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REPORT

A Qualitative Assessment of SIMP Implementation in Four Countries

Ocean Security
and Sustainable
Fisheries

Environmental
Security Program

A Qualitative Assessment of SIMP Implementation in Four Countries

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Overview

The Walton Family Foundation (WFF) commissioned the Stimson Center to assess the impact and effectiveness of the US Seafood Import Monitoring Program (SIMP) implementation in four seafood-producing countries: Chile, Peru, Mexico, and Indonesia. Designed to improve traceability of seafood, SIMP requires documentation across the seafood supply chain, from point of harvest to point of entry into the US market. It focuses on a discrete number of 13 species that the National Oceanic and Atmospheric Administration (NOAA) deemed most likely to be at risk of illegal, unreported, unregulated (IUU) fishing and/or seafood fraud. By enhancing transparency and traceability in the seafood supply chain, the assumption is that SIMP will lead to a reduction in IUU and fraudulent fish entering the US market. After examining the capacity gaps that exist, as well as the actions already being taken to improve compliance, this report pinpoints strategic areas where US federal agencies can provide support and strengthen implementation of the program in the four target countries. Many of the implementation problems within the four target countries are likely to be of issue in other countries facing similar capacity constraints.

In addition to this report and complementary to these research efforts, the Stimson Center has also responded to several Congressional inquiries to provide technical and educational support to Congressional offices as they developed the Maritime SAFE Act, which was introduced in the 115th and 116th Congressional sessions. The Maritime SAFE Act provides a framework for the US Government to improve interagency coordination and increase enforcement in the fight against IUU fishing, which the bill identifies as a national security threat to the United States. While SIMP expansion to new species was initially included in the bill as introduced, it was later removed. Nonetheless the Act has retained a robust traceability initiative, focusing on closing implementation gaps. The legislation is part of the Senate National Defense Authorization Act (NDAA) which passed in June 2019. The NDAA is currently in conference committee between the House of Representatives and the Senate which is due to finish in early September. The Stimson team continues to support Congressional offices on the topics of IUU fishing, traceability, and SIMP expansion. Stimson also tracked the 2018 Congressional appropriations and budget process, which included language to make shrimp and abalone imports compliant with SIMP by December 31, 2018, expanding the total number of SIMP species to 13.

This qualitative assessment examining the SIMP implementation gaps is based on over two dozen interviews with key stakeholders across the US Government and the four target countries, including government, NGO, and the private sector. The assessment examines capacity gaps that may impede the implementation of SIMP; identifies implementation problems within the seafood supply chain; and determines if and how implementation problems are being addressed. This information highlights areas where NOAA, USAID, the Department of State, and other federal agencies may leverage their work to improve SIMP implementation prior to expanding to all species.

Summary of Findings

Stimson researchers conducted research and interviews primarily focused on understanding the ability of NOAA, foreign governments, and seafood exporters to comply with and implement SIMP and to identify challenges that seafood exporters may be facing due to the new SIMP requirements. The following five main observations reveal weaknesses in the current program and should be addressed in the future to ensure that the SIMP program is successfully implemented. By fixing these issues, it will help SIMP achieve its goals to track fish along the seafood supply chain from harvest and prevent IUU caught fish from entering US commerce. According to Stimson research:

- All four governments stated they have no issues complying with SIMP, a reflection of their goal to prevent any economic harm to their country's seafood industry and seafood exports to the United States. Consequently, they are not asking for assistance with SIMP implementation.
- In all four target countries the initial catch aggregation points and documentation requirements for small-scale fisheries are among the primary challenges for SIMP implementation.
- NOAA's SIMP does not have a mechanism nor the resources to investigate the validity of all the landing documents, relying instead on the importer of record working with entities across the supply chain to verify accurate documentation. This process enables falsification of records.
- Throughout the supply chain there is a lack of human, financial, and technical capacity to verify compliance in all four target countries.
- Before SIMP is expanded to all species, a full assessment of the existing policies and operations underpinning the SIMP system is needed to determine if they are working correctly and with the desired outcome of transparently and accurately tracing fish from point of harvest to import into the US.

Seafood Import Monitoring Program

In light of growing concerns about the negative economic and environmental security impacts of IUU fishing and the inequity for honest fishers following the rules, NOAA established SIMP. The program seeks to deter IUU caught fish from entering the US market in order to incentivize stronger fisheries management solutions in seafood producing countries. SIMP came into effect a decade after the EU traceability measures, known as the IUU Regulation, were put in place.¹ But the programs have several important differences. The EU system is a government to government approach, where the government must verify that the fish being exported is not IUU-caught fish. The EU uses a carding system of red, yellow and green: With green approving imports and compliance, yellow serving as a warning to improve management, and red indicating that no imports are allowed due to concerns of IUU fishing. On the other hand, the SIMP system allocates responsibility for ensuring compliance to the importer of record or the private seafood company. NOAA created this policy over concerns that a verification system similar to the EU carding system would be cost prohibitive and time consuming. The result is a system that places the burden of verification on the exporting countries and seafood industry. NOAA also has less verification capability in their system than the EU carding system which inhibits SIMP compliance.

NOAA is the lead US Federal Agency responsible for implementing SIMP, which came into effect on January 1, 2018. The program requires 13 specific species (See Appendix A) of fish being imported or re-imported into the US to have records on the product's supply chain from point of harvest to point of entry into the US market. NOAA determined that these 13 species are the most likely caught with IUU or subjected to seafood fraud. By requiring documentation that verifies that fish products were legally harvested for entry into the US market, SIMP aims to deter IUU fishing or seafood fraud in exporter countries. In 2016, the US imported more than \$19.5 billion dollars-worth of seafood.² By taking away the profitability of illegal fishing, SIMP aims to counter illegal fishing through the market and to incentivize verified, legal fishing.

¹ European Commission: Directorate-General for Maritime Affairs and Fisheries, "Handbook on the practical application of Council Regulation (EX) No. 1005/2008 of 29 September 2008 establishing a Community system to prevent, deter and eliminate illegal, unreported and unregulated fishing (The IUU Regulation)."

² U.S. Department of Commerce: National Oceanic and Atmospheric Administration, "Report: American fisheries remain a strong economic driver," November 1, 2017.

