

Developing a Process for Identifying Fisheries Research Priorities

Desarrollando un Proceso para Identificar Prioridades de Investigación Pesquera

Identifier les Stratégies de Recherche sur les Pêches qui Comprennent le Fonctionnement du Processus

ALEJANDRO ACOSTA¹, ROBERT GLAZER¹, MARTHA PRADA², and PATRICK DEBELS³

¹Florida Fish and Wildlife Conservation Commission

Fish and Wildlife Research Institute

2786 Overseas Highway, Suite 119, Marathon, Florida 33050 USA.

alejandro.acosta@myfwc.com, robert.glazer@gcfi.org

²H2C 2

Box 1736, Boqueron 00622 Puerto Rico,

pradamc@gmail.com

³UNDP/GEF CLME+ Project,

Edificio Inteligente Chambacu,

Oficina 405, Cartagena, Bolivar 130001 Colombia.

EXTENDED ABSTRACT

Ecosystem-Based Fisheries Management (EBFM) has been promoted in the wider Caribbean as a sound approach for achieving the sustainable use of marine fishery resources. However, developing fisheries' strategies aimed to respond to multiple objectives is complex, especially when managing multi-species fisheries. With the support of the UNDP/GEF "Caribbean and North Brazil Shelf Large Marine Ecosystems" (CLME+) Project, research priorities were identified for four key CLME+ fisheries in the region: Caribbean spiny lobster, fourwing flyingfish, shrimp, and groundfish fisheries.

This presentation draws on a range of information sources, including from the results of questionnaires developed during the workshop conducted by GCFI to identifying research priorities for three focal fisheries in the CLME+ region (Figure 1) with an emphasis at the management/research interface. This workshop was held as part of the Gulf Caribbean Fisheries Institute Annual Conference in November 2017 in Merida, Yucatan, Mexico. At this workshop, the participants identified the need for actions to correct issues that are specific to five areas: research/monitoring, governance, capacity building, communication and implementation. The objective of this presentation is to outline the process undertaken to agree on research priorities for these complex, multi-species fisheries in order to improve management and achieve economic and social sustainability goals (Figure 2).

