

# Adding value to small-scale fisheries businesses in Southeast Sulawesi Province, Indonesia

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*The buying and trading of fish in small-scale fisheries communities are commonly practiced as family businesses across Indonesia. While these businesses may be small, their combined impact on fisheries and local economies is significant. Operating largely in the informal economy, many of these businesses have few opportunities for development or improvement, or capacity to access diverse markets, available finance or adopt sustainable business practices. Here we document the process and outcomes of a mentoring and training programme for village-based fishery businesses that aims to improve fisheries business capacities, operations and economic resilience through adoption of ecosystem-based adaptation strategies and principles for the promotion sustainable small-scale fisheries throughout coastal villages of Indonesia.*

## Introduction

In Southeast Sulawesi Province, more than 40,000 small-scale fishers and fish workers reside in 947 coastal fishing villages. Households practice fishing and buy and trade in live, fresh and processed fish (Campbell et al. 2021). Few opportunities are available for women and men fishers and fish traders (Fig. 1) – at either the individual or organisational level – with the tools to manage their household finances, business incomes or operations (Lawless et al. 2019; Rahim et al. 2018). Such tools and capacities can help promote economic resilience of fishing households, thereby empowering local women and men to take an interest in the local governance of marine natural resources, and lead to positive socioeconomic outcomes (de la Torre-Castro et al. 2019).

Previously, we reported on a financial literacy programme (Campbell et al. 2021), where village communities received ongoing assistance, mentoring and training delivered in three modules of financial literacy from April 2020 to December 2020: 1) concepts of financial literacy; 2) calculations of various household revenue streams; and 3) household finances, savings and loans, and village savings and loan associations. This programme had reached 151 people (76 women, 75 men) from 86 households in 7 villages of Southeast Sulawesi Province in Indonesia. By December 2021, 880 people (451 women, 429 men) from 518 households in 31 villages had received basic financial literacy training. In this article, we describe and detail the processes and outcomes of operationalising the fourth financial literacy module, which took place from December 2020 to November 2021,

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Figure 2. Local women using financial diaries to record their household and business expenses. © Udin

with a focus on fisheries business development, capacities, operations and economic resilience through adoption of ecosystem-based adaptation (EbA) strategies and principles.

### **Selection of participants and initiation of business mentoring and training programme**

From the 151 individuals who received financial literacy training up to December 2020, a selection process identified the individual business owners who were willing to participate in the financial business development programme throughout 2021. Those selected were active users of the OurFish<sup>2</sup> application used to record their fishery transactions (buying and selling fish) and cash flows. All of the business owners selected did not have a formal business identity as described under Indonesian law (Azza et al. 2019) and, therefore, all of them operated within the informal economy. Each business buys fish and conducts transactions regularly with 30 to 50 fishers.

In December 2020 an initial workshop was held where 34 selected participants learned about basic business financing, including financial goal setting; methodologies for calculating income, expenses, profits and losses; and budget planning to achieve financial goals. Data available on their phones through OurFish was used in a range of exercises to calculate individual revenues, expenses and profits. Some participants did not realise that these data were available

for their use. During the training sessions, the importance of financial behaviours that are beneficial for participants and their families was emphasised. These behaviours include catch data recording, recording of income and expenses, savings approaches, application and management of loans and investment strategies (Fig. 2). To build knowledge about financial institutions, their services and business formalisation processes, we invited resource persons from the Healthcare and Social Security government agency (BJPS), the BRI Bank, and the Provincial Office of Cooperative and Small and Medium Enterprises, to conduct training on various issues concerning the benefits of informal and formal financing.

From January 2021 to August 2021, ongoing mentoring and assistance occurred with participants to help them make informed and effective decisions regarding their businesses. This included ongoing assistance with using the OurFish app as a financial planning and monitoring tool, and additional information and training in digital money transfers, digital supply and sale platforms, benefits and barriers of formalisation for businesses, financial identity and legal processes and capital needs. In total, 20 businesses continued with this process and were assisted during the mentoring programme to generate their financial records using “cashbooks” and the OurFish app. In August 2021, we held a financial statement competition among the 20 businesses to evaluate their business capacities and whether

<sup>2</sup> OurFish is an Android app that consolidates fish transactions at the local buyers' point. The app is designed to capture several important pieces of information, such as the person fishing, the fish species caught, the fish's origin, and the fish's volume and value. <https://portal.rare.org/en/program-resources/ourfish/> <https://portal.rare.org/en/tools-and-data/fisheries-data/>

each business was able to participate in a co-learning workshop planned for November 2021. The objective of this workshop was to provide information and capacities on business strategies and processes that could enable integration of their businesses into the formal economy.

