

COVID-19 DISRUPTION: WHAT WILL STICK?



SALT

SEAFOOD ALLIANCE FOR
LEGALITY & TRACEABILITY

CASE STUDY OF SEAFOOD TRACEABILITY IN SOUTHEAST ASIA & THE PACIFIC

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The movement of seafood slowed and, in certain circumstances, came to a halt during the pandemic due to global lockdown measures used to curb the spread of SARS-CoV-2, the virus that causes COVID-19. The scope of disruption is staggering but it laid important groundwork for increasing the uptake of electronic traceability – tracking the origin, complex journey, and product information of seafood. This report will explore disruptions in the seafood sector, strategies used to address these impacts, and the opportunities ahead for seafood traceability. It also addresses the risk these disruptions and strategies may pose to sustainable and legal seafood.

1. Disruption in the Seafood Sector

Decline in Market Demand

The sudden and precipitous decline in market demand for seafood was a significant disruption to the seafood sector. Global lockdown measures significantly reduced seafood harvest and post-harvest activities, logistics, and transportation. Domestic and international seafood supply chains felt a disruption just a few months after COVID hit major seafood exporting countries. The fishing industry faced an oversupply of raw materials, low market prices, and low export demand. The fresh and frozen seafood market demand from Indonesia to the United States of America (U.S.) and Europe dropped nearly 50%. Demand for

fresh and frozen seafood, particularly tuna, declined significantly because the food service industry closed. The drop in market demand lowered the price of fish between 25% and 37%*.

In select locations of Java, seafood export sales declined as much as 70% since February 2020. That resulted in fishers losing up to 65% of their income. One Indonesian seafood business reported a complete halt in exports to the U.S. because their main customers were supplying the service industry there, which had shut down. This company pivoted to the Japanese market. While Japan's market demand had not dropped

* Thai Union Management Discussion and Analysis for 3Q20 Results

significantly, the lack of flights, crucial to transport fresh fish, hurt sales and service delivery.

Despite the devastating impact seen for small-scale fishers, this has not translated across the seafood industry. Overall, the effect of the pandemic on production and sales for large seafood companies has been less severe than for medium and small seafood companies. For example, many canned seafood producers received raw material from large fishing purse-seine fleet operators. In April 2020, a report prepared by MRAG Asia Pacific showed that travel restrictions due to the pandemic “have not resulted in a widespread decline in fishing effort.” The report used data from Parties to the Nauru Agreement (PNA) Fisheries Information Management System covering fishery and market dynamics of the PNA member states in the period from January to April 2020, as the pandemic took hold. The data showed purse-seine fishing effort declined slightly in February 2020 but recovered in March and April.

Larger companies were more likely to have electronic traceability systems in place. Seafood supply chains with electronic traceability data were able to provide real-time insight into market shifts and cold storage limitations, and had more accurate knowledge of the source and concentration of products, all which allowed for timely business and government intervention. For example, in Indonesia, the eLogbook system and post-harvest data allowed for understanding bottlenecks in supply chains, including cold storage shortages, transportation limitations, and processing facility closures.

Economic Shock in Fishery Communities

The health and livelihoods of seafood workers were severely affected by the pandemic. For example, in Indonesia, many small-scale fishers, especially in the remote coastal areas, and processing plant workers, which includes migrant workers, were especially vulnerable to the economic shock caused by COVID. Middlemen stopped purchasing from small-scale fishers abruptly because of lockdown measures. In Eastern Indonesia, the number of fishing trips for fresh and frozen tuna declined by 40% compared to before the pandemic (MDPI, 2020). The sharp drop in demand severely impacted seafood processing workers, reducing seafood worker incomes at all nodes of the supply chain. Further, the lack of economic diversification in many Indonesian coastal fishing communities meant that without other opportunities, tourism industry workers returned to fishing to absorb the effect of this fiscal shock.

Small-scale fishers, fish workers, and fishing communities are more vulnerable from lost livelihoods and lack of social protection. In labor-intensive fish processing plants, like other food processing companies, the risk of infection spread among workers is higher due to continuous human interaction in a contained environment.

Traceability data proved a valuable resource during COVID as a way to strengthen the reach of government social safety net programs. In Indonesia, data from the government’s downstream traceability system STELINA, was beneficial because it streamlined and improved accuracy of reporting catch data by reducing human-to-human interaction during

the pandemic.

