



Food and Agriculture  
Organization of the  
United Nations

# The impact of COVID-19 on fisheries and aquaculture

A global assessment from the  
perspective of regional fishery bodies

Initial assessment May 2020



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# Preparation of this document

This assessment of the impact of coronavirus disease (COVID-19) on the work of regional fisheries management organizations (RFMOs) and regional fisheries advisory bodies (RFABs) was prepared following an initiative by the Fishing Operations and Technology Branch (FIAO) and in collaboration with the regional fishery body secretariats' network (RSN).

This paper provides a summary of responses to questionnaires circulated to both RFMOs and RFABs and is designed to capture initial impacts and restrictions imposed by COVID-19 upon the management, production and supply of fisheries products arising from both capture fisheries and aquaculture. The objective is to provide a timely global overview and scale of the impacts from the perspective of the secretariats of RFMOs and RFABs, as well as collate suggestions for interventions that may inform and guide the development of mitigation measures.

This assessment would not have been possible without the cooperation and participation of the RFMO and RFAB secretariats, whose prompt responses to this request for information is much appreciated. The authors also would like to acknowledge the funding provided through the project: Improved Fisheries Management for Sustainable Use of Marine Living Resources in the Face of Changing System, funded by Japan. The findings in this document are based on the assessment of the information provided to FIAO and the RSN and do not represent the views of the Organization or RFMOs and RFABs referred to in this document.

While this paper provides an initial assessment of the current situation, the situation is constantly evolving and therefore follow-up assessments both at regional and country level will be required to fully understand the impact that COVID-19 has had on global fisheries and aquaculture.

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# 1 Introduction

Regional fisheries management organizations (RFMOs)<sup>1</sup> and regional fisheries advisory bodies (RFABs), collectively referred to as regional fishery bodies (RFBs), have an important role in contributing to fisheries management and scientific research of many important fisheries around the globe.

RFMOs have the mandate to adopt legally binding conservation and management measures in relation to the exploitation of fisheries resources and associated activities within their respective convention areas. RFABs provide fora for collaboration and coordination and promote sustainable utilization of fishery and aquaculture resources by recommending specific actions and by providing advice to members on fisheries conservation and management. Some RFBs also have aquaculture included in their mandates.

RFMOs in particular, also have an important role in contributing to Monitoring, Control and Surveillance (MCS) and combating Illegal, Unreported and Unregulated (IUU) fishing for many important fisheries exploiting shared stocks and this is achieved through convening regular dedicated Compliance Committee meetings. The Compliance Committee will make recommendations to the decision-making body on actions to be taken in respect of *inter alia* non-compliance and development of new measures to address non-compliance. A lack of monitoring and enforcement of the regulated fisheries may encourage some States fishing the relevant stocks to revert to a less responsible level of management of fishing operations.

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<sup>1</sup> Regional fisheries management organizations (RFMOs) are intergovernmental organizations set up to manage shared fish stocks, mostly, but not exclusively in international waters. For more info see FAO Fisheries and Aquaculture Technical Paper No. 651 <http://www.fao.org/3/ca7843en/CA7843EN.pdf>

Cancellation and postponement of RFBs science (including fishery resources appraisal surveys), compliance and management meetings for any reason including emergencies like the COVID-19 pandemic will delay implementation, assessment and enforcement of important measures. The capacity to hold these international meetings and make decisions online may be limited owing to prescribed legal and procedural requirements among others, which may not have anticipated the need for business continuity in times of emergencies. Cancelled and postponed meetings may have negative consequences on the conservation and management of many shared fish stocks globally.

In seeking to better understand the impact of COVID-19 on the functioning of RFBs, questionnaires were sent to the secretariats of both RFMOs and RFABs. Their responses provide an overview of the current known impacts to the work of RFBs and guidance as to the impact of fisheries products supply and employment, and may provide guidance on possible mitigation actions and measures to be considered.

**In order to understand the full impact of COVID-19 on fisheries and aquaculture, further assessments both at regional and country level will be necessary.**

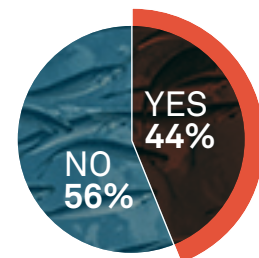


# 2 Regional fisheries management organizations

In April 2020, a questionnaire was distributed to RFMOs through the RSN. In total, 19<sup>2</sup> out of 22 organizations responded to the questions posed and the results are presented below.

## 2.1 Fisheries management

Is the impact of COVID-19 having, or expected to have, negative consequences on the management of shared fish stocks?



For those **RFMOs with a management mandate**, 44 percent are experiencing, or expecting that the impact of COVID-19 will have negative consequences on the management of fish stocks within their area of competency.

<sup>2</sup> Central Asian and Caucasus Regional Fisheries and Aquaculture Commission (CACFish); Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR); Commission for the Conservation of Southern Bluefin Tuna (CCSBT); Inter-American Tropical Tuna Commission (IATTC); International Commission for the Conservation of Atlantic Tunas (ICCAT); Indian Ocean Tuna Commission (IOTC); International Whaling Commission (IWC); Lake Victoria Fisheries Organization (LVFO); Northwest Atlantic Fisheries Organization (NAFO); North Atlantic Salmon Conservation Organization (NASCO); North-East Atlantic Fisheries Commission (NEAFC); North Pacific Anadromous Fish Commission (NPAFC); North Pacific Fisheries Commission (NPFC); Pacific Salmon Commission (PSC); Regional Commission for Fisheries (RECOFI); South East Atlantic Fisheries Organization (SEAFO); South Indian Ocean Fisheries Agreement (SIOFA); South Pacific Regional Fisheries Management Organization (SPRFMO); and Western and Central Pacific Fisheries Commission (WCPFC).