### **Fisheries Microenterprise Development Co-learning Workshop**

All 20 businesses were invited to attend the “Fisheries Microenterprise Development Co-learning Workshop”. The workshop’s primary objective was to improve fisheries business capacities, operations and economic resilience through the adoption of EbA strategies in small-scale fisheries microenterprise strategies and principles in order to promote sustainable small-scale fisheries practices. The co-learning workshop was conducted in Kendari in Southeast Sulawesi province from 2 to 4 November 2021. In total, 34 participants attended (47% women), which included 28 first-level husband and wife fish buyers<sup>3</sup> (50% women) and 6 of their business partners (33% women).

Over the three days of the workshop, participants were actively included in a range of practical activities and presentations from local banks, the Provincial Marine and Fisheries office, the Financial Services Authority of Southeast Sulawesi, and ukmindonesia.id-the Institute for Economic and Social Research-Faculty of Economics and Business at the University of Indonesia. Key elements of the workshop covered environmental and business process improvement strategies such as: 1) environmentally responsible fish supply, including waste reduction efforts, product diversification options, promotion of logistic management systems, and business processes that improve the fish quality hygiene, quality control and efficiency; 2) development of business plans and strategies in accessing new markets by leveraging the Business Model Canvas<sup>4</sup> and WhatsApp Business app; 3) promoting professionalism via business formalisation as a means to access broader market, financial products and services such as loans and financing facilities; and 4) available options to access finance and financial services including from local banks, cooperatives, village-owned enterprises and market diversification through available e-platforms. The workshop emphasised and identified gender equality issues across all

<sup>3</sup> A first-level fish buyer is a trader within the village who buys fish directly from fishers and sells them to the next level of trader (in the city). These traders are usually family members, and all family members are actively involved in the business.

<sup>4</sup> Invented by Alex Osterwalder in 2005, the Business Model Canvas is a strategic management template that helps businesses to describe, design and analyse their business models. It is presented in a form of a visual chart with various elements that describe the rationale of how an organisation creates, delivers and captures value.



Figure 3. Jumriati, a fish buyer from Moramo Bay, contributing her ideas to improve fishery businesses while also fostering marine conservation. © Tarlan Subarno



Figure 4. Twenty fisheries enterprises obtained Business Identification Certificates (Nomor Induk Berusaha). © Tarlan Subarno

of the fishery businesses and value chains, and emphasised that improving one's business does not mean expanding purchases or volumes of fish through unsustainable practices.

Jumriati, one of the women fish buyers (see Fig. 3) in her village, and who is an influencer, shared her thoughts regarding this:

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*We live in a community that is heavily dependent on the sea, we get our food and our business from the sea. If we pollute the water and bomb our reef to catch fish, this means we won't have anything left in the sea. If the fish are depleted, the whole fishery business is threatened, so all of us must protect the sea.*  
 .....

Women and men fish buyers have learned the strategies, information and approaches that were introduced within a year-long business mentoring and training programme, then developed creative ways to advance business and gain more profits while also protecting ocean resources.

All businesses developed a financial plan to support their business plans, including the use of OurFish as the tool to monitor and evaluate their finances. Participants paired with their business partners to develop their strategy using the Business Model Canvas, learned how to use the Whatsapp Business app, and made their financial plans, both on paper and using the OurFish app. Finally, 20 fisheries microenterprises formally registered their business through the issuance of Business Identification Certificates (*Nomor Induk Berusaha, NIB*) as the pre-requisite documents to obtaining processing eligibility business management practices and hygiene standards (Fig. 4). The microenterprise support team from the Ministry of Marine Affairs and Fisheries (MMAF) provided valuable information, knowledge and pathways to access new financial services offered by various providers. These service providers included banks, cooperatives, pawnshops, and the MMAF business capital management institution (Lembaga Pengelola Modal Usaha Kelautan Perikanan and PT Permodalan Nasional Madani). The banks offered subsidised loans for working capital and investment for general microenterprises, while MMAF business capital management specifically targeted the fisheries sector by providing government revolving funds for the marine and fishery sector. In addition, the non-state financial services, such as PT Permodalan Nasional Madani provides financing to formalised businesses.

## Business assessment

All 20 businesses that were formalised have adopted an assessment tool to evaluate the extent to which they integrate the learned EbA principles into their business and financial systems. The indicators and metrics were identified based on existing sustainability principles and frameworks for blue economy finance and biodiversity-friendly enterprises, and

include: 1) they reflect EbA principles, 2) they are achievable within a 12-month timeframe, and 3) are measurable and verifiable. We will assist each business to adopt this as a management tool and include it in their respective plans and operations over time. The tool was administered at the end of the co-learning training workshop and will be applied every 12 months to help businesses assess their progress (Table 1).

