



# Fisheries, aquaculture and COVID-19: Issues and Policy Responses

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Fisheries and aquaculture provide nutritious food for hundreds of millions of people around the world and livelihoods for over 10% of the world's population. All aspects of fish supply chains are strongly affected by the COVID-19 pandemic, with jobs, incomes and food security at risk. Government and industry responses are needed to address the immediate economic and social hardships that the crisis is provoking in the fish sector. Governments also need to maintain long-term ambitions for protecting natural resources and ecosystems, and the viability of fisheries. Economic, equity and environmental considerations all point to similar best practices: supporting the incomes of those most in need rather than subsidising inputs or fishing effort, and ensuring that evidence-based management remains in place and is enforced. Transparency in policy responses will help build trust in the future of fish value chains and markets, and enable learning from the crisis to improve the sustainability and resilience of fisheries and aquaculture.

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## How is the pandemic affecting global fisheries and aquaculture, and what are the potential consequences?

### ***Changes in food consumption and difficulties in reaching consumers are significantly impacting demand and prices***

Public health responses to the COVID-19 pandemic and associated measures, from confinement and social distancing to stricter border controls and reduced air traffic, are having significant and complex impacts on the demand and prices for fish products.

Demand from the hospitality, restaurant and catering (HORECA) sector represents a significant share of fish consumption in many OECD countries. The closure of restaurants and cancellation of both public and private events has resulted in a collapse in demand for certain fish products, in particular high-end products, such as lobsters, oysters, bluefin tuna, and mahi-mahi.

The loss of domestic demand has often been further compounded by a collapse in export markets. The cancellation of lunar new year celebrations in the People's Republic of China (hereafter "China"), for example, which are traditionally associated with the consumption of high value seafood, has had devastating impacts on lobster fisheries in Australia, Kenya, New Zealand, the United Kingdom, and the United States, among others.

Social distancing and confinement measures have also led to the closure of many fish markets globally, while trade has been further affected by border closures and significant declines in the availability, and increases in the cost, of global air-freight as passenger flights are cancelled. These impacts have created further challenges for the sale of fresh fish products, even where demand still exists domestically and internationally.

In many places, loss of demand and difficulties in reaching consumers have in turn led to reduced and more volatile prices. Data from the European Market Observatory for Fisheries and Aquaculture, for example, have shown price declines in Mediterranean fisheries of 20%-70%, along with high weekly price volatility in other European fisheries, with price paths varying significantly across products and countries. Significant price drops and uncertainty over prices can be challenging for fishers (see below), although, where lower prices lead to greater opportunities for fish consumption, these trends could have some positive welfare implications for consumers.

The reduction in demand for fresh fish products has been accompanied by an increase in demand for canned, frozen and processed fish. The demand for these kinds of shelf stable fish products has predominantly been driven by an increase in retail sales from supermarkets, and consumer stockpiling (notably in the early stages of the pandemic). Consequently, the processing industry for salmon and whitefish is seeing positive trends compared to the same period last year – but only where there have not been disruptions along the supply chain (discussed below).

Further, in some places, COVID-19 has triggered increased demand (and prices) for locally-sourced fish. For example, small scale fishers from Lake Victoria in Kenya, have seen prices for their catch rise, as supplies of frozen filleted fish normally imported from China have declined. In several OECD countries, organisations providing direct delivery services connecting fishers and consumers have expanded.

Demand for fish may generally pick up as countries gradually begin to ease lockdown measures. Viet Nam and Thailand, for example, re-opened restaurants at the end of April. However, in many countries, notably in Europe, restaurants and hotels have remained closed in the early phases of re-opening, or are only able to operate at a reduced capacity. Consumers may also need time to return to pre-crisis levels of



consumption away from home even when opportunities for such consumption are again available. Potential second waves of localised epidemic outbreaks could also result in new lockdown measures. Finally, the economic contraction caused by the pandemic and resulting reductions in consumer spending power could affect demand in the medium and longer term. The recovery of demand under these circumstances is likely to be slow and difficult to predict.

## Will the crisis result in a long-term shift to alternative distribution channels?

The closure of fish markets; decline in demand from supermarkets, restaurants and other distribution channels; and consumer preferences for contactless deliveries, with minimum intervention of middlemen for health reasons, have accelerated the development of more direct fish marketing and home delivery services.