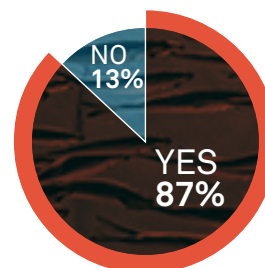
The expected scale of impact differs amongst the different organizations from little or no impact to possible closure of fisheries. Some examples of negative impacts were provided as follows:

- **Intersessional meetings** providing the advice upon which management decisions are based have been cancelled, therefore management processes will be affected.
- Meetings taking place will be limited to the **main topics** supporting decision-making.
- **Intersessional meetings** to set quotas for 2021 and confirm those of 2020 have been postponed.
- **Management advice** for 2020 has mostly already been agreed in 2019, but if there is a failure to confirm that this advice will continue to apply, then fisheries may be closed.
- Increasing delay regarding **communication and decision-making** due to administration shutdown in most countries.
- Concerns and difficulties to work in the safe and confidential environment usually provided for international organizations when meeting physically. Using online platforms may represent a **threat to confidentiality** and diplomatic exchanges.
- **Research projects** and field observations may be modified or cancelled due to physical distancing or illness in summer 2020.



## 2.2 Fisheries monitoring, control and surveillance (MCS)

Is the impact of COVID-19 having, or expected to have, negative consequences on the MCS of fishing activities and the fight against IUU fishing globally?

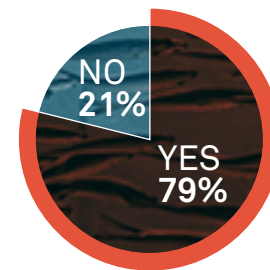


For those **RFMOs with an MCS role**, 87 percent are experiencing, or expecting that the impact of COVID-19 will have negative consequences on the MCS of fishing activities and the fight against IUU fishing.

- All areas of MCS have reported to be, or expected to be **affected**, at varying levels through the different regions.
- International bans on travel and port access and the threat of potential transmission of the virus during **inspections** are restricting activities.
- Owing to the difficulty of embarking **at-sea observers**, requirements for coverage has been relaxed in some regions whilst in other regions it has been necessary to suspend at-sea observers coverage.
- **Postponement of meetings** where important MCS measures are being developed (i.e. sea and port inspection schemes, observer programmes, and vessel monitoring schemes) and implemented measures are assessed, are expected to result in an increase in the level of IUU fishing by unscrupulous operators and weaken the efforts of members to identify and address the level of IUU fishing.
- It has been noted by one organization that **reduced levels of staffing** by some members is leading to increasing difficulties in the process of decision-making.

## 2.3 Fisheries research

Is the impact of COVID-19 having, or expected to have, negative consequences on the research on fish stocks?



For those **RFMOs with a research role**, 79 percent are experiencing, or expecting that the impact of COVID-19 will have negative consequences on the research on fish stocks.

Of those organizations responding yes to this question, 57 percent believed research will be affected in the short-term, while 71 percent believed research will be affected in the medium-term, and none believed research will be affected in the long term.

- Many **scientific meetings** and research activities are expected to be affected.
- Halted or suspending of research activities and collection of fisheries statistics, including by **onboard observer data, and closure of research laboratories** will negatively impact the species stock assessment processes. Programmes such as biological sampling, electronic and conventional tagging, growth studies and basic research have been substantially reduced or cancelled during the first semester of 2020.
- Where research continues, **physical distancing measures** may impact field work in certain situations (e.g. on small boats, side-by-side gear deployment, etc.). Disruption of at-sea surveys will affect stock assessments.
- Postponement of scientific meetings is hindering/preventing the provision of formal advice to the decision-making bodies. The **lack of scientific advice** may have particularly negative consequences for the sustainability of short-lived species, which require annual assessment updates.
- Where possible, **plans** are being made to hold scientific meetings remotely.

## 2.4 Other impacts

Other reported impacts of COVID-19 included:

- The cancellation and postponement of meetings (e.g. cancellation of meeting venues, flights, and rapporteur contracts) are resulting in **financial losses** and impacting the budgets of RFMO secretariats.
- Reduced capability of some members to participate in events such as meetings and workshops, negatively affects engagement in various **scientific and management activities**.
- Face-to-face meetings are being cancelled and are being replaced by a **videoconference** and email format.
- Officials and secretariat staff are primarily **working from home**.
- Activities are being **slowed down** substantially with the secretariats' new working method, which although not ideal, at least allows provision of support to members.
- It is also feared that the world will lose some **fisheries experts** and this will impact fisheries scientific expertise.



## 2.5 COVID-19 impact mitigation measures that organizations are currently undertaking, or planning to undertake

Organizations provided the following examples of mitigation measures being applied:

- Cessation of **in-person** meetings.
- Following local government advice for **working remotely**.
- **Rescheduling** of meetings and events for when the current COVID-19 situation has passed.
- Engage more intersessional decision-making and work for issues which may be resolved by **email**.
- Conducting meetings/work remotely. **Videoconferencing tools** implemented and expanding use of webinar software. Electronic working groups. Meetings transferred into virtual email format.
- Testing the suitability of **web conferencing platforms** that allow simultaneous translation.
- The use of electronic workflows expanded and centralized document/**data-sharing platforms** (SharePoint, GitHub, etc.).
- For issues that cannot be resolved by correspondence, much **reduced meetings** planned for the autumn (lockdowns permitting) to enable face-to-face discussion.
- If the situation continues through to autumn, key decisions could be made by **written procedure**.
- Possible temporary **relaxing** of some of the MCS rules. Issuing of derogations from compliance measures.
- **At secretariat level**, instructions have been developed and imparted for the internal organization of work during the emergency. Implementation of business continuity plans.
- **At member level**, collective coordination through both formal and informal communication is ensured through Chairpersons and Directors. This includes taking important decisions that cannot be delayed – for instance regarding the formal granting of exemptions of the obligation of carrying observers on board.
- Conduct **assessments** of likely effects of COVID-19 on the fisheries and aquaculture sector.

