and organizations, and spreading capacity development within individual countries so that as many individuals are involved and trained as possible, will help address some of the potential loss and reallocation of partner staff due to Covid. The FAO Sub-regional office (FAOSLC) and national FAO Country Offices will closely monitor the Covid situation and risks, with regular discussions held with project partners. It is recognised that travel to or from areas where COVID-19 is prevalent could pose a risk to the populations of participating countries, and to project staff and consultants/contractors. To mitigate this, training on pandemic-related guidance for project staff and stakeholders will be given during the inception phase, and the expansion of standard monitoring of project operations to ensure that they are in conformity with FAO policies regarding travel, risk reduction, and other areas regarding the COVID-19 pandemic. The Project Manager will report on compliance to the Project Steering Committee and take any necessary steps to protect the health of staff, consultants/contractors, and beneficiaries required by the situation. The project will employ an adaptive management approach where work plans are frequently reviewed and revised to take into account changing circumstances as needed. In addition, meetings and workshops will be conducted virtually whenever feasible (within internet limitations), and as much as possible local resource persons will be engaged for interactions with communities (which will also help maintain local community buy-in and support dissemination of result). Key fishing community liaisons, who can participate in virtual meetings with the fisheries agencies, project National Technical Coordinators, and other stakeholders, will be identified in the relevant fishing communities and capacity building support offered to these individuals as required. It should also be noted that the project results can support opportunities to ?build back better?, for example, through the adoption of more sustainable fishing	Project Management Unit (PMU), National Technical Coordinators, National Fisheries Focal Points (NFFPs)

Risk	Impact [1]	Proba-bility[2][2]	Mitigation measures	Responsible party
			practices, better utilization of bycatch, and livelihood enhancement opportunities.	

Risk	Impact [1]	Proba-bility[2][2]	Mitigation measures	Responsible party
Adverse effects of climate variability and climate-driven changes driven natural disasters (e.g. damages to infrastructure, ocean warming and changes to species abundance and distribution in the Caribbean) compromise the project?s achievements, and in longer term impact fish operations	H (over long term)	H (over long term)	Although noticeable climatic changes and impacts, such as major shifts in distribution or migratory routes of fish species, are unlikely to occur over the four years of project implementation, climatic trends do need to be addressed and are a major concern of the project. The project will draw on the experience gained from several other on-going initiatives in the region that are addressing climate vulnerability and resilience in fisheries, including the FAO-GEF CC4Fish and ?Climate Change Adaptation in the Eastern Caribbean Fisheries Sector? projects that are being undertaken in several Eastern Caribbean states. Furthermore, the FAO and CFRM have developed a Protocol on Climate Change Adaptation and Disaster Risk Management in Fisheries and Aquaculture in the Caribbean [84] that will inform the development and implementation of the project. Although climate impacts on the target fisheries are likely to be limited during the period of the project, other climate impacts on the fishing communities and government agencies may also affect the project?s delivery. For instance, government priorities may shift after a significant climate event, such as a hurricane, which can mean fewer resources for fisheries management (and hence project co-financing), as well as direct damage to government fisheries management structures, infrastructure and equipment (e.g. in Dominica, an entire building of fisheries division was destroyed, including computers, desks, printers etc). Results of a climate risk screening undertaken during the PPG phase have been integrated into the project?s design. In the longer term, there are likely to be significant impacts on fish populations and therefore fisheries and their dependent fishing communities. For instance, populations of adult shrimp and groundfish could move further offshore to deeper areas to avoid warmer temperatures, which is likely to make access for fishers more difficult. Travel times to the fishing grounds will become longer, catches likely to decrease with lower catch per unit of effort (CPUE), resulting in declining productivity of a fishery and fishery-related incomes [32] making the fishery less economically viable. Similarly, populations of pelagic fish, including highly migratory species such as tuna, are likely to shift their distribution range polewards and thus become less abundant in the Caribbean region over the medium-term	Project Management Unit (PMU), National Technical Coordinators, National Fisheries Focal Points (NFFPs)

Risk	Impact [1]	Proba-bility[2][2]	Mitigation measures	Responsible party
			and perhaps even leave the region altogether over the long-term.	

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

[2] H: High; M: Moderate; L: Low

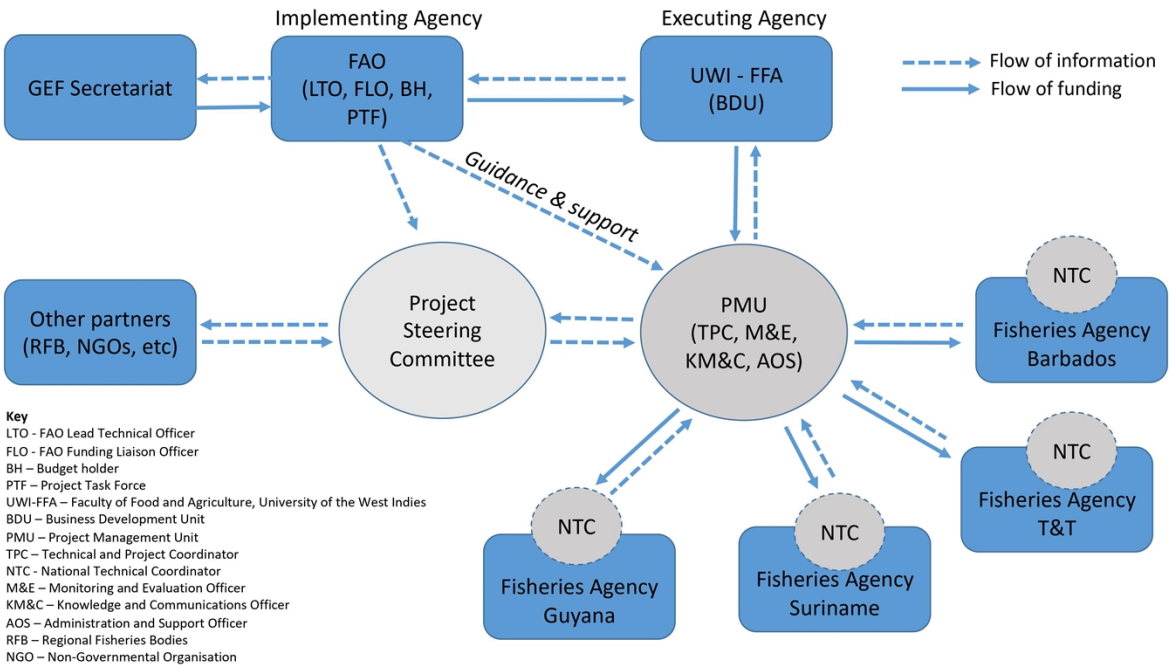
6. Institutional Arrangement and Coordination

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

6.a Institutional arrangements for project implementation.

It is important to notice that the Project Identification Form (PIF) and Project Document of the EAF4SG was developed in parallel with its sister project; the GEF ID 10919 ?Enhancing capacity for the adoption and implementation of EAF in the shrimp and groundfish fisheries of the North Brazil Shelf Large Marine Ecosystem (EAF4SG)?. The EAF4SG project aims to advance adoption and implementation of the Ecosystem Approach to Fisheries (EAF) in the shrimp and groundfish fisheries in the North Brazil Shelf Large Marine Ecosystem, supporting country implementation of the CLME+ SAP. The EAF4SG project will be executed in Suriname, Guyana, Trinidad and Tobago, so three of the four countries that are the focus of the REBYC III CLME+ project, and both projects involve three of the four same lead-partner fisheries agencies. For this reason, during the PIF stage, it was agreed with the GEF that the project would be executed by the same agency to allow cost sharing of the Project Management Unit and ensure efficient use of the resources. This arrangement will ensure that key activities related to gender mainstreaming, knowledge management, engagement of the private sector, organization of regional meetings, etc., will be executed by the two projects in full coordination, avoiding duplication of costs and maximizing cross-fertilizing and exchange.

The Food and Agriculture Organization (FAO) will be the GEF Implementing Agency (IA) of the project. The University of the West Indies (UWI) will be the project?s Execution Agency (EA) and will house the Project Management Unit (PMU) and will have the executing and technical responsibility for the Project, with FAO providing oversight as GEF IA as described below. The REBYC III CLME+ project organization structure is presented in Figure 3 below.



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FAO ? the GEF Implementing Agency

The Food and Agriculture Organization (FAO) will provide 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. FAO will provide oversight of project implementation and technical support to ensure that the project is being carried out in accordance with agreed standards and requirements. FAO?s Fisheries and Aquaculture Division (NFI) will particularly assist with aspects of project implementation, acting as the lead technical unit, to ensure the technical and economic feasibility of the measures introduced by the project, and to facilitate sharing of experiences with other regions through FAO?s global network. Specifically, 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;
- 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.
- 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 (BH), based at the FAOSLC office in Barbados, will provide oversight of day-to-day project execution;
- The Lead Technical Officer (LTO) will provide oversight/support to the projects technical work in coordination with government representatives participating in the PSC;
- The Funding Liaison Officer (FLO) 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.

In addition, FAO will establish a Project Task Force (PTF) will also be established within the IA to provide technical support and guidance to the Project. In addition to technical members, the PTF will include the project?s BH, LTO, FLO and NFI officers from relevant technical teams. The PTF will also be supported by the relevant offices in FAO HQ such as finance office, legal office, and administrative support from the FAO-GEF Coordination Unit (at FAO HQ) as needed. The full outline of FAO?s roles and responsibilities in the project is provided in detail in Annex K (FAO?s role in internal organization).

University of the West Indies ? the Executing Agency

The University of the West Indies (UWI) will be the project?s Execution Agency (EA) and establish a Project Management Unit (PMU) within its Business Development Unit (BDU) at UWI?s Faculty of Food and Agriculture (FFA) at its St. Augustine campus site in Trinidad. The BDU serves as the special projects? office of the FFA. More details on the UWI and the BDU and its history and relevant capacity to undertake the role of project EA is given in Annex P.

UWI will have the executing and technical responsibility for the project, with FAO providing oversight as GEF IA as described below. The UWI 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 Partnership Agreement (OPA) signed with FAO . As the Operational Partner (OP) of the project, the UWI is 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. As the project?s EA, UWI through the PMU will be accountable to FAO for the timely implementation of the project results, operational oversight of implementation activities, timely reporting, and for effective use of GEF resources for the intended purposes and in line with the IA and GEF policy requirements. Specifically, UWI?s responsibilities, as GEF EA, will include:

- Establishing and supporting the PMU;
- Acting as Secretariat for the PSC;
- Ensuring that the project is executed according to the agreed work plan and budget;
- Reviewing and submitting the required reporting obligations to the IA, including half-yearly expenditure reports and annual PIR reports;
- Ensuring all procurement is done in compliance with Agency standards; and
- Communicating with and disseminating information to the Executing Partners (EP) and other stakeholders.

Government fisheries agencies

The government fisheries authorities in the four participating countries are expected to act as the national executing partners and nominate a National Fisheries Focal Point (NFFP) for national level activities, which will be carried out in close collaboration with the national fisherfolk organizations, as well as with other fisheries-related stakeholders. However, different executing agencies may have responsibility for individual project components in their country.

Project Steering Committee

A Project Steering Committee (PSC) will be established for the project comprising representatives from the national fisheries agencies, the Technical and Project Coordinator (TPC), representatives from the IA and EA and other key regional partners such as the WECAFC and CRFM, as well as the relevant national GEF Operational Focal Points (OFP) and key co-financiers such as NOAA. The GEF Secretariat will be invited to participate as an observer. The PSC will be the ultimate decision-making body with regard to issues affecting the achievement of the project?s objectives. The PSC will normally meet once a year, although additional meetings, either in person or through multimedia (such as by video or skype conferences), can be called as necessary. 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 Technical and Project Coordinator (see below) will be the Secretary to the PSC. The members of the PSC will be responsible for:

- Oversight and review of technical activities carried out under the Project;
- Review and report on the progress towards the project?s objectives and their contribution to the overall programmatic objectives;
- Assessment of the progress in the implementation of the Project in accordance with timelines and goals stated in the Results Framework, including review of the project Theory of Change assumptions;
- Taking consensus-based strategic decisions and recommendations when guidance is required by the Regional Project Coordinator;
- A review of the narrative that links the impacts of the activities, outputs and outcomes of the Project in particular in relation to their contribution to the project objective;
- Assessing effectiveness of the knowledge management and communication efforts at the project level;
- Reviewing sustainability of key project outcomes, including up-scaling and replication;
- Approval of the project?s Annual Work Plan and Budget (AWP/B);
- Enhance synergy between the project and other relevant initiatives, including those related to the GEF International Waters Focal Area; and
- Reviewing and providing comments on independent external reviews and evaluations, as well as advise on any other issues that would be brought to its attention by the PMU.

Draft TORs for the PSC are appended in Annex Q1. The PSC will approve its TORs at its first meeting.

Project Management Unit

A Project Management Unit (PMU) will be co-funded by the GEF grant and established by the UWI, within the BDU of the FFA. Following the guidance of the PSC, the main functions of the PMU will be to ensure overall efficient management, coordination, implementation and monitoring of the project through the effective implementation of the AWP/B. The PMU will be composed of a full-time Technical and Project Coordinator (TPC) who will work over the life of the 4-year project. In addition, the PMU will include a Knowledge Management and Communication (KMC) Officer (part-time), an Monitoring and Evaluation (M&E) Expert (part-time), and an Administration and Operations Support (AOS) Officer (full-time). In addition, the PMU will have an outposted National Technical Coordinator (NTC) in each country with a part-time Operational Support Officer, housed within the national fisheries agency. The TPC will work in close coordination with National Technical Coordinators and the national focal points designated in national fisheries agencies from the three participating countries. Specific TORs of the members of the PMU are provided in Annex Q2.

As mentioned above, the PMU staff including the TPC, KMC and M&E specialists and NTCs, will be shared with the FAO-GEF EAF4S project to ensure maximum synergies, collaboration and optimization of resources allocated to project coordination, knowledge management and communication.

Inception Workshop

An Inception Workshop will take place within 8 weeks of the project?s official start date of the Project with participation of the implementing and executing agencies, as well as key partners, to establish the PSC, agree on the specific details of the coordination mechanisms, as well as a project-level Knowledge Management and Communications strategy, partnership strategy, and arrangements for a cohesive project M&E plan.

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

During the inception period, the REBYC-III CLME+ project will explore opportunities for synergies and collaboration, where appropriate, with relevant GEF and non-GEF projects at the national, sub-regional and regional levels. The main sectors and project stakeholders ? the SSF and industrial fisheries and related communities ? are common to many of these projects as well as to the REBYC-III CLME+ project. In addition, in some cases the target species are the same (e.g. seabob, corvina and acoupa weakfish), and have similar objectives (e.g. strengthening capacity for ocean governance, promoting sustainable fisheries and improving value chains, and improving data collection and stock assessments). Therefore, coordination with these initiatives will be important to capitalize on potential synergies and ensure maximum benefits to stakeholders in the most cost-effective manner. Coordination will further be facilitated by the fact that the same countries and national institutions are engaged in multiple projects. These projects are also potential sources of additional (leveraged) co-financing for the REBYC-III CLME+ project.

