



UPDATES FROM THE WATER

MARCH 2021

Stay up to date with the exciting progress WWF Fishery Improvement Projects (FIPs) are making!

Across the seafood supply chain, WWF is working with retailers, food service companies, manufacturers, and suppliers, to responsibly source seafood from fisheries that have met the standard requirements of the Marine Stewardship Council (MSC). By encouraging non-certified fisheries to improve their practices and ultimately meet the MSC standard, seafood buyers can help increase the performance of their source fisheries and decrease negative impacts on the water

* Note: FIP stages and Progress Ratings are based on [FisheryProgress.org](https://www.fisheryprogress.org).

ECUADOR MAHI MAHI

Gear Type: Longline

Volume: 10,319 MT (average 2009-2018)

FIP Stage: N/A

Progress Rating: Not Yet Available

Status: Comprehensive FIP (expected)

Ecuador's mahi mahi fishery is one of its most ecologically and economically valuable artisanal fisheries. Since the start of the FIP in 2010, more than 10,000 fishers have been engaged in FIP efforts through training on fishing regulations and best fishing practices, conducting gear exchanges to replace traditional J hooks with circle hooks to reduce sea turtle by-catch, welcoming on-board observers, and most recently, piloting a digital traceability system to test electronic logbooks and cameras on-board their vessels. The fishery is a top exporter to the U.S., so the leverage that buyers have upon the fishery is significant. In addition to providing nutrition for people, mahi mahi is an important part of the marine ecosystem, providing food for many top marine predators such as sharks and dolphins.

Since 2010, WWF has worked closely with the Ecuadorian government and main mahi mahi exporters on a comprehensive FIP to move the fishery towards the MSC standard. In February 2019, the fishery entered the MSC full assessment process but unfortunately had to withdraw in December 2020 due to administrative reasons. One of the main reasons the fishery could not meet the MSC standard during the full assessment period was a lack of an agreement between Ecuador and Peru to jointly manage the shared mahi mahi stock. The MSC standard requires that the countries come together and agree on joint management since Ecuador and Peru are the largest producers of mahi mahi in the eastern Pacific Ocean. Despite many efforts over the past several years by the Ecuadorian government to negotiate a binational management agreement with the Peruvian authorities, one does not yet exist.

The Ecuadorian government and exporters have informed WWF that they are committed to continuing to improve the sustainability of the mahi mahi fishery and to work with Peruvian authorities to come to an agreement on a binational Action Plan. Ecuador's Vice Minister of Aquaculture and Fisheries recently sent a letter to Peru's new Vice Minister of Fisheries and Aquaculture to propose a meeting to discuss and agree upon a binational Action Plan for mahi mahi. The fishery is expected to revert to a comprehensive FIP led by the Ecuador mahi mahi Exporters Consortium¹, which was the client for the MSC full assessment, with technical support from WWF.

Ecuador has made great progress in improving the mahi mahi fishery at the national level, including adopting a new Fisheries and Aquaculture Law in April 2020. WWF is now working closely with Ecuadorian authorities to develop a Fisheries Regulation to implement the Law, which is expected to be finalized and adopted in March 2021. As part of that work, participatory management of fisheries through the development of management committees and scientific advisory committees will be established for the first time to advise the government and monitor the progress of the updated National Action Plan for the Conservation and Management of Mahi Mahi 2019-2024 (PAN Dorado).

WWF will continue to provide technical support and guidance to the fishery as it re-launches a comprehensive FIP. Priority activities over the next several months will include implementing the PAN Dorado, continuing a pilot digital traceability project with the government and fishers that use cameras, e-logbooks, and QR codes to track products along the supply chain and connect them to markets, and finding new strategies to get the authorities in Peru to commit to working with Ecuador on a joint management plan for this highly migratory species.

Partner request:

- None at this time

¹ The Ecuador Mahi Mahi Exporters Consortium is made up of the following companies: Propemar S.A., Mardex Mariscos de Exportación S.A., Frigorífico y Laboratorio San Mateo, Frigolab San Mateo CIA. LTDA., Ocean Fish, Transmarina C.A., Fresh Fish del Ecuador CIA. LTDA., and Frigolandia S.A.



