



FAO and the GEF

- **Climate Change vulnerability and adaptation in the Eastern Caribbean Fisheries Sector (CC4FISH)**
- **Project Proposal: NAP+: Blue Economies for the Caribbean**
- **Caribbean Billfish Project**

Caribbean Constituency Meeting

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Climate Change Adaptation of the Eastern Caribbean Project (CC4FISH)

Implementing agency: FAO

Budget: USD 5,460,000 (GEF funded)

Duration: 1 January 2017 - 31 December 2020 (4 yrs)



Food and Agriculture
Organization of the
United Nations

Objective: *To increase resilience and reduce vulnerability to climate change impacts in the Eastern Caribbean fisheries sector, through introduction of adaptation measures in fisheries management and capacity building of fisherfolk, fisherfolk organisations and aquaculturists*

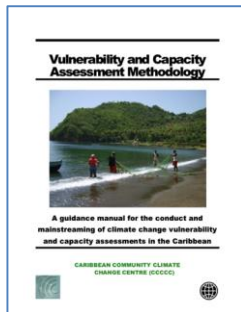
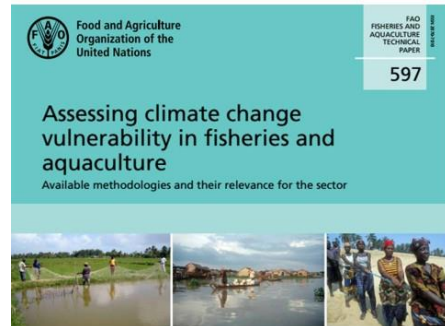
Total 4,500
beneficiaries



Partners:



Assessment of climate change vulnerability of the fisheries sector carried out at the local level



- Combine current trends and frameworks in vulnerability and capacity assessments
- Design of a harmonised methodology which can facilitate understanding and comparison within countries and region
- Develop a regional framework and methodology as well as a practical toolkit
- Include more participatory and qualitative information and methods
- Target specific adaptation measures more effectively in those communities who most need it and to the people who most need it

Support activities related to the influx of Sargassum

- Model of sargassum growth, abundance and transport within the Atlantic North Equatorial Re-circulation Region (NERR) (prediction model)
- Model relationships between sargassum events and key fish landings
- Support developing *National Sargassum Management Plans* in project countries
- Sargassum Symposium (21-22 November 2018) 70 participants
- Removal guide
- Users guide
- Outlook bulletin

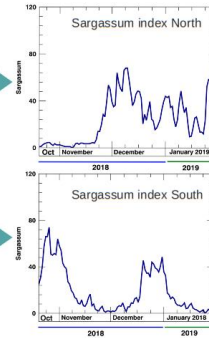


Screenshots of Prototype Outlook Bulletin



CURRENT OUTLOOK (OCT - JAN 2018/19)

- Bloom intensity in the Eastern Caribbean Sea is predicted to decrease slightly from current levels in the coming months.
- Southern islands will be most impacted until the end of November.
- Influxes are expected to shift slightly north by the beginning of 2019.



USEFUL RESOURCES

UWI Sargassum Management Brief 2015
 CHTA/CAST. Sargassum A Resource Guide for the Caribbean
 CRFM Model Protocol for Management of Sargassum Seaweed
 CC4F Timely Guidance for Hotels and Resorts on the Sargassum Influx

FOR MORE INFORMATION CONTACT:

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IMPLICATIONS FOR THE TOURISM SECTOR

- The decrease in bloom intensity is welcomed at the start of the tourism high season (December - April).
- Beaches and bathing areas should remain relatively clear of sargassum.
- Hotels and other tourism businesses should stay tuned to forecasts.



IMPLICATIONS FOR THE FISHERIES SECTOR

- The decrease in bloom intensity coincides with the start of the fishing season (November - June).
- It will be good news for flyingfish fishers and consumers but expect fewer Almaco jacks.
- Windward landing sites should remain clear of inundation.



Disclaimer: The information bulletin is meant to provide a general outlook of current bloom condition and future bloom probability for the Eastern Caribbean. By no means should it be used for commercial purposes, or used for predicting bloom conditions for a specific location or beach. CERMES, GCRL, and USF make no warranties, either expressed or implied, concerning the accuracy, completeness, reliability or suitability of said information. The Bulletin may be freely used and distributed by the public with appropriate acknowledgement of its source but shall not be modified in content and then presented as original material. The authors of this bulletin, as well as CERMES, GCRL and USF, take no responsibility for improper use or interpretation of the bulletin.

