The examples showcased in this document could potentially inform emergency response plans. Likewise, the examples provided in this document should be considered for any development initiative, even in the absence of disasters, to increase the resilience of and socio-economic benefits for small-scale fishers, fish workers and their communities.

This document is part of a series of briefs framed under the provisions of the Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication (SSF Guidelines). The briefs aim to assess the impact of the COVID-19 pandemic on the livelihoods and sustainable development of the small-scale fisheries sector and provide examples of coping strategies.

In order to facilitate greater understanding of the impacts of the COVID-19 pandemic and related containment measures on the small-scale fisheries sector and to highlight the examples portrayed in these briefs, a repository of coping strategies from different small-scale fisheries stakeholders from around the world was created. The repository can be found on the website of the SSF Guidelines.

FAO has extensive experience in the area of disaster impact and needs assessment, including in the particular context of small-scale fisheries, proof of which can be found in a number of publications developed throughout the years, such as the Guidelines for the fisheries and aquaculture sector on damage and needs assessments in emergencies and the Fisheries and aquaculture emergency response guidance. In addition, a dedicated COVID-19 task force was created within FAO’s Fisheries and Aquaculture Division to coordinate the organization’s response to the pandemic in the fisheries and aquaculture sector. The task force coordinated the development of policy briefs to provide information on mitigation, coping and adaptation strategies applicable to the fisheries and aquaculture sector. The dedicated website page of this task force includes a list of relevant documents.

2 https://www.fao.org/fishery/covid19/en
Introduction

Improving access to markets can lead to improved food security and nutrition, as well as contribute to the eradication of poverty (Zelasney et al., 2020). Lack of, or disadvantaged, access to markets is a long-lasting impediment for the socio-economic growth of the small-scale fisheries sector and those who depend on it.

The call on countries through Sustainable Development Goal (SDG) 14.b to “provide access for small-scale artisanal fisheries to marine resources and markets” is a recognition that the proper functioning of markets and the provision of access to them have a crucial impact on the rest of the activities that encompass small-scale fisheries aquatic food systems. In recognition of this fact, the SSF Guidelines recommend that states “facilitate access to local, national, regional and international markets and promote equitable and non-discriminatory trade for small-scale fisheries products” (see SSF Guidelines paragraph 7.6). Included among the many challenges faced by fishers and fish workers in small-scale fisheries’ value chains are: poor access to market information, which hinders their ability to adjust to and benefit from the ever-changing conditions of markets; high perishability of the product and lack of or inadequate storage, which limits their bargaining power in relation to buyers and middlepersons; and poor and unhygienic working conditions.

In the event of disasters, existing challenges regarding access to markets tend to escalate, namely: market information becomes scarcer; equipment may get lost; interruptions in infrastructure and essential services impact the quality and availability of the product to be marketed; working conditions worsen; and trends in demand change (Westlund et al., 2007). Different types of disasters require different emergency responses and recovery processes. For example, when hydrometeorological disasters such as floods and cyclones take place, actions to ensure access to markets often prioritize the reconstruction of the infrastructure and equipment that was physically damaged (roads, markets, auction facilities, etc.). Other types of disasters require a different response approach to ensure that small-scale fisheries actors can maintain access to markets and continue to trade aquatic foods and products from small-scale fisheries.

A better understanding of the required actions to facilitate access to markets in the event of natural disasters of biological nature is required. This brief provides discussion and offers examples on how the COVID-19 pandemic has impacted access to local and international markets by small-scale fisheries actors for their aquatic products, and reviews related responses. In order to do so, the brief builds on the provisions of the SSF Guidelines, especially those under Chapter 7 Value chains, post-harvest and trade and Chapter 9 Disaster risks and climate change.
Paragraph 7.10 of the SSF Guidelines

“States should enable access to all relevant market and trade information for stakeholders in the small-scale fisheries value chain. Small-scale fisheries stakeholders must be able to access timely and accurate market information to help them adjust to changing market conditions. Capacity development is also required so that all small-scale fisheries stakeholders and especially women and vulnerable and marginalized groups can adapt to, and benefit equitably from, opportunities of global market trends and local situations while minimizing any potential negative impacts.”
Key challenges and related responses

Reduced demand

Changes in food consumption patterns were predominantly reported during the initial months of the COVID-19 pandemic, with an estimated global decrease in fish consumption (Eftimov et al., 2020). At the local level as a response to the pandemic, many fresh markets closed and many other markets faced a change in the demand for aquatic foods and products, with buyers opting for frozen and canned products. Additionally, high dependency of fishers on selling their catch to the food service sector is a common trait of some small-scale fisheries around the world. Restaurants, hotels and educational facilities constituted a substantial portion of the buyers of aquatic foods and products from small-scale fishers in many countries, especially where tourism played an important role in the national economy. The impact of the interdependence with tourism became more evident as the lockdown measures required to contain the spread of COVID-19 resulted in further reduced demand from the food service sector. Generally, international and regional trade, as well as commercialization of aquatic foods and products within countries, was also reduced due to the extensive restrictions on movement.

