



# DEVELOPING YEMEN'S FISHING INDUSTRY

## EXECUTIVE SUMMARY

The fishing industry in Yemen faces many structural challenges that have limited its production and potential contribution to overall economic output. Development of the industry's infrastructure, human capacity and regulation was already poor prior to the outbreak of the ongoing armed conflict in Yemen. Since the war began five years ago the fishing industry has faced increased challenges, including a significant drop in the level of production with the displacement of many fishermen and associated workforce; fish processing plants halting production; surging fuel costs; the decline of local purchasing power leading to a drop in the local demand for fish products; and the disempowerment of the Ministry of Fish Wealth (MFW), among other challenges.

From November 26 to 28, 2019, a group of experts and fishing industry stakeholders convened in Mukalla, Hadramawt, as part of the Rethinking Yemen's Economy Initiative, to discuss the industry's challenges and recommend solutions. These talks discussed how the sustainable development of the industry and recovery from the impacts of the current conflict require collaboration between the government, the private sector and fishing communities, educational institutions, along with international stakeholders. In particular, given the inability of the MFW to carry out its basic institutional functions due to the ongoing conflict, it is crucial that the ministry's executive privileges for short-term policy making and regulation be temporarily delegated to local councils and that they be empowered to regulate the industry during the conflict. The participants also identified longer-term policies for the government and international stakeholders to revitalize the industry and enhance its capabilities.

## RECOMMENDATIONS INCLUDED:

- Create a fund to support fisheries exports.
- Conduct scientific assessments of national fish stocks and studies of the marine habitat.
- Facilitate international engagement with local marine science faculties and research institutions.
- Temporarily grant more executive privileges to local councils to assume duties usually carried out by the MFW but interrupted due to the current war.
- Build the human resource and regulatory capacities of the MFW.
- Design and implement partnerships between international agencies, and the public and private sectors to rehabilitate and improve physical infrastructure.
- Design and implement partnerships between the international agencies, the public and private sector, artisanal fishermen and fishing communities to increase production and quality of catch.
- International aid agencies should explore ways to support the Yemeni fishing industry in improving food security in the country.

This policy brief was prepared by the Sana'a Center for Strategic Studies, in coordination with the project partners DeepRoot Consulting and CARPO – Center for Applied Research in Partnership with the Orient.



## BACKGROUND

Yemen's fisheries sector holds untapped promise in contributing to the national economy, with a coastline of more than 2,500 kilometers and rich fishing grounds offshore.<sup>(1)</sup> Yet the sector has long faced many challenges, which have been exacerbated during the ongoing conflict. The most recent available data on the size of the industry, shared by the Ministry of Fish Wealth (MFW) in 2012, show that it contributes roughly 3 percent of the country's gross domestic product (GDP) and constituted the country's second largest source of export earnings after oil.<sup>(2)</sup>

The industry is divided into marine fisheries and aquaculture, with the former by far the dominant sector in the industry and the latter relatively limited in its size and output. According to the latest records of the MFW there are roughly 90,000 licenced fishers in the country,<sup>(3)</sup> almost all of whom are male<sup>(4)</sup> artisanal fishers; the size of the larger labor force engaged in fishing and fishing-related activities is some 500,000 people, who as family breadwinners support some 1.7 million people in the country.<sup>(5)</sup> The MFW reported in 2012 that there was only one operating aquaculture farm in Yemen.<sup>(6)</sup>

It is estimated that Yemen's total annual fisheries production amounted to roughly 200,000 tons prior to the conflict; 40-50 percent of production was sent for export, generating revenues of about US\$300 million.<sup>(7)</sup> There are both state-owned and private docks and fish landing facilities in the countr, although there is no state-owned fishing fleet, meaning individual fishermen work either on their own boats or on privately rented boats. A study in 2018 showed that only 60 percent of fishermen own their boats while the rest work for day wages.<sup>(8)</sup> Of the 60 percent of fishermen who are boat owners, roughly one third reported partnering with others for joint ownership of their vessel.<sup>(9)</sup>

In the last decade, the sector witnessed major increasing environmental challenges, such as the destruction of coral reefs, pollution, climate change impacts and weather events such as cyclones, all of which have almost certainly impacted Yemen's fish

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1) National Fisheries Strategy (2012-2025)," Ministry of Fish Wealth, 2012.

2) Ibid.

3) Interview with an official at the Ministry of Fish Wealth.

4) Although there are fisherwomen working in this industry, a number that anecdotal evidence suggests has increased during the current conflict, the industry and the profession remain heavily male-dominated.

5) Alfarah, Ammar Mohammed, "The Impact of the War in Yemen on Artisanal Fishing of the Red Sea," LSE Middle East Centre, 2018, <http://eprints.lse.ac.uk/91022/>. Accessed February 13, 2020.