WWF-US / Molly Edmonds

PERU MAHI MAHI

Gear Type: Longline

Volume: 50, 507 MT (average 2009-2018)

FIP Stage: Stage 4 (Improvements in Fishing Practices or Fishery Management)

Progress Rating: B (Good Progress)

Start Date: November 2013

Peru's mahi mahi fishery supports 4,200 fishermen and serves as a key link in the marine food chain, providing sustenance for sharks, dolphins, and other ocean predators. Peru is also a leading source of the world's mahi mahi and, like Ecuador, a top exporter to the United States, where buyer influence on the fishery to make improvements is important. In 2018, exports to the U.S. generated over USD\$92 million. Approximately 1,500 fishers have been engaged directly in FIP efforts to pilot WWF's mobile electronic catch documentation system, TrazApp, to improve the collection and transparency of catch data, make it easier to receive fishing permits, and improve safety at sea by allowing vessels to be monitored in real-time.

WWF has continued to urge the Peruvian government to meet with their counterparts in Ecuador to develop a bi-national action plan for the joint management of mahi mahi, a requirement for both fisheries to meet the MSC standard. In June and October, US buyers sent letters to the Peruvian government to urge them to work with Ecuador on the development of a binational agreement for mahi mahi. The letters had an impact. In September, Ecuador and Peru met to discuss an agreement, and Peru agreed to review an existing overarching MOU between both countries to consider including management of mahi mahi. Then in November, a political crisis ensued when Congress impeached the Peruvian President removing him from office. His successor was forced to resign after six days due to violent street protests, and Francisco Sagasti was sworn in as the third President in a week on November 17. President Sagasti brought in new Ministers, and the new administration will hold office until July 2021. As a result of the administration change, the binational mahi mahi management agreement never materialized.

To date, eight mahi mahi exporting companies (COINREFRI, Fish Olg, Altamar Foods, Spring Valley Fruit/Agropesca, Mai Shi Group, Produpesca, DEXIM, and SEAFROST) representing 70% of Peru's mahi mahi exports have joined the Peru Mahi Alliance (PMA), a pre-competitive platform to advance the FIP through activity implementation, political advocacy efforts, and funding. Through its workplan developed with WWF, PMA members conducted three training workshops with fishers on how to implement best handling practices to reduce sea turtle bycatch and sent letters to the Peruvian government to urge them to develop a mahi mahi fishery management regulation and to prioritize the "formalization" (permitting) of the mahi mahi fleet. As a result of these efforts, 20 fishers have been trained on implementing sea turtle bycatch reduction measures and 22 fishing vessels have received bycatch reduction toolkits.² In addition, the Ministry of Production (PRODUCE), with WWF's support, developed a draft fishery management regulation which is now being socialized with key FIP stakeholders through several workshops. The finalized regulation is expected to be adopted by March 2021.

Priority activities expected to occur over the next several months include: continuing to conduct bycatch reduction training workshops with fishers and promoting best handling and good monitoring practices to reduce sea turtle bycatch on mahi mahi vessels; establishing a sample collection program where Peru Mahi Alliance companies provide biological mahi mahi samples to the scientific research agency (IMARPE) to support scientific research on the status and health of the stock in Peru; developing a responsible sourcing policy for PMA members to source from vessels that are implementing best practices; implementing a pilot onboard observer and camera monitoring program with IMARPE, and expanding the TrazApp pilot to test the traceability of the information generated down the supply chain with exporters and US importers and ensure it meets the US Seafood Import Monitoring Program (SIMP) requirements and Global Dialogue for Seafood Traceability (GDST) standards and guidelines.

Partner requests:

- Buyer partners to ask their US suppliers to follow through on the request below. WWF to provide email copy.
- Supplier partners to encourage their local suppliers to join the Peru Mahi Alliance as a FIP participant, a pre-competitive platform for exporters to advance the FIP through activity implementation, political advocacy efforts, and funding. WWF to provide email copy. For more information, please contact Wendy Goyert (wendy.goyert@wwfus.org).

² The bycatch reduction toolkits include tools fishers can use to help release entangled and hooked sea turtles safely, including: dehookers, safe handling nets, and line cutters.