A variety of such marketing approaches, with a minimum of intermediaries between fishers and consumers, existed before the COVID-19 crisis. These services either connect individual fishers to consumers (e.g. Poiscaille in France, Two Hands in Australia and JD Fresh in China) or work through local fisher associations, such as Get Hooked, a private company that works directly with the Commercial Fishermen of Santa Barbara. Anecdotal evidence suggests that, after an initial pause in activities, sales by such services have increased since before the crisis. The COVID-19 pandemic has also catalysed the creation of new enterprises or associations such as Call4Fish, which was set up by Plymouth Trawlers Agents and fish merchants.

Many of these services are relatively new and overall they represent only a small share of fish distribution. However, their development is an interesting trend that could have lasting impacts on fish supply chains in terms of improved traceability, lower hygiene management costs, and the potential to encourage consumption of sustainably sourced local and seasonal fish. Such approaches could also result in higher benefits for fishers and the overall resilience of the sector if current growth trends persist after the pandemic.

### ***Production capacity and costs are affected by the need for additional health and safety measures and reduced labour mobility all along the supply chain***

Current declines in demand for fish, and associated price drops, as well as uncertainty over the duration of these trends, have discouraged production in many places. Fishers and fishing companies have refrained from going to sea, resulting in large declines in production – around 50% lower for French fisheries in early April compared to the previous year, and up to 80% fewer vessels operating in the Mediterranean. Conversely, fishing fleets from Norway and the Russian Federation appear to have continued largely as normal. In some cases, established remuneration practices and pre-payment of crew wages have resulted in vessels undertaking planned trips despite depressed prices (and potential health risks related to difficulties in maintaining social distancing and other hygiene measures on fishing vessels). Storage and transformation capacity have also influenced the ability to adapt to changes in demand. Aquaculture producers seem to have been able to maintain production and sales better where they were already selling to supermarkets and were thus already accustomed to meeting the requirements of processed and pre-packed products (this was the case, for example, for seabass and seabream farmers in Italy).

Difficulties for producers related to falling demand and prices have been compounded by necessary public health measures taken in response to the pandemic, which have reduced production capacity and



increased costs all along supply chains. In onshore fish processing facilities, which generally have a large number of workers in a confined space, implementing social distancing while maintaining the same number of workers is logistically challenging, if not impossible. These issues can be even more pronounced on fishing vessels. Additional costs also relate to the need for personal protective equipment (FAO, 2020<sup>[11]</sup>).

Onshore fish production and processing and fishing vessels are also vulnerable to the pandemic itself, with outbreaks of the virus having led to facility shutdowns in both Chile and the United States. An outbreak on a fishing vessel could have even more serious consequences, particularly in distant water fleets, where vessels can stay at sea for up to several months and treatment is not immediately available. There are also risks to local communities upon the return to port, as vessels could serve as vectors for the disease to remote communities and could prolong the epidemic.

Limits on the mobility of people and lockdowns are also impacting production, especially where exemptions for fisheries to lockdown measure have not been included in national legislation. For example, in India, where aquaculture was not initially exempted from lockdown measures, shrimp hatcheries have been forced to destroy unsold seed stock. In Peru, the world's largest producer of fishmeal and one of the largest producers of fish oil, processing facilities were effectively shut down due to national lockdown measures instigated on 16 March (and lifted on 11 May). This led to price rises in China, which imports large volumes of fishmeal and fish oil for use in its aquaculture systems.

The nature of aquaculture also means that adapting to changes in demand can be challenging and disruptions to the early stages of production processes can have lasting effects. For example, issues affecting the production of seed occurring now will manifest as disruptions to the supply of final products in the coming weeks and months. Fish may also need to be tended to over longer periods than is optimal, resulting in both higher production costs and potentially lower sale prices if the resulting final products differ from consumers' preferences.

In addition, a number of pre- or post-production processes have become more challenging, from port protocols and operations, to processing, as well as trade-related processes such as inspections of goods in relation to sanitary and phyto-sanitary measures, product testing, and certification.

The international nature of many fish value chains means that the sector is particularly vulnerable to crises that restrict the movement of goods across borders. For example, the fishery for North Sea Brown Shrimp, which are landed in Germany and then peeled in Morocco, has experienced significant logistical difficulties. In some cases, trade diversion has occurred, with trade flows adapting to the changing measures and situations across countries. The ability of processors to meet increased demand for products such as canned tuna can depend on the situation in other countries. In some cases, disruptions in supply chains can be addressed by substituting raw materials in processed products, but with implications for price and quality.

