

GEF-8 PROJECT IDENTIFICATION FORM (PIF)

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General Project Information

Project Title

Climate Change Resilience in the Caribbean Fisheries Sector (CC4FISH-II)

Region

Regional

GEF Project ID

11412

Country(ies)

Regional

Dominica

Grenada

St. Kitts and Nevis

St. Vincent and Grenadines

Trinidad and Tobago

Type of Project

FSP

GEF Agency(ies):

FAO

GEF Agency ID

748168

Executing Partner

To be determined

Executing Partner Type

Others

GEF Focal Area (s)

Climate Change

Submission Date

10/18/2023

Project Sector (CCM Only)

Climate Change Adaptation Sector

Taxonomy

Influencing models, Transform policy and regulatory environments, Convene multi-stakeholder alliances, Strengthen institutional capacity and decision-making, Stakeholders, Civil Society, Community Based Organization, Academia, Non-Governmental Organization, Private Sector, Individuals/Entrepreneurs, Indigenous Peoples, Local Communities, Type of Engagement, Consultation, Participation, Information Dissemination, Partnership, Communications, Education, Behavior change, Awareness Raising, Public Campaigns, Beneficiaries, Gender Equality, Gender results areas, Gender Mainstreaming, Women groups, Sex-disaggregated indicators, Capacity, Knowledge and Research, Knowledge Generation, Learning, Adaptive management, Indicators to measure change, Theory of change, Capacity Development, Innovation, Knowledge Exchange, Focal Areas, Biodiversity, Species, Wildlife for Sustainable Development, Biomes, Mangroves, Sea Grasses, Coral Reefs, Protected Areas and Landscapes, Fisheries, Mainstreaming, Certification -National Standards, Certification - International Standards, Climate Change, Climate Change Adaptation, Small Island Developing States, Ecosystem-based Adaptation, Livelihoods, Productive Seascapes, Coastal and Marine Protected Areas, International Waters, Areas Beyond National Jurisdiction, Freshwater, Coastal, Large Marine Ecosystems, SIDS : Small Island Dev States, Aquaculture, Seagrasses, Mangrove, Marine Protected Area, Gender-sensitive indicators, Access and control over natural resources, Access to benefits and services, Participation and leadership, Knowledge Generation and Exchange

Type of Trust Fund

SCCF

Project Duration (Months)

60

GEF Project Grant: (a) 12,545,661.00	GEF Project Non-Grant: (b) 0.00
Agency Fee(s) Grant: (c) 1,127,989.00	Agency Fee(s) Non-Grant (d) 0.00
Total GEF Financing: (a+b+c+d) 13,673,650.00	Total Co-financing 85,750,000.00
PPG Amount: (e) 300,000.00	PPG Agency Fee(s): (f) 26,350.00
PPG total amount: (e+f) 326,350.00	Total GEF Resources: (a+b+c+d+e+f) 14,000,000.00
Project Tags	
CBIT: No NGI: No SGP: No Innovation: No	

Project Summary

Provide a brief summary description of the project, including: (i) what is the problem and issues to be addressed? (ii) what are the project objectives, and if the project is intended to be transformative, how will this be achieved? (iii), how will this be achieved (approach to deliver on objectives), and (iv) what are the GEBs and/or adaptation benefits, and other key expected results. The purpose of the summary is to provide a short, coherent summary for readers. The explanation and justification of the project should be in section B “project description”. (max. 250 words, approximately 1/2 page)

Problems: Impacts from climate change on the fisheries sector are already occurring and are likely to accelerate over the coming decades. The climate change stressors on the marine environment of greatest significance to fisheries in Area 31, the Western Central Atlantic (WCA) region, to which the Caribbean islands belong, are: increasing sea surface temperature (SST), ocean acidification (OA), sea level rise (SLR), and increased frequency of extreme weather events (e.g., storms, hurricanes, precipitation anomalies).

The Caribbean Sea is a Large Marine Ecosystem (LME) that supports high levels of endemic marine biodiversity and many endangered, threatened, and protected species including sharks, turtles, rays and marine mammals. However, climate change, extreme weather events, overfishing, and pollution have caused significant declines in fish resources, loss of marine biodiversity, degradation of the Caribbean Sea habitats and threaten broader food security and Caribbean economies.

The fishing sector in the Caribbean region is at an increased risk but also extremely important for food security, livelihoods, and jobs for some of the most vulnerable populations in Small Island Development States (SIDS).

Barriers: 1) Lack of robust climate change and disaster resilient fisheries value chains; (2) Weak/limited practices and systems in place to enhance ecosystem services for climate resilience; (3) Weak/ineffective enabling environment for mainstreaming climate change and disaster risk management in the fisheries sector; and (4) Poor knowledge and awareness of measures to support climate and disaster resilient fisheries, marine ecosystems and livelihoods.

The **project objective** is to catalyze systemic adaptation and resilience of fisheries, ecosystems and communities in the Caribbean to climate change (CC) and disasters through an ecosystem-based approach.

Brief description: The project will also strengthen the regional and national enabling environments to support the adoption of climate- and disaster-resilient technologies and practices, which are currently limited in the Caribbean Sea. The project will: (1) build climate- and disaster-resilient value chains; (2) enhance the delivery of ecosystem services, and climate resilience; (3) strengthen the enabling environment and mainstreaming climate change in the fisheries sector; and (4) support knowledge management, resource mobilization and scale-up in the region. Together, these will catalyze transformation, prompt ecosystem-based adaptation; improve socio-ecological system resilience, and generate sustainable fisheries livelihoods for all actors along the fisheries value chains, with better capacity to prepare for and respond to shocks and stressors supported by adaptive social protection.

Indicative Project Overview

Project Objective

To catalyze systemic adaptation and resilience of fisheries, ecosystems and communities in the Caribbean to climate change (CC) and disasters through an ecosystem-based approach.

Project Components

1. Building climate and disaster resilient fisheries

Component Type	Trust Fund
Investment	SCCF-A
GEF Project Financing (\$)	Co-financing (\$)
7,501,344.00	51,164,166.00

Outcome:

Outcome 1.1:

Enhanced capacity of fisherfolk along the fish value chains and fishing communities in CC Adaptation (CCA) and Disaster Risk Management (DRM), *as measured by:*

SCCF Core Indicator 1.3: # direct beneficiaries from new or improved climate information services, including EWS (target 4,365)

Project Indicator 1: # Disaster Risk Reduction (DRR) measures strengthened or established (target 5)

Project Indicator 2: # Community-based preparedness plans (target 10)

Project Indicator 3: # fishers adopting CCA practices/gear (target 3000)

Project Indicator 4: # fishers trained in business planning/management (record keeping, etc.) (target 1000)

Outcome 1.2:

Increased resilience and adaptive capacities along the fisheries value chain to adopt climate-smart infrastructure, practices, and technologies, *as measured by:*

Project Indicator 5: # fishers adopting climate-smart practices and technologies (target 1000)

*Project Indicator 6: **Saved incomes (in \$) of small-scale fisherfolks due to improved technologies***

Project Indicator 7: # fishing communities with climate-proofed infrastructure (e.g., landing sites, processing and market facilities) (target 10)

Output:

Output 1.1.1: Enhanced capacity of fisherfolk and fishing communities in CCA and DRM (incl. Early Warning Systems (EWS)).

Output 1.1.2: Community-based disaster risk reduction (DRR) measures (including preparedness plans) developed.

Output 1.1.3: Enhanced awareness and capacity on fisheries plans, policies, and legislation (CCA, DRM and Sargassum).

Output 1.1.4: Fisheries value chain actors' knowledge and practices improved for increased CC and disaster resilience.

Output 1.2.1: Climate smart (safer & better) fishing vessels in place.

Output 1.2.2: Climate proofing of existing community-based infrastructure (fish landing sites, processing, and market facilities).

Output 1.2.3: Climate- and disaster-resilient technologies and practices, applied by fishing communities

2. Enhancing ecosystem services for climate resilience

Component Type	Trust Fund
Technical Assistance	SCCF-A
GEF Project Financing (\$)	Co-financing (\$)
2,245,912.00	14,291,668.00

Outcome:

Outcome 2.1:

Enhanced provision of coastal and marine ecosystem services to support CC resilience, through community-based restoration and monitoring, *as measured by:*

Project Indicator 8: #fishers/ community members trained in restoration and monitoring techniques (target 800)

SCCF Core Indicator 2b: # ha of coastal and marine area managed for climate resilience. (target 1,810,370 ha)

Project Indicator 10: % implementation of monitoring system for marine and coastal ecosystem health

Output:

Output 2.1.1: Training program for fishers and fishing communities-based restoration of degraded and critical coral reefs, mangroves, and sea grass beds.

Output 2.1.2: Degraded and critical coral reefs, mangroves, and sea grass beds restored to support provisioning and regulating services.

Output 2.1.3: Monitoring and reporting on marine and coastal ecosystem health strengthened to support resilience to CC and disasters.

3. Strengthening the enabling environment to foresee and manage climate risks and disasters in the fisheries sector

Component Type	Trust Fund
Technical Assistance	SCCF-A
GEF Project Financing (\$)	Co-financing (\$)
1,796,729.00	13,434,166.00

Outcome:

Outcome 3.1:

Improved governance to support innovation, CC resilience and DRM in the fisheries sector *measured by:*

SCCF Core Indicator 3.4: # of institutional partnerships or coordination mechanisms (inter-institutional working groups) (target: at least 1 per country: 5)

Project Indicator 11: % increase in fishers and other value chain actors included in integrated national registries (20% increase)

SCCF Core Indicator 3.1: # Fisheries plans, policies and legislation drafted at the national and regional level to integrate CCA and DRM (target: at least 1 per country: 5)

Project Indicator 12: # of national and regional policies that mainstream fisheries considerations and support fishers' resilience (target: at least 1 per country: 5)

Outcome 3.2:

Innovative financing for climate-resilient fisheries that contribute to marine biodiversity conservation, CCA and DRM, *measured by:*

Project Indicator 13: # programs for fisheries value chain actors that provide greater access to insurance and financial services for CC and disaster risk resilience (target 4)

SCCF Core Indicator 5: # of private sector enterprises engaged in CCA and resilience action (target 3)

Output:

Output 3.1.1: Integrated inter- institutional framework mechanisms established at regional and national levels for adaptive and resilient fisheries.

Output 3.1.2: Registries and baseline information improved to link social and fisheries data to support deployment of DRM, including Post-Disaster Needs Assessments (PDNA).

Output 3.1.3 Capacity Building and awareness program on the enabling framework for community access to registries and programs.

Output 3.1.4: Increased capacity at the regional and national level in PDNA for Fisheries.

Output 3.1.5:

Fisheries mainstreamed in national and regional CC, NDC, CCA and DRM plans, policies and strategies.

Output 3.1.6: Fisheries plans, policies and legislation drafted at the national and regional level to integrate CCA and DRM.

Output 3.2.1: Incentive mechanism designed and adopted to support the adoption of climate and disaster resilient technologies and practices and marine biodiversity conservation in the fisheries sector

Output 3.2.2: CCA and DRM (including EWS) mainstreamed in social protection programs

Output 3.2.3: Enhanced access of fisheries value chain actors to insurance schemes and financial services to improve resilience to CC and post-disaster recovery

M&E

Component Type	Trust Fund
Technical Assistance	SCCF-A
GEF Project Financing (\$)	Co-financing (\$)
404,264.00	2,776,670.00

Outcome:

Outcome 4.1: Knowledge of project outcomes, lessons learned, best practices have been documented and disseminated, *measured by:*

Project Indicator 14: # Number of webinars/reports/publications/local-national-regional awareness-raising events and other knowledge products delivered to disseminate knowledge from the project (results, good practice and lessons learned) (target 40)

Project Indicator 15: % increase in stakeholder awareness of CCA and DRM (survey)

Outcome 4.2:

Effective gender-sensitive and gender-responsive project implementation based on adaptive management, *measured by:*

Project Indicator 16: a) % of the M&E targets met.

b) Score on quality ratings of PIR, MTR, and TE.

Output:

Output 4.1.1: Communication and stakeholder engagement strategy and plan developed and implemented.

Output 4.1.2: Community of Practice established to identify and disseminate best practices and lessons learned among stakeholders.

Output 4.2.1: A gender-responsive project Monitoring and Evaluation (M&E) system in line with FAO and GEF requirements.

Output 4.2.2: Annual Project Implementation Review, Mid-term Review and Terminal Evaluation carried out.

Component Balances

Project Components	GEF Project Financing (\$)	Co-financing (\$)
1. Building climate and disaster resilient fisheries	7,501,344.00	51,164,166.00
2. Enhancing ecosystem services for climate resilience	2,245,912.00	14,291,668.00
3. Strengthening the enabling environment to foresee and manage climate risks and disasters in the fisheries sector	1,796,729.00	13,434,166.00
M&E	404,264.00	2,776,670.00

Subtotal	11,948,249.00	81,666,670.00
Project Management Cost	597,412.00	4,083,330.00
Total Project Cost (\$)	12,545,661.00	85,750,000.00

Please provide justification

PROJECT OUTLINE

A. PROJECT RATIONALE

Briefly describe the current situation: the global environmental problems and/or climate vulnerabilities that the project will address, the key elements of the system, and underlying drivers of environmental change in the project context, such as population growth, economic development, climate change, sociocultural and political factors, including conflicts, or technological changes. Describe the objective of the project, and the justification for it. (Approximately 3-5 pages) see guidance here

i. Current situation, problems, and vulnerabilities

The impacts of climate change and disasters on small island developing states (SIDS) in the Caribbean, which are highly dependent on the fisheries sector for livelihoods, income, food security, poverty reduction and export earnings generation continue to be underestimated. While many of the root causes for climate change and climate variability originate outside of the Caribbean region, the consequences of the slow onset and extreme weather events are already being experienced by the region and are expected to increase in the coming decades. Concurrently, while the region is characterized by comparatively high levels of income and human development, poverty remains a key challenge for significant segments of the population. Despite important efforts at reducing poverty and inequality in the Caribbean, high rates of poverty and inequality remain a pressing development challenge. Poverty is a major driver of people's vulnerability to climate-related shocks and stressors; and the impacts of climate-related shocks and stressors drive people (further) into poverty and can prevent them from escaping it by reducing resilience and limiting livelihood options^[1]. Climate shocks and stressors not only will move some additional people into poverty, but also will reinforce the condition of those already poor, making it harder to reduce poverty in a long-term perspective^[2]. Coastal communities and fisherfolk (men and women involved in all aspects of the sector) are considered to be particularly vulnerable to the combined impacts of climate change and poverty. Improving resilience and adaptive capacity of the fisheries sector in the region is therefore of crucial importance.

Impacts from climate change on the fisheries sector are already occurring and are likely to accelerate over the coming decades. The climate change stressors on the marine environment of greatest significance to fisheries in Area 31, the Western Central Atlantic (WCA) region, to which the Caribbean islands belong, are increasing sea surface temperature (SST), ocean acidification (OA), sea level rise (SLR) and increased frequency of extreme weather events (e.g., storms, hurricanes, precipitation anomalies). The Intergovernmental Panel on Climate Change (IPCC) Sixth Assessment Report (AR6) states that "human-induced climate change is already affecting many weather and climate extremes in every region across the globe. Evidence of observed changes in extremes such as heatwaves, heavy precipitation, droughts, and tropical cyclones, and, in particular, their attribution to human influence, has strengthened" ^[3], since the Fifth Assessment Report.

Temperature projections indicate an increase in average daily maximum and minimum surface temperatures across the Caribbean. By mid-century (2041-2060), mean annual temperatures are expected to increase by 0.85°C and 1.15°C in northern islands and in southern islands (Trinidad and Tobago), respectively, under RCP2.6, compared to the 1986-2005 baseline period [4]. Under RCP8.5, temperature increases are projected to be more substantial, reaching 1.5°C in small islands, 1.43°C in northern island, and 2.00°C in southern islands [5]. Overall, temperature increase is likely to be more pronounced in the Caribbean Sea compared to the Atlantic Ocean coastline [6]. Increasing temperatures will have wide ranging effects on human health due

to heat stress and affect livelihoods in coastal nearshore and offshore fisheries as vital coastal and marine ecosystems are deteriorated.

Projections for precipitation for the period (2080-2100) indicate significantly local variability with a 5% rise/10% drop in the Caribbean Region. Projections show a decline in total annual precipitation [7],[8]. Total annual precipitation is projected to decrease by 2.2% and 4.7% in small islands under RCP2.6 and RCP8.5, respectively, by mid-century (2040-2059) compared to the 1986-2005 baseline period.

Analysis of climatic indices under A2 and B2 emission scenarios (A2: high emission scenario \approx 836 ppm and B2: low emission scenario \approx 540 ppm) using PRECIS regional climate models suggests an increase in heavy rainfall events and temperature extremes by the end of the century (2070-2099). Under a high emission scenario, the number of hot days per year (days with maximum temperatures $>35^{\circ}\text{C}$) is projected to reach 25-65% of the total annual days by 2060 in Dominica, Saint Vincent and the Grenadines, and Saint Kitts and Nevis, combined with a reduction in cold weather events [9]. The mid-summer drought intensity index (MSDi), indicating an intensification of dry conditions between two rainfall peaks, is also projected to increase over the Caribbean region, potentially linked to a stronger Caribbean Low Level Jet (CLLJ) [10].

It is virtually certain that SST will continue to increase throughout the 21st century, with increasing hazards to many marine ecosystems [11]. Sea surface temperatures in the Caribbean region are projected to increase by 1°C by mid-century (2021-2040), with an uncertainty range between 0.6°C and 3.0°C by the end of the century under both SSP1-2.6 and SSP5-8.5, compared to the 1981-2010 baseline period. Consequences of increased SST include coral bleaching leading to degradation of coral reefs and loss of their architectural complexity, ability to support commercially important fish biomass, and to protect the shore from storm surges. This is compounded with damage to mangroves; migration of fish and other marine animals to cooler water; more intense hurricanes and storm surges; and changes in the survival rate of fish and crustaceans.

Ocean pH is projected to decrease by 0.1-0.3 under SSP5-8.5 by mid-century (2041-2060) [12]. Ocean acidification is projected to increase as the oceans continue to absorb atmospheric carbon dioxide, reducing pH, carbonate ion concentration and the availability of biologically important calcium carbonate minerals. Ocean acidification will negatively affect the ability of marine biodiversity (e.g., shellfish like conch, reef-building corals, and other related biodiversity) to build their protective shells/skeletons, cause shifts in phytoplankton species composition and decline in coastal fisheries.

Sea levels in the Caribbean are anticipated to rise by 0.1-0.2m both under SSP1-2.6 and SSP5-8.5 by mid-century, and by 0.3-0.4m under SSP1-2.6 and by 0.5-0.6m under SSP5-8.5 by the end of the 21st century (2081-2100), compared to the 1995-2014 baseline period. Resultant impacts of SLR (due to increased sea temperatures and melting of glaciers and ice sheets) include coastal erosion, coastal flooding and more intense storm surges; damage to critical fish habitats (mangroves forests, sea grass and coral reefs) resulting in productivity / population declines because of damaged juvenile nursery habitats which often mean decreased recruitment to adult; inundation and damage to coastal settlements and infrastructure (fish facilities, jetties, fish landing sites, ports etc.), and overall decline in coastal fisheries. It is likely that intense tropical cyclone activity will increase (in frequency and intensity).

The Caribbean has already seen the devastating impacts of Category 5 hurricanes such as Maria and Irma (2017) and Dorian (2019) on the fisheries sector. In general, climate change will produce a warmer, dryer (in the mean) region with more intense hurricanes, and possibly more variability. The frequency of categories 4 and 5 hurricanes is projected to increase by 25-30% [13]. More frequent and extreme weather events such as

storms will cause coastal erosion, damage to coastal ecosystems and coastal infrastructure in and around Caribbean SIDS. Increasing levels of eutrophication and increasing SST together also enhance the blooming of pelagic (floating) algae, resulting in more frequent “green tides” and toxic algal blooms. Such events are becoming more common in the WCA, and since 2011 the wider Caribbean region has been experiencing unprecedented influxes of pelagic sargassum. These extraordinary sargassum blooms, entering the Caribbean Sea through the Lesser Antilles as large floating mats of algae, have resulted in mass coastal strandings throughout the region and significant damage to critical coastal habitats such as mass mortality of important seagrass beds and associated corals through shading, anoxia, and excessive nutrient loading. Changes in biological productivity of any of the coastal habitats will have impacts on their ecosystem services and the trophic linkages among them and will affect both the nearshore and the oceanic pelagic food chain such that impacts will not be limited to these coastal areas^[14].