## 2.6 Recommendations on actions FAO could take to address these issues

The following recommendations were provided for actions FAO could consider taking in order to address these issues:

- This questionnaire is useful but needs **repetition** as this is a rapidly-evolving situation.
- This initiative is a very good one. The mapping of the situation is essential so hopefully FAO can not only map the situation but could also come up with **guidelines** highlighting the role of RFMOs.
- FAO needs to focus currently on the **food flow** between countries and ensure the food chain in order to mitigate the impact of COVID-19 on food supply worldwide.
- FAO to provide advice on suitable tools for RFMOs to **work remotely**. Difficulties to work in the safe and confidential environment usually provided for international organizations when meeting physically. The use of internet conference platforms may represent a threat to diplomatic exchanges. Concerns over confidentiality have been expressed.
- Assistance needed with coordinating the **rescheduling of meetings** to avoid impact on the schedules of organizations. A number of key RFMO meetings, particularly annual meetings at which key decisions are made for 2021 are being cancelled, postponed or replaced by videoconferencing for priority issues. It would be useful to have a table of these key meetings, particularly if RFMOs want to reschedule a meeting to a later date, to ensure there is no conflict with a particular date.
- All activities currently directly or indirectly supported by FAO should be **re-scheduled**. Funding support should be extended beyond original timeframe.
- Planning for **recovery teams** to address identified priority areas. FAO could consider drawing up recovery plans for priority areas where dependence on fisheries for food security is highest and the negative impact from COVID-19 is also high with respect to provision of food security and a return to sustainable management processes. Pre-planning and pre-authorization of funding will be key in order to eliminate delays in new recovery projects and programmes and to activate teams as soon as the situation permits, to try to address or re-address management issues and gaps.

- **Training and mentoring** teams. COVID-19 is expected to create staffing gaps in many countries. FAO could consider early establishment of training/mentoring programmes and teams to address gaps in staff, losses in historical knowledge and experience in pre-identified priority areas to promote timely recovery. Training teams contracted now could be considered for the development of training packages to be immediately available for implementation in the above identified priority areas to restore gaps in staffing and management experience.
- FAO to establish such teams and commence work on the two above options if such plans are to be ready for implementation as soon as the situation permits. FAO could also consider recruiting **team leaders** or mentors in identified areas or regions and thus save travel costs and put teams in the field in a timely manner.
- FAO should focus on **key priority areas** for action.
- Sharing of **best practices**/tactics.
- Gathering **information** needed for scientific purposes from active fishing vessels.

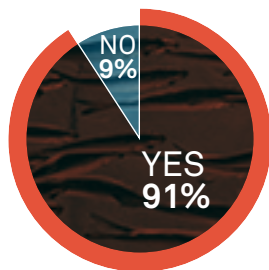
# 3 Regional fisheries advisory bodies

In April 2020, a questionnaire was distributed to RFABs through the RSN. In total, 12<sup>3</sup> out of 27 organizations responded to the questions posed and the results presented here are based on their responses.

## 3.1 Fisheries management and aquaculture production/management

Is the impact of COVID-19 having, or expected to have, negative consequences on the management of fish stocks or on the production and management of aquaculture?

A) Capture fisheries



B) Aquaculture production



<sup>3</sup> Asia-Pacific Fishery Commission (APFIC); Ministerial Conference on Fisheries Cooperation among African States Bordering the Atlantic (ATLAFCO); Bay of Bengal Programme – Intergovernmental Organization (BOBP-IGO); Fishery Committee for the Eastern Central Atlantic (CECAF); Committee for Inland Fisheries and Aquaculture of Africa (CIFAA); Commission for Small-Scale and Artisanal Fisheries and Aquaculture of Latin America and the Caribbean (COPPESAALC); Fishery Committee for the West Central Gulf of Guinea (FCWC); North Atlantic Marine Mammal Commission (NAMMCO); Organization for the Fishing and Aquaculture Sector of the Central American Isthmus (OSPESCA); Southeast Asian Fisheries Development Center (SEAFDEC); Secretariat of the Pacific Community (SPC); Western Central Atlantic Fishery Commission (WECAFC).



**A)** For those **RFABs concerned with capture fisheries**, 91 percent are experiencing, or expecting that the impact of COVID-19 will have negative consequences on the management of fish stocks within their area of competency.

**B)** For those **RFABs concerned with aquaculture production/management**, 100 percent are experiencing, or expecting that the impact of COVID-19 will have negative consequences on the management of fish stocks within their area of competency.

Some examples of negative impacts were provided as follows:

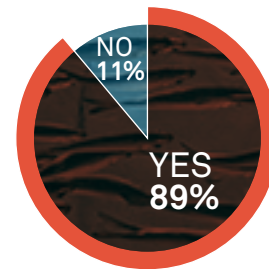
- **Fishery monitoring** is being brought to a halt in many countries due to mobility restrictions and re-allocation of funds.
- In many cases, **processing plants** have suspended operations. Inputs to supply chains have been altered (aquafeeds) and do not regularly reach remote areas where fish farms are located.
- **Meetings** of the working groups and intersessional meetings are postponed.
- **Advice** on conservation and management of marine mammals will not be given to members in 2020 but has been referred to rescheduled meetings in 2021.
- **Reduced ability to monitor** tuna fisheries because of observer programme suspension, due to their inability to travel.
- **Restricted access of vessels to ports** has implications for re-supply, maintenance, crew rotation and other services for vessels, while ability to transship catch will depend on national decisions.
- **Reduced tuna production** if travel restrictions continue for a long period.
- **Reduction in demand** from fresh (sashimi) fish and inability to get tuna to markets due to the impacts of flight restrictions will affect longline fishery in particular.
- **Increased risk to nearshore stocks** as shift to more efficient and damaging fishing methods (night-time spearing, increased net use, etc.).
- **Relocation of people** from urban areas back to rural communities/outer islands due to loss of jobs (e.g. crash of tourism sector; government shutdowns; business closures) increasing subsistence and artisanal fishing

pressure on coastal and nearshore areas (reefs; mangroves; seagrass beds), where stocks are already under heavy pressure, presenting challenges for management (both legislated and customary management).

