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INNOVATIONS FOR INVESTMENT: FINANCING SMALL-SCALE FISHERIES IN THAILAND



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Innovations for investment: financing small-scale fisheries in Thailand

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PREPARATION OF THIS DOCUMENT

This circular was prepared under the Multidisciplinary Fund (MDF) project of the Food and Agriculture Organization of the United Nations (FAO) on “Financing innovation for sustainable fisheries with the private sector”. The project supported fishing businesses in Thailand and Kenya to access formal financial services, enabling them to innovate and use sustainable fishing technologies.

The *Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Poverty Eradication and Food Security* (SSF Guidelines), inspired the project and provided a framework for the project objectives. The project contributed to achieving the Sustainable Development Goal 14 (Life below Water). The project’s objective – which is laid out in detail in the following chapters - was to improve access to financial services for small-scale fishers (SSF) in Thailand by means of: 1) a thorough stakeholder analysis including a survey among key players, 2) capacity building of key stakeholders on how to reach SSF with financial services, and 3) establishing a platform for stakeholders to convene and exchange knowledge and plan further activities.

A letter of agreement (LoA) detailing the project was signed by FAO and the Asia-Pacific Rural and Agricultural Credit Association (APRACA) in March 2021. The project was implemented in 2021–2022 by APRACA, the Bank for Agriculture and Agricultural Cooperatives of Thailand (BAAC), the Southeast Asian Fisheries Development Center (SEAFDEC) and FAO. This circular presents some of the project activities carried out in Thailand by APRACA and BAAC. This circular should be read in conjunction with Circular No. 1263, on “Assessment of the sustainability of currently used fishing technologies and operations in Thailand: options for innovation and improvement”, which has been prepared by SEAFDEC and FAO. Circular No. 1245 presents the MDF project activities in Kenya.

ABSTRACT

To make small-scale fisheries in Thailand more sustainable, fishers need to invest in responsible fishing operations and technologies, reduce overfishing, contribute to fisheries management, and implement climate change adaptation measures. Small-scale fishers often do not have access to financial services to innovate and to make the necessary transition to sustainable fishing operations. Access to financial services will help them to innovate and adopt measures that will provide social, economic and environmental returns, the desired triple bottom line.

Financial service providers can manage the risks involved in credit provision to small-scale fishers when they understand the fishing business. Scaling-up innovation in the supply of financial services to the fisheries sector, such as promoting digital platforms, developing loan appraisal tools tailored to fishers' needs and enhancing partnerships with fisherfolk organizations, is needed.

The Asia-Pacific Rural and Agricultural Credit Association (APRACA) and FAO, in collaboration with the Bank for Agriculture and Agricultural Cooperatives (BAAC), implemented a project to analyse and improve the access of small-scale fishers to financial services in Thailand.

The project identified the key finance and fisheries sector stakeholders, carried out surveys and interviews and conducted a techno-economic performance analysis of some major fishing fleets, to investigate the potential innovations for investment in small-scale fisheries. APRACA and BAAC drafted training materials and conducted various trainings on financing small-scale fisheries.

The project also established the Thailand National Network for the small-scale fishers (ThaiNet SSF), based on the global network for capacity building to increase access of small-scale fisheries to financial services (CAFI-SSF). This network will be used for communication and exchanging ideas among stakeholders in the small-scale fishing and financial sector.

To enable financial institutions to quickly get an overview of the small-scale fishing sector and its business opportunities, the project team summarized main findings and lessons learned in a policy brief, which can be downloaded [here](#). This circular presents the project's main achievements.

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The Multidisciplinary Fund (MDF) project in Thailand was coordinated by the Food and Agriculture Organization of United Nation FAO, Fishing Technology and Operations Team (NFIFO) in close cooperation and partnership with the FAO Inclusive Rural Transformation and Gender Equality Division (ESP) and staff of the FAO Regional Office for Asia Pacific (RAP). The Asia-Pacific Rural and Agricultural Credit Association (APRACA) together with its local partner, the Bank for Agriculture and Agricultural Cooperatives (BAAC), was in charge of the implementation of the project in Thailand. The Southeast Asian Fisheries Development Center (SEAFDEC) provided a techno-economic analysis of major Thai fishing fleets, which contributed to the project work presented in this circular.

The authors would like to acknowledge the important contributions to the project by the staff of APRACA and BAAC. The surveys, capacity building materials development and training workshops would not have been possible without the dedication of APRACA and BAAC staff to the project and its objectives. The authors are very grateful for the information shared and participation in workshops and training sessions by the many BAAC finance officers and staff of the Thai Department of Fisheries and other government departments, financial service providers and fishers and their organizations in Thailand. Without the support from the many stakeholders the MDF project could not have been implemented successfully.

ACRONYMS AND ABBREVIATIONS

APRACA	Asia-Pacific Rural and Agricultural Credit Association
BAAC	Bank for Agriculture and Agricultural Cooperatives
CAFI-SSF	Global network for capacity building to increase access of small-scale fisheries to financial services
CFI	community financial institutions
DoF	Department of Fisheries
ESP	Inclusive Rural Transformation and Gender Equality Division (FAO)
FAO	Food and Agriculture Organization of the United Nations
IYAFA	International Year of Artisanal Fisheries and Aquaculture 2022
LoA	letter of agreement
MDF	multidisciplinary fund
NFIFO	Fishing Technology and Operations Team (FAO)
NGOs	non-government organizations
SEAFDEC	Southeast Asian Fisheries Development Center
SSF	small-scale fishers
THB	Thai Baht
ToR	terms of reference
USD	United States Dollar
VF	village funds

1. INTRODUCTION

Worldwide many fisheries resources are either maximally sustainably fished or overfished. To reduce overfishing and unsustainable practices, effective fisheries management is essential. Entrepreneurs in fisheries, particularly small-scale fishers (SSF), often do not have access to adequate financial services to innovate and make the necessary transition to sustainable fishing operations. Access to financial services helps fishing businesses to grow and adopt measures that can provide social, economic and environmental returns, the desired triple bottom line (Van Anrooy *et al.*, 2022).

The Multidisciplinary Funds (MDF) project has been implemented in two countries, Thailand and Kenya. This circular presents some results of the project implementation in Thailand. The project supported fishing businesses to access formal financial services. The project worked towards scaling-up the use of fishing technology innovations that have been proven successful elsewhere (for example, hybrid vessel engines, bulbous bows, bycatch reduction devices, lighter trawl gears, long-lining technologies and LED light fishing systems) through increasing access to finance.

The global network for capacity building to increase access of small-scale fisheries to financial services (CAFI-SSF Network) which was initiated in 2020, played an instrumental role in the formulation and implementation of the project. The initiative to establish the CAFI-SSF Network had been taken during the “Expert Workshop on Guidelines for Microfinance, Credit and Insurance for Small-Scale Fisheries in Asia” in Bangkok, Thailand in May 2019 (FAO, 2019). This workshop was co-organized by FAO and the Asia-Pacific Rural and Agricultural Credit Association (APRACA).

The network provides an interactive platform that catalyzes the involvement of key private sector stakeholders (for example, rural banks, agricultural credit associations, fishing companies, fishers’ organizations, and financial- and fisheries experts) to share experience and knowledge and promote capacity building. The network (including its member APRACA in Thailand) also aims to remove barriers to innovation in fisheries and finance. Barriers include the low understanding of the unique business characteristics of the fisheries sector and the weak technical capacity that prevents local financial services providers to provide services to small-scale fishers (FAO, 2022).

The project’s objectives build on the *Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Poverty Eradication and Food Security* (SSF Guidelines) (FAO, 2015), which underline the importance of access to finance for SSF to be able to develop their businesses successfully and in a sustainable manner. The project also supported the implementation of the FAO-APRACA Guidelines for micro-finance and credit services in support of small-scale fisheries in Asia - A handbook for finance and fisheries stakeholders (Grace and Van Anrooy, 2019).

2. THE PROJECT’S OBJECTIVES AND MAIN ACTIVITIES

The MDF project objectives were aligned with FAO’s efforts to support small-scale fishers (SSF), the FAO SSF Guidelines, and the United Nations declared International Year of Artisanal Fisheries and Aquaculture (IYAFA 2022). The project built on the design of previous projects like the “Project to prepare the groundwork for establishing a credit and insurance programme for small scale fishers in the Philippines” (Gietzen *et al.*, 2022). The project’s five objectives were:

1. build and strengthen the capacity of financial service and insurance providers, fisherfolk organizations, non-government organizations (NGOs) and concerned government agencies in designing and implementing financial services and insurance products that suit the needs of SSF and enhance social protection;
2. guide policy and decision makers in the financial industry with the objective of encouraging investment in the fisheries sector and thus strengthen the sustainability and economic viability of these SSF;

3. promote dialogue among different stakeholders (in particular financial institutions, fisherfolk organizations, fishers);
4. enable SSF to invest in more responsible fishing operations and technologies, reduce overfishing, contribute to fisheries management, and implement climate change adaptation measures; and
5. help the sector in Thailand to make the necessary transition towards sustainability based on a shared triple bottom line of social, economic and environmental returns.

To achieve the objectives the project conducted the following activities in Thailand:

1. A thorough **analysis of the relevant stakeholders** in the SSF sector. This activity was carried out to identify the stakeholders to be addressed by the survey (activity 2) and to identify institutions that would be potential participants in the formation of a network (activity 4).
2. A **survey aimed at determining the status of SSF communities** as well as providing information on the assistance and support they need for their fishing activities particularly in accessing financing and insurance services.
3. An **analysis of the state of fishing technology used by SSF in Thailand** including scoping opportunities for technological innovations. This activity was undertaken by the Southeast Asian Fisheries Development Center (SEAFDEC).
4. **Foundation of a national network (ThaiNet SSF) in support of SSF**. The network acts as a platform where members organize capacity building, exchange knowledge, share good practices, and provide support to other stakeholders to increase the provision of financial services to SSF.
5. To deepen the understanding of the value chain and which kind of financing different actors use, the project team undertook a **fisheries value chain financing survey** in April and May 2022. The overarching objective of the study was to understand and document how the economic benefits are transmitted to each node of the small-scale fishing value chain and how to improve socio-economic well-being of SSF and other value chain actors.
6. **Implementation of a training programme** to build capacity of BAAC's staff and staff of other local financial institutions related to financing small-scale fishers.

3. PROJECT IMPLEMENTING AGENCIES

APRACA

In 1977, under the auspices of FAO, rural finance and agricultural credit institutions in the Asian and Pacific region formally launched the Asia-Pacific Rural and Agricultural Credit Association APRACA (www.apraca.org).

APRACA's mission is to promote the efficiency and effectiveness of rural finance and improve access to financial services by fostering knowledge sharing and learning, capacity-building, research and exchange of expertise. APRACA thus helps to promote productivity, inclusive growth, self-reliance, and welfare of the rural poor in the Asia-Pacific region.

Currently, APRACA counts 89 members from more than 24 countries composed mainly of central banks, agricultural banks, development banks, commercial banks, apex organizations and federations of financial institutions, rural development institutions, Microfinance Institutions and non-government institutions in the region.

BAAC

The Bank for Agriculture and Agricultural Cooperatives BAAC (www.baac.or.th) was established in 1966 in Thailand. The bank's main objectives are:

- To provide financial assistance to individual farmers, farmer associations, and agricultural cooperatives that do their business in agricultural related and non-agricultural related activities.
- To provide knowledge and technology to farmers and their families in order to uplift their standard of living.
- To collaborate with other relevant agencies both governmental and in the private sector in order to support their business and agricultural related activities to increase their income and attain a higher standard of living.

The bank is almost exclusively owned by the Royal Government of Thailand and plays an important role in supporting and implementing government policies. The bank has a wide network of 1327 branches all over the country.