Systems for communication and exchange will be established with both the relevant GEF and non-GEF projects during the REBYC-III CLME+ project?s inception period and detailed in a project stakeholders and partnerships plan (based on operationalizing the project?s Stakeholder Engagement Plan), which will also be produced during the project inception period.

GEF projects

The REBYC-III CLME+ project will be closely coordinated with other active GEF regional projects listed in Table 4, through for example, the communication and knowledge exchange mechanisms under Component 4, as well as periodic meetings between their respective implementation teams. Initial approaches to explore synergies and collaboration were made during the PPG period with the CAF-FAO-GEF BE-CLME+ and PROCARIBE+ projects, which will be followed up during the first three months of project implementation.

As explained above, the coordination with the FAO-GEF EAF4SG project, which is considered the sister project of the REBYC III CLME+ project, will be particularly important due some technical similarities and the same IA (FAO). The PMU (Technical and Project Coordinator (TPC), Knowledge Management and Communication (KMC) Officer, Monitoring and Evaluation Expert (M&E), Administration and Operations Support Officer (AOS) and three of the four outposted National Technical Coordinators (NTC) ? for Guyana, Suriname and Trinidad and Tobago - will be shared with the FAO-GEF EAF4SG project to ensure maximum synergies, collaboration and optimization of resources allocated to project coordination, knowledge management, gender mainstreaming and communication. Coordination will further be facilitated by the fact that the same countries and national institutions are engaged in multiple projects.

Non-GEF projects

Relevant non-GEF projects at the national and regional levels with which the REBYC-III CLME+ project will explore coordination during the initial project implementation period are listed in Table 5. These include several currently undertaken by staff at the UWI-CERMES institute and WWF (actively involved with initiatives towards bycatch reduction in Suriname).

Table 4. Active regional GEF-supported projects of relevance to the REBYC-III CLME+ project

Project title/Lead agency	Description/Participating countries	GEF Focal Area	GEF Funding (US $)	Coordination approach

Enhancing capacity for the adoption and implementation of EAF in the shrimp and groundfish fisheries of the North Brazil Shelf Large Marine Ecosystem (EAF4SG)/FAO	PIF approved, Project Document submitted. Objective is to advance adoption and implementation of the Ecosystem Approach to Fisheries (EAF) in the shrimp and groundfish fisheries in the North Brazil Shelf Large Marine Ecosystem, supporting country implementation of the CLME+ SAP. Special focus on improving information for fisheries management. Guyana, Suriname, and Trinidad and Tobago.	IW	1,776,484	- Shared PMU and KMC specialist (to be confirmed); - IW:LEARN exchange mechanism; knowledge products and events; - Project website; - Project communication activities (outreach and awareness-raising materials and events)
Protecting and Restoring the Ocean?s Natural Capital, building Resilience and supporting region-wide Investments for sustainable Blue Socio-Economic Development (PROCARIBE+)/UNDP	PIF approved. Builds on the previous CLME+ project. The objective is Protecting, restoring and harnessing the natural coastal and marine capital of the Caribbean and North Brazil Shelf Large Marine Ecosystems to catalyze investments in a climate-resilient, sustainable post-covid Blue Economy, through strengthened regional coordination and collaboration, and wide-ranging partnerships. Regional, Colombia, Costa Rica, Panama, Bahamas, Belize, Cuba, Dominican Republic, Guatemala, Guyana, Honduras, Jamaica, St. Kitts and Nevis, Saint Lucia, Suriname, Trinidad and Tobago, Antigua and Barbuda, Brazil, Haiti, Venezuela.	IW	15,429,817	- IW:LEARN exchange mechanism; knowledge products and events; - Project website; - Project communication activities (outreach and awareness-raising materials and events)

Promoting national blue economy priorities through marine spatial planning in the Caribbean Large Marine Ecosystem Plus (BE-CLME+)/FAO	Concept approved. The objective is to promote blue economy development in the CLME+ through marine spatial planning and marine protected areas, ecosystem approach to fisheries, and sustainable seafood value chains. Regional, Barbados, Belize, Guyana, Jamaica, Panama, Saint Lucia.	IW, Biodiversity	6,308,400	- IW:LEARN exchange mechanism; knowledge products and events; - Project website; - Project communication activities (outreach and awareness-raising materials and events)
Caribbean BluEFin (Caribbean Blue Economy Financing Project)/UNEP	Concept approved. The objective is to create and strengthen nature-based Blue Economy opportunities and approaches in the Caribbean through innovative financing mechanisms. Regional, Bahamas, Dominican Republic, Grenada, Saint Lucia, St. Vincent and Grenadines.	IW	6,000,000	- IW:LEARN exchange mechanism; knowledge products and events; - Project website; - Project communication activities (outreach and awareness-raising materials and events)

Caribbean Regional Oceanscape Project (Biodiversity & IW)/World Bank	The objective is to strengthen capacity for ocean governance and coastal and marine geospatial planning in the participating countries. Regional, Dominica, Grenada, St. Kitts and Nevis, Saint Lucia, St. Vincent and Grenadines.	IW, Biodiversity	6,300,000	- IW:LEARN exchange mechanism; knowledge products and events; - Project website; - Project communication activities (outreach and awareness-raising materials and events)

Table 5. Key fisheries related non-GEF projects with potential for collaboration/synergies with the REBYC-III CLME+ project

Status	Name of project or programme	Host institution	Description	Country	Funding source

Under implementation	Fish Stock Assessment study	Environmental Management Consultants Guyana	This fish stock assessment study will apply length-based methods to assess the stock status and spawning potential of 12 key marine species captured by Guyana?s artisanal and industrial fisheries sector. Stock assessments of the most abundant species caught by Guyana?s artisanal fisheries are among the most significant data gaps for the fisheries sector. Ultimately, the study will lay the foundation upon which stock assessments can be expanded and continued in the long term.	Guyana	Esso Exploration & Production Guyana Ltd
Under implementation	MSC certification of seabob trawl fishery	Private sector seabob trawl companies; MSC client is GATOSP	The seabob trawl fishing sector in Guyana is committed to keeping their fishery certified against the MSC standards, to ensure sustainable exploitation and guarantee market access for their product.	Guyana	Private sector

Under implementation	MSC certification of seabob trawl fishery Suriname	Private sector seabob trawl companies; MSC client: Heiploeg (PP-Group)	The seabob trawl fishing sector in Suriname is committed to keep their fishery certified against the MSC standards, to ensure sustainable exploitation and guarantee market access for their product.	Suriname	Private sector
Under implementation	Fishery Improvement Program (FIP) for corvina (*Cynoscion virescens*) and acoupa weakfish (*C. acoupa*) driftnet and trawl fishery	Cedepesca and private sector partners	The main objective of the FIP is to achieve the fisheries? certifiable status against the MSC standard within five years. The action plan for this FIP is to a large degree focused on promotion of EAF management including improved fisheries data collection and better management planning. Expected to run until 2025.	Suriname	Cedepesca and private sector partners. Budget of US$90,000-100,000 per year

Under implementation	FISH4ACP (an initiative of the African, Caribbean and Pacific States)	FAO Guyana	FISH4ACP aims to improve the economic, social and environmental sustainability of fisheries and aquaculture value chains in Africa, the Caribbean and the Pacific. In Guyana, local demand for fish products is expected to rise as a consequence of emerging oil and gas production. FISH4ACP aims to ensure that economic improvements go hand in hand with environmental sustainability and social inclusiveness.	Guyana	European Union

Under implementation	Fishery Improvement Program (FIP) for red snapper (*Lutjanus purpureus*) pot/trap fishery in Northern Brazil - Caribbean	IABS - Instituto Brasileiro de Desenvolvimento e Sustentabilidade	The Northern Brazil Caribbean red snapper FIP aims to develop and implement a management plan for the fishery/stock based on defining clear objectives for management. Work will be done to define a stock assessment method and to verify the current status of the stock in relation to reference points.	Brazil	Industrial fisheries stakeholders

Under implementation	Community Fishery Improvement Program (C-FIP) for the Suriname driftnet fishery	Conservation International (CI) Suriname	To improve food security and human well-being, Conservation International Suriname is supporting sustainable and responsible small-scale fisheries. The program is focused on improving artisanal driftnet fisheries to sustainable levels, eventually reaching the sustainability standards/ requirements of certification such as Fair Trade or the Marine Stewardship Council (MSC). This done through a Community Fisheries Improvement Project ? a so called CFIP.	Suriname	Different funds/donors

Under implementation	Capacity Building of Fishers Initiative for Sustainable Harvest, Education and Research (CB?FISHER1)	Future Fishers (civil society organization)	Project objectives: ? To strengthen the Governance and Management of Future Fishers. ? To identify and develop for implementation Fisheries harvesting and Post?harvesting business activities. ? To increase the Ecosystem Management Awareness among primary stakeholders. ? To strengthen the Fisher?s participation and commitment to the responsible use of natural and physical resources.	Trinidad and Tobago	Trinidad and Tobago Green Fund. Budget approx. US$1.2 million.

Project being prepared, concept note approved December 2022	Development and operationalization of an improved Fisheries Management Information System in Guyana	FAO Guyana	This FAO TCP program aims to deliver a Strengthened institutional capacity and stakeholder awareness for sustainable fisheries management through the implementation of an improved Fisheries Statistics and Management Information System in Guyana (SDGs 14 and 17).	Guyana	FAO TCP fund

Under implementation	PALICA project French Guiana (P?cheries Actives pour la Limitation des Interactions et des Captures Accidentelles)	CRPMEM Guyana, WWF Guianas	PALICA aims at evaluating and developing the technical, technological and logistical capacities of the artisanal coastal gillnet fisheries in order to reduce the bycatch on protected species such as marine turtles, dolphins and sawfishes. This work is realized hand in hand with professional fishers using the Collaborative Fisheries Approach and therefore involving them in the process of developing ideas and potential solutions that will harmonize fishing practices and transform them to become compatible with the preservation of marine megafauna. Mostly focus on SSF.	French Guyana	European Union

Under implementation	Prevention of Marine Litter in the Caribbean Sea (PROMAR)	Suriname counterpart = Green Heritage Fund Suriname	PROMAR is contributing to the reduction of waste streams, namely plastic packaging and single-use plastics, into the Caribbean Sea while promoting circular economy solutions in the Dominican Republic, Costa Rica & Colombia. One aspect of PROMAR's project activities is to raise awareness about the importance of preventing marine litter and to educate about how to do so. The video below was created as part of the project and briefly explains what marine litter is, its causes and possible measures to prevent it.	Regional (Dominican Republic, Costa Rica, Colombia, Suriname)	Unknown

Under implementation	Northwest Atlantic Leatherback (*Dermochelys coriacea*) Regional Action Plan for the Wider Caribbean Region	WWF	The Regional Action Plan (RAP) for the NWA Leatherback Sea Turtle enhanced regional approach, in which key stakeholders throughout the region of interest provided input for the definition of priority actions and specific activities to address causal factors in the recorded decline of this subpopulation in recent decades. In this sense, the ?region of interest? refers to the Wider Caribbean Region with focus on the Guianas and TT nesting populations and identified foraging areas and migration routes.	French Guiana, Suriname, Guyana and Trinidad & Tobago	Unknown

Under implementation	FISH4ACP (an initiative of the African, Caribbean and Pacific States)	FAO Dominican Republic	FISH4ACP aims to improve the economic, social and environmental sustainability of fisheries and aquaculture value chains in Africa, the Caribbean and the Pacific. FISH4ACP aims to boost the mahi-mahi fishery in the Dominican Republic by supporting efforts to improve product quality and product diversification. It will explore ways to strengthen links to the tourism sector and develop new products for urban consumers, as well as to increase exports. FISH4ACP will also foster social integration by working with local fisher associations. Activities will seek to promote participation of artisanal fisherfolk in the value chain by improving access to loans, social security and education and through	Dominican Republic	European Union

			capacity building.		

7. Consistency with National Priorities

Describe the consistency of the project with national strategies and plans or reports and assesments under relevant conventions from below:

NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, INDCs, etc.

The project will help participating countries meet their responsibilities and commitments under numerous conventions and associated national strategies. The project directly addresses fisheries and marine conservation policies, plans and programmes supporting the implementation of current initiatives for sustainable use of marine resources as well as socio-economic development, including implementation of priorities in the CLME+ SAP and other international commitments of the target countries. More generally, it also supports the widely recognised need to further operationalise the EAF in the region.

i. National level priorities

At the national level, the institutional structures for fisheries management include fisheries and environmental ministerial functions and stakeholder associations. The policy and legal context in support of sustainable fisheries management is covered by a wide variety of instruments, including: parent Acts governing the access, use, and management of biological resources such as Acts covering Fisheries, Wildlife Protection, Protected Areas, Coastal Zone Management, Environmental Protection; regulations dealing with Species Protection, Marine Reserves; policies relating to National Fisheries, National Tourism, Integrated Coastal Zone Management; and planning documents concerned with Fisheries Management, Natural Resources Management, and Integrated Coastal Zone Management. The REBYC III CLME+ project is fully aligned with several national priorities and policies identified in various documents and frameworks including the countries? respective FMPs, FAO Country Programming Frameworks (notably food and nutrition security; and sustainable management and utilization of natural resources including fisheries) and National Biodiversity Strategies and Action Plans (NBSAP).

Barbados

In Barbados, the work of the Fisheries Division is guided by the Fisheries Act (1993), Fisheries (Management) Regulations (1998), the Amended Text (2000) and the new draft Fisheries Legislation (not yet approved), the Barbados? Fisheries Sector Management and Development Policy (2013), the new draft Fisheries Policy (not yet approved), and a draft Strategic Action Plan for the Local Fisheries Sector (under review) and focuses on protecting and strengthening the fishers? livelihood assets (natural, human, social,

physical and financial), improving governance (structures and processes), creating an enabling environment to pursue sustainable livelihood and identifying measures to mitigate and recover from the impacts of vulnerabilities. A Fisheries Management Plan has also been drafted and is under review. The new policy, regulatory and management frameworks include elements related to bycatch.

