

Severity of the Impacts of COVID-19 Pandemic on Small-scale Fisheries of Thailand: A Preliminary Assessment

Isara Chanrachkij, Penchan Laongmanee, Jeerasak Lanmeen, Thanyalak Suasi, Jariya Sornkliang, Rattana Tiaye, Nakaret Yasook, Santhipong Putsa, and Shiela Villamor Chumchuen

The onslaught of COVID-19 was declared a global pandemic by the World Health Organization (WHO) on 11 March 2020 due to alarming levels of spread and severity as well as distressing levels of inaction (WHO, 2020). To control the rate of infection, countries around the world have taken several measures such as home confinement, travel bans, and business closures. In the case of Thailand, the Government enforced the State of Emergency on 26 March 2020, and subsequently, the nationwide curfew and lockdown were imposed on 3 and 4 April 2020, respectively, that led to travel restrictions across provinces and borders, and suspensions of domestic and international flights (MOPH, 2020). Thailand is among the countries in the world that acted earlier and ranked very low in terms of COVID-19 infections and currently recorded only more than 3,000 positive cases.

COVID-19 is believed not to affect fish nor does it cause infection in humans by consuming fish. However, the dwindling supply and demand of fish has impacted on the livelihoods of small-scale fishers, who are vulnerable to the indirect impacts of the pandemic. The pandemic situation is rapidly evolving and the impacts of the pandemic on small-scale fisheries are varying due to changing consumer demands, market access, and logistical problems related to transportation and border restrictions. This in turn brought about detrimental effects on the social well-being and economies of nations as well as on food security and nutrition of populations, especially the small-scale fishers who rely on fish for animal protein and essential micronutrients. In this connection, the Fisheries and Aquaculture Department of the Food and Agriculture Organization of the United Nations (FAO) initiated several actions to mitigate the impacts of COVID-19 on the fisheries and aquaculture sector. FAO provided and continued to share up-to-date information such as policy briefs and other relevant documents containing practical information on coordinated support to development of measures and interventions that address the impacts of COVID-19 on fisheries and aquaculture (FAO, 2020a). FAO also tapped the SEAFDEC Training Department (SEAFDEC/TD) to assess the impacts of the COVID-19 pandemic on small-scale fisheries of Thailand and to identify the adaptive strategies carried out by the small-scale fishing communities to mitigate such impacts.

Small-scale fisheries play an important role in food security and nutrition, poverty eradication, equitable development, and in sustainable resource utilization. Aside from providing nutritious food fish for local, national, and international markets, small-scale fisheries also generate income supporting households, as well as local and national economies. Encompassing all activities along the value chain including

pre-harvest, harvest, and post-harvest, small-scale fisheries contribute about half of global fish catches and employ more than 90 percent of the world’s marine fisheries sub-sector workforce, about half of whom are women. However, small-scale fisheries have been frequently neglected in socio-economic and political processes, and not given appropriate attention in policy formulations (FAO, 2015; 2020b).

In Thailand, the majority of fishers are small-scale also known as artisanal (DOF, 2015), and the country is one of the major fish producers and exporters in the world (FAO, 2020b). Fish is a generally affordable source of protein for dietary health and food security, and are important in the livelihoods of small-scale fishing communities. In more than 2,500 fishing villages in rural coastal areas of Thailand, the catch of artisanal fishers, although usually meant for household consumption, considerably supports an important food supply chain that involves a large number of women in buying/selling and processing. The small-scale fishers use fishing vessels categorized as artisanal (< 10 GT). The other category of fishing vessels in Thailand is known as commercial (10 - < 60 GT).