The SSF Guidelines recommend that “states and other parties should promote the consumption of aquatic foods and products within consumer education programmes in order to increase awareness of the nutritional benefits of eating fish and impart knowledge on how to assess fish and fishery product quality” (see SSF Guidelines paragraph 11.11). The importance of encouraging the consumption of these products is not solely because of the health benefits that they provide. It is also important because of the tremendous positive impacts on the livelihoods and socio-economic development of those who participate in the small-scale fisheries value chain. Support for small-scale fisheries is particularly important when disasters have struck and resulted in threats to the livelihoods of fishers and fish workers (see Box 1).
1 Promoting the consumption of fish and fishery products from Peruvian small-scale fisheries

Although Peruvian small-scale fisheries were deemed as an essential activity, and therefore were granted the right to continue working during the COVID-19 pandemic, the major drop in demand for fresh fish and fishery products caused by the closure of the hotel, restaurant and catering sector in Peru and the drop in home consumption (the reason for which is still to be ascertained), led to major economic losses for national small-scale fisheries value chains. Future of Fish, a non-profit fisheries development organization working in the Latin American region initiated the “Del Mar al Comedor, Contigo mi Pescador” fish consumption campaign to raise the demand for aquatic foods and products from small-scale fisheries among the Peruvian population. The campaign focused on improving the understanding of the nutritional benefits of these products and storage techniques and raising awareness on the impacts of the COVID-19 pandemic on the small-scale fisheries sector in Peru (Future of Fish, 2020).

Value chain disruptions

One of the biggest impacts suffered by small-scale fisheries as a result of the COVID-19 pandemic was the disruption of value chains, in the form of limited access to markets due to lockdown and social distancing measures, altered functioning of markets and processing facilities due to infection cases among fish processing workers (FAO, 2021), and restrictions of movement that heavily impacted the transportation of aquatic foods and products and therefore affected normal trade flows, including exports (FAO, 2020c).

These disruptions brought to light a series of existing issues that hindered the restoration of normal activity of the small-scale fisheries value chain, such as an increased risk of food loss due to deficiencies in storage or scarce availability of cold storage equipment and facilities (Orlowski, 2020; Bajhaki, 2020; Thi, 2020). Problems with the availability of proper cold storage facilities are particularly common in informal supply chains, where small-scale fishers and fish workers tend to operate. There are examples of existing efforts to facilitate access to these services (Irby, 2017; Government of Costa Rica, 2020) and the SSF Guidelines recommend that all relevant stakeholders should seek to avoid food losses by building “on existing traditional and local cost-efficient technologies, local innovations and culturally appropriate technology transfers” (see SSF Guidelines paragraph 7.5). Working with the support of relevant authorities, small-scale fisheries may be able to find appropriate solutions to proper storage facilities, resulting in reduced food loss and waste, and enabling the preservation of the catch, which would allow them to sell a product that is less-degraded and of better quality.
A further impact of the COVID-19 pandemic experienced by small-scale fisheries value chains were price fluctuations on local, national, regional and international markets. Due to the general reduction in demand for aquatic foods and products, small-scale fisheries from several regions reported a decline in prices, especially during the first months of the pandemic (DPP KNTI, 2020; FAO, 2020a; GFCM, 2020).

Effective organizational capacity and networks were found to be crucial to the resilience of small-scale fisheries against the disrupted functioning of small-scale fisheries value chains due to COVID-19. The SSF Guidelines recommend that “small-scale fisheries stakeholders should promote collaboration among their professional associations, including fisheries cooperatives and civil society organizations. They should establish networks and platforms for the exchange of experiences and information and to facilitate their involvement in policy- and decision-making processes relevant to small-scale fishing communities” (see SSF Guidelines paragraph 10.6). At the same time, “there should be support (from the State and development partners) for the setting up and the development of cooperatives, professional organizations of the small-scale fisheries sector and other organizational structures” (see SSF Guidelines paragraph 7.4). It was therefore confirmed that the existence of well-functioning and interconnected small-scale fishing organizations of any type facilitates the recovery of both small-scale fishers and fish workers (Bassett et al., 2021; Sanyal and Routray, 2016; Partelow, 2021; Masud-All-Kamal and Monirul Hassan, 2018) (see Box 2). In other words, the combined effort of a wide range of small-scale fisheries stakeholders is required to allow fishers and fish workers to access markets, earn their livelihoods and avoid food insecurity in the event of disasters, including those similar in nature to the COVID-19 pandemic.