4. MAIN OUTCOMES OF THE PROJECT**Activity 1: stakeholder identification and mapping**

To prepare for the field assessment activities, APRACA undertook a stakeholder mapping exercise. The following lists comprise important stakeholders, such as fisherfolk organizations, financial service providers, and other stakeholders that support the Thai fishing industry.

1) Fisherfolk organizations:

These local and artisanal fisherfolk organizations have objectives like developing the fishing business, supporting the fisherfolk's way of life, conserving natural resources, and sustainably enhancing the local economy. Discussions with these groups were held to inform them about the activities of the project:

- Baan-Tung-Rin Horse Crab Bank Group
- Hoi Taaypow Leamson (Taay Tapow, or *Donax scortum*) Conservation Group
- Baanlompuen Artisanal Fishery Group
- Baan-Koa-Chine Artisanal Fishery Group
- Koh-Sarai Sub-district Artisanal Fishery Group
- Adung-Lipe Artisanal Fisheries Community
- Baan-Buloan Artisanal Fisheries Community
- Baanlaem District Coastal Fishery Association
- Phetchaburi Artisanal Fishery Club
- Bantungnoi Artisanal Fishery Association

2) Financial service providers:

Stakeholder	Stakeholder role – in relation to the activities of this project	Which active role could the stakeholder play in the project
1. Bank for Agriculture and Agricultural Cooperatives (BAAC)	<ul style="list-style-type: none"> To develop financial services to respond to the needs of small-scale entrepreneurs in rural areas, both for microcredit and savings. To promote working capital in communities via the People's Bank. To be the window of loan's disbursement and repayment of Village Funds (VF). To be the financial source to invest in the country's development of the public sector and state enterprise. 	Key implementing partner of the project. Provides finance to SSF via its existing liquidity programmes
2. Government saving bank		Specialized financial service provider to agriculture and its sub-sector including SSF (also including the cooperatives of the fishers)
3. Small and medium enterprise development Bank of Thailand (SME Bank)		Partner to provide finance to SSF
4. Office of insurance Commission	<ul style="list-style-type: none"> Regulating and developing the insurance business. Promoting the insurance sector to be part of the role to enhance the country's socio-economic strength and the well-being of the public. Protecting the insured's rights and benefits from the insurance system. 	Financial service provider, which provides credit to SSF whose vessel tonnage is more than 60 ton (gross)
5. Thai Credit Guarantee Corporation (TCG)	<ul style="list-style-type: none"> To assist small enterprises in obtaining a greater amount of credit from financial institutions. To strengthen the confidence of financial institutions in providing credit to small enterprises. To assist in the achievement of the small industry development target under the National Economic and Social Development Plan. 	Partner to provide finance to SSF
6. Rayong Fishery Cooperatives	<ul style="list-style-type: none"> Provide credit to SSF in Rayong Province. 	Financial service provider which provides credit to support fish value chains and SMEs
7. Ban Laem Fishery Cooperative Ltd.	<ul style="list-style-type: none"> Provide credit to fisherman in Ban Laem Petchaburi Province. 	To develop insurance business which is beneficial to SSF
8. Credit Union League of Thailand Ltd._	<ul style="list-style-type: none"> To encourage saving activities in Thai communities. To support financial management by the people, of the people and for the people. 	Supporting credit provision to SSF
		Interview partner Supporting credit provision to SSF
		Interview partner Supporting credit provision to SSF
		Support financial activities in communities

3) Other stakeholders in the fishing sector:

Name of the stakeholders	Role of the agency in relation to this project	Active role played by the agencies in the project
1. Department of Fisheries, Thai Government	<ul style="list-style-type: none"> To promote the Thai fishing industry while ensuring the sustainability of aquaculture and capture fisheries. To conduct and disseminate research and promote new technologies. 	Supporter of project activities throughout implementation
2. The Southeast Asian Fisheries Development Center (SEAFDEC)	SEAFDEC comprises of 11 member countries. The Center operates through the Secretariat located in Thailand and has five Technical Departments. The mission of SEAFDEC is: <ul style="list-style-type: none"> To promote responsible tropical marine capture fisheries. To expand networking and cooperation at a regional and international level. 	Develop policies and regulations to support SSF. Support networking among stakeholders
3. Aquatic Animal Health Research and Development Division, Royal Thai Government	<ul style="list-style-type: none"> To provide advanced knowledge and understanding of new and existing infectious diseases in aquatic animals. To develop effective disease control measures which will increase the efficiency of aquaculture production while protecting the environment. To improve food quality and safety of aquaculture products for the domestic and export markets. 	SEAFDEC has been tasked with a techno-economic analysis of Thai fishing fleets

4. Fish Marketing Organization	<ul style="list-style-type: none"> • Develop and manage landing sites and markets of aquatic products by setting sanitary and other standards. • Organize and bring prosperity to the fish landing sites and the fishing industry in general. 	
5. Marine Department (Ministry of Transport, Thai Government)	<ul style="list-style-type: none"> • To preserve the good condition of waterways. • To carry out inspection of vessels, deal with vessel registration and control water traffic. • To boost the transport of goods by sea in a safe manner. Encouraging the private sector to run the business pertaining to commercial ports, shipbuilding and sea freight and provide continuous training for the personnel in this field. 	
6. Thai Customs, Department of Consular Affairs	<ul style="list-style-type: none"> • To facilitate trade and promote national logistics systems. • To collect revenue in a fair, transparent and efficient manner. • Control the tax rate and the import costs of fishery instrument. 	
7. Ministry of Natural Resources and Environment	<ul style="list-style-type: none"> • To devise policies and transform them into an operational plan for managing natural resources and the environment at all levels. 	
8. Faculty of Fisheries, Kasetsart University 9. Department of Aquatic Science, Burapha University	<ul style="list-style-type: none"> • Offer degree programmes and high-quality research in the fields of fisheries, aquaculture, marine science, post-harvest handling of fish and fish processing technology. Also offer knowledge transfer and extension outreach programmes that foster economic prosperity and sustainable well-being throughout society. 	Provide technical assistance with regards to fishing. Inputs to training activities organized under the project
10. The Thailand Federation of Fisherfolk	<ul style="list-style-type: none"> • To be a channel to exchange and promote self-reliance and sustainability of fisherfolk. • To exchange on, recognize and analyse problems of the marine and coastal resource management for fisherfolk villages. 	Provide support in fishery resource management
11. National Fisheries Association of Thailand) Private sector)	<ul style="list-style-type: none"> • To receive grievances of fishermen from all over the country. • To be the fisherfolk representative towards government. • To develop production systems and promote the quality and safety of produce for consumers as well as to create the opportunity for Thai fishers to compete in the global market. 	Recommend regulations to the public sector, which are suitable for SSF
12. Thai Marine Finfish Farmers Association	<ul style="list-style-type: none"> • To promote marine finfish farming activities in Thailand. • To develop the marine finfish farming technology to be optimal in term of quality and quantity. 	
13. Marine Science Association of Thailand	<ul style="list-style-type: none"> • The network of academic organizations relevant to marine science of Thailand. 	Providing inputs to trainings and stakeholder events
14. Community development department (Royal Thai Government)	<ul style="list-style-type: none"> • To formulate policies, strategies, measures and guidelines for community development at the national level. 	
15. Cooperative Promotion Department (Royal Thai Government)	<ul style="list-style-type: none"> • To support registration, promotion, advice, and supervision of cooperatives. • To promote, support, develop and protect the cooperative system. 	
16. Community Organizations Development Institute	<ul style="list-style-type: none"> • To deliver public funds directly to communities to manage their own development. • To support the development and strengthening of community finance systems. 	

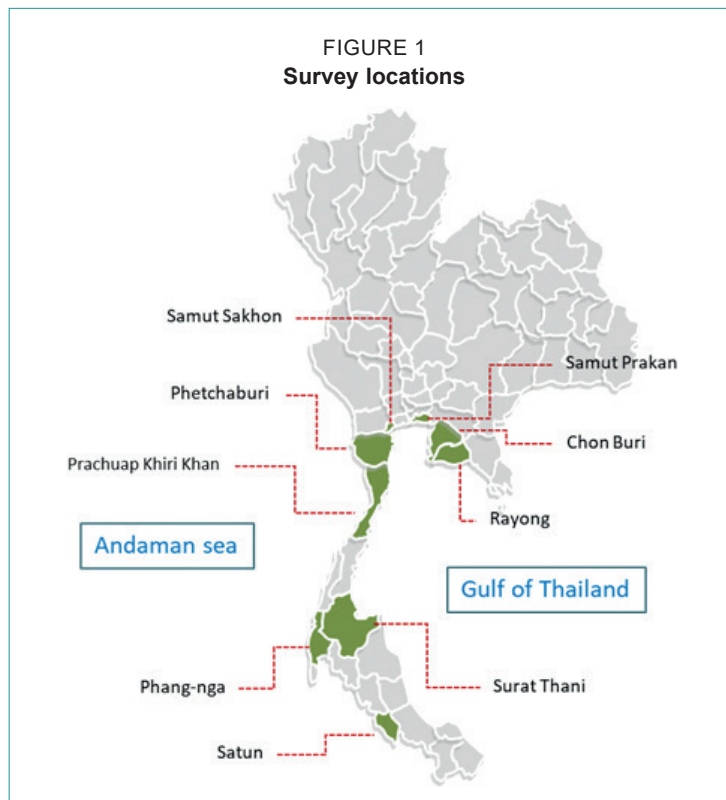
Activity 2: Access to finance survey

The project team organized three stakeholder surveys to learn about fisheries' access to finance. The objective of the surveys was to examine local fishers' business needs and challenges in accessing financial services (credit, savings and insurance). The surveys also helped financial institutions to identify opportunities to address the financial needs of SSF more effectively. The surveys were conducted with three different types of stakeholders:

1. **Individual SSF:** Personal interviews were conducted with 124 fishers; these were BAAC clients from 9 coastal provinces.
2. **SSF organizations** (cooperatives or associations): 11 institutions responded to online surveys.
3. **Financial institutions:** 9 financial services providers responded to online surveys.

Survey Locations

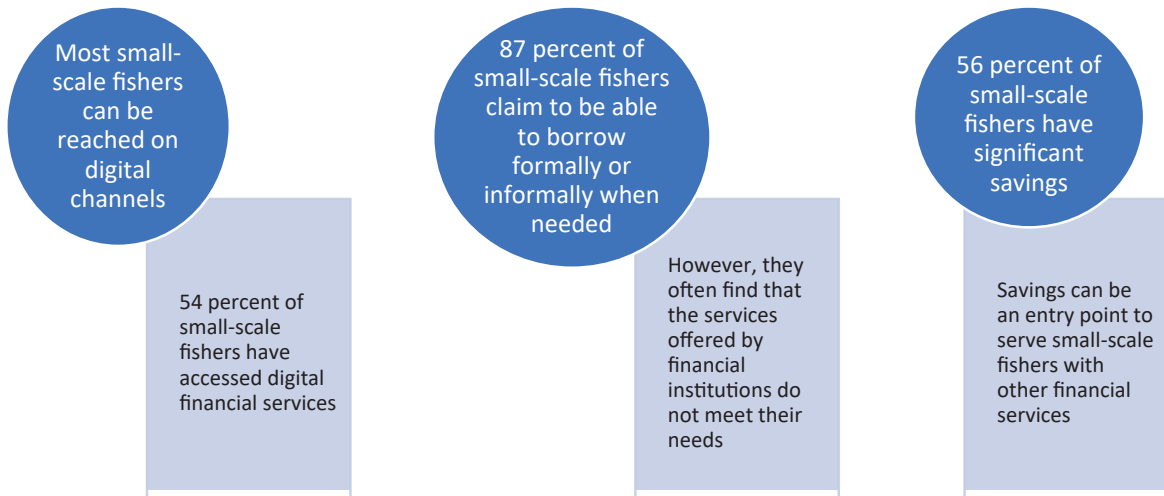
The data was collected from Thai small-scale fishers in 9 coastal provinces: Samut Sakhon, Satun, Chon Buri, Rayong, Phetchaburi, Prachuap Khiri Khan, Phang-nga, Samut Prakan and Surat Thani (Figure 1). These provinces were selected according to the following factors: (a) they represent the small-scale fishing business in 4 regions: Central, Western, Eastern and Southern regions; and (b) they are provinces with the greatest number of small-scale fishers and other actors in the fish value chain.