Small-scale fishers in the Caribbean, grouping, and the impacts of climate change on fuel use in vessels, and infrastructure

The commercially important small-scale fish and shellfish fisheries of Caribbean SIDS have been considered in four groups based on environment and following the typical division of fishery groups used in this region. These are shallow-reef fisheries, pelagic fishers, deep slope fisheries and the shrimp and ground fish groups. Climate change impacts on commercially important fish and shellfish will have a wide array of social and economic implications in Caribbean SIDS including impacts on the consumptive use value to the fisheries sector, resulting in decreased food security and livelihood and employment of those working in the fisheries sector.

Negative impacts that are already obvious in this region include coral bleaching (damaging critical fish habitat), increasing intensity of storms together with increased sea level (damaging fish habitats, fishery access and assets), and sargassum influxes (disrupting fishing operations and communities and impacting the sustainability of the resource). Coral bleaching will negatively affect fish production and the protection of beaches and landing sites. As a result, fishers are affected by declining catches and thus less livelihood and employment opportunities while also suffering from a decrease in food security.

Decreasing abundance of reef-associated fishes, expected to be the hardest hit by climate change initially, will have the greatest socio-economic impacts on the harvest and post-harvest sectors in coastal communities where these reef fish species are primarily harvested by traps, spears, nets and handlines, and sold to local consumers.

Changes in availability of high-value species (spiny lobster, conch, shrimp) will have a particular impact on harvesters (both small-scale and semi-industrial) and will negatively affect export trade volumes and foreign currency revenue generation. Caribbean SIDS countries are likely to be most severely impacted by declines in these high-value shellfishes, especially on those with significant export fisheries.

Changes in the productivity and distribution of oceanic pelagic species, such as dolphinfish, tuna, and tuna-like species, are likely to result in reduced abundance and catchability, as stocks are predicted to move northwards and beyond the limited reach of small-scale fleets at least within the southern SIDS. In the short-term, pelagic fishers will most likely have to fish longer or travel further to maintain catch rates or rely on moored Fish Aggregation Devices (FADs) which aggregate fishes. The former will have both financial and safety implications for fishers as fishers will have to use even more fuel which is already one of their highest costs (commonly between 50-60% of all expenditures). Smaller catches of pelagic species and associated increased ex-vessel prices will have significant impacts on the harvest and the post-harvest sector, especially as it is these species that generally support the greatest value-added processing. Possible changes in the migration patterns and distribution of transboundary oceanic pelagic species will also have

implications for regional policy and shared management plans, and for fishing quota allocation and access agreements.

SIDS most likely to be impacted by declines in pelagic species and processing opportunities will include Dominica where pelagic fish species are particularly important. Decreases in the profitability of fishing will negatively affect the willingness of investors and the attractiveness of investing in the harvest and post-harvest processing sectors. Over the longer-term as reef resources become increasingly degraded, too costly as fishers must go further with higher fuel expenditure with lower returns and pelagic species less available, fisherfolk may have to abandon fishing and look for scarce alternative employment opportunities. This will likely require government incentives and training programmes to retool fishers. Reductions in fish and shellfish fishery yields in Caribbean SIDS can thus be expected to have significant socio-economic impacts on fisherfolk (fishers and other actors in the fish market chain) and their dependents. It will also have implications at the level of national governments for: domestic productivity in the fishing sector; food security and food sovereignty (and by implication on the food import bill); export trade and foreign currency earnings.

In the fisheries sector – infrastructure is a major and common sectoral development component everywhere around the world. This includes many types and scales of physical structures, including fishing ports, quays, jetties, slipways, shipyards, fish buying stations and markets, fish processing plants and ice plants.

Commonly this infrastructure is not built to withstand major storm impacts. The brunt of the storm damage is sustained by buildings on land as they will be de-roofed and flooded. Most marine infrastructure, like slipways, quays and jetties, also suffer damage and are unable to support the sufficient support for fishers to bring their boats to safety prior to a disaster. With climate change, the impacts of tropical storms and hurricanes in the Caribbean region are expected to increase in both intensity and frequency as the modelled tracks for a warmed climate indicate. Thus, ex-ante preparedness for recovery is a must to ensure timely and resilient recovery to ensure business continuity not only by the private sector, but also by the public sector. This project will support the long-term preparedness and improved short term recovery plan after a disaster needed to ensure that resilience to climate change is built into all new fisheries infrastructure development. Building Back Better must be the cornerstone of all development efforts especially in critical infrastructure such as the buying stations. Processing and market vending plants and infrastructure to be rehabilitated or improved with climate smart features such as hurricane straps and use of solar energy.

Market facilities in the Caribbean region are commonly of very low quality with scarcity of ice and low food safety leading to high levels of fish loss and waste and impacts on food safety. Due to climate change fish catches will already be reduced. This project will support increase capacity for ice, train market vendors in fish handling and processing as well as fishers to improve their use of ice and improved fish handling skills. This will reduce fish waste and increase incomes and livelihoods.

ii. Underlying drivers and root causes of environmental change in the project context

Climate change also raises the stakes by threatening broader food security and Caribbean economies, making the food and jobs that fisheries provide even more important, while also placing them at increased risk. Small-scale fisheries (SSF) in the Caribbean are responsible for a large share of food production and fishers are custodians of natural resource and biodiversity management, yet they lack equitable access to resources, credit and financial services, knowledge, and technologies. This hinders adaptive capacity, livelihood development and sustainable natural resource management. Small-scale fishers in the Caribbean are exposed to various natural, social, health-related, political, and economic risks and vulnerabilities. They face natural disasters such as storms, hurricanes, storm surges and floods. Caribbean fisheries are considered

to be the most vulnerable in the world to climate change[16]⁵. Fisherfolk face numerous social, economic and health related risks e.g., safety risks to seagoing workers, as fishing is one of the most dangerous occupations in the world[17]⁶; they suffer from fluctuating market price risks in the fishing industry, and risks of social disruption due to changes in fishery regulations, fishing industry technology, or resource abundance (illegal fisheries and degrading marine resources). The fisheries sector is also prone to global fluctuations and economic uncertainty periods such as the financial crisis in 2008, and the Covid-19 pandemic, which has heavily impacted the sector. Additionally, in the Caribbean, there is generally limited social protection coverage for the SSF sector, and many social assistance and insurance programmes are not adapted to the specificities of the fishing profession. Considering the prevalence of informal workers in the sector, fisherfolk are often not covered by labor laws. They may also face political, legal, financial, administrative and/or geographical barriers to accessing existing programmes. When social protection programmes exist, many small-scale fishers are not aware of their availability to them, and awareness-raising initiatives are needed.

Governments, policymakers, and fishery stakeholders must work to make fisheries and fishing communities sufficiently resilient to survive the climate-driven changes that are set to intensify in the near future, especially as they interact with other ongoing social and economic shocks and stressors. Climate change affects marine ecosystems and the many goods and services they provide that in turn support fish production in the Caribbean. Climate change stressors impact the fisheries and aquaculture sectors via various pathways: biological productivity; communities and livelihoods; governance, and wider societal and economic impacts (see Figure 1). For instance, the increased frequency and intensity of extreme weather events leads to decreases in safety of fishers, so there is need for improved early warning systems (EWS), appropriate insurance, safety-at-sea (SAS) training, information and communication technology (ICT) training and adoption, climate smart fisheries infrastructure, as well as improved prevention, mitigation, preparedness, and rehabilitation capacity of the fisheries sector. The impacts of climate change are expected to result in reduced catches (or a need for more intense fishing effort to maintain catches), and greater risks associated with fishing activity due to impacts of sub-acute and acute shock events (both financial loss and loss of life). This will negatively impact the livelihoods of fishers and their families, putting more households at risk of falling (deeper) into poverty, decrease profits in the sector and reduce the availability of seafood for local consumption and export. As a result, there is need to provide support to fishers in the form of appropriate social assistance and insurance products, while also working to add value to captured fish (target and non-target) and reduce fish waste. While fishers are directly impacted, those working in the post-harvest sectors, boat building and other livelihoods dependent on fishing are also affected, along with their families and dependents. Conflict can also be caused by competition between communities, different States, and between the recreational and commercial sectors[18]⁷. Other socio-economic impacts include lower food security as a result of the declining availability of fish; reduced job opportunities and loss of livelihoods; loss of life and property; credit risks; idiosyncratic risks (related to day-to-day business); transitory shocks; intra-sectoral and inter-sectoral conflict risks; disruption in basic production support services; and resettlement delays.

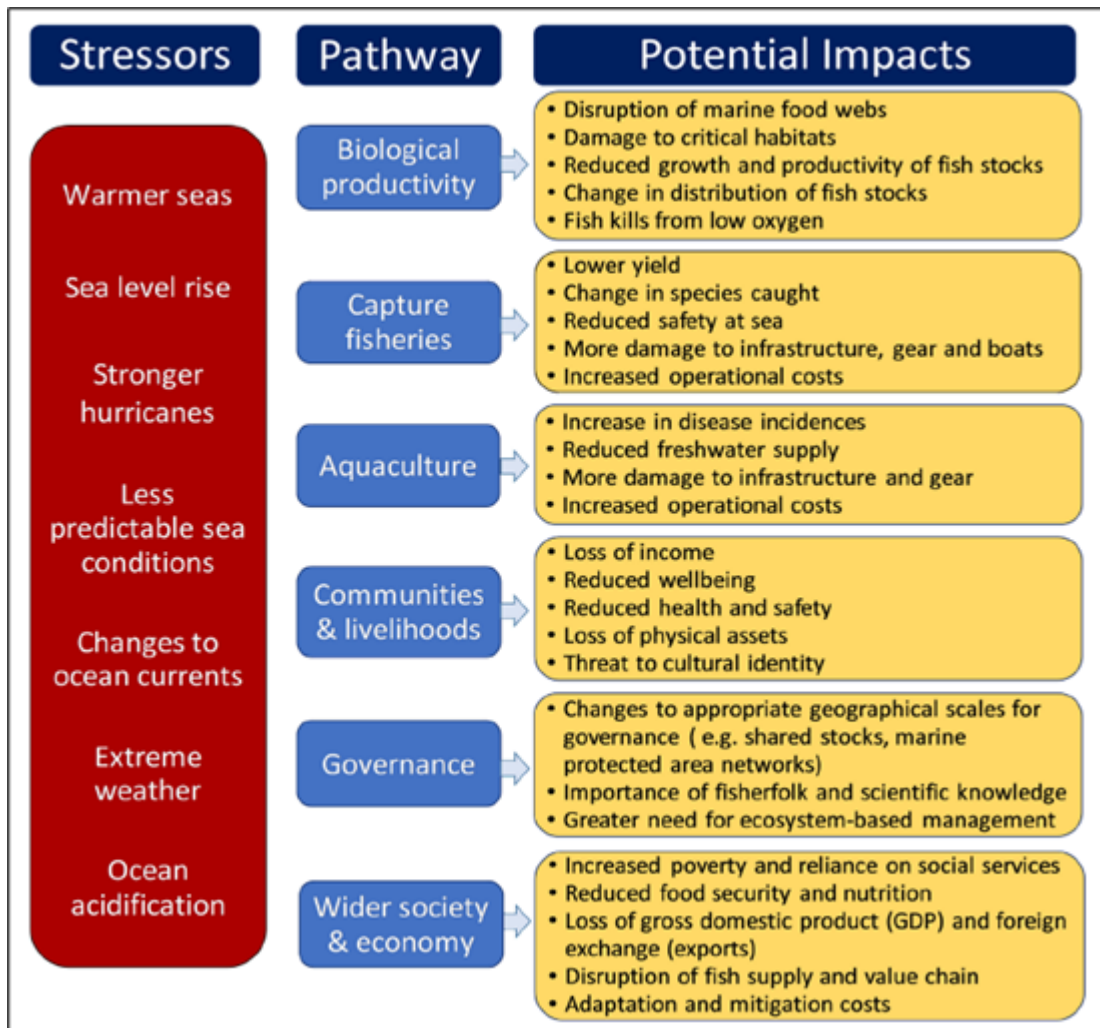


Figure 1: Pathways to Potential Climate Impacts in the Fisheries and Aquaculture Sectors. Source: CC4FISH Policy Brief – Climate Change and Fisheries

Better climate change mitigation and adaptation and disaster risk reduction within the sector is needed, and this also means moving towards more integrated, multi-faceted ecosystem-based approaches. Small-scale fisheries (SSF) are critical to local livelihoods and to national and regional food security and economies. Currently, they are facing increasing challenges of meeting the demand of growing populations while working to reduce environmental impacts, and restore and maintain critical ecosystem functions, all in the context of a changing climate, with the increasing frequency and severity of co-variate shocks, and continuing, often worsening vulnerability to poverty. Current single-sector solutions often overlook or ignore the multi-faceted realities and contexts of people and SSF livelihoods, thus not being adequate, or unable to reach them; either way leaving them further behind. Building on the lessons learned from the Climate Change Adaptation in the Eastern Caribbean Fisheries Sector (CC4FISH-I) project and leveraging up-scalable local solutions that address the nexus between production, livelihood development, climate adaptation and sustainable resource management, specifically targeting small-scale fishers, is key to address these challenges. To unleash this potential, small-scale fishers should be empowered to better access services, finance, insurance, social protection and markets that allow them to implement needed measures for sustainable resource management including adaptation and biodiversity conservation, which will thus also enhance their long-term productive capabilities. This requires building an enabling policy and legal framework that devolves rights and resources in a way that stimulates innovative and context specific solutions. Partnerships and collaboration are needed -

new ways to engage with service providers, in particular, financial and social security institutions, to support the development of sustainable small-scale food production systems.

iii. Baseline and barriers

Caribbean Sea countries are vulnerable to climate change hazards, shocks, and stressors. To address these, individual national plans and strategies have been developed throughout the Caribbean, as well as several regional initiatives. Several adaptation projects have been implemented in the region, which show how community involvement can be incorporated, with benefits to fisherfolk as well as the marine environment. The CC4FishProject is the most relevant as it provides a solid base regarding increasing resilience and reducing vulnerability of the sector through adaptation and capacity building. Other efforts include the deployment of moored Fish Aggregating Devices (FAD) in the fishing sector in some countries, with a focus on reducing pressure on overfished reefs, while maintaining or increasing income for fishers. This also allowed for testing the impact of installing a bulbous bow on one long-line fishing vessel (Grenada). Vulnerabilities of existing fisheries infrastructure have been identified in various countries, and FAO designed climate proof fish buying stations, which are suitable for most Caribbean countries' small-scale fisheries.

The region has been investing in improved data collection to better inform on imminent CC events and longer-term change. For example, a number of Coral Reef Early Warning Systems (CREWS) stations have been deployed in parts of the Caribbean, with more to be installed soon. These installations are part of a wider global network of stations managed by the USA's National Oceanic and Atmospheric Administration (NOAA). Such systems, along with other local monitoring of rainfall, waves, tides, temperature and pH, add to the body of knowledge on marine conditions and the influences on coastal and fisheries management responses. Other data-capture methods such as advanced remote sensing through LiDAR1 (recently acquired by the Caribbean Community Climate Change Centre (5Cs) partnered with a Belizean airline for the delivery of services throughout the Caribbean and beyond) will have utility in capturing topographic and nearshore bathymetric data of relevance to fisheries planning and management. The University of the West Indies, with funding from FAO, develops Sargassum Outlook Bulletins every two months to predict the volume and timing of sargassum influxes for the Eastern Caribbean.^{[19]⁸}

There are also several coral reef restoration initiatives (Grenada and St. Vincent & the Grenadines) that provide important lessons for implementation in other areas. The establishment of marine Protected Areas (MPAs) throughout the CLME provides important experiences in terms of co-management with coastal communities, environmental conservation and rehabilitation, and sustainable use for generating income for traditional users.

Despite the identification of adaptation priorities in plans and strategies, and a number of investments in enhancing climate resilience and restoring critical ecosystems across the Caribbean, there remain a number of barriers to the effective planning and implementation of adaptation actions to yield transformational change. Current levels of adaptation and resilience to climate change and disasters of fisheries, ecosystems, and communities in the Caribbean vary from country to country but the Caribbean Sea countries face four main barriers that hinder more effective adaptation and resilience.

Barrier 1: Lack of robust climate change and disaster resilient fisheries value chains.

Fisherfolk along the fish value chains and fishing communities have limited capacity in Climate Change Adaptation (CCA) and Disaster Risk Management (DRM). In particular, there is a lack of capacity in the

access and management of Information and Communication Technologies (ICT) such as marine band digital selective calling (DSC) and very high frequency (VHF) radios. Furthermore, there are limited options for supporting the procurement by fisherfolk of more fuel-efficient vessels such as those with 4 stroke engines, as well as a lack of training of relevant persons in the use, maintenance, and repair of 4 stroke engines. The current lifespan of fibre reinforced plastic (FRP) hulled small-scale fishing vessels is between 10 and 15 years in commercial fishing. Engines are replaced every 5 to 10 years. This means that every year hundreds of small-scale fishing vessels need to be constructed to replace old and obsolete vessels. Without access to newer more efficient designs, technology (motors), and financing, fisherfolk continue to use less efficient models that exacerbate their vulnerability to CC and disasters. Similarly, existing fisheries infrastructure (jetties, slipways, fish landing sites, fish buying stations and fish markets), is in need of being adapted to withstand the impacts of CC and disasters, especially with regards to SLR and hurricanes.

Barrier 2: Weak/limited practices and systems in place to enhance ecosystem services for climate resilience.

Many marine ecosystems that support fisheries are degraded by overfishing and other activities, as well as the impacts of climate change and disasters. While the impacts are recognized and felt by fisheries and governments, alike, there are few comprehensive restoration and rehabilitation initiatives to restore degraded and critical coral reefs, mangroves, and sea grass beds to ensure sustained ecosystem services such as provisioning and regulating services. Furthermore, planning for Ecosystem-based Adaptation approaches relies on a good understanding of the linkages between underlying climate risks, human activities, and their individual and combined impacts on local communities and ecosystems. However, to date, information on the climate vulnerabilities of the Caribbean's critical ecosystems is scarce and the monitoring of different indicators of ecosystem health remains a challenge as monitoring plans are rare and insufficiently implemented. Therefore, continuously updated and accessible information about ecosystems' evolution through time, including after extreme weather events, are lacking to help inform climate and disaster resilient decision-making and practices.

Barrier 3: Weak/ineffective enabling environment for mainstreaming climate change and disaster risk management in the fisheries sector.

Country poverty assessments in the Caribbean reveal that small-scale fishers (SSF) are often disproportionately affected by poverty and inequality, and that the impact is multidimensional in nature: low income; limited or disadvantaged access to markets; poor access to health, education and other social services; coupled with environmental, climate change and natural human-induced hazard impacts (CDB, 2016). Small-scale fishers in the Caribbean are exposed to various natural, social, health-related, political, and economic risks and vulnerabilities. Additionally, in the Caribbean, there is generally limited social protection coverage for the SSF sector, and many social assistance and insurance programmes are not adapted to the specificities of the fishing profession. Considering the prevalence of informal workers in the sector, fisherfolk are often not covered by labor laws. They may also face political, legal, financial, administrative and/or geographical barriers to accessing existing programmes. When social protection programmes exist, many small-scale fishers are not aware of their availability to them, and awareness-raising initiatives are needed.