2 Inter-professional small-scale fisheries association in the Loire Valley, France

To face the impacts of the COVID-19 pandemic on the small-scale fisheries sector of the Loire region, actors from different stages of the small-scale fisheries value chain came together to create the inter-professional fisheries association Loire Océan Filière Pêche (LOFP). The LOFP represents local small-scale fishers; fish workers, including retailers, fish processors and transporters; and fisheries management institutions, among others. During the pandemic, this association focused on regulating prices and member revenues and was a focal point in decision-making processes that affected the livelihoods within the small-scale fisheries value chain. The closure of borders due to the COVID-19 pandemic also provided evidence of the high dependence of local small-scale fisheries on international markets such as Italy and Spain, as well as a high dependence of local consumption of aquatic food products from international imports. In this context, the LOFP also worked towards better linking small-scale fisheries with local and domestic markets (France TV, 2020).
Direct marketing strategies

Direct marketing strategies – through which the number of intermediaries in the value chain is reduced so that fishers and end consumers interact directly – existed well before the emergence of SARS-CoV-2 (e.g. South Africa’s ABALOBI Mobile App was launched in 2015). Yet an increase in small-scale fishers opting for this kind of marketing method was observed during the pandemic (see Box 3).

It must be highlighted that small-scale fisheries value chains especially in the context of the COVID-19 pandemic should be seen as a whole and consider all activities across the value chain, including pre- and post-harvesting activities, because malfunctioning of any one of the links can have consequences for the rest of the value chain. It should, however, be noted that direct marketing strategies, although beneficial for small-scale fishers, may not have been beneficial for fish workers who participated in post-harvesting activities such as processing, marketing and transportation. Direct marketing and thereby the suppression of intermediary role players between fishers and consumers, may have raised challenges for a considerable part of the value chain. It is therefore important to monitor the proliferation of these direct marketing strategies and networks in order to avoid unwanted impacts on the rest of the value chain. In addition, countries must pay due attention to the proper regulation of these practices (e.g. selection of authorized sites for marketing and compliance with food safety standards) and provide small-scale fishers with the required technical and financial capacity development.

Connecting small-scale fishers and consumers in Latin America

In the Latin American context, many small-scale fishers resorted to direct marketing strategies and networks as an effective tool to ensure the continuation, even if partially, of their livelihoods. These strategies adopted different forms (from formal networks to informal interactions via social media platforms) and originated from different stakeholders (from governments to individual small-scale fishers). For instance, in Peru, the Ministry of Production created the free-to-use online platform Rapipez, which allows buyers to purchase fish and fishery products from local small-scale fishers whilst avoiding physical interaction (Government of Peru, 2020). In Chile, the National Fisheries Service of the Chilean government launched a similar platform called Caleta en Línea. As in the case of Rapipez, small-scale fishers, through their organizations, could use this platform to share information about their products and lines of direct communication so that buyers could place their orders. Informal networks of direct marketing were reported globally, including in many Latin American countries, with small-scale fishers and buyers interacting through social media platforms and online messaging applications.
Diversification of products

Many small-scale fisheries from around the world depend on the harvesting of high-value products that are usually marketed through international exports (World Bank, 2012). This fact became more evident with the collapse of exports due to transport disruptions caused by the COVID-19 pandemic. One example was the complete disruption of imports in net high-value product importing countries such as China. China accounts for 90 percent of global imports of spiny lobster and the cessation of imports meant a major reduction of income for small-scale spiny lobster fishers worldwide (Knight et al., 2020). Consequently, many small-scale fishers resorted to harvesting lower value products that could be sold quickly. In Mexico, for example, small-scale fishers that usually targeted lobster, octopus, penshell and other high-value products, changed their target species to finfish (COBI, 2020).

Many countries reported an increase in demand for canned, frozen and smoked aquatic foods and products due to mobility restrictions, panic buying and the fear of infection. This subsequently led to a reduction of grocery store visits from buyers, as these products were easier to store for longer periods than fresh products. (FAO, 2020c; Agorau, 2020; IDN, 2020) and created an opportunity for those small-scale producers who could respond to the new demands. The SSF Guidelines suggest that “states and other stakeholders should provide capacity building, for example through development programmes, to allow small-scale fisheries to benefit from market opportunities” (see SSF Guidelines paragraph 12.2 and Box 4).

Providing capacity development to women fish processors in Chile

Many Chilean coastal communities are characterized by their high dependence on the food service sector and tourism, which have over the years conditioned the development of the small-scale fisheries sector, especially the post-harvest stage of the value chain. With the arrival of the COVID-19 pandemic, the tourist and food service sectors closed and demand fell sharply. In addition, demand for fish and fishery products changed, with canned products being preferred due to their ability to be stored for long periods.