Source: DoF. 2020. Thailand.

Summary of findings

Highlights



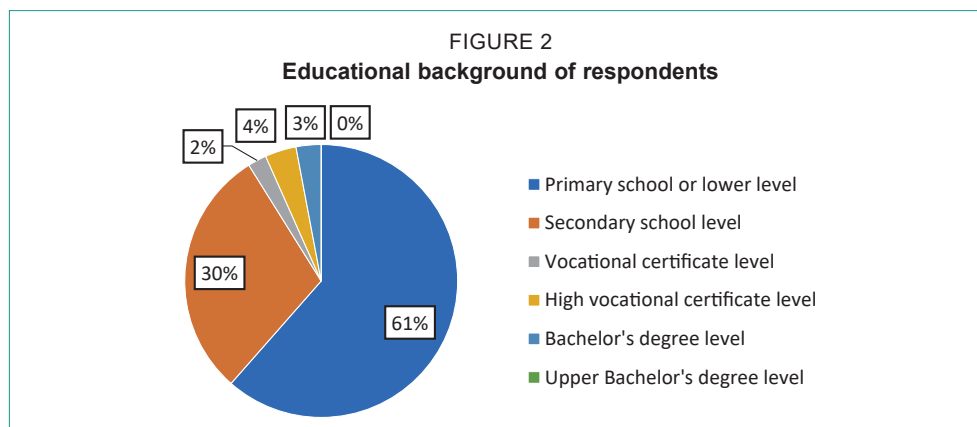
Small-scale fishers survey

TABLE 1

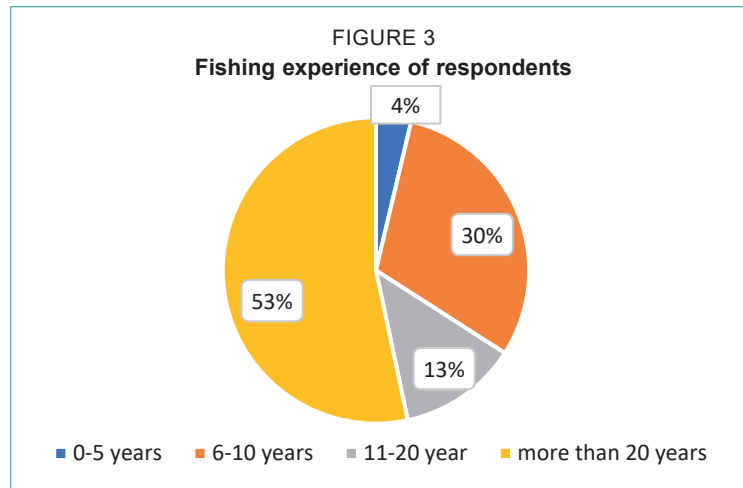
Demographic information of the survey respondents

Parameters	Percent (N=124)
A. Sex	
Male	73%
Female	27%
B. Age	
21–30	6%
31–40	24%
41–50	25%
51–60	36%
61 and above	9%
C. Marital status	
Single	10%
Married	67%
Unregistered marriage	19%
Widow/widower	4%

Source: DoF. 2020. Small-scale fishers access to finance survey. Thailand.



Source: Authors' own elaboration.



Source: Authors' own elaboration.

Out of the 124 fishers who responded to the survey, more than half have other sources of income besides fishing. The survey captured a diverse set of SSF. The reported average SSF fishing income is USD 6 450 per annum; this ranges from a minimum of USD 890 to a maximum of USD 28 050. To finance their investments in fishing operations, most of the SSF reported using their own or household savings as the first source, followed by loans from formal financial institutions and governmental funds. Moreover, 56 percent of respondents mentioned having significant personal savings or deposits at a bank. Only a few reported accessing finance from other sources such as relatives, friends, cooperatives, or self-help groups.

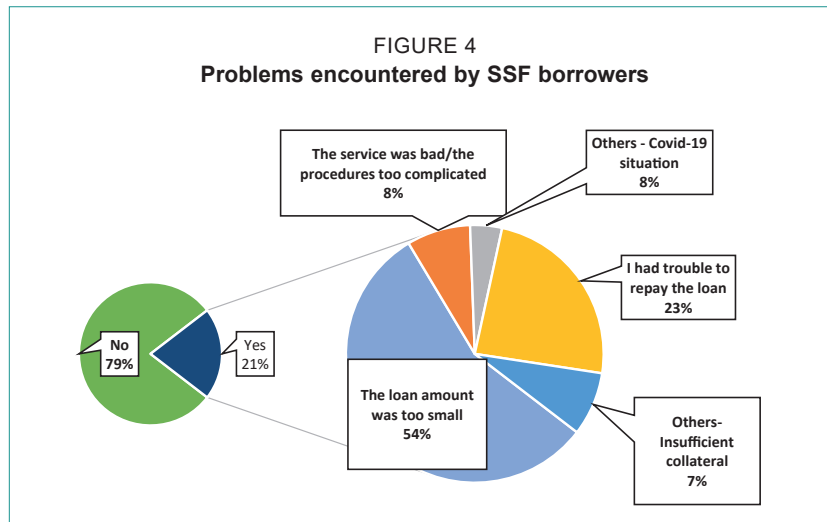
Despite the precarious financial situation of some SSF, 87 percent claim to be able to borrow formally or informally when needed. Results show that the average loan amount for those who borrow is USD 7 800, ranging from a minimum of USD 300 to a maximum of USD 38 000.

Digital channels can be used to reach SSF

The survey showed that most SSF can be reached through digital channels. Nevertheless, there is scope for increasing their use of such channels.

More than half of respondents have accessed digital financial services such as online banking. This data is in line with the generally positive attitude of the Thai population towards digital tools. Nearly 75 percent of SSF stated that they have adopted digital technology in their fishing business. However, only few of the SSF regularly use mobile money, online marketplaces and other online services to grow their businesses.

The survey results on their financial situations clearly show that SSF can be an interesting clientele for financial institutions. However, the survey also revealed that the services offered by financial institutions do not always meet the needs of small-scale fishers. Figure 4 shows that 79 percent of SSF that borrowed from BAAC did not face any major problems accessing or repaying their loans. However, 21 percent of SSF borrowers encountered some problems when accessing lending services. The main problems were inadequate loan amounts (mentioned by 54 percent of borrowers who reported problems); challenges to repaying the loans (23 percent); and poor service and overly complicated lending procedures (8 percent).



Source: Authors' own elaboration.

Long-term borrowing to buy fishing equipment

Three quarters of SSF with investment loans also have insurance covering their fishing equipment (e.g. vessels and engines). This may suggest that borrowing to buy fishing vessels is difficult without additional insurance. There is only one specialized insurance company that provides fishing vessels and equipment insurance in Thailand. Financial services providers might therefore consider teaming up with insurance companies or finding other innovative ways of securing lending to SSF for investment purposes (for example by using guarantees or leasing models). This might help to increase the subset of SSF that are able to borrow to invest in modernization of their equipment.

Fisherfolk organizations survey

The 11 fisherfolk organizations that responded to the survey all actively share information among their members and often also with non-members. They are involved in supporting the buying and selling of fish and building the capacity of their SSF members. Most of the fisherfolk organizations provide saving and facilitate credit services (8 out of 11 respondents), though fewer reported providing direct credit services (4 out of 11 respondents). None of the fisherfolk organizations provide insurance services. Being close to the everyday business of SSF, fisherfolk organizations are likely an important part of any programme to improve SSF access to financial services. By seeking ties with fisherfolk organizations, financial institutions may be in a better position to understand the fishing business, reduce transaction costs and reach more SSF.

Financial institutions survey

The nine financial institutions that responded to the survey offer a variety of services. Their common focus is on the provision of short-term loans to SSF, with the aim of recovering the loans quickly. Only three provide mobile money and accept online loan applications; two also provide online banking. One provides online training to the clients on financial inclusion, and two of them do not have any kind of digital services. These results demonstrate the need for financial institutions to improve digital services to reach out to SSF and other clients in order to be more financially inclusive.

Flexibility of financial services is important

A resident of Kapoe District under Ranong province received a working capital loan of USD 1 000 for small-scale fishing. He used the loan for recurring expenses during the Covid-19 pandemic; as he commented in the BAAC-APRACA fisheries finance survey:

“During the pandemic, my revenue decreased because the demand for fishing products dropped quickly. The revolving loan helped me to pay the necessary expenses. After an improvement in the overall situation, the government relaxed the lockdown, and my revenue gradually increased and returned to a near normal level.”

When the financial institutions were asked about how to increase their capacity to deliver financial services to small-scale fishers, the highest priority was given to accessing funds (grants) for carrying out training and capacity building programmes relevant to small-scale fisheries. Networking with fisherfolk organizations and creating partnerships with training institutes or dedicated consultants to deliver training to staff were also regarded as necessary. Some financial institutions are seeking financial support to start lending to fisheries.

The main outcomes of the surveys have been published in Financing small-scale fisheries in Thailand – Financing fisheries in Asia (FAO, 2022).

Activity 3: Analysis of the state of fishing technology used by SSF in Thailand

An analysis of the techno-economic performance of the major (small-scale) fishing fleets was conducted by SEAFDEC, to support the project with an assessment of the sustainability of currently used fishing technologies and operations in Thailand and options for innovation and improvements.

The objectives of the SEAFDEC work in support of the project were:

1. Provide an overview of the current situation in the marine capture fisheries sector in terms of the social, economic, and environmental sustainability of currently used fishing technologies and operations.
2. Identify options for innovation and improvements in fishing vessels, on-board equipment and gears that will contribute to social, economic, and environmental returns of the marine capture fisheries sector.
3. Estimate the costs and benefits of introducing the most promising innovations.

Stakeholders Consultation Meeting on “An assessment of the sustainability of currently used fishing technologies and operations in Thailand and options for innovation and improvements” was organized by SEAFDEC on 4 October 2021 at the Rayong Marine Fisheries Research and Development Center, Rayong Province, Thailand, in cooperation with the Department of Fisheries Thailand (DOF). The consultation was attended by nearly people, including 19 active fishers.

The findings of activity 3 are published by FAO in 2023 in Fisheries and Aquaculture Circular No. 1263 on the “Assessment of the sustainability of currently used fishing technologies and operations in Thailand: options for innovation and improvement”.

Activity 4: ThaiNet SSF

The stakeholder surveys conducted in 2021 confirmed the pre-existing notion that there is a need to bring stakeholders with an interest in financing SSF to a common platform. The project therefore developed and launched the Thailand National Network for small-scale fisheries finance (ThaiNet SSF). The network is a voluntary national platform to bring together systemically important agencies, organizations and companies actively supporting business development of SSF and the SSF-financing ecosystem. ThaiNet SSF will eventually form part of the Global network for capacity building to increase access of small-scale fisheries to financial services (CAFI-SSF Network). By actively engaging with the global CAFI-SSF Network, the ThaiNet SSF will benefit from domestic and regional experiences on good practices in implementing credit and insurance programmes for SSF.

APRACA organized three meetings dedicated to establishing the ThaiNet SSF. Initially, APRACA pitched establishing the network during an official meeting with the project stakeholders on 15 December 2021. The meeting identified stakeholders interested to join the network and finalized a Memorandum of Understanding (MoU).