Specifically, SIMP requires documentation related to the supply chain in the three general areas:

- Harvest and Landing Records;
- Shipment Records; and
- Processing and Storage Records.³

These documents, some of which are verified by government agencies in foreign countries, allow NOAA to trace seafood products back to their point of origin in order to verify that the fish were legally caught. NOAA implements SIMP by conducting random and targeted audits of these records. It is the responsibility of the importer of record to verify that the fish and fish products were legally harvested. In January 1, 2018, NOAA observed an “informed compliance” period for 11 of the SIMP species, during which the agency provided outreach and assistance to the seafood stakeholders, including fishers, foreign governments, processors, and industry exporters and importers to help educate on SIMP and how to complete entry filings. That period ended on April 9, 2018. Two additional species, shrimp and abalone, were added in December 2018. Now with the program underway, species are currently subject to the SIMP rules. If an entry has incomplete records or contain erroneous SIMP data, the records must be corrected or completed before importation may proceed. Failure to comply with these requirements may result in federal law enforcement action by the NOAA Office of Law Enforcement, and the denial of entry into US commerce.

According to the SIMP Compliance Guide, the program exempts an importer from individually identifying small-scale vessels, but the importer must provide data based on aggregated harvest reports. This aggregated harvest report is a record of a single collection point in a single day from combined small-scale vessels, which the Guide identifies as less than 12 meters in length. The Aggregated Catch Certificate can be generated at the point of aggregation, such as at the landing point or a shore-based operation. According to Stimson research, the aggregation point and documentation requirements for small-scale fisheries are among the primary challenges for SIMP implementation in the four target countries.

Methods

Stimson conducted over two dozen interviews with NOAA, USAID, and USTR staff, as well as stakeholders in the four governments, NGOs, and the private sector involved with SIMP implementation in the target countries. Stimson researchers utilized “snowball sampling” methodology – a common research methodology that pinpoints experts in the field through their peer groups – to identify the key experts and officials involved in SIMP implementation in each target country. In addition, Stimson researchers also reviewed the transcripts of the public webinars hosted by NOAA in support of SIMP implementation. These calls were open to all stakeholders in the global seafood industry that are interested in learning about SIMP compliance. The transcripts helped understand the extent to which the industry or governments representatives from the four target countries have engaged on the topic of SIMP. The research and interviews primarily focused on understanding the foreign governments’ capacities to assist in complying with SIMP and identifying any challenges that seafood exporters may be facing due to the new requirements put in place by SIMP.

Based on this research, the following analysis outlines Stimson’s major findings regarding international implementation of SIMP in the four target countries. The findings are broken down by country and focus

³ National Oceanic and Atmospheric Administration, “Compliance Guide: U.S. Seafood Import Monitoring Program.”

on: current progress of implementation, capacity gaps and compliance issues, and current or prospective US Government support.

Overview of Assessments of SIMP Capacity in Peru, Mexico, Chile, and Indonesia

Based on interviews with representatives from governments, experts in the non-governmental community, and private industry in Peru, Chile, Indonesia, and Mexico, three out of the four target countries in Stimson’s study have faced several key challenges with SIMP implementation, which in turn has reduced the effectiveness of the policy. Technology and documentation issues are particularly evident in small-scale fisheries, specifically at the very first point of the supply chain between the point of harvest and the processing facility. On the other hand, industrial fisheries are more likely to have a higher rate of compliance. Industrial fishers tend to operate fewer boats than small-scale fishers and work directly with processors. They also generally have more sophisticated operations that understand how to comply with SIMP for exporting markets. Meanwhile, landings from small-scale fishers often report their landings using Aggregated Catch Reports and other documents – and there are often varying levels of capacity to verify that the landings are accurate. Verification of these landing documents generally goes through either a middleman, processor, or dealer but it is ultimately the responsibility of the fisheries officers in the foreign governments to verify.

However, on webinars and workshops which NOAA conducted with foreign government officials and company representatives, NOAA reported to Stimson researchers that they did not experience serious implementation issues with SIMP in the four target countries, excluding Indonesia. Stimson’s findings based on our own stakeholder interviews and outreach with experts on the ground contrasted sharply with NOAA’s initial analysis. On the one hand all four governments have noted to Stimson that they have no issues complying with SIMP. This seems to reflect their goal that no economic harm should come to their country’s seafood exports to the United States. This contrasts with the problem we uncovered in our discussions with a variety of stakeholders. Foreign governments hoping to avoid disruption to their seafood export industries, and the importers of record are unlikely to tell NOAA that they are struggling to implement the program now since the informed compliance period has ended. By interviewing stakeholders and experts on the ground, Stimson was able to paint a fuller picture of SIMP implementation gaps and pinpoint weaknesses in governmental capacity of each target country.

Under all four countries’ fisheries management laws, fisheries enforcement officers play a key role in verifying catch and landing documentation for fish exports. However, Stimson’s research showed that *governments, particularly for small-scale fishing operations, often lack the personnel and capacity to verify the catch*. Furthermore, landings occur over vast stretches of coastline, where no officials are available to verify and certify on the ground. In many cases, the fishers and the government rely on “middlemen” who are responsible for the acquiring the documentation. As a result, practices such as falsifying landing documents, duplicating landing certificates, multiple vessels using the same permit, and laundering illegally caught fish with the landings of permit-holders are widespread. In many cases, this falsified or inaccurate information is passed through the supply chain and reported under the SIMP data collection requirements, which call for a complete accounting of a seafood product’s supply chain from point of harvest to entry into US commerce. According to NOAA, the program does not have a mechanism nor the resources to investigate the validity of the landing documents. Instead, SIMP relies on the importer of record working along the supply chain to verify accurate documentation. However, this reveals an inherent flaw in the program if foreign governments are passing along inaccurate documents. It highlights that government ministries need the capacity to engage directly with more fishers and

industry across the supply chain and greater assistance from the US Government to ensure compliance with SIMP.