In addition to providing safer and healthier connections between people, the electronic data collection and reporting provided data for food security, food safety, and direct fisher support. For instance, the Indonesian Ministry of Social Welfare used the Ministry of Marine Affairs (MMAF) registry of fishers in Indonesia as a reliable database of current fishers eligible for emergency relief funds (Bansos), insurance and access to finance. Similarly, the use of the electronic records from the fisheries registry was used in Thailand and the Philippines to provide emergency relief funding to fishing communities. Finally, electronic traceability systems that tracked labor and worker data were used for contact tracing to contain the outbreak.

Decrease in IUU Enforcement Activities

Other hampered operations included reducing onboard observers and onshore landing inspectors. This disruption led to losing vital functions in monitoring catch and bycatch, working conditions, collecting data for stock assessments, biological and port sampling, and reporting and addressing other compliance issues. The absence of observer coverage and inspectors resulted in reduced enforcement for illegal, unreported, and unregulated (IUU) fishing activities and human rights abuses. The breakdown in formal and human verification increased the capacity for IUU products to enter the market.

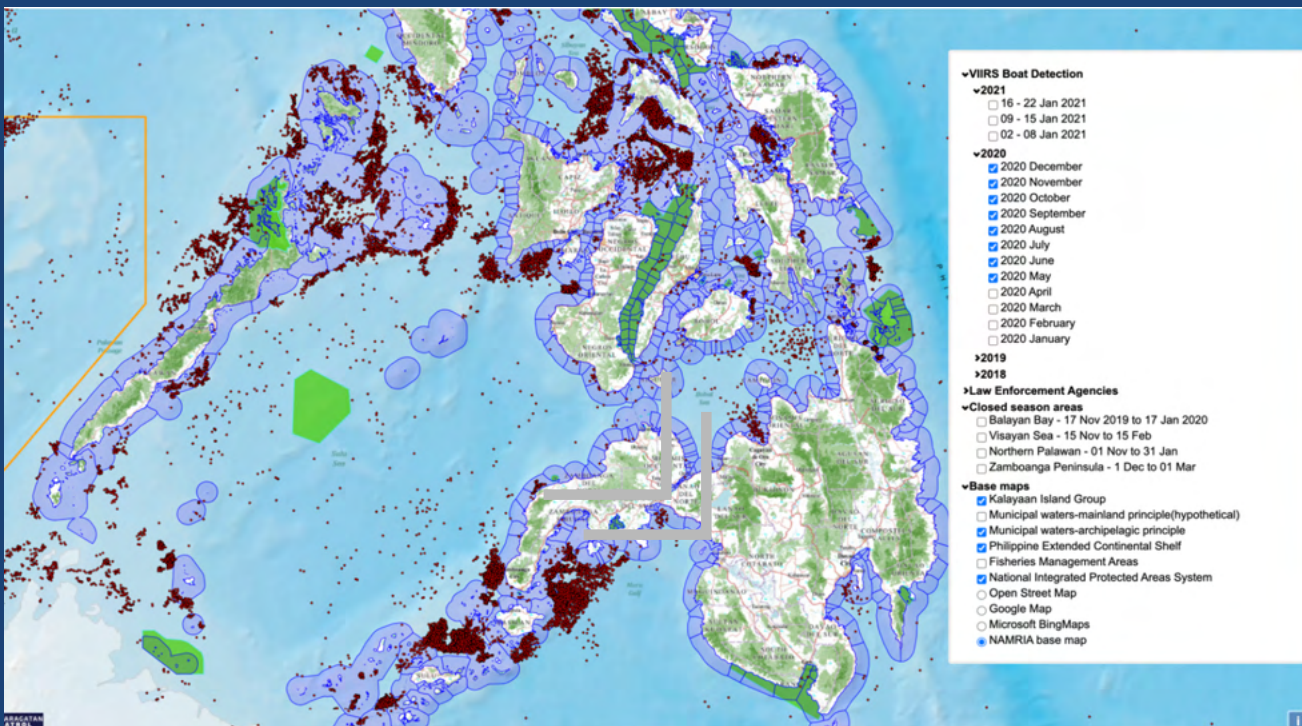
In July 2020, the Western and Central Pacific Fisheries Commission issued circular no 2020/71 that suspended the requirements for observer coverage on purse seine vessels. As a

result, 600 onboard observers in the South Pacific remained onshore. In Indonesia, the MMAF reported a 35% reduction in observer coverage time from reallocating and redistributing funds to COVID emergency response measures. Some observers dropped out of the program after losing income.