6) National Fisheries Strategy (2012-2025)," Ministry of Fish Wealth, 2012: "The only operating aquaculture farm is Musallam Trading Company based north of Hodeidah on the Red Sea coast. The farm consists of 50 ha shrimp ponds with annual production of 400 tons (mainly *Penaeus indicus* and *P. monodon*)."

7) Interview with an official at the Ministry of Fish Wealth.

8) Alfarah, Ammar Mohammed, "The Impact of the War in Yemen on Artisanal Fishing of the Red Sea," LSE Middle East Centre, 2018, <http://eprints.lse.ac.uk/91022/>. Accessed February 13, 2020.

9) Ibid.

stocks, although a definitive assessment to this end has not been conducted (see challenges section below).

The conflict has also caused challenges with production, which has dropped by half; exports have dwindled to less than 70,000 tons per year since the war began.<sup>(10)</sup> Regular fuel shortages in Yemen have increased fishermen's costs of operating their boats, while many fishermen have been displaced from coastal communities due to armed clashes and thus lost access to their livelihood and income. Even for those who have not been displaced, conflict and insecurity in coastal areas – such as along the Red Sea coast in Hudaydah governorate and in Aden – have regularly interrupted fishing activities.

## FUNDAMENTAL CHALLENGES FACING YEMEN'S FISHING INDUSTRY

### LACK OF DATA AND KNOWLEDGE

The most pressing challenge facing the fishing industry is the lack of scientific research and knowledge production regarding the size and health of Yemen's fish stocks. The last assessment, which identified fishing areas, coastal and marine ecosystems, and fisheries breeding sites, took place more than 30 years ago.<sup>(11)</sup> The lack of recent stock assessments means the status of crucial aspects of the industry are unknown, such as the condition of commercially viable fish stocks, species under threat, coral reefs and other aspects of the marine ecosystem and habitat.

Modern commercial technology is not widely used, with most fishing in Yemen carried out using small-scale, low-technology artisanal techniques which limit overall production. Additionally, the sustainability of the sector is threatened by the growing popularity of destructive fishing techniques, such as deploying small-mesh nets that capture immature fish and excessive by-catch; bottom trawling that destroys coral reefs and marine habitat; and blast fishing using explosives.<sup>(12)</sup>

### INADEQUATE INFRASTRUCTURE

Yemen's fisheries industry faces considerable infrastructural problems, such as rudimentary and small-capacity landing sites and fish processing facilities, which also often suffer from poor management. The absence of adequate landing sites

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10) Interview with an official at the MFW.

11) "National Fisheries Strategy (2012-2025)," Ministry of Fish Wealth, 2012.

12) Alfarah, Ammar Mohammed, "The Impact of the War in Yemen on Artisanal Fishing of the Red Sea," The LSE Middle East Centre, 2018, , <http://eprints.lse.ac.uk/91022/>. Accessed February 13, 2020.

and properly trained management and staff to ensure quality standards limits the industry's ability to meet market quality standards, whether foreign or domestic. There is also a general lack of port and dock infrastructure, such as adequate breakwaters, cold storage facilities and access to affordable power generation. Indeed, at present, workers in the fishing industry lack the necessary training to absorb new technology to develop the sector, while Yemen also lacks a national code of best practices for handling, production, storage, distribution, export, import and sale of fish and fishery products, which lead to a reduction in value of caught fish. Such deficiencies in turn undermine efforts to protect the marine habitat – such as coral reefs and coral farms.

## **LACK OF PUBLIC AND PRIVATE SUPPORT**

Currently, the MFW is incapable of carrying out the normal operations of a ministry, due to the lack of qualified staff and budget financing. Thus, there is almost no government oversight or enforcement of industry standards nor support for fish harvesting, processing, logistics, exports, international marketing or any other aspect of the industry. Indeed, quite the opposite: Fish processors face up to 25 percent tax on all fish production, which increases the price for consumers and hurts the competitiveness of Yemeni fish exports.

The conflict has led to challenges regarding communication with importing countries and the registration of exporting companies with the European Union, stemming from the relocation of the internationally recognized Yemeni government's ministries from Sana'a to Aden in 2016, including the MFW. The relocation led to the loss of human capital and institutional knowledge, given that most public servants did not move with the official ministry.

Given the litany of challenges the sector faces – as well as the rudimentary state of technological adoption – private sector actors have been reluctant to invest in developing Yemen's fishing industry. This has in particular stymied aquafarm development, given the associated upfront capital investment costs.