Before SIMP expands to all species, it seems crucial to ensure the existing policies and operations underpinning the SIMP system are working correctly and the desired outcomes of tracing fish from harvest to import into the US are accurate. As countries and importers implement SIMP, there is growing concern that SIMP implementation is becoming just another piece of paper for importers of record to fill out rather than deterring IUU caught fish from entering the US market. In order for SIMP to have a lasting impact on fisheries sustainability, it is essential that the documentation be verified. Further it is critical that increased technological and human capacity needs are met to carry out the program. Therefore, SIMP should be paired with capacity building efforts for fisheries enforcement, management, and port state compliance to more effectively combat IUU fishing. These efforts should include supporting technology and human resource development and training in target countries, which are outlined under each target country overview.

Mexico

In Mexico, the main fisheries covered under SIMP and exported to the United States are: abalone, shrimp, grouper, sea cucumber, swordfish, mahi mahi, red snapper, shark, and multiple tuna species. SIMP species with the highest capture volumes are tuna and shrimp.⁴ According to Stimson analysis of NOAA import figures, SIMP species accounted for nearly 78 percent of US seafood imported by value from Mexico in 2018, excluding highly processed products like fish oil.⁵

Mexican fisheries are divided into three groups: industrial, small-scale, and artisanal fleets. An estimated 95 percent of Mexico's commercial fishing fleet consists of small-scale vessels, and from 2006 to 2014 they accounted for over a third of all catches in Mexico.⁶ Most small-scale boats in Mexico are *pangas*, or vessels that are generally up to 8.2 meters in length, operated by one to three crew members, and have little mechanical equipment.⁷ Artisanal fisheries are incorporated under this small-scale fishing category, but are distinguished from small-scale operations because the artisanal fishers are not often directly involved in the export market. They primarily sell at local markets or keep their catch for household consumption.⁸ The primary fisheries exporting to the US market in Mexico are industrial and small-scale, excluding the artisanal fishers.

Findings

According to Stimson interviews with government, NGO, and industry stakeholders in Mexico, there are several steps along the seafood supply chain where information required for SIMP and verified by the Mexican government can be falsified, duplicated, or left unverified. Government capacity, reporting, and documentation have proven to be the main challenges for SIMP implementation in Mexico; and these

⁴ Alejandro Melgoza-Rocha, Santiago Domínguez, Catalina López-Sagástegui (2018): Overview of the fishing sector in Mexico: Part I. dataMares. InteractiveResource. <https://doi.org/10.13022/M3KP8K>

⁵ National Marine Fisheries Service: Fisheries Statistics and Economics Division, "Cumulative Trade Data by Country."

⁶ Alejandro Melgoza-Rocha, Santiago Domínguez, Catalina López-Sagástegui (2018): Overview of the fishing sector in Mexico: Part I. dataMares. InteractiveResource. <https://doi.org/10.13022/M3KP8K>

⁷ Johnson AF, Moreno-Báez M, Giron-Nava A, Corominas J, Erisman B, Ezcurra E, et al. (2017) A spatial method to calculate small-scale fisheries effort in data poor scenarios. PLoS ONE 12(4): e0174064. <https://doi.org/10.1371/journal.pone.0174064>

⁸ Ratana Chuenpagdee, Svien Jentoft, ed., *Transdisciplinarity for Small-Scale Fisheries Governance: Analysis and Practice* (Springer, 2019), 99.

challenges are clearest in the small-scale fishing sector. These findings stand in contrast to NOAA's initial statements to Stimson that there have been no major issues in Mexico as interviews with stakeholders on the ground revealed that there have been several key gaps for SIMP implementation in the country.

Stimson researchers reviewed the transcripts of NOAA's public webinars, which occurred during and after the informed compliance period, to see if Mexican producers engaged or raised concerns about SIMP implementation. Out of the 22 global webinars, seven callers identified themselves as part of the Mexican seafood industry. The concerns raised by the callers from Mexico pertained to: how to input or provide data to NOAA; how catch documentation should be passed down the supply chain; how small-scale fishers should sort and report their catches; and clarification on aggregate catch reports. These questions suggest that small-scale fisheries and documentation were the initial areas of concern for members of the Mexican seafood industry coinciding with the major challenges for SIMP implementation Stimson researchers heard first hand from stakeholders in Mexico.

In addition to NOAA's public webinars, NOAA conducted on-the-ground SIMP implementation outreach in Mexico across the seafood industry and with Mexican fisheries agencies. According to NOAA, the feedback NOAA received suggested that there have been no major implementation challenges in Mexico. It was noted by one NOAA official that this may be due to the fact that many large industrial seafood suppliers already maintain records with the information that is requested under SIMP to comply with other laws and rules such as the Marine Mammal Protection Act and the Dolphin Safe Tuna regulations. One expert from Smartfish pointed out that NOAA's SIMP workshops in Mexico, while useful, have targeted exporters, not small-scale fishers who need to better understand the process and rules.

In Stimson's subsequent interviews with stakeholders in Mexico, experts attested to the fact that the challenges for SIMP compliance lie mainly with small-scale fisheries rather than large industrial seafood suppliers. Small-scale fishing accounts for over 95 percent of the fishing vessels in Mexico, complicating documentation, tracking, and monitoring of the seafood supply chain. According to an independent Mexican fisheries expert, SIMP demands information beyond what Mexico legally requires. In Mexico generic fishing permits for finfish allow a fisher to catch all commercial fish except endangered species. Compounding this problem is the fact that Mexican fisheries are highly multi-species, so it is difficult to manage and document the SIMP species separately as current SIMP species specification demands.

According to multiple interviews with experts based in Mexico, small-scale fishers are faced with four main challenges to SIMP. The first relates to documentation required upon landing catch. There are two points at which fishers are required to report the quantity of fish and species they are landing: The Notice of Landing document, required by the government, and the record of the point of first sale. According to several experts Stimson interviewed from Oceana Mexico, Smart Fish, and the Environmental Defense Fund (EDF), the government Notice of Landing documents are "loosely based in reality" – meaning that they are not well-verified, so fishers have little incentive to accurately record their catch and they can be easily falsified or duplicated. Second, the first buyers of the fish get the Notice of Landing permits and they often integrate multiple catches into one buy, further obscuring the origins of the catch. Therefore, along several steps of the supply chain, actors are able to enter false information. In contrast, fishers more accurately record the quantity and species of the fish at the point of first sale, because they have the incentive to report accurate catches to be fairly paid.