In the Philippines, satellite data showed that illegal fishing by large-scale vessels appeared to spike during the pandemic as commercial fishers took advantage of limited patrols to fish in coastal waters that were protected from harvesting fish (Karagatan Patrol 2020).

Many countries imposed strict travel restrictions to prevent the spread of COVID, which caused logistical issues for the fisheries trade. Ports had implemented strict quarantine protocols and became increasingly selective of who could enter, making it difficult, or in some locations impossible, for fishing vessels to unload or transship their catch in port. As a result, fishing vessels were directed to conduct their transshipment at sea, sanctioned by the interim policy or suspension of regulations prohibiting at-sea transshipment.

Complications at port did provide an opportunity for fisheries and health ministries to work together, sharing data to improve the movement of people and products. For example, in the Marshall Islands, a web-based application was developed to share fishery workers' health data with port agents and the Ministry of Health. This application and sharing health data from the fishing vessel streamlined the port entry process in the Marshall Islands. It also eliminated



Satellite data record illegal fishing vessels, appearing as red dots, encroaching within municipal waters, shown as blue lines, from May to December 2020. (Source: KaragatanPatrol.org)

opportunities for misinformation to spread about the crews’ health, which could block port entry.

Electronic traceability programs implementing electronic monitoring could have limited insight. Future programs that can take advantage of advanced artificial intelligence technology such as image recognition, machine learning, and pattern analysis—and report this data through an electronic traceability program—may be better equipped to address a lack of enforcement.

To address observer compliance processes and reduced human-to-human interaction (on-board observers and port

inspectors) and comply with IUU Fishing Laws, MMAF will implement an e-Observer app, available from Google Play Store. The goal of the e-Observer app is to pair human observation with electronic monitoring systems and vessel monitoring systems to ensure compliance.

The benefits of these systems include time savings, improved data accuracy, compliance monitoring, reduced human-to-human interaction, and an online data set to monitor vessels and catch certificates. This information will also be useful in creating a more resilient seafood supply chain.



A CLOSER LOOK AT COVID-19 IMPACTS ON SEAFOOD SUPPLY CHAINS

The movement of seafood slowed and in certain circumstances came to a halt during the pandemic due to global lockdown measures used to curb the spread of SARS-CoV-2, the virus that causes COVID-19. The scope of disruption is staggering but laid important groundwork for increasing the uptake of electronic traceability – the tracking of seafoods' origin, complex journey, and its related product information.

COVID Disruption in the Seafood Sector

Decline in Market Demand

Seafood supply chains with electronic traceability data were able to provide real-time insight into market shifts, cold storage limitations, better knowledge on the source and concentration of products, and allow for timely business and government intervention.

Economic Shock in Fishery Communities

In addition to providing safer and healthier connections between people, traceability systems provided data for governments to address food security, food safety, and provide direct relief to fishers and fishing communities.

Decrease in IUU Enforcement Activities

The absence of observer coverage and inspectors resulted in a reduction in enforcement for illegal, unreported, and unregulated (IUU) fishing activities and human rights abuses. Traceability systems provided some insight into fishing activity but further electronic monitoring and artificial intelligence could provide more detailed information for decision-makers in tandem with observer coverage.

Disruption Strategies that Will Stick

Producer country governments and industry rapidly deployed strategies in response to the disruption to market demand, economic shock in fishery communities, and enforcement within the seafood sector to mitigate damage



