

The effect of COVID-19 on fisheries and aquaculture in Asia

INTRODUCTION

On 10 April 2020, one month after the World Health Organization declared the spread of COVID-19 a pandemic, FAO published *How is COVID-19 affecting the fisheries and aquaculture food systems* (FAO, 2020a). That policy brief, while global in scope, addressed the situation in some Asian countries. This paper provides an update, incorporating new data, developments and observations. During its writing, the pandemic was in full swing with no clear end in sight. Circumstances were still fluid. The future remains unclear.

The nature and dynamics of the pandemic are manifold. Efforts to contain it, relieve its immediate impacts, and cope with and mitigate its growing number of effects, have been fraught with uncertainties. Economically, the International Monetary Fund (IMF) projects global GDP to contract by 3 percent in 2020, down substantially from 2.9 percent growth in 2019 (IMF, 2020). The Asian Development Bank (ADB) forecasts growth in developing Asia will be 2.2 percent, down from its pre-pandemic forecast of 5.5 percent (ADB, 2020). The economic slowdown will likely lead to food insecurity, widespread unemployment, and exacerbation of social inequities.

Fish and fish products are a key component to a healthy diet and are safe to eat. Misleading perceptions in some countries have led to decreased consumption of these products. Yet, aquatic animals (finfish, reptiles, amphibians and invertebrates such as crustaceans and molluscs) do not play an epidemiological role in spreading COVID-19 to humans. As with any product or surface, fish products can become contaminated if handled by people who are infected with COVID-19 and who are not following good hygiene practices. For this reason, as before COVID-19, it is important to implement robust hygiene practices to protect fisheries and aquaculture workers and fish products from contamination (Bondad-Reantaso *et al.*, 2020).¹

DISRUPTION OF CAPTURE FISHERIES LIVELIHOODS

In Asia during 2018, FAO estimated that 30.8 million people were engaged in the primary sector of marine and inland capture fisheries (FAO, 2018). Millions more were involved in secondary activities, such as post-harvest processing and marketing, in which women predominate. The pandemic has directly impacted almost all of these people. Many countries in Asia are among the top producers, exporters and importers of fish² and fishery products. All countries in Asia have instituted a range of mitigation measures in varying degrees to stop the spread of COVID-19. However, in some countries,

¹ To date, there are many unknowns regarding SARS-CoV-2. As new information becomes available through peer-reviewed studies, we should continuously improve our understanding of the virus and assess any potential risks to fishery and aquaculture food systems that may arise (Bondad-Reantaso *et al.*, 2020: 77).

² The term “fish” indicates finfish, crustaceans, molluscs and other aquatic animals, but excludes aquatic mammals, reptiles, seaweeds and other aquatic plants.

fishing is considered an essential activity and has been allowed to continue, as long as fishers and the public comply with the mitigation measures.

Stay-at-home orders, curfews, bans, and travel restrictions for national and international air and land travel have led to complete or partial closures of hotels, restaurants, catering services, local markets, as well as disruption of transportation and cold-chain systems. To enforce physical distancing measures, authorities have banned gatherings and festivities. Sudden and massive job losses have greatly reduced local demand, particularly for high-value foods. Reduced demand and closures of major global markets have stopped or greatly reduced international trade in fish products. On the other hand, some businesses are supporting demand by stocking up their freezers, preparing for the eventual end of the pandemic when demand for canned fish products, particularly tuna, should increase. Countries that have kept their ports open continue to import whole frozen tuna from the Pacific and Indian Oceans to supply their canneries.

People working in the fisheries sector are plagued by fear and uncertainty. They fear catching the virus, and are uncertain when or if their livelihoods will return to normal. In general, small-scale fishers and women vendors have been the hardest hit. Although they can catch, eat and sell fish, they are highly dependent on daily income to buy basic necessities such as food, fuel and medicine. Reduced demand for fish has negatively impacted their income and health.

Many migrants working on vessels and in processing plants that have ceased operations have been unable to go back to their villages, or their countries. They remain stranded, often in cramped conditions, increasing their potential to become infected or spread the virus. Without work, they are more likely to fall into debt. Border closures also create gaps in domestic supplies of fish and fish products normally filled by cross-border trade. Land border closures (e.g. Cambodia–Viet Nam and Singapore–Malaysia) have the potential to weaken food security. The closures also deprive fishers of markets for their catch.