Strengthened fisherfolk and CNFO capacity

1700 fisherfolk (men and female) to date have been trained

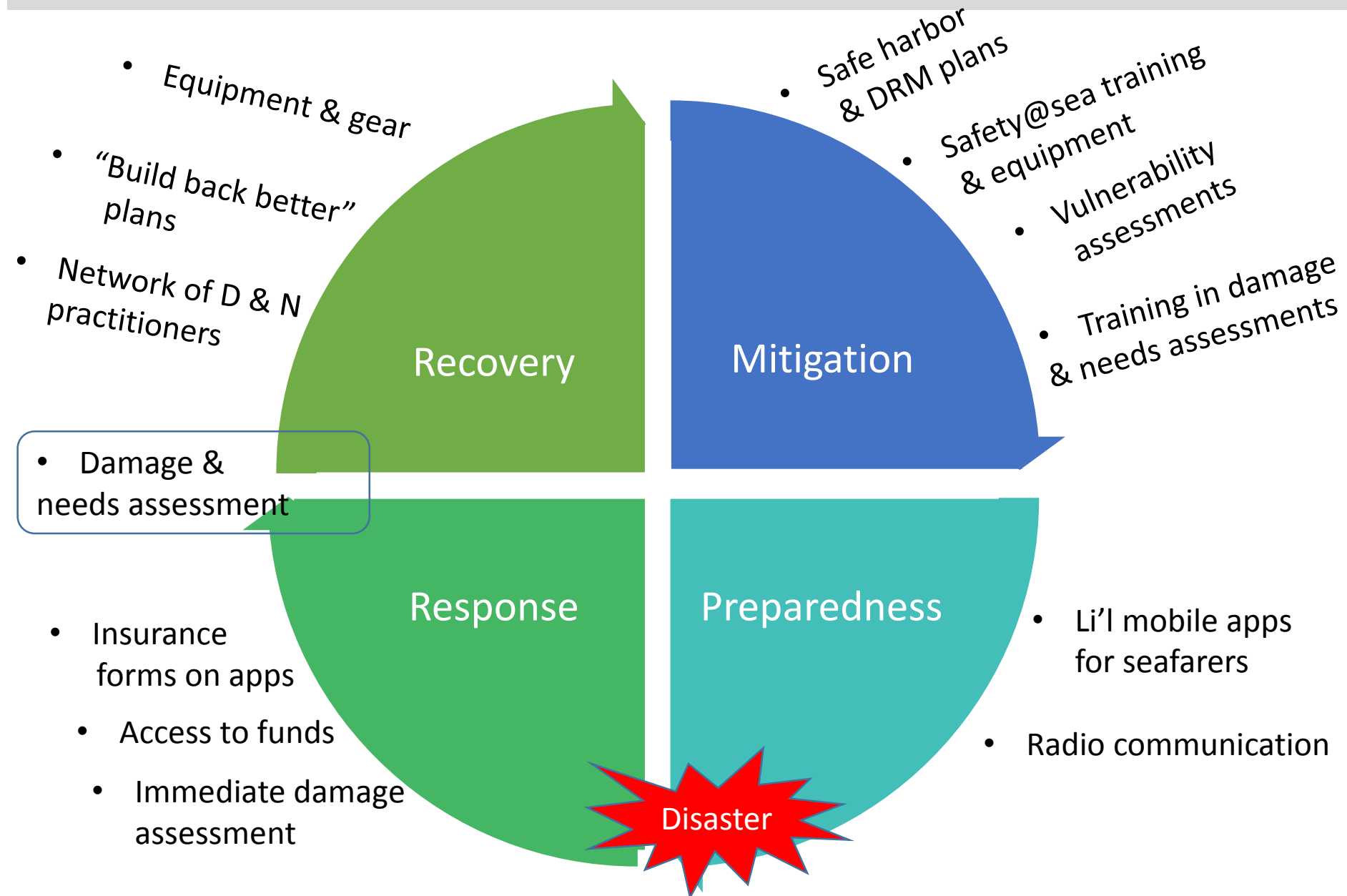
What are some of the activities:

- Basic Fishermen Training
- Safety-at-sea training
- Business skills training
- Food processing and handling training
- Seamoss farming (production and business case development)
- Food processing and handling training
- Fuel efficiency program



**Fisheries Division building Dominica
after Hurricane Maria 2017**

CC4FISH activities in DRM cycle



Improve Basic Fisherman Training

Safety at sea training

- What are the rules of the sea?
- What to do in emergencies?
- Navigation & mechanical skills
- Can you find your GPS location?
- What do you need to take?



