



How is COVID-19 affecting the fisheries and aquaculture food systems

A SECTOR AT RISK, YET FISH IS SAFE TO EAT

The COVID-19 pandemic has triggered a public health crisis followed by an on-going economic crisis due to the measures taken by countries to contain the rate of infection, such as home confinement, travel bans and business closures, among others. Even though food retail businesses, like supermarkets, grocery and convenience stores and take-away restaurants are deemed essential and remain operational, the measures taken to contain the COVID-19 outbreak have created an environment in which food could become more difficult to obtain.

Although COVID-19 does not affect fish, the fish sector is still subject to indirect impacts of the pandemic through changing consumer demands, market access or logistical problems related to transportation and border restrictions. This will in turn have a damaging effect on fishers and fish farmers' livelihoods, as well as on food security and nutrition for populations that rely heavily on fish for animal protein and essential micronutrients.

At the same time, misleading perceptions in some countries have also led to a decreased consumption of seafood, resulting in a fall in prices of fish products. This emphasizes the need for clear communications regarding how the virus is transmitted and that it is not related to seafood.

PROTECTING EACH STAGE OF THE FISHERIES AND AQUACULTURE SUPPLY CHAIN

The full range of activities required to deliver fish and fishery products from production to the final consumer are complex. Globally, technologies employed vary from artisanal to highly industrial. Value chains include local, regional and global markets. Key activities in a fisheries or aquaculture supply chain are fishing, aquaculture production, processing, transport, and wholesale and retail marketing. Each link in the chain is susceptible to being disrupted or stopped by impacts arising from COVID-19. If one of these producer–buyer–seller links is broken by the disease or containment measures, the outcome will be a cascading chain of disruptions that will affect the sector's economy. The desired result, human consumption of fish and fishery products, can only be achieved by protecting the producer–buyer–seller links and each stage of the supply chain. Therefore, it is essential that each stage of the fisheries and aquaculture food chain be given all possible protection.

1. Fishing activity reduced or brought to a halt because of drop in demand and/or prices

There is already evidence of a reduction in fishing effort in parts of Africa, Asia and Europe for a number of reasons. For example, fleets that rely extensively on export markets (e.g. the United Kingdom of Great Britain and Northern Ireland and Ireland) and on higher value species (e.g.

lobsters) are likely to be particularly impacted.¹ Sanitary measures (physical distancing between crew members at sea, facial masks, etc.) can also make fishing difficult and can cause a cessation or reduction of activity. Limited supplies (e.g. ice, gear, bait) due to suppliers being closed or unable to provide inputs on credit, also constrain fishing activities. Labour shortage is another problem as some crews consist of migrant workers who may not be able to cross country borders at present.² In addition, the uneven availability of equipment to ensure health security for crews, the responsibilities of shipowners in the event activity resumes, the crew's eligibility for aid such as partial unemployment, temporary closures, the availability of support systems to maintain the primary activity, and compatibility between the various (economic and other) support mechanisms can all affect the current level of fishing.³

Measures to protect production and income include:

- designating, where this is not already the case, fishers and crew members as “essential workers” as they provide food to the nation;
- expediting visas for temporary, seasonal and foreign labour to harvest seafood;
- linking fishing centres or villages to such services as the local community kitchen in the area, where smaller varieties of fish (sardines, mackerels, anchovies) can easily be fried and be supplied there for a fixed price, where possible;
- expanding governments' purchase of seafood for institutional use (prisons, hospitals, school feeding programmes, etc.) as well as for distribution as food assistance;
- extending the fishing season to compensate for economic losses;
- providing compensation to the owners and crew of vessels prevented from fishing;
- restricting the level of fishing currently undertaken (by setting up a collective and transparent quota or lottery system, for example) to match current demand, while ensuring that local food security is not negatively affected; and
- having government departments set a minimum floor price for each of the important species of fish, where possible.