Coping strategies and support to the sector

Below are some examples of what stakeholders are doing to cope and to support the sector.

China launched the National Fish Demand and Supply Information Platform. Developed by the Chinese Aquatic Products Processing and Marketing Alliance (FAO, 2020b) under the guidance of the Ministry of Agriculture and Rural Affairs, the Alliance invited many leading companies and small-scale enterprises to register on the platform. By mobilizing resources, the platform has successfully helped thousands of fishers to sell their products.

In India, a community radio station for fishers in Tamil Nadu has been acting as a bridge between the government and fishers. The station provides information about the lockdown and measures to contain the spread of COVID-19 (Hemalatha, 2020). Officials from the fisheries department, police and panchayats (village councils) are using the radio station to announce new protocols, physical distancing measures and other updates. The radio station invites local municipal staff, doctors, and police officers to respond to questions and concerns from fishers about the pandemic.

In Indonesia, fishers targeting blue swimming crab for export have switched to other species and are selling them in the domestic market. Their alternative catch includes squid, shrimp and mixed finfish species (SFP, 2020).

In the Philippines, the Department of Agriculture introduced the Food Lane Conduct Pass to ensure the unimpeded supply and flow of food commodities, agriculture and fishery products, and inputs (Department of Agriculture, Philippines, 2020). Accredited holders of the Food Lane Vehicle Pass Card can travel through quarantine checkpoints. Moreover, the Bureau of Fisheries and Aquatic Resources initiated the “Seafood Kadiwa ni Ani at Kita on Wheels” (Datu, 2020). This is a rolling store that brings

fresh fish products to communities affected by the lockdown. In addition, some local governments have bought the catch of their small-scale fishers for inclusion in food packs distributed to families affected by the enhanced community quarantine (Cabico, 2020).

Thailand (Manager, 2020; MCOT, 2020; ThaiPBS, 2020) has shut down its lucrative tourism sector. Restaurants are open only under restrictions. Local non-government organizations (NGOs) are assisting artisanal fishers, such as the Urak Lawoi group in Phuket, who cannot sell their fish, have no income from bringing tourists on their fishing boats, and no money to buy rice. The NGOs help them barter their dried fish products for rice from other vulnerable groups in the North and Northeast of Thailand. Government and donors have absorbed the logistics costs. The fishers also share the rice with their relatives and friends in other areas along the Andaman coast who do not produce processed fish. Villagers also store some of the rice in communities' rice buffer funds.

IMPACTS ON AQUACULTURE

Impacts on aquaculture businesses were immediate. Lockdowns subjected the value chain to severe domestic and international transport disruptions for production inputs, raw materials for processing, and finished products for domestic consumption and export. Strict enforcement of restrictions on the movement of materials and people, including workers, made farm inputs, such as feed and seed, unavailable. Small farmers suffered business losses because they could not sell their harvests, or were forced to sell at low prices. Many farmers cannot keep feeding their stock for too long without revenue as they must repay loans. There is also a significant effect on the value-chain actors, a large portion of whom are women, and their commodities that are strongly reliant on export and tourism. Segments that are labour intensive, specifically industrial-scale processing, are most affected by labour shortages.

Available reports of country experiences provide some examples of the wide range of impacts.

In Bangladesh, fish farmers were unable to harvest and therefore, could not start a new production cycle. The result will be a decrease in fish supply in the coming months. It will also mean that upstream and downstream sources of employment will be lost or reduced (WorldFish, 2020). In Indonesia, hatcheries were unable to supply seed because they could not obtain specific pathogen-free broodstock from their sources abroad for lack of flights. Farmers will now miss a crop. In India, shrimp processing units have not been operating at optimal capacity due to an acute shortage of labour. The workers went home to their respective states and could not return because of locally imposed restrictions (Press Trust of India, 2020). In Indonesia, processing plants in cities struggled to obtain raw materials because of transport disruptions (Indonesian Traditional Fisherfolk Union, 2020). In the Philippines, logistics problems curtailed the fish supply. Consequently, the prices of two staples, tilapia and milkfish, have increased despite a price ceiling set by the government. Recently, the government has relaxed the restrictions to ease the movement of food supplies and essential services (FAO, 2020c).