***While it is too early to assess the impact of the crisis on the natural resource base, investment in monitoring is crucial***

Depending on the particular situation of fish stocks and ecosystems, and the magnitude of reductions in fishing, the crisis could result in positive impacts on the health of some fish stocks, as well as on biodiversity more generally. However, more data need to be collected to understand the impacts of the COVID-19 pandemic on global fishing effort; moreover, the relationship between fishing effort and stock health is sometimes hard to predict. The possible impact of the crisis on commercially important fish stocks thus remains largely unknown.

What is clear, however, is that the impacts will also depend on policy responses to the crisis, including how they affect fishing in the recovery. The crisis offers an opportunity to learn about the potential for reduced fishing pressure to restore and increase the natural resource base. But this will require concerted efforts to both continue existing data collection and explore new sources of data and information exchange on the



impacts of the crisis; analysis of remote sensing and satellite data, as well as information collected through different vessel surveillance technologies, could be promising avenues.

### ***Potential implications for global food security and livelihoods call for urgent yet calibrated responses from governments and industry***

Fisheries and aquaculture provide nutritious food, rich in animal proteins and essential nutrients, for hundreds of millions of people around the world every day. They also provide livelihoods for over 10% of the world's population, many of them women. The seafood industry is particularly important for food security and livelihoods in remote coastal areas in developing countries, and particularly where social safety nets are not always available. Seafood also accounts for important shares in the total exports of some countries in Southeast Asia, while a few coastal regions in OECD countries are also relatively dependant on the sector.

Risks to jobs, incomes and food security thus call for governments (and industry) to manage multiple demands – responding to the health crisis, mitigating the shock to the sector and ensuring the smooth functioning of the food system, while at the same time continuing to pursue essential long-term objectives related to protecting and restoring ocean resources and eco-systems.

The rest of this Policy Brief suggests some possible responses to the crisis. It will be followed by a series of thematic briefs as more detailed evidence of the impact of COVID-19 and information on policy responses becomes available.

## **How can government policies alleviate hardship equitably and efficiently while contributing to sustainable use of resources and ecosystems now and in the future?**

To maintain fish production and address food security concerns, governments can exclude fish production from lockdown orders where possible (OECD, 2020<sup>[2]</sup>). Such measures would also reduce hardship for coastal communities, which rely heavily on the sector. However, this may not be possible everywhere, and additional measures, such as temporary income support for affected fishers and fish processing workers, may be needed.

The design of policy responses, along with how they are implemented, will be critical in ensuring that they both provide support to those that require it, and do so in a way that avoids either encouraging unsustainable fishing (now or in the future), or creating tomorrow's market distortions. Further, maintaining and enforcing an appropriate regulatory framework during and immediately after the current crisis is crucial for the long-term sustainability of the sector, including for international fisheries. Responses to, and learning from, the crisis may also be an opportunity to accelerate transformations in the fisheries and aquaculture sector to build its resilience to future shocks.

### ***Support policies should be designed in such a way that they do not encourage unsustainable fishing now or in the future***

Appropriate design and implementation of support measures is important to ensure that they reach those most in need, while making efficient use of scarce government resources. In general, the OECD recommends government support policies in response to the COVID-19 pandemic be time-limited, targeted, cash-based, and consistent with longer-term sustainability objectives (OECD, 2020<sup>[3]</sup>). Because capture fisheries depend on renewable natural resources, the design and implementation of specific support measures also has direct implications for fishing and the sustainability of resources over the long term. As underscored by Sustainable Development Goal 14 adopted by the United Nations, and as



discussed in ongoing negotiations in the World Trade Organisation on fisheries subsidies, it is important to ensure that support policies do not encourage overfishing; illegal, unregulated and unreported (IUU) fishing; as well as other fishing practices that destroy ocean ecosystems and compromise the sustainability of resources. Fortunately, economic, equity and environmental considerations all point to similar best practices in terms of support to fisheries.