Reliance on the Digital Market

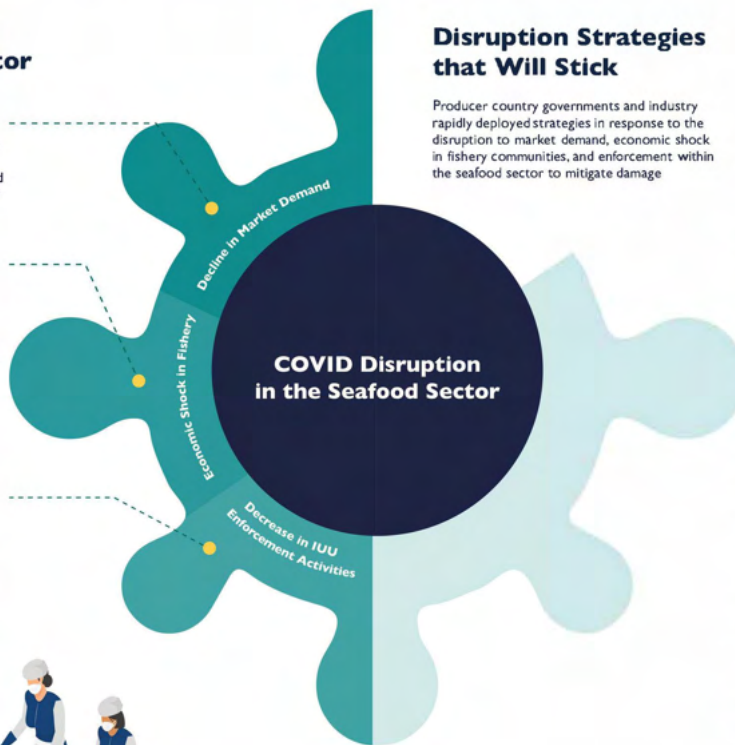
To overcome the decline of demand from the export market, many companies and governments are turning to their domestic market to make up for this loss in demand. Interoperable industry and government traceability systems can help address verification of products in these new markets.

Acceleration of the Digital Economy

The traditional supply chain has been shortened not only because of business pressures that put intermediaries out of business but also powerful drivers to reach end customers directly using digital technology. Digital transformation is a major driver of electronic traceability programs. However, the benefits of a robust traceability program can only be fully realized if the resulting platforms, digital economy, and government systems are interoperable, data is verified and secure.

Governments' Digital Transformation

Many countries have increased electronic data flow for safer and healthier connections between people during COVID. The unintended consequences of this push to digital government services include streamlined services, faster processing times, and the availability of data to share between ministries among other opportunities.



2. Strategies Used to Address Disruption

Producer country governments and industry rapidly deployed strategies to mitigate the disruption to market demand, economic shock in fishery communities, and lack of enforcement within the seafood sector. Three strategies are explored below.

Reliance on the Domestic Market

Many companies and governments turned to their domestic market to make up for a loss in the export market. In Indonesia those who fish for blue swimming crab for the export market switched to fishing alternative species, including squid, shrimp, and mixed fish species, and sold them in the domestic market (SFP, 2020). In the Philippines, blue swimming crab intended for export were found in the domestic market because of international order cancellations. For some species, the switch was difficult because of many factors, including the cultural norms around seafood consumption. For example, despite Indonesia being a leading exporter of tuna, fresh tuna is not commonly found in home cooking.

The governments of Indonesia, the Philippines, and Thailand tried to boost domestic consumption through several means. Fisheries offices in Indonesia, Thailand, and the Philippines helped fishers sell their product by creating a temporary demand in the domestic market. In Thailand, the Department of Fisheries partnered with gas stations to create a temporary marketplace for

seafood. In the Philippines, the Bureau for Fisheries and Aquatic Resources started the “Seafood Kadiwa ni Ani at Kita on Wheels” (Datu, 2020)—a mobile store that sells fresh fish to communities affected by the lockdown. In addition, some local governments bought catch from their small-scale fishers to include in food distribution to families affected by quarantines. This shift also occurred in Indonesia, where a state-owned fishery company purchased fish products for the government food distribution program. Because of cross-provincial transport restrictions and challenges, many neighborhood markets also emerged. Creating ad hoc markets within a local fisheries office's jurisdiction became common to help the shift in supply chains. In August, MMAF Indonesia launched a Warehouse Receipt Program, through which fishers could store their catch in designated cold storages and receive a receipt to use as collateral for the bank-backed loan (up to 70% of their catches' value) with 6% interest per annum. This initiative was intended to help the disparity of cold storage capacity issues due to the decline in export demand.