The third problem is the lack of government capacity to verify these documents. An independent Mexican fisheries consultant noted a lack of official capacity in CONAPESCA – Mexico's fisheries enforcement agency. They are unable to monitor each landing point and are challenged to ensure the Notice of

Landing documents are accurate. Moreover, enforcement officers are not often present to verify the Notice of Landings at docks. In fact, their offices can be located tens to hundreds of miles from the point of landing. The fourth and final challenge relates to the Aggregate Catch reports, which are required by SIMP. These documents report all landings by small-scale vessels at one landing point in a single day. Without an electronic catch documentation system, tracking individual fish catches from a specific small-scale vessel becomes nearly impossible as the data is aggregated and then dispersed and divided between different processors and suppliers. As one representative from Plenumsoft, a software company developing traceability technology for small-scale fisheries, succinctly put it: “If you put bad information into SIMP, you’ll get bad information out.”

Separate from the small-scale fisheries concerns is the growing participation of organized crime in the seafood industry in Mexico, especially in the shrimp industry, a SIMP species. According to one NGO expert, organizations and individuals affiliated with organized crime are starting to buy and sell fish to launder their illicit money as they can buy fish with cash and then sell as clean money. It is unclear how widespread this occurs and to what degree laundered fish by organized criminal ends up in US markets. However, it presents serious concerns for fishers if they are being exploited by the organized criminal enterprises and is a concern for the US Government and consumers overall.

While many challenges remain for SIMP implementation in Mexico, one of the objectives of SIMP, which is to deter IUU caught seafood from entering the US market, is beginning to show some sign of success. While some fishers were initially hesitant to comply with SIMP, according to an interviewee from Plenumsoft Marina, others started to comply, particularly once they saw a Mexican company being audited by NOAA. One interviewee from the private sector even noted that certain non-compliant actors in Mexico have stopped selling to the US market and are now selling their catch domestically.

US Capacity-Building

Currently, USAID does not have an active project in Mexico focused on capacity-building for SIMP implementation. However, in December 2017, Mexico participated in a USAID-partnered Seafood Alliance for Legality and Traceability (SALT) DataLab hosted in Palo Alto, California.⁹ Almost 60 stakeholders participated in the DataLab representing NGOs, US trade associations, US government agencies, and Mexico’s CONAPESCA. From the NGO sector, both US and Mexican organizations participated. The organizations from Mexico included the Intercultural Center for the Study of Deserts and Oceans, the Mexico office of the Environmental Defense Fund, and Niparajá, the Natural History Society of Mexico. Mexico’s CONAPESCA was represented by Mr. Francisco Nieto Sanchez, the Director of Aquaculture and Fisheries Development, and Ms. Martha Aureo Estrado Jimenez, the Director of Strategic Projects. The focus of the DataLab was to discuss how traceability programs, such as SIMP, can combat IUU fishing, how traceability programs are currently being implemented, and how SALT can foster collaborative action to develop and implement traceability programs.

Recommendations for Mexico

The US Government should support the following efforts in Mexico in order to support SIMP implementation: provide technical assistance and funding to increase and improve human and technological capacity and verify catches at landing points; increase SIMP training for SIMP implementation throughout the seafood supply chain on a regular basis; do away with paper record and support the development of electronic catch documentation tracking to help ensure that Aggregate Catch

⁹ Seafood Alliance for Legality and Traceability, “SALT Datalab Americas Report,” December 2017.

Reports accurately reflect the daily catches by small-scale fishers; and increase support to combat illegal drug networks from engaging in the fisheries industry.

Chile

In Chile, the species covered under SIMP are: swordfish, shrimp, abalone, red crab, and sea cucumber. The US market accounted for 30.1 percent of total seafood exports of Chilean seafood products between January and November 2017, the majority of which was farmed salmon.¹⁰ SIMP species only accounted for only .36% percent of those imports by value out of seafood fish species in 2018, according to the specified species in NOAA's import records.¹¹ Out of these SIMP species, swordfish was the most prevalent species in Chile.

In Chile, small-scale fishing is defined as boats ranging from 0 to 18 meters in length. Semi-industrial is 12-18 meters. Industrial vessels are defined as boats more than 18 meters. Chile has 15 regions with an estimated 40-50 fisheries associations in each region, which complicates traceability efforts.

Findings

According to Stimson research, Chile has had the fewest challenges implementing SIMP out of the four target countries. This is likely and primarily due to the low proportion of SIMP species exported from Chile to the US. Additionally, the Chilean government has made significant legal progress regarding traceability in recent years, strengthening the country's capacity to meet SIMP documentation requirements. In January 2019, the Chilean Senate passed a new law to increase the number of inspectors and modernize the National Fisheries and Aquaculture Service (SERNAPESCA), the government agency charged with managing fisheries. The law makes IUU fishing a crime throughout the supply chain.

To date, NOAA has not identified any compliance concerns or issues by the Chilean industry or government. Based on a review by Stimson researchers of the 22 public webinars on SIMP implementation that NOAA held, no callers identified themselves as being involved in Chile's fishing industry. The Chilean Government's capacity and modernization efforts have made SIMP implementation more successful. A government official from SERNAPESCA confirmed that Chile has not experienced any gaps or problems in implementing the program. Yet, it is important to note that multiple interviewees indicated that the limited issues with SIMP implementation may be partly due to the low number of SIMP species Chile is exporting to the United States.

While Chile's traceability infrastructure has been strengthened over the past few years, implementation of those laws seems to be a challenge. One NGO expert from Oceana noted that the fisheries law requires tools like cameras onboard industrial vessels, but no clear pathway forward to process, review, and hold vessels accountable for infractions. The individual also noted that the new fisheries law will take time to implement due to capacity constraints and will only be half implemented in the next two to three years, which emphasizes the need for greater capacity building in Chile. In conversations with one former government official, SERNAPESCA is taking SIMP implementation seriously and has organized a working group on SIMP implementation within Chile's fisheries policy agency (SUBPESCA). However, the individual highlighted that SIMP implementation has not been completely free of issues. The individual noted that

¹⁰ Gobierno de Chile: Subsecretaria de Pesca y Acuicultura: Departamento de Análisis Sectorial, "Informe Sectorial de Pesca Y Acuicultura," Enero 2018."