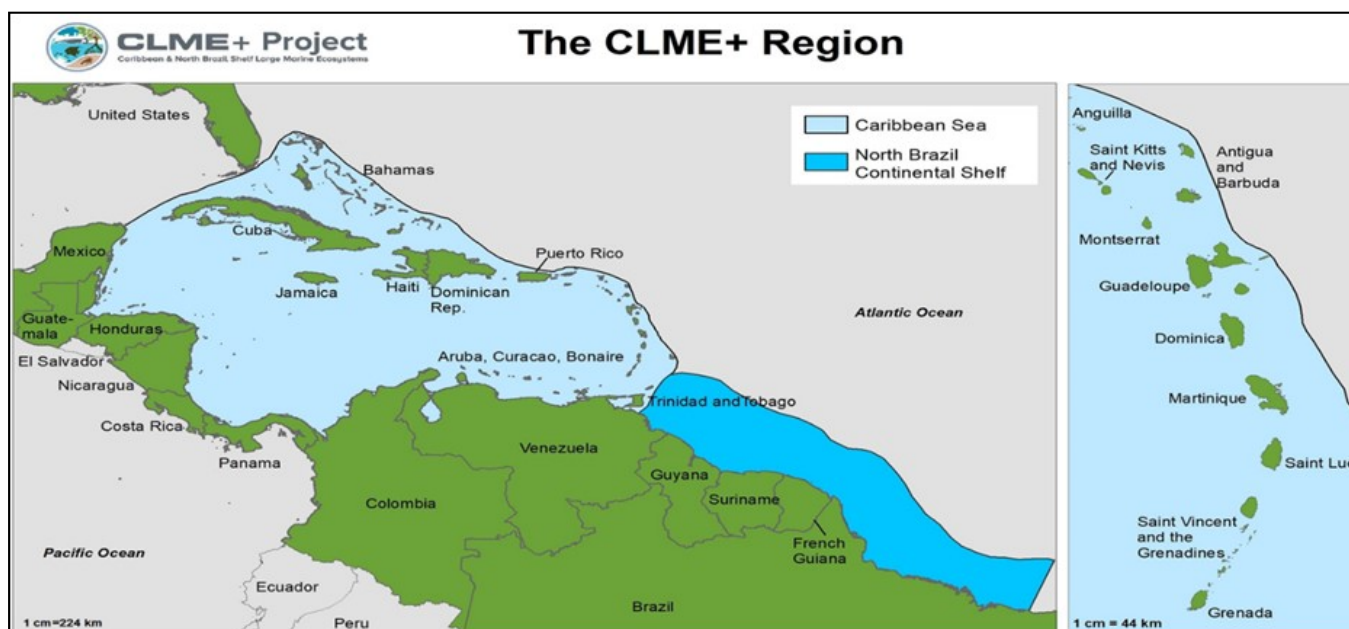


Figure 1. The countries/states of Caribbean and North Brazil Shelf Large Marine Ecosystems" (CLME+)

We presented on the participatory process utilized to identify research priorities across the Caribbean and North Brazil Shelf Large Marine Ecosystem that has brought stakeholders together from across the region during the GCFI annual meetings since 2016. The workshop identified key research actions related to monitoring, governance, communication, capacity building and implementation around the spiny lobster, flying fish, shrimp and groundfish fisheries (Figure 3).

The research priorities for these fisheries inevitably included some degree of overlap given the complex nature of transboundary marine resources in the Caribbean. Included among these complexities are biological and physical processes, as well as socio-economic, cultural, and governance interactions. Workshop participants recognized the need for accurate and timely scientific data as a foundation for EBFM called for urgent investment in new and improved data collection strategies which address existing

Approach and Methodology

Consultation

- Government agencies, civil society organizations, funding agencies, research
- Review and compilation of Strategic Research agendas in the CLME+ regions
- Consultation of technical documents, literature and management plans
- Stakeholder consultation workshops hosted at the 71th annual meeting of the GCFI



Figure 2. Consultation approach for the identification o research gaps.

From Vision to Strategic Research

Common Research Actions Identified at National, Regional & Transboundary level

	Spiny Lobster	Flying fish	Shrimp and groundfish	
Research and Monitoring	Governance	Communication	Capacity Building	Implementation
<ul style="list-style-type: none"> • Ecological assessment. • Stakeholder surveys. • Legal assessment • Economic valuation • Habitat mapping • Marine spatial planning 	<ul style="list-style-type: none"> • Management support. • Enforcement support. • Management of the marine environment and climate change • Legal drafting • Zoning analysis • Financial planning • Enhance research cooperation in transboundary issues. 	<ul style="list-style-type: none"> • Education & outreach • Increase compliance and awareness about fisheries regulations and conservation. • Develop mechanisms and strategies for timely dissemination of data & information • Data digital repository • Networking 	<ul style="list-style-type: none"> • Strengthened institutional capacity • Provide capacity building training on new approaches or tools for effective monitoring, control and surveillance. • Develop continuous education and outreach programs for stakeholders 	<ul style="list-style-type: none"> • Enhance implementation through participatory planning. • Enhance ongoing implementation & enforcement by government.

Figure 3. Theme and research topics associated with the Caribbean Spiny Lobster, Flyingfish and Shrimp and groundfish Fisheries in the CLME+ region

data gaps. Ultimately, this will improve public confidence in the information, and facilitate the recovery of socially, economically and ecologically important fish stocks.

Ecosystem-based management has five major pillars with the overall goal to ensure healthy, productive, and diverse marine ecosystems. These include:

- i) The maintenance of ecosystem characteristics to protect non-target species, vulnerable species, habitats, and trophic interactions,
- ii) The protection of essential habitats to sustain species diversity and abundance,
- iii) The protection of endangered, threatened, and vulnerable species,
- iv) The reduction of bycatch and discards and elimination of destructive and unselective exploitation methods, and
- v) The management of target species in the context of the overall state of the ecosystem, habitat, protected species, and non-target species.