In India and Thailand (Thai Department of Fisheries, 2020), shrimp exports have been most affected by reduced, delayed or cancelled orders from major markets such as China, the EU, Japan and the USA. The drop in demand forced processing plants to scale down, resulting in an oversupply of raw materials. Indonesia did not experience cancelled orders, but plants slowed down operations anyway because of a lack of workers. Lately, some importers have resumed ordering, and governments have relaxed lockdown measures. However, in some countries such as China, India and Thailand, processors continue to operate at reduced capacity with fewer workers per shift to comply with physical-distancing requirements.

The severity of impacts on commodities for domestic markets depends on local consumers' purchasing power and food substitution for farmed products. Unemployment has affected incomes and consumption patterns. People may find products such as eggs and canned fish more affordable than farmed fish.

Closures of offices and schools have also affected demand for fresh fish. The busy lifestyle of people in urban centers makes them rely on prepared meals. These meals often include fish products and are served by small vendors and restaurants for take-away or on-site consumption. The shutdown of tourism and related businesses, such as hotels and restaurants, has also decreased demand, especially for high-value fresh or live fish. E-commerce has helped absorb the products, but sales are still far lower than before the pandemic.

Meanwhile, underlying problems have exacerbated the pandemic's impacts on small farmers. These problems include the high cost of production, low farm-gate prices, diseases, persistent household debt, and natural hazards such as this year's drought in the Mekong Delta.

Recovery could be slowed down by constrained cashflow and low liquidity along the value chain and the likely debt burden incurred by all actors. Financial assistance to the sector will be much reduced because of severely strained public resources. Microfinance institutions are also facing liquidity problems, as their investors are wary that borrowers cannot pay back loans.

Ongoing coping measures and potential adaptation strategies

Responses by governments and the aquaculture industry include three outstanding measures for coping with and relieving the pandemic's impacts on the aquaculture value chain:

- Governments have allowed – while maintaining necessary precautions – the resumption of activities and services. This is to ensure uninterrupted production, input availability, and accessibility and access to market and facilitating services.
- Government and industry have been promoting local consumption of export products that have lost their markets, and have been developing online marketing platforms and assisting farmers in using them.
- Governments have been providing assistance to producers and processors/exporters. This includes a produce price-stabilization scheme and enabling farmers to restock by facilitating access to farm inputs.

The pandemic can serve as a catalyst for the introduction, wider promotion, and faster adoption of plans and programmes to make the sector innovative, and socially and environmentally responsible. Responses to the pandemic can drive the resolution of the persistent social issues of gender inequity, social inequality, and lack of social protection for small farmers and workers. It also presents another opportunity: the integration of pandemic-related objectives and strategies into all existing work programmes and ongoing projects.

The country experiences suggest five key adaptation strategies. Integrating these strategies can achieve synergy and infuse the sector with greater resilience and adaptive capacity to this and other types of disasters that may occur alone or simultaneously.

- Strengthen self-reliance. While maintaining the export market, strengthen domestic markets by improving productivity, quality and safety standards. Diversify product forms and market channels and keep them affordable for local consumers.
- Encourage multi-stakeholder investment in services to farmers. Services rendered mainly by governments include research and development, extension, and even marketing, credit and insurance. With strained public resources, the private sector, NGOs and civil society

organizations should now partner with the government to invest in, initiate and provide these services to hasten recovery and increase resilience.

- Enhance human capital. Equip small farmers and small processors, who are mostly women, with new knowledge and entrepreneurial skills. Give them the tools to anticipate and meet changing requirements for production and marketing and changes in consumer preferences.
- Introduce social protection for all. This includes a range of financial products such as health insurance bundled with mutual savings, and credit with crop insurance. Organizing producers can facilitate delivery.
- Enhance social capital. Promote the formation and professionalization of farmers' associations, women's associations, and youth associations. Link these to other actors along the value chain and with other associations to form a network. Frequent and close interaction with others through linkages and alliances promote the exchange of ideas and experiences that tend to generate innovation. Strong partnerships based on trust help small operators to better manage production and market risks.

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