NICARAGUA SPINY LOBSTER - TRAP FISHERY

Gear Type: Traps

Volume: 3,347 MT (2018-2019 -- Trap Only)

FIP Stage: Stage 5 (Improvements on the Water)

Progress Rating: A (Advanced Progress)

Start Date: January 2012

Nicaragua is the eighth largest lobster producer in the world and the largest in Central America, with an average production of over 4,300 tons per year for the trap and dive fisheries, 3,300 tons of which comes from the trap fishery alone. The spiny lobster fishery in Nicaragua generates about \$55 million annually from exports, making it one of the country's most important fisheries. The industrial trap fleet is made up of 64 vessels that employ 767 fishers. As the FIP is led at the national level by Nicaragua's Fisheries Institute (INPESCA), fishers are mostly engaged via meetings to update them on management regulations and FIP progress. Since the start of the FIP in 2013, fishers and fishing communities are benefiting from stable catches and increasing employment opportunities in the fishery. The FIP has helped generate new information about the impact of the fishery on the lobster population, the habitat, and the ecosystem, which has helped the Nicaraguan government to improve its management measures to ensure the long-term sustainability of the fishery and minimize its impact on the environment.

FIP efforts have been focused on completing the first-ever binational stock assessment for spiny lobster—a stock shared with Honduras. The joint assessment, which is required for the Honduras and Nicaragua lobster fisheries to meet the MSC standard, will provide a more accurate measure of the impact of both countries' fisheries on the lobster population and will inform whether additional management measures need to be implemented. The compilation of catch data from Honduras was completed in November 2020, and scientists from INPESCA conducted a preliminary run of the stock assessment in January 2021 using ten years of Honduras and Nicaragua spiny lobster data. The results indicated that the fisheries are fully exploited and overfishing is not occurring. However, the scientists cautioned that it is important to ensure that fishing effort does not increase and recommended that additional measures be implemented in both countries to better monitor artisanal fishing effort and put a limit on the size and number of traps that are used. The Nicaraguan lobster fishery management plan,

which is expected to be officially adopted by March 2021, includes measures to put a cap on fishing licenses, establish a lobster catch quota, and improve the monitoring and control of the artisanal fleet. A Honduras spiny lobster fishery management plan is currently being drafted and is expected to include additional measures as well.

Priority activities expected to occur over the next several months include: Conducting additional runs of the stock assessment model and finalizing the binational stock assessment report by March 2021; and conducting an external assessment of the management system, developing a strategy to combat illegal, unregulated, and unreported (IUU) fishing, and developing a complete description of harvest control rules and tools for the Nicaraguan lobster fishery by June 2021.

Partner Request:

- *Supplier partners to encourage local suppliers to become active FIP participants and provide financial support for FIP activities. WWF to provide email copy.*

PERU JUMBO SQUID

Gear Type: Squid Jig

Volume: 362, 232 MT (2018)

FIP Stage: 3 (FIP Implementation)

Progress Rating: C (Some Recent Progress)

Start Date: February 2018

The jumbo squid fishery is one of Peru's most important artisanal fisheries, employing more than 105,000 Peruvians and providing low-cost, high-quality protein to much of the population. It is also one of the largest squid export fisheries globally, generating \$860 million in exports in 2019.

The Peruvian jumbo squid FIP is the first comprehensive squid FIP in the world. WWF worked closely with Sustainable Fisheries Partnership (SFP), the Peruvian government, and the private sector to develop a comprehensive plan to help the fishery meet the MSC standard. Seventeen exporting companies representing over 50% of total squid exports have formed the Peruvian National Chamber for Giant Squid (CAPECAL), which is working to become established as a legal entity. The independent industry association promotes the conservation and management of giant squid in Peru and supports the Peru squid FIP through political advocacy, funding, and FIP implementation.

Approximately 1,500 fishers across three cooperatives have engaged directly in FIP efforts, mainly through piloting WWF's mobile electronic catch documentation system, [TrazApp](#), to improve the collection and transparency of catch data, make it easier to receive fishing permits, and improve safety at sea by allowing vessels to be monitored in real-time. Ten percent of Peru's squid catch is currently being registered by fishers using TrazApp, and WWF is continuing to train more fishers to increase uptake across the squid and mahi mahi fisheries. WWF is also working with the Peruvian government to integrate TrazApp with SITRAPESCA, a traceability system managed by the government, which will help improve data management, monitoring, and control of the fisheries.