In particular, OECD work shows that policies that lower the cost of inputs, such as fuel or vessel construction or modernisation, are among the most likely to create incentives to fish more intensively and promote unsustainable fishing – while at the same time leading to less inclusive outcomes, by favouring large fishers over small producers (Martini and Innes, 2018<sup>[4]</sup>). In 2017, such policies accounted for 40% of the direct support to individuals and companies in the fisheries sector reported by the 27 OECD countries that participate in the [OECD Fisheries Support Estimate database](#).<sup>1</sup> Evidence to date suggests that countries are not generally providing new support for inputs in response to the COVID-19 pandemic, perhaps thanks to recent drops in fuel prices. However, as losses to the sector mount, and governments come under increasing pressure to provide additional support, this trend may change. Thus, it is important to recall that the goal should be to move away from such measures and where necessary, instead, support income directly with targeted cash transfers, to the benefit of the environment and the sustainability of the sector as well as the livelihoods of fishers.

Direct support can be partially decoupled from fishing activities, for example, via income support and special insurance systems. Such approaches are proving popular with governments: in addition to general stimulus packages, fisheries-specific income support measures are being implemented in the United Kingdom, the United States, Canada and Japan among others.<sup>2</sup> Within the European Union (EU), these programmes are taking advantage of changes to EU regulations on state aid, which have doubled the ceiling for individual instances to EUR 120 000 (USD 130 360),<sup>3</sup> and provided additional flexibility on the use of funds from the European Marine Fisheries Fund (EMFF). In Korea, the government has set aside KRW 3 billion (USD 2.4 million) to provide low interest (1.3%) loans to aquaculture households and fisheries businesses facing cash flow difficulties due to COVID-19. Fee waivers and deferrals are also being used to reduce costs to fishers. For example, in Australia all fees in Commonwealth fisheries for 2020 have been waived; likewise, in Canada, the Nova Scotia Fisheries and Aquaculture Loan Board has deferred all fees until the end of June.

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<sup>1</sup> [The OECD Fisheries Support Estimate \(FSE\) database](#) measures fisheries support policies in a consistent and transparent way across all OECD countries and other important fishing economies. The FSE and associated modelling work allow investigation of the impacts of fisheries support policies on resources and ecosystems, as well as on jobs, incomes and value creation, with a view to guiding policy makers in adjusting policies to better deliver on their stated goals.

<sup>2</sup> In many countries, economic stimulus packages including grants, interest free loans, wage guarantees and macro fiscal policies, are being used to protect jobs and incomes across the entire economy – including fisheries and aquaculture. In many cases, however, fisheries operators favour business structures that are rare in other sectors, such as revenue sharing among crew on individual vessels, which can be excluded from compensation systems for technical reasons. In addition, work seasonality, the employment of foreign crew and seasonal workers on vessels, and relatively high levels of informality and self-employment, mean that general stimulus packages may not be as effective for fisheries and aquaculture. Whether or not fisheries-specific support programmes are required, as well as their extent, will depend on both the national context of the sector and how it interacts with the complex and hard-to-predict impacts of the COVID-19 pandemic.

<sup>3</sup> State aid must be de-coupled, defined in this case as “not fixed on the basis of the price or quantity of products put on the market”.



Benefits can also be given in exchange for permanent or temporary capacity reduction, such as through decommissioning schemes or payments for early retirement. The crisis has prompted temporary changes to the EMFF allowing EU Member states to pay fishers and aquaculture producers for a reduction or cessation in production. Ireland, for example, is now offering a voluntary scheme designed to support fixed costs incurred by vessel owners while their fleets are tied up, which will operate from June to August.<sup>4</sup> Such efforts can help to stabilise prices and reduce oversupply in depressed markets. These measures are also sometimes used with a view to protect quota availability for later. Whether they lead to longer term reductions in fishing pressure, and ultimately to healthier fish stocks, therefore depends on whether they are implemented in ways that do not allow fleet re-capitalisation, or whether they in effect simply postpone fishing effort.

In addition to direct support to individuals and companies, governments can finance services to the fisheries sector, which benefit the sector as a whole, or some of its segments. Services that target fishers' ability to operate their businesses by promoting market diversification may prove helpful in the present context. This is particularly important for countries where fish production is largely export oriented, and which have therefore been particularly affected by the COVID-19 crisis. Initiatives to support the development of new markets and the promotion of seafood consumption domestically have been implemented by governments in Australia, Japan, the United Kingdom, Chile, China, Peru, Thailand and Indonesia.