- For **aquaculture production**, there are significant supply chain issues (importing and distribution of feed; supply and distribution of fingerlings) due to international and domestic travel and transport restrictions and lockdowns. Shrimp farming is disrupted as supply chains are broken.
- **Marketing** is difficult due to physical distancing being practiced in the country. In freshwater, local disposal of fish is occurring but access to larger markets has ceased.

## 3.2 Capture fisheries monitoring, control and surveillance (MCS)

Is the impact of COVID-19 having, or expected to have, negative consequences on the MCS of fishing activities, management of fish stocks and the fight against IUU fishing?



For those **RFABs concerned with capture fisheries**, 89 percent are experiencing, or expecting that the impact of COVID-19 will have negative consequences on the MCS of fishing activities, management of fish stocks and the fight against IUU fishing.

Some examples of negative impacts were provided as follows:

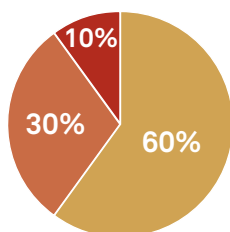
- Due to reassignment of law enforcement bodies, **IUU fishing** has increased in some regions.
- **Observer activities** have been cancelled or suspended. Without observers, it will be difficult to monitor compliance of vessels during the fish aggregating device (FAD) closure period.
- Concerns about the **lack of independent monitoring** of both high seas transshipments and Exclusive Economic Zone (EEZ) transshipments which were previously conducted in port but are now required to take place offshore.
- The initial development of new **MCS programmes** may slow down in some countries and there is the risk that some trained fisheries officers or staff are seconded to other areas due to changing priorities.
- Increasing **subsistence and artisanal fishing** pressure on coastal and nearshore areas is a related challenge for MCS and enforcement. Increased poaching in no-take Marine Protected Areas (MPAs), e.g. adjacent to closed resorts. Having a strong MCS presence and capacity during this period will be critical to ensuring the coastal marine resource isn't over-exploited beyond the level that it already is.
- **Government fisheries agencies** unable to travel to undertake monitoring and enforcement is impacting MCS and enforcement.

- As fishing by the national fleets is banned, it is likely that **distant water fishing fleets** will fish in the outer boundaries of the EEZs.
- **Training** of MCS officers and exchange of MCS information is being affected in countries applying lockdown measures.

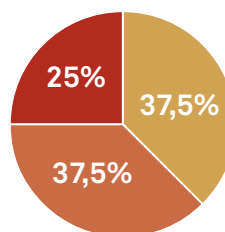
### 3.3 Fisheries research

Is the impact of COVID-19 having, or expected to have negative consequences on research on fish stocks?

A) Capture fisheries



B) Aquaculture



● Short-term ● Medium term ● Long term

**A)** For those **RFABs conducting research concerned with capture fisheries**, 60 percent believed research would be affected in the short term, while 30 percent believed research would be affected in the medium term, and ten percent believed research would be affected in the long term.

**B)** For those **RFABs conducting research concerned with aquaculture**, 37.5 percent believed research would be affected in the short term, and the same proportion (37.5 percent) believed research would be affected in the medium term, and 25 percent believed research would be affected in the long term.

Some examples of negative impacts were provided as follows:

- Cancellation and postponement of **research-related meetings**.
- The suspension of **observer coverage** will interrupt an important source of data for estimating purse seine catch species and size composition as well as bycatch estimation for purse seine and longline. Collection of biological information from catches is impacted. Cessation of observer activities has meant not having observer and port sampling data for work on stock assessments, harvest strategies and management strategy evaluation.

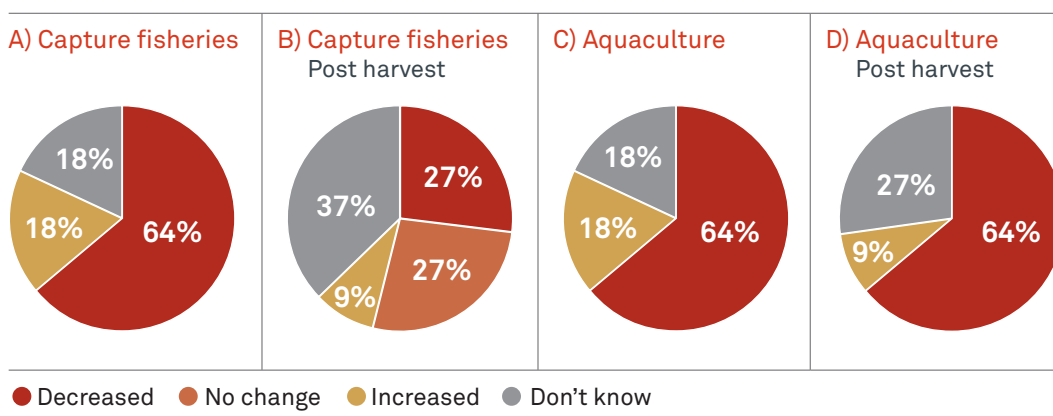
- A number of scheduled scientific or **science-support meetings** have been postponed or are being held by videoconference.
- A **tuna tagging cruise** in mid-2020 has had to be re-designed in terms of area of operation because of difficulties in getting scientific personnel to the vessel.
- Implementation of some **scientific projects** are delayed due to inability to onboard newly-appointed staff. Also, travel restrictions more generally, are impacting the ability to implement some scientific activities, e.g. sending tissue samples for expert analysis overseas.
- **Field work** to be suspended during lockdown. Field work to undertake fish and invertebrate surveys and training are all on hold, as are follow-up data analyses and report writing.
- **Reallocation of funding** away from research and associated trainings, conferences and workshops to focus on immediate issues and humanitarian response will have long-term impacts through the interruption of time-series in data collection, delayed start of fieldwork planned over previous months/years, and ultimately an inability to see those funds return to research in the future due to the global economic seascape. In one example provided, ministries have been instructed to give up 50 percent of their current budget for this.