Acceleration of the Digital Economy

COVID-19 is exponentially accelerating the uptake of the digital economy (McKinsey & Company 2020). For eCommerce, they achieved ten years of total deliveries in just 8 weeks during the pandemic. eCommerce and digital platforms have become a popular choice to answer the decline of the seafood export market globally. The traditional supply chain has been shortened because of business pressures that put intermediaries out of business and also powerful drivers to reach end customers directly using digital technology. Using social media like Facebook, Instagram, WhatsApp, and Twitter as a marketplace, is prevalent in many countries in Southeast Asia. Older generations of fishers ask the younger generation how to support the use of digital platforms and social media to reach this newly emerged domestic market.

Many government fisheries offices encourage fishers, especially small and medium scale ones, to sell their seafood using digital platforms. Thailand set aside a budget to develop an eCommerce platform. The Thai government's budget will include building eight distribution centers for fisheries products that include storage and transportation to support the new eCommerce site. Rather than building a government-run eCommerce platform, MMAF in Indonesia chose to build the website, www.pasarlautindonesia.id, which enables and facilitates medium and small enterprises (MSME) in fisheries to join existing eCommerce sites such as Shopee, Lazada, Tokopedia, Gojek and Grab. MMAF's platform focuses on building skills for MSME by providing knowledge on product presentation, content development, search engine optimization

strategy, and other e-business skills to use private sector eCommerce sites, allowing MSME businesses to successfully enter the digital marketplace.

Governments' Digital Transformation

Many countries have increased electronic data flow for safer and healthier connections between people during COVID. That materialized through digitizing many paper-based administrative processes which may signal a tipping point for a digital transformation of government. Unintended consequences of this push to digitize government services include streamlined services, faster processing times, and available data to share between ministries. Indonesia, the Philippines, and Thailand have digitized services in the fisheries sector due to the pandemic.

The Indonesian government has several major initiatives, including simplifying and digitalizing licensing throughout 38 Ministries now consolidated under one roof at the National Investment Board. MMAF also received a jurisdiction extension, which enables them to handle all permits and licenses for fishing vessels. Whereas previously, the Ministry of Transportation shared this responsibility. The Government of Indonesia's recent omnibus law for job creation significantly changed many regulations and procedures. Permits have been switched from process-based to risk-based needs. In line with these national-level changes, MMAF has improved their online licensing system, SILAT, managed by the Directorate of Capture Fisheries, to process licensing to within one hour, which previously took four days.

3. What Will Stick?

All three strategies are likely to endure— at least parts of them—and shape the future economy. ECommerce platforms, acceleration of the digital economy, and digital transformation are significant drivers of electronic traceability programs. However, the benefits of a robust traceability program can only be fully realized if the resulting platforms, digital economy, and government systems are interoperable, and data is verified and secure. To build back better, a closer look at these important digital transformations in seafood should be undertaken.

The reliance on the domestic market will decline as export markets reopen. However, the eCommerce platforms and digital marketplace for domestic market access are likely here to stay. Commerce sites facilitate direct sales between producers to consumers. In the wake of this digital momentum, industry and government should be aware that the risk of unsustainable, unregulated, and unreported seafood entering these domestic markets may increase through these channels without compliance checks. One solution is to link these digital marketplaces to government systems to issue compliance and verification certificates. This additional government oversight may help address this risk in domestic supply chains, and the endorsement and verification of seafood products would allow the private sector to continue running scalable eCommerce sites for seafood.

Accelerating the digital economy is beneficial to electronic traceability programs. Moving from paper-based to electronic systems is

ideal for reaping benefits like time savings and data-informed decision-making that can improve fisheries management. Including small-scale fisheries could provide immediate and tangible effects on fisher livelihoods and community welfare. Small business enterprises and fishers would also benefit from building capacity to participate in eCommerce, including providing financial services (i.e., bank accounts, mobile, and electronic money) and assisting MSME fisheries to practice safety online such as cybersecurity and data privacy.

Transformation to a digital government means faster processing times and less red tape. Ideally, this digital trend will improve trust and foster wider data sharing between the appropriate ministries. With a broader acceptance of digital data, the hope is that it will lead to more robust data analytics to mine new insights for regulatory review, reform, and drafting. These new systems may not be accessible to all communities, so building access for communities to reap these efficiencies is essential.

As the world grapples with the staggering changes caused by COVID, now is the time to support the sudden transformations that will affect the seafood industry long beyond the pandemic and help build back better.