Basic Fishermen training in St. Kitts



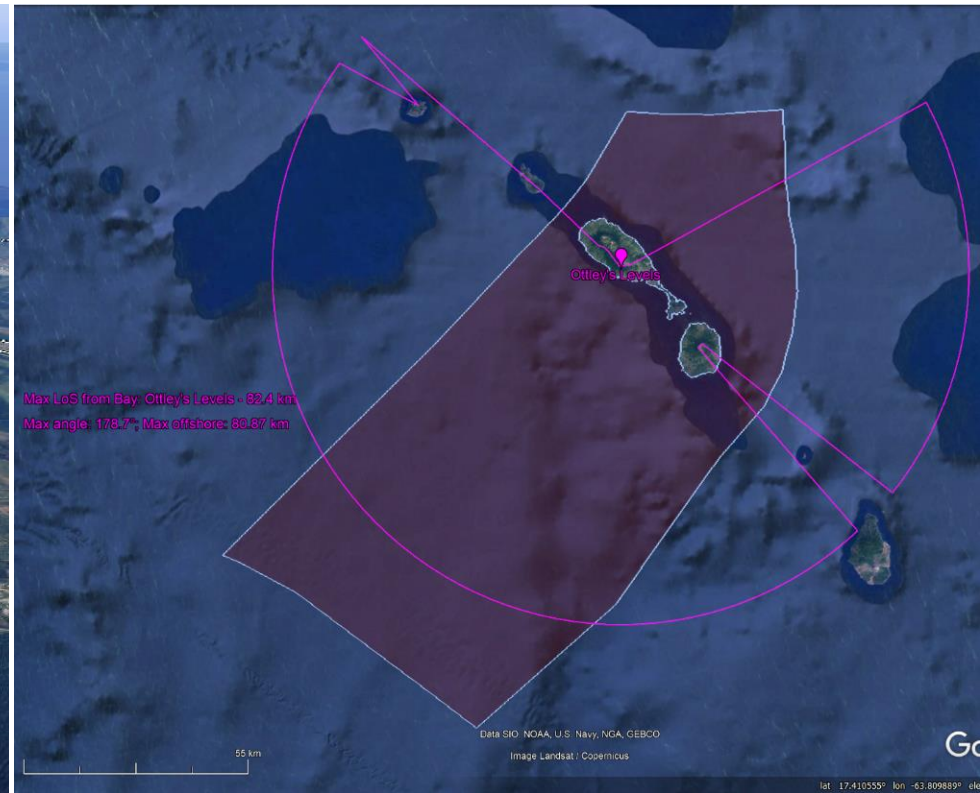
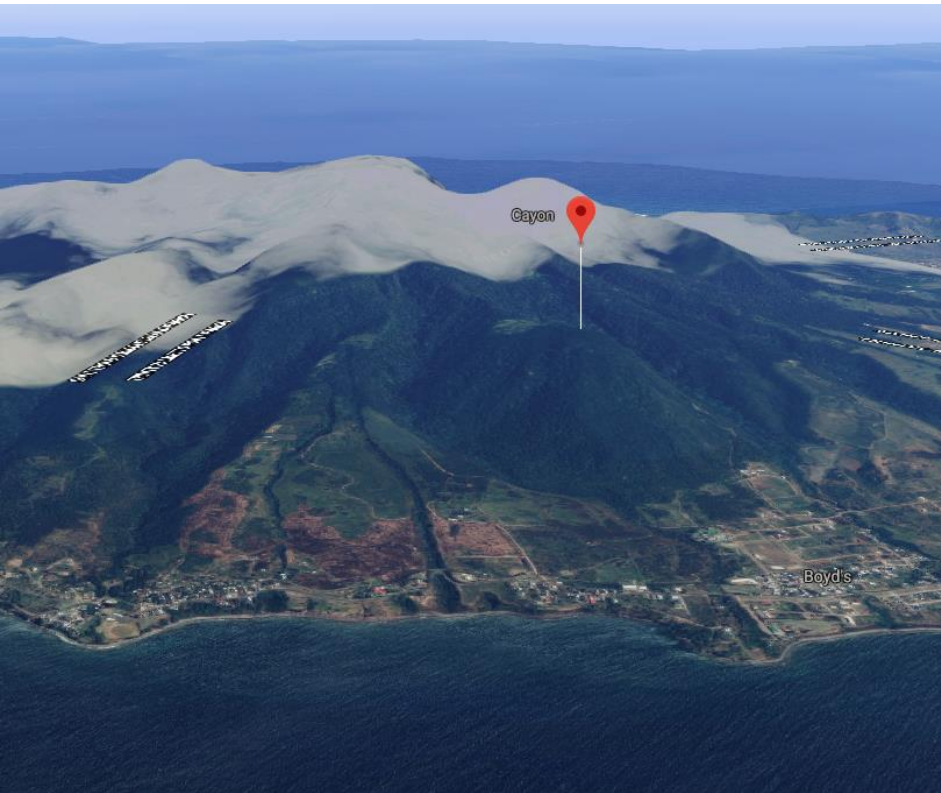
ICT Stewardship: Digital Literacy for Resilience @ Sea