Guyana

For Guyana, the Fishery Act 2002 and the Fisheries Regulation 2018 specify obligations such as on fishing gear specifications, gear marking, protection of turtles, VMS, and controlled areas, and work on the Fisheries Products Regulation is ongoing. Management for sustainable fisheries following EAF is incorporated in the national Marine Fisheries Management Plan (2022 ? 2027) and the Marine Mammal Protection Act, among others. Guyana?s Low Carbon Development Strategy 2030 sets out the vision for the country?s development through 2030 with respect to sustainable fisheries management, biodiversity conservation and protection, poverty reduction, small business development, and gender issues among others. In addition, the development of a blue or ocean economy is one of the country?s priorities. Guyana is also making significant effort towards obtaining MSC certification of its seabob fisheries, strengthening domestic markets for sustainably fished products, and improving its fisheries management information system. Among the Strategic Objectives of Guyana?s NBSAP are: Improve the status of biodiversity by conserving ecosystems, species and genetic diversity in degraded areas; Harmonize legal and administrative frameworks that support the sustainable use, protection and management of biodiversity; Improve substantially biodiversity monitoring at the national level and within key productive sectors; and Strengthen the knowledge and capacity for conservation and sustainable use of biodiversity. These are among the elements with which the REBYC III CLME+ project Outcomes (particularly Outcomes 1.1, 1.2, 1.3, 2.1, 2.2, 2.3, 3.1 and 4.1) are aligned.

Suriname

In Suriname, the fisheries policy is derived from the wider Agricultural Development Plan 2017-2021. The Suriname Fisheries Act is currently under revision with support of FAO and will incorporate EAF elements. An updated national 2021-2025 Fisheries Management Plan (FMP) for Suriname was recently endorsed. This sets out policy measures and management objectives for each fishery and is largely based on EAF principles, such as precautionary management of fishing effort, the impact of fisheries on non-target (ETP) species, marine habitats, and the wider marine ecosystem; improving fisheries data collection and management planning; and strengthening stakeholder participation in fisheries management. Sustainable fisheries management is also fully embraced in Suriname?s Multi-year Development Plan (MOP 2022-2026), of which sustainability is one of the five underpinning values. The SDGs are integrated in the plan?s goals, outcomes, and indicators and one of the Plan?s policy areas is ?Livable Environment, Nature, and Safety?, which is based on SDG 14 among others. The Plan?s objectives include food security, employment opportunities, value add creation, and greening and green growth. The project is also aligned with several of the objectives of Suriname?s NBSAP including conservation of biodiversity, sustainable use of biodiversity, knowledge acquisition through research and monitoring, capacity building, and raising awareness and empowerment through education and communication. Therefore, the project outcomes all support Suriname?s FMPs as well as the objectives of its Multi-year Development Plan and NBSAP.

Trinidad and Tobago

In Trinidad and Tobago, the artisanal gillnet fishery is regulated under the Fisheries Act (No. 39 of 1916) [85], while pelagic longline fishery has no legislation specific to the operations as it is an open access fishery. There are no regulations specific to the gear, the fishing areas or the seasons in which the fishery occurs. However, a new Fisheries Management Bill 2020 is at the Parliamentary review stage. Once approved there will be a need to develop Regulations and other subsidiary legislation to facilitate implementation of the new Act. Standard Operating Procedures (for inter-agency collaboration and for internal processes) for operationalisation of the laws still need to be drafted and implemented. [The REBYC-III CLME+ project will indirectly help support this process (largely through Component 2)] In addition, a draft National Plan of Action for the Conservation and Management of Sharks (NPOA-Sharks) has been developed which is to be submitted for Cabinet?s approval. An Integrated Fisheries Management Plan is under development and incorporates and updates all draft management plans including for shrimp trawl and hard substrate resources. The REBYC III project will also contribute to the following strategic initiatives identified in Trinidad and Tobago?s National Development Strategy (Vision 2030): Support new and emerging sectors (includes fish and fish processing), improve the use of data for the management of biodiversity, and promote a culture of entrepreneurship and innovation through education and training. In addition, it will contribute to the National Social Mitigation Plan 2017 ? 2022 to cushion the effects of the economic downturn on vulnerable groups and create opportunities for them to recover and to build their resilience. In addition, the project is consistent with the national priorities for sustainable fisheries outlined in Trinidad and Tobago?s NBSAP (2017-2022), which seeks to make fisheries (as well as agriculture and forestry) more productive and sustainable. Relevant National Biodiversity Targets include biodiversity conservation, innovation, and sustainable use; protection of natural habitats, including marine habitats; and sustainable management and harvest of the major commercially important fish and invertebrate stocks. Further, the NBSAP seeks to ensure that threats to threatened species are reduced and conservation status of such species improved.

More details on the policy, legislative and management frameworks of fisheries in Barbados, Guyana, Suriname and Trinidad and Tobago are given in Annex N.

Although none of the four participating countries has a specific fisheries sector policy covering measures following recovery from the Covid pandemic, each country does focus on the need for economic recovery following the pandemic, and the fisheries sector (and associated sectors such as tourism in some cases) is seen as an important sector that can support recovery in these countries and to secure more sustainable food security. For instance, the ?Roadmap for Trinidad and Tobago Post COVID-19 Pandemic? identifies the Agriculture Sector (which includes fisheries and aquaculture) as an essential service and adopts ?policy positions to immediately and aggressively boost the agriculture sector and launch (TT) $500 million (US$ 74 million) Stimulus Programme for the Sector? in order to make Trinidad and Tobago a more food secure nation by ?reducing the country?s dependence on specific imported foods, increasing productive capacity and accessibility to domestic produce?. Consequently, the REBYC-III CLME+ project will help to support national post-Covid recovery efforts.

In addition, the REBYC-III CLME+ project is aligned with national priorities identified in the countries? respective FAO Country Programming Frameworks (such as food and nutrition security; and sustainable management and utilization of natural resources including fisheries).

The countries participating in this project are signatories to numerous conventions and agreements at the global and regional levels related to environment and development. Those listed below are the most relevant for the adoption of EAF and sustainable fisheries management including promoting better management of bycatch and reduction of discards in the CLME+ region.

Fit with regional level priorities

The 2015-2025 Strategic Action Programme for the Sustainable Management of the Shared Living Marine Resources of the Caribbean and North Brazil shelf Large Marine Ecosystems (CLME+ SAP), which has been politically endorsed by over 23 States of the Caribbean region, constitutes a major driver fostering consistent and converging strategies and policies among regional and national institutions concerned by challenges to restore a better state of the Caribbean marine environment, including fishery resources, biodiversity, coastal habitats and reduced pollution. The project outcomes 1.1, 1.2, 1.3, 2.1, 2.2, 2.3, 3.1 and 4.1 all support the CLME+ SAP aims to improve management of shared living marine resources and address unsustainable fisheries, habitat degradation and marine pollution (particularly strategy S6 but also S1, S2 and S5, and particularly sub-strategy 5B (Enhance the governance arrangements for implementing an ecosystem approach for large pelagics fisheries) through addressing unsustainable bycatch/discards and building capacity for MCS.

The Caribbean Regional Fisheries Mechanism (CRFM) Agreement is a legally binding agreement established in 2002 and seeks to establish a regional fisheries body to promote cooperation in the sustainable use and management of fisheries in the countries party to the Agreement. The region?s priorities for fisheries development and management are further elaborated in the CRFM Strategic Plan (2022-2030). The basic objective is to achieve sustainable social, economic and nutritional benefits, while preserving the health and productivity of the fish stocks, the integrity of the marine ecosystems, and ensuring a better standard of living and quality of life for fishermen and fishing communities that rely on fisheries. The REBYC-III CLME+ project outcomes 1.1, 1.2, 1.3, 2.1, 2.2, 2.3, 3.1 and 4.1 specifically address Strategic Goals 1 and 2 and is aligned to Strategic Objective C: Sustainable management of fisheries resources as the project supports adopting and implementing the EAF, and to Strategic Objective G (Capacity building and institutional strengthening) as the project has capacity building elements built into each component and is particularly relevant to organizational result G2 (Fisherfolk organizations and their representatives are competent and capable to collaborate and participate actively in fisheries management and conservation processes at local, national and regional level).

The 2014 Caribbean Community Common Fisheries Policy (CCCFP) is a regional treaty designed to help countries work together to ensure that the region?s fisheries and other aquatic resources make a contribution to the region?s development in a sustainable manner, and it calls for more scientific and market research, and attention to develop better and easier access to export markets, to support fishers and coastal communities and economic development. The CCCFP seeks to expand the data and information used in decision-making and resource management, enabling States and fishers to better protect their interests and manage the resources. The CRFM Strategic Plan (2013-2021) operationalizes the CRFM Agreement and CCCFP through goals and objectives that frame the workplan for the CRFM. Outcomes 1.1, 1.2, 1.3, 2.1, 2.2, 2.3, 3.1 and 4.1 all support development of the region?s fisheries in a sustainable manner.

All four participating countries are members of Western Central Atlantic Fishery Commission (WECAFC), and the project is aligned with WECAFC?s Programme of Work as it relates to the three focus areas and one programme coordination and management focus area of the strategic plan 2022-2027 namely Technical Focus Area 1 (Improve regional fisheries governance), Area 2 (Increase regional information and collaboration in fisheries) and Area 3 (Strengthen regional fisheries management and best-practice approaches for fisheries and aquaculture development and the Management Focus Area 4 (Fostering a conducive environment within the WECAFC Secretariat to support the achievement of the goals and objectives of the Commission). The 2016 Interim Coordination Mechanism is a formal collaboration between WECAFC, OSPESCA and CRFM, which seeks to increase the uptake of information and fisheries management advice generated at national and sub-regional level to the regional level, support dissemination of best practices, improve harmonization and boost the impact of measures, decrees and regulations adopted within the frameworks of these RFBs. The three RFBs agreed to work on a number of priority areas such as the provision of advice in support of management of fisheries of spiny lobster, queen conch, shrimp and groundfish, recreational fisheries, flyingfish, FADs fisheries, sharks, spawning aggregations, and IUU fisheries. Joint Working Groups on these species and fisheries have been established in recent years, and the Coordination Mechanism has built on these initiatives, and relevant Working Groups will provide technical advice to the REBYC-III CLME+ project, thus contributing to project outcomes 1.1, 1.2, 1.3, 2.1, 2.2, 2.3, and 3.1.

The International Commission for the Conservation of Atlantic Tunas (ICCAT) is an inter-governmental fishery organization responsible for the conservation of tunas and tuna-like species in the Atlantic Ocean and its adjacent seas. ICCAT regularly assesses between one and ten fish stocks and has 52 Contracting Partiess. ICCAT has established a system for data collection for nominal annual catches, number of large-scale fishing vessels by size, gear and flag, catch and effort by area, gear, flag, species and month, actual size frequencies of fish, and catch-at-size data. ICCAT also requires the provision of data on interactions with, and incidental catches of, seabirds and turtles. ICCAT has also adopted several measures to combat IUU fishing, including IUU vessel lists, transshipment regulations and port inspections. The regulations include measures to collect data on interaction and catches with ETP species (e.g. sharks and sea turtles). Barbados and Trinidad and Tobago are members of ICCAT, while Guyana and Suriname are cooperating members of ICCAT. Outcomes 1.1, 1.2, 2.1, 2.2, 2.3, 3.1 and 4.1 all support Barbados and Trinidad and Tobago in meeting their obligations under this agreement and the same outcomes will support Guyana and Suriname in becoming a full member of ICCAT by inter alia assisting Guyana and Suriname to improve the fisheries sector data collection system (equipment and training at the local and institutional level) and support putting in place measures to reduce bycatch (e.g. through the use of circle hooks).

The Regional Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (RPOA-IUU) was developed with support from the GEF funded FAO CLME+ sub-project on shrimp and groundfish and endorsed by WECAFC in July 2019. IUU fishing is one of the critical challenges facing the region. The WECAFC RPOA-IUU is an important link between the implementation of the IPOA-IUU and the formulation of National Plans of Action to Prevent, Deter and Eliminate IUU fishing (NPOA-IUU) and corresponding measures to combat IUU fishing in WECAFC Member States. It has been developed in accordance with the principles and provisions of the IPOA-IUU, the PSMA and other complimentary international instruments. Outcomes 2.1, 2.2 and 2.3 support the target countries in contributing to improve their MCS framework including data recording and reporting thus contributing to addressing IUU fishing.

The Castries (St. Lucia) Declaration on IUU fishing, approved by the Ministerial Council of CRFM in 2010, is a voluntary declaration. It seeks to prevent, deter and eliminate IUU fishing by enhancing effectiveness of monitoring, control and surveillance at the national and regional level by creating and sustaining the necessary harmonized and contemporary legislative and regulatory regime. It complements the PSMA. Project Outcomes 2.1, 2.2 and 2.3 support the target countries in contributing to improve their MCS framework thus contributing to addressing IUU fishing and implementation of the PSMA.

The Cartagena Convention (1986) and its Protocol Concerning Specially Protected Areas and Wildlife (SPAW, 2000), which has been ratified by Barbados, Guyana and Trinidad and Tobago, is also relevant.
Relevance to global level agreements

The 1982 United Nations Convention on the Law of the Sea (UNCLOS), sets out the legal framework within which all activities in the oceans and seas must be carried out, including fisheries activities, and it sets out the sovereign rights of coastal States for the purposes of exploring and exploiting, conserving and managing living resources within areas under national jurisdiction, as well as their duties with regard to the conservation and utilization of such resources. While it does not explicitly state the need for an ecosystem approach to fisheries (EAF), it is one of its underlying principles. Project Outcomes 1.1, 1.2, 1.3, 2.1, 2.2, 2.3, and 3.1 all support the target countries in meeting obligations under this agreement to sustainably manage living resources (including fisheries) within their jurisdiction.

The 1992 United Nations Convention on Biological Diversity is a binding agreement that seeks to ensure the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of benefits arising out of the utilization of genetic resources. The 1995 Jakarta Mandate further develops the ecosystem approach adopted by the CBD. It encourages the use of integrated management of coastal areas as the most suitable framework for addressing human impacts on marine and coastal biological diversity and for promoting conservation and sustainable use of it. Project Outcomes 1.1, 1.2, 1.3, 2.1, 2.2, 2.3 and 3.1 all support the target countries in meeting obligations under this agreement to ensure the conservation of biological diversity and the sustainable use of its components. The four participating countries have developed National Biodiversity Strategies and Action Plans (NBSAP), all of which contain specific references to the government commitment to sustainable use of coastal and marine resources. The project is in line with these NBSAPs, each of which outlines fisheries and marine conservation as a high priority.

The FAO Code of Conduct for Responsible Fisheries (CCRF) [20] was adopted by FAO in October 1995 by 80 countries as a voluntary instrument to promote principles and international standards of behaviour for sustainable and responsible fishing and aquaculture on a global scale. It seeks to establish: (i) principles for responsible fishing and fisheries activities, taking into account all their relevant biological, technological, economic, social, environmental and commercial aspects; (ii) policies for the conservation of fisheries resources and fisheries management; (iii) fisheries for food security; (iv) facilitation of the legal and institutional framework for sustainable fisheries; (v) the protection of living aquatic resources and their environments; and (vi) the trade of fishery products. The CCRF calls on States to adopt measures to minimize catch of non-target species, waste, and discards that include, ?to the extent practicable, the development and use of selective, environmentally safe and cost-effective fishing gear and techniques?. In

addition, it calls for the involvement of all stakeholders and emphasizes the need for a participatory approach in the decision-making process and calls for an ecosystem-based approach to fisheries management. National institutions have a key role to play as the CCRF can only be effectively achieved when governments incorporate their principles and goals into their national fishery policies and legislation [86]. The principles of the CCRF appear within national policies and plans to different extents in the CLME+ region, such as through Fisheries Management Plans, as well as the regionally binding Caribbean Community Common Fisheries Policy (CCCFP). Project Outcomes 1.1, 1.2, 1.3, 2.1, 2.2, 2.3 and 3.1 all support the target countries in meeting obligations under this agreement with regard to Flag State duties, fishing operations and fishing gear selectivity.