2. Varied impacts in aquaculture production with uncertainties for the future

Effects on aquaculture production will vary. Due to market disruptions, fish farmers cannot sell their harvest and they must keep large quantities of live fish that need to be fed for an indeterminate period. This increases costs, expenditures and risks. Some farmed species for export (e.g. pangasius) have been reportedly affected by the closure of international markets (China, European Union).⁴ Shellfish aquaculture (e.g. oysters) are affected mainly because of the closure of foodservices (e.g. tourism, hotels and restaurants) and retailers (e.g. European Union). In addition, due to a wide range of restrictions by different countries on cargo movements and airport clearing, etc., hatchery operators and brood stock traders may find it difficult to trade brood stock for seed production, which could cause a sharp decline in production. Small-scale aquaculture, on the other hand, may benefit from reduced competition with fish imports. Aquaculture production capacity may also be affected by the difficulty in sourcing inputs (seed and feed) and finding labour due to lockdowns.

¹ <http://www.rfi.fr/es/europa/20200320-el-mercado-de-pescado-fresco-se-derrumba-en-europa-por-el-coronavirus>

² <https://elpais.com/economia/2020-03-26/los-pescadores-recogen-sus-redes.html>

³ Information from the Comité national des pêches maritimes et des élevages marins (CNPMM) as at 28 March 2020 (<https://www.comite-peches.fr/la-peche-francaise-dans-le-brouillard/>).

⁴ <http://vietfishmagazine.com/news/pangasius-industry-has-been-hit-by-covid-19.html>

Measures to maintain operations include:

- declaring aquaculture to be at par with agriculture for the purpose of priority sector lending, crop insurance, power tariff and other levies;
- increasing access for fish farmers to credit and micro-finance programmes with reduced interest rates, flexible loan repayment, and options for restructuring loans and related payment schedules;
- granting programmes to cover production and income losses to maintain domestic seafood supply chains and to ensure continued operations;
- forgiving loans used to maintain payroll, and low-interest loans to refinance existing debt;
- relieving payments, i.e. suspending certain financial obligations such as utilities, real estate tax and mortgages; and
- slowing down production where there is a drop in demand or reduced market access, especially if exports remain slow and farm labour has been lost.

3. Processors, markets and trades are adapting to shift in demand

The fish and fishery products sector is particularly reliant on the food service sectors, and thus is highly affected by changes in food services. As countries implement lockdown measures, restaurants, hotels, schools, universities and associated canteens close down, causing a drop in activity for many fish wholesalers and an absence of outlets for some high value fresh fish species. Panic buying of food has reportedly benefited the sale of prepacked, frozen or canned fish and fish products, but these may not be able to continue supplying the market if the raw material is not available, and because of other logistical problems. In particular, as countries are closing down their borders, there may be delays at border crossing and air flights may be cancelled, which may affect the trade of goods, and the cost of transport can increase significantly. Restrictions on market access and a drop in demand will mean fish and fish products may be held in storage for longer. This has implications for food loss and waste due to quality changes as well as additional costs for processors, exporters, importers and traders. At the same time, this unprecedented situation is generating promising innovative practices that could influence the way the sector works in the future.

Measures to support the supply chain include:

- in the area of international trade, in a joint effort to ensure that trade flows continue to be as free as possible, a call by the heads of FAO, the World Trade Organization (WTO) and the World Health Organization (WHO) for the prevention of border restrictions on trade in food to avoid food shortages, emphasizing that the dissemination of information on food-related trade measures is fundamental,⁵
- ensuring supply chain access, and, for those fishing operations that sell their products overseas, ensuring continued access to and cooperation from officials at ports, rail and border crossings so they can maintain their sales;
- ensuring the stability of fisheries access by reducing unnecessary regulatory burdens that are preventing access to and sustainable harvest from fishing grounds;

⁵ The full report is available at https://www.wto.org/english/news_e/news20_e/igo_26mar20_e.htm

- continuing support for the supply chain (e.g. using temporary storage of fish, diverting fish to the home market, working with processors to adjust supply to the home market and replacing product previously prepared for the export market);
- processing fish that remains unsold (e.g. salted or stored in ice as appropriate, which requires a supply of medium-sized insulated fish boxes to be provided by the relevant government departments);
- exploring the possibility of freezing fish productions with fish processing, refrigerating and distribution companies;
- marketing directly to end consumers as a potential important new approach for some businesses; and
- using alternative marketing strategies to help alleviate the need for prolonged storage.

