



Assessing climate change vulnerability in Newcastle’s fisheries using value chain analysis

The Caribbean Natural Resources Institute (CANARI) and the Department of Marine Resources (DMR) in Saint Kitts and Nevis engaged fisherfolk and their organisations in Newcastle, Nevis in value chain analysis to systematically assess how climate change impacts on fisheries-related enterprises, from harvesting to processing to marketing and sales, and identify actions to reduce these impacts and add value to their fish products. This analysis was conducted in 2020 under the **Climate Change Adaptation in the Eastern Caribbean Fisheries Sector Project (CC4FISH)**. The two value chains identified as relevant for Newcastle focused on the reef-trap fishery (e.g. doctor fish, grouper, snapper) and pelagic fishery (e.g. dolphinfish, wahoo).

Key climate impacts on the fisheries value chain in Newcastle



Hurricanes, storms and rough seas affect safety at sea, reduce fishing days and damage infrastructure impacting fish storage/processing



Sargassum influx damages boats, engines and gear leading to reduced ability to fish and earn income



Extreme rainfall events lead to flooding, damaging infrastructure and silting up nearshore areas



Changes in ocean conditions e.g. stronger ocean currents, warmer waters, and pollution from land lead to reduced catch and degradation of reefs



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Other challenges

Lack of storage facilities | Limited training and equipment for fish processing | Lack of access to affordable financing to support improvements in fishing enterprise | Fishers work part-time (1-2 days per week) and cannot meet the demand for local fish

Priorities for adaptation and enhancing fisheries value chains

- 1. provide training opportunities for fisherfolk and processors/vendors in small business development and areas such as smoking, salting, filleting to add value (considering specific language needs of immigrant fishers);
- 2. acquire improved tools (e.g. slicer, smoker, sealer, labelling machine) that can enhance processing and production efficiency;
- 3. improve storage and production via acquiring equipment to make operations more sustainable and resilient to disruptions (e.g. ice machine and freezer, back-up generator and water tanks); and
- 4. improve marketing and sales of fish and fish products.



About the project: The Climate Change Adaptation in the Eastern Caribbean Fisheries Sector Project (CC4FISH) was implemented by the Food and Agriculture Organization of the United Nations (FAO) in collaboration with national fisheries authorities in 7 countries, with funding from the Global Environment Facility (GEF).

Reef fishery value chain, Newcastle



Pelagic fishery value chain, Newcastle