The main takeaways included the need for greater information exchange between scientists and fishers, capacity building that includes infrastructure and technical skills, and long-term intergovernmental science-based management. From the survey's responses it was perceived that this is the moment to take action, that there are many tools already in place, but we need to build political will and build better partnerships to ensure we keep moving towards the implementation of a regional Ecosystem-Based Fisheries Management (EBFM). We concluded remarking where we are and where we want to be (Figure 4).

KEYWORDS: Ecosystem based fisheries management (EBFM), research strategy, CLME+

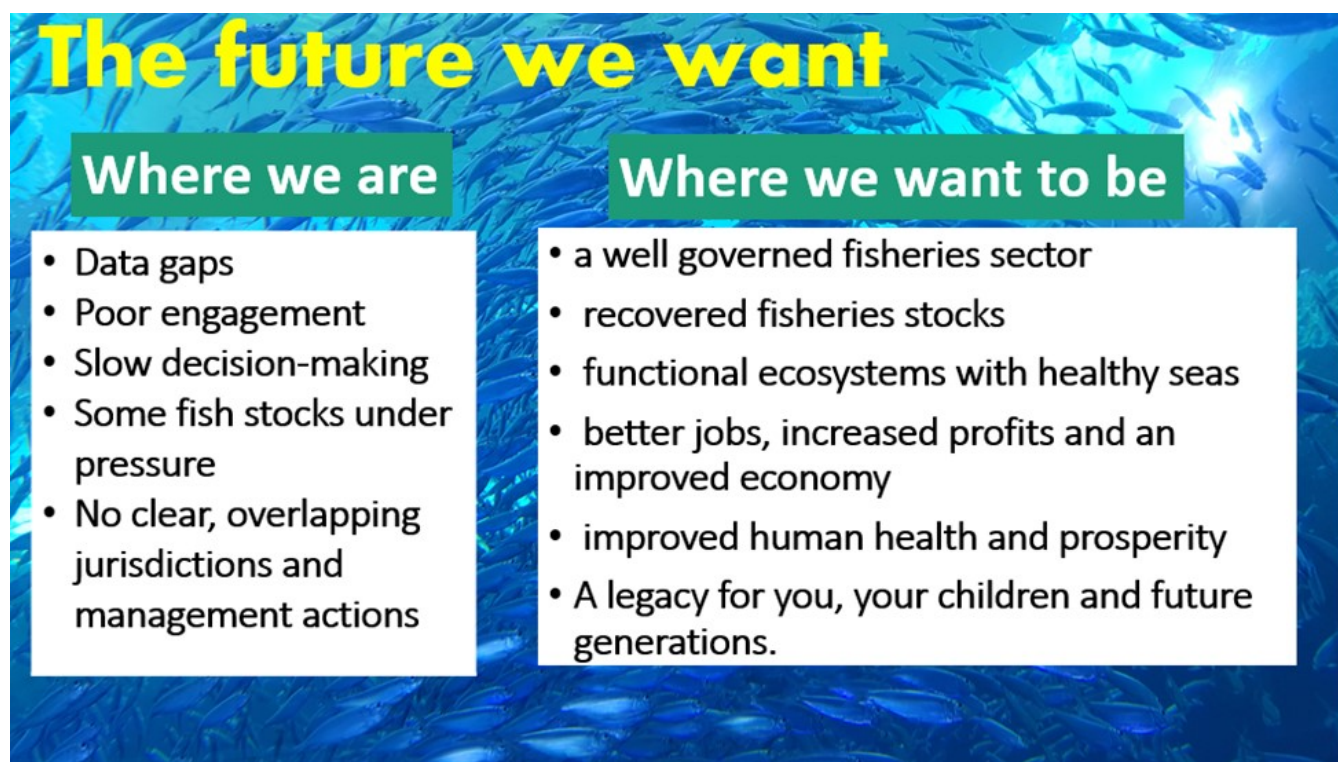


Figure 4. Where we are and where we want to be.