In January 2021, a Conservation and Management Measure (CMM) for jumbo flying squid issued by the South Pacific Regional Fisheries Management Organization (SPRFMO) went into effect. The CMM regulates the capture of jumbo flying squid in international waters and is an important first step toward addressing some of the key science and management deficiencies in the fishery. Legalization of the Peruvian unregulated artisanal fleet is the mandatory first step toward complying with other guidelines of the CMM, including preparation of catch reports per vessel, design of a biological monitoring system for research purposes, increased observer coverage, and installation of satellite equipment for vessel monitoring systems. To address this issue, global squid buyers sent a letter to the Peruvian government in October 2020 requesting the formalization of the Peruvian artisanal squid fleet as soon as possible. The letter reiterated to the Peruvian government that there is a strong global market for squid that is committed to the sustainability of the Peruvian jumbo squid fishery and helped to highlight the urgency of speeding up the formalization process in Peru. The Peruvian government has shown renewed interest in this topic and is working with WWF, SFP, and fishers to improve the legal permitting process.

Priority activities expected to occur over the next several months include: advancing formalization efforts through improved outreach with fishers, launching a campaign targeting several government agencies to promote the urgency of issuing fishing permits, and developing an online platform to monitor and support fishers as they receive permits; working with authorities and key stakeholders to update the squid fishery management regulation; and scaling up the use of TrazApp with fishers, landing sites, government, processors, and importers.

Partner Request:

- Buyer partner to encourage their US suppliers to become active FIP participants and provide financial support for FIP activities. WWF to provide email copy.

HONDURAS SPINY LOBSTER - TRAP FISHERY

Gear Type: Traps

Volume: 4,520 MT (average 2000-2018 trap and dive fisheries)

FIP Stage: Stage 5 (Improvements on the Water)

Progress Rating: B (Good Progress)