These efforts have been complemented, in several places, by support for airfreight to maintain important international routes for high-value products, such as rock lobsters in Australia and New Zealand, which have suffered disproportionately from the collapse of air travel. The fish sector also benefits from wider measures taken to facilitate trade-related processes and border formalities such as acceptance of digital versions of required certificates, or 24/7 clearance for food goods in major ports (OECD, 2020<sup>[5]</sup>).

Governments are also increasing support to help fisheries make up for lost demand. Campaigns to encourage the consumption of local fish have been organised in many countries; in Costa Rica, for example, they have been complemented by support for direct sales programmes.<sup>5</sup> Funds are also being allocated to market diversion initiatives such as purchasing, transporting and storing of species that are experiencing large declines in demand and prices due to COVID-19; in Japan, for example, about USD 30 million have been set aside for such measures. Removing production from the market temporarily, including through cold storage, is important for aquaculture products where demand has decreased but production cannot be easily slowed or stopped. Such efforts will also help reduce loss and waste of fish products across the supply chain.

Many of the programmes currently being adopted are time limited. For example, in the United Kingdom, the GBP 9 million (USD 11.1 million) grant-making fund for fisheries is currently limited to three months, and the changes to the EMFF expire at the end of 2020. It is crucial that support programmes designed to offset the impacts of COVID-19 on the income of actors in the fisheries and aquaculture sector do not become permanent entitlements, which could result in increased fishing pressure and unfair competition.

The impact of the pandemic is likely to vary significantly among and even within countries, across communities, fisheries, and value chains. To target support to those who need it most, it is crucial that governments continue to invest in monitoring the economic and social impacts on fisheries and aquaculture production systems, associated supply chains, and fish consumption patterns.

Finally, it is important to recall that support policies generally lead to more benefits for fishers and are less likely to encourage unsustainable fishing when an effective management system is in place (in particular

<sup>4</sup> <https://mailchi.mp/eumofa/eumofa-monthly-highlights-1041997?e=7bc227799a>.

<sup>5</sup> <https://www.guanacastealaaltura.com/index.php/la-provincia/item/3839-procuran-alivio-a-pescadores-ante-emergencia-por-covid-19-con-iniciativas-de-comercializacion-directa>.



with limits on total allowable catch) (Martini and Innes, 2018<sup>[4]</sup>). Understanding the impacts of the pandemic on fisheries management systems is crucial and countries will also need to continue to invest in science-based stock management and measures to counter IUU fishing.

***Fisheries management policies must remain evidence-based in the face of growing pressures to make up for losses, and practical challenges in monitoring and enforcement***

Making wise use of public resources to support the sector through the crisis is only part of the story for fisheries. The sustainability of the sector – environmental, economic and social – also depends on maintaining and enforcing an appropriate regulatory framework. This may be challenging in the months to come. Policy makers will face pressure to make up for losses in the recovery period, particularly where other factors are affecting fishing possibilities – such as the United Kingdom leaving the European Union. While loss of income from foregone fishing opportunities is generally better compensated directly (where possible), governments are likely to be looking for low-cost options to lessen hardship. Relaxing constraints on fishing, rather than having to disburse cash, may be seen as one such option. Management changes have already been implemented in a number of countries, including extension of fishing areas and seasons as well as quota deferrals.

But changes to management rules can be undesirable if they compromise the sustainability considerations of their initial design. Such changes could indeed increase the pressure on stocks at potentially critical times, especially where it is already too high, with potentially lasting consequences on fish stock abundance, harvests and revenue generation. Given the complexity of the relationship between fishing effort and the health of fish stocks, and increased pressures on fisheries from climate change, countries should now, more than ever, adopt a cautious and evidence-based approach to management changes.

Such an approach will be even more important as monitoring and enforcement are also impeded by the need for social distancing, which has already led, for example, to the waiving of requirements for fisheries observers<sup>6</sup> in several regions.<sup>7</sup> Observer requirements have notably been waived in both domestic fisheries (e.g. for 45 days in Canada), and international fisheries (e.g. by the Western and Central Pacific Fisheries Commission until 31 July). The absence of observers presents an opportunity for unscrupulous operators to engage in IUU fishing, particularly in parts of the world with lower enforcement and monitoring capacity. Declining government revenues from sector-specific taxes through fee deferrals, for example, could also reduce budgets for management control and monitoring.