APRACA in collaboration with the Bank for Agriculture and Agricultural Cooperatives (BAAC) and the Department of Fisheries (DoF), Royal Government of Thailand then organized a second official meeting with the stakeholders on 11 July 2022 to understand issues related to the sustainability of the network.

The third official meeting of the network's members was held on 12 September 2022 and was joined by nine organizations (BAAC, Department of Fisheries Royal Government of Thailand, FAO, Kasetsart University, SEAFDEC, Saving Corporate and Credit Union, Office of Insurance Commission). The 18 participants at this ThaiNet SSF meeting agreed to meet quarterly basis. APRACA will invite more potential members to join the network in the future. The participants agreed on the following guidelines for the network:

Objectives

- To act as a platform where members design and promote financial services as well as to develop and facilitate capacity building for SSF and their organizations and service providers with special reference to cooperatives.
- To serve as a venue for knowledge exchange, sharing experiences, best practices, advocacy and awareness raising to contribute to a more sustainable and economically viable small-scale fisheries sector.
- To act as a holistic partnership mechanism to strengthen small-scale fishing communities through financial services and capacity building activities.
- To provide the necessary support for the development of suitable financial services products tailor fit to the needs to the small-scale fisheries.
- To come up with a strategic work plan.

Proposed membership

- The ThaiNet SSF is a voluntary national platform to bring together systemically important agencies, organizations and companies actively supporting business development of SSF and its ecosystem.

- The members of the initial phase of ThaiNet SSF are composed of the institutions who expressed their willingness to be part of the network during the baseline survey of stakeholders. (government line departments, banking institutions, fishers' organizations, e.g. fisher cooperatives and private sector partners).
- During the next phase (scaling-up phase), it is foreseen to include other organizations engaged with the sector in supporting technology improvement, marketing and other development services.

Expected outputs of the network

- Development of a credit and microfinance programme for SSF in Thailand.
- Conducting capacity building and knowledge sharing events.
- Implementing information dissemination and advocacy campaigns.
- Fostering resource convergence.

Mechanics of working together

- Initially the members of ThaiNet SSF meet quarterly (via online platform till such time of COVID19 pandemic). The meeting will be coordinated by the designated person from the network/APRACA Secretariat.
- APRACA Secretariat Office in Bangkok shall act as the temporary secretariat of the ThaiNet SSF and based on the growth and popularity of the network, other agencies may consider to host the network.
- ThaiNet SSF will encourage the members to establish a standard operating procedure (SoP) and keep it open for further improvements.

The start of the ThaiNet SSF has been announced on APRACA's website and at the Rural Finance Learning Centre.¹

¹ A press message is available here: www.rfilc.org/events/a-promising-start-of-the-national-network-for-financing

Activity 5: Value chain finance survey

The project team undertook another field study in April and May 2022, to deepen the understanding of the fish value chain and better understand which kind of financing different actors in the fish value chain use. The fish value chain finance survey conducted during the field study covered the coastal provinces of Prachuap Khiri Khan, Petchaburi and Chonburi in the east of Thailand.

The overarching objective of the study was to understand and document how economic benefits are transmitted to each node of the small-scale fisheries value chain and how to improve socio-economic well-being of the small-scale fishers by enhancing their access to financial services, business development services and markets.

The study surveyed which type of actor in the value chain uses which types of loan. This will help financial institutions to better understand the kind of customers they are dealing with. Another key aspect of the survey was to find out about the profitability of the value chain actors' businesses through analyzing their income and expenses.

The survey was conducted through focus-group discussions and key informant interviews using structured questionnaires (in Thai language) administered in the two geographical locations identified by BAAC and with the support of the BAAC branches/offices.

The respondents were both direct value chain actors as well as business development service providers. Tables 2 and 3 summarize the set of respondents.

TABLE 2

List of direct actors in small scale fish value chains

Value chain actors	Sample size	Process of identification/visit
Small-scale fishers	38	Identified by the local branch/office of BAAC and fishers' cooperatives
Fish aggregators/graders: • collectors/aggregators at the fish landing stations/market yards	5	Visited the fish landing stations Visited the village-level aggregators as per the information from the SSF
Processors: • fish dryers • fish processors (domestic market /export market)	2 2	Visited the fish dryers at the villages Visited the processing cooperatives etc.
Retailers/marketers: • fish vendors in wet markets • restaurants • street-side vendors	10 5 10	Visited two wet markets and collected data Visited the local sea-food restaurants Visited street-side vendors during daytime

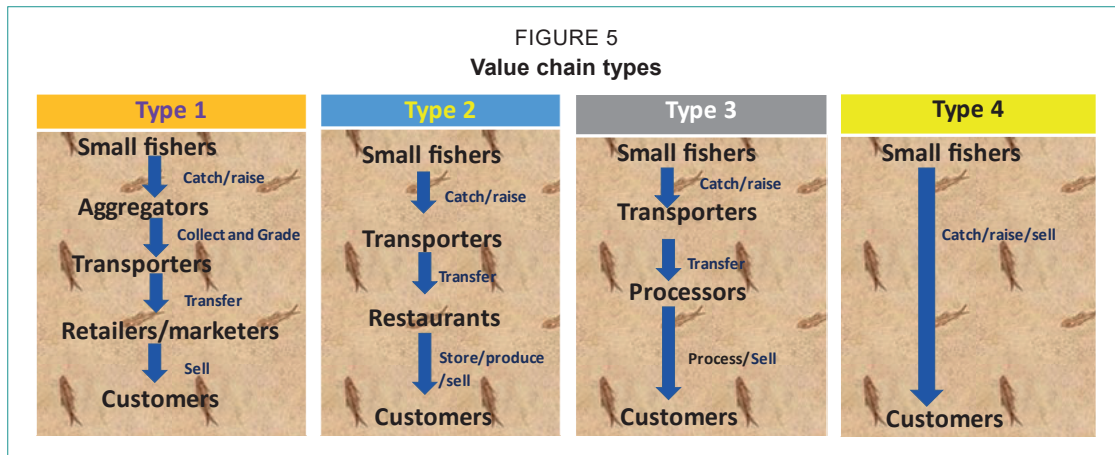
Source: DoF. 2020. Small-scale fishers access to finance survey. Thailand.

TABLE 3

List of business development providers (BDS)

Business development providers	Sample size	Process of identification/visit
Transporters: • small pick-up vans • organized transporters	10 2	Identified from local enquiry and visited the fish landing stations and checked with the transport operators
Ice factories: • near the fish landing stations • at the wet markets and other areas	5 5	Checked with the fishermen/aggregators Visited the wet market
Cold storage suppliers: • stand-alone cold storage • wet market cold storage	2 2	Visited the cold storage and collected data Visited the cold storage at the wet markets
Financial institutions: • commercial banks (including BAAC) • cooperative banks • Village Funds (VF) / Community Financial Institutions (CFI)	3 4 6	Visited branches of the commercial banks (BAAC, Government Savings Bank (GSB), Krungthai Bank etc.) Visited local cooperative banks extending finance to the actors in the value chains Visited the VFs and CFIs to check their response to fishery finance
Fishermen's cooperatives	2	Recorded the roles of the fishers' cooperatives in supporting SSF to improve their business skills

Source: DoF. 2020. Small-scale fishers access to finance survey. Thailand.



Source: Authors' own elaboration.

Various fish value chain arrangements could be identified. Figure 5 presents a summary of the most common arrangements. The differences in products and locations (e.g. frozen vs. fresh, easily perishable, remote vs. nearby market) make certain types of value chains more or less suitable.

The survey found that a majority of the value chain actors run profitable businesses making them interesting clients for financial institutions. Sixty one percent of the fishers interviewed realized a net profit in the survey year (2021–2022), while 39 percent were loss-making. The COVID-19 pandemic may have affected profitability significantly, due to transport restrictions and a lower demand for seafood for part of the year. Three out of five aggregators achieved solid profits, while the other two made small losses. Similarly, two out three processors of fish achieved solid profits, while one made a small loss. All restaurant owners were operating at a profit. The largest profits were recorded for the owners of cold storages, who run the largest operations and hence made the largest profits.

Findings include the fact that value chain actors such as aggregators, processors, and restaurants act as quasi-financial institutions by providing advance payments and credit to small-scale fishers to support them in their work. BAAC and two commercial banks continue to provide financing to fish value chain actors on preferential basis, also with long-term loans. This kind of preferential financing remains important to the wider industry.

The findings suggest that commercial partnerships can provide stable incomes: contract buying, long-term relationship-based partnerships, capital investment by the buyer and equity provision by the buyer are possible working mechanisms.

Group-producers-driven associations could become drivers of growth. The associations' intervention and quality accreditation can provide incentives to buyers to pay more because of prestige and, brand recognition. Since sophisticated end-consumers eat in a restaurant and pay premium prices for fishery products, SSF can opt to link up directly with restaurant owners as their buyers.

Besides the findings on SSF financing, the survey confirmed various policy recommendations, such as:

- The government might consider to help SSF to set up non-profit organizations such as associations or foundations, in every tambon (Thailand's smallest geographic unit) in the coastal provinces.
- SSF should join fishers' communities, associations or cooperatives in order to increase information exchange among members. The members also share technologies, tools and machinery. As a group, the fishers will have more power to negotiate.
- Small-scale fishers need to have more centralized sources of information for market data and technical and financial advice.

Activity 6: Training and capacity building

Terms of references (ToR) for capacity building tool kit

The project team prepared the terms of reference for designing and delivering a training programme on accessing financial services by small-scale fishers. The programme was based on the findings of the survey and an analysis of the financial services needs of the stakeholders in Thailand.

The main objective of developing and delivering a Training of Trainers (ToT) was to build the capacity of local business development and finance officers. It was envisioned that the targeted trainees are the future trainers so the training programme can be integrated into BAAC's and APRACA's mainstream training schedule. In nutshell, the training programme was targeted to generate awareness on the (financial) services available for SSF with respect to: (a) the eco-system of services available for SSF in Thailand; (b) the availability of financial services for the agriculture and the fisheries sectors with special reference to small-scale producers; (c) the documentary requirements of the financial institutions to extend lending to SSF; and (d) capacity building of the SSF to link them with other actors in the value chain.

First delivery of trainings in 2021

BAAC delivered two trainings after categorizing participants into two groups: (a) the first group of trainees (21 participants) was drawn from the staff of BAAC (business development officers) from 9 coastal provinces (Rayong, Chonburi, Samut Prakan, Samut Sakhon, Phetchaburi, Prachuap Khiri Khan, Surat Thani, Phang Nga and Satun) and (b) the second group of trainees (24 participants) was drawn from representatives of the provincial officers of BAAC in coastal areas and representatives of other project stakeholders. The trainings were delivered on 26 October and 10 November 2021 and each group received three hours training.

In the discussions at the end of the trainings, the participants: (a) proposed to extend the loan payments by SSF via mobile phone banking; (b) suggested to increase the credit limit of SSF customers under the COVID-19 situation; (c) proposed extended repayment periods and more flexible criteria; and (d) were interested to extend the training time to 5 hours to include more discussions on good practices.

Updating of the training in 2022

BAAC supported the APRACA Secretariat to update and revise the training toolset which was then used to deliver more trainings for loan officers in financial institutions and government line departments of Thailand. The revised training toolset comprises of three sub units:

- Part 1: an updated training story board based on the feedback from the training delivered in 2021;
- Part 2: six presentation decks (Thai and English), and;
- Part 3: four new case studies from the field for discussions.

BAAC delivered two additional trainings on 28 June and 7 July 2022 after updating the training toolsets. The trainings were attended by 86 trainees (for both trainings) who were drawn from farmer's cooperatives, community enterprises and BAAC loan officers from 9 coastal provinces (Rayong, Chonburi, Samut Prakan, Samut Sakhon, Phetchaburi, Prachuap Khiri Khan, Surat Thani, Phang Nga and Satun) and 9 non-coastal provinces of the country.