## 3.4 Socio-economics

### 3.4.1 Employment

Owing to the impact of COVID-19 have levels and conditions of employment suffered?



**A)** For those **RFABs concerned with capture fisheries**, 64 percent believed employment would decrease, none believed there would be no change, 18 percent believed employment would increase, and 18 percent did not know if employment would suffer.

**B)** For those **RFABs concerned with capture fisheries – post-harvest activities**, 27 percent believed employment would decrease, and the same proportion believed there would be no change, 9 percent believed employment would increase, and 37 percent did not know if employment would suffer.

**C)** For those **RFABs concerned with aquaculture**, 64 percent believed employment would decrease, none believed there would be no change, 18 percent believed employment would increase, and 18 percent did not know if employment would suffer. These are the same results as from capture fisheries.

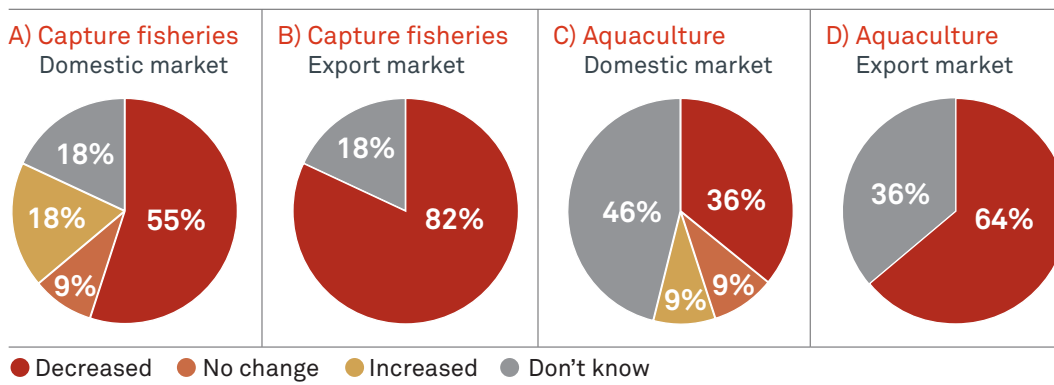
**D)** For those **RFABs concerned with aquaculture – post-harvest activities**, 64 percent believed employment would decrease, none believed there would be no change, 9 percent believed employment would increase, and 27 percent did not know if employment would suffer.

Some examples of impacts were provided as follows:

- Although **small-scale fishery facilities** are recognized as essential business operations, with the curfew/confinement there is limited working/opening hours and demand from customers.
- In some cases, **social distancing** requirements do not allow for crew members to operate.
- Secretariat **employees** are working from home.
- **Observers** are likely to suffer from reduced work opportunities and income during the suspension of observer activities. An observer contract was terminated due to travel restrictions.
- Possible impacts on **employment** in the purse seine service industries in Pacific Island ports if vessels are unable to tranship in port.
- If **tuna supplies** are reduced, there may be impacts on employment in processing facilities.
- Reports of **loss of jobs** in tourism, fishing, transport, naval maintenance, pearl farming and aquaculture from a number of countries.
- Stand-down of non-essential government **public servants** in some countries, including some fisheries staff (e.g. Solomon Islands).
- Severe impact on **land-based aquaculture** (e.g. in Papua New Guinea) due to transportation and marketing infrastructure which, though intact, is inoperable due to lockdowns and fears of virus transmission, resulting in lost income and employment.
- Since the lockdown occurred without sufficient warning, things came to a standstill impacting almost all the activities across the **value chain**. Workers on fishing boats have been the worst affected.
- **Post-harvest activities** (where it is known that women form the majority of the workforce) have been reduced.
- Reduced **fish trade** owing to border closures.

### 3.4.2 Demand for fisheries products

Owing to the impact of COVID-19 has demand for fish harvested in your region been affected?



**A)** For those **RFABs concerned with capture fisheries – domestic market**, 55 percent believed demand would decrease, nine percent believed there would be no change, 18 percent believed demand would increase, and 18 percent did not know if demand would be affected.

**B)** For those **RFABs concerned with capture fisheries – export market**, 82 percent believed demand would decrease, none believed there would be no change or demand would increase, and 18 percent did not know if demand would be affected.

**C)** For those **RFABs concerned with aquaculture – domestic market**, 36 percent believed demand would decrease, nine percent believed there would be no change, nine percent believed demand would increase, and 46 percent did not know if demand would be affected.

**D)** For those **RFABs concerned with aquaculture – export market**, 64 percent believed demand would decrease, none believed there would be no change or demand would increase, and 36 percent did not know if demand would be affected.

