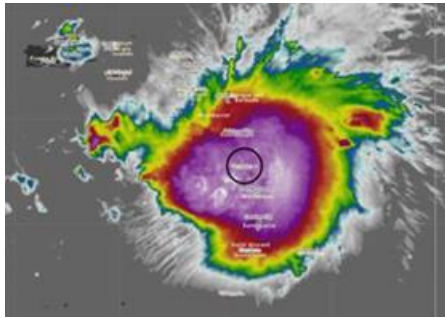


# Fostering climate change adaptation through an Ecosystem Approach to Fisheries in the Eastern Caribbean



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**Climate Change Adaptation of the Eastern Caribbean Fisheries Sector (CC4FISH)  
Project**

**FAO-Subregional Office for the Caribbean**

**Barbados**





**CONSERVE AND SUSTAINABLY  
USE THE OCEANS, SEAS, AND  
MARINE RESOURCES FOR  
SUSTAINABLE DEVELOPMENT** 

**Fisheries sector employs  
64,000 people directly**

**Fisheries sector employs  
180,000 people  
indirectly**

## CARICOM countries

**Fish consumption is  
10-35 kg/capita**

**Fish imports are  
nearly half of  
the fish  
consumed in the  
region**



**Population highly  
dependent on fishery  
resources for livelihood  
and food security -  
especially the many  
SIDS**

**Fish exports  
range  
between 220  
and 290  
million USD**

# Challenges of the fisheries sector in the Caribbean region

- ❑ **High levels of overexploitation: some 55 percent of the commercially harvested fisheries stocks in the region are overexploited or depleted and some 40 percent of the stocks are considered fully exploited**
- ❑ **High levels of Illegal, Unreported and Unregulated fishing (20-30%)**
- ❑ **Impacts of coastal pollution (e.g. sewage and agricultural runoff)**  
Example: Sewage run-off in Barbados





# On top: Climate change challenges for the Caribbean fisheries sector



SST Coral bleaching



Increasing number of high intensity hurricanes



Ocean acidification



SLR coastal erosion



Sargassum influxes

# Climate change adaptation of the Eastern Caribbean Fisheries Sector Project (CC4FISH)

**Implementing agency:** FAO

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

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

**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 and aquaculturists*

15,000  
fishers in  
project  
countries

1,350 processors  
and vendors in  
project countries

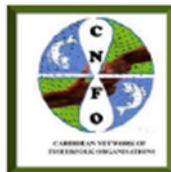
200  
aquaculturists in  
project countries

Total 4,500  
beneficiaries

## PROJECT COUNTRIES



## Partners:



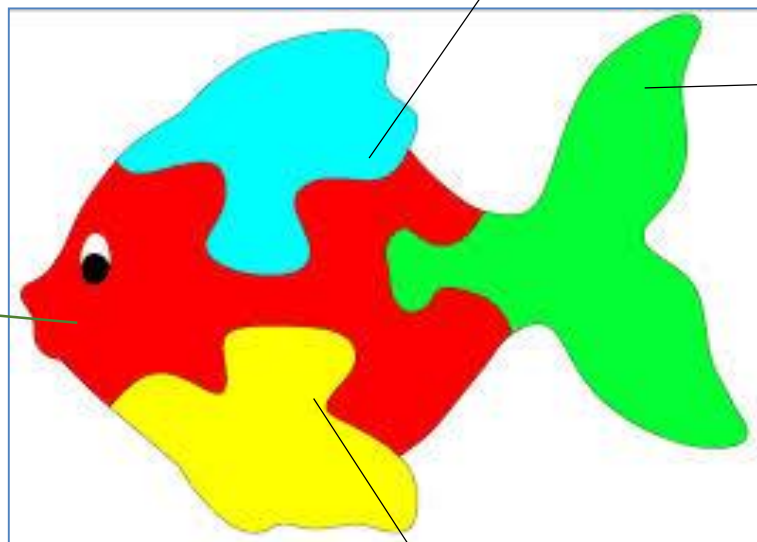


# Jigsaw of CC4FISH

**1) Create better understanding and awareness of climate change vulnerability of the fisheries sector in the Eastern Caribbean**

Guided by system-level understanding  
(Component 1)

**Builds core capability**  
— Interdisciplinary  
— Ecosystem-based  
— Learning, adaptive



Driven by integrated, adaptive, EAF plans  
(Component 3)

**3) Improve governance by mainstreaming climate change adaptation in multilevel fisheries governance**

**2) Create resilience of fisherfolk, fisherfolk organizations and aquaculturists**

Assisted by core capacity development  
(Component 2)

# Strengthen institutional capacity at the regional and national level to implement climate change adaptation measures

- Ecosystem Approach to Fisheries training (adapted to incorporate Disaster Risk Management and Climate Change Adaptation) in July 2018
- Fisheries and Aquaculture Emergency Response (FARE) training scheduled for September 2018 to support the implementation of the fisheries and aquaculture emergency response guidelines



# Strengthened institutional regional and national capacity on mechanisms to implement climate change adaptation measures