This is accompanied by limited access to insurance. In the Caribbean only 3 percent of the fishing vessels are insured and less than 20 percent of the fishers have life and/or health insurance cover. Lack of insurance affects all those involved in fishing activities, as it may lead to many losses not being duly compensated when a fishing vessel owner does not have sufficient means to meet his liabilities. These losses may include fishing vessel loss or damage, loss of life or injury of crewmembers, damage to third-party property, as well as loss of

life or personal injury of third parties. When these losses are not duly compensated, it creates financial and social hardship for fishers and their families.[\[20\]](#)⁹

Barrier 4: Poor knowledge and awareness of measures to support climate and disaster resilient fisheries marine ecosystems and livelihoods.

Without adequate environmental awareness, people are unable to see the links between their day-to-day activities and impacts on the environment. Fishing communities, through the adoption of poor management and fishing practices, can negatively impact their direct environment. There might also be limited knowledge on the environmental value of maintained and healthy ecosystems and little understanding of how environmental degradation and unsustainable livelihoods practices will result in a decrease in individual household incomes, and contribute to vulnerability to climate change and disasters. For example, the ecological role of mangroves and coral reefs might be underestimated by local populations as they continue to be degraded through deforestation or unsustainable fishing practices, and further exacerbated by CC and disasters. Furthermore, while there are a range of projects that could be expanded to, or replicated in, other States, this does not happen, due to lack of systematization, funding and other resources. Communities which have benefitted from these projects could share knowledge with others, helping to expand the areas that these projects can reach, with lessons learnt incorporated along the way.

iv. Objective of the project and its justification

The above baseline and barriers will continue in the absence of an intervention. The project strategy is to tackle this challenge with outcomes that address the barriers; in other words the project aims to: (i) build climate and disaster resilient fisheries value chains; (ii) enhance ecosystem services for climate resilience; strengthen the enabling environment for mainstreaming climate change and disasters in the fisheries sector; (iv) raise awareness and generate knowledge to support (i) – (iii) with lessons offering the potential to scale up to other regional fisheries and beyond.

The objective of the project is to catalyze transformational systemic adaptation and resilience of fisheries, ecosystems, and communities in the Caribbean to climate change and disasters through an ecosystem-based approach[\[21\]](#)¹⁰. The project focuses on the regional level and activities at national level to support this. The regional focus is because the participating countries all face similar impacts of climate change and disasters to their fisheries sectors and marine ecosystems as they are all located in the Caribbean Sea region.

v. Likely future without intervention

Without GEF intervention, the future of Caribbean fisheries is likely to be characterized by:

- 1) Increase in number of fatalities and accidents among fishers and the coastal population.
- 2) Deterioration, damage and loss of fisheries habitats and infrastructure, reducing value chain effectiveness, and increasing costs of rebuilding after natural disasters.

3) Prolonged periods of fishers without income due to fish stocks movement and slow adaptation of fishing operations to new situation/ adoption of methods to catch 'new' species is slow/limited.

4) Reduction in food security of the Caribbean population due to lower catches and high costs of aquatic food imports. The trade balance of the Caribbean islands in terms of aquatic foods will further deteriorate.

vi. Selection of project in preference to other potential options

This project is built upon the lessons learned and key recommendations from the national vulnerability and capacity assessments carried out under the CC4FISH project and the CC4FISH Trust Fund Terminal Report, which highlighted several adaptation priorities and options for beneficiary countries which require replication and/or upscaling. Cross-cutting priorities that guided the selection of the proposed project include:

Ecological adaptation

- Protect critical coastal and marine biodiversity and ecosystems that support fisheries and other key economic sectors like tourism, including by improving monitoring and enforcement of regulations to manage and protect these resources from unsustainable and extractive uses.
- Build resilient ecosystems by improving the management and health of coral reef ecosystems, and other fisheries habitats by reducing the compounding pressures on the marine and coastal environment.

Livelihood adaptation

- Improve the fisheries value chain through value chain training (in handling, smoking, salting, drying, filleting, packaging, storage, marketing, exporting small scale fisheries products etc.).
- Establish climate- and disaster- smart market vending/processing plants including ice production and cold storage facilities as fishers highlighted that warmer temperatures may impact fish catch quality and decrease likelihood of sale.
- Enhancing access to adequate adaptive social protection tools and climate-resilient fisheries technologies and practices, and markets for fisheries value chain actors.
- Use of clean-energy/renewable energy technologies to save fuel, safety at sea and use of climate-smart and sustainable fishing practices and technologies.
- Carry out business skills training that incorporates small business operations including training in financial management and business plans. This training and other capacity building measure could be tied to government policies/management to encourage fisherfolk via economic incentives (e.g., tax breaks/one-off assistance grants) to strengthen access to financing for their small businesses.

Institutional adaptation

- Strengthening community and national level disaster prevention, preparedness and rehabilitation including building back better plans.
- Strengthen community engagement and involvement with key government agencies, in particular the Fisheries Divisions and local government responsible for upkeep and maintenance of public infrastructure.
- Improve public-private partnerships.
- Strengthen fisheries EAF including co-management. Using traditional ecological knowledge is key.
- Climate-proof infrastructure (rebuilding, upgrading, retrofitting) including improving fishing facilities for processing and storage, safe harbours, and landing sites to better withstand extreme weather events (e.g., hurricanes and storms) and ensure they are climate smart at the harvest and post-harvest level.
- The need to mainstream and incorporate EAF, climate change adaptation (CCA), disaster risk reduction (DRR) and disaster risk management (DRM) into fisheries plans, policies and legislation.
- The need to support the inclusion of the fisheries and aquaculture sector in national development plans, climate change plans, policies and legislation (including Nationally Determined Contributions).

Risk reduction and management for resilience

- Improve access to fisheries insurance schemes (e.g., third party vessel insurance for fisherfolk and parametric/index based insurance) including adequate information on criteria required for insurance schemes (e.g., income statements, proof of address), benefits and transfer of risk principles that insurance schemes provide to cover costs of damage and loss of boats, gear and other equipment. Incentives could also be explored to have the fishers registered with the National Insurance Scheme as self-employed so that they have social protection in the event of on-the-job injuries and post-retirement benefits.
- Improve access to ICTs for effective Early Warnings and climate information systems related to extreme weather and changes in ocean conditions (e.g., FEWER fisheries app, marine band DSC VHF radios etc.).
- Carry out further training on safety at sea for fishers.
- Training community members in fisheries and aquaculture disaster preparedness and building back better plans.
- Supporting Disaster Risk Management through articulation among Early Warning Systems, Anticipatory Action, social protection and fisheries management to strengthen prevention, mitigation, preparedness, relief and rehabilitation of the fisheries sector at the local, national and regional level.

The proposed CC4FISH-II project will contribute to addressing the previously mentioned priorities amongst the beneficiary countries as well as expand/replicate/scale-up successes of the CC4FISH project with the project's beneficiary countries seeking incremental benefits.

vii. Endurance of project outcomes

The potential for enduring outcomes will be achieved through agreement on, and endorsement and adoption of mechanisms, measures, policies and plans participating countries and their incorporation in their national fisheries and climate and disaster regulations, supported by targeted capacity built for the countries to implement these interventions at the national level.

viii. Stakeholders and their roles

The key stakeholders include the national fisheries, climate and disaster management agencies in the project countries that have responsibility for fisheries, climate change adaptation and mitigation and disaster risk reduction/management in their countries, and some of which are parties to wider regional and international fisheries, climate change, disasters and relevant agreements (e.g., memberships of regional fisheries organizations (CRFM) and regional climate and disaster agencies (CDEMA) and parties to binding and non-binding agreements (e.g., UNCLOS, Sendai Framework for Disaster Risk Reduction). In addition, these agencies, along with researchers at national institutes conducting fisheries, climate change and disaster research, are often a key employment source for women in the fisheries sector. Equally critical stakeholders are the small-scale fishers and other fisheries value chain actor (along with their associated fishing communities) that make up the bulk of the fisheries areas in the project countries and would be most directly affected by any new national or regional level fisheries related climate and disaster measures. The project will develop strong partnerships with the private sector through partnerships with the main companies involved. The project will also involve a wider group of international strategic partners such as WorldFish, NOAA, UNDP and UNEP and the development agencies and international organizations operating in the Caribbean Sea region with fisheries, marine conservation, climate and disaster programmes and projects.

As a product of the project's implementation process the project's adaptation interventions and investments are intended to produce climate change adaptation benefits which include exposure benefits (e.g., building climate and disaster resilient infrastructure), sensitivity benefits (e.g., alternative livelihoods, and ecosystem management practices) and adaptive capacity benefits (e.g., through capacity building, training, awareness raising and financing) as well as other prerequisite social co-benefits (e.g. livelihood improvement) and incidental co-benefits - which are other environmental benefits, outside of GEF's mandate, local or global, all of which stakeholders will benefit from.

ix. Fit within the current landscape of investments, country profiles and lessons learned from previous projects

The Climate Change Adaptation in the Eastern Caribbean Fisheries Sector project (CC4FISH) (FAO; SCCF grant: \$5.46 million) supported resilience of the fisheries sector in the Eastern Caribbean region (Antigua and Barbuda, Dominica, Grenada, St. Kitts and Nevis, St. Lucia, St. Vincent and Grenadines and Trinidad and Tobago). Countries explored models that describe fisheries availability and accessibility as a result of

climate change impacts; strengthened the information and communications technology of 1400 fisherfolk to extreme weather events, enhanced fisherfolk livelihoods through capacity building activities the harvest and post-harvest level; engaged in South-South exchange programs on fisheries co-management and adaptation technology. The project rehabilitated existing aquaculture centers and established new ones, while strengthening the capacity of aqua-culturalists on climate change adaptation measures and adaptive technologies. It also supported the mainstreaming of climate change adaptation considerations in multilevel fisheries governance, while enhancing the capacities of eight institutions on adaptation. CC4FISH was able to generate many positive results and impacts in terms of raising awareness of climate vulnerabilities and building capacity and momentum towards improved planning for adaptation in the sector. The next step will be to support transformation and scale-up to implementation, and this requires an integrated ecosystem-based approach.

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[14] Oxenford, H. and I. Monnereau. 2018. Chapter 9: Climate change impacts, vulnerabilities and adaptations: Western Central Atlantic marine fisheries.

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B. PROJECT DESCRIPTION

Project description

This section asks for a theory of change as part of a joined-up description of the project as a whole. The project description is expected to cover the key elements of good project design in an integrated way. It is also expected to meet the GEF’s policy requirements on gender, stakeholders, private sector, and knowledge management and learning (see section D). This section should be a narrative that reads like a joined-up story and not independent elements that answer the guiding questions contained in the PIF guidance document. (Approximately 3-5 pages) see guidance here

i. Project intervention logic and Theory of Change

Building on key recommendations of the CC4FISH project and from the national vulnerability and capacity assessments carried out under the CC4FISH project and the CC4FISH Trust Fund Terminal Report, the overall CC4FISH-II project objective is “to catalyze systemic adaptation and resilience of fisherfolk, ecosystems and fishing communities in the Caribbean to climate change and disasters through a community and ecosystem-based approach”.

The project's Theory of Change rests on overcoming the key barriers (identified above) that prevent long-term solutions and achieving the intended global environmental benefits. It provides an integrated approach to address the impacts of climate change, disasters and biodiversity loss, by building on the ongoing adaptation options and addressing the existing key barriers that are preventing fishery and aquaculture dependent communities and their sector institutions from taking adequate action to reduce vulnerability to the impacts of climate change, increase their resilience and conserve biodiversity.

The Theory of Change of the project implies that, if sector institutions (including government and other agencies) in the project countries coordinate and collaborate on the design and implementation of climate change adaptation and biodiversity conservation related policies and actions, and if there is a strong capacity development program on ecosystem approaches (for fisheries, and for climate change adaptation and disaster risk management), the capacity of sector stakeholders will be strengthened.

It is also anticipated that, if women and men in fishing-dependent communities integrate climate change adaptation, disaster risk reduction and biodiversity conservation considerations into their technologies and practices, they will increase their resilience against CC and disasters, thereby contributing to the conservation of biodiversity and national food security.

Furthermore, if climate information and monitoring systems (i.e., Early Warning Systems (ESW)) are established, the capacity of project countries at the institutional and local levels will be enhanced for climate change adaptation.

For this to be achieved it is necessary to strengthen the understanding of climate risks and vulnerabilities, mainstream adaptation into fisheries sectors and enhance stakeholder capacity on climate change adaptation (CCA) and disaster risk management (DRM). This will also require the design and implementation of climate resilient strategies for fisheries communities, strengthen their adaptation capacity, capacity to prepare and respond to emergencies and develop and transfer innovative adaptation technologies and practices. It will also be necessary to develop a climate risk information system such as EWS, as well as the development of communication strategy and monitoring systems, and a stakeholder engagement and mainstreaming strategy.

The achievement of the project outcomes and progress towards the project objective depends on several assumptions being met, operating over different scales and at different points along the causal chains. Assumptions that directly relate to achievement of the project's outcomes are the following:

- Assumption 1: Government institutions, community hubs, fisherfolk and private sector institutions are willing to engage in climate-proofing and disaster risk management activities and practices to increase the resilience of the fishing sector.
- Assumption 2: Community fisheries and fisherfolk grasp the opportunities offered by CC-resilient practices and technologies, and are willing to invest the required time and energy to strengthen their capacities to make their livelihoods more resilient.
- Assumption 3: Private sector actors including financial institutions, insurers and private companies are willing to support and invest in sustainable, resilient fisheries value chains.
- Assumption 4: The demand for ecosystem-based sustainable fisheries value chains products remains stable or on the rise and enables to provide secured, long-term sources of income for local communities, investors and buyer companies.
- Assumption 5: National government institutions involved in natural resources management continue to increase inter-sectoral collaboration to protect and sustainably manage marine and coastal ecosystems, including also through regional fisheries commissions such as WECAFC and CRFM.

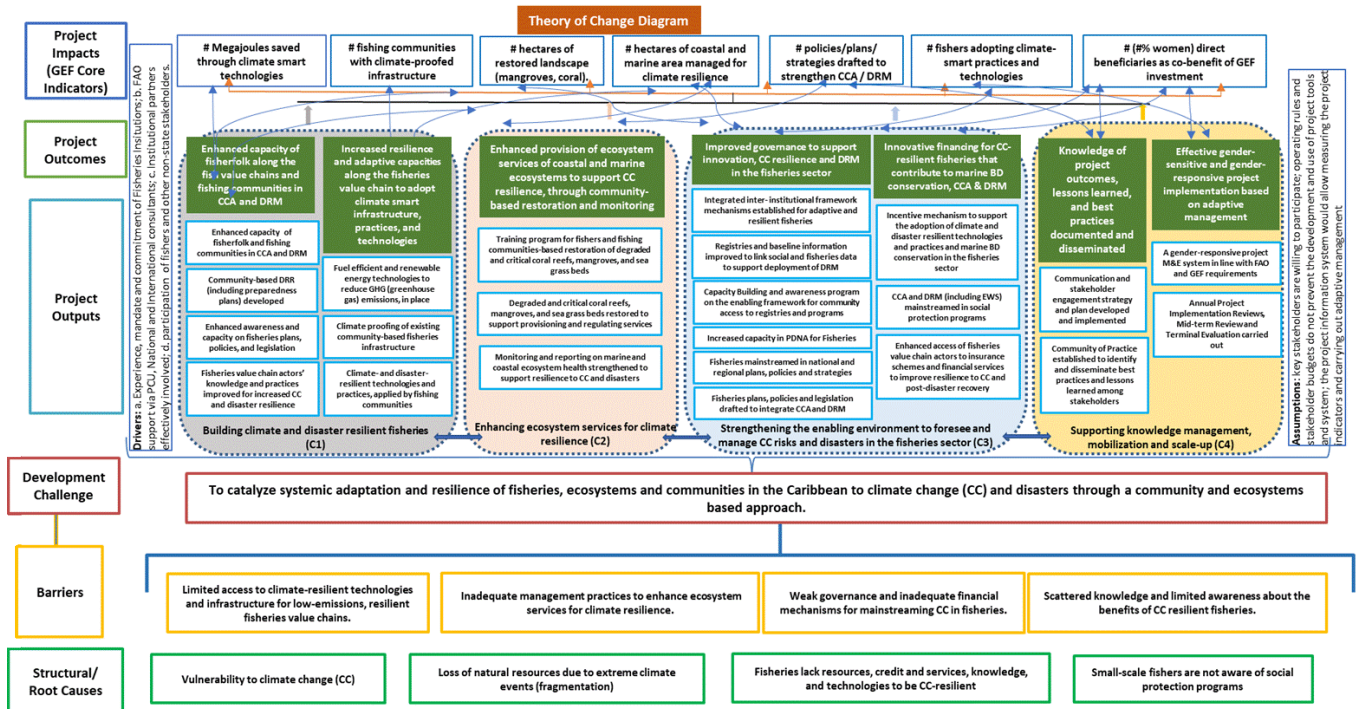
- Assumption 6: Marine and coastal ecosystems are able to adapt to changing climate conditions (e.g., increased temperature and salinity, droughts, floods, winds, and SLR).
- Assumption 7: Marine and coastal ecosystems can recover their health and increase their resilience through improved management practices/technologies, and provide ecosystem services required for stable CC-resilient fisheries and habitat for globally significant biodiversity.
- Assumption 8: The project's interventions will generate multiple environmental and socio-economic benefits for the ecosystems and communities, such as increased ecosystem services, enhanced resilience in CCA and DRM, decreased GHG emissions, and improved livelihoods.
- Assumption 9: The project's interventions will be informed by scientific data and knowledge, as well as by best practices and lessons learned from previous or similar projects in the region or globally.
- Assumption 10: The project's interventions will be aligned with national policies and priorities, as well as with international commitments and frameworks, such as the Convention on Biological Diversity (CBD), the United Nations Framework Convention on Climate Change (UNFCCC), the Paris Agreement, and the Sustainable Development Goals (SDGs).
- Assumption 11: The project's interventions will be innovative and transformative, creating new opportunities and practices that can be scaled up or replicated in other Caribbean SIDS or elsewhere.

Based on these assumptions, the theory of change can be summarized as follows:

- If the project enhances the capacity of fisherfolk and fishing communities in CC Adaptation (CCA) and Disaster Risk Management (DRM), then it will decrease their vulnerability and increase their resilience and preparedness and response in CCA and DRM.
- If the project applies and demonstrates replicable practices of restoration and enhancing the resilience of marine/coastal ecosystems (Component 2), then it will improve ecosystem services and improve sustainable livelihoods for local fisher communities.
- If the project enhances the governance framework at the local, national, and regional levels with regards to policies and capacities for CC resilience in fisheries (Component 3), then it will create an enabling environment that contributes to sustainable fisheries, ecosystem integrity and resilience.
- If the project develops and strengthens innovative financial mechanisms, market access, insurance, and social protection (Component 3), then it will improve access to resources for CC-resilient fisheries, contribute to livelihoods sustainability and value chains, and ultimately enhance the sustainability of project interventions.
- If the project manages knowledge effectively (Component 4), then it will increase awareness and understanding of the benefits of CC Adaptation, DRM and resilience technologies and practices, build capacity of stakeholders, disseminate best practices and lessons learned, and support innovation and learning across the region.
- If these four components are implemented successfully, then they will lead to the project objective: to catalyze transformational systemic adaptation and resilience of fisheries, marine and coastal ecosystems, and communities in the Caribbean to climate change and disasters through an ecosystem-based approach.
- If the project objective is achieved, then it will generate adaptation benefits that would not have accrued without the SCCF project (additionality), such as managing coastal and marine areas for climate resilience (1,810,370 ha), and directly benefiting approximately 4,365 people (of which 29% women).

This Theory of Change will be revisited regularly, along with the assumptions, as part of the project's adaptive management.

The project has 4 components as presented in the Indicative Project Overview table above, and described in greater detail below.



The project is comprised of four components, as follows.

Component 1: Building climate and disaster resilient fisheries. This Component seeks to increase the resilience of fisherfolk and communities along the fisheries value chains to climate stressors and shocks caused by disasters. This Component addresses Barrier 1 through the following Outcomes and Outputs.

Outcome 1.1: Enhanced capacity of fisherfolk along the fish value chains and fishing communities in CC Adaptation (CCA) and Disaster Risk Management (DRM).