Some examples of impacts were provided as follows:

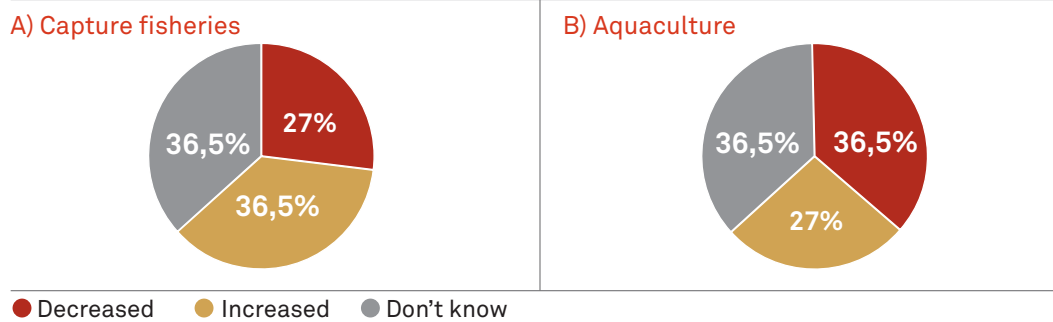
- Rumours were spread in the initial stages that **fish consumption** might aggravate the spread of the virus.
- **Domestic demand** likely reduced because of negative impacts on tourist industry, restaurants, etc.



- Some reported increased demand for export tuna products, with product destined for **canning** positive, but fresh products were negatively affected.
- Reduced prices for **pearls** on Asian market has resulted in a reduction in aquaculture production in Fiji.
- **High-valued commodities** such as shrimp, pearls and ornamental trade are severely impacted due to lack of export from flight closures and huge drop in sales to hotels and restaurants due to the drop in tourism.
- Demand for **locally-caught** pelagic species has come to a sudden halt as less people are buying fish. While prices for these pelagic species haven't dropped as yet, the fall in demand makes it uneconomical to undertake pelagic fishing (e.g. Cook Islands).
- Some countries are working to stop the export of **reef fish** (e.g. Palau) and for others, exports of reef fish were stopped indirectly through the closure of international flights.
- An increase in demand towards **home-grown** cultivation – and in aquaculture this is mainly tilapia farming for small-scale backyard farming – with tilapia being identified as an immediate response plan in some countries.

### 3.4.3 Price for fisheries products

Owing to the impact of COVID-19 has the price paid for fish been affected?



**A)** For those **RFABs concerned with capture fisheries**, 27 percent believed the price of fish had decreased, none believed there no change to price paid, 36.5 percent believed the price of fish had increased, and 36.5 percent didn't know if the price was affected.

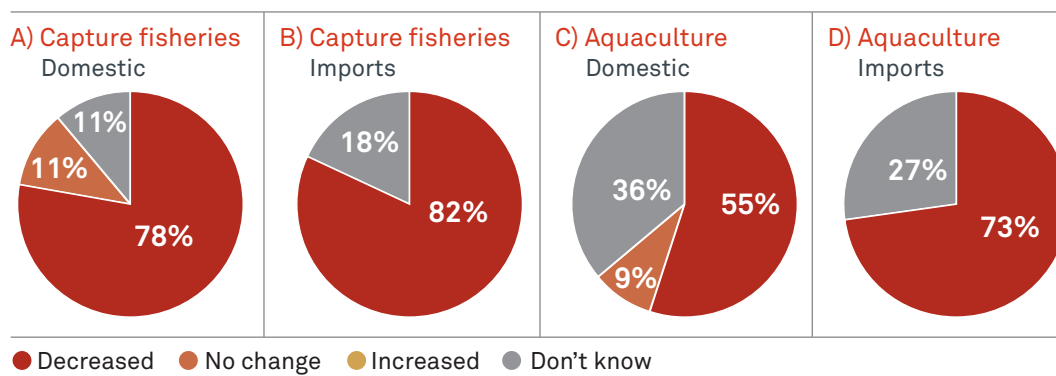
**B)** For those **RFABs concerned with aquaculture**, 36.5 percent believed the price of fish had decreased, none believed there no change to price paid, 27 percent believed the price of fish had increased, and 36.5 percent didn't know if the price was affected.

Some examples of impacts were provided as follows:

- A **decrease in prices** at this point is being observed in some domestic markets. Fish is not the main source of protein in Latin American and Caribbean countries, so with less purchasing power, people tend to buy other protein sources and markets are selling most of their inventories (pre-COVID-19) at lower prices.
- Prices of mud **crabs and lobsters** reduced due to loss of tourist market in Fiji.
- With **employment losses** and relocation away from urban areas, people no longer have the cash to purchase fish and are resorting to subsistence and artisanal fishing.

### 3.4.4 Supply

Owing to the impact of COVID-19 how has the supply of fish to the domestic markets changed from the following supply markets?



- A)** For those **RFABs concerned with capture fisheries – domestic**, 78 percent believed supply would decrease, 11 percent believed there would be no change, none believed supply would increase, and 11 percent did not know if supply would be affected.
- B)** For those **RFABs concerned with capture fisheries – imports**, 82 percent believed supply would decrease, none believed there would be no change or the supply would increase, and 18 percent did not know if supply would be affected.
- C)** For those **RFABs concerned with aquaculture – domestic**, 55 percent believed supply would decrease, 9 percent believed there would be no change, none believed supply would increase, and 36 percent did not know if supply would be affected.
- D)** For those **RFABs concerned with aquaculture – imports**, 73 percent believed supply would decrease, none believed there would be no change or the supply would increase, and 27 percent did not know if supply would be affected.