Despite the CCRF, there is continuing concern internationally that levels of bycatch mortality from fishing threaten the long-term sustainability of many fisheries, the maintenance of biodiversity, and even food security in some areas. This has prompted the General Assembly of the United Nations and the FAO to reaffirm on several occasions the need for incidental mortality in fisheries to be responsibly managed and led to the development of the FAO International Guidelines for Bycatch Management and Reduction of Discards [55, 87]. These voluntary international guidelines aid States in implementing the CCRF and an ecosystem approach to fisheries through effective management of bycatch. The proposed project promotes the adoption of these guidelines. Project Outcomes 1.1, 1.2, 1.3, 2.1, 2.2, 2.3 and 3.1 all support the target countries in meeting obligations under this agreement to promote responsible fisheries and minimize levels of bycatch and discards.

The Thirty?first Session of the Committee on Fisheries (COFI) in 2014 expressed concern over continued ?ghost fishing? by abandoned, lost or otherwise discarded fishing gear (ALDFG) and urged for greater attention to be paid to this matter. Following a series of Expert and Technical Consultation meetings the Technical Consultation adopted the text of the Voluntary Guidelines on the Marking of Fishing Gear, which was endorsed at the Thirty?third Session of COFI in July 2018. The Voluntary Guidelines on the Marking of Fishing Gear are a tool to assist States to improve the state of the marine environment, and to enhance safety at sea by combatting, minimizing and eliminating abandoned, lost or otherwise discarded fishing gear (ALDFG). The project promotes the implementation of these guidelines. Project Outcome 1.3 particularly supports the target countries to implement these guidelines to promote responsible fisheries and minimize environmental impact of ALDFG.

The 1995 Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (1995 UN Fish Stocks Agreement) is a legally binding agreement that complements the UNCLOS and entered into force in 2001. The UNFSA aims to ensure that measures taken for the conservation and management of straddling fish stocks and highly migratory fish stocks in areas under national jurisdiction and in the adjacent high seas are compatible and coherent and that there are effective mechanisms for compliance and enforcement of those measures on the high seas. Project Outcomes 1.1, 1.2, 1.3, 2.1, 2.2, 2.3 and 3.1 all support the target countries in meeting their obligations under this agreement by contributing to the conservation and management of straddling fish stocks and highly migratory fish stocks.

The 2001 International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (IPOA-IUU) is a voluntary instrument developed within the framework of the CCRF. It seeks to

prevent, deter and eliminate IUU fishing by providing States with comprehensive, effective and transparent measures by which to act, including appropriate regional fisheries management organisations. Essentially, it encourages countries to implement international fisheries instruments in their National Plan of Action to Prevent, Deter, and Eliminate Illegal, Unreported and Unregulated Fishing (NPOA-IUU). National level activities to address IUU fishing vary across the CLME+ region. For instance, in Trinidad and Tobago an Action Plan to address IUU Fishing in the Ports and Waters under the Jurisdiction of Trinidad and Tobago has been developed and is being implemented under a Development Programme Project, whereas Suriname has no national plan of action for IUU. Outcomes 2.1, 2.2 and particularly 2.3 support the target countries in meeting their obligations under this agreement to prevent, deter and eliminate IUU fishing.

In times when elasmobranch fisheries information was limited worldwide and only a few countries had specific management plans for their populations, the International Plan of Action for the Conservation and Management of Sharks (IPOA-Sharks) was created by FAO [88]. A Plan of Action is a tool in social planning defined as an organizational strategy to identify necessary steps toward a goal [89]. It is widely used to direct strategies for biodiversity conservation and is usually designed with the aid of specialists and then forwarded to government agencies responsible for implementation. Plans of Action are also versatile as they can inform stakeholders, decision-makers, researchers, and civil society members (e.g. NGOs) about the need to establish regulatory measures, priority topics for investigation, management, and conservation initiatives. Plans of Action may even help guide the productive sector on strategies for the sustainable use of a target resource, such as with the implementation of eco-labelling [90, 91]. Developed in 1999, the IPOA-Sharks was the first document to mention release as a conservation strategy for elasmobranchs in its aim of ensuring the conservation and management of elasmobranchs and their long-term sustainable use [88]. The release of sharks and rays incidentally caught regardless of their physical state was later replicated in several Regional and National Plans of Action (RPOA-Sharks and NPOA-Sharks, respectively) and domestic legislations. Outcome 2.2 will especially support the aims of the IPOA-Sharks.

The 2009 FAO Agreement on Port State Measures to Prevent, Deter and Eliminate IUU Fishing (PSMA) aims to prevent IUU-caught fish from entering international markets through implementation of harmonized measures by countries and through regional fisheries management organizations (RFMOs) and focuses on IUU through implementing robust port state measures. It aims to enhance regional and international cooperation and block the flow of IUU-caught fish into national and international markets. Of the four participating countries in the project, Barbados, Guyana and Trinidad and Tobago are Parties to the agreement. Outcomes 2.1, and particularly 2.3 support the target countries in meeting their obligations under this agreement by improving overall levels on Monitoring Control and Surveillance (MCS) which is a vital component of risk assessment in determining where to target port inspection resources.

The 1993 FAO Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels, addresses the responsibilities of Flag States and seeks to stop vessels that are flagged by States that are not a member of a regional fisheries management organization (RFMO) from fishing in contravention with the conservation measures taken by the RFMO. Outcomes 2.1, 2.2 and 2.3 support the target countries in contributing to their obligations under this agreement by facilitating transposing of conservation measures into national legislation and related MCS activities required to monitor implementation.

The 2014 Voluntary Guidelines for Securing Sustainable Small-scale Fisheries in the Context of Food Security and Poverty Eradication are complementary to the CCRF and seek to enhance the contribution of small-scale fisheries to global food security and nutrition. They seek to support responsible fisheries and sustainable social and economic development, with an emphasis on small-scale fishers and fish workers, including vulnerable and marginalized groups. Caribbean fisherfolk have been engaged in promoting and implementing the SSF Guidelines and have advocated for a protocol to incorporate them in the CCCFP. Outcomes 1.1, 1.2, 1.3, 2.1, 2.2, 2.3, 3.1 and 4.1 all support the target countries in meeting their obligations under this agreement by contributing to support responsible fisheries and sustainable social and economic development.

The project also responds to a recent report from the High Level Panel for a Sustainable Ocean Economy on the science-based priorities for post-Covid-19 recovery [75]. The project specifically addresses the call to ?invest in coastal and marine ecosystem restoration and protection?. More generally the project responds to all five ?areas of transformation? - ocean health, ocean wealth, ocean equity, ocean knowledge and ocean finance. It also contributes to the ambitions of the UN Decade of Ocean Science for Sustainable Development, as well as the UN Decade of Ecosystem Restoration (2021-2030). Outcomes 1.1, 1.2, 1.3, 2.1, 2.2, 2.3, 3.1 and 4.1 all support the target countries in meeting their obligations under this agreement by contributing to investment in coastal and marine ecosystem restoration and protection.

The Sustainable Development Goals (SDGs), were adopted by the United Nations in 2015 as a universal call to action to end poverty, protect the planet, and ensure that by 2030 all people enjoy peace and prosperity. REBYC-III project Outcomes 1.1, 1.2, 1.3, 2.1, 2.2, 2.3, 3.1 and 4.1 all support the target countries to meet obligations of several SDGs with particular regard to SDG14 Conserve and sustainably use the oceans, seas and marine resources for sustainable development, target 14.1 to reduce marine pollution of all kinds, 14.2 to sustainably manage and protect marine and coastal ecosystems, and 14.4 to effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices

8. Knowledge Management

Elaborate the "Knowledge Management Approach" for the project, including a budget, key deliverables and a timeline, and explain how it will contribute to the project's overall impact.

Knowledge Management (KM) is an integral part of the project, essential for generating awareness, promoting learning and continuous improvement (linked to project M&E activities), generating content for up-scaling of project achievements, lessons and good practices, enabling institutional memory, and supporting stakeholder engagement on key issues such as ecosystem-based fisheries management in the Caribbean.

The use of knowledge to strengthen capacity is seen as particularly critical to the project?s success. Consequently, the project has dedicated KM activities under Component 4 but will use KM to support capacity building and training actions under all the components. A core element of Component 4 will be the development of a Knowledge Management and Communications (KMC) Plan that will direct the

project?s knowledge generation, lesson learning, information storage and sharing/exchange, and awareness-raising activities with clear identification of roles and responsibilities, deliverables, resources and timing (what, how, when, who and with what resources). The project?s aims to promote lessons learned in addressing bycatch, discards and ALDFG and more generally the adoption and implementation of EAF and sustainable fisheries practices to a wide range of GEF-eligible countries in the CLME+ region and in other LMEs. Broader dissemination of experience and lessons learnt generated by the project will also be pursued through engaging national and regional technical and educational institutions, and regionally and internationally through South-South cooperation mechanisms. Consequently, the project?s KM approach will place particular emphasis on stakeholder engagement and the KMC Plan will be linked to the project?s Stakeholder Engagement Plan that ensures robust information dissemination and exchange to increase awareness and engagement on measures to address bycatch, discards and ALDFG are in the public domain.

The project will benefit from a broad range of both innovative and established KM services, products, and expertise provided by FAO. These will be available through FAO co-financing, offering support over the entire data cycle including data collection (e.g. locally adaptable SMARTForms /mobile apps for data collection), analysis and reporting including on bycatch, discards and ALDFG statistics and fisheries management information, the adoption of bycatch mitigation practices, generation of statistics, and indicator dashboards (such as through the new FAO/NFI geospatial infrastructure and other FAO corporate KM products). This will include the new FAO Calipseo system in support of national integrated fisheries statistics and management information, which is already deployed in Trinidad and Tobago, Suriname, Grenada and Dominica.

Key elements of KM are document and publication management, and data persistence and re-use, which are also key for the project?s sustainability strategy. Of relevance here is the Western Central Atlantic Fisheries Information System (WECAFIS) , which was recently endorsed by WECAFC Commission and hosts the WECAFC regional database supporting the data needs of the WECAFC Working Groups (WECAFIS is powered by a mix of iMarine Fisheries Atlas and FAO/NFI geospatial infrastructure). The project will also link to, and have access to support from, the Fisheries and Resources Monitoring System (FIRMS) which enables RFBs and their Members to submit and disseminate peer reviewed information on status and trends of stocks and fisheries, and more specifically its WECAFC subset ; the EAF toolbox ; and the Aquatic Sciences and Fisheries Abstracts (ASFA) database and its new OpenASFA facet operated under the ASFA Partnership, which provides operational support to improve the overall publications management of partner institutions? libraries with a focus on properly documenting and disseminating their grey literature and datasets.

Online/virtual training and information exchange are expected to play a significant role in the project?s KM approach and will be supported through the creation of a dedicated digital project KM platform (part of the project website), linked to other relevant national, regional and global platforms, including existing FAO, CRFM, WECAFC, CARICOM and CLME+ websites. The project will also be able to draw on a broad range of innovative KM services provided by FAO to connect local data platforms to global data infrastructures to contribute to data standardization and harmonization, including on effective bycatch, discards and ALDFG management measures, capacity development for SFF, and fisheries value chains, and ensure a broad dissemination of knowledge for informed decision-making. In addition, the FAO

eLearning Academy will support the project?s remote learning activities. FAO is particularly well capacitated for this effort with alignments to numerous fisheries management organizations globally. These formal and informal links, including the FAO FIRMS partnership, provide a platform to discuss and design locally adapted KM services.

The project will be an active partner of IW:LEARN, LME:LEARN and the CLME+ HUB to further promote effective dissemination of project-generated knowledge, results and lessons learned to other countries operating fisheries in the NBSLME, the wider Caribbean and other LMEs, as well as the wider IW community. The project will also draw on the deep knowledge and experiences of these platforms, especially participating in exchanges on topics related to bycatch mitigation, EAF, SSF development, and marine conservation issues at the national and regional levels. The project will also be an active learner from past experiences in other regions by participating in trainings, workshops, IW Conferences (by the project management unit and government representatives from each participating country) and any other exchange formats pertaining to bycatch, discards and ALDFG (and more generally application of EAF) at the national and regional levels. It will further contribute to GEF Experience Notes, Results Notes, Good Practice Briefs and other relevant knowledge products during project implementation. A minimum of 1% of the GEF IW grant financing will be ring-fenced to support participation in IW:LEARN activities (captured in a specific project budget line). To ensure effective and impactful delivery of knowledge products through IW:LEARN, the project will be able to draw upon the experiences and lessons learned from engagement in IW:LEARN by previous FAO-GEF projects (e.g. REBYC-II LAC project and GEF-5 Common Oceans ABNJ programme), as well as active FAO-GEF projects (e.g. GEF-7 Common Oceans ABNJ programme).

9. Monitoring and Evaluation

Describe the budgeted M and E plan

The project results, as outlined in the project results framework (Annex A1), will be monitored regularly, reported annually and assessed during project implementation to ensure the project effectively achieves these results. Monitoring and evaluation (M&E) activities will follow FAO?s and GEF?s policies and guidelines for monitoring and evaluation. The M&E system will also facilitate learning, replication of the project?s results and lessons, which will feed the project?s knowledge management strategy. This section sets out the M&E Plan for the project. Further guidance on project M&E activities is available in the? Guidance Note: FAO-GEF Project Monitoring and Evaluation? September 2022, prepared by the Monitoring and Reporting Team, FAO-GEF Coordination Unit. This document will be provided to the PMU staff at the beginning of project implementation.

Monitoring Arrangements

Project oversight and supervision will be carried out by the BH with the support of the PTF, LTO and FLO and relevant technical units in FAO Headquarters (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 are being delivered. The FAO-GEF Coordination Unit and HQ Technical Units will provide oversight of GEF-financed activities, outputs and outcomes largely through

the annual PIRs, periodic backstopping and supervision missions. Day-to-day project monitoring will be carried out by the PMU, led by a M&E Expert. Project performance will be monitored using the project results matrix, including indicators (baseline and targets) and annual work plans and budgets. In the inception phase, the results matrix will be reviewed to finalize the identification of i) outputs; ii) indicators; iii) targets; and iv) any missing baseline information.

