

Strengthening Financial Literacy and Catch Recording for Small-Scale Fisher Groups

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Abstract

Small-scale fishers in Indonesia remain among the occupational groups with the lowest financial literacy, and the absence of catch records limits their ability to plan fishing operations and access formal finance. This community engagement program aimed to strengthen basic financial literacy and introduce simple catch recording among members of the Daseng Fishers Group in Sindulang Dua, Manado. A participatory approach was used, consisting of partner coordination, preparation of an illustrated financial literacy module and a catch logbook, a one-day socialization and training session, and remote mentoring through a WhatsApp group. Data were collected through attendance records, field observation, documentation, and monitoring of logbook submissions, and were analyzed descriptively. Ten fishers attended the training and received the module and logbook. However, after about five weeks of monitoring, only one participant had recorded catches in the logbook. The main constraints were the fishers' limited time between fishing and selling, the single-session format, and reliance on remote follow-up; because no pre-test or post-test was administered, changes in literacy could not be measured quantitatively. The program shows that a single training session and the distribution of tools are insufficient to build recording habits. Repeated in-person mentoring, a simpler recording format, and peer champions are needed to support adoption.

Keywords

catch recording; community engagement; financial literacy; logbook; small-scale fishers



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INTRODUCTION

Small-scale fisheries support the livelihoods of millions of coastal households, yet fishing households remain highly exposed to poverty and income volatility (Béné, 2003; Food and Agriculture Organization of the United Nations, 2015). Their income depends on season, weather, and catch, while operating costs such as fuel, ice, and bait must be paid before each trip. Under these conditions, the ability to manage cash flow, to separate business money from household money, and to save

during good seasons becomes an important determinant of household resilience. Financial literacy, understood as the knowledge and skills needed to make sound financial decisions, has been consistently associated with better saving, planning, and borrowing behavior (Lusardi & Mitchell, 2014).

In Indonesia, financial literacy has improved at the national level but remains uneven across occupations. The 2025 National Survey of Financial Literacy and Inclusion (SNLIK) reported a national financial literacy index of 66.46%, while the occupational group of farmers, livestock breeders, planters, and fishers recorded 58.87%, one of the lowest among all groups (Otoritas Jasa Keuangan & Badan Pusat Statistik, 2025). The national financial literacy strategy for 2021–2025 likewise identifies farmers and fishers among its priority target groups for financial education (Otoritas Jasa Keuangan, 2021).

Record keeping is the practical bridge between financial knowledge and business decisions. Without records of catch, sales, and costs, fishers cannot calculate the profit of each trip, identify productive seasons and fishing grounds, or document their business performance when applying for formal credit. Recent community programs have introduced digital recording applications to fishers and reported improvements in understanding and skills (Kusumaningrum et al., 2025). However, the financial education literature warns that knowledge gains do not automatically translate into lasting behavior. A meta-analysis found that financial education explained only a very small share of the variance in financial behaviors and that its effects weakened over time (Fernandes et al., 2014), whereas training based on simple rules of thumb produced more practical change among microentrepreneurs than standard accounting instruction (Drexler et al., 2014). These findings suggest that community programs should report not only what was taught, but also whether recording practices are actually adopted after the training.

The partner of this program is the Daseng Fishers Group in Sindulang Dua Urban Village, Tuminting District, Manado City. Based on the needs assessment, the group has 20 members who operate boats of less than 5 gross tonnage (GT) using gillnets, hand lines, and traps. Their monthly income ranges from approximately IDR 2.0 to 2.5 million and fluctuates with season and weather. Most members (80%) have completed at most junior secondary school, and their catch is sold to middlemen or directly at the market located near their neighborhood. Members do not separate business and household finances, do not keep systematic records, and have no formal savings, while catch data rely solely on memory. Together with the group

leaders, two priority problems were agreed upon: low financial literacy and the absence of a catch recording system.

This article describes the implementation of a community engagement program designed to address these two problems and reports its early outcomes, with particular attention to the adoption of the catch logbook in the weeks following the training. By documenting both what was achieved and what was not, the article aims to contribute practical lessons for designing financial literacy and record-keeping interventions for small-scale fishers.

METHODS

This program applied a participatory community engagement approach in which the partner was involved in identifying problems, setting the schedule, and using the tools provided (Chambers, 1994). The design was adapted to the partner's working rhythm, since fishers divide their time between preparing for fishing trips and selling their catch. Activities took place in Sindulang Dua Urban Village, approximately 7.4 km from the Faculty of Economics and Business, Universitas Sam Ratulangi. Ten members of the Daseng Fishers Group participated in the training. The implementing team consisted of ten lecturers and students and one administrative staff member, and the head of Sindulang Dua Urban Village attended the main activity.

The program was carried out in four stages, as shown in Figure 1. First, the team coordinated with the group leaders and the urban village office on 16 March 2026 to agree on priority problems and the partnership. Second, the team prepared and printed an illustrated financial literacy module written in plain language, together with a catch logbook containing columns for date, fishing location, fish species, weight, and selling price; this stage was completed on 10 August 2026. Third, a socialization and training session was held on 21 August 2026. The session combined basic financial literacy material, covering money in and money out, separating business and household money, saving, daily recording, and caution toward high-interest loans, with a simulation of filling in the logbook. The material was delivered by the lecturers using examples drawn from fishing activities, after which the module and logbook were distributed to all participants. Fourth, remote mentoring was conducted through a WhatsApp group starting on 24 August 2026, in which participants were asked to send photographs of completed logbook pages, while the team sent reminders and answered questions.