Along similar lines, the Production Development Corporation of the Chilean government, within its regional innovation programme Broadcasting Women Innovation and Entrepreneurship in Artisanal Fisheries, conducted a workshop on the packaging of fish and fishery products. Attendees reported that the skills acquired through the workshop allowed them to diversify their products and to be better equipped to meet the new increased demand for canned products during the pandemic (CORFO, 2020).

1 The impact of this change in target species on marine ecosystems is yet to be determined.
Innovative auction systems

Biological hazards such as SARS-CoV-2 pose a particular challenge in areas where aquatic foods and products are auctioned. Fish auctions, especially when held at fish landing centres, tend to concentrate high numbers of people in small spaces, a characteristic in conflict with the distancing measures required to control the spread of the virus. In dealing with this matter, the SSF Guidelines recommend states to “provide support to small-scale fisheries stakeholders with regard to adjustment measures in order to reduce negative impacts. When new technologies are introduced, they need to be flexible and adaptive to future changes in species, products and markets, and climatic variability” (see SSF Guidelines paragraph 9.6 and Box 5).

5 Using online auction platforms in Oman to keep safe working conditions

Small-scale fisheries play a key role in the production of fish and fishery products in Oman, which at the same time, is one of the main producers of fish and fishery products in the Gulf region. The fisheries sector, and especially small-scale fisheries, provide a great number of jobs across the entire fish value chain and the means for ensuring food security to many small-scale fishers, fish workers and their communities. With the first contagion reports of COVID-19 in Oman, the Sultanate implemented new regulations to limit the spread of the pandemic through physical distancing measures and the closure of spaces prone to gatherings of people, which included fish processing facilities and fish markets.

With major markets closed, many small-scale fishers suddenly saw their livelihoods threatened due to the difficulty of selling their catches. In response to this, Oman’s Ministry of Agriculture and Fisheries, in cooperation with the Oman Technology Fund, developed an online fish auctioning platform named Behar. This platform allowed small-scale fishers to upload pictures of their catches and to manage the bids electronically placed by buyers. Behar was first tested in the Al Fulaij fish market and Oman is addressing its implementation in other important fish markets to facilitate regional and international trade of aquatic foods and products (FAO, 2020b).
Access to new markets

An additional coping strategy to deal with market access challenges was the identification of and access to, new sector markets. Even if the COVID-19 pandemic affected all sectors, not all products were exposed to the identical obstacles and challenges in order to find new markets at a fair price. For instance, agricultural value chains in some countries showed a higher adaptive capacity against the impacts of the pandemic than those of small-scale fisheries. Some agricultural markets, as in the case of Costa Rica (see Box 6) remained open during the pandemic and served as a lifeline for small-scale fishers by including and allowing aquatic foods and products from small-scale fisheries to be sold in the market. It is yet to be ascertained if the inclusion of these products in agricultural markets will have a long-term effect in any of the sectors, but it is clear that it was beneficial in the short run for the small-scale fisheries.

Finding new markets for fish and fishery products from Costa Rican small-scale fisheries

The appearance in Costa Rica of the COVID-19 pandemic and the consequent closure of both fish markets and the services sector, meant the loss of employment and a major decrease in income for many stakeholders across the entire value chain. In the context of the northern region of Guanacaste, the small-scale fisheries sector played a particularly important role. Here, to help small-scale fishers sell their catches and contribute to their recovery from the economic impacts of the pandemic, the Chamber of Fishermen of Guanacaste (CPG in its Spanish acronym) started to buy products from local small-scale fishers and introduced them in agriculture markets in the region so that they could reach a larger spectrum of buyers. According to the Costa Rican Institute of Fisheries and Aquaculture, soon after the start of this initiative, the CPG had bought approximately 21,000 kg of fish from local small-scale fishers. In addition to this, the CPG facilitated the sale of these products through the creation of a collection centre in the northwest area of Playas del Coco (Costa, 2020).
References


Bibliography

The following resources can be consulted for further information on initiatives in support of small-scale fisheries during the COVID-19 pandemic:


- WorldFish: [www.worldfishcenter.org/pages/covid-19/?utm_source=E-Alert&utm_campaign=556c23f220-EMAIL_CAMPAIGN_2019_03_29_02_45_COPY_01&utm_medium=email&utm_term=0_0a4d9ec4ca-556c23f220-133800089](http://www.worldfishcenter.org/pages/covid-19/?utm_source=E-Alert&utm_campaign=556c23f220-EMAIL_CAMPAIGN_2019_03_29_02_45_COPY_01&utm_medium=email&utm_term=0_0a4d9ec4ca-556c23f220-133800089)