- recognizes diversity in fishers' profiles
- expects different learning pathways
- guides fishers to explore their own devices
- opportunistic learning
- device agnostic



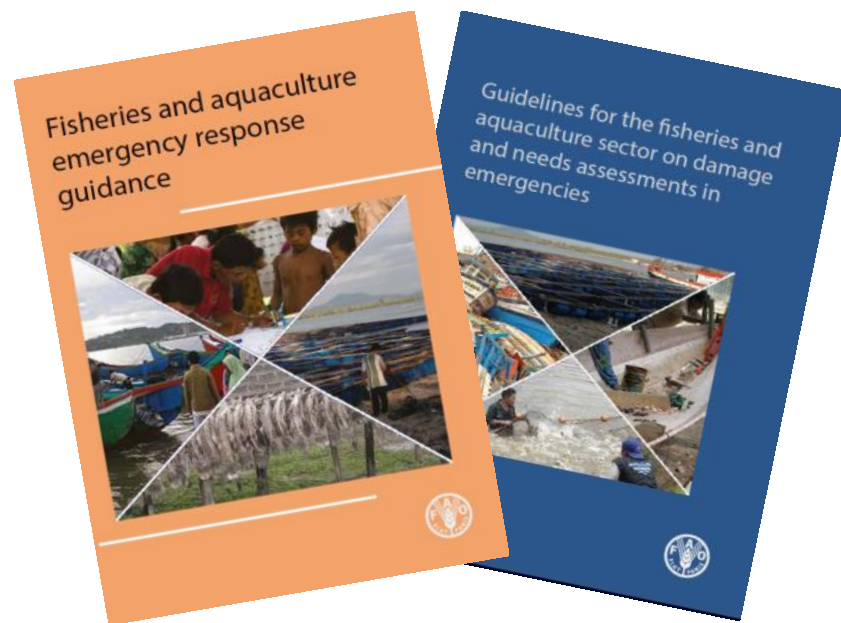
Eg: Line of Sight from a Repeater at Ottley's, St. Kitts

(80 km offshore range)



Prevention at the national level

- Development of DRM plans for the fisheries and aquaculture sector
- Safe harbor plans
- Safety-at-sea manual (for fishers)
- Training of fisheries officers and DRM personnel in Fisheries and Aquaculture Emergency Response
 - Sector often considered too complex
 - Lack of data
 - Limited communication between FO and DRM
 - Use of common methodology
- Build Damage and Loss data base



Aquaculture development in the region

- Support training of fishers in aquaculture
- Rehabilitate existing aquaculture centers and establish new aquaculture centers

Seamoss farming



Aquaponics



Exchange programmes on fisheries co-management and adaptation technology

Examples exchanges:

- Fish Farmers from Saint Lucia, Trinidad and Grenada will go to Antigua to learn about aquaponics
- Saint Lucians go to Jamaica to learn more on MPAs
- SKN have gone to SLU to learn co-management and MPA management
- Seamoss farmers Dominica to go to SLU



Climate change adaptation mainstreamed into policies, plans and associated processes

- Incorporating Ecosystem Approach to Fisheries, Climate Change Adaptation and Disaster Risk Management into legislation, plans and policies
- The Development of a Protocol to Integrate Climate Change Adaptation and Disaster Risk Management in Fisheries and Aquaculture into the Caribbean Community Common Fisheries Policy. Has been endorsed by Ministerial Council on October 11th 2018



Project Proposal

NAP+: Blue Economies for the Caribbean

Ministerial Council Endorsement for development of the PIF

Bridgetown, Barbados

11 October 2018

Component 1: National Blue Economy/NAP+ Strategies and Financing Options aligned with the CLME+/SAP