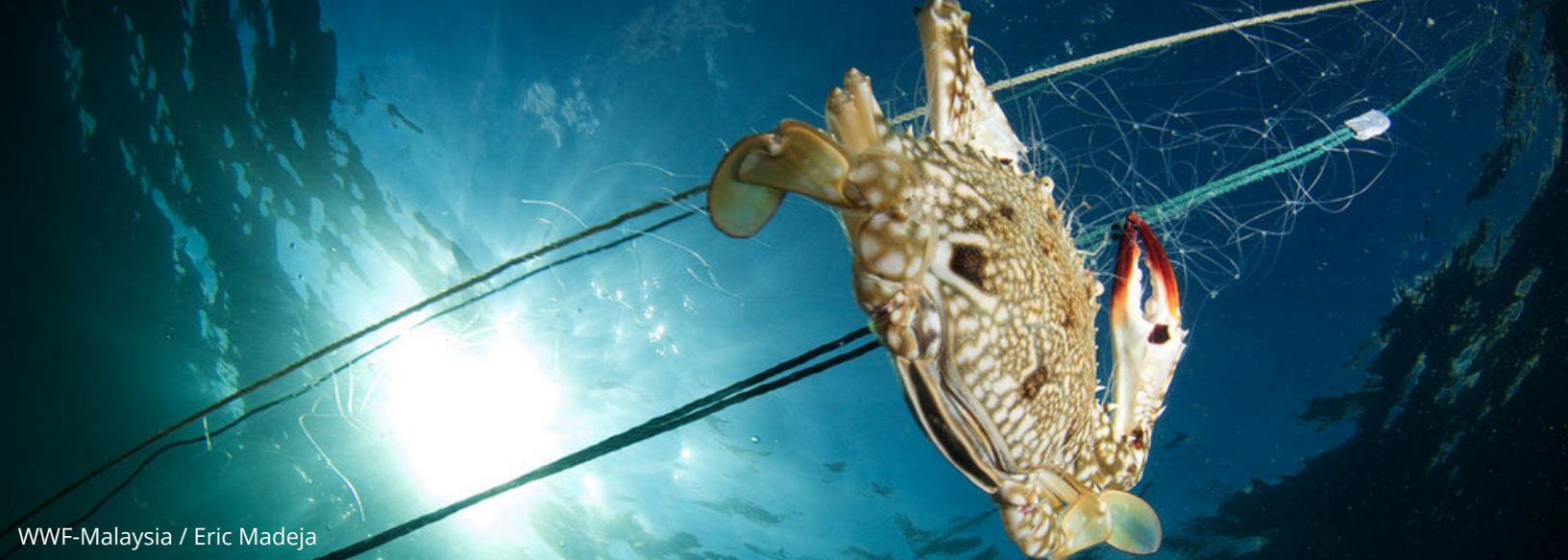
Start Date: July 2012

Honduras is the second largest lobster producer in Central America after Nicaragua with an average production of over 4,000 tons per year for the trap and dive fisheries, which generates about \$42 million annually in exports to the United States. The industrial trap fleet is made up of 87 vessels that employ approximately 1,500 fishers. Fishers are engaged in the trap FIP mainly through the industrial fishing associations APESCA and APICAH, where representatives attend FIP meetings to get updated on the latest management regulations and FIP actions. The FIP has helped fishers to better understand the fishery management regulations and improve their catch data collection efforts by learning what information is required to inform the stock assessment. Under the FIP, studies have been conducted to evaluate the impact of the fishery on the habitat. The research found that there is a risk that the fishery is negatively impacting deep coral reefs (deeper than 25 m) and in response, the government is considering new measures such as improving the monitoring of coral reef distribution and prohibiting discards of lobster traps to reduce the fishery's impact on vulnerable marine habitats.

FIP efforts have been focused on completing the first-ever binational stock assessment for spiny lobster—a stock shared with Honduras. The joint assessment, which is required for the Honduras and Nicaragua lobster fisheries to meet the MSC standard, will provide a more accurate measure of the impact of both countries' fisheries on the lobster population and will inform whether additional management measures need to be implemented. The compilation of catch data from Honduras was completed in November 2020, and scientists from Nicaragua's Fisheries Institute (INPESCA) conducted a preliminary run of the stock assessment in January 2021 using ten years of Honduras and Nicaragua spiny lobster data. The results indicated that the fisheries are fully exploited, and overfishing is not occurring.

However, the scientists cautioned that it is important to ensure that fishing effort does not increase and recommended that additional measures be implemented in both countries to better monitor artisanal fishing effort and put a limit on the size and number of traps that are used.

In Honduras, an ecosystem impact risk assessment study was completed in December which indicated that the fishery has a high impact on the ecosystem and highlighted the importance of implementing trap management measures to control fishing effort and ensure that traps are not discarded at sea to prevent negative impacts on the habitat and ecosystem. The Nicaraguan lobster fishery management plan, which is expected to be officially adopted by March 2021, includes measures to put a cap on fishing licenses, establish a lobster catch quota, and improve the monitoring and control of the artisanal fleet. A Honduras spiny lobster fishery management plan is currently being drafted and is expected to include similar measures as well.



WWF-Malaysia / Eric Madeja

Priority activities expected to occur over the next several months include: Conducting additional runs of the stock assessment model and finalizing the binational stock assessment report by March 2021; finalizing the Honduras lobster fishery management plan by June 2021; and conducting an external FIP review meeting in February 2021 to review the progress of the FIP against the MSC standard.

Partner Requests:

- Buyer partner to encourage their US suppliers to become active FIP participants and provide financial support for FIP activities. WWF to provide email copy.
- Supplier partners to encourage their local suppliers to become active FIP participants and provide financial support for FIP activities. WWF to provide email copy.

THAILAND BLUE SWIMMING CRAB

Gear Type: Gillnet and Traps

Volume: 12,000 MT

FIP Stage: 4 (Improvements in Fishing Practices or Fishery Management)

Progress Rating: B (Good Practices)

Start Date: February 2017

Thailand's Surat Thani blue swimming crab fishery has an export value of \$60 to \$80 million and includes approximately 1,300 small-scale vessels and 100 commercial vessels. Over the years, the blue swimming crab population had been dropping. Several issues facing the fishery led to the decline, including over-exploitation in heavily fished inshore areas, the harvest of undersized crabs and egg-carrying females, lack of a management plan or harvest strategy, and lack of enforcement capacity. Industry stakeholders created a fishery improvement project to address these challenges. COVID-19 did lead to some delays as the government issued an emergency decree in March 2020 that restricted travel. Even with the travel restrictions in place, the FIP has continued to work towards achieving tasks and milestones as laid out in the FIP workplan.

