

Netting Fishers

A Fisheries Forum in Cuba brought together stakeholders from coastal communities to examine opportunities and challenges to make fisheries more sustainable

Fishermen from across Cuba gathered for the first time in September 2018 at the Fisheries Forum called EncuentroPesquero. For three days, 55 stakeholders, including 21 fishermen from 10 coastal communities, joined heads to diagnose the status of fish populations and priorities for their management across Cuba's four fishing zones. They examined opportunities and challenges for sustainable fisheries and developed a shared vision for the future.

Fishing is vital for Cuba's economy and the livelihoods of its coastal communities. Fisheries here are highly diverse and small-scale, for the most part. Boats are typically less than 20 metres in length, with the exception of some shrimp vessels. The total annual harvest averaged around 21,500 tonnes between 2013

and 2018. The government regulates commercial fishing through the Office of Fisheries Regulations and Sciences of the Ministry of the Food Industry (DRPC-MINAL) under Decree Law 164 of 1996. The law calls for science-based management for sustainable harvests. The commercial fishing sector is divided between the state commercial fleet, which employs around 14,000 fishermen on 600 state-owned vessels, and the private commercial fleet with 18,600 fishermen working 3,100 private vessels operating under contract with state-owned seafood enterprises. The non-commercial sector comprises

17,600 fishermen on 5,400 vessels and includes subsistence and sports fishing. Scientists and managers acknowledge that a majority of fisheries in Cuba are fully exploited or overexploited. Cuba has responded by applying various fisheries management measures based on the best science available, a strong regulatory framework and the growing participation of fishermen and fishing communities. As part of these efforts, the DRPC-MINAL held its first EncuentroPesquero to consolidate the multiple fisheries-related networks already present throughout the island.

The Environmental Defense Fund (EDF) worked alongside DRPC-MINAL to help organize and implement the event. The objective was connecting different fisheries groups. Fishermen and staff of different ports, who operate their fleets in shared waters, sat across the table to discuss the state of the island's four fishing zones. For each zone, the participants reflected on new scientific results to identify the species most vulnerable to overfishing, recognizing that they have to work together to recover declining fisheries. Fishermen like Gerardo Mollineda López, a skipjack tuna fisherman from Carahatas on the north coast, and Hipólito Arévalo Martín, a fisherman from the Isle of Youth on the south coast, interacted with their counterparts from opposite coasts, discovering that although they face similar challenges, many people like them are working to improve fisheries and fishing jobs across the country.

Challenging conversations

The Encuentro put everybody in someone else's shoes, setting off challenging conversations that identified values common to

Scientists and managers acknowledge that a majority of fisheries in Cuba are fully exploited or overexploited.

and 2018. The government regulates commercial fishing through the Office of Fisheries Regulations and Sciences of the Ministry of the Food Industry (DRPC-MINAL) under Decree Law 164 of 1996. The law calls for science-based management for sustainable harvests. The commercial fishing sector is divided between the state commercial fleet, which employs around 14,000 fishermen on 600 state-owned vessels, and the private commercial fleet with 18,600 fishermen working 3,100 private vessels operating under contract with state-owned seafood enterprises. The non-commercial sector comprises

This article is by Eduardo Boné Morón (ebone@edf.org), Manager, Ocean's Program at Environmental Defense Fund, Cuba, Raidel Borroto Vejarano (raidel.borroto@cip.alinet.cu), Director, Center for Fisheries Research of the Ministry of the Food Industry, and Valerie Miller (vmiller@edf.org), Senior Manager, Ocean's Program at Environmental Defense Fund, Cuba

NOEL LÓPEZ FERNÁNDEZ.



Goliath grouper (*Epinephelus itajara*) at Gardens of the Queen National Park in Cuba. In 2018, Cuba banned entirely the harvest of this iconic finfish species that can weigh as much as 800 pounds. This is part of Cuba's strategy to conserve vulnerable species and focus fishing effort

5

fishermen, scientists, conservationists and managers. For example, María Rosa García Hernández, Conservation Specialist at the National Center of Protected Areas or CNAP, facilitated a discussion with the fishermen and heard their perspectives on marine protected areas (MPAs). She responded to questions about how certain protected areas allow fishing and other areas do not. The connections that formed across fishing zones and stakeholder groups also crossed borders at the Encuentro with the participation of US and Mexican scientists, NGO staff and a fishing industry leader. They shared experiences of small-scale fishermen groups working together to ensure healthy fisheries for the future, learning from Cuba's successes.

