

**Effective Fisheries Management Redefining Fisheries Policies
in the Gulf of Mexico and the Caribbean Region**

**Gestión Pesquera Eficaz que Está Redefiniendo Políticas Pesqueras
en la Región del Golfo de México y del Caribe**

**Une Gestion Efficace de la Pêche Redéfinit Les Politiques de Pêche
dans le Golfe du Mexique et dans la Région des Caraïbes**

VALERIE MILLER
Environmental Defense Fund
301 Congress Ave., Suite 1300
Austin, TX 78701 USA.

GCFI SESSION SUMMARY

Environmental Defense Fund (EDF) facilitated a special session to share fisheries management and policy experiences and discuss how to advance sustainability in the Gulf of Mexico and Caribbean at the 72nd annual conference of GCFI on November 6, 2019 in Punta Cana, Dominican Republic. An international group of 15 diverse experts - government officials, fishers and fishing organization leaders, scientists and NGO representatives - presented case studies from Belize, Colombia, Cuba, Dominican Republic, Mexico and the US on the implementation of fisheries management strategies and policies are being reshaped in the region to address priority challenges. These examples included single-species management, TURF systems, science-based decision-making, and community-based management. The session also highlighted Cuba's new Fisheries Law that mandates science-based sustainable fisheries management and Belize's upcoming Fisheries Bill which builds upon the successful adoption of a national tenure program for small-scale fisheries.

The four-hour session included 13 presentations and 2 panel discussions in the following order:

- Miller, V. — Effective fisheries management redefining fisheries policies in the Gulf of Mexico and the Caribbean region.
- Valle, S., R. Puga, and R., Alzugaray — Catch quotas for a finfish fishery in the Gulf of Batabanó: Lane snapper (*Lutjanus synagris*)
- Rodriguez, E. — Innovating Fisheries Management in Belize Managed Access Committees.
- Carrillo Galáz, J.L. — The importance of participation in fisheries management.
- Mateo, J., S. Zambrano, and A. Croquer — Analysis of the effectiveness of the parrotfish ban in DR: lessons learned from 2 years.

Multinational panel on fisheries management facilitated by N. Requena.

- Miller, V. — The Pillars of Sustainable Management.
- Puga, R. — Cuba's Fisheries Law, a call for sustainability and adaptive management.
- Aldana, A. — Revision of the Fisheries Act in Belize: National strategy for sustainable small-scale fisheries for Belize.
- Santos Valencia, J. — Governance through participation mechanisms.
- Silleck, E. — Recreational Fisheries Reform in the U.S. Gulf of Mexico.
- Manjarrés Martínez, L. — The management of fishery resources in Colombia: an analysis of their relevance and opportunity from a historical perspective.
- Acosta, A., R. Glazer, M. Prada, and P. Debels — Developing a process for identifying fisheries research priorities.

Multinational panel on fisheries policy facilitated by N. Requena.

- Whittle, D. — A shared vision for the future.

Valerie Miller, Senior Manager with EDF, framed the session by describing pillars of sustainable fisheries management: appropriate management scales, ecosystem-based approaches, transparent and participatory decision-making processes, effective controls on fishing capacity and harvest, science-based management (including targets, state, and limits), equitable system of access, rights and incentives; fishery management plans; monitoring and accountability mechanisms. Presentations then highlighted how these pillars are being applied across the region:

- i) In Cuba, scientists conduct annual stock assessments of the lane snapper fishery in the Gulf of Batabanó to set catch quotas. Romina Alzugaray, researcher at the Center for Fisheries Research, described how after implementing this management measure which effectively controlled harvest, the fishery is now showing signs of recovery. According to Dr. Rafael Puga, this case study and the country's long history of science-based fisheries management of many invertebrates informed the requirement in Cuba's 2019 fisheries law for management of all fishing