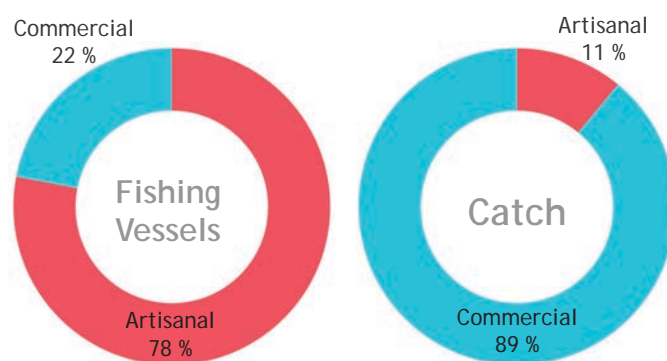


Figure 1. Ratio of active fishing vessels by number in 2015 (left) and ratio of catches by quantity in 2014 (right) of artisanal and commercial fisheries of Thailand

Figure 1 indicates that although around 78 percent of the 42,512 fishing vessels in Thailand in 2015 are artisanal, about 89 percent of the 1.24 million t total catch in 2014 was contributed by commercial fisheries (DOF, 2015). It is therefore necessary that fisheries management measures should also consider the significant role of the artisanal or small-scale fisheries sub-sector in alleviating poverty and ensuring food security.

This preliminary study was carried out to generate the relevant information that could serve as guide for developing programs

that could support the small-scale fishers in mitigating the impacts of the COVID-19 pandemic, particularly to enable them to sustain their livelihoods and enhance their well-being. Results of the study are discussed in the foregoing text of this article.

Survey on the impacts of the COVID-19 pandemic on livelihoods of small-scale fishers

The survey was carried out from April to May 2020 involving a total of 13 respondents (3 females and 10 males), comprising small-scale fishers (n=11), Village Chief (n=1), and Fisheries Officer (n=1) from 10 coastal Provinces of Thailand, namely: Bangkok, Rayong, Chantaburi, Trat, Petchaburi, Chumphon, Ranong, Phang Nga, Phuket, and Krabi (**Figure 2**). Using a questionnaire, the respondents were asked to provide information on the impacts of the COVID-19 pandemic on their livelihoods and their adaptations to mitigate such impacts. The questionnaire includes fishing activities, trade, processing, gender, assistance, and fishery resources and habitats. However, due to travel restrictions during the nationwide lockdown, the interviews were conducted through telecommunication (e.g. using mobile phone or smart phone applications).

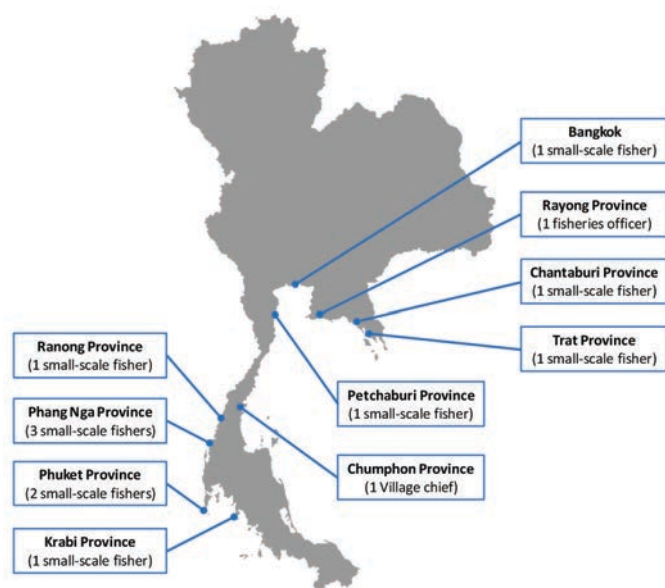


Figure 2. Locations of the respondents from small-scale fishing communities in the 10 sample coastal Provinces of Thailand

Fishing activities

The nationwide curfew, which was enforced from 10:00 p.m. to 4:00 a.m. of the following day, did not significantly affect the fishing activities of local fishers. Normally, squid fishers go out for fishing around 4:00 a.m. and return before 10:00 p.m., and they are able to easily travel from their homes to fishing ports. Nonetheless, a permission document issued by the local government or community leader could be necessary in some

areas where fishing activities such as catching crab using gillnet, are carried out after 10:00 p.m. Moreover, although restrictions on movements of small-scale fishers had led to reduction in the number of fishing days from 20 days/month to 10-15 days/month, there had been no change in the catch rate. However, the story is different in commercial fisheries in the border provinces, particularly in Trat and Chantaburi Provinces. As one of the centers of the country's commercial fisheries, the insufficient numbers of laborers who are mostly migrants and issued a one-day boarding pass that expires daily, had affected their commercial fishing operations. This concern was exacerbated when reissuance of the workers' boarding passes was suspended due to border lockdown.