- **Develop Blue Economy Strategies for 6-7 countries**
 - National BE Strategies developed/improved with priority areas (including use of Marine Spatial Planning)
 - FAO would seek experts and partner organisations for developing the other sectors
 - Development of national portfolio of bankable projects and financial instruments through public and private sectors including de-risking for investing in the fisheries sector
 - Use of innovative technologies and ideas
 - Range of options designed to fit individual countries: e.g. Blue Carbon, certification, mariculture



Component 2: National level activities supporting key BE sectors: Sustainable Fisheries and Marine Ecosystem

- Improved management of data-poor fisheries (vessels registry, catch data, stock assessments and baseline data for insurance, DRM as well as CC impacts)
- Valuation of ecosystem services
- Decreasing fish waste (e.g. reducing by-catch and discards in fisheries)
- Decrease of lost and abandoned fishing gear
- Habitat restoration pilots for key marine habitats for commercially important fish stocks
- Strengthened role of fishers in the restoration and protection of important fishery habitats through the establishment and management of fish refugia
- Improved management of influxes of sargassum
- Development of aquaculture (incl. mariculture)
- Decrease % in overexploitation



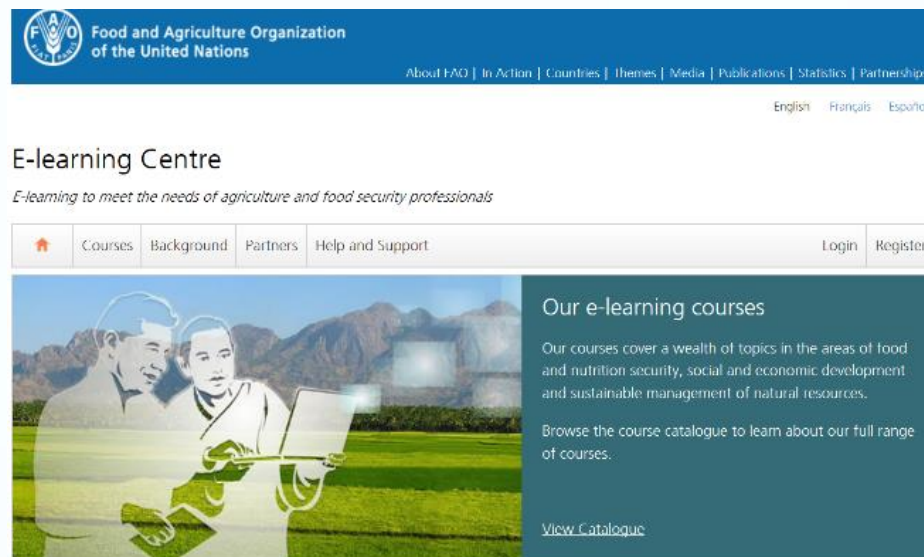
Component 3: Realizing Blue Economy Opportunities along Seafood Value Chains

- **Enhanced financial empowerment of fisherfolk (business skills training, micro-financing etc.)**
- **Improved post-harvest processing methods, creation of new products to reduce waste and market incentives for youth and women**
- **Innovative technologies, market mechanisms, designed and tested along the seafood value chain**
- **Various fisheries under consideration for eco-labelling/certification through improved management.**
- **Improved institutional and regulatory framework in the seafood industry**
- **Fuel efficiency programs**



Component 4: Regional Coordination for Capacity Building through e-learning and knowledge sharing

- **Development of an Blue E-Platform for capacity development**
- **E-learning modules on topics of interest to the countries (e.g. SPS, Certification, Blue Carbon, Debt-for-Nature swaps)**
- **Could be linked with UWI/St. George University and made into a diploma**
- **Platform for knowledge sharing between project countries and regional organisations (interactive)**
- **Technical meetings for knowledge sharing**



Caribbean Billfish Project

Overall Project objective: Increasing the value and sustainability of large pelagic fisheries in the Caribbean region

USD: 5 M

Direct objectives:

- 1. Provide value chain improvement benefits to legitimate fisheries while using linked data traceability and sharing initiatives to identify and address IUU fishing.**
- 2. Enable the sustainable management of fisheries harvesting shared stocks in the Caribbean through improved fisheries data collection, transparency and cooperation.**
- 3. Catalyse innovative mechanisms of fishery value chain improvements to promote the economic viability, social compatibility and ecological sustainability of fisheries.**
- 4. Initiate and support public-private partnerships that incentivize and support the alignment of Caribbean fisheries industries with globally agreed sustainability targets**
- 5. Improve regional management and representation** (Insufficient membership among Caribbean SIDS to the current Atlantic-wide tuna RFMO, the International Commission for the Conservation of Atlantic Tunas (ICCAT))