- Output 1.1.1: Enhanced capacity of fisherfolk and fishing communities in CCA and DRM (incl Early Warning Systems (EWS)). The project will work with fisherfolk and fishing communities to enhance their capacity in CCA and DRM. This includes increased capacity in Information and Communication Technologies (ICT) and greater access to climate information for EWS. It will promote a greater understanding of anticipatory action/disaster risk reduction measures to withstand shocks, prepare for and recover after climate related disasters. The project will support the mainstreaming of gender dimensions in the capacity building program.
- Output 1.1.2: Community-based DRR measures (including preparedness plans) developed. The project would adapt/apply Post-Disaster Needs Assessment tool and country or local-level risk profiles to ex-ante quantify post-shock needs under different scenarios. The project will identify/design specific anticipatory actions (including for example articulation with EWS as well as gender dimensions) to address needs/gaps; and develop and implement country specific building back better plans that incorporate multi-hazard early warning systems (MHEWS). The development or updating of preparedness plans will help fishing communities reach a state of readiness and capability of human and material means, and ensure an effective and rapid response to disasters.
- Output 1.1.3: Enhanced awareness and capacity on fisheries plans, policies, and legislation (CCA, DRM and Sargassum). The project will support gender-responsive efforts to increase fisherfolk's awareness and capacity related to the development and implementation of fisheries plans, policies and legislation. For example, the project will build upon the Sargassum Management Plans and bulletins developed during the CC4Fish project and strengthen the capacity within fishing communities to implement the strategies defined in those plans.
- Output 1.1.4: Fisheries value chain actors' [\[22\]](#)¹¹ knowledge and practices improved for increased CC and disaster resilience. For example, Grenada and Trinidad & Tobago stress the importance of providing safety-at-sea (SAS) training and safety gear to relevant actors; while Dominica is interested in strengthening the understanding and use of ICT-based fisheries applications to track extreme weather events.

Outcome 1.2: Increased resilience and adaptive capacities along the fisheries value chain to adopt climate smart infrastructure, practices, and technologies.

- Output 1.2.1: - Climate smart (safer & better) fishing vessels in place.

The project will build capacity and install climate and disaster smart market vending/processing and storage plants and fish landing sites (such as slipways, shelters, and vessel-hauling equipment); the piloting of solar powered electronic monitoring systems for data collection and traceability; fisheries applications; and in

processing, distribution, marketing, and sales, such as improving the physical stands in a market, e.g., the use of ice and cold storage

Fuel efficient and renewable energy technologies to reduce expenditure on fuel by fishers and increase their resilience, in place. In the context of this project, fuel efficiency is a co-benefit, while the saved incomes of fisherfolks due to the use of improved technologies and vessels will be the adaptation benefit – financed by SCCF.

Relation between climate change impacts and fuel efficiency in the Caribbean:

In the Caribbean, around 50 per cent of total fishing expenditure is on fuel. Due to the increase in sea surface temperatures, target fish species in the tropics are expected to move to colder waters further offshore^[24]. Fishers also are travelling further to offshore fishing grounds to reduce pressure on overexploited reef resources and, thus, spend even more on fuel. The use of fishing gear, boat designs and engines that are more fuel efficient may significantly reduce fuel expenditure and thus improve incomes. This is important as due to climate change some fisheries are expected to see a reduction in catches. The project will promote opportunities for the adoption of renewable energy technologies (RETs) such as solar and wind options for vessels. Fishing trip planning and adjustments, using ocean current, water temperature and wave height information from satellite /earth observations can save substantial energy consumption and increase safety at sea. An inventory of fishing vessels by type will be made during the PPG. This SCCF project will also facilitate technology transfer and rapid introduction of the fishing vessel innovations that have been tested elsewhere in the Caribbean small-scale fishing fleets. The project would contribute to substantially lowering the dependence on imported fuel and increasing the incomes of fisheries communities. As a project co-benefit, the carbon footprint of the Caribbean fishing fleet will be reduced through a smarter and safer vessel designs and propulsion systems.

- Output 1.2.2: Climate proofing of existing community-based fish infrastructure (fish landing sites, processing, and market facilities). The project will work with fishing communities to climate-proof existing fish landing sites and fish buying stations to withstand and reduce damage and loss from extreme weather events, and will also reduce costs in the future. The project would 1) make an inventory of fisheries infrastructure, 2) collect architectural drawings, bills of quantity and other information of earlier built infrastructure, 3) identify feasibility of options for climate proofing and extending the life cycle of existing infrastructure, and 4) contribute to upgrading/climate proofing of selected essential fisheries infrastructures based on international standards and best practice, including the use of RETs, which will deliver mitigation co-benefits in adapted infrastructures. This approach would be in line also with the FAO-World Bank Fisheries Infrastructure Investment hub (FII-hub) which is under development at the global level. The project will build capacity and install climate and disaster smart market vending/processing and storage plants and fish landing sites (such as slipways, shelters, and vessel-hauling equipment); the piloting of solar powered electronic monitoring systems for data collection and traceability; fisheries applications; and in processing, distribution, marketing, and sales, such as improving the physical stands in a market, e.g., the use of ice and cold storage, etc. These actions will generate tangible improvements in infrastructure, increasing the resilience of the entire fishing community, especially in the face of frequent and intense hurricanes.

- Output 1.2.3: Climate- and disaster-resilient technologies and practices, applied by fishing communities. Fisheries value chain actors will obtain enhanced access and availability to climate-resilient fisheries technologies and practices. This will involve designing and implementing agreements for harvesting outside of traditional fishing grounds. The project will also promote the use by fisherfolk of modifications to traditional nets and hooks, to adapt to climate change. Due to the experienced and foreseen impacts of climate change, fish catches are expected to decrease, target species will need to change, and fuel consumption will increase as small-scale fishers will have to travel further offshore to

catch the target fish species. Access to sustainable and technologically advanced fishing gear will allow the catch of more abundant fish species while ensuring selectivity. In addition, deploying climate-smart fish aggregating devices (FADS) will reduce fuel expenditure of fishers, while improving pelagic fish catches and reducing pressure on reefs - mostly affected by climate change.

Component 2: Enhancing ecosystem services for climate resilience. This Component specifically addresses barrier 2 above through the following Outcome and Outputs.

Outcome 2.1: Enhanced provision of coastal and marine ecosystem services to support CC resilience, through community-based restoration and monitoring. The project will focus on capacity building of fishing communities to engage in restoration activities to enhance spawning/reproduction capacity of fisheries, as well as integrate having their own community-based monitoring of the health of these ecosystems as part of their assessment of their vulnerability. Ultimately, it will enhance their awareness of the link between their actions and their vulnerability to CC.

- Output 2.1.1: Training program for fishers and fishing communities-based restoration of degraded and critical coral reefs, mangroves, and sea grass beds. Under this output, the project will work with fishers and fishing communities to develop the capacity and skills necessary to restore degraded ecosystems that are vital to their livelihoods and climate resilience. The project will support the mainstreaming of gender dimensions in the training program.
- Output 2.1.2: Degraded and critical coral reefs, mangroves, and sea grass beds restored to support provisioning and regulating services. The project will support the restoration of degraded and critical coral reefs, mangroves, sea grass beds that provide essential ecosystem services such as provisioning (e.g., breeding and nursery habitats for fish species) and regulating services (e.g., protection from storms and floods, erosion control). This will be inclusive of in-country in-situ restoration efforts such that existing ecosystem/biodiversity restoration/conservation initiatives will be mapped to identify potential sites for bolstering baseline efforts. While these sites might result in a relatively small area, the benefits are three-fold:
 - o # hectares restored;
 - o increased awareness of the link of actions and vulnerability, which is key to CCA;
 - o community-based rehabilitation and management in these areas will strengthen co-management, self-organization and monitoring capacities.

Dominica, Grenada and Trinidad & Tobago are interested in supporting/strengthening baseline coral and mangrove restoration/rehabilitation efforts in restoration. This would include activities such as the establishment of coral nurseries for out-planting restoration activities, as well as the identification and management of critical fish habitats to improve resilience and ensure sustainability. Potential partners for coral reef restoration include Clear Caribbean, Institute of Marina in Trinidad & Tobago for mangrove restoration, as well as IMA regarding scientific work in coral, mangrove and sea grass restoration. The scope, costs and benefits will be confirmed during the PPG.

- Output 2.1.3: Monitoring and reporting on marine and coastal ecosystem health strengthened to support resilience to CC and disasters. Fishers/community members will be trained in gender-responsive community-based monitoring and reporting techniques on marine coastal ecosystem health to support resilience to CC and disasters, including the use of ICTs and digitalization in monitoring.

Component 3: Strengthening the enabling environment to foresee and manage climate risks and disasters in the fisheries sector. Component 3 addresses barrier 3 through the following Outcomes and Outputs.

Outcome 3.1: Improved governance to support innovation, CC resilience and DRM in the fisheries sector. In order to effectively catalyze adaptation and resilience of fisheries in the Caribbean to climate change and disasters, and wider global environmental benefits at the regional level, the enabling environment needs to be strengthened. This Outcome will support the strengthening of regional and national policies to support the adoption of climate and disaster resilient technologies and practices in the fisheries sector.

- Output 3.1.1: Integrated inter-institutional framework mechanisms established at regional and national levels for adaptive and resilient fisheries. The project will work with partner institutions to establish integrated inter-institutional working groups^[25]¹² for adaptive social protection and resilient fisheries to address gaps in social protection programs and its linkages with EWS and Anticipatory Action. This will foster regional level working groups, institutional capacity building and regional forum for exchange. During the PPG, the project will consider organizations such as WECAFC to host these working groups at the regional level, involving CRFM and OSPESCA, under the 2016 CLME+ MoU on the interim coordination mechanism for sustainable fisheries^[26]¹³.

National working groups will also be supported for more directed action. The project will develop and test a roadmap for integration, bringing together adaptive/shock responsive social protection, gender, fisheries management, and biodiversity conservation. To do this, it will identify and assess gaps/priorities of existing coordination mechanisms and interoperability between fisheries, social protection and DRM to address existing risks and vulnerabilities. For example, IMA has provided support to Trinidad & Tobago for the development of Sargassum management plans and could provide valuable guidance in the implementation of these plans in other project countries. The project will also perform an assessment of the administrative capacity for integrated delivery at national level (outlining what is needed for staffing, skills, financial resources, and contingency staffing arrangements e.g., for scaled-up services in post-shock contexts). This will be guided by the Gender Analysis and Action Plan in Output 4.2.2 (below).

- Output 3.1.2: Registries and baseline information improved to link social and fisheries data to support deployment of DRM, including Post-Disaster Needs Assessments (PDNA). It is envisioned that inter-institutional working groups will be formed with ministries of social work and development to facilitate interoperability of different registries for fisheries and social protection programs. Interoperability will permit the sharing of data generated from post-disaster needs assessment to be used to update social registries. This requires agreements at the national level to ensure data sharing between systems. Existing registries will be developed or adapted towards integrated registries (fisheries/social/disaster) to better inform anticipatory actions and EWS prior, during and after a shock hits; adaptive and anticipatory social protection (SP) tools will be designed and tested as well as the development and action plan and financial model for the project countries to expand coverage and increase adequacy of social protection programs to enhance the resilience of fishery-dependent communities to covariate shocks. Furthermore, this output would support the transition toward formalization of fisheries through their inclusion in existing programs/registries. During the PPG, a feasibility analysis will be conducted to articulate social protection with EWS to deploy anticipatory action to climate change and other shocks targeting vulnerable populations to secure food security in the participating countries.
- Output 3.1.3 Capacity building and awareness program on the enabling framework for community access to registries and programs. The project will develop a gender-responsive capacity building and awareness program to assist fishers with the enrollment process of different fisheries registries and

social protection programs (i.e. pension funds, school meal programs, maternity support, social/national insurance program, and others) and thereby promote expanded coverage to the fishing sector. The expanded enrollment/registration will facilitate improving the registries in Output 3.1.2.

- Output 3.1.4: Increased capacity at the regional and national level in PDNA for Fisheries. The project will develop a gender-responsive capacity building program regional and national authorities to implement comprehensive PDNA for the fisheries sector.
- Output 3.1.5: Fisheries mainstreamed in national and regional CC, NDC, CCA and DRM plans, policies and strategies. The project will mainstream the fisheries sector in nationally determined contributions (NDCs) and national climate change and disaster strategies including capacity of national entities for capturing fisheries data in MRVs.
- Output 3.1.6: Fisheries plans, policies and legislation drafted at the national and regional level to integrate CCA and DRM. The project will support the drafting of fisheries plans, policies and legislation at the national and regional level to integrate CCA and DRM considerations. This includes developing or updating national preparedness plans. Based on the recent experience with Grenada, there is now a template and an outlined process. Furthermore, as most Caribbean SIDS are IMO members and have ratified the MARPOL convention, it is anticipated that the countries have already or will ratify in the near future Annex VI of MARPOL related to the prevention and control of marine pollution from ships (including also fishing vessels). The GEF project will facilitate the ratification process and policy/legal amendments. FAO will also seek IMO technical assistance for national policy processes.

Outcome 3.2: Innovative financing for climate-resilient fisheries that contribute to marine biodiversity conservation, CCA and DRM. This Outcome will facilitate access of fisheries value chain actors to financial mechanisms and services (credit, savings, insurance) in support of introduction and dissemination of fishing gear, vessels, and processing technologies. It will identify both public and private enterprises interested in engaging in and supporting the adoption of climate and disaster resilient technologies and practices in the fisheries sector.

- Output 3.2.1: Incentive mechanism designed and adopted to support the adoption of climate and disaster resilient technologies and practices and marine biodiversity conservation in the fisheries sector. Activities under this component will design and adopt incentive mechanisms to support the adoption of climate and disaster resilient technologies and practices, including use of RETs, building on national rebate schemes and other national fisheries incentive programs. These incentive mechanisms will be designed with gender sensitive considerations to facilitate increased access by both men and women.
- Output 3.2.2: CCA and DRM (including EWS) mainstreamed in social protection programs. The project will support governments' efforts to re-design existing assistance programs and subsidies aimed at the fisheries sector in order to address CCA, EWS, DRM. The project will work with project partners to design a mechanism that mainstreams CCA and DRM in assistance programs aimed at fisherfolk in order to expand these programs in a gender-sensitive manner to include the acquisition and maintenance of climate-smart technology, infrastructure and capacity established in Component 1. For example, Grenada, St. Kitts & Nevis and Trinidad & Tobago have all expressed pointed interest in establishing a funding mechanism that supports fisherfolk to acquire 4 stroke engines and training of relevant persons in the use, maintenance and repair of those 4 stroke engines.
- Output 3.2.3: Enhanced access of fisheries value chain actors to insurance schemes and financial services to improve resilience to CC and post-disaster recovery. The project will promote access to insurance and financial services (vessel insurance, parametric/ weather index insurance, forecast insurance, life/accident insurance, micro-credit). It will build on current efforts to pilot the Caribbean Ocean and Aquaculture Sustainability Facility (COAST) (pilots in Grenada and St. Lucia) under the

Caribbean Catastrophe Risk Insurance Facility[27]¹⁴. During the PPG, an analysis will be done on the acceptance of COAST, lessons learned from the pilot, potential opportunities to include gender dimensions, and its viability as an option for this project.

Component 4: Supporting knowledge management, mobilization and scale-up. This Component addresses the need for knowledge generation and target awareness raising of key audiences (including capturing and disseminating lessons and best practice from project experiences), addressing barrier 4 through the following Outcomes and Outputs.

Outcome 4.1: Knowledge of project outcomes, lessons learned, and best practices have been documented and disseminated.

- Output 4.1.1: Communication and stakeholder engagement strategy and plan developed and implemented. Although activities under this Component apply across the whole project, it is considered most relevant to addressing barriers 1 and 4 and focuses on improving knowledge base and awareness of fishers, fisheries personnel and other fisheries value chain actors through the development and implementation of a gender-sensitive Communication and stakeholder engagement strategy and plan.
- Output 4.1.2: Community of Practice established to identify and disseminate best practices and lessons learned among stakeholders. The resilience of fisheries value chain actors will be improved through the use and exchange of lessons learned and best practices with ecosystem-based solutions. Where relevant, areas that will be explored are sustainable resource use, integrated coastal zone management (ICZM) and restoration including a cost-benefit analysis for how ecosystem-based solutions and different social protection elements can contribute to development and help lessen the post-shock needs, as well as opportunities for mainstreaming gender dimensions. This will include the development and implementation of a roadmap and materials for scaling of successful project solutions.

Outcome 4.2: Effective gender-sensitive and gender-responsive project implementation based on adaptive management. This outcome is comprised of effective gender-responsive project Monitoring and Evaluation (M&E) to ensure the project outcomes and outputs can be delivered effectively.

- Output 4.2.1: A gender-responsive project Monitoring and Evaluation (M&E) system in line with FAO and GEF requirements. A gender-responsive project Monitoring and Evaluation (M&E) system using data disaggregated by sex, age and ethnicity designed and operational, as well as mainstreaming gender-sensitive approaches in all project activities and in line with FAO and GEF requirements. As part of this, a gender analysis and action plan will be developed during the PPG and implemented during the project. Based on this gender analysis, the project will support the mainstreaming of gender considerations within existing social protection/fisheries programs and proposed activities.
- Output 4.2.2: Annual Project Implementation Review, Mid-term Review and Terminal Evaluation carried out.

ii. Areas to be targeted by the project

The project will work with fishing communities in five Caribbean countries: Dominica, Grenada, St. Kitts & Nevis, St. Vincent & the Grenadines, and Trinidad & Tobago.

iii. Global environmental benefits and adaptation benefits which would not have accrued without the GEF project (additionality)

The GEF investment would support the establishment of Community hubs established/updated for improved post-harvest fisheries technologies, practices, and business operations within the participating countries. The project would also generate additional GEBs through the adoption of more climate and disaster resilient technologies and responsible fisheries practices indirectly benefiting the GEF Biodiversity Focal Area. These include the introduction of solar powered fisheries infrastructure utilizing light emitting diode (LED) technology and rainwater harvesting which contributes to mitigating greenhouse gas emissions (Core Indicator 6). The project's efforts to coordinate and improve sustainable harvest of target species in the Caribbean Sea will also help support, conserve, and restore key species, critical habitats and the ecological integrity of the region's marine ecosystems and marine protected areas many of which suffer from over- and illegal fishing.

Without the GEF investment, there would continue to be weak adoption of climate and disaster resilient technologies and practices due to a weak/limited enabling environment. It should also be noted that whilst conservation and sustainable development of marine and coastal environments have received GEF financing in recent years, a key component of the Caribbean Sea marine environment – fisheries – has had relatively little previous investment under the GEF Climate Change Focal Area. The Project activities will also support working towards the recently agreed CBD Kunming-Montreal Global Biodiversity Framework, particularly to achieving Target 8 (through Component 2), 9 (through Components 2 and 3), 10 (through Components 1, 2 and 2), 20 (through Components 1 and 3), 11 (through Component 2) and 20 (through Components 1 and 4).

iv. Relevant stakeholders and their respective contributions, roles, and benefits

The CC4FISH-II project includes five countries in the Eastern Caribbean region –Dominica, Grenada, St. Kitts and Nevis, St. Vincent and the Grenadines, and Trinidad and Tobago - and will draw together a large and diverse group of stakeholders who play important roles in fisheries, marine ecosystem management, climate change and disaster risk management in the Caribbean Sea region, including fisheries management and regulatory authorities; environmental, climate change and disaster management authorities, fisherfolk organizations, fisherfolk communities, academic and private sector groups directly and indirectly involved in national and regional fisheries, climate change and disasters, including those involved along target fisheries value chains.

The Project will involve the ministries responsible for fisheries, environment, climate change and disaster affairs, and planning authorities in the target countries and a number of regional and international partner organizations (CRFM, TNC, UWI, and others). These government agencies and institutions will be represented on the Project Steering Committee (PSC) and where appropriate will be assigned to lead specific components/activities of the project. In addition, the Project Coordination Unit will organize quarterly PSC virtual meetings to share lessons learned, exchanges to learn of best practices. The project Annual work plans and budget (AWP/B) will be presented and agreed at the annual Project Steering Committee meetings. Country-specific work plans will be derived from these.