Over the last six months, there have been several achievements. A new length-based spawning potential ratio (LB-SPR) assessment methodology was used to assess the stock. Although the results deem the stock to be above the limit reference point (i.e., the point beyond which fishing is no longer considered sustainable), it is not certain that the stock is at maximum sustainable yield (i.e., the maximum amount that can be harvested without compromising the future availability of that resource), and more work needs to be done to limit uncertainty. Although there is still no national minimum landing size regulation, a few communities implemented their own minimum landing size and restricted access to seagrass nursery sites during recruitment periods.

A draft Fishery Management Plan has now been completed, and stakeholder consultation meetings will be held with the opportunity to provide feedback on the draft plan.

The FIP industry partners signed an MoU on traceability on blue swimming crab products including requirements and certificates.

A major development in the next 6 months will be the expansion of the FIP to include Chumphon to the north and Nakhon Sri Thammarat to the south.

Partner Request:

- None at this time

VIETNAM YELLOWFIN TUNA

Gear Type: Handline

Volume: 16,500 MT

FIP Stage: 5 (Improvements on the Water)

Progress Rating: A (Advanced Progress)

Start Date: April 2014

Yellowfin tuna is Vietnam's most valuable marine export making it a critical source of jobs and income with over 1800 vessels and 9000 fishers engaged in the fishery. The Vietnam yellowfin tuna handline FIP is focused on reducing bycatch, improving stock management, and increasing traceability through engagement with fishers, government officials, and the private sector.

In July 2020, the FIP stakeholders piloted Vietnam's first-ever electronic logbook onboard 30 tuna vessels. The logbook aims to strengthen catch monitoring, improve vessel coverage and reporting, and further enable the mitigation of negative impacts of fishing on other species, including sharks and sea turtles. The Directorate of Fisheries of Vietnam has expressed their support for the eLogbook app and for knowledge sharing of lessons learned in the FIP pilots and to work cooperatively in harmonizing with the national Catch Documentation Scheme initiative. In collaboration with the [Global Dialogue on Seafood Traceability \(GDST\)](#), FIP stakeholders also created the beta version of a GDST-compliant app for the Vietnam tuna processing sector.



Brian J. Skerry / National Geographic Stock / WWF

The Android-based app is available on Google Play and is being further optimized with current factory procedures in Vietnam. In 2021, WWF and VINATUNA will work with the processing sector and their downstream supply chain partners to ensure the technical integration of GDST-compliant digital traceability. We will also work closely with the Directorate of Fisheries to ensure key support among government managers for the integration of the GDST-based app with the emerging national electronic catch documentation.

Partner Requests:

- Stay up to date on the list of verified FIP suppliers (i.e., formal FIP Participants, found [here](#)), to ensure sourcing of recognized FIP product
- Encourage your suppliers to become FIP participants if they are not listed or preferentially source from current FIP participants

Become a WWF FIP participant today by visiting:

<https://seafoodsustainability.org/fisheries/fishery-improvement-projects-signup>

Being a WWF FIP Participant provides a pre-competitive space for companies to engage with fisheries in their supply chains and leverage power across multiple companies to drive fishery improvements forward. By signing on to support a FIP, you are joining forces with other leaders in the industry that seek to help conserve marine ecosystems and advance the livelihoods for millions of people who depend on them.

WWF recognizes FIP participants on the industry website, SeafoodSustainability.org. WWF also works with FIP participants to communicate the benefits of FIPs among key buyers, sustainable business leaders, employees, environmental activists, and other key constituencies.

Together we can protect oceans and the food and livelihoods they can sustainably provide.

For more information or to partner with WWF, please visit SeafoodSustainability.org or contact us at info@seafoodsustainability.org.