A plan for operationalizing the project?s 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 be developed during project inception by the PMU M&E specialist, based on the model set out in the Guidance Note: FAO-GEF Project Monitoring and Evaluation (2022). The project?s M&E budgeted workplan is presented in Table 6.

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GEF requirements in the M&E plan	Responsible parties	Estimated cost (USD) attributable to GEF funds	Timeframe
Inception workshop (combined with 1st PSC meeting)	Technical and Project Coordinator (TPC), M&E Expert, National Technical Coordinators (NTCs), Project Steering Committee (PSC), UWI with the support of the FAO LTO and FAO-GEF Coordinating Unit	See entry on PSC meetings below.	Within 3 months of CEO approval
Project inception report	TPC, M&E Expert, PSC with the approval of the LTO and FAO Mx Budget Holder (BH)	Time of M&E Expert, TPC, NTCs, and FAO Technical Units	Immediately after the kick-off workshop
M&E planning	M&E Expert, TPC, NTCs, UWI ? FFA (Bursary), relevant FAO technical units, beneficiaries	Time of TPC, M&E Expert, Gender Expert, and FAO Technical Units, and UWI-FFA (Bursary) inputs (as needed) covered by in-kind co-financing	During the first six months of project implementation
Build the capacity of the identified beneficiaries in terms of skills, knowledge and experience of M&E	M&E Expert, TPC, NTCs, beneficiaries	Time of M&E Expert, TPC, NTCs; and time of FAO Technical Units (principally FAO-GEF Coordination Unit M&R team) as in-kind co-financing	Twice (1st year and 3rd year) during the project lifetime (training of trainers and data-collection)

GEF requirements in the M&E plan	Responsible parties	Estimated cost (USD) attributable to GEF funds	Timeframe
Measurement of project?s core indicators and results framework indicators (outcome, progress and performance indicators, GEF-7 core indicators) including baseline data collection where needed and monitoring of socio-environmental and gender related risks	M&E Expert, TPC, NTCs, Gender Expert, project partners, local organizations	Time of M&E Expert, TPC, NTCs, Gender Expert, with input of participating stakeholders covered by co-financing.	Ongoing, with at least one quarterly review by M&E expert
Collecting and analyzing data on project delivery, performance and implementation	M&E Expert, TPC, NTCs, Fisheries Agencies focal points	Time of M&E Expert, TPC and NTCs, with time of Fisheries Agencies as in-kind co-financing	Ongoing but particularly focused on twice during the project lifetime (in PY2 and PY4 at MTR and TE)
Project Progress Reports (PPR)	TPC, NTCs, M&E expert, with input from stakeholders and other participating institutions	Time of M&E Expert, TPC, NTCs, and FAO Technical Units	Biannual
Annual Project Implementation Review Reports (PIR)	Prepared by TPC with support of M&E Expert, FAO LTO and FAO BH, and inputs from NTCs. The FAO-GEF Coordination Unit clears and submits the PIR to the GEF Secretariat.	FAO staff time funded by agency fee, and TPC, NTCs and M&E Expert through PMU duties, and UWI-FFA (Bursary) inputs (as needed) covered by in-kind co-financing Total of all M&E related reporting, publication, translation and dissemination costs ? USD5,000	Annually, typically between June and July

GEF requirements in the M&E plan	Responsible parties	Estimated cost (USD) attributable to GEF funds	Timeframe
Project Steering Committee Meetings	TPC, NTCs, M&E expert	Face-to-face (1st and 4th (final) meetings) and/or virtual meetings (2nd and 3rd meetings). Estimated PSC meeting travel and associated costs = USD 15,000 (1st PSC meeting covered under ?Inception Workshop? above). Cost 4th PSC ? USD 15,000. Travel costs ? USD20,000	Annually
Mid-Term Review (MTR)	? Project Management unit ? FAO SLC ? FAO-GEF Unit	USD 30,000	At mid-point of project implementation.
Terminal Evaluation (TE)	FAO Office of Evaluation (OED) managed	External consultancy, including travel costs with FAO staff time (including OED with FAO-GEF Coordination Unit input) and travel costs will be financed from GEF fees = USD 45,000	To be launched six months before final review meeting
Terminal report	TPC, FAOSLC as BH (with the support of the FAO LTO and the FAO-GEF Unit); M&E Expert, with inputs rom UWI-FFA(Bursary)	USD 7,000, with additional TPC and FAO staff time, with UWI-FFA as in-kind co-financing.	Two months before the project completion date
Estimated costs of combined time of TPC, M&E expert, and four NTCs and gender expert on M&E activities		USD 68,000	
TOTAL COST		**USD 205,000**	

Monitoring and Reporting

In compliance with FAO and GEF M&E policies and requirements, the PMU, in consultation with the PSC and the PTF, will prepare the following 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. In addition, the GEF Core Indicators included in Annex F will be used to monitor GEBs and updated regularly by the PMU.

Project Inception Report. A project inception workshop will be held within two months of project start date and signature of relevant agreements with partners. During this workshop the following will be reviewed and agreed:

- the proposed implementation arrangement, the roles and responsibilities of each stakeholder and project partners;
- an update of any changed external conditions that may affect project implementation;
- the results framework, the SMART indicators and targets, the means of verification, and monitoring plan;
- the responsibilities for monitoring the various project plans and strategies, including the risk matrix, the Environmental and Social safeguards and Management Plan, the gender strategy, the knowledge management strategy, and other relevant strategies;
- finalize the preparation of the first year AWP/B, the financial reporting and audit procedures;
- schedule the PSC meetings;
- prepare a detailed first year AWP/B,

The PMU will draft the inception report based on the agreement reached during the workshop and circulate among PSC members, BH, LTO and FLO for review within one month. The final report will be cleared by the FAO BH, LTO and the FAO GEF Coordination Unit and uploaded in FAO?s Field Program Management Information System (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 in consultation with the FAO Project Task Force and reviewed at the project Inception Workshop. The Inception Workshop inputs will be incorporated and subsequently, the PMU will submit a final draft AWP/B to the BH within two weeks following the workshop. For subsequent AWP/B, the PMU will organize a project progress review and planning meeting for its progress review and adaptive management. Once PSC comments have been incorporated, the PMU will submit the AWP/B to the BH for non-objection, LTO and the FAO-GEF Coordination Unit for comments and for clearance by BH and LTO prior to uploading in FPMIS by the BH. The AWP/B must be linked to the project?s Results Framework indicators to ensure that the project?s work and activities are 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 PSC, LTO, BH and the FAO-GEF Coordination Unit, and uploaded on the FPMIS by the BH.

Project Progress Reports (PPR): The PPRs are used to identify constraints, problems or bottlenecks that impede timely implementation and to take appropriate remedial action. PPRs will be prepared based on the systematic monitoring of output and outcome indicators identified in the Project Results Framework (Annex A1), AWP/B and M&E Plan. Each semester the Technical and Project Coordinator (TPC) will prepare a draft PPR and will collect and consolidate any comments from the FAO PTF. The TPC will submit the final PPRs to the FAO Subregional Office in Barbados every six months, prior to 31 July (covering the period between January and June) and before 31 December (covering the period between July and December). The July-December report should be accompanied by the updated AWP/B for the following Project Year (PY) for review and no-objection by the FAO PTF. The BH has the responsibility to coordinate the preparation and finalization of the PPR, in consultation with the PMU, LTO and the FLO. After LTO, BH and FLO clearance, the FLO will ensure that project progress reports are uploaded in FPMIS in a timely manner.

Annual Project Implementation Report (PIR): The PIR is a key self-assessment tool used by GEF Agencies for reporting every year on project implementation status. It helps to assess progress toward achieving the project objective and implementation progress and challenges, risks and actions that need to be taken. Under the lead of the BH, the TPC will prepare a consolidated annual PIR report covering the period July (the previous year) through June (current year) for each year of implementation, in collaboration with national project partners (including the GEF OFP), the LTO and the FLO. The TPC will ensure that the indicators included in the project results framework are monitored annually in advance of the PIR submission and report these results in the draft PIR.

BH will be responsible for consolidating and submitting the PIR report to the FAO-GEF Coordination Unit for review by the date specified each year. FAO-GEF FLO will review PIRs and discuss the progress reported with BHs and LTOs as required. The BH will submit the final version of the PIR to the FAO-GEF Coordination Unit for final approval. The FAO-GEF Coordination Unit will then submit the PIR(s) to the GEF Secretariat as part of the Annual Monitoring Review of the FAO-GEF portfolio

Technical Reports: Technical reports will be prepared as part of project outputs and to document and share project outcomes and lessons learned. The LTO will be responsible for ensuring appropriate technical review and clearance of technical reports. Copies of the technical reports will be distributed to project partners and the PSC as appropriate.

Co-financing Reports: The PMU will be responsible for tracking co-financing materialized against the confirmed amounts at project approval and reporting. The co-financing report, which covers the GEF fiscal year 1 July through 30 June, is to be submitted on or before 31 July and will be incorporated into the annual PIR. The co-financing report needs to include the activities that were financed by the contribution of the partners (in-kind as well as cash/grant co-financing).

Tracking and reporting on results across the GEF 7 core indicators and sub-indicators: As of July 1, 2018, the GEF Secretariat requires FAO as a GEF Agency, in collaboration with recipient country governments, executing partners and other stakeholders, to provide indicative, expected results across applicable core indicators and sub-indicators for all new GEF projects submitted for Approval. During the approval process of the EAF4SG project, expected results against the relevant indicators and sub-indicators have been provided to the GEF Secretariat. Throughout the implementation period of the project, the PMU is

required to track the project?s progress in achieving these results across applicable core indicators and sub-indicators. At project completion stage, the project team in consultation with the PTF and the FAO-GEF Coordination Unit is required to report achieved results against the core indicators and sub-indicators used at CEO Endorsement/ Approval.

Mid-Term Review: An independent mid-term review (MTR) will be carried out at project mid-life in terms of expenditure and/or overall project duration, tentatively in the 3rd quarter of project year 2. The BH will arrange an independent MTR in consultation with the Project Steering Committee (PSC), the Project Management Unit (PMU), the lead technical office (LTO) and the FAO-GEF Coordination Unit in FAO headquarters. The MTR will be conducted to review progress and effectiveness of implementation in terms of achieving project objective, outcomes and outputs. The MTR will allow mid-course corrective actions, if needed. The MTR will provide a systematic analysis of the information on project progress in the achievement of expected results against budget expenditures. It will refer to the project budget (see Annex A2) and the approved AWP/Bs. It will highlight replicable good practices and key issues faced during project implementation and will suggest mitigation actions to be discussed by the PSC, the LTO and FAO-GEF Coordination Unit.

Terminal Evaluation: As per the FAO policy on evaluation, the FAO Office of Evaluation (OED) will conduct a final evaluation of the project, to be launched within six months prior to the actual completion date (NTE date). It will aim at identifying project outcomes, their sustainability and actual or potential impacts. It will also have the purpose of indicating future actions needed to assure continuity of the process developed through the project. OED will conduct the evaluation in consultation with project stakeholders and the donor, and share with them the evaluation report, which is a public document.

Terminal (end-of-project) Report: The PMU will submit to FAO-GEF Coordination Unit a draft Terminal Report at least two months before the official end date of the project, and one month before the Terminal Evaluation (as it represents potentially a key reference document for the TE consultants). 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. 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 ensuring sustainability of project results.

Disclosure: 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.

10. Benefits

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

Together, the Caribbean and North Brazil Shelf Large Marine Ecosystems (CLME+ region) bound a total marine area of some 4.4 million km2. This vast area exhibits exceptionally high levels of unique biodiversity (especially in the Caribbean Sea) that supports globally important ecological processes and provide critical goods and services that support livelihoods, human well-being and sustained socioeconomic development.
According to the CLME+ SAP, unsustainable fisheries (including bycatch, discards and use of destructive or harmful fishing practices or gear) is among the three priority transboundary issues causing severe negative impacts on the regional and global societal benefits obtained from the CLME+ region. These impacts are exacerbated by climate change. Root causes of transboundary issues include weak governance; limited human and financial resources; inadequate knowledge; inadequate public awareness and participation; inadequate consideration of the value of ecosystem goods and services; population and cultural pressures; and trade and external dependency. Addressing these root causes requires strengthening regional cooperation, institutional reform, and capacity building at the regional, national and local levels.

By enhancing capacity to manage bycatch, reduce discards and address ALDFG in the CLME+ region, the project will contribute to addressing several of these root causes and promote sustainable and responsible fisheries that provide socioeconomic opportunities and benefits. National and local socioeconomic benefits of the project will be realized through the application of an ecosystem approach to fisheries that seeks to build capacity of key stakeholders to adopt, use and monitor new bycatch and discards, new technologies and measures and improved approaches to addressing ALDFG; strengthen regional and national governance and management frameworks to better manage bycatch, reduce discards and mitigate ALDFG; and encourage behavioural change for adoption of effective bycatch mitigation and discard reduction measures.
The project is expected to directly and indirectly benefit an estimated 10,747 persons (6,267 males; 4,480 females) involved in the project?s target fisheries and over 20 fishing communities (the majority of which are rurally based) across the four project countries.
The specific socioeconomic benefits of the project at the national and local levels include:

- Improved understanding of the lives, practices, habits and livelihoods of the target fishing communities and the extent of their reliance on the target fisheries and associated bycatch and discards. (Component 3)
- Improved resilience of fisherfolk to environmental and economic shocks, including COVID-19 recovery, due to greater diversification of livelihood opportunities within sustainable fisheries value chains (Component 3)
- More empowered local communities due to their increased involvement in co-management of fisheries, including through their participation in the conceptualization, testing and modification of gear and proposed bycatch reduction devices and identification of appropriate strategies for the utilization of the sustainable portion of bycatch. (Component 1)
- Strengthened social resilience to climate change of fishing communities, including of women, through building capacity in business skills and creation of livelihood opportunities within sustainable fisheries value chains. (Component 3)
- Improved evidence-informed decision-making regarding socioeconomic considerations for proposed bycatch, discard and ALDFG management measures. (Component 2)
- Improved income, at national and local levels from sustainable fisheries value chain development and development of existing and potential markets. (Component 3)

- Reduced food waste due to sustainable value chain development of unwanted bycatch and discards (Component 3)
- Improved support for private and public sector investment in sustainable fisheries value chain development and sustainable fishing practices. (Component 3)
- Improved status of women in fisheries through gender mainstreaming in fisheries management plans and creation of gender-sensitive opportunities and capacity building along sustainable fisheries value chains. (Component 2, Component 3)
- Enhance social and economic impact of future projects and initiatives through the documentation and dissemination of lessons learned and best practices that can be used for replication and up-scaling in other communities, countries and regions (Component 4).

In addition to the CLME+ SAP, the national and local socioeconomic benefits realized under the project will contribute to the achievement of societal and environmental goals and objectives outlined in a number of other global and regional policy instruments, such as the Caribbean Community Common Fisheries Policy; Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication (SSF Guidelines) and SDGs 1 (No poverty), 5 (Gender equality), 8 (Decent work and economic growth), 9 (Industry, innovation, and infrastructure), 12 (Responsible consumption and production), and 14 (Life below water).