Regional and local NGOs (e.g., GCFI, CANARI, CNFO), CBOs and fisherfolk organizations/ associations/ cooperatives will also be involved. International partners will include various academic institutions and The National Oceanic and Atmospheric Administration (NOAA) and the World Resources Institute (WRI) who bring leading specialist expertise in climate models and economic valuations of ecosystem services, and who have existing collaborations with the regional partners. While national governmental institutions in the 5 participating countries are expected to benefit directly from capacity building activities and will be strengthened with dedicated staff support for addressing climate change adaptation and disaster interventions at national level, the regional institutions listed above will be involved as implementation partners of various components and sub-components where relevant.

So far, the PIF preparatory work has made only a preliminary assessment of the roles and potential engagement of a rather large range of stakeholder groups. The following stakeholder groups will have key roles in the preparation of the proposed project, and will likely be participating in other phases of the project cycle as well:

- National governments of the 5 participating countries (Ministries of Agriculture and Environment are expected to play leading roles; coastal zone management and fisheries units will be directly working on project development and implementation; participation of other government entities is also foreseen);
- Regional fisheries, disaster management and climate change organizations (CRFM, WECAFC, CCCCC, CDEMA, etc.);
- International Organizations (while FAO will be the lead implementing agency collaboration will be sought with IMO, UNDP, World Bank and IDB);
- Civil society Organizations (CANARI, CNFO and national level and primary fisherfolk organizations, as well as national level environment NGOs);
- Private sector (fisherfolk, fish processors, recreational fisheries companies, telecom, tourism and other fisheries value chain actors, etc.); and
- Academia and research (UWI-CERMES, UWI-FFA) as well as national level vocational schools and institutes in the participating countries.

Collaboration will not only be desirable but necessary, and linkages with many stakeholders have already been established. The table below presents the various institutions involved in the five project countries, and their expected role during project preparation and implementation. The latter will be elaborated further during the project development phase.

Table: Stakeholders in the five project countries

Stakeholders	Interests/Roles/Responsibilities in the project
Government	
National fisheries authorities	National Fisheries Authority and Cofinanciers. They are executing partners of the project and support and coordinate the execution of the project objective, outcomes and activities. They will lead the development of policies and plans under the project in the

<p>1. Fisheries Division of the Ministry of Agriculture and Fisheries, Dominica</p> <p>2. Fisheries Division of the Ministry of Agriculture, Lands, Forestry, Fisheries and the Environment, Grenada</p> <p>3. Department of Marine Resources of the Ministry of Agriculture, Marine Resources and Cooperatives, St Kitts and Nevis</p> <p>4. Fisheries Division of the Ministry of Agriculture, Rural Transformation, Forestry, Fisheries and Industry, St Vincent and the Grenadines</p> <p>5. Fisheries Division of Ministry of Land and Marine Resources, Trinidad and Tobago</p>	<p>five project countries. They are also key partners in information management and education.</p>
<p>National Departments of Emergency Management, or Office of Disaster Preparedness or Management (variation in nomenclature)</p>	<p>Key government institutions with Disaster Risk Management and Climate Change Adaptation capabilities. They also coordinate preparedness, response and recovery operations in case of disasters. Can assist in developing early warning systems; disaster risk protocols, drills, and training, as well as incorporating DRM into national fisheries policies, plans and legislation.</p>
<p>Ministries of Environment (unless already included under Ministries mentioned above)</p>	<p>Agency in charge of planning, promotion, co-ordination and overseeing the implementation of environmental policies and programmes (including integration of fisheries sector; Marine Protected Areas development and implementation). Can assist in incorporating EAF, CCA and DRM in fisheries policies and integrating climate change in environmental policies.</p>
<p>Defense Force/Coast Guards</p>	<p>The Coast Guard's role is search and rescue. Can support safety-at-sea training and implementation; support and involvement in early warning systems and disaster risk training.</p>
<p>Local government and village councils</p>	<p>Local Governments can help support</p> <p>collecting data for and carrying out vulnerability assessments and awareness building; provide local training in business skills; safety-at-sea; alternative livelihoods; and public outreach and awareness programs.</p>
<p>Academia/Research institutes</p>	
<p>University of the West Indies - CERMES</p>	<p>The Centre for Resource Management and Environmental Studies (CERMES) promotes and facilitates sustainable development in the Caribbean and beyond. This regional project partner and will provide research and technical support: vulnerability and impact assessments; Facilitating exchanges by fisherfolk to countries/communities regarding EAF, CCA and DRM/co-management; integrate EAF, DRM and CCA into policies and support mainstreaming these topics into fisheries management; and public awareness and outreach Project partner.</p>
<p>University of the West Indies - CIRP</p>	<p>The Department of Electrical and Computer Engineering, Saint Augustine, Trinidad & Tobago has developed the mFisheries mobile application. This is a suite of mobile applications developed for persons involved in fisheries such as fisherfolk, processors, retailers, wholesalers and consumers. mFisheries aims to develop capacity in the Caribbean to pursue opportunities arising from the provision of innovative mobile-enabled services for its poor communities, and to provide related empirical data and analysis to inform Caribbean policy and regulation. Under CC4FISH I they also developed an ICT curriculum to improve safety at sea for VHF, cellphone and GPS for fishers.</p>
<p>University of the West Indies - Department of Agricultural</p>	<p>Source of technical expertise in socioeconomics and value chain analysis of fisheries and carry out ICT training.</p>

Economics and Extension, Faculty of Food and Agriculture, St. Augustine	
University of the West Indies - Institute of Gender and Development Studies, St. Augustine	Source of data, information, and technical expertise on gender perspective and gender integration.
University of Trinidad and Tobago - Advanced Centre for Coastal and Ocean Research and Development (ACCORD)	Source of technical expertise in fisheries science and research
Caribbean Institute for Meteorology and Hydrology (CIMH)	CIMH aims to assist in improving and developing Meteorological and Hydrological Services and creating awareness of the benefits these services provide for the economic well-being of the CIMH member states. The DEWETRA platform is a real-time integrated system for hydro-meteorological forecasting, monitoring and prevention. This system helps determine up-to-date and reliable risk scenarios. Their data on e.g. flooding vulnerability of coastal zones in the Caribbean region and the component in DEWETRA called 'wave watch' can support vulnerability assessments, climate modelling and support early warning system development.
State/community colleges	Local research institutes can help carry out vulnerability assessments and data analysis; support communication on vulnerability assessment for adaptation and public awareness and training programmes.
International and Regional Cooperation	
Food and Agriculture Organization (FAO)	GEF Project Implementing Agency. Provision of technical assistance on climate-smart fisheries, climate change adaptation, policy, plan and legislation development and sustainable management of natural resources. Support of methodologies according to international standards and best practices. Support and monitoring of the project implementation.
Western Central Atlantic Fishery Commission (WECAFC)	Regional fishery commission established under FAO. Provision of technical and policy advice on fisheries and fisheries governance. Regional project partner. Can support the various components of the project, especially regarding harmonization of fisheries policies, management and regulations in the region, and dissemination of results of the project throughout the region.
Caribbean Regional Fisheries Mechanism (CRFM)	CARICOM Regional Fisheries organization that promotes and facilitates responsible utilization of the region's fisheries and other aquatic resources. CRFM will provide technical support for integration of DRM and CCA into fishing policies and plans.
National Oceanic and Atmospheric Administration (NOAA) of USA	NOAA already engages with WECAFC on a variety of science and monitoring activities. These programs and project collaboration will help to inform and strengthen the design of project outputs. [66] Provides fisheries information systems for conservation and management, as well as more responsible fishing technology.
Caribbean Network of Fisherfolk Organisations (CNFO)	CNFO aims to improve the quality of life for fisherfolk and develop a sustainable and profitable industry through networking, representation and capacity building. It can support and participate in training and capacity building activities and exchange programs.
Caribbean Community Climate Change Centre (CCCCC)	The CCCCC coordinates the CARICOM response to climate change. Can support with supply of data and technical expertise for all components.
Caribbean Disaster Emergency Management Agency (CDEMA)	CDEMA is the leading disaster risk management organization within CARICOM. It seeks to reduce the risk and loss associated with natural and technological hazards and the effects of climate change to enhance regional sustainable development. Can support all components with data on vulnerability of disaster risks, support development of Disaster Risk Management and Risk Reduction strategies; and support the mainstreaming of DRM into national fisheries policies.
Private sector	
Fish processing companies (retailing and exporting)	These represent the national level producers (mainly small-scale and medium scale producers). They will participate in the development of CC- and disaster-resilient infrastructure and practices for fisheries and processing.

Grassroots / resource user/ civil society organizations	
National and local environmental NGOs, other NGOs, CBOs	National and local NGOs in relation to the fisheries sector in the five project countries are dedicated to awareness raising processes, organization and participation for community self-management and environmental protection; and education. Support to all Project components with information exchange and implementation.
Fisherfolk organizations	Fisherfolk organisations are collectives that aim to improve the livelihoods and wellbeing of fisherfolk (men and women), seek to engage in decision making in fisheries management (at the national and international level); and educate fisherfolk. Fisherfolk organizations (at local, national, and regional levels) will be involved in all project components with information exchange; capacity building activities and participation in increasing the resilience of fisheries, decision making and management.
International and regional NGOs	
The Nature Conservancy (TNC)	Leading international NGO aimed at conserving the lands and waters globally. It manages programs of conservation of natural and cultural heritage, conservation of marine ecosystems in the Caribbean, and participation and environmental education. The project will benefit from its work on vulnerability assessments in the region and marine conservation.
Caribbean Natural Resources Institute (CANARI)	The organization promotes and facilitates equitable participation and effective collaboration in the management of natural resources in the Caribbean region. The organization has extensive experience in capacity building of fisherfolk organizations; and strengthening of national policies.

Furthermore, preliminary bilateral meetings have identified three potential Executing Partners, to be confirmed during the PPG.

(1) Cluster Head of the Nature, Climate and Energy Programme of the United Nations Development Programme (UNDP), Barbados Office has indicated interest in being the executing partner for full execution of the project through a UN-UN agreement.

(2) The United Nations Environment Programme (UNEP), Cartagena Convention Secretariat, Ecosystems Division, will be considered as a potential executing partner at this stage but not for full execution (only a component) of the entire project - (note that should UNEP agree to fully execute the project FAOSLC will be the “Contributing UN Entity” since will transfer funds to UNEP the “Recipient UN Entity” that will receive resources and implement activities/provide services to FAOSLC).

(3) The University of the West Indies, St. Augustine Campus, Faculty of Food and Agriculture (UWI-STA-FFA) indicated its interest as a potential Executing Partner for full execution of the entire project - (note that The UWI has already completed and passed a HACT capacity assessment).

Profile of Project Beneficiaries:

The target beneficiaries are small-scale fishers within the small-scale fisheries sector of the project's five participating countries. These fishers (95%) operate fishing vessels between 6 and 12 metres, with an average length of 7 to 8 metres which is aligned with what the FAO generally uses to define small-scale fishing vessels for any fishing boat with a length of less than 12 meters. A large part of the long-liners and trawlers in the project countries can be characterized as small-scale vessels. The project will not work on industrial fishing vessels and their operations which are a part of commercial fisheries.

Direct beneficiaries will also include national fisheries, climate and disaster management agencies in the project countries that have responsibility for fisheries, climate change adaptation and mitigation and disaster

risk reduction/management in their countries and the small-scale fishers and other fisheries value chain actor (along with their associated fishing communities). These stakeholders will benefit by having improved knowledge, skills, plans, procedures and enhanced ecosystem services to manage the impacts of climate change and improved capabilities to recover after extreme climate events.

Specifically, small-scale fishers, characterized by operating small vessels, having low levels of capital investment, must venture further from shore and therefore spend more time and resources to secure catch due to the impacts of climate change. Climate-induced impacts such as mass coral bleaching events and ocean acidification are already causing loss of coral reefs, thus contributing to the loss of ecosystem services and declines in reef fish landings. More frequent extreme weather events and rougher sea conditions damage fishing boats and gear, port facilities and infrastructure.

Indirect beneficiaries will include ministries with responsibilities for planning and social protection in beneficiary countries as the project will provide much needed data to address livelihood needs among target beneficiaries.

Stakeholder Profile	Stakeholder Type	Sample Beneficiary Climate Vulnerability OR Climate Related Needs to Assist in Addressing Climate Vulnerabilities (where applicable)	Project Activity of Benefit
Individual small-scale fishers (including fishers registered for fisherfolk associations/organizations and their immediate dependants)	Direct Beneficiary	<p><u>Harvest Sector:</u></p> <p>Fishers face declining productivity of the fishery resulting in decreasing total catches, and a lower catch per unit of effort (CPUE) which compromises their fishery-related income and food security.</p> <p>If adult fish populations move further offshore to deeper areas to avoid warmer temperatures, access for fishers will become more difficult and fishing trips less economically feasible because of increased fuel consumption and the longer duration of trips.</p> <p>Loss of fishing days due to increased intensity or frequency of severe weather which cause more dangerous storm surges and coastal flooding, leading to injury, ill health and even death, and also resulting in disrupted livelihoods of coastal and fishing communities.</p> <p>Damages to and loss of gear (e.g., traps, boats etc) by weather related events and sargassum influxes, damages to fisheries infrastructure (e.g., fishing facilities and land sites) and related financial losses.</p> <p>Impaired safety of fishers, especially those travelling further distances to fish, and increased risk of accidents at sea during rough weather and ashore.</p> <p>Increased operational fishing costs resulting from increasing travelling times to fishing grounds, increasing fuel costs because of rough seas, and increasing</p>	<p>All proposed project activities will benefit this stakeholder profile however key outputs/activities of relevance include:</p> <p>Output 1.1.1, 1.1.4, 1.2.1, 1.2.2, Outcome 4.1.</p>

		<p>labour costs because of rough working conditions as well as increased needs for insurance schemes for fishers.</p> <p>Reduced catchability of certain fish species through rendering the drifting FADs used by fishers ineffective.</p>	
NGOs and CSOs (small-scale fisher associations/organizations)	Direct Beneficiary		Output 1.1.3, Outcome 4.1.
Other small-scale fisheries value chain actors ^[1]	Direct Beneficiary	<p><u>Post-harvest sector in processing and distribution, marketing and sales and consumption:</u></p> <p>Impacts on markets and imports/exports. Local fish markets (and associated sectors) will suffer from decreased livelihood and employment as catches decrease; impacts to small scale vendors and food security/supply for local communities and consumers. Changes in availability of high value species such as tuna and tuna-like species (e.g., due to changes in distribution) will impact export trade volumes and may necessitate shifting to different export markets. Possible increases in fish imports to satisfy tourist demand. Increased market prices of desired species. The economic impacts of sargassum are particularly severe for small-scale vendors and processors.</p> <p>Impacts on processing. Changes to the seasonal pattern of landings or increasing uncertainty regarding supply may require significant changes in business strategies. A decrease in production will affect seafood processors and thus affect employment opportunities for the local processing workers as well as affect the foreign exchange generated by this sector. Processing plants exporting e.g., deep slope fish can be expected to be affected by decreasing sales.</p>	Output 1.1.4, 3.2.3, Outcome 4.1
Government Institutions (fisheries agencies/authorities and other relevant authorities)		<p>Climate and disaster adaptation planning. CCA and DRM in the fisheries national adaptation plans, policies, or legislation (e.g., fisheries into Nationally Determined Contributions).</p> <p>Public investments. Support the increase investments in research, science communication, adaptation measures, building adaptive capacity, promoting new fishing technologies.</p> <p>Public-private partnerships. Promote partnerships to encourage investment, improvement, and employment in the</p>	Output 3.1.1, 3.1.2, 3.1.3, 3.1.4, 3.1.5, 3.1.6, 3.2.1,3.2.2, and Outcome 4.1.

		<p>small-scale fisheries of the project countries.</p> <p>Increase capacity of fisheries and fisheries related authorities. divisions. Support the capacity of these authorities, including in training and equipment, to strengthen institutional, regional and national capacity on mechanisms to implement climate change and disaster action and monitoring.</p>	
Coastal and fishing communities	Indirect beneficiaries	<p>Consider community concerns. Include coastal fishing communities in assessing community vulnerability and capacities, building back better plans pre and post disasters, fisheries management, and subsequent planning decisions where their livelihoods and access to fish may be affected.</p> <p>Climate-proof infrastructure. Support the upgrade of fisheries infrastructure and/or make them robust enough to withstand sea level rise, inundation and high winds including the use of rainwater harvest systems, solar powered energy and use of hurricane straps where possible.</p> <p>Build resilient ecosystems. Improve management of coral reef ecosystems, sea grass beds, mangrove wetlands and other fisheries habitats by reducing or stopping further degradation through restoration of those areas to improve the fish they can support, but also to enhance their natural coastal defence value. Healthy ecosystems can also encourage eco-tourism, creating alternative livelihoods for fishers. Requires collaboration across governments and industry.</p>	Output 1.1.2, 1.2.2, 1.2.3, 2.1.1, 2.1.2, 2.1.3, Outcome 4.1

[1] Examples include support (boat mechanics, boat builders, fuel supply, ice supply, gear and equipment); processing and distribution (fish vendor, fish boner, fish skinner, fish processor, fish cleaner); marketing and sales (trader, retailer, wholesaler, supermarket); and consumers (restauranteur, hotelier, householders, tourists and institutions)

A more comprehensive stakeholder analysis will be conducted during the PPG phase to determine specific stakeholder needs and priorities. Further in-depth consultations will be undertaken to establish/strengthen partnerships and practical modalities for linkage and collaboration. The mechanisms for managing project partnerships during project implementation will be fully developed and agreed on during the PPG phase and captured in a project Communication and Stakeholder Engagement Strategy and Plan. The PPG phase will also allow the project to further increase involvement of civil society organizations and NGOs active at national level in the participating countries in the project design and increase their collaboration, buy-in and commitment to the project in support of the implementation of the project. A combined approach of two regional workshops (inception and project document finalization) and national consultations will be used to identify and involve the relevant stakeholders. While at national level the fisheries administrations in the

project countries will take coordinating role in the design phase, this may change, if necessary, in the implementation phase.

PPG resources will be utilized to engage all key stakeholders listed above during the project design phase, during which a more comprehensive stakeholder analysis will be conducted to determine specific stakeholder needs and priorities. Further in-depth consultations will be undertaken to establish/strengthen partnerships and practical modalities for linkage and collaboration, and a project partner and stakeholder engagement plan will be developed.

A series of stakeholder workshops and regular communications with key individuals and stakeholder groups will be held during the PPG phase. Two regional workshops (inception and project document finalization) and national consultations will be held to identify and involve the relevant stakeholders. These workshops may be conducted online. The national fisheries administrations are expected to take a coordinating role during the design phase in their project countries. The mechanisms for full project partnerships, coordination, implementation, monitoring and evaluation will be fully developed and agreed on during the PPG phase.

Gender:

The representation of women, youth and other vulnerable groups will be emphasized when selecting participants in project activities, as well as in project staffing; a gender sensitive and responsive approach will be adopted by the project throughout its life cycle. At the PPG phase the mechanism for project coordination, implementation, monitoring, and evaluation will be discussed in detail and agreed upon. A sound mechanism will be established with a Project Steering Committee, which will involve the national governments and representatives of all stakeholder groups listed above. A logical framework approach will be used to clarify project related responsibilities and obligations for each of the project stakeholder groups/partners.

Climate change is a strong factor in the vulnerability context for women in the Caribbean fisheries sector. Slow climate change trends (e.g., sea level rise), more rapid climate variability or chronic seasonality (e.g., extreme weather events), and outright environmental surprises or shocks (e.g., sargassum seaweed influxes) all impact social, ecological, and economic conditions that affect women in the sector.

Women are vulnerable to climate change and variability due to their dependence on natural ecosystems and the male-dominated Caribbean fisheries harvest sub-sector. Extreme weather events increase hazards at sea and reduce the number of fishing days for the harvest sector dominated by men. This in turn impacts women working in and supporting the small-scale fisheries value chains of Caribbean by limiting the fish landings to be sold by the women who dominate postharvest - participating in value-added processing, marketing, distribution, and food service [28].