The sessions included in the training toolset included:

Session 1: The role of BAAC in sustainable development of fisheries

The overarching objective of this session was to explain the role of BAAC in supporting small-scale fishermen to use appropriate technology, methods or fishing gear for sustainable fisheries in Thailand. The session also gave an overview of the stakeholders and their geographic distribution. The session paid attention to the numerous public, private, and international organizations which are involved in

financing directly or supporting the financing of small-scale marine fishers. The areas concerned in Thailand include at least 23 provinces nearby the east and west coast of the country. The session was presented by BAAC's Vice President of Personal Credit Department.

Session 2: Introduction to sustainable fisheries in Thailand

The objective of this session was to provide in-depth information on the agriculture and fisheries sector in Thailand. The session explained the challenges faced by small-scale fishers and the reasons why the Government of Thailand and the private sector support sustainable fisheries.

This session was presented by several colleagues from the from the Department of Fisheries: 1) the Head of the Fisheries Resource Assessment Group 2) the Director of Marine Fisheries Research and Development, and 3) the Director of Coastal Aquaculture Research. The session covered the following topics:

- Overview of the situation of fisheries in Thailand
- Fisheries management under the current and previous fisheries laws
- Management measures and policies for sustainable fisheries
- Technology for sustainable fisheries
- Sustainable aquaculture

Session 3: Liquidity support for fisheries entrepreneurs project

The objective of this session was to provide information about the BAAC's specific financial products for SSF borrowers. A credit analyst from BAAC presented an overview of the type of credit provided by BAAC. It was outlined that BAAC provides credit categorized by group of lender (e.g. individuals and juridical persons) or by objective (e.g. working capital, fund). The session made special reference to the liquidity support BAAC has set up in the wake of the policies by the Royal Thai Government to combat illegal, unreported and unregulated (IUU) fishing.

Session 4: Financial products and services for small-scale fisheries

The objective of this session was to introduce the internal credit provision process of BAAC for small-scale fisheries as well as the features of a range of other financial services available for the SSF in Thailand. The participants also learned about the characteristics, qualifications and contact details of the different credit services providers for SSF. The session was presented by a credit analyst from BAAC and covered all parts of the loan process, before and after approval, and what happens when loans are overdue.

The session laid out what good credit standards are:

- Good credit policy: Appropriate credit for the mission and needs of customers.
- Good structure: Appropriate operating unit for providing loans in accordance within the policy.
- Standardized credit analysis: Clear standard credit analysis process and criteria, under the supervision of the Bank of Thailand.
- Appropriate analytical tools: Set loan/interest limits according to the type and risk of the customers.
- Good follow-up process: Good management, follow-up, and inspection of loan use to assess the potential and ability of repayment.
- Good credit culture: Transfer work experience to other employees.

Session 5: Collateral and risk management

The objective of this session was to explain the process regarding collateral and risk management that the board, management and staff co-created and which is applied in the formulation of all strategies and operations at BAAC. The process aims to identify important events that may occur and affect the organization and to manage risk to an acceptable level as well as to create some assurance about the achievement of the objectives and goals of the organization. This session was presented by the Assistant Senior Vice President of Risk Management Department from BAAC.

A synopsis of the updated training slides can be found in Annex 1 of this circular.

Case studies:

The project team identified several case studies to demonstrate challenges and opportunities in the sector. The following two cases are examples of the case studies used both for the purpose of the trainings as well as for communication material.

1. Case study - Jan Jao fish market and fish dock



Jan Jao is a fish market in Don Sak District, Surat Thani Province. The fish market is operated by Thanyarat Musikin, who is a beneficiary of the BAAC's *Fisheries Entrepreneurs' Liquidity Enhancement Loan Program*.

Jan Jao fish market began operating in 2012. Initially, the business focused on the collection and purchase of catch from fishermen; the marine products bought included fish, squid, blue crab, mangrove crab and shrimp. A few years later, the operator also invested in some fishing vessels. She sells the produce caught by her own vessels and purchases from other fishers to both large and small customers, in wholesale and retail markets.

The reason for investing in fishing vessels was to solve the problem of inconsistent supply of seafood products, and to better meet customers' demands. The investment ultimately helped to solve the problem and increased income. Without the adequate financial support from BAAC, Jan Jao fish market could not have developed the successful business model it has today. All the inputs necessary to fishing operations are acquired locally, including ice, fuel, labour, and repair services. The development of the fish market has therefore helped to foster the demand for goods and employment in the local community.

The Jan Jao fish market makes extensive use of digital tools to organize its operations. In recent years, the fish market has also provided financial assistance to fishers who supply the market with seafood, covering operational expenses such as ice and fuel, as some of the fishers were unable to borrow from financial institutions. The costs of fishing operations are continuously increasing. Investments are needed in new fishing gears that meet Thai Department of Fisheries standards, as well as working capital to cover the costs of vessel maintenance, fuel, ice, labour and food. The business relationship between the Jan Jao fish market and BAAC supports musik-in to maintain a thriving business and helps BAAC achieve its fisheries development agenda.

2. Case study – A commercial fishing boat operator, Mr Panya Kongrat



Mr Panya Kongrat, 55, is a participant of the *credit project for enhancing liquidity of local fishermen and commercial fisheries operators* of BAAC.

From 2014–2019, Mr Kongrat used to undertake his fishing operation by push net. However, when a newly enforced law banned fishing using push nets in the Gulf of Thailand in 2020, he had to change his fishing method from using push net to trawling to comply with the second revision of the *Fisheries Act* in the same year. He then joined the BAAC project in order to get a loan for modifying his fishing vessels to suit the method of trawl fishing.

He mortgaged his 3 fishing vessels as collateral for BAAC loans. The mortgage was used to guarantee a loan with a repayment period of 5 years. Mr Kongrat used the loan to cover operational expenses as well as to invest in improvements and replacements for his vessels.

The change of fishing method and the vessel modifications put a heavy cost burden on his fishing operations. This included the cost of installing a Vessel Monitoring System (VMS) communication equipment, and the monthly subscription fee to the service provider. On top of that, during the period of vessel improvement, the fishing activities had to be stopped. Mr Kongrat allowed his crew to temporary leave to work for other fishing operators due to lack of income in the vessel modification period, until the work on the vessels was completed.

Despite of such challenges, Mr Kongrat fully supports the decision of the Department of Fisheries to limit fishing periods and install restricted areas for aquatic animal conservation. This shall help nature to recover and to increase the survival rate of young aquatic animals, including the fish species he targets.

Mr Kongrat says that the government should improve the dissemination of knowledge to fishermen on aquaculture and promote areas for aquaculture to increase fishermen's income opportunity during the spawning season when fishing is not allowed. Fishermen could earn income from aquaculture to compensate for loss of income due to a closed fishing season. Farming of aquatic animals with economic value, such as blue crab or other shellfish, can also be of help to reduce unemployment among fishing boat workers in the closed fishing season.

5. LESSONS LEARNED AND RECOMMENDATIONS

Throughout the project cycle, the project team gathered feedback from stakeholders to distil lessons learned and formulate policy recommendations:

- ***Develop capacity building and training programmes to enhance the small-scale fishing business***

Many SSF in Thailand are actively adopting innovations and changing their fishing equipment to meet the requirements of the new fisheries law and the “IUU-free” strategy. Most survey respondents are eager to join business enhancement programmes to learn about new technologies. Establishing a nationwide capacity building programme will help SSF and other seafood value chain stakeholders.

The survey identified three critical training areas: (a) financial literacy training, (b) training on new fishing technologies, and (c) marketing and sales training. Financial institutions can play a role in helping SSF develop their businesses by providing training and creating linkages with business development service providers.

- ***Enhance access to finance by leveraging partnerships with fishing sector organizations***

Fisherfolk organizations play an important role in facilitating credit and microfinance services provision in Thailand. Financial service providers should team up with them to develop suitable financial products for SSF, enabling modernization and a transformation into a sustainable fisheries sector. Small-scale fishers who are member of a fishing cooperative or association already find it much easier to access financial services.

- ***Develop of long-term credit and tailormade financial services***

Many financial service providers in Thailand provide only short-term credit to SSF to support their daily operational finance requirements. However, the current low levels of long-term lending inhibit the uptake of modern fishing technology. This also negatively impacts capital formation at the household level. The use of guarantees or teaming up with insurance providers might help to better secure longer-term lending for fisheries investment purposes.

- ***Promote digital finance***

The accessibility to financial services via online platforms is highly popular among SSF in Thailand. However, many credit services cannot be accessed currently through digital platforms, because of various reasons, such as absence of two-step security verification mechanisms. Opportunities to extend the reach of digital channels among SFF seem plentiful and include raising awareness of new finance products among SSF.

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ANNEX 1

Training material

Training
Part 1
BAAC's role in promoting sustainable fisheries' development

Credit procedure for small scale fishery business: Overview

Bank for Agriculture and Agricultural Cooperatives

Total fishing areas: 23 provinces

- Andaman coast
6 provinces.
- Gulf of Thailand
17 provinces.

Related parties

Government agencies
Private sector
International institutions

Financial institutions

Banks	Other financial institutions
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Source: BAAC. 2020. Thailand.

Credit procedure for small-scale fisheries: Credit features

Bank for Agriculture and Agricultural Cooperatives

Characteristics of loan

Customer groups

- Individuals
- Legal entities (groups, enterprises etc.)

Objectives

- Working capital (for daily operation)
- For fishery investment



© BAAC




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Normal credit



Credit with general terms and conditions. No lenient terms and conditions for loan.



Credit supported by government/international organizations with lenient loan terms.

Special credit

Training

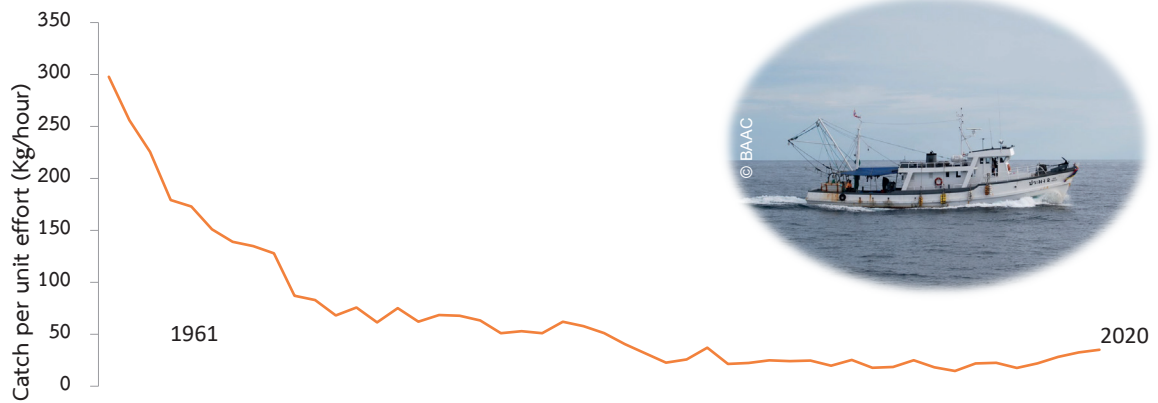
Part 2

Sustainable fisheries in Thailand

Content

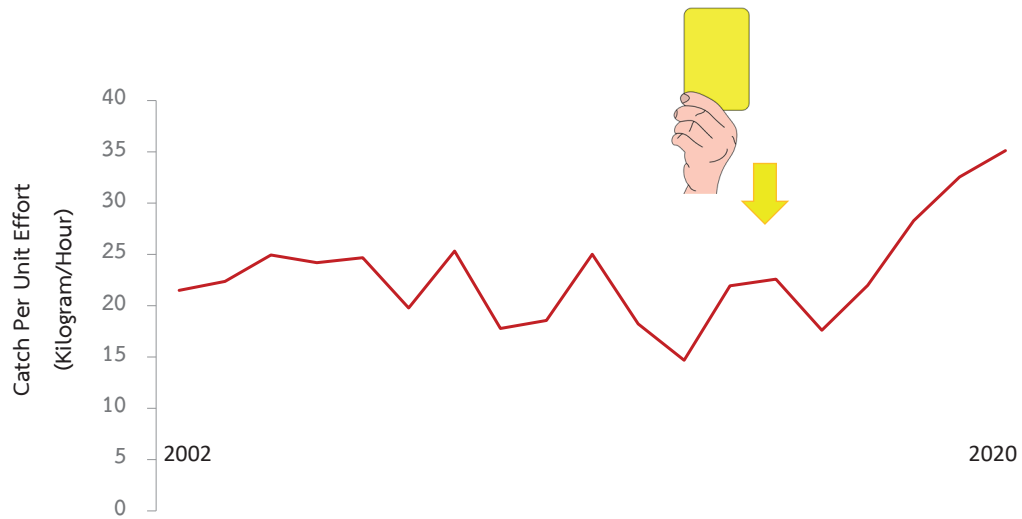
- Thailand's marine fisheries.
- Fisheries management under fisheries law.
- Fisheries management and sustainability.
- Fisheries outside Thai waters.