## 3.5 Other impacts

Other reported impacts of COVID-19 included:

- The **main impacts** are in relation to: loss of markets (domestic and international), economic uncertainty, labour migration (returning home), layoffs, lockdown measures, closures of borders, slowdown in restaurant trade/market demand, closure of wet markets and provision of equipment and supplies.
- **Fishing activities** reduced in some areas and closed in others, with small-scale fisheries being reported as being particularly impacted in some areas.
- Due to the lockdown, **availability of information** has been drastically reduced.
- **Government support services** have shut down or been delayed in many countries.
- Dependent upon the length of the COVID-19 pandemic, there are potential implications for national economies that rely on the sale of **fishing access to EEZs** for significant government revenue in the coming years.
- **Transportation restrictions** have reduced both capture and aquaculture fisheries imports.
- **Internal travel** and some transport restrictions are likely limiting the marketing of capture and aquaculture products in urban areas.
- Generally, **exports** have declined along with **demand**. Domestic demand may have shrunk due to loss of markets, closure of wet markets and reduced fresh sales. Factories are slowing down or laying off staff, which will affect frozen products, especially if destined for export. Canned fish is in high demand, especially sardine, mackerel and tuna.
- Limitation in the **supply of inputs** (e.g. fishing gear, fuel, etc.).
- **Fish processing and distribution** companies are closing down because of the shortage of raw materials.
- **Falling prices** are being reported for many species (especially those important for the export and catering markets), with price decreases ranging between 25 percent and 75 percent.
- For aquaculture, **rising costs** due to the need for continued feeding and risk for aquaculture production dying in ponds because they are not harvested on time.

- A positive effect may be reduced travel and physical meetings, i.e. saving time and money and also a decreased **carbon footprint**. The international community will hopefully experience that online meetings work to a larger extent than previously thought, and thus it will be more prone to organize online meetings/seminar/conferences and generally be more open to alternative ways of working.
- Assessment on the impact from COVID-19 in the **ASEAN Member Councils** should be carried out. This RFABs questionnaire exercise provides a good idea to start/initiate the assessment of SEAFDEC.

### 3.6 COVID-19 impact mitigation measures organizations are currently undertaking, or planning to undertake

RFABs provided the following examples of mitigation measures being applied:

- **Virtual meetings** appear so far to be the most effective measure. During this “relatively” calm period, partners are being approached to devise short and medium-term mitigation strategies.
- Increased use of **videoconferencing** and associated online tools for scientific meetings.
- Increased development, provision and access to online **training material**, including apps and videos.
- Quick development and provision of **targeted policy** and management guidance based on specific national requests/needs.
- **Formalizing intelligence networks** to have robust timely analyses on impacts.
- The countries of the Central American Integration System (SICA) have approved a **Regional Contingency Plan** aimed at completing national efforts for the prevention, containment and treatment of COVID-19. The ministers and secretaries of Agriculture, Livestock, Fisheries, Food and Rural Development of 25 countries in Latin America and the Caribbean issued a Declaration on COVID-19 and the Risks to Food Supply Chains.
- The granting of **safe conducts** has been promoted so that artisanal fishers can transit to carry out subsistence fishing tasks and commercialization of their products and surpluses.

- Through printed communications and on social networks, the **consumption of fishery** products is being promoted in such a way as to partially offset or improve the sales conditions for the general population.
- **Home delivery** of fish and sales to government institutions have been put into operation to support national campaigns to stay home and contribute to the nutrition of the population.
- The efforts of the fisheries and aquaculture authorities are intensified, so that fishers continue to be beneficiaries of the **relief granted by governments** to the population with the least economic resources, through food bags or cash vouchers to meet the basic needs of feeding families.
- National authorities continue to carry out the necessary procedures to authorize the **export processes** of fishery and aquaculture products.
- Procedures are promoted for the online management of **permits** for departures, safe conducts, among other procedures required by the sector.
- The search for new **fishery alternatives** is encouraged, as well as the processing of fishery products for inclusion in food bags that are delivered to the population.

### 3.7 Recommendations on what actions FAO could consider taking to address these issues

The following recommendations were provided for actions FAO could consider:

- Assist fisheries authorities to develop co-monitoring, co-surveillance and co-management **mechanisms** that do not depend on centralized human and financial resources for keeping stock assessment and monitoring and to prevent IUU fishing.
- Technical assistance for **emergency response**.
- Country **assessment and analytics**.
- Country COVID-19 response **strategies and frameworks**.
- **Investment** support.
- Identification, documentation, analysis and dissemination of **good practices and lessons learned**, and best options to maintain and strengthen food supply chain interventions.
- Assist **small-scale aquaculture farmers** to substitute commercial feed with locally manufactured feed.
- Assist farmers to **build capacities** in adding value to low-cost alternative species (which are normally not sought by consumers but are highly nutritious), as well as promote linking small-scale fisheries and aquaculture to broader markets, including institutional purchases of fish.
- **Raise awareness** that fishery and aquaculture products must be quickly reincorporated into food supply of countries.
- **Support the operation** of the aquaculture farms, artisanal, semi-industrial and/or industrial fleet as necessary, ensuring all the essential measures of sanitary protection for the crew, employees in farms, processing plants, points of sale and suppliers.
- Artisanal fishers, small-scale fish farmers and fish supply chain actors are incorporated into **assistance programmes** for vulnerable populations.
- **Support producers and intermediaries** to transfer products to marketing centres, to avoid losses.

- Support the processing of fishery and aquaculture products to increase storage time and facilitate transport to **vulnerable communities**.
- Changes in the **process and practices** of capture, aquaculture and post-harvest are now occurring due to the impact of COVID-19. In this regard, ways of implementing and cooperating with countries and other regional/international partners may need to be adjusted.





# 4 Conclusions

## 4.1 Main remarks

**Several RFMOs** (44 percent of respondents) and the **majority of RFABs** (91 percent of respondents) concerned with capture fisheries, are experiencing, or expecting that the impact of COVID-19 will have negative consequences on the management of fisheries.

**The vast majority of RFMOs and RFABs** (87 and 89 percent respectively) with an MCS role, are experiencing, or expecting that the impact of COVID-19 will have negative consequences on the MCS of fishing activities and the fight against IUU fishing due to reasons listed in sections 2.2 and 3.2 of this report.