The impact of disasters caused by natural hazards such as hurricanes is not gender-neutral. Social norms and gendered roles may significantly affect women and girls' ability to survive the impacts of a disaster.

Women also have limited access to economic resources as well as information and technology, increasing their vulnerability and adaptive capacity to disaster. Women are often also less well integrated into Post Disaster Damage and Needs Assessments as these are often mainly focused on the harvest sector. As a result the response measures are often solely focused on boats, engines and gears and not address the needs of female fish vendors (lost ice coolers, fish cleaning equipment, ice machines etc.).

In the Caribbean, climate change impacts on women are gendered and include (i) Increased workload – double burden of women’s unpaid care and productive work exposes them to greater risks; (ii) Deaths - increased vulnerability, loss of life and disabilities, which result in family disruption; and (iii) Sources of income – loss of assets, lives and livelihoods intensify the need to have complementary and alternate sources of income[29].

Leveraging regional gender mainstreaming in the Caribbean fisheries can support women’s participation in policy and decision-making processes. Current examples include: (i) the unpublished Caribbean Community Regional Gender Equality Strategy (CRGES) that emphasizes commitment to strengthening gender equality and empowerment of women and girls, (ii) recent fisheries initiatives such as the Caribbean Community Common Fisheries Policy (CCCFP) (CRFM 2020b), (iii) Caribbean Regional Fisheries Mechanism (CRFM) Gender Analysis Strategy and Action Plan (Gender ASAP) (CRFM 2020a), and (iv) the CCCFP protocol on Securing Sustainable Small-scale Fisheries for Caribbean Community Fisherfolk and their Societies (SSF Protocol), which has not yet been widely implemented.

The current and future impacts of climate change require women in Caribbean fisheries to be considered in strategies and policies that will assist their adaptation and resilience across the fisheries value chain.

Gender in the project:

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, projects and operations. 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 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 project will address climate challenges faced by women in Caribbean fisheries by promoting a gender-responsive approach [30] and addressing gendered impacts of climate change and variability across the project and throughout its life cycle, with emphasis on representation of and consultations with women. 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.

CC4FISH-II will assist in mainstreaming appropriate fisheries gender dimensions in national and regional climate change, Nationally Determined Contributions (NDC), CCA and DRM plans, policies and strategies and included in all other project components' relevant outputs related capacity building, social protection and knowledge and awareness.

CC4FISH-II will also build institutional capacity to ensure that Post-Disaster Damage and Needs Assessment are carried out with a gender-inclusive lens and gender is well integrated in all aspects of the assessments and response plans.

Furthermore, a full gender assessment will be conducted during PPG, and a budgeted Gender Action Plan will be submitted as an annex to the Project Document. Special attention will be given to complementing post-Covid-19 recovery measures to ensure women and men's diverse needs are met. 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 during the PPG phase.

Private sector:

The Project will engage with the private sector, especially in Components 1 and 3. With regards to Component 1, this refers to Output 1.1.4: Fisheries value chain actors' knowledge and practices improved for increased CC and disaster resilience. The project will consider working with the private sector to support the acquisition and adoption of climate-smart technology and infrastructure; support SAS training and provision of adequate safety gear for fishers; and engage software/applications providers for ICT-based fisheries. In, Component 3, the development of innovative financing mechanisms and insurance access will require the engagement of financial institutions and commercial partners. The project will consider the potential to work with private banks, micro-credit, insurances, etc. to increase the scale of impact. The project recognizes the importance of working with the private sector, for example, on climate-smart technology and infrastructure, as well as the need to connect and build bridges with insurance schemes and social protection programs. While there are entities that are known to partner with local fisherfolk, the full identification and confirmation of specific private sector partners will begin during the PPG.

v. Knowledge generation, management, exchange and lessons learned

The project will generate considerable knowledge and products across all its components, and Knowledge Management (KM) is an integral part of the project. 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 fisheries resilience to climate change and disasters. Specific KM activities are included under Component 4 and will support capacity building and training actions under all the components. A core element of Component 4 will be the development of a KM Strategy and Plan (linked to the project's Communication and Stakeholder Engagement Strategy and Plan), which will direct the project's knowledge generation, lesson learning, information sharing, and awareness-raising activities with clear identification of roles and responsibilities, deliverables, resources, and timing

(what, how, when, who and with what resources). A broader dissemination of experience and lessons learnt generated by the project will be pursued through engaging national and regional technical and educational institutions, and regionally and internationally through South-South cooperation mechanisms.

The CC4FISH-II project will ensure the transferring experience and know-how amongst the participating countries as well as to the Wider Caribbean Region. Thus, the CC4FISH-II network will continually support the project countries but also the wider region for the exchange of knowledge via wide array of annual activities including workshops, webinars, policy dialogues, conference presentations, as well as through practical learning exchanges and short-term study tours and training and technology exchange. Trainers of trainers will be held to create a network in various areas (e.g. disaster risk preparedness and response and safety at sea).

Outside of these physical and virtual tools the project will also establish or support the development of various networks to disseminate knowledge and produce knowledge products such as reports, brochures, and curricula of trainings. An online platform will be established to allow for ease of access and long-term sustainability of knowledge products.

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, WECAFC, CRFM, 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 with a focus on data standardization and harmonization. This will ensure broad dissemination of knowledge on an ongoing basis and inform wider 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 FIRMS partnership, provide a platform to discuss and design locally adapted KM services.

The project will also explore being an active partner of IW:LEARN, LME:LEARN and the CLME+ HUB to further promote effective dissemination of knowledge, and will draw on the deep knowledge and experiences of these platforms, especially participating in exchanges on topics related fisheries, marine ecosystem, climate change and disasters, social protection, ecosystem approach to fisheries (EAF) and SSF development issues at the national and regional levels.

vi. Improving and alignment with existing national policies (policy coherence)

The project activities will play a role in aligning national policy and legislation/regulations mainstreaming climate change and disasters in the fisheries sector particularly in support of the adoption of climate resilient technologies and practices and the integration of inter- institutional framework working groups for adaptive social protection and resilient fisheries (under Component 3) to ensure that countries can effectively implement activities developed under Components 1 and 2). This will include incorporating relevant elements of (among others) the FAO Code of Conduct for Responsible Fisheries , FAO Voluntary Guidelines for

Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication , FAO Technical Guidelines for Responsible Fisheries: Fishing Operations - Vessel Monitoring Systems , and the FAO Voluntary Guidelines for Marking of Fishing Gear (VGMFG) , FAO International Plan of Action to prevent, deter and eliminate Illegal, unreported, and unregulated (IUU) fishing, FAO Strategy on Climate Change 2022-2031 and the Sendai Framework for Disaster Risk Reduction 2015-2030. Project activities will also include awareness raising targeted at government personnel (under Component 4) on how existing international fisheries and climate change and disaster instruments and best practices support fisheries resilience practices management practices to deliver long-term socio-economic and environmental objectives, such as sustainable livelihoods, increased food security, maintaining ecosystem health, climate change adaptation, and disaster risk reduction/management. The project will also engage in awareness-raising activities among local fishers, other fisheries value chain actors and their representatives to ensure effective implementation of the updated policies and regulatory frameworks (also under Component 4).

vii. Transformation and innovative nature of the project and scaling up

Innovation/transformation: Innovation is evident in each of the components of the project. The project will assist the participating countries to take advantage of the wide-range of ecological, socio-economic, and institutional benefits of an ecosystem-based approach building the resilience of their fisheries, marine ecosystems, and livelihoods to the impacts of climate change and disasters. Innovative and adaptive

fisheries technologies, operations and management practices such as building capacity activities that involve the use of mobile fisheries ICT applications, early warning systems and e-learning and community hubs, encouraging public-private partnerships; leveraging climate finance models and business opportunities that improve training in business skills underscored by social protection schemes and decent work; and introducing new policy directives that support the adoption of the most innovative and cost-effective climate and disaster resilient gear-, vessel-, and processing technologies and practices in the fisheries sector are worthwhile initiatives under the project. Sharing of knowledge on successful development of real-world solutions to climate resilient fisheries, marine ecosystems and livelihoods are key feature of the project, and the transfer and scaling up of project-generated knowledge through the direct involvement of multiple end-users (fishers, fisherfolk organizations, managers, fishing agencies, environmental and disaster management/climate change authorities, environmental NGOs, academia etc.) will be facilitated through project Component 4.

Scaling-up of project results and successes will be achieved through the project's Knowledge Management

activities under Component 4, including engagement with IW:LEARN events and activities. The project will seek and establish firm linkages with other GEF projects (e.g., BE-CLME+, REBYC-III CLME+, EAF4SG) active in the region and other projects and programmes. These linkages will enable that national level achievements in the project partner countries can be more widely disseminated in the Caribbean region. It is recognized that the close ties of the project with the regional fishery bodies (CRFM, WECAFC), research institutions (UWI-CERMES, UWI-FFA), regional disaster management and climate change institutions (CDEMA and CCCCC) and NGOs (CANARI, CNFO) will enable the project to spread its achievements and lessons learned to other countries in the region and upscale its impact. Significant synergies of the above-mentioned linkages and ties are expected. The harmonizing of the methods and approaches will support future up-scaling to attain high quality results. The project can play a true catalytic role by producing its findings and recommendations in such a way that they can be reviewed and adopted at regional level by the fisheries bodies and regional institutions. Moreover, by being in close contact with and reporting progress also to the

CARICOM secretariat and related institutions the project will make a major contribution to the implementation of the Strategy and Action Plan for disaster risk management and climate change adaptation in fisheries and aquaculture in the CARICOM region. Finally, the information collected, and lessons learned will be used to seek further investment for climate change adaptation and disaster risk reduction measures in fisheries and related sectors in the participating countries. Follow-up bankable investment proposals will be developed to scale-up the key achievements of this project.

https://unfao-my.sharepoint.com/personal/rafael_milla_fao_org/Documents/Desktop/CC4FISH-II_GEF-8%20PIF_17.10.2023-FINAL.docx - [ftnref1](#)

[22] Fisheries value chain actors include the following: Fisherfolk, fishing cooperatives, fisherfolk organizations, STEWARDFISH, Caribbean Network of Fisherfolk Organisations (CNFO), Caribbean Regional Fisheries Mechanism (CRFM), fish processors, fish hawkers and retailers, fish traders, exporters, ice providers, buying stations (freezers), among others.

[23] Gulbrandsen, O. 2012. Fuel savings for small fishing vessels: a manual. Food and agriculture organization of the United Nations (FAO), Rome, Italy.

<https://www.fao.org/documents/card/en?details=98995c6b-bd40-56c7-bcf5-768c1d8eccc1>

[24] See reference

studies: https://www.researchgate.net/publication/316930387_Impacts_of_Climate_Change_on_Fish_and_Shellfish_in_the_Coastal_and_Marine_Environments_of_Caribbean_Small_Island_Developing_States_SIDS
https://www.researchgate.net/profile/Manuel-Barange/publication/325871167_Impacts_of_Climate_Change_on_Fisheries_and_Aquaculture_Synthesis_of_Current_Knowledge_Adaptation_and_Mitigation_Options/links/5b5f1e48aca272a2d6754247/Impacts-of-Climate-Change-on-Fisheries-and-Aquaculture-Synthesis-of-Current-Knowledge-Adaptation-and-Mitigation-Options.pdf

[25] Depending on the country, these would be formally recognized working groups, committees, task forces, National Intersectoral Coordinating Mechanisms (NICM), or others.

[26] <https://clmeplus.org/app/uploads/2019/09/160127-MoU-IFCM-signed-English.pdf>
<https://clmeplus.org/app/uploads/2019/09/160127-MoU-IFCM-signed-English.pdf>

[27] Third-party liability insurance for fishing vessels. CC4Fish Policy Brief.2021. Rome, Italy
FAO. <http://www.fao.org/3/cb6963en/cb6963en.pdf>

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[28] [Pena, Maria, Kristie Alleyne, Sanya Compton, Shelly-Ann Cox, Janice Cumberbatch, Patrick McConney, Leisa Perch, Neetha Selliah, and Bertha Simmons. 2019. Women in Fisheries 2019 Forum: Summary Report. Bridgetown: UWI-CERMES](#)
https://unfao-my.sharepoint.com/personal/rafael_milla_fao_org/Documents/Desktop/CC4FISH-II_GEF-8%20PIF_17.10.2023-FINAL.docx - [ftnref2](#)

[29] Pena, M, P McConney, B Simmons and K Blackman. 2023. The Challenging Climate for Women in Caribbean Fisheries—From Seaweed to Seafood, and Practice to Policy. Pp 126-145 in Joseph and Doon (eds.) The Impact of Climate Change on Vulnerable Populations: Social Responses to a Changing Environment. Basel: MDPI.

[30] Gender Sensitive: Identify and acknowledge the existing gender differences and inequalities between women and men. Gender is integrated as a means to achieve other objectives without seeking to change structural barriers.

Coordination and Cooperation with Ongoing Initiatives and Project.

Does the GEF Agency expect to play an execution role on this project?

If so, please describe that role here. Also, please add a short explanation to describe cooperation with ongoing initiatives and projects, including potential for co-location and/or sharing of expertise/staffing

The project will establish strong links with several fisheries management and climate change related projects in the Caribbean Sea and beyond, as well as others concerned with the Caribbean Sea marine environment, building on their achievements and ownership, including:

- FAO-GEF funded ‘Promoting National Blue Economy Priorities Through Marine Spatial Planning in the Caribbean Large Marine Ecosystem Plus (BE-CLME+)’ project executed by CAF and the CRFM. The BE-CLME+ project offers opportunities for collaboration, exchange of information, and possibly some shared activities with the CC4FISH-II (particularly for Components 2 and 3) e.g. it has a component (Component 1) which seeks to implement cross-sectoral Marine Spatial Planning which focuses on enabling governments and key stakeholders to support and the protection of critical fish habitats has been established/expanded and informed by national marine spatial planning (MSP). seeking to strengthen some aspects of regional fisheries management including improving fisheries data for decision-making.
- FAO-GEF ‘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 executed by The University of the West Indies, St. Augustine Camps (UWI-STA) which seeks to address the (i) lack of adequate data and information for EAF at national and sub-regional levels; (ii) weak governance and management nationally and sub-regionally; (iii) weak incentives to support behavioural change towards adoption of EAF management in small-scale fisheries; and (iv) lack of knowledge and poor availability of information on EAF.
- FAO-GEF ‘Strategies, technologies, and social solutions to manage bycatch in tropical Large Marine Ecosystem Fisheries (REBYC-III CLME+)’ project executed by The UWI-STA which is helping. 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, and in doing so support country implementation of the CLME+ SAP (particularly Strategies 2, 3 and 5).

Other potential projects/initiatives with which partnerships and linkages will be explored include:

- FAO’s Technical Cooperation Programme (TCP) ‘Integrated Agriculture Land Use and Ecosystems-based Fisheries Management Planning for a Resilient Agri-food System in the Commonwealth of Dominica’ project
- WECAFC ‘Improving ecosystem approach to fisheries by advancing fish spawning aggregation information gathering and increase of public engagement in the WECAFC region” project;
- FAO-GCF funded ‘Improving the capacity of the fisheries sector in St Lucia to enhance resilience to climate change’ project.
- FAO FFM Sub-programme Funded ‘Building resilience to multiple shocks and stresses in the response and recovery from COVID-19 impacts in the Caribbean (Grenada, Guyana and St. Vincent and the Grenadines)’ project.
- UNDP’s ‘Enabling a Gender-Responsive Disaster Recovery, Climate and Environmental Resilience in the Caribbean (EnGenDER)’ project.
- UNDP’s Japan funded ‘The Project for Improving National Sargassum Management Capacities in the Caribbean’ project.

At the regional level, CC4FISH II will coordinate with fisheries and adaptation projects being financed by the GCF and the Adaptation Fund (AF) (see above, and co-financing table). During PPG, an engagement plan will be developed, detailing the steps and coordination actions to join current and upcoming GCF and AF initiatives in the region. Coordinated efforts by SCCF, GCF and AF will contribute to making tangible impacts on the adaptation and resilience of the fisheries communities. Possible means could include inviting the stakeholders to attend annual SCCF Project Steering Committee (PSC) meetings to share work plans, project progress reports, and research to reduce duplication and identify areas for collaboration. Furthermore, at the annual PSC meeting, a Working Group might be convened with Partners implementing GCF, Adaptation Fund and other relevant projects to contribute to maximizing synergies. This coordination mechanism will be further detailed in the SCCF full Project Document.

At the global level, there are also several global FAO-led fisheries projects which are relevant to the CC4FISH-II project with which linkages, including: potential linkage with the FAO Umbrella Programmes on SSF and IUU fishing, and the FAO Calipseo national statistical system. Communication will be established with the above projects during the PPG phase.

Furthermore, at the annual PSC, a Working Group will be convened with Partners implementing GCF, Adaptation Fund and other relevant projects to contribute to maximising synergies and to mitigating conflict. This coordination mechanism will be further elaborated in the full project document.

Core Indicators

Explain the methodological approach and underlying logic to justify target levels for Core and Sub-Indicators (max. 250 words, approximately 1/2 page)

META INFORMATION – SCCF

LDCF false	SCCF-B (Window B) on technology transfer	SCCF-A (Window-A) on climate Change adaptation
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	false	true	
Is this project LDCF SCCF challenge program?			
false			
This Project involves at least one small island developing State(SIDS).			
true			
This Project involves at least one fragile and conflict affected state.			
false			
This Project will provide direct adaptation benefits to the private sector.			
false			
This Project is explicitly related to the formulation and/or implementation of national adaptation plans (NAPs).			
false			
This project will collaborate with activities begin supported by other adaptation funds. If yes, please select below			
Green Climate Fund	Adaptation Fund	Pilot Program for Climate Resilience (PPCR)	
true	true	false	
This Project has an urban focus.			
false			
This project will directly engage local communities in project design and implementation			
true			
This project will support South-South knowledge exchange			
true			
This Project covers the following sector(s)[the total should be 100%]: *			
Agriculture	0.00%		
Nature-based management	15.00%		
Climate information services	15.00%		
Coastal zone management	10.00%		
Water resources management	0.00%		
Disaster risk management	40.00%		
Other infrastructure	20.00%		
Tourism	0.00%		
Health	0.00%		
Other (Please specify comments)	0.00%		
Total	100.00%		
This Project targets the following Climate change Exacerbated/introduced challenges:*			
Sea level rise	Change in mean temperature	Increased climatic variability	Natural hazards
true	true	true	true
Land degradation	Coastal and/or Coral reef degradation	Groundwater quality/quantity	
false	true	false	

CORE INDICATORS – SCCF

	Total	Male	Female	% for Women
CORE INDICATOR 1 Total number of direct beneficiaries	21,825	15,561.00	6,264.00	28.70%
CORE INDICATOR 2 (a) Area of land managed for climate resilience (ha) (b) Coastal and marine area managed for climate resilience (ha)	0.00 1,810,370.00			
CORE INDICATOR 3 Number of policies/plans/ frameworks/institutions for to strengthen climate adaptation	0.00			
CORE INDICATOR 4 Number of people trained or with awareness raised	21,825	15,561.00	6,264.00	28.70%
CORE INDICATOR 5 Number of private sector enterprises engaged in climate change adaptation and resilience action	0.00			

Risks to Project Preparation and Implementation

Summarize risks that might affect the project preparation and implementation phases and what are the mitigation strategies the project preparation process will undertake to address these (e.g. what alternatives may be considered during project preparation such as in terms of consultations, role and choice of counterparts, delivery mechanisms, locations in country, flexible design elements, etc.). Identify any of the risks listed below that would call in question the viability of the project during its implementation. Please describe any possible mitigation measures needed. (The risks associated with project design and Theory of Change should be described in the “Project description” section above). The risk rating should reflect the overall risk to project outcomes considering the country setting and ambition of the project. The rating scale is: High, Substantial, Moderate, Low.