Countries can try to offset these impacts by strengthening and supporting remote monitoring efforts and accelerating the uptake of technological solutions, which reduce the need for in-person observation. Mandatory use of vessel monitoring systems (VMSs)<sup>8</sup> or automatic identification systems (AIS),<sup>9</sup> which

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<sup>6</sup> Fishing observers are independent specialists employed by government agencies to monitor vessel activities.

<sup>7</sup> Border closures have further exacerbated these issues as repatriating observers after trips has become difficult.

<sup>8</sup> VMS are used in commercial fisheries to allow regulators to track the activities of fishing vessels. The functionality of the system and the associated equipment varies with the requirements imposed by regulations pertaining to fishing in the area in which the vessel is operating. The systems are administered regionally or nationally, and access to the data is restricted. However, some countries are starting to opt for transparency on their VMS data.

<sup>9</sup> Adopted in 2000 by the IMO, the automatic identification system (AIS) was initially developed for navigational safety goals and to prevent ship collisions. Vessels carrying AIS transponders broadcast information about their identity, position and course. The stream of real-time data generated on vessel positions provides a good understanding of routine vessel operations, which can also help inform coastal surveillance and traffic management. Using algorithms developed by machine learning, AIS-derived data can be assessed for potential irregularities, helping to detect IUU activities (especially as AIS data are not bound by confidentiality and can be purchased from data vendors).



monitor where vessels are fishing, can ease enforcement of spatial closures, including restrictions on vessel presence in marine protected areas (MPAs), as well as temporal regulations, such as closed seasons. Catch documentation schemes and verification of catch logbooks, which note the details of the fishing activity undertaken, can also help enforce regulations on the size and composition of harvests at landing. Such requirements were universal for commercial operations in OECD countries reviewed in 2016, as well as for vessels operating under the management of Regional Fisheries Management Organisations (Hutniczak, Delpuch and Leroy, 2019<sup>[6]</sup>; Hutniczak, Delpuch and Leroy, 2019<sup>[7]</sup>). Enlarging such requirements wherever possible, including through development co-operation, should be a priority for maintaining monitoring, control and surveillance throughout the crisis and avoiding surges in IUU fishing globally.

Maintaining appropriate management, control and surveillance may be even more challenging for fisheries managed by Regional Fisheries Management Organisations (RFMOs). The cancellation and delay of RFMO meetings could hamper international co-operation and reduce transparency, especially if they lead to delays in adoption of necessary measures and in independent performance of reviews of parties. Countries should collectively work on ways to minimise the impacts of COVID-19 on the operation of RFMOs and the management of international fisheries.

### ***Transparency in policy responses and regional and international co-operation remain fundamental to good fisheries management***

Transparency of policy responses is critical to build the trust that governments need at home and abroad to boost confidence in trade and global markets, to manage business expectations, and to maintain political support regarding the use of public funds (OECD, 2020<sup>[8]</sup>).

Transparent information on policy responses to the crisis is also crucial, today and once the crisis subsides, to enable countries to learn from each other's experiences in order to better prepare for the future.

While ongoing negotiations at the WTO are now complicated by mobility restrictions, reaching an international agreement on the phasing-out of harmful fisheries support policies remains essential. Nevertheless, countries can also make progress independently and implement their proposed cuts in harmful support without waiting for a deal to be concluded.

To contribute to the need for transparent information, the OECD is keeping track of support measures and changes to fisheries management adopted in the context of the COVID-19 crisis. To date, 76 government support measures, 29 changes to fisheries management and 14 changes to supply chain regulations have been identified by the OECD. On the basis of this information and monitoring, the OECD will be working with other organisations to support governments through timely and objective evidence and analysis to inform policy choices. All governments are invited to share information on their policy responses for the fisheries and aquaculture sectors (relevant contacts are at the end of this Brief).



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## Further reading

This is the first in a series of Policy Briefs on issues related to COVID-19 and fisheries and aquaculture. Look out for other Policy Briefs in this series that will look more deeply into specific issues on [oecd.org/agriculture/topics/fisheries-and-aquaculture/](https://oecd.org/agriculture/topics/fisheries-and-aquaculture/). Other Policy Briefs on wider issues are available on [oecd.org/coronavirus](https://oecd.org/coronavirus).

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