¹¹ National Marine Fisheries Service: Fisheries Statistics and Economics Division, "Cumulative Trade Data by Country."

the largest issue for implementation is the legal concerns related to confidentiality of the required SIMP data. There are serious questions to whether the Chilean government can share fishers' information with NOAA. However, this has not impeded individual exporters from voluntarily sharing their data with NOAA.

Chile's artisanal fishing fleet has historically been the hardest to regulate and ensure fisheries management and implementation. Out of SIMP species, an Oceana Chile representative estimated that 50 to 70 percent are caught by industrial vessels, limiting SIMP exposure to the challenges posed by artisanal fishers. While most of the SIMP species imported into the US from Chile are fished through industrial means, abalone is caught mostly by artisanal fishers in Chile. According to a fisheries expert from Oceana Chile, duplication of documentation in the abalone fishery is a ubiquitous practice: Where middlemen in the abalone fishery use the same document two or three times while they transfer the catch to the processing facility. This is possible, the individual explained, because of the complexity of the supply chain for abalone, which has an estimated 30 landing points. The expert pointed out that middlemen should be the target for traceability efforts because artisanal fishers often operate out of remote areas and do not understand how to meet export regulations.

US Capacity Building

NOAA conducted a SIMP implementation outreach in Vina del Mar, Chile in September 2017 as part of an IUU fishing and traceability workshop. The workshop was co-hosted by Oceana and included seafood industry representatives, NGOs, and members of the Chilean government. Aside from NOAA's on-the-ground implementation outreach in Chile, US agencies have not provided any capacity building in Chile on SIMP implementation. This may be because Chile does not currently receive assistance from USAID.¹² Chile also has not participated in any SALT DataLabs. This aligns with the current assessment that Chile does not appear to be experiencing any major issues with SIMP implementation and is not currently in need of any capacity building assistance to comply with SIMP. However, as they develop a robust traceability program to meet their new fisheries management laws, they will need additional resources to implement.

Recommendations for Chile

While Chile has seen the fewest complications with SIMP implementation, increased capacity building and implementation of their current fisheries laws are central to continued progress on the traceability front. Though the artisanal fishers catch a small proportion of SIMP species, improved catch reporting and verification would limit the exposure of IUU caught fish entering the US market. Furthermore, due to the long coastline and dispersed authorities to verify catches, catch certificate duplication is a concern. Shifting to an electronic system and increasing oversight are important steps to addressing this challenge.

Peru

In Peru, the primary fisheries covered by SIMP and exported to the US market are mahi mahi and shrimp. According to Stimson analysis of NOAA US import records, SIMP species account for 84.07% of Peruvian seafood exports to the US, excluding fish oil and fish meal.¹³ Mahi mahi is the predominant SIMP species for Peru. Peru far outstrips every other mahi mahi country producer in the world, producing 61.9 tons of

¹² U.S. Agency for International Development, "Mission Directory."

¹³ National Marine Fisheries Service: Fisheries Statistics and Economics Division, "Cumulative Trade Data by Country."

mahi mahi in 2015.¹⁴ Mahi mahi is, by Peruvian law, completely artisanal and the second largest artisanal fishery in the country.¹⁵ In Peru, artisanal vessels are defined as those that have a hold capacity of no more than 32.6 cubic meters.¹⁶ The first five miles from shore are exclusively artisanal. The vast majority of mahi mahi exported from Peru goes to the US: The US market accounted for more than 72% of Peruvian mahi mahi exports between 2010 and 2016.¹⁷ Peruvian mahi mahi exports to the US have decreased over the past two years due to declining demand from the US market, according to a Peruvian fisheries expert from Sustainable Fisheries Partnership. However, the fish remains an important SIMP species.

Findings

According to Stimson’s interviews with NOAA officials, NOAA has not seen any implementation issues in Peru. NOAA conducted SIMP implementation outreach workshops in Lima, Peru in October 2017 and in June 2018. At these workshops, NOAA staff met with stakeholders in the Peruvian seafood industry, including fishermen, industry, and government personnel. In addition to this on the ground outreach, in the 22 SIMP implementation webinars hosted by NOAA, there were two callers who identified themselves as working for the Peruvian mahi mahi industry. However, they did not specify which companies they represented. Their questions were related to how NOAA will conduct its audits, what penalties there are for an exporter with missing or fraudulent information, and how NOAA will verify that fish were harvested legally. These questions indicate the industry’s concerns are primarily on documentation and verification. Subsequent interviews with NGO experts confirmed the documentation challenges are significant for SIMP implementation in Peru.

While NOAA has said that it has not seen any SIMP implementation issues in Peru, Stimson’s interviews with stakeholders in Peru have pointed to several challenges with documentation, government verification, and artisanal fisheries. While commercial vessels are now registered with Global Fishing Watch and are engaged with formal data collection, artisanal vessels do not have Vessel Monitoring Systems (VMS) on board. Peruvian experts from the Peruvian Society of Environmental Law (SPDA) and Sustainable Fisheries Partnership characterized artisanal fisheries as a “wild west” and “black hole” because it is difficult to monitor and gain accurate information. This is a serious concern as one of the primary SIMP species exported to the US – mahi mahi – is only fished through artisanal means in Peru. Artisanal vessels do not have Vessel Monitoring Systems onboard and participate in limited paper-based data collection upon landing. This limited technological capacity creates circumstances that allow falsification and duplication: According to several NGO experts, fishermen or the middlemen are known to engage in “fish laundering” which occurs when licensed vessels land large catches that include fish from unlicensed vessels.

Oversight of the artisanal fleet is complicated by the over 200 landing points in the country. Once fish is landed, boat owners “self-declare” their catch by writing their landing information on a paper Sourcing Certificate. Middlemen or the fishermen move the fish to a processing facility with the accompanying

¹⁴ Del Solar, Alonso & Grillo, Jorge & Gozzer Wuest, Renato & Correa Saldarriaga, Mario, “Traceability of the Peruvian mahi mahi fishery: Assessment and proposal (edited by WWF-Peru),” 2017, 89, 10.13140/RG.2.2.32303.64168/1.