Fish Trade

• Fish supply

Due to travel restrictions and limited operation period of wholesale markets, middlemen could not deliver the fish and fishery products to major fish markets. As a result, the middlemen stopped buying fish or bargained at extremely low prices, thus, some fishers discontinued their fishing operations. Some fishers started to sell their catch by themselves but there were not enough customers because tourism activities were also suspended.



• Demand for fish

There was an increase in seafood consumption on one hand, when the price of fish had been reduced to almost 50 percent. However, the restrictions in local markets made it difficult for consumers to access fish and fishery products. On the other hand, seafood consumption decreased when people stayed at home and bought fresh food less frequently than during the normal situation, and preferred meat and poultry products that could be stored for a longer period of time and easy to cook.

As lockdown continued, the fresh seafood preferred by customers could not be delivered outside the provincial areas, making it difficult for small-scale fishers to maintain the

quality of frozen products. Moreover, the tourism industry and its chains (e.g. hotels, restaurants, and catering also known as horeca business) in Thailand had the highest demand for fish and fishery products. However, the demand significantly decreased when the country's tourism industry was badly affected by the pandemic.



E-commerce

The restrictions and limitations in direct marketing had prompted many fishers to turn to e-commerce as a strategy to alleviate the impacts of the pandemic on their livelihoods. The online trading of fresh and/or processed fish and fishery products seemed to be successful despite of limitations on delivery services. The high number of online orders indicated that the access of consumers to fish and fishery products was enhanced. Interestingly, the e-commerce has involved the whole family in the business wherein the youth plays the active role of facilitating the online trading.

Fish Processing

Processed fish and fishery products were difficult to sell due to limited transportation services. Also, several processing activities in factories were discontinued because of shortage of raw materials since many local fishers stopped fishing, and also because of considerable reduction of the demand from consumers. Although local fishers prefer to trade fresh fish at local markets, but when the price is low, fishers would process the fish by themselves so that they could still earn some income.



Gender

Women who had been working in fish processing factories might have lost their jobs because of suspension in fish processing due to lack of raw materials. In general however, the COVID-19 pandemic did not have significant impact on the roles of women in generating household incomes for they could still continue to provide assistance in backyard fish processing and marketing. The menfolk had also become more involved in processing activities than before because their time that is supposed to be devoted for fishing have been lessened or discontinued to some extent. Moreover, the youth, who are more adept in information technology, has made meaningful contributions to the thriving family business by mainly facilitating the online trading of fish and fishery products. During the pandemic, the relationship among family members had become more bonded and many families had been generating better incomes.

Assistance to small-scale fishers

Under the Fisheries Act 2015, the Government of Thailand through the Ministry of Agriculture and Cooperatives provided the registered fish farmers and small-scale fishers with financial assistance at THB 5,000 (USD 167) per month



in April-June 2020 to enable them to cope with the impacts of the COVID-19 pandemic. The fund is released through the Agriculturist Assistance Project approved by the Cabinet in 28 April 2020. In addition, food and daily subsistence goods have also been provided by the local government units.

Fishery resources and habitats

The respondents had varying opinions on the impacts of the COVID-19 pandemic on the fishery resources and habitats. Local fishers believe that the depleted fishery resources and damaged habitats could recover due to the decrease in fishing efforts, as some small-scale fishing activities have been discontinued because of low demand for seafood and commercial fishing activities have stopped to operate because of lack of workers. Also, they indicated that the habitats could recover because of the closure of the tourism industry, thus, the environment would no longer be disturbed by human activities.