4. Problems of working conditions along the value chain

The working conditions and safety of fishers at sea will be affected should the number of fishers available to crew vessels be reduced.⁶ Crew on large-scale industrial vessels (pelagic trawlers, purse seiners) that are working on/off for several weeks and are then replaced while they have a break, are unable to travel home due to flight restrictions and quarantine periods.

Consequently, they may have to work longer periods on board, which increases fatigue, stress (also about the health of family members at home), and potentially the chances of on-board accidents. Large-scale fishing vessels of distant water fishing fleets can also be confronted with COVID-19 cases among their crew members while far out at sea. The virus may spread rapidly among all crew of a vessel and medical assistance is unlikely to be readily available. When trying to enter a port, crew that are not from the port State may not be allowed to enter the country. In addition, many crew members, just like small-scale fish farmers, are considered self-employed and do not currently qualify for unemployment or paid leave.

Given the migratory behaviour of many fishers, plus the frequent international visitors to fishing communities (e.g. cross-border movements), there is potential for fishing communities to become “hotspots” for the rapid spread of the virus. Restrictions on mobility may impact the harvesting sector by preventing the fishers from conducting their activities, and also the post-harvesting sector, where women are mostly in charge of the processing activities and trade. In case the restriction measures are not yet applied to markets, women fish vendors can be exposed to a greater risk for infection since markets see large numbers of people and physical distancing is difficult to implement consistently. This is even more likely if there is a lack of sanitation and hygiene facilities. The wide informality in the sector constitutes an added barrier for fishers and fish farmers to access protection from labour market policies and contributory social protection mechanisms. These might exacerbate the secondary effects of COVID-19, including poverty and hunger.

Measures to protect the most vulnerable include:

- ensuring safety by permitting only vessels with a full complement of crew to leave harbour to conduct fishing operations;
- improving hygiene and sanitation in the fish market during the relief/recovery period;
- providing payroll and unemployment assistance for crew members and self-employed small-scale fish farmers;

⁶ The number of available crew could be reduced owing to *inter alia* contracting the virus, restrictions on movements or lockdowns.



- supporting the most vulnerable with cash and in-kind transfers by local institutions (where no national social protection schemes exist);
- adapting the programme design (delivery schedule, level of benefits) and relaxing conditionalities (e.g. waivers on contributions) to ensure wider and adequate coverage of the fisheries and aquaculture sector, including informal workers, where social assistance (cash and in-kind transfers) or social insurance programmes exist; and
- supporting inter-institutional coordination, through data information exchanges between authorities responsible for fisheries development and governance to ensure the coverage of fishers by social development and repatriation.

5. Management and policy implications

While closing fishing operations will offer respite to some overexploited fish populations, similar constraints apply to the science and management of support operations. For example, fish assessment surveys may be reduced or postponed, obligatory fisheries observing programmes may be temporarily suspended, and postponing science and management meetings will delay both the implementation of some necessary measures and the monitoring of management measures. The collapse of exports markets has increased the possibility of re-sourcing fish from local producers. However, the national market of some nations is small or non-existent, and the national fishing fleet may exceed the capacity for the national market, with several management implications. Lockdowns could lead to a reduced capacity in Fisheries Monitoring Centres (FMC) as was the case in West Africa during the 2013–2016 Ebola outbreak, where staff were not only unavailable, but limited national resources were directed to funding emergency activities which left FMCs unable to function effectively. Fishers who are “safely out at sea” in their microcosm know this and may keep operating or adapt their operations to benefit from the Monitoring, Control and Surveillance’s shortcomings to engage in illicit activities. A lack of monitoring and enforcement of shared stocks may encourage some States fishing on these stocks to revert to a less responsible level of managing, monitoring and controlling fishing operations.

Measures include:

- enhancing, where possible, remote surveillance and non-observer monitoring programmes (cameras, log-books, electronic reporting systems);
- maintaining levels of monitoring, control and surveillance of fishing activities to ensure that control measures are enforced and that the risk on board fishing vessels, particularly illegal, unreported and unregulated fishing activities, does not increase; and
- having governments carry out assessments and identify specific solutions in partnership with the actors from the sector.

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