**Table 1.** Indicators used to assess whether businesses incorporate EbA approaches into their financial systems and operations.

Indicators	New performance metrics	Means of verification
<b>1: Fish bought/sold are caught in ways that do not harm the environment or other wildlife</b>	<b>Registered member of Fishery Management Body (FMB)</b> <i>Refers to the enterprise's practice of sustainable sourcing through its membership in the FMB</i>	<ul style="list-style-type: none"> <li>FMB membership record and/or membership card</li> </ul>
	<b>Improved knowledge on EbA principles and measures and ways of integrating these in the operations of a microenterprise</b> <i>Refers to the enterprise's knowledge of sustainable fishing practices, including catching, buying or selling of fish that are mature or of optimum size, and proper water and waste management practices, among other EbA measures</i>	<ul style="list-style-type: none"> <li>Participants training registration document or training certificate</li> <li>Pre-and post-test</li> </ul>
<b>2: Fair, safe working conditions for the people who produce and sell fish</b>	<b>Buys from registered and/or licensed fishers</b> <i>Refers to an enterprise's practice of sourcing its fish from registered and/or licensed fishers in support of government's efforts to regulate fishing activities</i>	<ul style="list-style-type: none"> <li>OurFish</li> </ul>
	<b>Trained on fair and safe working conditions</b> <i>Refers to the enterprise's participation in trainings on supporting well-managed and slavery-free supply chain</i>	<ul style="list-style-type: none"> <li>Participants training registration document or training certificate</li> <li>Pre- and post-test</li> </ul>
<b>3: Fish sold are safe to eat and of high quality</b>	<b>Trained on hygienic practices and production</b> <i>Refers to the enterprise's participation in trainings on good hygienic practices in the production of fishery products</i>	<ul style="list-style-type: none"> <li>Participants training registration document or training certificate</li> <li>Pre- and post-test</li> </ul>
<b>4: Complies with local and national laws</b>	<b>Registered business</b> <i>Refers to the enterprise's compliance to local and national laws particularly on the need to be a legally registered business</i>	<ul style="list-style-type: none"> <li>Izin Pangan Industri Rumah Tangga, Sertifikasi Kelayakan Pengolahan, Surat Izin Usaha Perikanan, Nomor Induk Berusaha</li> </ul>
<b>5: Practices sound business management systems</b>	<b>Trained on basic financial literacy and business management</b> <i>Refers to the enterprise's participation in trainings on sound financial and business management practices</i>	<ul style="list-style-type: none"> <li>Participants training registration document or training certificate</li> <li>Pre- and post-test</li> </ul>
	<b>With basic transaction account with a financial institution that provides useful and affordable financial products and services</b> <i>Refers to the enterprise's access to and use of the basic products and services of financing institutions</i>	<ul style="list-style-type: none"> <li>Account ownership</li> <li>Proof of transactions with banks, financial technology, savings and loan association, credit unions, and other reliable financial institution</li> </ul>
	<b>With basic recording system for financial transactions</b> <i>Refers to an enterprise's practice of proper and consistent recording of its financial transactions</i>	<ul style="list-style-type: none"> <li>Financial transactions recorded on OurFish</li> <li>Bookkeeping or financial transaction records (i.e. ledger or columnar notebooks)</li> </ul>

### **The type of permit to be issued will depend on the nature and requirements of the enterprise:**

**Surat Izin Usaha Perikanan:** fishery business license

**Nomor Induk Berusaha:** business identification number

**Sertifikasi Kelayakan Pengolahan:** This certificate is issued by MMAF to businesses that have implemented Good Manufacturing Practices and Sanitation Standard Operating Procedures

**Izin Pangan Industri Rumah Tangga:** This certification is a written guarantee by the head of the district or mayor through the health office to home industries whose food products complied with certain requirements and safety standards on production and distribution.

## **Conclusion**

With the purpose of empowering coastal communities in Southeast Sulawesi Province to manage their fisheries sustainably, we have described a unique process whereby village-based fisheries enterprises are able to build upon the tenets of basic financial literacy approaches. Key outcomes included fisher households having a better understanding of their revenue streams, finances and savings, and being able to become formally registered businesses so that they can secure improved access to external financial services and markets for their products. We will continue to assist these businesses in order to take advantage of these skills and formalisation status. In addition, we will work with these and other businesses to identify ways to apply this approach for the benefit of hundreds of enterprises managed by women and men in coastal villages throughout Indonesia.

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