¹⁵ Future of Fish, “Fishery Development Blueprint: Traceability in the Peruvian Mahi Mahi Fishery,” 2019, 9.

¹⁶ United Nations Food and Agriculture Organization, “National Fisheries Sector Overview Peru,” May 2010.

¹⁷ Del Solar, Alonso & Grillo, Jorge & Gozzer Wuest, Renato & Correa Saldarriaga, Mario, “Traceability of the Peruvian mahi mahi fishery: Assessment and proposal (edited by WWF-Peru),” 2017, 89, 10.13140/RG.2.2.32303.64168/1.

Sourcing Certificate. Over the course of this process, the Peruvian government has little capacity to verify the landing. One expert from Sustainable Fisheries Partnership described how regional government officials supervising catches finally verified landings from August in October, demonstrating the delays that can occur. In the Piura region, for example, one interviewee described how there is only a small number of government officials charged with reviewing a huge volume of documentation including records for more than 5,000 tons of fish. They noted at this volume it demonstrates the Peruvian government's inability to certify and ensure catch documentation is valid and not falsified. Furthermore, once their fish product is exported to the US, oftentimes the geographic area that is reported in the record for export is simply identified as coming from the *FAO 87 area*, an area that has several subdivisions and encapsulates the entire west coastal waters of South America from Colombia to the southernmost tip of Argentina.¹⁸ This vague geographic documentation makes it difficult to pinpoint where the fish originates and therefore impossible to verify the legality of the catch.

Moreover, there are serious implementation gaps between the regional and national government: Under the state's policy of decentralization since 2005, regional governments are responsible for regulating the artisanal fleet and registering fishermen. The national government creates many of the traceability policies which can lead to tension between the regional governments and the national government as well as confusion about implementation and enforcement. There are 11 regional government involved in fisheries management, and one interviewee from WWF Peru stated that regional governments lack capacity and need to align their work better with the national government.

Finally, aquaculture is the main shrimp producer in the country. Several of our interviewees suggested that illegal wild caught shrimp trawling was taking place in northern Peru. It was recommended that this issue should be further evaluated to determine if some of the illegally-caught shrimp is being exported to the US.

US Capacity Building

While Peru is a USAID country, there are currently no USAID projects in Peru focused on capacity building for SIMP implementation. While Peru has not participated in USAID-partnered SALT DataLabs, Peru has completed the SALT survey¹⁹, which is aimed at getting input from stakeholders on the issues they have experienced regarding traceability as well as input on collaborative projects that can be undertaken to implement traceability programs.

Recommendations for Peru

The Peruvian fishing industry would benefit from capacity building and increased resources to better monitor and verify the artisanal fishing fleet. NOAA, with NGO partners working in country such as Rare, the Wildlife Conservation Society, and others who work closely with small-scale fishers, could work to develop the technical capacity within the regional and local governments to support SIMP. Electronic documentation should be used to complement capacity building so that there is increased and improved verification of landing documents. The US Government and development organizations should assist in making handheld tracking devices available to fishers to support improved documentation and SIMP implementation.

¹⁸ Del Solar, Alonso & Grillo, Jorge & Gozzer Wuest, Renato & Correa Saldarriaga, Mario, "Traceability of the Peruvian mahi mahi fishery: Assessment and proposal (edited by WWF-Peru)," 2017, 89, 10.13140/RG.2.2.32303.64168/1.

¹⁹ Seafood Alliance for Legality and Traceability, "Seafood alliance for Legality and Traceability DataLab, Asia-Pacific Event Report July 19-20, 2018 Bangkok, Thailand."

Indonesia

The species covered under SIMP in Indonesia include abalone, shrimp, grouper, sea cucumber, swordfish, mahi mahi, red snapper, shark, and multiple tuna species. According to estimates from an NGO interviewee, artisanal fishing boats account for 95% of all Indonesian fishing capacity, while 5% are industrial fishing vessels. 87.13% of Indonesia's seafood exports to the US by weight fall under SIMP.²⁰ In Indonesia, small-scale vessels are defined as being under 10 gross tons, which is not aligned with the US Government definition which outlines small-scale vessels as those under 12 meters in length. Indonesia does not require small-scale vessels to be licensed, they must be registered.

Indonesia is among the top seafood exporters to the US and the top producer and exporter of seafood worldwide.²¹ Indonesia's coastline amounts to 54,716 km, the second longest in world; and this vast coastline and the federalized approach to fisheries management complicates the government's ability to monitor the country's fisheries, especially the small-scale fleet. While the Ministry of Marine Affairs and Fisheries (MMAF) has made several strides in recent years with widely publicized scuttling of foreign fishing vessels, MMAF has struggled to hold its domestic fleet accountable for IUU fishing and strengthen domestic traceability measures. Indonesia is now rumored to be on the yellow card list for non-compliance with the European Union.

Findings

Based off interviews with NOAA, USAID, and USTR, Indonesia is the only country out of the four target countries which US federal agencies recognize may potentially experience major SIMP implementation issues. According to NOAA officials, the agency has conducted outreach in Indonesia on SIMP implementation, but during NOAA's SIMP outreach public webinars, none of the callers identified themselves as being from Indonesia. While more recent conversations with NOAA has indicated there are no major compliance issues with large-scale industrial seafood suppliers in Indonesia, there are capacity needs at the small-scale fishing level that have hindered SIMP implementation. USAID has developed the Oceans and Fisheries Partnership to help build capacity for small-scale fishers in the Southeast Asia region to support compliance with SIMP, including in Indonesia. According to an interview with an NGO official in Indonesia, this intervention has been helpful for deepening traceability practices in Indonesia and supporting fisheries management. Interviews with representatives from MMAF also supported this vision and need to build capacity and knowledge of catch documentation and traceability among small-scale fishers.