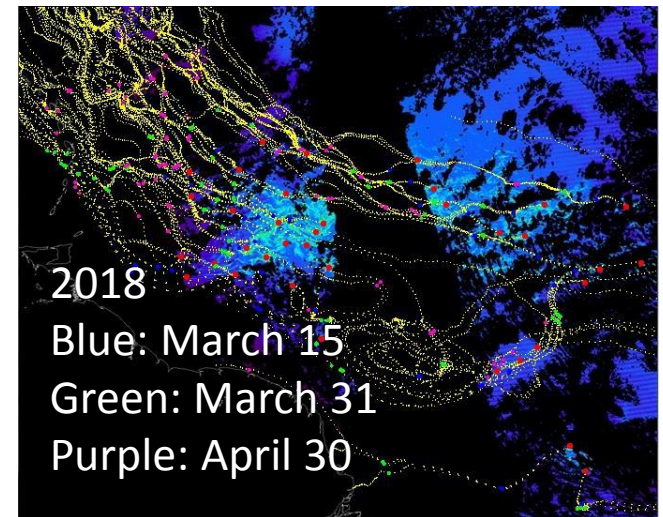
- Incorporating EAF/CCA/DRM into fisheries plans, policies, or legislation in (5) project countries (incl. the outputs from VCA and sargassum activities)
- Developed of a “A Protocol to Integrate Climate Change Adaptation and Disaster Risk Management in Fisheries and Aquaculture into the Caribbean Community Common Fisheries Policy”

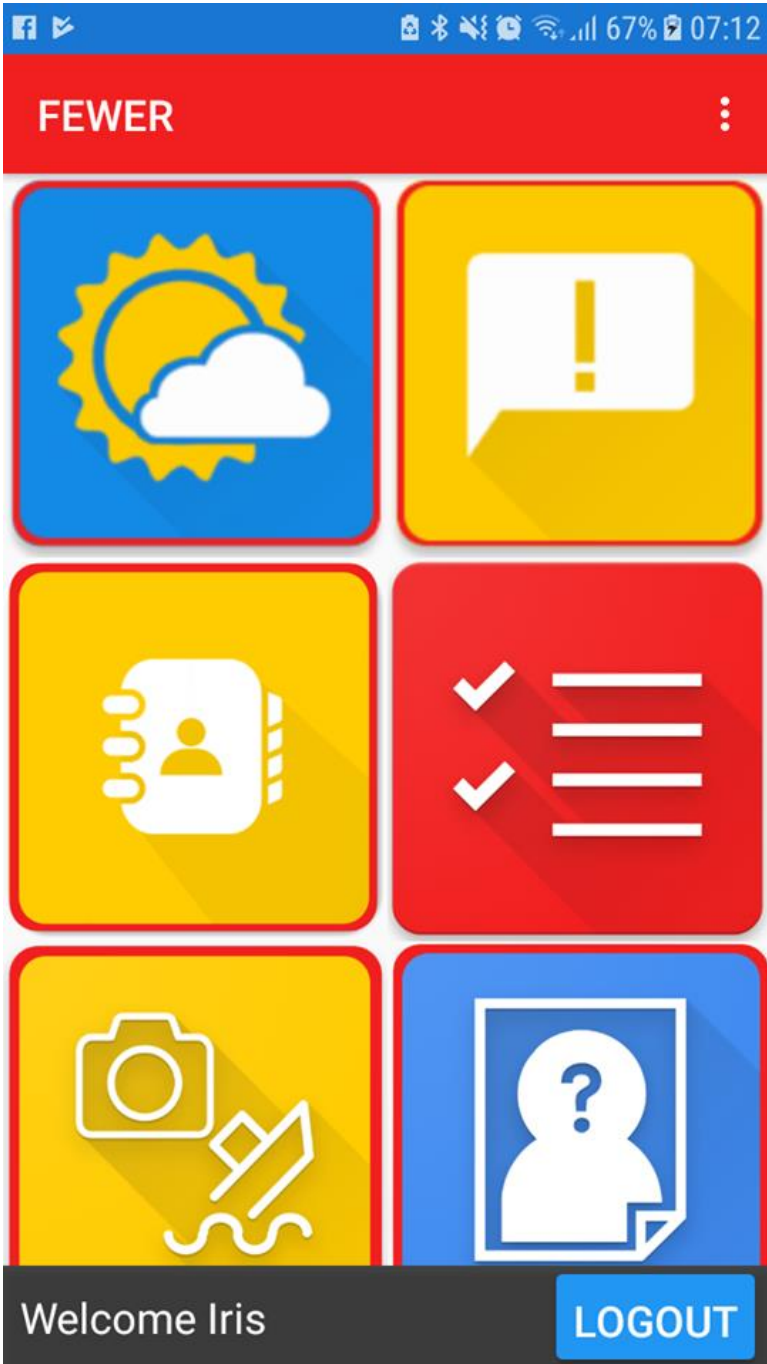




# Models describing fisheries abundance and accessibility

1. Model of sargassum growth, abundance and transport within the Atlantic North Equatorial Recirculation Region (NERR) (prediction model)
2. Model relationships between sargassum events and key fish landings (dolphin fish and flying fish) is ongoing
3. Developing *National Sargassum Management Plans* in 5 project countries, *Best practices guide* and provision of equipment
4. Communication material