## LOOKING AHEAD

The many challenges the fishing industry in Yemen have roots that are not necessarily related to the ongoing conflict but the intensity of the war has aggravated the situation. In order for the fishing industry to fulfil its potential as an important component of the Yemeni economy, certain steps must be taken. The workshop participants have identified key steps for the government and international stakeholders for the maintenance and development of the fishing industry in Yemen:

### RECOMMENDATIONS

- **Create a fund to support fisheries exports.** A fund run by the government, represented by the Higher Council for Exports and the MFW, with the support of international donors, should assist Yemeni fish exporters to become competitive in international markets. Subsidies could cover such costs as transportation, marketing, and acquiring the necessary import permits and certificates. This fund should also be directed to help cover capital start-up cost for fish farms and aquaculture, which have the potential to increase the fish production generally as well as support food security in Yemen.
- **Conduct scientific assessments of national fish stocks and studies of the marine habitat.** The government, represented by the MFW, with the cooperation of international stakeholders, must commission institutions with adequate expertise to assess the country's commercially viable fish stocks, fish species at risk and the status of the marine habitat around the country, among other salient scientific research needed to guide the development of the industry. This research should also examine which species would be best suited to helping enhance food security in Yemen, as well as means to help preserve the marine habitat.
- **Facilitate international engagement with local marine science faculties and research institutions.** It is essential for future development efforts in Yemen's fisheries sector to be guided by scientific research and international best practices. This should apply to all levels of the industry – MFW personnel, fishermen, processors and other private stakeholders. To facilitate a sustainable transfer of knowledge to local institutions and experts, international efforts to conduct stock assessments and marine research in Yemen should have as a key component the training of local stakeholders, such as local scientists, fishermen, processors and MFW personnel.

- **Temporarily grant more executive privileges to the local councils to assume duties usually carried out by the MFW but interrupted due to the current war.** These executive privileges would allow local councils to intervene to stop harmful and illegal fishing practices, update and implement fishing best practices, and require fishermen to have a fishing license in cooperation with the coast guard and the Yemeni Fishing Union. Local councils should have the power to inspect fishing equipment and guarantee their compatibility with the standards and regulations of the industry's international best practices, and to prevent harmful and unlawful fishing equipment from being deployed.
- **Build the human resource and regulatory capacities of the MFW.** The recruitment of qualified and specialized staff at the MFW and other public entities working with the fisheries industry is crucial for the industry's prosperity. To this end, the MFW should aim to establish and develop the ability to enforce national codes of conduct to regulate fishing practices, landing sites, processing plants and other aspects of the industry. These regulations should be implemented within a policy objective of aiding the industry generally, and the MFW should vigorously explore means through which it can assist the fishing industry; such actions could involve support for fuel costs, transportation and logistics, tax exemption for fisheries' exports, marketing in international fish exhibitions, etc. For instance, joint efforts between the MFW and the Yemeni Seafood Exporters Association to train existing public servants in the MFW's technical organs is urgently needed, especially for official communications with international partners such as the European Union to reduce trade barriers for Yemeni exporters.
- **Design and implement partnerships between international agencies, the public and private sectors to rehabilitate and improve physical infrastructure.** These partnerships would invest in renovating state-owned facilities, such as breakwaters, docks, landing and cold storage facilities, and to build new facilities when required.
- **Design and implement partnerships between international agencies, the public and private sector, artisanal fishermen and fishing communities to increase production and quality of catch.** Given the general under-adoption of modern fisheries technologies in Yemen – and the high level of investment needed to bring fishing techniques within the range of international norms – introduction of new technologies should be a mid-to-long-term objective, while the current focus should be on making artisanal fishing more efficient. The efficiency of artisanal fishing can be supported through partnerships between fishermen and the private sector to offer (lease) fishermen better-equipped boats

to allow longer fishing periods at sea and ensure the quality of the fish when it reaches the landing sites. Partnerships involving other stakeholders should help improve the quality and capacity of fishing vessels and equipment, handling of catch, and provide training for fishermen in sustainable fishing techniques and practices. Creating a sustainable fishing industry requires spreading awareness among artisanal fishermen on sustainable fishing techniques and the need to protect fish habitat and breeding cycles.

- **International aid agencies, and in particular the World Food Programme, should explore ways to support the Yemeni fishing industry in improving food security in the country.** Options could involve general support to help the fishing industry boost production to including local fish catch in the food assistance delivered to beneficiaries (such as in non-perishable canned form).

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# RETHINKING YEMEN'S ECONOMY

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The Rethinking Yemen's Economy initiative aims to contribute to peacebuilding and conflict prevention, (economic) stabilization and sustainable development in Yemen by building consensus in crucial policy areas through engaging and promoting informed Yemeni voices from all backgrounds in the public discourse on development, economy and post-conflict reconstruction in Yemen and by positively influencing local, regional and international development agendas. The project is implemented by CARPO – Center for Applied Research in Partnership with the Orient, DeepRoot Consulting and the Sana'a Center for Strategic Studies. It is funded by the European Union and the Embassy of the Kingdom of the Netherlands to Yemen.

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## Implementing Partners

The project is implemented by a consortium of the following three partners:



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