Risk Categories	Rating	Comments
Climate	High	Risk: Long-term risk to the Caribbean Sea environment undermining results of project but no immediate risks presented during project lifetime, although extreme climate events, such as hurricanes, may temporarily affect project execution. Mitigation: Project activities are designed to improve resilience and decrease vulnerability.

		<p>The project will employ an adaptive management approach to project execution with a funded M&E system in place from the start to mitigate any climate-related events during the project. During project implementation, early warning systems will be monitored closely.</p>
<p>Environment and Social</p>	<p>Moderate</p>	<p>Risk: Environmental: The retrofitting of infrastructure to make it climate-smart could produce waste and negatively affect the surrounding water and land resources. Mitigation: Environmental and Social Impact Assessments will be conducted and findings adhered to. Risk: Social – The introduction and expansion of climate-resilient and low-emission technologies supported by the proposed project has potential to eliminate jobs linked with fossil fuel power generation. Mitigation: During the PPG phase relevant stakeholders will be sought to explore how training needs can be addressed by the project so that these can be replaced with new, climate-friendly jobs. Furthermore, the project will hire community stakeholders and other fisheries value chain actors for ecosystem restoration activities and retrofitting of fisheries infrastructure. All FAO's policies and rules related to decent work will be adhered to. Risk: Social – Local disease outbreaks may lead to lower engagement, fewer in person meetings, and delays in project execution, particularly for those project partners where staffing and capacity are less available. Mitigation: Social - the project will use online platforms to implement activities to the extent feasible (employing practices and lessons gained during past outbreaks like the</p>

		<p>COVID-19 pandemic) which also minimizes the risk of disease.</p>
<p>Political and Governance</p>	<p>Low</p>	<p>Risk: Low commitment and engagement in project from key partners and government institutions to engage in design of the full project and its implementation (poor political support, staffing/capacity, co-financing, and/or changed priorities due to adverse economic conditions or changes in Governments). Mitigation: The CC4FISH-II project has been designed to respond to, and directly support, the national priorities of the participating countries and to meet national and regional (LME) level priorities to address threats fisheries, marine ecosystems and communities caused by stressors and shocks of climate change and disasters. For instance, the project explicitly supports the need for a strengthened enabling environment that mainstreams climate change, disasters and social protection and will help strengthen the capacity of fisheries value chain actors to access social protection tools and climate-resilient fisheries technologies and practices, and markets. In addition, FAO has a long-established relationship with the lead national institutions of the participating countries on which the project will build. The project will also leverage existing coordinating and cross-cutting inter-governmental and trans-boundary mechanisms that address climate and disaster resilience and adaptation, sustainable fisheries, marine resource conservation and social protection solutions to ensure participation remains strong.</p>

Macro-economic	Low	<p>Risk: Global recession(s) may impact the amount of government and donors' co-financing contributions to the project during its implementation. Some countries in the Caribbean region are facing significant economic challenges that may impact financial commitments to the project. Mitigation: The project is structured so that if there is a cut in funding the scope of the project can revised/or reduced respectively, e.g., virtual capacity building activities in case of in-person meetings to save funds, decreasing number of pilots, etc.</p>
Strategies and Policies	Low	<p>Risk: The policy and programme recommendations proposed under the project (Component 3) may not be approved, fully adopted and under implementation by participating governments within the 5 years of the project, due to the short timescale and/or because there are insufficient Government resources to ensure their approval and subsequent execution. Mitigation: Participating governments have already shown their commitment to the project. Additionally, given the climate and disaster challenges faced by the participating countries, a significant change of strategies and policies is not likely which will assist in ensuring that they adopt and remain committed to the recommendations produced under this project.</p>
Technical design of project or program	Low	<p>Risk: The proposed project presents complex design features. For instance, climate resilient technologies such as solar-powered aquaponics and aquaculture and climate proof infrastructure with respect to fish buying stations and fish landing sites (under Component 1). However, most of the</p>

		<p>technological approaches adopted by the project are well tested.</p> <p>Mitigation: The project has strong technical backstopping by FAO and the project will have technical expertise available from its country offices in all participating countries, including leveraging lessons learned from ongoing initiatives. The management of the project will also follow an adaptive management approach with a ring-fenced funded project M&E system.</p>
<p>Institutional capacity for implementation and sustainability</p>	<p>Low</p>	<p>Risk: Lack of institutional expertise on the national and regional level to deliver capacity building activities.</p> <p>Mitigation: Where capacity is considered limited, such as capacity in installation of climate and disaster resilient and smart technologies and infrastructure including market vending/processing and storage plants and fish landing sites (Component 1), it will be built through the project. Assessments of institutional (both national and local) expertise and resources will be undertaken during the PPG phase with recommendations to address these built into project activities (through training workshops, etc.). In addition, FAO will provide specialized capacity support to the project through its technical divisions, and a sustainability plan will be developed during the last year of the project to ensure there is a clear road map with resources identified to ensure that project results will be sustainable.</p>
<p>Fiduciary: Financial Management and Procurement</p>	<p>Low</p>	<p>Risk: Potential mismanagement of donor funds. Mitigation: FAO has comprehensive financial management and procurement systems in place that ensure no</p>

		<p>misuse of funds will occur. FAO will be fully responsible for administering the funds following the FAO and GEF financial regulations, rules, policies and procedures, and administrative instructions, in accordance with the common UN practices. A key condition of the project's executing partner will be the requirement to have passed a FAO-led fiduciary assessment (or already been approved by an equivalent body) and procurement process will follow FAO rules.</p>
Stakeholder Engagement	Low	<p>Risk: Women may be less able to participate and benefit from the project due to cultural constraints and generally greater child-care and family responsibilities compared with men, especially in some of the partner countries. Also, in general, the fisheries sector has been historically male dominated so ensuring women are equally represented is more of a challenge than many other sectors, although women often dominate segments of the post-harvesting stage of fisheries value chains. Also, there is a risk that local fisher communities could be effectively excluded from participating in the design and implementation phases due several factors, including distance from key meeting venues (mostly at fisheries authorities) and lack of financial resources to travel to meetings along with opportunity costs from lost days' fishing, and lack of experience/voice in effectively communicating concerns and views to Government decision makers fisheries issues. Mitigation: Special attention will be paid to ensuring that social and cultural barriers do not prevent women (as well as youth and</p>

		<p>other vulnerable groups) from effectively participating in the project. Targets for the involvement of women in the project will be set at the PPG stage and detailed in the Project Document (with gender-specific indicators and targets within the project logframe). The project will focus on promoting participation of women, especially in assessments, trainings and workshops, and pilot projects. A project-specific Gender Action Plan (GAP) will be developed during the PPG phase and a gender specialist will be employed as part of the project management team (details to be developed during the PPG stage). Similarly, a Stakeholder Engagement and Action Plan will be developed and applied during both the PPG phase and during implementation to facilitate stakeholder participation. In terms of local community participation, GEF resources will be made available for local fisher engagement and where physical attendance is not possible, the project will make efforts to establish or strengthen digital communications with representatives of key fisherfolk communities involved in the project</p>
Other		
Financial Risks for NGI projects		
Overall Risk Rating	Moderate	All the risk Categories analyzed above indicate a moderate rating.

C. ALIGNMENT WITH GEF-8 PROGRAMMING STRATEGIES AND COUNTRY/REGIONAL PRIORITIES

Describe how the proposed interventions are aligned with GEF- 8 programming strategies and country and regional priorities, including how these country strategies and plans relate to the multilateral environmental agreements.

Confirm if any country policies that might contradict with intended outcomes of the project have been identified, and how the project will address this.

For projects aiming to generate biodiversity benefits (regardless of what the source of the resources is - i.e., BD, CC or LD), please identify which of the 23 targets of the Kunming-Montreal Global Biodiversity Framework the project contributes to and explain how. (max. 500 words, approximately 1 page)

Alignment with GEF-8 programming

The proposed project is aligned with Priority Area 1 (Supporting the Adaptation Needs of SIDS) which includes measures to build resilience, early warning systems and disaster risk reduction and Priority Area 2 (Strengthening Technology Transfer, Innovation and Private Sector Engagement) which includes enabling conditions for private sector action, technology transfer and fostering South-South cooperation and learning of the Special Climate Change Fund. It is aligned with Theme 1: Agriculture, Food Security, and Health (which supports specific interventions that include support for social safety nets, climate-resilient aquaculture and fisheries; post-harvest measures such as fish storage, farm digitization and enhanced capacity of fisher and cooperatives), Theme 3: Nature-Based Solutions (which supports policies and financial incentives that can help scale up NbS and contributes to resilience of people and ecosystems, as well as for biodiversity and climate change mitigation) and Theme 4: Early Warning and Climate Information Systems and Other Adaptation Themes (addressing urgent priorities including but not limited to expanding access to early warning systems, bridging climate information value chain gaps, climate resilient infrastructure, sustainable alternative livelihoods, ecosystem restoration and disaster risk management) of the Strategy. The strategy places an emphasis on adaptation approaches and spatial scales where targeted interventions will strengthen climate resilience of human, natural, and economic systems, thereby contributing to transformational adaptation. For the SCCF, they include focus on: (a) coastal areas and vulnerable regions; (b) ecosystem and nature-based adaptation approaches; (c) vulnerable value chain-based approaches; and (d) enterprise, business, and finance. The proposed project satisfies the eligibility criteria, policies and priorities of the SCCF in that; (a) its consistent with relevant national reports, strategies, policies, plans and legislation; (b) in align with the implementing agency's comparative advantage, role, and relevant programming; (c) it will generate adaptation benefits in line with additional cost reasoning; (d) it will demonstrate cost-effectiveness; (e) it will complement and be coordinated with other relevant initiatives; (f) it will be sustainable, innovative, and promote scaling up; (g) it will identify relevant risks and demonstrate adequate mitigation measures; and (g) adheres to GEF policies on gender mainstreaming and public involvement.

CC4FISH-II is also aligned with the GEF-8 International Waters Focal Area Objective 1: Accelerate joint action to support Sustainable Blue Economic Development, through the development of policy recommendations for local governments to promote blue-growth initiatives and foster the development of the blue economy thereby advancing sustainable blue economy opportunities in the CLME region. The project will principally address IW 1-1 – Sustaining healthy blue ecosystems, with more inclusive engagement of local users of the marine resources (co-management opportunities), as well as IW 1-2 - Advancing sustainable fisheries management, through improved management strategies and practices, and improved governance mechanisms particularly for shared stocks in the CLME. The project will also contribute to the (i) Biodiversity Focal Area through helping to conserve critical marine and coastal ecosystems and the maintenance of ecosystem goods and services that they provide and (ii) Climate Change Mitigation (CCM) Focal Area through scalable technologies for clean energy, nature-based solutions, and climate-resilient development. Further, the project will contribute to Fisheries Targets 1, 2, 3 and 4 and Value Chains Targets 1 and 2 of FAO's Blue Transformation Roadmap 2022-2030: A vision for FAO's work on aquatic food systems.

Alignment with regional priorities

This project along with other projects will contribute to FAO's programme of work in the region on sustainable management of fisheries. FAO works with partners, in this region, to strengthen complementarity and coherence among initiatives in the agriculture sector through regional and national platforms. The project will engage with regional and national GCF and AF initiatives to actively target and contribute to making a tangible impact on adaptation and resilience of the fisheries sector in the region involving them in project steering committee meetings to share work plans, progress reports and research to reduce duplication and identify areas for collaboration.

The project will participate in the regional platform of CARICOM's Thematic Group on Climate Change, Disaster Risk Management & Natural Resource Management in which key stakeholders (government and nongovernment) share programmes, and projects and actively seek to build synergies among initiatives. The proposed project will contribute to regional resilience by supporting CARICOM's envisioned 25% reduction in the regional food import bill by 2025.

The annual Caribbean Week of Agriculture also offers opportunities to engage with stakeholders leading on initiatives in the region and to identify areas to work jointly to address regional issues.

The project will support delivery of key 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 aims to improve management of shared living marine resources and address unsustainable fisheries, habitat degradation and marine pollution, particularly strategy 4, 5 and 6.

The project will contribute to the 2014 Caribbean Community Common Fisheries Policy (CCCFP) which 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.

The project also supports the Caribbean Regional Fisheries Mechanism (CRFM) Agreement which promotes cooperation in the sustainable use and management of fisheries including the integrity of marine ecosystems in the countries party to the Agreement. The project will also contribute to the Western Central Atlantic Fishery Commission (WECAFC) Programme of Work as it relates to the following Technical 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).

The project may also support the Regional Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (RPOA-IUU) and the Castries (St. Lucia) Declaration on IUU fishing which 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.

Alignment with national priorities

The project will help Caribbean countries meet their objectives, responsibilities, and commitments under numerous conventions (e.g., UNCLOS, UNCBD, UNFCCC, the Kyoto Protocol), multilateral environmental agreements (e.g., CCRF, SSF Guidelines, the Paris agreement, the Sendai Framework for Disaster Risk Reduction) and associated national strategies. The project directly addresses climate change, disaster, 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, nationally determined contributions (NDCs) submissions, national action plans (NAPs) and other international commitments of the target countries. More generally, it also supports the widely recognized need to further operationalize the EAF in the region.

The project will also generally support countries with making progress on several key international policies, including the Sustainable Development Goals, including SDG 1: Poverty, SDG 2: Food Security, SDG5: Gender Equality, SDG 6: Clean Water and Sanitation, SDG 7: Affordable and Clean Energy, SDG 8: Decent Work and Economic Growth, SDG 12: Responsible Consumption and Production, SDG 13: Climate Action, and SDG 14: Life Below Water (Marine). The project will also support efforts for implementation of the 2009 Port State Measures Agreement (PSMA), the 2001 International Plan of Action to Prevent, Deter, and Eliminate Illegal, Unreported and Unregulated Fishing, the 2014 Caribbean Community Common Fisheries Policy (CCCFP), and the 2010 Castries (Saint Lucia) Declaration on IUU

fishing. The project may also indirectly support the 1983 Convention for the Protection and Development of the Marine Environment in the Wider Caribbean (Cartagena Convention), with associated protocols on Specially Protected Areas and Wildlife (SPA) and Land Based Sources of Pollution (LBS) Protocol and the Oil Spills.

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 climate change and disasters, EAF and 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 Climate Change, National Disaster Risk Management, National Fisheries, National Tourism, Integrated Coastal Zone Management; and planning documents concerned with National Climate Change Action, Disaster Risk Management, Fisheries Management, Natural Resources Management, and Integrated Coastal Zone Management. Specifically, the project objectives and activities are in alignment with the following national level policies and legislations (some of which are under review and have been delayed during to the Covid-19 pandemic):

- Dominica: relevant fisheries, marine ecosystems, climate change and disaster legislation and priorities include Fisheries Act No. 11 of 1987, Fisheries, (Marine Reserve) S.R.O.7 Regulations 2001, Climate Resilience Act No. 16 of 2018, Emergency Powers (Disasters) Act (Cap. 15:03), Climate Change, Environment and Natural Resources Management Bill 2020, National Resilience Development Strategy 2030 and Climate Resilience and Recovery Plan 2020-2030 (CRRP), National Parks and Protected Areas Act, 1975, and Rapid Response Social Recovery Agency Act No. 5 of 2018; Intended Nationally Determined Contribution (INDC) of the Commonwealth of Dominica (Date of text: 01 September 2015), Low Carbon Climate Resilient Development Strategy 2012-2020, and Dominica's Updated Nationally Determined Contributions (Date of text: 04 July 2022);
- Grenada: relevant fisheries, marine ecosystems, climate change and disaster legislation and priorities include Fisheries (Amendment) Act, No. 12 of 2014, Fisheries (Amendment) Regulations SRO.24, Fisheries (Marine Protected Areas) Regulations (Cap. 108), Integrated Coastal Zone Management Act No. 8 of 2019, Disaster (Emergency Powers) Act, 1987. No. 17, National Parks and Protected Areas Act No. 52 of 1991 (Cap. 206) and the National Climate Change Policy and Action Plan (NCCPA) 2017-2021; • National Sustainable Development Plan 2020-2035, National Climate Change Adaptation Plan for Grenada, Carriacou and Petite Martinique 2017 – 2021, Integrated Coastal Zone Management Policy for Grenada, Carriacou and Petite Martinique (Date of text: 01 October 2015), Gender Equality Policy and Action Plan 2014 – 2024, Land and Marine Management Strategy for Grenada. (Date of text: 01 October 2011), National Strategic Development Plan (Date of text: 01 May 2007), National Disaster Plan (Date of text: 07 September 2005), Grenada Second Nationally Determined Contribution (Date of text: 30 November 2020);
- St. Kitts and Nevis: relevant fisheries, marine ecosystems, climate change and disaster legislation and priorities include Fisheries Aquaculture and Marine Resources Act (No. 1 of 2016), Fisheries Regulations 1995 (S.R.O. No. 11 of 1995), National Disaster Management (Amendment) Act, no. 14 of 2020 and National Climate Change Adaptation Strategy 2018. National Climate Change Policy 2017, Saint Kitts and Nevis Agricultural Transformation and Growth Strategy 2022-2031, Updated Nationally Determined Contribution 2021 (Date of text: 01 October 2021), National Plan of Action to prevent, deter and eliminate Illegal, Unreported and Unregulated (IUU) Fishing (Date of text: 31 July 2015), National Social Protection Strategy and Plan of Action (Date of text: 01 March 2012);

- St. Vincent and the Grenadines: relevant fisheries, marine ecosystems, climate change and disaster legislation and priorities include Fisheries Act 986 (Cap. 52), Marine Parks Act, 1997 (No. 9 of 1977), Environmental Act 2009, National Emergency and Disaster Management Act 2006 and National Climate Change Policy 2019; National Adaptation Plan of Saint Vincent and Grenadines (Date of text: 2019), St. Vincent and the Grenadines Intended Nationally Determined Contribution (Date of text: 18 November 2015), Second National Communication on Climate Change (Date of text: 2015), Comprehensive Disaster Management Policy 2014, Food and Nutrition Security Policy and Action Plan (Date of text: 01 April 2014), National Economic and Social Development Plan 2013-2025, National Environmental Management Strategy and Action Plan 2004-2006, National Energy Policy - Sustainable Energy for Saint Vincent and Grenadines (Date of text: 03 March 2009), Draft National Agriculture, Fisheries and Forestry Sector Development Plan (NAFFSDP) 2017-2025; and
- Trinidad and Tobago: relevant fisheries, marine ecosystems, climate change and disaster legislation and priorities include an updated Fisheries Management Bill 2020 which is at the Parliamentary review stage, and 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 the laws will also still need to be drafted and implemented. The Caribbean Fisheries Training and Development Institute Act (CAP. 39:53), Marine Areas (Preservation and Enhancement) Act (Cap. 37:02), Environmental Management Act (EM Act) Chapter 35:05 of 2000, Disaster Measures Act Chapter 16:50 (Act 47 of 1978), Emergency Powers Regulations 2021 and National Climate Change Policy, Intended Nationally Determined Contribution (INDC) (Date of text: 22 August 2018), National Policy on Gender and Development of the Republic of Trinidad and Tobago (Date of text: 01 February 2018), National Protected Area Systems Plan for Trinidad and Tobago (Date of text: 01 January 2018), National Environmental Policy 2018 (Date of text: 2018), Vision 2030 National Development Strategy 2016-2030 (Date of text: 2016), Strategy for Reduction of Carbon Emissions in Trinidad and Tobago, 2040. Action plan for the mitigation of GHG emissions in the electrical power generation, transport and industry sectors (Date of text: 01 August 2015), National Spatial Development Strategy for Trinidad and Tobago (Date of text: 2013), National Climate Change Policy (Date of text: 01 July 2011), The National Policy and Programmes on Wetland Conservation for Trinidad and Tobago 2002 (Date of text: 01 January 2002).

Although none of the 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 (particularly at the local level) 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 (TTD)\$500 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 CC4FISH-II project will help to support national post-Covid recovery efforts.

D. POLICY REQUIREMENTS

Gender Equality and Women's Empowerment:

We confirm that gender dimensions relevant to the project have been addressed as per GEF Policy and are clearly articulated in the Project Description (Section B).