- resources to be based on the results of assessments. The new law aims to establish regulations for proper management, administration and control of fisheries, in accordance with the conservation and rational use of hydrobiological resources in maritime waters, rivers and lakes, in order to contribute to food sovereignty.
- ii) In Belize, a national system of territorial use rights for fishing (TURF) known as Managed Access is strengthening fisheries management through community involvement and an ecosystem-based approach. Elmer Rodriguez, a fisher and Director of National Fishing Cooperative, described how each Managed Access Area (which include both fishing zones and protected areas) has a committee made up of representatives from each community within that area. Committees make recommendations to improve the management system and determine which fishers are eligible to access the area, partially based on compliance with regulations and upholding their responsibility to submit catch data. Andrés Aldana, of the Turneffe Atoll Sustainability Association (TASA) discussed how transparent and participatory decision-making processes behind the Managed Access system has informed the draft Fisheries Resources Bill of 2019 which includes requirements for consultation and proposes the establishment of a national fisheries advisory council with strong fisher representation.
 - iii) In Yucatan, Mexico, José Luis Carrillo Galáz, a fisher and president of the Yucatan Cooperatives Federation, described how the declining red grouper fishery spurred participatory management processes and the development of a multistakeholder Red Grouper Fishery Council that includes fishers (from industrial and small-scale fishing associations) and representatives from the National Aquaculture and Fishing Commission (CONAPESCA), state government, scientific institutions, and NGOs. Dr. Josefina Santos, Head of the Regional Aquaculture and Fisheries Research Center of the National Fishing Institution in Yucalpeten, described how this improved communication and capacity to implement management measures. Furthermore, a recent collaboration was launched with the red grouper research network to agree on research priorities that can help inform future management decision-making. The red grouper participatory process inspired the formation of prompted new octopus fishery councils in Yucatan and Campeche in 2019.
 - iv) The Dominican Republic enacted a national fishing ban on parrotfish in 2017 due to overfishing of this species that is critical to coral reef health. Someira Zambrano (Coordinator of the Red Arrecifal Dominicana), Jeannette Mateo (Director of Fisheries Resources with the Dominican Fisheries and Aquaculture Council (CODOPESCA)), and Aldo Croquer (The Nature Conservancy), described how government institutions and NGOs are working together to assess the impact of the ban on parrotfish populations and the fishing sector. While the ban has so far had limited success in some fishing communities and consumer awareness around not eating parrotfish increased, challenges remain to achieve full implementation. The three presenters identified areas to continue to improve implementation including persistent monitoring, greater participation and training for fishers, enforcement officers and inspectors, and developing economic alternatives for fishers.
 - v) In the U.S., the federal fisheries law requires science-based quota management, divided across the commercial and recreational sector for shared stocks, and includes accountability measures. Elizabeth Silleck, a Senior Conservation Manager at EDF, described how disparate management within the Gulf of Mexico red snapper recreational fishery caused a problem where growth of the private fishing sector resulted in declining access for the recreational for-hire sector. To address the issue, managers divided the total recreational sector quota across these two sub-sectors (private and for-hire). She said that separating the quota for these sectors secured access for for-hire fishers and their customers and revealed the need for improved private angler data collection to be able to stay accountable to management.
 - vi) Luis Manjarrés Martínez, from the University of Magdalena, Colombia, presented an assessment of fisheries management in Colombia and discussed the various phases of regulations over many decades. While the use of minimum size limits expanded across species over time, it appeared that the regulations were less effective than other strategies due to a decreasing capacity to implement the many size limits. The more recently implemented TURF system appear to be a more effective management strategy in keeping harvest to sustainable levels. The study highlighted the need for improved data on fishing effort, especially for multispecies fisheries that involve many data-limited species.
 - vii) Alejandro Acosta, of the Florida Fish and Wildlife Conservation Commission, 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 group identifies key research actions related to monitoring, governance, communication, capacity building and implementation around the spiny lobster, flying fish, shrimp and groundfish fisheries. 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.

Through the two discussion sessions facilitated by Nicanor Requena of EDF-Belize, the group of experts spoke on lessons learned and brought out key trends for the region. Together they called for participation of fishers in the science and management process, ecosystem-based and adaptive approaches, understanding of fishers' perspectives and the impacts of regulations, data collection (particularly for finfish and multispecies fisheries), and capacity building programs. The participants emphasized that effective management resulted from strong science (biological, fisheries, and social) and collaborative processes that bring together key stakeholders, especially government institutions, organized fisher groups, research centers, and NGOs. These collaborations see fishers as part of the solution not the problem.

Daniel Whittle, Director of Caribbean Initiatives at EDF, shared resources that EDF has developed to help support fisheries management processes, including [Sustainable Fisheries Toolkit](#), which includes resources to inform design and implementation, and [Virtual Fisheries Academy](#), free online interactive courses in English, French, Spanish and Mandarin for fisheries stakeholders.

The session concluded with a look into emerging topics in fisheries policy and management. Panelists mentioned the need to consider climate change scenarios, adjust catch limits accordingly, and aim for socio-ecological resilience through adaptive, flexible regulations and economic diversification strategies. Technology is also playing a larger role in fisheries around the world whether through catch reporting via cell phone applications to improved monitoring of fishing activities.

The partnerships and innovative fisheries management strategies highlighted in this session address some of the overarching challenges faced by the region, overfishing, illegal fishing and climate change. Together countries can leverage the lessons learned from these practices to drive new sustainable fisheries policies that facilitate and promote resilient fisheries and fishing communities.