On the other hand, other fishers worry that since many people who have become jobless, they would return to their hometowns and engage actively in fishing. If such a situation is uncontrolled, it could result in depletion of the fishery resources because of increased fishing pressure.

Recommendations and Way Forward

The COVID-19 pandemic has not affected the fishing activities of small-scale fishers, as these are normally carried out within the vicinity of their fishing villages and beyond the curfew hours. Nonetheless, the trading of their catch has been adversely impacted by logistical restrictions, which

led to loss of income and low supply of raw materials for processing. Although some small-scale fishers are able to mitigate such impacts by adapting a new trading strategy (*e.g.* e-commerce) that involves the whole family and gaining for them better incomes. Online trading has been successful for most small-scale fishing communities, helping the small-scale fishers boost their livelihoods and at the same time providing the consumers access to healthy food during the nationwide lockdown. Nevertheless, in order to maintain good quality of fish and fishery products during delivery process, fish handling techniques should be improved. Also, the capability of the small-scale fishers on online trading should be enhanced so that they would be able to trade their products directly to consumers and no longer depend on middlemen. SEAFDEC could support in the human resource development aspects, specifically by organizing training sessions that introduce the techniques on fish handling, processing, packaging, online trading, and others.

The establishment of small-scale fishers' groups is also crucial in promoting coordination and collaboration among fishers, government, and non-government organizations. Through such fishers' groups, strategic or resilience plan to mitigate the impacts of COVID-19 pandemic and other disasters could be developed, while microfinance schemes could be established to improve their financial condition. Furthermore, measures to maintain the safety of small-scale fishers at sea should be promoted. With regard to labor issues and safety onboard commercial fishing vessels, deck machinery and equipment as well as living conditions of crew should be improved. Also, appropriate technology to reduce manpower in fishing operations should be promoted and the skills of fishers to operate modern deck machinery should be enhanced.



To support fisheries management, the collection of data and development of database on small-scale fisheries should be promoted. The results of this preliminary study could be useful for future studies on small-scale fisheries recognizing its significant contribution to poverty alleviation and food security, and at the same time focusing on the enhancement of the well-being of small-scale fishers and the status of fishery resources and habitats amidst pandemics.

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About the Authors

Mr. Isara Chanrachkij (isara@seafdec.org) is the Head of Research and Development Division of SEAFDEC Training Department based in Samut Prakan, Thailand.

Ms. Penchan Laongmanee (penchan@gmail.com) is a Lecturer at the Burapha University Chantaburi Campus, Chantaburi, Thailand.

Mr. Jeerasak Lanmeen (fai-sally@hotmail.com) is a Fisheries Officer at the Southern Andaman Fisheries Development Center based in Phuket, Thailand.

Ms. Thanyalak Suasi (thanyalak@seafdec.org) is the Head of Fisheries Management Section, Research and Development Division, SEAFDEC Training Department, Samut Prakan, Thailand.

Ms. Jariya Sornkliang (jariya@seafdec.org) is a Fisheries Management Scientist and Gender Focal Person at the SEAFDEC Training Department, Samut Prakan, Thailand.

Ms. Rattana Tiaye (rattana@seafdec.org) is a Fisheries Management Scientist of Fisheries Management Section, Research and Development Division of SEAFDEC Training Department based in Samut Prakan, Thailand.

Mr. Nakaret Yasook (nakaret@seafdec.org) is a Fishing Gear Technologist of Fishing Technology Section, Research and Development Division of SEAFDEC Training Department based in Samut Prakan, Thailand.

Mr. Santhipong Putsa (santhipong@seafdec.org) is a Fishing Gear Technologist of Fishing Technology Section, Research and Development Division of SEAFDEC Training Department based in Samut Prakan, Thailand.

Dr. Shiela Villamor Chumchuen (shiela@seafdec.org) is Technical Writer/Editor of SEAFDEC Secretariat based in Bangkok, Thailand.