Catch per unit effort (CPUE) in the Gulf of Thailand



Source: DoF. 2020. Thailand.

Catch per unit effort (CPUE) in the Gulf of Thailand



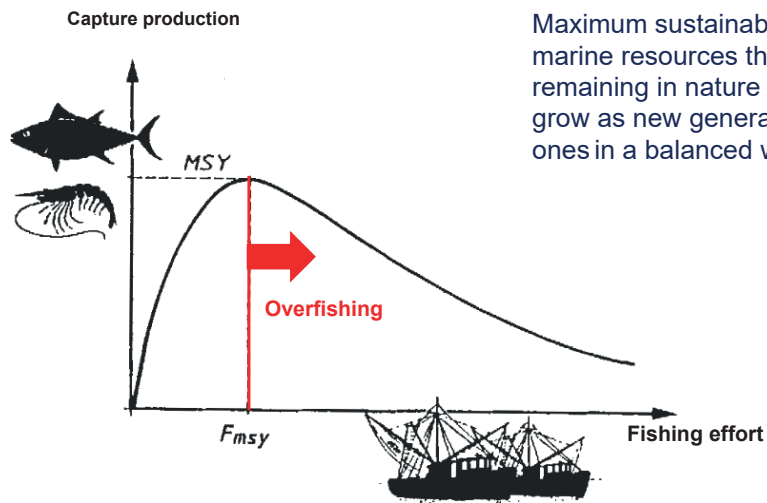
Source: DoF. 2020. Thailand.

Table 5
Inland waters capture production: Major producing countries

Country	Production (average per year)			Production				Percentage of total, 2018*
	1980s	1990s	2000s	2015	2016	2017	2018	
<i>(million tonnes, live weight)</i>								
Top 25 Inland water capture producers								
China	0.54	1.46	2.11	1.99	2.00	2.18	1.96	16
India	0.50	0.58	0.84	1.35	1.46	1.59	1.70	14
Bangladesh	0.44	0.50	0.86	1.02	1.05	1.16	1.22	10
Myanmar	0.14	0.15	0.48	0.86	0.89	0.89	0.89	7
Cambodia	0.05	0.09	0.34	0.49	0.51	0.53	0.54	4
Indonesia	0.27	0.31	0.31	0.47	0.43	0.43	0.51	4
Uganda	0.19	0.22	0.33	0.40	0.39	0.39	0.44	4
Nigeria	0.10	0.10	0.21	0.34	0.38	0.42	0.39	3
United Republic of Tanzania	0.25	0.29	0.30	0.31	0.31	0.33	0.31	3
Russian Federation	0.09	0.26	0.22	0.29	0.29	0.27	0.27	2
Egypt	0.12	0.23	0.27	0.24	0.23	0.26	0.27	2
Democratic Republic of the Congo	0.13	0.17	0.23	0.23	0.23	0.23	0.23	2
Brazil	0.20	0.18	0.24	0.23	0.22	0.22	0.22	2
Mexico	0.10	0.11	0.11	0.15	0.20	0.17	0.22	2
Malawi	0.07	0.06	0.06	0.14	0.15	0.20	0.22	2
Thailand	0.10	0.18	0.21	0.18	0.19	0.19	0.20	2
Philippines	0.26	0.19	0.15	0.20	0.16	0.16	0.16	1
Viet Nam	0.11	0.14	0.21	0.15	0.15	0.16	0.16	1
Pakistan	0.07	0.13	0.12	0.13	0.14	0.14	0.14	1
Chad	0.05	0.08	0.08	0.10	0.11	0.11	0.11	1
Iran (Islamic Republic of)	0.01	0.09	0.07	0.09	0.09	0.10	0.11	1
Kenya	0.09	0.18	0.14	0.16	0.13	0.10	0.10	1
Mozambique	0.00	0.01	0.02	0.09	0.10	0.10	0.10	1
Mali	0.07	0.09	0.10	0.09	0.10	0.11	0.09	1
Ghana	0.05	0.06	0.08	0.09	0.09	0.09	0.09	1
Top 25 producers	4.01	5.86	8.08	9.79	10.01	10.53	10.64	89
Total all other producers	1.69	1.19	1.19	1.36	1.36	1.37	1.38	11
All producers	5.70	7.05	9.27	11.15	11.37	11.91	12.02	100

Source: FAO. 2020. The State of World Fisheries and Aquaculture 2020. Sustainability in action. Rome. <https://doi.org/10.4060/ca9229en>.

What is maximum sustainable yield (MSY) ?



Maximum sustainable yield (MSY) is the maximum marine resources that can be utilized while the remaining in nature are still able to reproduce and grow as new generation to replace the captured ones in a balanced way.

Source: DoF. 2020. Thailand.

What are the measures of fisheries management

Fisheries management system reform

Past

Fisheries Act B.E. 1947
Open access fishery

Present

Royal Ordinance on Fisheries 2015
Limited access fishery

Specific fisheries management measures

Use or possession of the following fishing gears are prohibited

- Stow nets.
- Folding pots or I-NGO.
- Trawls with mesh size at the bottom defined by announcement.
- Push net except for catching krill.
- Surrounding nets with mesh size less than 2.5 cm catching at nighttime.

Specific fisheries management measures

Defining coastal sea areas

Within 3 nautical mile areas.
Indigenous fishing boats < 10 gross tonnage.



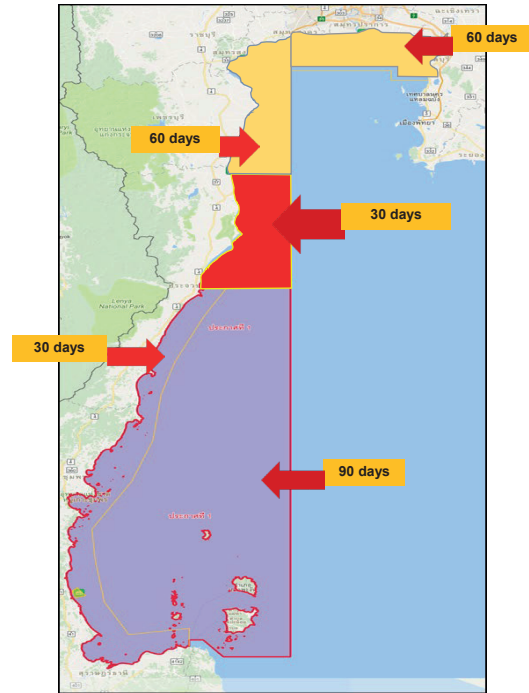
Outside the 3 nautical mile areas.
Commercial vessels \geq 10 gross tonnage.



Specific fisheries management measures

Total ban on fishing in certain areas, seasons (coastal closure)

- Gulf of Thailand
- Andaman Sea



Source: DoF. 2020. Thailand.

Specific fisheries management measures

Maximum number of fishing days

<u>Types of fishing gear</u>	<u>Gulf of Thailand</u>	<u>Andaman Sea</u>
Trawl nets.	240 days/year	270 days/year
Surrounding nets.	240 days/year	255 days/year
Surrounding net/ falling nets/lift nets used for catching anchovies.	255 days/year	225 days/year

Specific fisheries management measures

Fishing licensing

- No new fishing vessel registration.
- License for commercial fisheries to be granted to existing holders of the old licenses only.

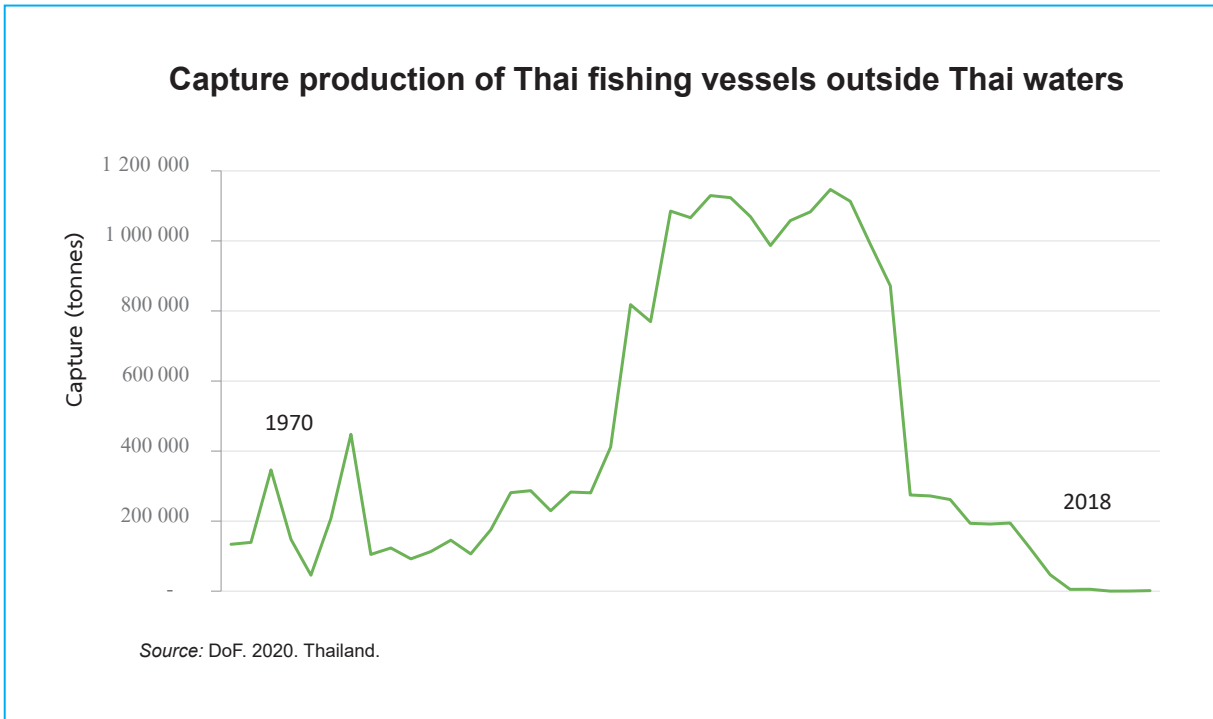
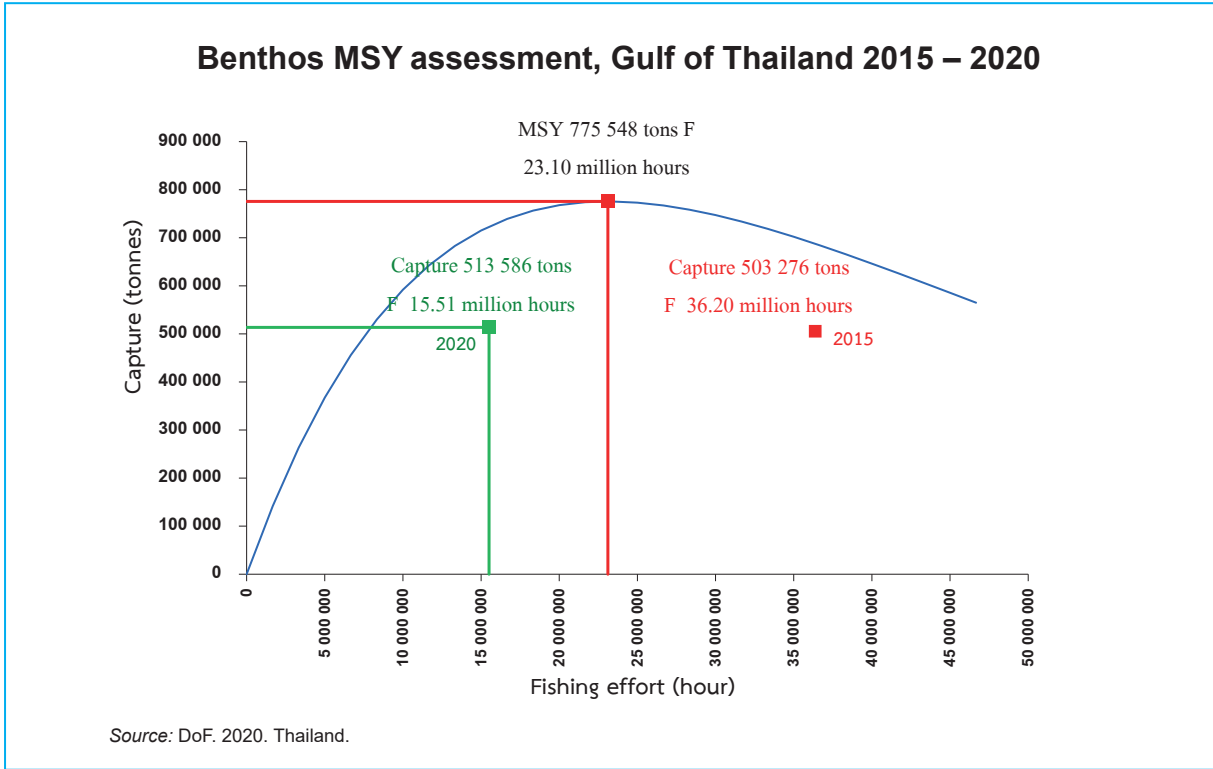