Figure 1. Stages of program implementation

Data were collected through attendance lists, field observation during the training, photo and video documentation, and records of logbook submissions in the WhatsApp group up to the end of September 2026. The main indicator of recording adoption was the number of participants who filled in and shared logbook entries. Data were analyzed descriptively by comparing the achievements with the targets set in the program plan. The pre-test and post-test planned in the program proposal were not administered, so changes in participants' financial literacy could not be measured quantitatively; this is acknowledged as a limitation of the program.

FINDINGS AND DISCUSSION

Program Implementation

The four stages of the program were implemented as summarized in Table 1. Coordination with the partner began in March 2026, while the main training could only be held in August 2026, after the materials had been finalized and a date convenient for the fishers had been agreed upon. Because of the fishers' limited availability, the financial literacy training and the logbook workshop, which had originally been planned as separate multi-day sessions, were combined into a single session.

Table 1. Implementation of program activities

No	Stage	Date	Main activity	Output
1	Partner coordination	16 March 2026	Agreement with group leaders and urban village office on priority problems	Written statement of partnership
2	Material preparation	Completed 10 August 2026	Drafting and printing of the financial literacy module and catch logbook	Module and logbook printed
3	Socialization and training	21 August 2026	Financial literacy material, logbook simulation, distribution of materials	10 fishers trained
4	Remote mentoring	From 24 August 2026	Monitoring of logbook entries, reminders, and questions via WhatsApp	Monitoring records

Source: Program implementation and monitoring data (2026)

Ten of the group's 20 members (50%) attended the training. During the activity, some members were preparing to go to sea, while others were preparing to sell their catch at the market in front of the neighborhood lane where they usually trade. The attendance of the head of the urban village indicated support from the local government. Field observation showed that participants were enthusiastic during the session and took part in the logbook simulation, after which every participant received a module and a logbook to use in daily activities.

Adoption of the Catch Logbook

Monitoring through the WhatsApp group from 24 August to the end of September 2026 showed that only one of the ten participants (10%) had filled in the logbook, while the other nine had not shared any entries. Table 2 compares the achievements with the targets in the program plan. Output targets related to the delivery of the program, such as training and the distribution of materials, were largely achieved, whereas targets related to changes in practice, namely routine recording, the opening of savings accounts, and the formation of local cadres, had not yet been achieved.

Table 2. Planned targets and achievements up to September 2026

No	Indicator	Planned target	Achievement
1	Fishers trained	15 persons	10 persons
2	Module and logbook distributed	All participants	10 participants (100%)
3	Fishers recording catches routinely	80% of participants	1 person (10%)
4	Increase in financial literacy score	30%	Not measured (no pre-/post-test)
5	Formal savings accounts opened	5 persons	Not yet achieved
6	Local cadres	3 persons	Not yet achieved

Source: Program implementation and monitoring data (2026)

The gap between distributing tools and changing practice is consistent with the broader evidence on financial education. Fernandes et al. (2014) showed that financial education has only weak effects on downstream behavior, particularly when it is not followed by reinforcement close to the moment of decision. Habit formation also takes time: in a study of daily behaviors, Lally et al. (2010) found that participants needed a median of 66 days to reach automaticity, with considerable variation between individuals. In this program, recording had to be initiated after only one session and was supported only remotely for about five weeks, so it is not surprising that it had not yet become routine for most participants.

The team has not yet systematically asked the non-recording participants about their reasons, so the following interpretations remain tentative and will be verified during field visits. From the perspective of the technology acceptance model, people

adopt a new tool when they perceive it as useful and easy to use (Davis, 1989). The benefits of the logbook, such as calculating the profit of each trip or supporting a credit application, only become visible after records have been kept for some time, while the effort of writing entries must be made immediately after a tiring trip or during selling. Drexler et al. (2014) showed that simplified rules were more effective than comprehensive bookkeeping among microentrepreneurs, which suggests that the logbook format and the reporting procedure should be made as light as possible. Reminders can increase follow-through when the intended behavior is already understood and easy to perform (Karlan et al., 2016), but in this program reminders sent through WhatsApp appear to have been insufficient on their own, possibly also because sending photographs of logbook pages requires additional effort.

Adult learning principles offer further guidance. Adults are more motivated when learning addresses problems they face immediately (Knowles et al., 2015). Linking the logbook to concrete gains, for example by calculating the profit of a trip using the fishers' own data, may make its usefulness more tangible. The one participant who recorded consistently is an important early result. In diffusion of innovations theory, early adopters who are respected within their community play a key role in persuading peers (Rogers, 2003). This participant can therefore serve as a practical example and as a candidate peer champion for recording within the group. Compared with programs that combined training with sustained mentoring in preparing financial reports (Kusumaningrum et al., 2025), the lighter mentoring in this program may partly explain the lower level of adoption.

Several limitations should be noted. The number of participants was small, no baseline or pre-test and post-test were conducted, the monitoring period was short, and the reasons for not recording have not yet been collected systematically. The findings therefore describe early implementation experience rather than measured impact.

CONCLUSION

The program succeeded in delivering basic financial literacy material and introducing a simple catch logbook to ten members of the Daseng Fishers Group, supported by the partner and the local government. However, about five weeks after the training, only one participant had adopted routine catch recording, and changes in financial literacy could not be measured because no pre-test or post-test was administered. These results indicate that a single training session followed by remote reminders is not sufficient to build recording habits among small-scale fishers whose time is divided between fishing and selling.

For the next stage, the program will conduct in-person mentoring at times and places that fit the fishers' routines, identify the reasons for non-recording, simplify the logbook format, involve the participant who records consistently as a peer champion, and evaluate participants' understanding through a short questionnaire or group discussion. Future programs of this kind should measure baseline literacy, plan for repeated contact over at least two to three months, and treat the adoption of recording practices, rather than attendance alone, as the main indicator of success.

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