USTR noted that Indonesia has continued to raise concerns about SIMP in the World Trade Organization (WTO). They indicated that Indonesia has issues surrounding its licensing of small-scale vessels and that small-scale fishers in Indonesia often do not maintain records of where their fish were caught and where they sold their fish, which has created issues with their compliance with SIMP. In conversations with the MMAF team focused on SIMP implementation and trade, they indicated that this approach by MMAF colleagues at the WTO likely comes from a low understanding of SIMP, rather than real concerns about a challenge at the WTO.

²⁰ National Marine Fisheries Service: Fisheries Statistics and Economics Division, "Cumulative Trade Data by Country."

²¹ NOAA Fishwatch, "Global Wild Fisheries."

USTR also highlighted that Indonesia raised concerns about expanding SIMP to cover shrimp since the aquaculture shrimp industry in Indonesia is complex and difficult to verify the accuracy of supply chain data.²² Prior to the compliance deadline of April 1, 2019 for shrimp, USTR expressed concerns that Indonesia may experience major trade disruptions in their shrimp aquaculture industry. USTR indicated that this disruption could occur if US importers stop importing Indonesian aquaculture shrimp because they are wary of the accuracy of the data given to them by Indonesian shrimp exporters. In conversations with MMAF, they acknowledged concerns with aquaculture shrimp, but indicated that they are unaware if these products have been denied entry to US commerce due to SIMP compliance concerns. More broadly, representatives from MMAF expressed some concern for trade disruptions moving forward and highlighted the critical importance of the US market for the Indonesian seafood industry. As one individual in MMAF noted, the US market represents over four times the value of the EU market, presenting a higher risk to the Indonesian seafood industry if there is low SIMP compliance. It was evident from conversations with MMAF that the government is invested in improving the traceability of its seafood supply chain and eager to learn from NOAA's audits.

MMAF also expressed that unlike the EU system where there is constant communication with the European Commission to validate documents and ensure compliance given that it is a government-to-government program, MMAF is completely unaware of progress or challenges Indonesian stakeholders may be facing with the US system. MMAF representatives indicated that they are in daily, constant contact with EU colleagues to sort through compliance issues. Given this experience with the EU, there are concerns that these compliance challenges also likely exist with SIMP and only at a greater risk to the Indonesian seafood industry. MMAF representatives expressed a desire for better communication and information sharing with NOAA on the status of Indonesian products complying with SIMP. At present, they are not aware of any challenges, but they are realistic and acknowledge that it is likely that there are issues.

In addition to these concerns, interviews with stakeholders indicated that SIMP implementation issues in Indonesia's small-scale fishing sector are concentrated at the harvester point of the seafood supply chain, particularly due to documentation challenges. In an interview with a TetraTech contractor with USAID's Oceans and Fisheries Partnership who has worked on the ground with the Indonesian fishing industry, the individual highlighted that the main concern with SIMP implementation in Indonesia is the ability of small-scale vessels to document and verify their data. This sentiment was shared by colleagues at MMAF. While all industrial vessels in Indonesia are required to have VMS, which is made publicly available on Global Fishing Watch's platform, small-scale vessels do not have VMS that can record their fishing activity. With this lack of technology, many small-scale vessels do not have the ability to document the required SIMP data. This has created significant challenges for small-scale vessels seeking to comply with SIMP because they cannot provide accurate data on where their fish were caught.

Even when there is catch documentation to verify by government authorities at fishing ports, several interviewees stated that the information collected at landing is not often well verified or checked due to a lack of capacity at the local and regional level. Therefore, documentation can easily be falsified. Additionally, an interviewee from Sustainable Fisheries Project in Indonesia pointed out that the majority of documentation for small-scale fishers is paper-based rather than electronic, opening up more

²² According to representatives from MMAF, the aquaculture shrimp fishery has a deeply complex supply chain and business practices in comparison to the capture shrimp fishery.

opportunities for error and falsification while further complicating governmental capacity to verify documents. Additionally, small-scale fishers lack access to electronic catch documentation systems. Through SIMP, small-scale fishers only have to submit Aggregate Catch Reports, which document all landings by small-scale vessels at one landing point in a single day. Without an electronic catch documentation system, tracking individual fish from a specific small-scale vessel becomes nearly impossible as the data is aggregated and then dispersed and divided between different processors and suppliers.

Further complicating SIMP implementation is the differences between US Government and Indonesia Government definitions of artisanal fishing vessels. Under SIMP, an artisanal vessel is defined as those under 12 meters in length, while in Indonesia artisanal vessels are those smaller than 10 gross tons. These boats are required to be registered. However, according to interviews, there are many unregistered artisanal boats and Indonesian companies frequently collect fish from unregistered boats for export, claiming the fish comes from registered boats.

In one positive development, an individual from Sustainable Fisheries Partnership in Indonesia revealed SIMP has successfully impacted a non-SIMP fishery species: blue swimming crab. Anticipating that the program will eventually expand to other species beyond the current 13 target species, companies reportedly are moving to improve catch documentation for blue swimming crab in preparation for increased traceability requirements in the US and the EU. This demonstrates how programs such as SIMP can have positive impacts on species which are not specifically covered under its protocol, as well as indicates that standard requirements of traceability across all species can be achieved.

US Capacity Building

The US Government has dedicated significant resources to Indonesia in the fisheries space, including developing the Ocean and Fisheries Partnership. In order to address these capacity gaps, USAID's Oceans and Fisheries Partnership in Asia and the Pacific (USAID Oceans) has developed multiple tools to improve traceability for small-scale fishers and their compliance with SIMP in Indonesia. First, they are developing an electronic catch documentation system that will integrate catch data, including data from small-scale fishers, into a national database. The system will electronically tag fish so that each individual fish can be traced through the supply chain. This will not only help compliance with SIMP through improved data documentation, but it will also increase traceability in Indonesia's seafood supply chain.

USAID Oceans is also currently piloting transponder systems in Indonesia for use by small-scale vessels. Although the pilot is limited in geography it shows great promise if scaled up over time. These transponder systems are cheaper than VMS, making them more accessible to small-scale fishers. The transponder systems allow small-scale fishers to trace their location and record where they harvested their fish. This will allow small-scale fishers to collect the data needed to comply with SIMP.