11. Environmental and Social Safeguard (ESS) Risks

Provide information on the identified environmental and social risks and potential impacts associated with the project/program based on your organization's ESS systems and procedures

Overall Project/Program Risk Classification*

PIF	CEO Endorsement/Approval	MTR	TE
Medium/Moderate	Medium/Moderate		

Measures to address identified risks and impacts

Elaborate on the types and risk classifications/ratings of any identified environmental and social risks and impacts (considering the GEF ESS Minimum Standards) and any measures undertaken as well as planned management measures to address these risks during implementation.

The project?s objective is to manage bycatch and reduce discards in the Caribbean and North Brazil Shelf Large Marine Ecosystems (CLME+) thereby promoting sustainable and responsible fisheries that provide economic opportunities while ensuring the conservation of marine living resources, supporting

country implementation of the CLME+ SAP, and with successful solutions for potential scale up to other LMEs. Consequently, the project will be environmentally and socially beneficial, with improvement of the shrimp and groundfish resources and the health of the associated marine ecosystem as well as the livelihoods and resilience of dependent fishing communities, in the absence of impacts associated with adverse, non-project related externalities. Any modification to marine habitats would be positive, as negative impacts from fishing would be reduced.

Project activities will involve technical assistance and capacity development actions to improve fishing practices to manage bycatch and reduce discards and the negative impacts of fishing gears, strengthening relevant governance and management frameworks and enforcement measures, and encouraging behavioural change for adoption of effective bycatch mitigation and discard reduction measures. Technical and management measures to enhance fisheries sustainability may be proposed, following the careful analysis of potential risks and with the full endorsement of the participating countries. In addition, pilot projects will be developed and implemented to provide follow-up support and mentoring for fisheries co-management and small-scale business development, but given their nature, no adverse environmental and social impacts are expected. Nevertheless, an environmental and social review will be conducted by the PMU with support from the FAO-GEF Coordination Unit if needed during finalization of each of these pilot activities. Where required, mitigation measures will be identified, costed and incorporated into final design of the pilot activities. Although this project will operate within fisheries value chains, the participating sectors will be small/medium with some industrial scale fisheries; subsistence producers will not participate in this project. Some interventions will be tailored to support women and youth empowerment and employment in the value chain. The project will implement a gender-tailored action plan to ensure equitable access to project activities and capacity building opportunities.

At the time of PIF submission, the FAO Lead Technical Unit applied the FAO?s Environmental Impact Assessment Guidelines for Field Projects to screen the project for specific adverse impacts on environmental and social aspects. The evaluation concluded that the project has a ?moderate risk? classification and that no further assessment was required. There were no new information or issues encountered during the Prodoc formulation that would justify a change in the risk classification.

Refer to Annex I1 for a summary of the environmental and social risk identified in relation to the proposed action as provided in the Project Risk Certification.

Supporting Documents

Upload available ESS supporting documents.

Title	Module	Submitted
Annex I1 ESS	**CEO Endorsement ESS**	
FAO ES Risk Certificate - REBYC III Project	**Project PIF ESS**	

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
Objective: *To manage bycatch and reduce discards in the Caribbean and North Brazil Shelf Large Marine Ecosystems (CLME+) thereby promoting sustainable and responsible fisheries that provide economic*	*Objective indicator 1:* *Reduced level of landings of ETP and overfished commercial species and discards compared to baseline in target fisheries (corresponds to GEF Core Indicator 8 - Globally over-exploited marine fisheries moved to more sustainable levels)*	Total catch 149,672 tons (based on current data) Roda, et al	Total catch reduction: 10% (14,967 tons, based on current baseline data)	Total catch reduction: 25% (37,418 tons, based on current baseline data)	- FAO statistics - Project sampling to confirm landings/discards reductions - Technical project reports and scientific fisheries-related publications - Project progress reports (PPRs, PIRs)	- Official statistics provided to FAO are accurate (or the most accurate available)	PMU, NTCs and national fisheries departments

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
opportunities while ensuring the conservation of marine living resources, supporting country implementation of the CLME+ SAP, and with successful solutions for potential scale up to other LMEs	*Objective indicator 2: Regional fisheries management plan for Shrimp and Groundfish updated to include bycatch, discards and ALDFG guidance provided by REBYC-III CLME+ project*	Current plan lacks sufficient guidance and recommendations on effective measures to address bycatch and discards or ALDFG	Draft recommendations produced	Recommendations incorporated into updated regional plan	- Copy of the updated regional fisheries management plan for Shrimp and Groundfish - Project progress reports (PPRs, PIRs)	- Process to integrate new guidance and recommendations within the regional plan can be achieved within the 4-year timeframe of the project given it is a regional body and needs agreement from countries not directly targeted by the project	WECAFC Working Group on Shrimp and Groundfish, PMU, NTCs and national fisheries departments

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
	Objective indicator 3: Area of marine habitat under improved fishing practices through addressing bycatch, discards and ALDFG mitigation measures (corresponds to GEF Core Indicator 5 - Area of marine habitat under improved practices (excluding protected areas))	0	2,000,000 ha	5,299,500 ha[1]	Copies of fisheries management plans for the target fisheries - Project progress reports (PPRs, PIRs)	- Measures for improved bycatch, discards and ALDFG can be incorporated into (updated) fisheries management plans for the target fisheries and begin implementation within 4-year project period	Fisheries Departments

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
	Objective indicator 4: Number of direct beneficiaries working in the harvesting and post-processing sectors ***[2]*** *benefiting directly and indirectly from the project (corresponds to GEF Core Indicator 11 - Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment)*	0 (no direct or indirect project beneficiaries before project starts)	2,507 males; 1,793 females; Total 4,300 (10% of those involved in fisheries *harvesting and post-processing sectors in target countries)*	6,267 males; 4,480 females; Total 10,747 (25% of those involved in fisheries *harvesting and post-processing sectors in target countries)*	Project capacity building reports Project technical reports Project progress reports	No social, cultural or financial impediments to women being involved in project activities Private fisheries sector willing to engage in project activities	National fisheries departments, private sector fisheries (e.g. canning factories, markets), PMU, NTCs
Component 1: Improving fishing practices to manage bycatch and reduce discards and the negative impacts of fishing gears in CLME+ fisheries, supporting countries implementation of CLME+ SAP priorities with a focus on the ecosystem approach to fisheries (Strategy 5)							

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
Outcome 1.1: Approaches and tools to manage bycatch and reduce discards widely adopted in target trawl and non-trawl CLME+ fisheries -	*Outcome indicator 1: Number of target national CLME+ fisheries fleet vessels utilizing new and improved practices and technologies for addressing unwanted bycatch and discards*	0 (no vessels using new, improved measures and technologies)	Suriname 10 vessels Guyana 10 vessels T&T 10 vessels	Suriname Total 40 vessels Guyana Total 50 vessels T&T Total 30 vessels	- Partner report on catch rates and catch composition before and after introduction of any measures and technologies - Partner progress reports on involvement with project activities - Technical project reports and scientific publications, - Revised national fisheries management plans and policies regulations - Project progress reports (PPRs, PIRs)	- Sufficient boat crews can be persuaded to adopt and implement the new bycatch and discard measures and technologies to reduce pre-catch mortality and improve post-release survival of unwanted species	PMU, NTCs, Fisheries Departments,

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
Output 1.1.1: Pre-catch losses reduction: smart-gear modifications developed and piloted for both trawl and non-trawl gears, such as gillnets and longlines, for more size- and species-selective fishing practices Output 1.1.2: Post-release mortality: Innovative technologies developed and tested for reducing post-release mortality of unwanted bycatch developed, promoted and adopted in CLME+ fisheries Output 1.1.3: Capacity for key stakeholders to adopt and use new bycatch and discards technologies and approaches for monitoring and reporting bycatch and discards built							

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
Outcome 1.2: Effective mitigation measures to reduce adverse fisheries impacts on Endangered, Threatened and Protected (ETP) species implemented in CLME+ target fisheries	*Outcome indicator 2: Number of target national CLME+ fisheries fleet vessels utilizing new and improved measures and technologies to address ETP species bycatch*	0 (as no vessels using new, improved measures and technologies introduced by the project)	Suriname 10 vessels Guyana 10 vessels T&T 10 vessels Barbados 5 vessels	Suriname Total 40 vessels Guyana Total 50 vessels T&T Total 30 vessels Barbados 20 vessels	- Partner report on catch rates and catch composition before and after introduction of any measures and technologies - Partner progress reports on involvement with project activities - Technical project reports and scientific publications, - Revised national fisheries management plans and policies regulations - Project progress reports (PPRs, PIRs)	- Sufficient boat crews can be persuaded to adopt and implement the new measures and technologies to reduce ETP catches	Fisheries Departments, UWI, CERMES, PMU, NTCs

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
	Outcome indicator 3: Reduced bycatch rates of ETP species (percentage of overall catch) in selected target fisheries compared to baseline data	TBC at inception (data collected under Output 1.1.1)[3][3]	Bycatch rate of ETP species *in selected target fisheries* reduced by 10%	Bycatch rate *in of ETP species selected target fisheries* reduced by 25%	- Project progress reports (PPRs, PIRs) - Partner progress reports project activities - Technical project reports and scientific publications, - National fisheries statistics	- Sufficient boat crews can be persuaded to adopt and implement the new measures and technologies to reduce ETP catches	Fisheries Departments, UWI/CERMES, PMU, NTCs
Output 1.2.1: Strategies, approaches and technical measures to improve pre-catch survival of ETP species developed and promoted Output 1.2.2: Procedures, guidelines and tools for improving post-release survival of ETP species developed, promoted and adopted in CLME+ fisheries Output 1.2.3: Capacity of key stakeholders to adopt and use new bycatch technologies and approaches built							

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
Outcome 1.3: Specific measures and technologies to address ALDFG developed and adopted and other measures to address adverse impacts of fishing gears on marine benthic habitats promoted -	*Outcome indicator 4: Number of vessels adopting new standardised gear marking scheme for ALDFG in target fisheries*	0 (no standardised gear marking scheme)	Suriname 10 vessels Guyana 10 vessels T&T 10 vessels Barbados 5 vessels	Suriname Total 40 vessels Guyana Total 50 vessels T&T Total 30 vessels Barbados 15 vessels	- Project progress reports (PPRs, PIRs) - Revised national fisheries management plans and policies regulations - Report of the risk assessment, cost-benefit analysis, and feasibility analysis of potential technologies and incentive mechanisms to address ALDFG, ghost fishing, and ALDFG removal	- Countries are willing to collaborate in the development and implementation of preventative (e.g., gear marking) and mitigating measures to address ALDFG and to jointly endorse recommendations - Country support can be mobilized to identify data collectors and interviewees	Fisheries Departments, PMU, NTCs
Output 1.3.1: Data and data collection frameworks on ALDFG in target countries improved Output 1.3.2: Risk assessment and feasibility analysis of potential technologies and incentive mechanisms to address ALDFG and ghost fishing carried out for target fisheries in CLME+, including cost-benefit analysis of ALDFG removal Output 1.3.3: Preventative and mitigating measures to address ALDFG developed, piloted, and promoted in selected CLME+ fisheries Output 1.3.4: Knowledge of fishing impacts on benthic ecosystem and mitigation solutions promoted							

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
Component 2: Strengthening governance and management frameworks and enforcement measures to better manage bycatch and reduce discards in CLME+ fisheries, supporting countries implementation of CLME+ SAP priorities particularly through improving regional governance arrangements for sustainable fisheries (Strategy 2) and the regional policy coordination mechanisms for governance of the marine environment (Strategy 3)							
Outcome 2.1: Improved policy and legal frameworks to manage bycatch and reduce discards and address ALDFG in target countries	*Outcome indicator5: National Fisheries Act and/or Decree updated with bycatch, discards and ALDFG provisions*	Currently lacking specific guidance on addressing bycatch, discards and ALDFG based on new approaches	Provisions drafted	Provisions adopted in all four target countries	- Copy of National Fisheries Act and/or Decree updated with bycatch, discards and ALDFG provisions	- Sufficient political will and a supportive legal and regulatory framework processes in target countries that allow updating with bycatch, discards and ALDFG provisions within 4-year project period	Fisheries Departments, PMU, NTCs
Output 2.1.1: Guidance on bycatch management, discard reduction and ALDFG mitigation measures formulated to update relevant fisheries policy and regulatory frameworks associated with target fisheries Output 2.1.2: Measures for effective bycatch management, discards reduction and ALDFG mitigation integrated into relevant national and regional policy and legal/ regulatory frameworks and processes							

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
Outcome 2.2: Marine fisheries management frameworks in participating countries improved for more effective bycatch management, discards reduction and to address ALDFG	*Outcome indicator 6: National Fisheries Management plans covering target species updated with bycatch and discards technical measures*	Approved management plans exist but degree of bycatch and discards measures currently insufficient (except T&T which is draft form)	Preliminary measures for improving bycatch and discard management identified in 3/7 fisheries	Measures for improving bycatch and discard management integrated into updated national fisheries management plans	- Copies of fisheries management plans updated with new bycatch and discards technical measures	- Sufficient political support - Fisheries management planning processes in target countries that allow updating with new bycatch and discards measures within 4-year project period	Fisheries Departments, PMU, NTCs
	Objective indicator 7: *NPOA for Sharks developed and adopted*	Baseline ? none of the target countries have a NPOA-Sharks	Draft NPOA-Sharks for 2 countries	Full NPOA-Sharks adopted in 4 countries and begun implementation	- Copies of NPOA-Sharks - Project progress reports (PPRs, PIRs)	- Process to adopt draft plans within the national fisheries agencies can be achieved within the 4-year timeframe of the project	PMU, NTCs and national fisheries departments

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
	Outcome indicator 8: *NPOA for ALDFG developed and adopted*	0 (none of the target countries have a NPOA-ALDFG)	Draft NPOA-ALDFG for 2 countries	Full NPOA-ALDFG adopted in 4 countries and begun implementation	- Copies of NPOA-ALDFG - Project progress reports (PPRs, PIRs)	- Process to adopt draft plans within the national fisheries agencies can be achieved within the 4-year timeframe of the project	PMU, NTCs, Fisheries Departments
Output 2.2.1: Identification of spatial, temporal and other appropriate measures for more effective bycatch management, discards reduction and to address ALDFG Output 2.2.2: Measures for more effective bycatch management, discards reduction and to address ALDFG integrated into target fisheries management frameworks at both national and regional levels Output 2.2.3: National Plan of Action for sharks and rays developed and adopted in the four participating countries Output 2.2.4: National Plan of Action for ALDFG developed and adopted in four participating countries Output 2.2.5: Stakeholder participation, especially SSF, in fisheries management decision-making related to bycatch, discards and ALDFG improved							
Outcome 2.3: Monitoring and compliance with new measures for managing bycatch, reducing discards and addressing ALDFG in fishing fleets within target CLME+	*Outcome indicator 9: Bycatch (including ETP species) and discards related monitoring integrated into inspection procedures as part of annual national MCS programmes*	Existing MCS procedures do not include/limited extent of bycatch (including ETP species) and discards measures	Inspection procedures drafted for MCS programmes for 2/7 target fisheries	Inspection procedures integrated into MCS programmes for 5/7 target fisheries	- Documentation on (updated) inspection procedures	- Sufficient political will among relevant government agencies to include enhanced bycatch and discards monitoring in inspection regimes	Fisheries departments, coast guards and other relevant national maritime authorities, PMU, NTCs