## Strengthened ICT capacity of fisherfolk and fisherfolk organizations

Further development of the FEWERS sweep of apps developed

- Weather information
- Communication
- Photo sharing
- Emergency contacts
- Emergency procedures are video files to ensure access to information at all times
- Missing persons



## Building capacity and creating resilience of fisherfolk, fisherfolk organizations and aquaculturists

- Improved Basic Fishermen Training
- Safety-at-sea training and provision of equipment (reduce risks and improve safety)
- Business skills training (improve earnings and savings and bookkeeping records necessary to get loans or insurance)



Basic Fishermen training in St. Kitts  
(Aug 2017)





## Supporting improved and inclusive fish value chains

- ❑ Improve food safety and handling of fish products (improve food availability, earnings, decrease fish waste, improve sustainability)
- ❑ Decrease fish waste and improve income of market vendors by improving traditional smoking, salting, and drying methods to extend shelf life and quality and improve earnings



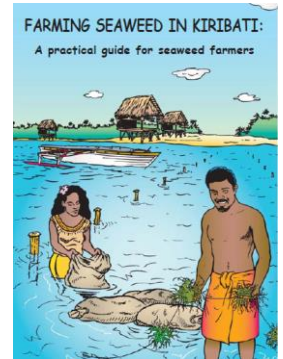
# Aquaculture development in the region: seamoss farming



Seaweed farming activities: regional workshop in Grenada in December 2018 attended by five countries



SLU has developed number of manuals (and follow-up writing workshop): aim is to improve production and marketing (export)



Collaboration with TNC for SVG and CANARI (write shop) for SKN (manuals and business proposals, procurement and export)

## Aquaculture development in the region: Aquaponics



Fish farmers from Saint Lucia and Grenada have attended training and learned from aquaponics farmers in Antigua and Barbuda.

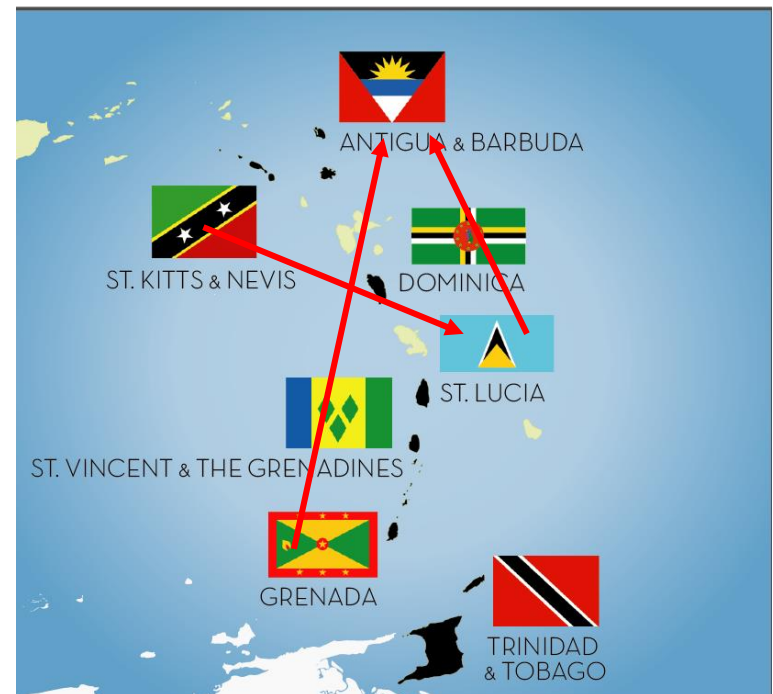
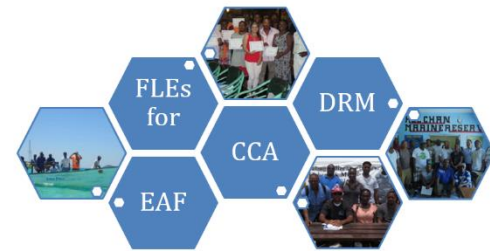
Missions from technical expert from Rome to Saint Lucia and Grenada for design and review of the aquaponics demonstration farm facilities under the project, guiding the private sector and government counterparts on technical and management matters.

Provide technical guidance and assistance in production phase of the demonstration farms and household mobile units

# Fishermen's Learning Exchanges

- Document: “Perfecting the Art of Fisheries Learning Exchanges (FLEs) for EAF, CCA and DRM in the Eastern Caribbean”
- Fish farmers from Saint Lucia and Grenada have attended training and learned from aquaponics farmers in Antigua and Barbuda.
- Dominica trained SKN on Basic Fishermen Training and manual currently being adapted to SKN
- Two fishers of SKN to SLU (incl. coral restoration, aquaponics demonstration, visit to the Soufriere Fishermen's Cooperative on learning exchange on climate change adaptation activities)

Perfecting the art of Fisheries Learning Exchanges (FLEs) for EAF, CCA and DRM in the Eastern Caribbean





Food and Agriculture  
Organization of the  
United Nations



**Thank you**

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