**The majority of RFMOs and RFABs** with a research function believed that scientific work will be affected in the short term (57 and 60 percent respectively) and in the medium term (71 and 30 percent respectively). Only ten percent of RFABs believed that scientific work will be affected in the long term.

**RFMOs** reported impacts of COVID-19 on regular operations such as: cancellation/postponement of meetings; replacement of in-person meetings for videoconferences; secretariat staff teleworking; slowed-down activities; and restrictions of fisheries experts work activities. The **RFABs** mostly reported on issues in relation to markets, migration, restrictions in production and economic crisis in general. One positive impact – the reduction of carbon footprint – was reported.

**RFABs** reported that in capture fisheries, employment in the harvest sector will be most affected (64 percent of respondents) whilst in aquaculture it was believed that employment within both the harvesting and post-harvest sectors will be equally significantly affected (64 percent of respondents).

With respect to the demand, supply and price of fisheries products, **RFABs** reported that whilst it is expected that demand for exports in both capture fisheries and aquaculture sectors will be the worst affected by the impact of COVID-19, the demand in the domestic markets is also foreseen to be significantly impacted in both sectors. Therefore, supply to both domestic and import markets in both capture fisheries and aquaculture sectors is also envisaged to be negatively affected by the impact of COVID-19. The impact of COVID-19 on fish prices currently remains uncertain.

## 4.2 COVID-19 – impact mitigation measures

**RFMOs** are currently undertaking, or planning to undertake, measures related to teleworking such as engaging in intersessional decision-making by email; following local government advice for working remotely; conducting meetings remotely and implementing videoconferencing tools. They are also designing scenarios for the post-COVID-19, such as rescheduling of meetings and events; restricting planning of physical meetings to those considered as key and unavoidable; and assessment of the effects of COVID-19 on the fisheries and aquaculture sectors.

**RFABs** are currently undertaking, or planning to undertake, COVID-19 impact mitigation measures related to teleworking, including development, provision and access to online training materials. RFABs are also considering measures oriented towards policy-making and promotion of fish consumption such as formalizing networks for robust timely analyses on impacts; development of targeted policy and management guidance, such as regional contingency plans; measures to facilitate transport of artisanal fisheries products; promotion of fishery products through printed communications and on social networks; promoting procedures to authorize the export of fishery and aquaculture products; encouraging the search for new fisheries alternatives; and promoting emergency food aid by governments based on fish products.

## 4.3 Recommendations on actions FAO and other relevant institutions and organizations could take to address these issues

The **RFBs** made the following recommendations for actions FAO and other relevant institutions and organizations could consider in order to address COVID-19-related issues:

1. The questionnaire should be repeated over time due to the evolving situation.
  2. Compiling guidelines highlighting the role of RFMOs.
  3. Focus on the food flow between countries and ensure the food chain in order to mitigate the impact of COVID-19 on food supply worldwide.
  4. Provide advice on suitable tools for RFMOs to work remotely.
  5. Assist in the coordinating of the rescheduling of meetings.
  6. Consider the need to reschedule activities that are directly or indirectly supported by FAO.
  7. Draw up recovery plans for priority areas where dependence on fisheries for food security is highest.
  8. Early establishment of training programmes and team support to address gaps in staff and losses in knowledge and experience for priority areas.
  9. FAO and/or other relevant institutions and organizations should be the focal point for sharing of best practices.
  10. To consider the use of active fishing vessels for the gathering of information needed for scientific purposes.
  11. Provide technical assistance for emergency response.
  12. Provide country assessment and analytics for COVID-19 response strategies and frameworks.
  13. Support investments aimed at implementing COVID-19 mitigation measures.
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14. Work on the identification, documentation, analysis and dissemination of good practices and lessons learned.

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  15. Assist small-scale aquaculture farmers to substitute commercial feed with locally manufactured feed.

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  16. Assist farmers to build capacities in adding value to low-cost alternative species.

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  17. Raise awareness that fishery and aquaculture products must be reincorporated into food supply of countries.

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  18. Support aquaculture farms, artisanal, semi-industrial and/or industrial fleet as necessary, ensuring all the essential measures of sanitary protection for the crew, employees on farms, processing plants, points of sale and suppliers.

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  19. Ensure small-scale and artisanal fishers, small-scale fish farmers, including fish supply chain actors are incorporated into assistance programmes for vulnerable populations.

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  20. Support producers and intermediaries to transfer products to marketing centres to avoid losses.

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  21. Support the processing of fishery and aquaculture products to increase storage time and facilitate transport to vulnerable communities.

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  22. Explore ways of cooperating with countries and other regional and international partners, adjusting as required.
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**RFMOs** recommend that FAO and other relevant institutions and organizations develop criteria and guidelines, facilitate sharing of good practices, set up recovery plans for priority areas, and promote the role of RFMOs. It is also suggested that they should assist RFMOs operations by supporting them in teleworking and virtual meeting initiatives, coordinating the rescheduling of meetings, and establishing training programmes.

**RFABs** shared the RFMO view, and additionally suggest that FAO and other relevant institutions and organizations should play a key policy role to support the fisheries and aquaculture sectors and provide effective crisis-response strategies.

## 4.4 Concluding remarks and next steps

The objective of this paper was to provide a timely and indicative global overview of the impacts of COVID-19 on fisheries and aquaculture as well as to share examples of good practice and collate suggestions for interventions that may inform and guide the development of mitigation measures. This was achieved through prompt responses to questionnaires distributed to the secretariats of the RFBs' network.

However, the situation is constantly evolving. As such, in order to understand the full impact of COVID-19 on fisheries and aquaculture, further assessments both at a regional and country level will be required.



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