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
fisheries strengthened	*Outcome indicator 10: Percentage of inspections that include monitoring of updated bycatch (including ETP species) and discards measures in target fisheries (e.g. BRD)*	0 (updated bycatch and discards measures not yet developed)	10% of annual inspections check for measures in target fisheries	50% of annual inspections check for measures in target fisheries	- Inspection reports and associated MCS work programme reports	- Inspection procedures can be developed that can be applied (are acceptable) to inspectors and do not require significantly more time or resources	Fisheries departments, coast guards and other relevant maritime authorities, PMU, NTCs
Output 2.3.1: Frameworks and tools for improved data collection and monitoring of new and existing measures governing bycatch, discards and ALDFG, including on ETP species, designed and adopted Output 2.3.2: Capacity of key stakeholders to use technologies and tools to monitor compliance with relevant regulations and monitoring of bycatch, discards and ALDFG built							
Component 3: Encouraging behavioural change for adoption of effective bycatch mitigation and discard reduction and ALDFG management measures in target CLME+ fisheries, supporting the implementation of the CLME+ SAP priorities particularly through actions to encourage responsible fisheries practices (Strategy 2)							
Outcome 3.1: Incentives, strategies and measures to support behavioural change of stakeholders towards more responsible fishing practices	*Outcome indicator 11: Number of new or upgraded target fisheries enterprises focused on bycatch and ALDFG mitigation*	0 (new enterprises only developed after project starts)	At least 4 business plans developed for new or improved enterprises (at least 50% led by women)	At least 8 new or improved enterprises (at least 50% led by women)	- Copies of business plans, contracts, and financing documents	- There are clear opportunities for new business ventures that can be created through the project and fishers are willing to engage in developing new ventures	PMU, NTCs, Project consultant economists, financing institutions

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
developed and widely available in target CLME+ fisheries (focused on management of bycatch, reduction of discards and addressing ALDFG)	*Outcome indicator 12: Number of target fisheries enterprises (including fishing cooperatives) accessing new or improved financial instruments (investments, grants, loans) in support of bycatch management, discard reduction and ALDFG management measures*	0 (new enterprises only developed after project starts)	0 (new enterprises expected to be successfully accessing finance by mid-term)	At least 10 fisheries enterprises (at least 50% led by women)	- Documentation on number of loans and grants approved	- Sufficient interest can be generated among potential financing institutions in developing new financially sustainable business ventures related to bycatch, discards and ALDFG - New improved gender-sensitive policies, measures and/or financial instruments (investments, grants, loans) will be developed - No social, cultural or financial impediments to women being involved in accessing finance for new project-	PMU, NTCs, Project consultant economists, financing institutions

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
						related businesses	
Output 3.1.1: Socio-economic (including cost-benefit) analyses associated with adoption of mitigation technologies and measures to manage bycatch and reduce discards and the adverse effects of fishing gears undertaken and promoted, with results communicated to key fishery industry stakeholders in target CLME+ fisheries Output 3.1.2: Strategies, measures and opportunities to encourage fishers and markets to reduce incidental and unwanted bycatch identified, developed and piloted Output 3.1.3: Legal and financial frameworks revised to promote new opportunities related to better bycatch management, discards reduction and to address ALDFG							
Component 4: Knowledge Management and lesson learning, supporting implementation of the CLME+SAP priorities at the regional level (Strategy 3)							
Outcome 4.1: Knowledge of measures, options and incentives for effective bycatch management, discards reduction and to address ALDFG to improve sustainability of fisheries increased among key stakeholder groups (individual fishers, fishing industry and fish-	*Outcome indicator 13: Percentage increase in knowledge of issues and solutions related to bycatch, discards and ALDFG among national fisheries staff compared with baseline levels at start of project implementation according to project surveys practice and lessons learned)*	Baseline measured through surveys at inception	20%	50%	- Knowledge assessment surveys are accurate and reflective of project?s awareness-raising efforts	- Project training and knowledge assessment / survey reports	PMU, NTCs with inputs from fisheries agencies staff

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
buying public)	*Outcome Indicator 14: Level of engagement in IW:Learn activities through participation and delivery of key products (GEF Indicator 7.4[4][4]).*	No engagement in IW:Learn	Level 2 engagement (website in line with IW:LEARN guidance active)	Level 3 engagement (participation of project staff in training/twinning events and production of at least one experience note and one results note	- M&E reports (e.g. PIR) documenting engagement in IW:Learn activities and events - Copies of IW:Learn experience and one results note	- Individuals involved with project available to engage in IW:Learn activities - Relevant IW:Learn events occur within the specified timeframe	PMU, NTCs with fisheries agencies inputs
Output 4.1.1: Outreach Strategy and Plan to promote greater understanding of bycatch management, discards reduction and to address ALDFG and mitigation practices in target fisheries developed and implemented Output 4.1.2: Project successes, experiences, recommendations, and lessons learned for successful implementation of effective bycatch management, discard reduction and ALDFG mitigation measures identified and disseminated Output 4.1.3: Roadmap and materials for scaling successful project solutions for better management of bycatch, reduction of discards and addressing ALDFG in CLME+ fisheries and beyond developed and promoted by relevant stakeholders, including1% allocation to IW:LEARN activities							

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
Outcome 4.2: Effective gender-responsive project implementation based on adaptive management	*Indicator 15:* *Recommendations from operational M&E system (including PSC and PIR recommendations) fed back into project implementation*	No project M&E system operational	Project M&E system established and operational and any recommendations for adapting project implementation identified (including PSC and PIR recommendations) and adopted	Project M&E system operational and any recommendations for adapting project implementation identified (including PSC and PIR recommendations) and adopted	M&E reports (including PIR, PPR and PSC reports)	All required information will be accessible for M&E feedback / project implementation PSC members fully engage with review and management of project	PMU, NTCs with inputs from fisheries agencies and other stakeholders
Output 4.2.1: A gender-responsive project Monitoring and Evaluation (M&E) system using data disaggregated by sex, age and ethnicity designed and operational, and in line with FAO and GEF requirements Output 4.2.2: Mid-term Review and Terminal Evaluation carried out							

[1] Exclusive Economic Zone (EEZ) extents: Guyana 137,765 km2; Suriname 127,772 km2; Trinidad and Tobago 75,000 km2; Barbados 185,006 km2. The expected area of marine habitat under improved practices is calculated as the 10% of the overall EEZ (529,950 km2). Source: Worldfact Book CIA (www.cia.gov/the-world-factbook/).

[2] Based on available CRFM [2] and FAO country profiles, figures refer to aggregated harvesting and post-processing sectors (Barbados: 2,200 harvest, 6,600 process; Guyana: 8,175 harvest, 5,000 process; T&T: 3,347 harvest, 10,167 process; Suriname: 4,500 harvest, 3,000 process). To estimate disaggregated values for M/F, we used 90% are males for harvesting, 35% are males for post-processing. The core indicator target is based on 25% of the total number of men and women involved in the relevant fisheries following guidance from FAO regional fisheries experts.

[3] The specific ETP species to be monitored will be determined during the project?s inception period. It is likely to include some species of shark and turtles, this this depends on the specific fishery. There may also be an opportunity to link this to on-going marine conservation research being undertaken through CERMES and the UWI, which will be further explored during the project inception period.

[4] https://www.thegef.org/sites/default/files/documents/2022-05/EN_GEF_C.62_Inf.12_GEF-8%20Results%20Measurement%20Framework%20Guidelines_0.pdf

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).

	STAP Comments	
STAP or GEF Council review section	**STAP review comment on PIF**	**Response to STAP comment in Project Document**
STAP Review (4 November 2021)		The project design team would like to thank the STAP reviewers for their helpful feedback. Their suggestions have been addressed in the Project Document set out below.
STAP Overall Assessment and Rating	Further attention is suggested to identifying and articulating actions addressing the lack of incentives and opportunities to convince local fisherfolk and private sector entities to adopt new technologies and practices that minimize bycatch and discards.	Component 3 of the project is specifically focused on addressing the lack of incentives and opportunities to convince local fisherfolk and private sector entities to adopt new technologies and practices that minimize bycatch and discards (and also ALDFG). Barriers to adoption include (i) lack of awareness of alternatives to unsustainable practices and potential financial opportunities for moving to more responsible fisheries; (ii) lack of access of new fishing technologies, particularly due to costs; (iii) limited access to finance for small scale fisheries operations or the capacity/knowledge of how to access this where it is available; (iv) underdeveloped value chains for fisheries products derived from fisheries adopting more responsible fisheries practices, e.g. bycatch reduction devices. All of these are addressed through the project Component 3, with specific activities identified and developed (in consultation with stakeholders) during the project?s PPG phase (so not yet developed at the PIF stage). FAO employed a value chain/small business development consultant and a socio-economics/gender consultant, both from the target countries and with fisheries-related backgrounds/experience, to take the lead on designing the activities under Component 3.

Outcomes A description of the expected short-term and medium- term effects of an intervention.	In theory, outcomes could include adaptation benefits (if, for example, the project leads to opportunities for diversification of income for fisherfolk); however, this is not articulated in the PIF.	Under Component 3, the project will offer opportunities for diversification of incomes from fisherfolk through a variety of project activities, including through adoption of BRDs that will allow access to new or improved value chains, new uses of discards, such as a source of agricultural fertilisers in mixed farming/fishing communities, and potential small business ventures related to addressing ALDFG (e.g. recycling or repurposing of plastic fishing gear). These are articulated in Component 3, but also under the Stakeholders section (and associated Stakeholder Engagement Matrix and plan) and Benefits section of the Project Document.
2) the baseline scenario or any associated baseline projects how did these lessons inform the design of this project?	For example, the TE for the REBYC-II LAC project recommended a stronger focus on gender, livelihoods, private sector engagement/co-management, incentives, and fishery certification. This project addresses each of those; however, the more details on the specifics for all of them ? especially incentives for private sector and local communities to support sustainable fisheries management and reduction in bycatch, etc. ? which seems critical but the least well thought out at this stage.	It was recognised that Component 3, which addresses the issues raised by the reviewer, was underdeveloped at the PIF stage with little detail on livelihoods, private sector engagement/co-management, incentives, and fishery certification. For this reason, they were made a major focus for the PPG stage, reflected in the contracting of two specialist consultants - a value chain/small business development consultant and a socio-economics/gender consultant ? to develop these areas of the project. This resulted in a much more fully developed set of activities to address livelihoods, incentives and co-management (covered under Component 3), and a specific Gender Action Plan for the project (Annex R). In terms of certification of the fisheries, it should be noted that the seabob fisheries of Guyana and Suriname are already MSC certificated. It was decided that it would be beyond the resources of the GEF project to aim for certification of the target fisheries, however, some of the criteria of the MSC certification process will be applied to the target fisheries to support their certification in the future.

6) global environmental benefits (GEF trust fund) and/or adaptation benefits (LDCF/SCCF) Are the global environmental benefits/adaptation benefits explicitly defined?	GEBs are defined using the GEF RBM framework. More work is needed to justify claims that biodiversity will be enhanced. Adaptation benefits are not explicitly defined though there is mention of increased resilience of coastal communities that will occur due to strengthened institutional arrangements with regional fisheries bodies and other groups.	A more detailed discussion of the positive benefits for biodiversity, centred on the reduced risk to (particularly) Endangered, Threatened and Protected species from the adoption of better management, reducing discards and addressing ALDFG, is given in the Global Environmental Benefits section of the Project Document, and an annex listing ETP species at risk of bycatch in CLME+ region has been added to the Project Document. It should be noted however, that the project is a GEF International Waters (IW) Focal Area (FA) project and not a Biodiversity Focal Area project (and receives no funding form the BD FA) so the biodiversity benefits are secondary to the IW aims. In terms of adaptation benefits, again, these are secondary to the IW FA aims, but given the project will support institutional capacity for the four fisheries agencies, especially under project Components 1 and 2, as well as (to a lesser extent) regional bodies, (particularly WECAFC), and resilience of coastal communities will be improved through the various opportunities offered under Component 3 to develop and diversify sources of livelihoods among fisher communities, especially SSF

7) innovative, sustainability and potential for scaling-up Is the project innovative, for example, in its design, method of financing, technology, business model, policy, monitoring and evaluation, or learning?	Another potential innovation has to do with de-risking investments from microloans to fisherfolk which is interesting and could be very effective, but little additional detail is provided on how this will be done.	Approaches to de-risking investments from microloans to fisherfolk have been specifically considered during the PPG stage. Under Component 3, the project will identify feasible small business proposals that lead to the adoption of measures that can better manage bycatch, reduce discards or address ALDFG. These will be supported by targeted ?mentoring? and other capacity building provided to successful applicants (individuals or FFOs). This will include support to develop effective business plans and small grants for critical equipment (where required). The project will employ specific consultants with relevant background to deliver this support. Under Component 3, the project will also undertake awareness-raising/education activities targeted at appropriate financing institutions (e.g. rural micro-credit facilities, agricultural banks) to increase the funding made available for small scale fisheries businesses connected with better management of bycatch, reduction of discards and addressing ALDFG promoted through therojectt. Direct connection with these bodies will also facilitate the linkage between the financing bodies targeted by the project and individual business ventures being supported by the project under Component 3.

Is there a clearly-articulated vision of how the innovation will be scaled-up, for example, over time, across geographies, among institutional actors?	Scaling up and sustainability is envisioned to occur as a result of private sector engagement; however, a well-articulated vision is lacking on how this will be accomplished.	Private sector engagement is set out in the Private Sector section of the Project Document. At the PIF stage it was unclear exactly how the private sector would engage with the project, both at the industrial fisheries scale and level of SSF. Discussions with key stakeholders during the PPG phase have clarified arrangements. Scaling up will occur through various activities and deliverables: (i) Component 4 has a specific output that will develop a ?roadmap? that will be linked to the project?s Knowledge Management and Communications Plan to scale up project results; (ii) representatives from the private sector (industrial fisheries and SSF) will be represented on the Project Steering Committee so have the opportunity to both learn of project results, participate in decision-making and educate other private sector companies and groups about the benefits of addressing bycatch, discards and ALDFG; (iii) the Stakeholder Engagement Matrix also identifies potential roles/activities for the private sector which can be a channel for scaling up; (iv) scaling up will also occur through the project?s linkage and involvement with IW:LEARN activities. In addition, the project will develop a ?sustainability plan? to promote sustainability of project results and longer-term impacts in the final year of the project.