The Encuentro highlighted the recent success in the recovery of one of Cuba's most important individual finfish fishery, the lane snapper (*Lutjanus synagris*). Fishermen harvest this iconic snapper of great social and commercial importance throughout the island, but mainly in the southwestern fishing zone, where it congregates in large numbers to spawn between

April and July in the Gulf of Batabanó. This phenomenon, called a '*corrida*' in Cuba, has attracted significant fishing activity for decades. However, starting

It was in this dire situation in 2016 that managers implemented a catch limit and quota system for the lane snapper fishery.

in 1975, this fishery began to show serious signs of overfishing. Over time, Cuba adopted several management measures, including the prohibition of less selective gear, seasonal and spatial closures; their success, however, was not enough to recover the fishery. It was in this dire situation in 2016 that managers implemented a catch limit and quota system for the lane snapper fishery. This measure, approved by the DRPC-MINAL and based on studies carried out by the Center for Fisheries Research (CIP) and other institutions, is the first catch limit for a finfish fishery in Cuba. Now, its population is showing signs of recovery in the

EDUARDO BONÉ MORÓN



Cuban fishermen at the fishing port of Cojímar, 10 miles from Havana. Fishermen are the main stakeholders in the upcoming Learning Network for sustainable fisheries in Cuba

6

Gulf of Batabanó, an achievement made possible thanks to the country's scientific and participatory processes. The lessons learned from the lane snapper fishery can inform actions to recover other small-scale fisheries in Cuba and around the world.

The dialogue and exchange at the Encuentro inspired a new, structured platform: the Learning Network. This can bridge existing networks and upscale lessons learned, like those from the lane snapper fishery and from past projects like SOS Pesca. A community-based initiative, SOS Pesca is funded by the European Union, with matching funds from philanthropic donors; the National Center for Protected Areas in Cuba and COSPE, and led by an Italian NGO. From 2012 to 2016, the project focused on making fisheries more sustainable, conserving marine habitats and improving the quality of life in two small fishing communities off Cuba's southeast coast. Over the course of the project, the two communities interacted extensively and participated in international exchanges in the US, Mexico and Colombia. Fishermen from other

fishing communities convened for capacity-building workshops on adaptive fisheries management, sea safety, data collection and other issues. Overall, SOS Pesca succeeded in making science and management more participatory—involving fishers, their families and communities in finding sustainable solutions. The network resulting from the project remains active, providing a strong foundation to develop a more formal Learning Network at regional and national levels.

The Learning Network can strengthen the 12 fishing enterprises led by the Fisheries Division of the Food Industry Enterprise Group (GEIA). These enterprises operate through 35 ports strategically distributed across the four fishing zones.

Sustainability goals

GEIA uses this structure to conduct annual workshops in co-ordination with the CIP, with the fishermen, managers, enforcement officers and scientists from around the island. Such diverse entities put their heads together to analyze the results of

fishing activity and habitat conditions from the previous years; they then decide—jointly—what, where, how and how much will be fished in the next season to reach the nation’s production and sustainability goals.

The Learning Network for Sustainable Fishing in Cuba will take advantage of the communication and governance mechanisms of these and other existing networks for three objectives: facilitate the flow of information and knowledge; align common interests; and promote joint actions.

In addition to the lane snapper, Cuba has other examples of how the country is exploring strategies to achieve its objectives of food security, economic performance *and* sustainability for important species and ecosystems. The catch of the Caribbean spiny lobster (*Panulirus argus*) has remained stable since 2006 after strong management helped the population recover after a pronounced decline in the 1980s. Their success was built on regulation of the size of the catch, temporary closures, licences and annual quotas. Likewise, the sea cucumber (mostly from the species *Isostichopus badiionotus*) is uniquely managed, using measures such as minimum size, size of bag opening, temporary closures and site-specific quotas obtained from rigorous stock assessments. The pink shrimp (*Farfantepenaeus notialis*) has been subject to spatial management of territorial use rights in fisheries (TURFs) since 2004, which assigns territorial rights by distributing a total allowable catch (TAC) within 158 fishing squares of 13 sq km each among 50 vessels.

These cases illustrate some principles the Learning Network will promote, based on science-driven adaptive management, a strong regulatory framework and increased fishermen involvement. However, the ongoing challenge for Cuba and many other small-scale fisheries throughout the world is the management of multi-species finfish fisheries. The high marine biodiversity in Cuba creates a tendency for fishermen to catch dozens of different species with multiple gear types at the same time; this makes their management more complex.

Cuba approved a new Fisheries Policy in 2017; its first Fisheries Law—stronger than its current Decree Law—is in the works; it will advance sustainability across all resources, especially finfish. The Learning Network aims to address the finfish management challenge and support the implementation of the forthcoming Fisheries Law. Cuba has had a lot of success. We hope the example of the lane snapper and other management achievements will continue to feed the early stages of the Learning Network.

Staying united

The network is being designed as a tool to translate science and politics into fisheries management. Reynaldo Pino Álvarez, Director of Platform Fisheries of the Fisheries Division of GEIA, remarked at the end of the Encuentro: “We are a family with conflicts that we can resolve together. We are building a Learning Network to help us make decisions about fishing and to stay united.” 🍷

For more



www.researchgate.net/publication/319039729_An_overview_of_Cuban_commercial_marine_fisheries_the_last_80_years

An overview of Cuban commercial marine fisheries: the last 80 years

www.edf.org/oceans/securing-sustainable-future-cubas-fisheries

Environmental Defense Fund

www.minal.gob.cu

Director of the Office of Fisheries Regulations and Sciences of the Ministry of the Food Industry (DRPC-MINAL)