Yes

Stakeholder Engagement

We confirm that key stakeholders were consulted during PIF development as required per GEF policy, their relevant roles to project outcomes and plan to develop a Stakeholder Engagement Plan before CEO endorsement has been clearly articulated in the Project Description (Section B).

Yes

Were the following stakeholders consulted during project identification phase:

Indigenous Peoples and Local Communities:

Civil Society Organizations: Yes

Private Sector:

Provide a brief summary and list of names and dates of consultations

During August and September, bilateral meetings were held between FAO and the following federal institutions:

DOMINICA Meeting 21/09/23: (1) Ms Wynnona Joseph, Senior Fisheries Officer, Fisheries Division, Ministry of Agriculture, Fisheries, Blue and Green Economy; (2) Kerton Jobe, Project Portfolio Support Specialist, FAOSLC; (3) Neila Bobb-Prescott, Climate and Environment Finance Specialist, FAOSLC; (4) Allyson Rivera, GEF Project Design Specialist, FAOSLC.

GRENADA Meeting 19/09/23: (1) Mr Justin Rennie, Technical Specialist / Chief Fisheries Officer, Fisheries Division, Ministry of Agriculture & Lands, Fisheries & Cooperatives; (2) Kerton Jobe, Project Portfolio Support Specialist, FAOSLC; (3) Neila Bobb-Prescott, Climate and Environment Finance Specialist, FAOSLC.

SAINT KITTS AND NEVIS Meeting 15/09/23: (1) Mr Randel Thompson, Director, Department of Marine Resources, Minister of Agriculture, Fisheries and Marine Resources; Cooperatives; Entrepreneurship and Creative Economy.

SAINT VINCENT AND THE GRENADINES Meeting 26/09/23: (1) Mr Kris Isaacs, Senior Fisheries Officer, Fisheries Division within the Ministry of Agriculture, Fisheries, Food Security and Rural Development; (2) Dr Coleen Phillips, National Correspondent for Saint Vincent and the Grenadines, FAOSLC; (3) Kerton Jobe, Project Portfolio Support Specialist, FAOSLC; (4) Neila Bobb-Prescott, Climate and Environment Finance Specialist, FAOSLC; (5) Allyson Rivera, GEF Project Design Specialist.

TRINIDAD AND TOBAGO Meeting 19/09/23: (1) Recardo Mieux, Fisheries Officer, Fisheries Division, Ministry of Agriculture, Land and Fisheries (MALF); (2) Shane Durgah, Fisheries Officer, Fisheries Division, MALF; (3) Marc Bejai, Fisheries Officer, Fisheries Division, MALF; (4) Shandirah Ankih, Fisheries Officer, Fisheries Division, MALF (5) Kerton Jobe, Project Portfolio Support Specialist, FAOSLC; (6) Neila Bobb-Prescott, Climate and Environment Finance Specialist, FAOSLC; (7) Allyson Rivera, GEF Project Design Specialist.

United Nations Environment Programme (UNEP), Cartagena Convention Secretariat, Ecosystems Division (11/10/23): Christopher Corbin, Coordinator, UNEP-CCS-EA.

University of West Indies (UWI), (11/10/2023); Ronald Roopnarine, Lecturer, Faculty of Food and Agriculture, St. Augustine Campus.

During the PPG, a socio-economic and gender expert will be hired to expand consultations of local communities and CSO as early as possible. Likewise, government institutions will participate in the design of project preparation activities and local stakeholders will be consulted at the intervention sites. A Comprehensive Stakeholder Engagement Plan will be developed in cooperation with these stakeholders to define and ensure their participation in the full project design as well as implementation.

(Please upload to the portal documents tab any stakeholder engagement plan or assessments that have been done during the PIF development phase.)

Private Sector

Will there be private sector engagement in the project?

Yes

And if so, has its role been described and justified in the section B project description?

Yes

Environmental and Social Safeguard (ESS) Risks

We confirm that we have provided indicative information regarding Environmental and Social risks associated with the proposed project or program and any measures to address such risks and impacts (this information should be presented in Annex D).

Yes

ESS screening in progress

Overall Project/Program Risk Classification

PIF	CEO Endorsement/Approval	MTR	TE
Medium/Moderate			

E. OTHER REQUIREMENTS

Knowledge management

We confirm that an approach to Knowledge Management and Learning has been clearly described in the Project Description (Section B)

Yes

ANNEX A: FINANCING TABLES

GEF Financing Table

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

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	Grant / Non-Grant	GEF Project Grant(\$)	Agency Fee(\$)	Total GEF Financing (\$)
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FAO	SCCF-A	Dominica	Climate Change	SCCF-A Country allocation	Grant	2,692,294.00	242,306.00	2,934,600.00
FAO	SCCF-A	Grenada	Climate Change	SCCF-A Country allocation	Grant	1,776,485.00	158,765.00	1,935,250.00
FAO	SCCF-A	St. Kitts and Nevis	Climate Change	SCCF-A Country allocation	Grant	2,692,294.00	242,306.00	2,934,600.00
FAO	SCCF-A	St. Vincent and Grenadines	Climate Change	SCCF-A Country allocation	Grant	2,692,294.00	242,306.00	2,934,600.00
FAO	SCCF-A	Trinidad and Tobago	Climate Change	SCCF-A Country allocation	Grant	2,692,294.00	242,306.00	2,934,600.00
Total GEF Resources (\$)						12,545,661.00	1,127,989.00	13,673,650.00

Project Preparation Grant (PPG)

Is Project Preparation Grant requested?

true

PPG Amount (\$)

300000

PPG Agency Fee (\$)

26350

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	Grant / Non-Grant	PPG(\$)	Agency Fee(\$)	Total PPG Funding(\$)
FAO	SCCF-A	Dominica	Climate Change	SCCF-A Country allocation	Grant	60,000.00	5,400.00	65,400.00
FAO	SCCF-A	Grenada	Climate Change	SCCF-A Country allocation	Grant	60,000.00	4,750.00	64,750.00
FAO	SCCF-A	St. Kitts and Nevis	Climate Change	SCCF-A Country allocation	Grant	60,000.00	5,400.00	65,400.00
FAO	SCCF-A	St. Vincent and Grenadines	Climate Change	SCCF-A Country allocation	Grant	60,000.00	5,400.00	65,400.00
FAO	SCCF-A	Trinidad and Tobago	Climate Change	SCCF-A Country allocation	Grant	60,000.00	5,400.00	65,400.00
Total PPG Amount (\$)						300,000.00	26,350.00	326,350.00

Please provide justification

Sources of Funds for Country Star Allocation

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Sources of Funds	Total(\$)
Total GEF Resources					0.00

Indicative Focal Area Elements

Programming Directions	Trust Fund	GEF Project Financing(\$)	Co-financing(\$)
CCA-2-1	SCCF-A	12,545,661.00	85750000
Total Project Cost		12,545,661.00	85,750,000.00

Indicative Co-financing

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount(\$)
GEF Agency	FAO	In-kind	Recurrent expenditures	5200000
Donor Agency	UNEP Cartagena Convention Secretariat	In-kind	Recurrent expenditures	800000
Donor Agency	National Oceanic and Atmospheric Administration (NOAA)	Other	Recurrent expenditures	8000000
Recipient Country Government	Govt. of Dominica	In-kind	Recurrent expenditures	1250000
Recipient Country Government	Govt. of Grenada	In-kind	Recurrent expenditures	250000
Recipient Country Government	Govt. of St Kitts and Nevis	In-kind	Recurrent expenditures	2250000
Recipient Country Government	Govt. of St Vincent and the Grenadines	In-kind	Recurrent expenditures	2200000

Recipient Country Government	Govt. of Trinidad and Tobago	In-kind	Recurrent expenditures	1145573
Others	Caribbean Regional Fisheries Mechanism (CRFM), Western Central Atlantic Fishery Commission (WECAFC)	In-kind	Recurrent expenditures	1000000
Civil Society Organization	Future Fishers, Trinidad and Tobago, Nature Seekers, The Centre for Livelihoods, Ecosystems, Energy, Adaptation and Resilience in the Caribbean Ltd (CLEAR Caribbean), Sustainable Grenadines Inc. (SusGren), Caribbean Natural Resources Institute (CANARI), President Mayraeu, Environment Research Institute Charlottetown (ERIC), Union Island Environmental Attackers, Dominica Conservation Association, Nevis Historical and Conservation Society, Conservation International (CI), World Wide Fund for Nature (WWF)	In-kind	Recurrent expenditures	1000000
Others	The University of the West Indies (Centre for Resource Management and Environmental Studies (UWI-CERMES); Faculty of Food and Agriculture), University of Trinidad and Tobago, Saint George's University (SGU) Grenada	In-kind	Recurrent expenditures	300000
Private Sector	Private sector fisheries operators and companies	In-kind	Recurrent expenditures	8000000
Beneficiaries	Caribbean Network for Fisherfolk Organizations (CNFO), Trinidad and Tobago Unified Fisherfolk (TTUF), All Tobago Fisherfolk Association (ATFA), Grenada National Fisherfolk Organization, National Association of Fisherfolk Cooperative (NAFCOOP) in Dominica, Indian Castle Fisherfolk Association (ICFFA) in Nevis, National Fisherfolk Organizations of Saint Vincent and the Grenadines	In-kind	Recurrent expenditures	2500000
Recipient Country Government	Govt. of Dominica	Public Investment	Investment mobilized	3000000
Recipient Country Government	Govt. of Grenada	Public Investment	Investment mobilized	4000000
Recipient Country Government	Govt. of St Kitts and Nevis	Public Investment	Investment mobilized	2000000
Recipient Country Government	Govt. of St Vincent and the Grenadines	Public Investment	Investment mobilized	2000000

Recipient Country Government	Govt. of Trinidad and Tobago	Public Investment	Investment mobilized	14854427
Others	GCF (Dominica and Grenada)	Grant	Investment mobilized	14000000
Others	Adapatation Fund (Grenada)	Grant	Investment mobilized	10000000
Others	GCF (Trinidad and Tobago)	Grant	Investment mobilized	2000000
Total Co- financing				85,750,000.00

Describe how any "Investment Mobilized" was identified

The co-financing indicated above reflects the 5 partner governments' commitment to programs that will implement key technical actions, finance investments, and support the implementation of this SCCF project. The investment mobilized will come from the following programmes:

- NOAA's management of Coral Reef Early Warning Systems (CREWS) stations.
- Dominica Climate Resilience and Recovery Plan 2020-2030
- Dominica National Resilience Development Strategy 2030
- Dominica Marine Protected Area Programme
- Grenada Marine Protected Area Programme
- Grenada: Unleashing the Blue Economy in the Caribbean (UBEC) project: fisheries insurance and infrastructure investments.
- Saint Kitts and Nevis National Climate Change Adaptation Strategy
- St. Kitts and Nevis National Plan of Action to prevent, deter and eliminate Illegal, Unreported and Unregulated (IUU) Fishing
- St. Vincent and the Grenadines Coral Reef Restoration initiative
- Trinidad and Tobago Public Sector Investment Program (PSIP)
- Trinidad and Tobago National Protected Area Systems Plan
- Trinidad and Tobago Strategy for Reduction of Carbon Emissions by 2040.
- Trinidad & Tobago Action Plan for the mitigation of GHG emissions in the electrical power generation, transport and industry sectors.
- GCF (Antigua and Barbuda, Dominica, and Grenada) USD 20 million project: Integrated physical adaptation and community resilience through an enhanced direct access pilot in the public, private, and civil society sectors of three Eastern Caribbean small island developing states. Objective: to strengthen the resilience of three Caribbean islands to climate change-related threats by improving the hurricane resilience of community buildings, homes, and businesses, and through flood prevention measures. Co-financing for this SCCF project: USD 14 million.
- Adaptation Fund (Grenada) USD 10 million project: Increasing climate resilience and adaptive capacity among farming and fishing communities in Grenada. Objective: to promote climate resilience and adaptive capacity in farming and fishing communities of Grenada, Carriacou and Petite Martinique and foster innovation of new climate smart technologies and practices with a CSA approach.

- GCF Global (Trinidad & Tobago) USD 21.7 million project: CRAFT - Catalytic Capital for First Private Investment Fund for Adaptation Technologies in Developing Countries. Objective: to scale up adaptation finance and accelerate development, application, and transfer of private sector technologies in climate adaptation and resilience, particularly in the context of promoting green recovery from COVID-19. The programme supports investment in six technologies (agricultural analytics, water harvesting and irrigation, food systems, geospatial mapping and imaging, catastrophe risk modeling, supply chain analytics) in six countries in Africa, Latin America and the Caribbean. Co-financing for this SCCF project: USD 2 million.

Co-financing will be confirmed during full project preparation, and the related letters will be submitted to GEF Secretariat at CEO Endorsement.

ANNEX B: ENDORSEMENTS

GEF Agency(ies) Certification

GEF Agency Type	Name	Date	Project Contact Person	Phone	Email
GEF Agency Coordinator	Jeffrey Griffin	10/18/2023	Valeria Gonzalez-Riggio	55473	valeria.gonzalezriggio@fao.org

Record of Endorsement of GEF Operational Focal Point (s) on Behalf of the Government(s):

Name	Position	Ministry	Date (MM/DD/YYYY)
Kimisha Thomas (Dominica)	Senior Policy Advisor	Ministry of Environment, Rural Modernization and Kalinago Upliftment	10/13/2023
Nicole Clarke (Grenada)	Permanent Secretary (AG)	Ministry of Mobilisation Implementation and Transformation	11/10/2023
Nerissa Williams (St. Kitts and Nevis)	Permanent Secretary	Ministry of Environment, Climate Action and Constituency Empowerment	11/15/2023
Janeel Miller – Findlay (St Vincent and the Grenadines)	Director, Sustainable Development Unit	Ministry of Tourism, Civil Aviation, Sustainable Development & Culture	11/13/2023
Hayden Romano (Trinidad and Tobago)	Managing Director	Environmental Management Authority	10/6/2023

ANNEX C: PROJECT LOCATION

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

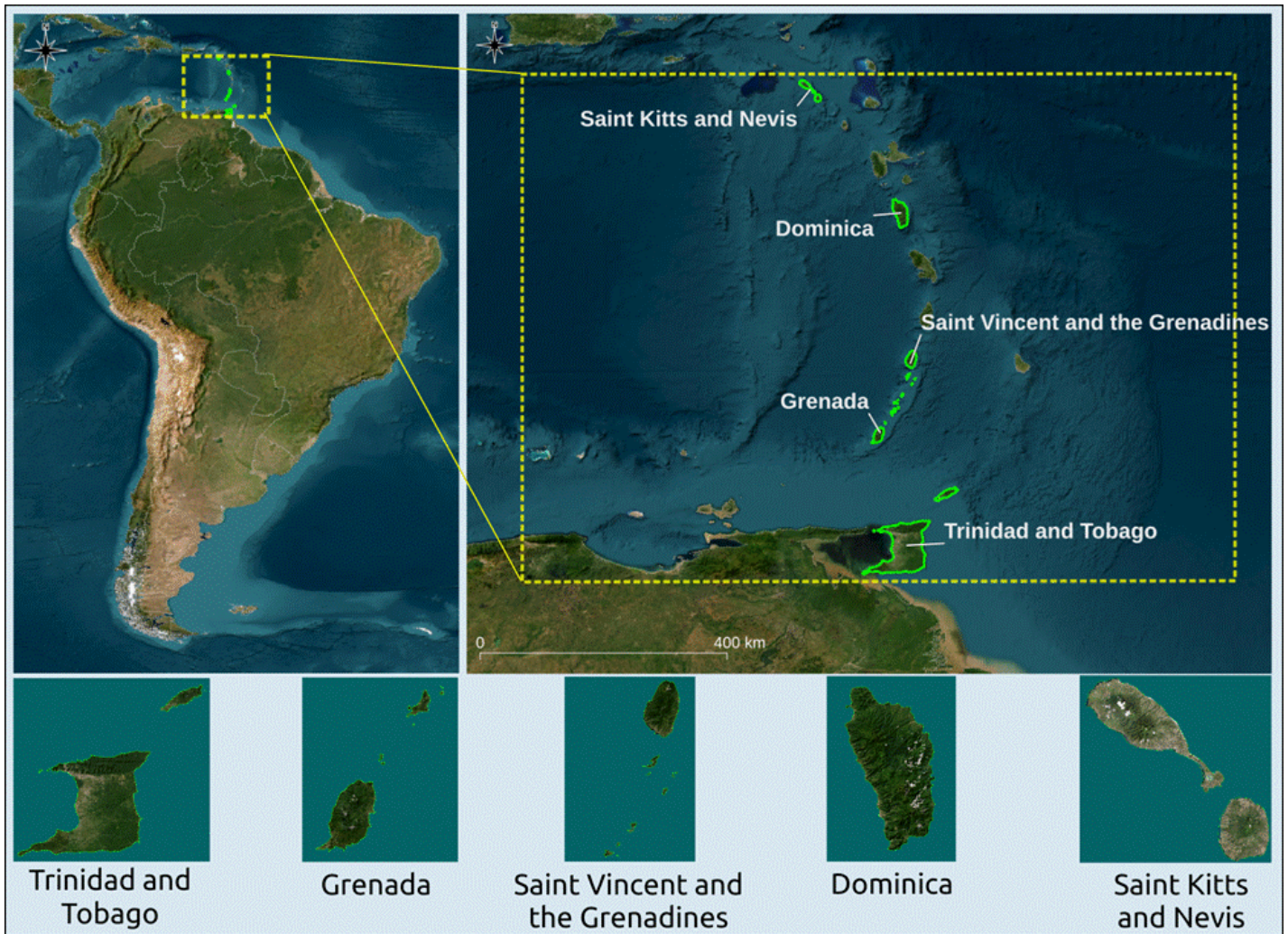


Figure 3 : Map showing the location of the five Caribbean project countries from a regional perspective.

The geo-coordinates of each of the country area is as follows:

Participating countries	Lon W	Lon E	Lat N	Lat S	Hectares
Trinidad and Tobago	-62.121	-60.291	11.370	10.003	516,445
Grenada	-61.965	-61.210	12.542	11.978	31,955
Saint Vincent and the Grenadines	-61.882	-60.690	13.399	12.508	42,828
Dominica	-61.663	-61.057	15.650	15.196	75,355
Saint Kitts and Nevis	-62.934	-62.478	17.428	17.087	26,332

ANNEX D: ENVIRONMENTAL AND SOCIAL SAFEGUARDS SCREEN AND RATING

(PIF level) Attach agency safeguard screen form including rating of risk types and overall risk rating.

Title

ESS Risk Screening_CC4FISH

ANNEX E: RIO MARKERS

Climate Change Mitigation	Climate Change Adaptation	Biodiversity	Land Degradation
Significant Objective 1	Principal Objective 2	Significant Objective 1	No Contribution 0

ANNEX F: TAXONOMY WORKSHEET

ANNEX F: Taxonomy Worksheet

Level 1	Level 2	Level 3	Level 4
Influencing Models	<p>Transform policy and regulatory environments Strengthen institutional capacity and decision-making</p> <p>Convene multi-stakeholder alliances</p>		
Stakeholders	<p>Indigenous Peoples</p> <p>Private Sector</p> <p>Civil Society</p> <p>Type of Engagement</p> <p>Local communities</p>	<p>Individuals/Entrepreneurs Community Based Organization Non-Governmental Organization Academia</p> <p>Information Dissemination Partnership</p> <p>Consultation Participation</p> <p>Awareness Raising Education</p> <p>Public Campaigns</p> <p>Behavior Change</p>	
Capacity, Knowledge and Research	Learning	<p>Theory of Change Adaptive Management</p> <p>Indicators to Measure Change</p> <p>Knowledge Management Innovation</p>	

	Climate Change	<p>Strategic Action Plan Implementation Large Marine Ecosystems</p> <p>Private Sector</p> <p>Marine Protected Areas Biomes</p> <p>Small Island Developing States</p> <p>Climate Change Adaptation</p>	<p>Small Island Developing States</p> <p>Ecosystem-based Adaptation Livelihoods</p>
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