Source: DoF. 2020. Thailand.

Capture production and level of fishing effort, 2015 and 2020

Marine animal groups	2015			2020		
	MSY (ton)	Capture production (ton)	Level of fishing effort (% Fmsy)	MSY (ton)	Capture production (ton)	Level of fishing effort (% Fmsy)
Gulf of Thailand						
Benthos	794 771	503 276	148.76%	775 548	513 586	67.12%
Pelagic fishes	248 176	245 986	136.95%	247 880	220 100	70.65%
Anchovies	191 785	183 216	100.88%	200 092	92 298	20.48%
Andaman sea						
Benthos	240 519	177 684	105.63%	228 348	226 493	75.13%
Pelagic fishes	118 477	99 039	119.70%	117 514	117 105	63.30%
Anchovies	32 944	33 903	99.05%	32 090	28 435	40.42%

Source: DoF. 2020. Thailand.



Training

Part 3

Fisheries entrepreneurs' liquidity enhancement Loan Programme

Credit Project for enhancing liquidity of fishery entrepreneur

Related parties

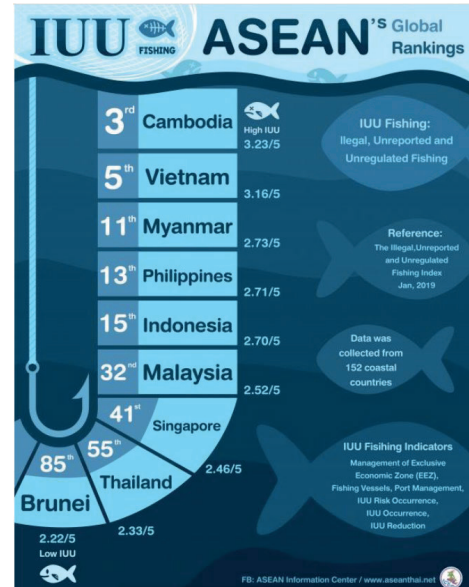
1. Department of Fisheries.
2. Marine Department.
3. Thai Credit Guarantee Corporation.
4. Fishery Associations in the Provinces.
5. Bank for Agriculture and Agricultural Cooperatives.
6. Government Savings Bank.



Fishery Code of Conduct in Thailand

- Royal Ordinance on Fisheries 2015.
- Second Royal Ordinance on Fisheries 2017.
- Compliance with fishery rules and regulations in combating IUU fishing.

I = Illegal fishing
 U = Unreported fishing
 U = Unregulated fishing



Project objectives (Cabinet resolution: May 2020)

Provide assistance to fishermen who are affected as a result of complying with the measures to fight IUU fishing by providing funds for improvement of fishing boats and fishing gears. The specific objectives are:

- To help the fishing industry to meet universal standards and Thai law.
- To bring about a sustainable conservation of the natural resource.
- To maintain food security.
- To conserve the fishery profession for ever.



Project features

- **Target group:** Thai fishermen who are affected as a result of complying with fishery regulation.
- **Project areas:** 22 provinces around Gulf of Thailand and Andaman sea.
- **Total credit limit:** 5 300 million Baht.
- **Interest rate:** Fishermen pay interest at the rate of 4%.
 - Project interest rate: 7%.
 - Government subsidy 3%.



Project features

Requirements to be an eligible borrower:

1. A fishery entrepreneur registered with BAAC pursuant to regulation No. 44.
2. A permit that authorizes to undertake fishing operation and to join the project with Department of Fisheries or with local fishery association.
3. Ownership of a fishing boat registered as a Thai vessel.
4. At least one year of fishing experience.
5. Not a member of the Office of Farmer's Reconstruction and Development and never joined a combined contract restructuring.
6. No outstanding balance with the same purpose and no overdue loan.
7. Under this project, a borrower can join with only one bank, either Government Savings Bank or BAAC.



Project features

- **Operation period:**
 - Credit for covering operation expenses: repayment date not later than 31st March 2027.
 - Credit for investment: extension of loan disbursement date not later than 30th April 2026.
- **Collateral :**
 - Land or land with a building mortgage.
 - Joint liability group (separate credit limit).
 - Fishing boat mortgage.
 - Personal guarantor is not permitted.



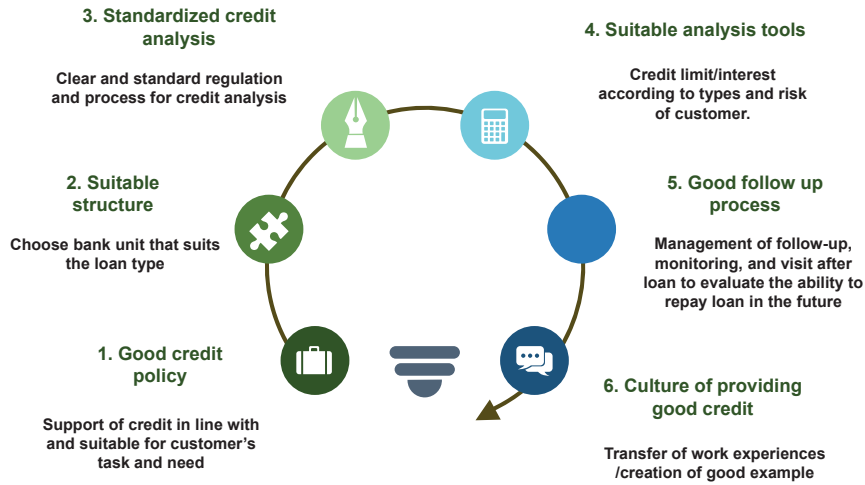
Training

Part 4

Lending process and loan repayment

Credit procedure for small scale fishery business: Credit standard

Bank for Agriculture and Agricultural Cooperatives



Credit procedure for small scale fishery business: Credit analysis principle

Bank for Agriculture and Agricultural Cooperatives

The **3P and 5C analysis** principle is applied to collect and examine information and facts concerning the request for a loan to guarantee a complete and sufficient input of information for screening and risk analysis; all in support of the approver to make a right and quick decision.

<u>Purpose</u> of requesting credit	<u>Payment</u> the ability to repay	<u>Protection</u> from risk
Character Experience in business knowledge/expertise <u>Willing to pay</u>	Capacity in production <u>Ability to pay</u>	Capital His/her own fund debt policy <u>Source/use of fund</u>
		Collateral <u>Loan to value</u>
		Condition Economic/social/legal/ environmental conditions <u>Approval conditions</u>

Credit procedure for small scale fishery business: credit analysis principle

Bank for Agriculture and Agricultural Cooperatives

Ability to pay

1. ICR, interest coverage ratio.
2. DSCR, debt-service coverage ratio.



Return ratio

1. Gross profit.
2. EBITDA, earnings before interest, taxes, depreciation, and amortization.
3. ROA, return on assets.



Ability to incur debt

1. Debt/equity.
2. Debt/assets.



Financial liquidity

1. Current ratio.



Credit procedure for small scale fishery business: Credit analysis principle

Bank for Agriculture and Agricultural cooperatives

“for prudential screening of credit need;
for reducing risk of credit provider and credit receiver; as tools for approver to make decision”

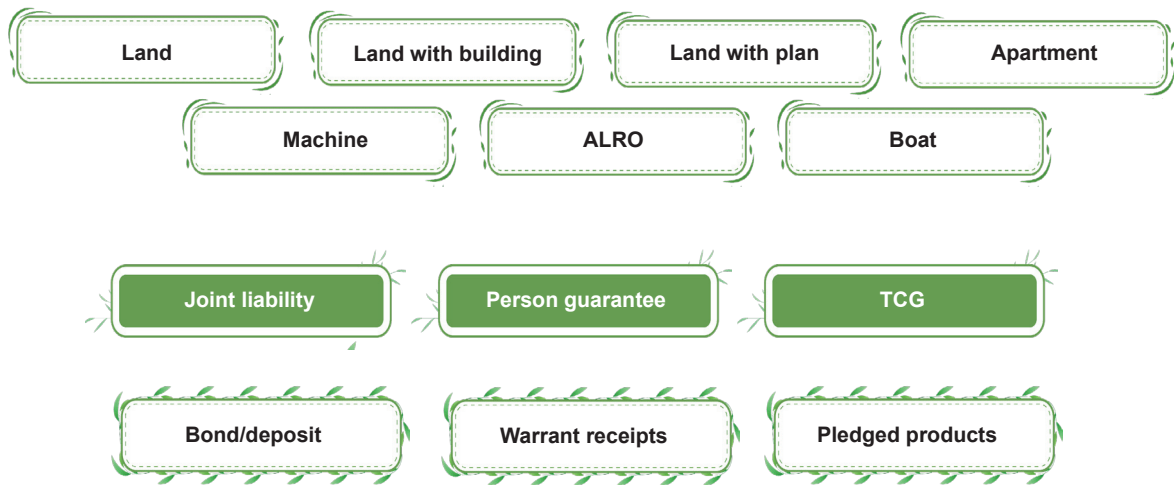


Types of risk

1. Commercial risk
2. Financial risk
3. Credit risk
4. Collateral risk
5. Legal risk

Credit procedure for small scale fishery business: Collateral

Bank for Agriculture and Agricultural cooperatives



Credit procedure for small scale fishery business: Procedure after loan

Bank for Agriculture and Agricultural Cooperatives

Repayment



1. At bank branches
2. Through agent only for certain products
3. Via mobile phone

Credit procedure for small scale fishery business: Procedure when default

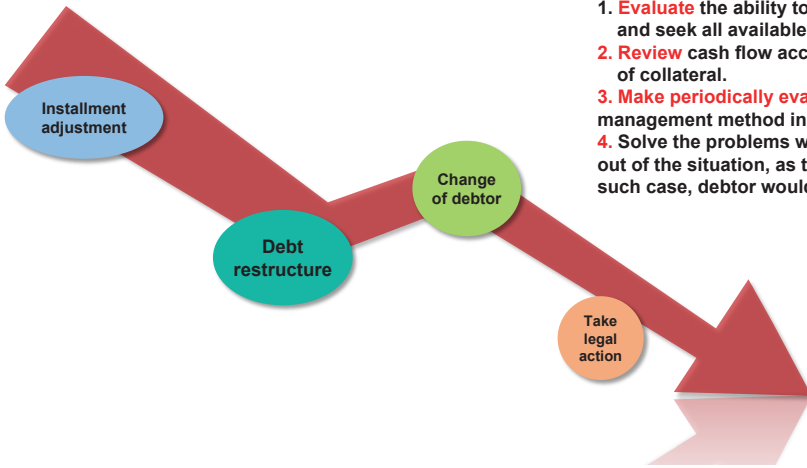
Bank for Agriculture and Agricultural Cooperatives

Objectives

1. to assist the debtor in solving the problems of high debts;
2. to provide debtor with chances of continuing the career or business in order to improve the possibility of repayment; and
3. to improve the quality of debts.