In addition to USAID's direct work on enhancing traceability capacity in Indonesia, Indonesia also participated in the USAID-partnered SALT DataLab in July 2018. At this DataLab, Indonesia along with 72 other participants discussed how traceability can be leveraged to combat IUU fishing.²³ Representatives from Indonesia's MMAF worked with representatives from regional and global NGOs, US government agencies including USAID Oceans, as well as fisheries agencies from several countries in the region,

²³ Seafood Alliance for Legality and Traceability, "Seafood alliance for Legality and Traceability DataLab, Asia-Pacific Event Report July 19-20, 2018 Bangkok, Thailand."

including Myanmar, Thailand, Cambodia, and the Philippines. These participants discussed barriers to the implementation of traceability programs in the region. One of the issues raised by participants was the lack of “capacity to collect traceability data.”²⁴

Recommendations

The Government of Indonesia struggles to monitor two primary sectors in their fishing industry: aquaculture and small-scale fishers. As such, significant efforts by the US Government, in partnership with other key governments given Indonesia’s significant contributions to the global seafood industry, should be dedicated to help improve catch documentation and build capacity to review such documents. This could also include concerted efforts to improve the capacity of small-scale fishers to use appropriate technology to improve documentation. USAID Oceans should continue efforts to develop transponder systems for small-scale fishers and expand the program geographically.

While there are significant challenges, colleagues at MMAF indicated a desire to better understand any challenges Indonesian seafood stakeholders might be experiencing with SIMP implementation so that they may improve their processes and their traceability system. Therefore, NOAA should provide more regular feedback to stakeholders in Indonesia, including leveraging the government’s ability to corral the stakeholders across the seafood industry and in government to address outstanding compliance challenges.

Conclusion and General Recommendations

Of the four countries reviewed for this research, it is clear that all have documentation and capacity challenges. There are ample opportunities to support improved implementation of SIMP, while not disturbing trade between the US and these countries, as well as working to ensure that IUU caught fish is not entering the US market. Based on our research, Stimson outlines ten recommendations for the SIMP program in the four target countries and beyond:

1. The US Government should support capacity building efforts with foreign governments in order to improve fisheries enforcement, monitoring, and compliance to support SIMP, particularly for small-scale and artisanal fishers exporting seafood to the US.
2. There is a need for additional trainings and seminars with the private sector and foreign governments that would help to dispel confusion around many facets of the program. This could include clarifications about what vessels qualify as small-scale or working with the government and private sector stakeholders to understand what a proper and verified document from the importer of record should look like.
3. Capacity building should be targeted at the regional and national level as there are varying levels of management within each country. Furthermore, NOAA should incorporate a feedback mechanism for government representatives so that governments might improve SIMP compliance more broadly.
4. Paper documentation continues to be utilized across these countries, which can lead to significant falsification challenges. As such, the US Government should more broadly support the creation of electronic and digital traceability systems. Paper import records should be phased out with a mandate for electronic and digital traced system for all SIMP seafood imports. This could

²⁴ Seafood Alliance for Legality and Traceability, “Seafood alliance for Legality and Traceability DataLab, Asia-Pacific Event Report July 19-20, 2018 Bangkok, Thailand.”

include supporting the development of mobile apps being created by WWF and REDES in Peru, which is critical for tracking the mahi mahi catches by the artisanal fleet.

5. In Indonesia, the small-scale fleet would benefit from low cost monitoring devices that fishers need in order to access the market, which are currently for example in development by the USAID Oceans team.
6. Supporting a broader movement towards transparency and expanded traceability is crucial. The US Government should encourage other countries to mandate Vessel Monitoring Systems or other tracking devices, as well as make information publicly available in order to support auditors' efforts, but also the broader transparency initiatives growing around the globe.
7. The US Government should increase the number of SIMP audits and auditors available to conduct reviews. NOAA should develop a dedicated a group to conduct the SIMP audits for both verification and training purposes. The importer of record is responsible for tracking seafood along the supply chain for SIMP. Despite the private sector's responsibility for SIMP, foreign governments play a key role in verifying some of the documentation required by SIMP auditors. These documents play a critical role in ensuring that fisheries are managed effectively and IUU caught fish does not enter the US market. Therefore, it is critical that the US Government have enough auditors to verify compliance and work with partner governments to ensure document validity.
8. The US Government and its auditors should increase the number of technical workshops in target countries, which could focus on sharing trends for non-compliance, specific areas to improve traceability within the target country, and provide regular guidance to low-capacity governments. Furthermore, these technical workshops should include SIMP auditors so that they can better understand what true and accurate documents from each country should look like.
9. NOAA should share public information on the status of compliance with SIMP as this will assist in capacity building efforts from the NGO and foundation community.
10. As the US Government considers expanding SIMP to all species, there needs to be a full and critical assessment of the existing system. Stimson's research revealed that SIMP assumes a level of capacity and oversight by governments in verifying documents that are passed along in the supply chain. Unfortunately, three of the four countries Stimson reviewed significantly struggled with duplication, falsification, and general verification challenges. Therefore, a serious assessment of the SIMP program is needed to ensure it is effective.

Appendix A

List of SIMP Species:

1. Abalone
2. Atlantic Cod
3. Blue Crab (Atlantic)
4. Dolphinfish (Mahi Mahi)
5. Grouper
6. King Crab (red)
7. Pacific Cod
8. Red Snapper
9. Sea Cucumber
10. Sharks
11. Shrimp
12. Swordfish
13. Tunas (Albacore, Bigeye, Skipjack, Yellowfin, and Bluefin)

About the Author

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Sally Yozell is a Senior Fellow and Director of the Environmental Security program at the Stimson Center where her research examines environmental threats that undermine national and global security. Her work focuses on ocean security, climate security, and wildlife protection. Yozell and her team conduct research which explores the linkages between environmental risks and security and develop strategies to address these threats, including devising resiliency strategies to address climate and ocean risk; addressing the lack of transparency in the fishing industry which can lead to illegal fishing and illicit criminal networks. She also performs an advisory role for the Our Ocean Conferences. Prior to joining Stimson, Yozell served as a Senior Advisor to the U.S. Secretary of State where she advanced U.S. policies in the international arena related to ocean, climate, and wildlife protection. She also served as the Deputy Assistant

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