1. Risks. Indicate risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the project design For climate risk, and climate resilience measures: How will the project?s objectives or outputs be affected by climate risks over the period 2020 to 2050, and have the impact of these risks been addressed adequately? Has the sensitivity to climate change, and its impacts, been assessed? Have resilience practices and measures to address projected climate risks and impacts been considered? How will these be dealt with? What technical and institutional capacity, and information, will be needed to address climate risks and resilience enhancement measures?	Adverse impacts of climate variability and climate change are included as a risk with ample information about past and ongoing projects that deal specifically with climate risk that this project will make use of. For this specific project, a detailed climate risk screening FAO will be undertaken during PPG phase.	A detailed climate risk screening FAO was undertaken for the project (see attached) on 31 August 2021.

Comments from GEF Council		
Comments from GEF Council member	**Comment**	**Response**
Comment by Colette O?Neil, Senior Programme Manager, Climate and Environment Division Foreign, Commonwealth & Development Office of the United Kingdom, Council, made on 1/16/2022	Which fishers will this work with? Domestic small-scale fishers as well as larger fishers or international fishers	The project will work with small-scale fishes as well as larger fishers and the international fisheries groups. This is identified throughout the Project Document. Indeed, the project has a special emphasis on local fisher communities and SSFs. For instance, the piloting of means to reduce bycatch for non-trawl fisheries, e.g. gill nets which are usually associated with small scale operations in the CLME+ region, is expected to be focused on selected fisher communities.

Division, German Federal Ministry for Economic Cooperation and Development, made on 1/7/2022	Germany approves the following PIF in the work program but asks that the following comments are taken into account. <u>Suggestions for improvement to be made during the drafting of the final project proposal:</u> ? Private sector engagement is rightfully described as a critical success factor for project implementation. Therefore, the involvement and co-financing by theses entities is a positive aspect. By request of the GEF secretariat the company names providing co-financing were provided by the Agency and they reveal the involvement of some of the biggest players in international shrimp and fishing business. It is to be expected, that these companies have an economic self-interest in securing sustainable and responsible framework conditions for their fisheries, to be able to export products to Europe and the US. This is fair and can be a motivating force for overall project implementation. However, the financing from GEF sources should be prioritized to the Small-Scale Fishery Sector to avoid an overproportioned benefitting of the industrial fishing sector	The GEF financing has been prioritized to the Small-Scale Fisheries sector to avoid an overproportioned benefitting of the industrial fishing. Any costs of participation of the industrial fishing sector will be covered through their own (co-financing) contributions.

	? The gender related sections of the proposal are poor, as also commented in the PIF review by the GEF secretariat. Considering that this proposal is a follow-up of GEF-funded projects on fisheries in the region for already 15 years, the situation of women in the fishery sector and related value chains should be well known. During the PPG lessons from the previous projects should be used as a baseline for a new gender analysis and therefore more ambitious targets towards gender equality may be reached than compared to project starting from scratch	It Is recognised that at the PIF stage the gender sections of the proposal were poor. The gender aspects of the target fisheries have received specific attention during the PPG stage and development of the project document with the appointment of an experienced regionally based socio-economics/gender consultant to analyse the baseline on gender for the relevant CLME+ fisheries (including a review of results and lessons from REBYC II LAC project) and develop gender-related activities and the project?s Gender Action Plan (Annex R). However, it should be noted that the REBYC II LAC project focused only on trawl fisheries whereas the REBYC III CLME+ project expands on this and covers other fisheries and gear types where participation and opportunities for women may be different, which influences the project?s gender-related targets.

ANNEX C: Status of Utilization of Project Preparation Grant (PPG). (Provide detailed funding amount of the PPG activities financing status in the table below:

PPG Grant Approved at PIF: **USD 150,000**

Project Preparation Activities Implemented	***GETF/LDCF/SCCF Amount ($)***		
	Budgeted Amount	**Amount Spent to date**	**Amount Committed**
Salaries Professional			
Financial Specialist	7,500	7,500	2,000
Consultants			
National Coordinator - Barbados	7,500	7,500	0
National Coordinator - Guyana	6,000	6,000	0
National Coordinator - Suriname	8,250	8,250	0

National Coordinator - T&T	6,000	6,000	0
GEF Project Design Expert and Team Leader	39,000	39,000	6,000
Technical Consultant	20,300	20,300	4,000
Regional Coordinator	8,250	8,250	2,900
Socio-economic, value chain and gender consultant(s)	18,000	18,000	0
Environmental, Social and Climate change assessment	10,000	10,000	0
Contracts			
OPIM Capacity assessment	4,300	4,300	0
Training			
Workshops	14,900	0	0
Total	150,000	135,100	14,900

ANNEX D: Project Map(s) and Coordinates

Please attach the geographical location of the project area, if possible.

Coordinates

24?40? N, 89?45? W
01?00? S, 89?45? W
01?00? S, 45?04? W
24?40? N, 45?04? W

ANNEX E: Project Budget Table

Please attach a project budget table.

Strategies, technologies, and social solutions to manage bycatch in tropical Large Marine Ecosystem Fisheries (REBYC-II CLME+)
GEF Project ID: 10857
Project budget

Entity	FAO COST CATEGORIES	Component 1: Improving fishing practices to manage bycatch and reduce discards and the negative impacts of fishing gears in CLME+ fisheries, supporting countries implementation of CLME+ SAP priorities with a focus on the ecosystem approach to fisheries (Strategy 5)	Component 2: Strengthening governance and management frameworks and enforcement measures to better manage bycatch and reduce discards in CLME+ fisheries, supporting countries implementation of CLME+ SAP priorities particularly through improving regional governance arrangements for sustainable fisheries (Strategy 2) and the regional policy coordination mechanisms for governance of the marine environment (Strategy 3)	Component 3: Encouraging behavioural change for adoption of effective bycatch mitigation, discard reduction and ALDFG management measures in target CLME+ fisheries, supporting the implementation of the CLME+ SAP particularly through actions to encourage responsible fisheries practices (Strategy 2)	Component 4: Knowledge Management and lesson learning, supporting implementation of the CLME+SAP at the regional level (Strategy 3)					
		Component 1	Component 2	Component 3	Outcome 4.2(M&E budget)	Component 4	Sub Total Comp 1-4	PMC	TOTAL GEF	UWI	FAO
	5011 Salaries professionals										
UWI	Technical and Project Coordinator (63% of time on technical issues, Comp 1-4)	45,000	69,000	0	20,000	48,000	162,000	30,000	192,000	192,000	
UWI	Administration and Operations Support Officer	0	0	0	0	0	0	96,000	96,000	96,000	
UWI	Knowledge Management and Communication Officer	0	0	0	18,000	59,000	59,000	17,500	76,500	76,500	
UWI	Part Time M and E Support Officer	0	0	0	0	0	0	18,000	18,000	18,000	
	5011 Sub-total salaries professionals	45,000	69,000	0	38,000	107,000	221,000	161,500	382,500	382,500	0
	5013 Consultants			0							
UWI	Gender Specialist	0	0	0	10,000	20,000	20,000		20,000	20,000	
UWI	International (a'd hoc') consultant (LTA3) to provide oversight to components 3(**ToR 2.3**)	0	0	50,000	0	0	50,000		50,000	50,000	
UWI	International consultant to develop the cost-benefit analysis (ToR 2.5	0	0	40,000	0	0	40,000		40,000	40,000	
UWI	International consultant to survey of fisherfolk, industrial fisheries operators, and review use of bycatch and discards to fisherfolk communities **(ToR 2.4)**	0	0	65,000	0	0	65,000		65,000	65,000	
UWI	International consultant to develop a review of existing legislative, regulatory and financial/funding frameworks, and coordinate the development and implementation of education and awareness-raising campaigns **(ToR 2.6)**	0	0	60,000	0	0	60,000		60,000	60,000	
UWI	International Consultants to support improving fishing practices to manage bycatch and reduce discards and the negative impacts of fishing gears i Barbados, Guyana, Suriname and Trinidad and Tobago	456,000	0	0	0	0	456,000		456,000	456,000	
UWI	International Consultants to support strengthening governance and management frameworks and enforcement measures to better manage bycatch and reduce discards in Barbados, Guyana, Suriname and Trinidad and Tobago	0	188,000	0	0	0	188,000		188,000	188,000	
	Sub-total international Consultants	456,000	188,000	215,000	10,000	20,000	879,000	0	879,000	879,000	0
UWI	National Technical Coordinator Suriname	0	0	0	5,000	15,000	15,000		15,000	15,000	
UWI	National Technical Coordinator Guyana	0	0	0	5,000	15,000	15,000		15,000	15,000	
UWI	National Technical Coordinator Trinidad and Tobago	0	0	0	5,000	15,000	15,000		15,000	15,000	
UWI	National Technical Coordinator Barbados	0	0	0	5,000	15,000	15,000		15,000	15,000	
UWI	National Consultants to support the identification and development of potential markets and product identifiers, and to support a participatory identification and prioritisation of potential economic opportunities**(ToR 3.3)**	0	0	100,000	0	0	100,000		100,000	100,000	
UWI	National Consultants to support a participatory design and Implementation of capacity building plan for target fisheries and stakeholders and and implementation of pilot projects (ToR 3.4)	0	0	80,000	0	0	80,000		80,000	80,000	
UWI	National Consultants to support improving fishing practices to manage bycatch and reduce discards and the negative impacts of fishing gears in Barbados, Guyana, Suriname and Trinidad and Tobago	401,000	0	0	0	0	401,000		401,000	401,000	
UWI	National Consultants to support strengthening governance and management frameworks and enforcement measures to better manage bycatch and reduce discards in Barbados, Guyana, Suriname and Trinidad and Tobago	0	578,500	0	0	0	578,500		578,500	578,500	
	Sub-total national Consultants	401,000	578,500	180,000	20,000	60,000	1,219,500	0	1219500	1,219,500	0
	5013 Sub-total Consultants	857,000	766,500	395,000	30,000	80,000	2,098,500	0	2,098,500	2,098,500	0
	5014 Contracts			0	0		0				
UWI	Media productions (Online ads, videos, photos as necessary)	0	0	0	0	36,000	36,000		36,000	36,000	
UWI	Contracts for Workshops, Project Steering Committees, Validations Meetings, inception and final meetings, etc.	0	0	0	30,000	63,000	63,000		63,000	63,000	
FAO	Terminal Report	0	0	0	7,000	7,000	7,000		7,000		7,000
FAO	Mid term Review (MTR)	0	0	0	30,000	30,000	30,000		30,000		30,000
FAO	Independent Terminal Evaluation (TE)	0	0	0	45,000	45,000	45,000		45,000		45,000
FAO	Audits							33,000	33,000		33,000
FAO	Spotcheks							8,000	8,000		8,000
UWI	Publication, Translation, Dissemination and reporting costs	0	0	0	5,000	45,000	45,000		45,000	45,000	
UWI	Contracts with the 4 countries to implement pilot projects as proof of concept for newly developed enterprises (activities 3.1.2d	0	0	200,000		0	200,000		200,000	200,000	
UWI	Contracts with the 4 countries to support Activity 3.1.2.c Participatory design and Implementation of capacity building plan for target fisheries and stakeholders	0	0	40,000		0	40,000		40,000	40,000	
UWI	Development of tools and material to support communication of economic benefits associated wit shifting towards bycatch reduction methods and ALDFG recover efforts to fishery stakeholders (Activity 3.1.2.e).	0	0	5,000		0	5,000		5,000	5,000	
UWI	Development of tools and material to the Activity 3.1.3.a: Review of existing legislative, regulatory and financial/funding frameworks relevant for market-based approaches to promoting adoption of bycatch mitigation and other responsible fisheries measures.	0	0	10,000		0	10,000		10,000	10,000	
UWI	Development of tools and material to support the implementation of education and awareness-raising campaigns targeted at existing and potential funders/financiers of fisheries enterprises on tools and approaches for funding of business and activities related to bycatch reduction and ALDFG gear recovery (Activity 3.1.3.b).	0	0	10,000		0	10,000		10,000	10,000	
UWI	Subcontract to support Piloting of an incentive scheme for recovering of ALDFG gears for SSF in participating project countries (Activity 3.1.3.c).	0	0	40,000		0	40,000		40,000	40,000	
UWI	Subcontract to support improving fishing practices to manage bycatch and reduce discards and the negative impacts of fishing gears in Barbados, Guyana, Suriname and Trinidad and Tobago	413,500	0	0		0	413,500		413,500	413,500	
UWI	Subcontract to support strengthening governance and management frameworks and enforcement measures to better manage bycatch and reduce discards in Barbados, Guyana, Suriname and Trinidad and Tobago	0	148,000	0		0	148,000		148,000	148,000	
	5014 Sub-total Contracts	413,500	148,000	305,000	117,000	226,000	1,092,500	41,000	1,133,500	1,010,500	123,000
	5021 Travel			0	0		0				
UWI	Travel for PMU and Stakeholders for regional Project Steering Committees, inception and final meetings, workshops, validations meetings, etc.	0	0	0	20,000	30,000	30,000		30,000	30,000	
UWI	Travels for the execution of Component 1 in										

ANNEX F: (For NGI only) Termsheet

Instructions. Please submit an finalized termsheet in this section. The NGI Program Call for Proposals provided a template in Annex A of the Call for Proposals that can be used by the Agency. Agencies can use their own termsheets but must add sections on Currency Risk, Co-financing Ratio and Financial Additionality as defined in the template provided in Annex A of the Call for proposals. Termsheets submitted at CEO endorsement stage should include final terms and conditions of the financing.

N/A

ANNEX G: (For NGI only) Reflows

Instructions. Please submit a reflows table as provided in Annex B of the NGI Program Call for Proposals and the Trustee excel sheet for reflows (as provided by the Secretariat or the Trustee) in the Document Section of the CEO endorsement. The Agencys is required to quantify any expected financial return/gains/interests earned on non-grant instruments that will be transferred to the GEF Trust Fund as noted in the Guidelines on the Project and Program Cycle Policy. Partner Agencies will be required to comply with the reflows procedures established in their respective Financial Procedures Agreement with the GEF Trustee. Agencies are welcomed to provide assumptions that explain expected financial reflow schedules.

N/A

ANNEX H: (For NGI only) Agency Capacity to generate reflows

Instructions. The GEF Agency submitting the CEO endorsement request is required to respond to any questions raised as part of the PIF review process that required clarifications on the Agency Capacity to manage reflows. This Annex seeks to demonstrate Agencies? capacity and eligibility to administer NGI resources as established in the Guidelines on the Project and Program Cycle Policy, GEF/C.52/Inf.06/Rev.01, June 9, 2017 (Annex 5).

N/A