Guidelines

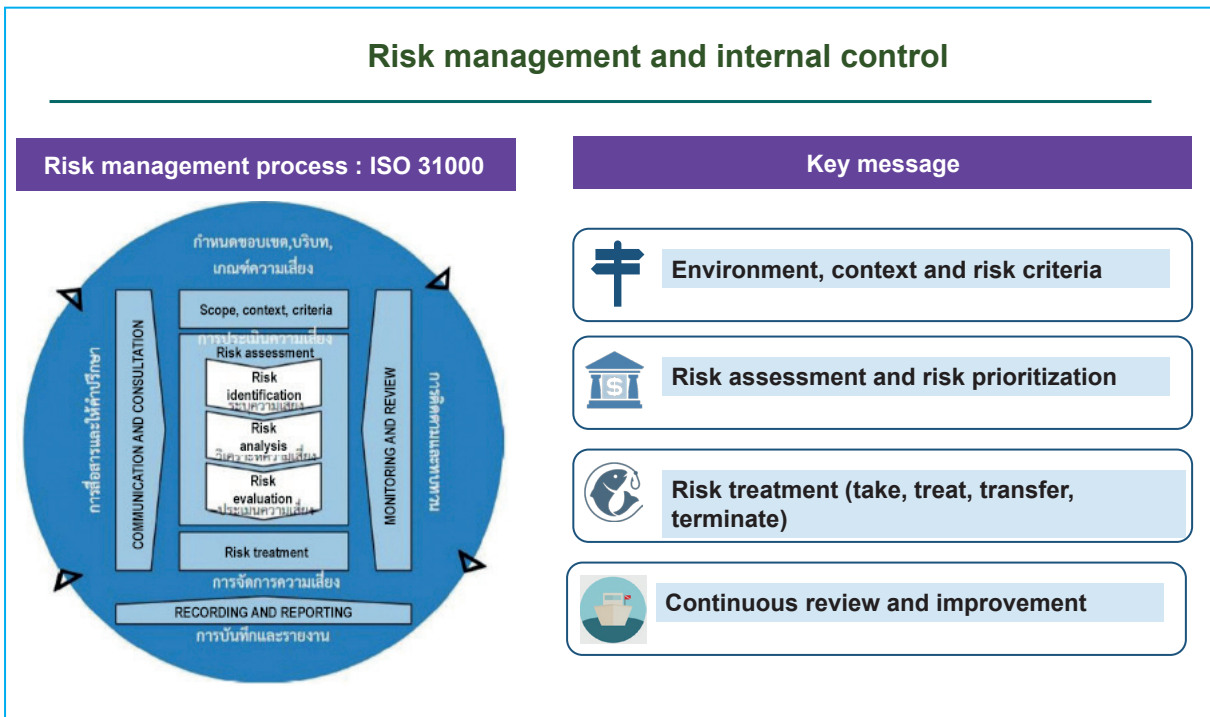
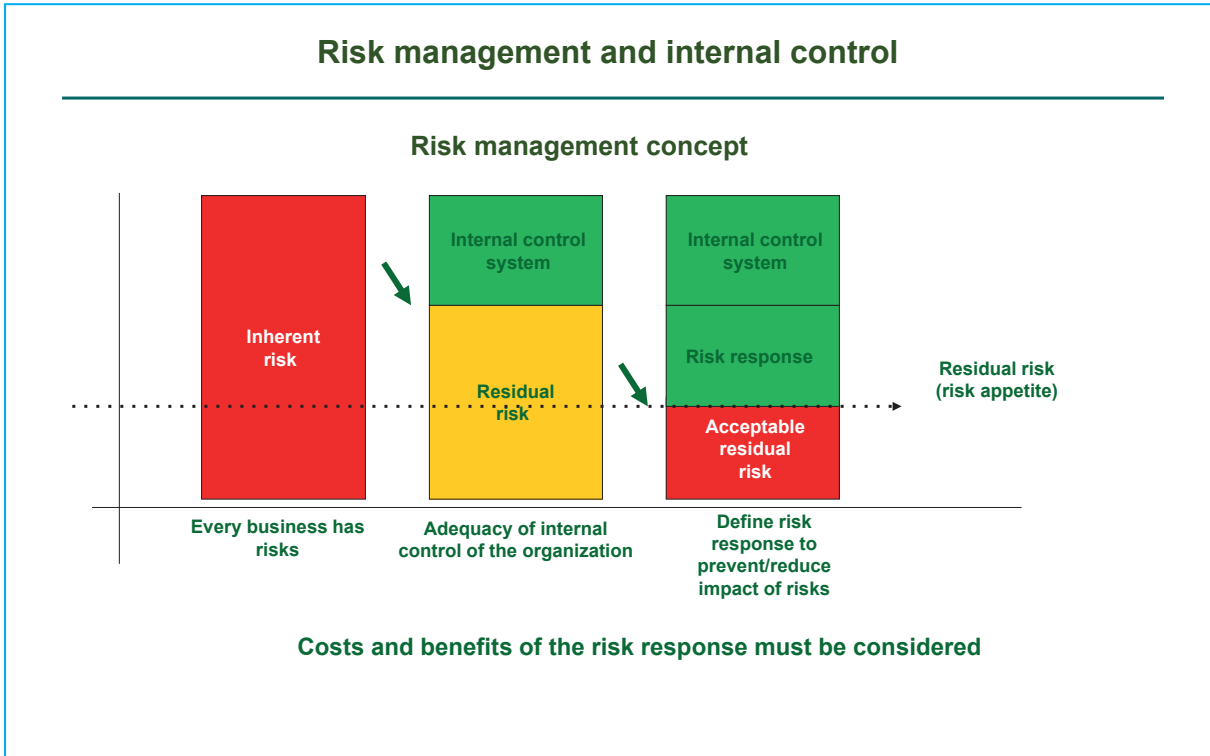
1. **Evaluate** the ability to repay for proper selection of management tools and seek all available information **that highly reflect the truth**.
2. **Review** cash flow according to production cycle, review current value of collateral.
3. **Make periodically evaluation, follow up** as to be able to timely adjust management method in case the current one is not efficient enough.
4. Solve the problems with **care and sincerity** in order to bring debtor out of the situation, as temporary solution may cause a crisis of faith, in such case, debtor would not cooperate in the future.



Training

Part 5

Risk management



Risk management in the credit process

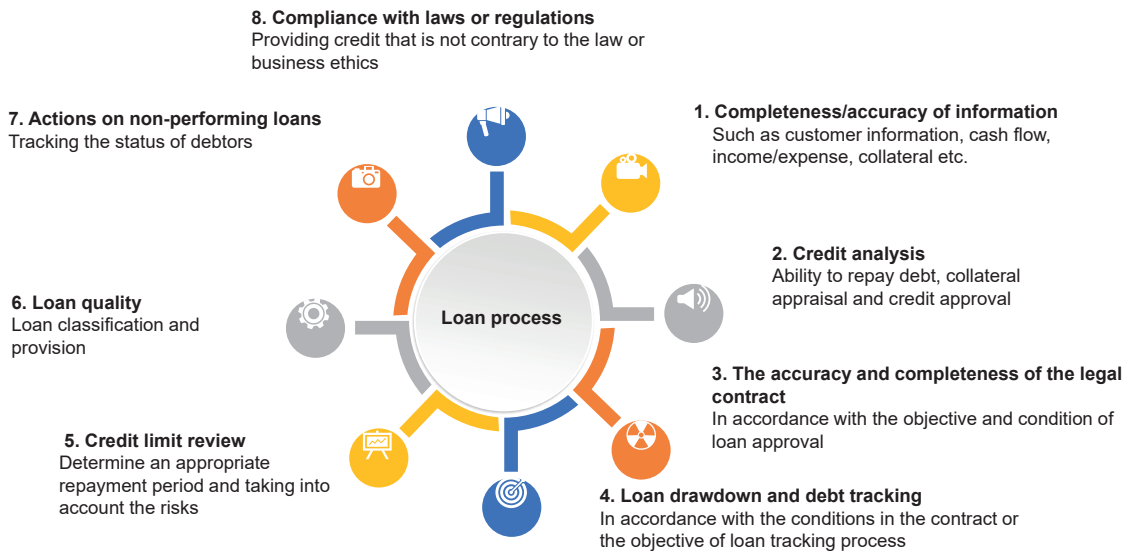
External risk factors

- Changing of economic condition such as production costs, crude oil prices, commodity prices and employment.
- The impact of correlated industries that may result in a decrease in business revenue or increase in costs.
- Competition both from domestic and international firms.
- Change in laws and compliances that affect business.
- Natural disaster that affect business. Problems resulting in inability to repay debt, such as drought, floods and storms.
- Social and environmental aspect such as education, and pollution.

Internal risk factors at financial institutions

- Unexperienced employees, inadequate credit management, lack of control and monitoring for debtors to comply with the contracts.
- Credit underwriting standards and management's discretion in credit approval are inappropriate.
- Emphasis on income generation rather than credit quality.
- Fraud or providing credit to businesses with related interests.

Review and placement of risk management control systems in the credit process



To make small-scale fisheries in Thailand more sustainable, fishers need to invest in responsible fishing operations and technologies, reduce overfishing, contribute to fisheries management, and implement climate change adaptation measures. Small-scale fishers often do not have access to financial services to innovate and to make the necessary transition to sustainable fishing operations. Access to financial services will help them to innovate and adopt measures that will provide social, economic and environmental returns, the desired triple bottom line.

The Asia-Pacific Rural and Agricultural Credit Association (APRACA) and FAO, in collaboration with the Bank for Agriculture and Agricultural Cooperatives (BAAC), implemented a project to analyse and improve the access of small-scale fishers to financial services in Thailand.

The project identified the key finance and fisheries sector stakeholders, carried out surveys and interviews and conducted a techno-economic performance analysis of some major fishing fleets, to investigate the potential innovations for investment in small-scale fisheries. APRACA and BAAC drafted training materials and conducted various trainings on financing small-scale fisheries. The project also supported the launch of a national network for stakeholders involved in financing the fishing sector in Thailand (ThaiNet SSF). This circular provides a summary of the project achievements.

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