

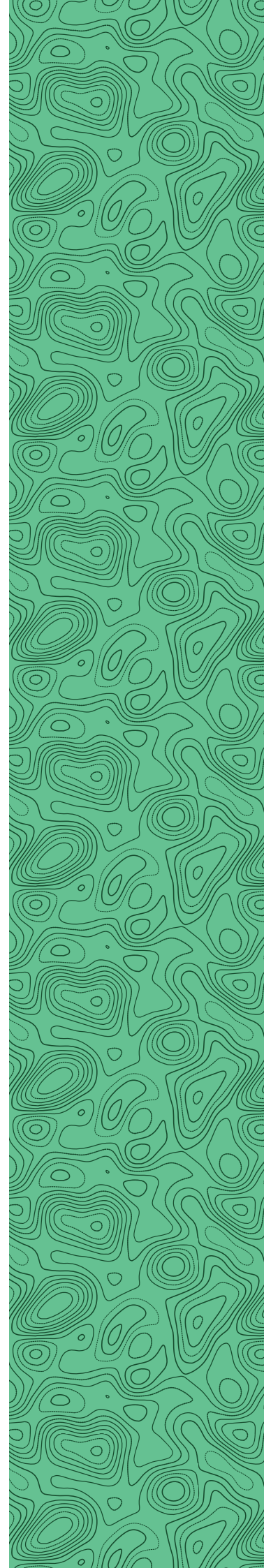
Needs assessment and capacity building for producer groups in Cambodia and Lao PDR

December 2025



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Citation

This publication should be cited as: Phichong O and Chanthath A. 2025. Needs assessment and capacity building for producer groups in Cambodia and Lao PDR. Penang Malaysia: WorldFish. Technical Report: 2025-94.

Acknowledgments

This report was made possible through the significant contributions of the producer groups in Attapeu Province, Lao PDR; the producer groups and agricultural cooperatives in Baphnom District, Prey Veng Province; and Santuk District, Kampong Thom Province, Cambodia. Special appreciation is also extended to colleagues at the International Water Management Institute for coordinating the activities in Attapeu.

This work was implemented and funded by the CGIAR Multifunctional Landscape Program. We would like to thank all funders who supported this research through their contributions to the [CGIAR Trust Fund](#).

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Design and production

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Cover photo

Chum Tina/IIRR.

Executive summary

This report presents the outcomes of a comprehensive needs assessment, capacity building, and technical facility intervention initiative conducted under the Multifunctional Landscapes (MFL) program in Cambodia and Lao PDR. The assessment aimed to identify technical, managerial, and infrastructural gaps among producer groups and agricultural cooperatives, and to design targeted interventions to strengthen their business and market engagement.

Table 1. Summary of progress and outcome of the intervention.

Key findings	Interventions	Outcomes
Cambodia: <ul style="list-style-type: none"> Gaps in post-harvest handling and fish processing (0% proficiency). Limited knowledge of business planning and marketing (50% proficiency). Infrastructure constraints, including inadequate storage and packaging facilities. 	<ul style="list-style-type: none"> Delivered hands-on training on fish processing and post-harvest handling to 19 participants in the province of Prey Veng. Conducted cost, profit, and loss analysis training for 16 farmers in the province of Kampong Thom. Provided essential equipment, such as glass bottles for fish sauce and refrigeration units. 	<ul style="list-style-type: none"> Enhanced technical and financial management skills in cost and profit analysis among 35 participants in Cambodia, increasing their knowledge from 0% to approximately 60%–70%. Initiated fish processing activities at the cooperative level in Cambodia. Strengthened collaboration with the World Food Programme (WFP) to link producer groups to school meal programs (SMPs) in Cambodia and Lao PDR.
Lao PDR: <ul style="list-style-type: none"> Limited technical knowledge of crop and fish farming. Lack of market information and cost-benefit analysis skills. Poor infrastructure and seasonal market access challenges. 	<ul style="list-style-type: none"> Planned training on post-harvest techniques and management skills for red rice producer groups from a collaboration between the International Water Management Institute (IWMI) and the Lao Farmer Association (LFA). Initiated support for rice storage facilities and community shops to reduce post-harvest losses. 	

Recommendations

1. Continue refresher training and coaching to sustain knowledge gains.
2. Invest in infrastructure for storage and processing to minimize losses.
3. Strengthen market linkages through partnerships with public and private actors.
4. Expand financial literacy programs for better cost management and profitability.
5. Maintain gender-inclusive approaches to ensure equitable participation.

Conclusion

The interventions have significantly improved the capacity of producer groups to manage production, reduce losses, and enhance profitability. Continued support in training, infrastructure, and market integration will be critical for achieving sustainable and resilient agrifood systems.

1. Introduction

This report presents the findings of a needs assessment, followed by capacity building activities and technical infrastructure interventions, conducted under the MFL program, specifically within the Markets and Business Models Area of Work (AoW 3). The initiative seeks to empower producer organizations and local stakeholders by enhancing their entrepreneurial and managerial capacities through inclusive business models, innovative financing solutions, and a strengthened governance system. These actions support sustainable landscape management and improved market accessibility, and they enable the valuation and monetization of ecosystem services. To achieve this objective, producers and local actors are first engaged to assess capacities and identify priority needs (MFL, 2024).

The primary objective of this assessment was to identify gaps in technical knowledge, post-harvest handling, business planning, and market engagement among producer groups in Cambodia and Lao PDR, and to design targeted interventions to address these gaps.

2. Methodology

The assessment used a participatory approach that combined the following:

- Focus group discussions were held with cooperative committees and producer groups.
- A structured questionnaire addressed current production and post-harvest practices, the profitability of ongoing activities, key operational challenges, and training needs and preferred modalities, such as hands-on or on-the-job training.
- Topics were scored from 0% (no knowledge) to 100% (full proficiency). Subjects scoring below 50% were prioritized for capacity building support.

3. Field assessment and target areas

Three assessments were conducted between August and September 2025: two in Cambodia in the provinces of Prey Veng and Kampong Thom, and one in the province of Attapeu in Lao PDR. The two in Cambodia involved representatives from five agricultural cooperatives (ACs). In Lao PDR, the assessment engaged participants from five main producer groups.

The project team, consisting of two staff members from WorldFish (Ou Phichong and Phay Sokcheng) and one from the IWMI (Ammala Chanthath), carried out these assessments.

To align with other CGIAR programs implemented since 2022, the assessments in Cambodia focused on target areas under S4I and the ASEAN-CGIAR Initiative (IP1/IP1+). These areas include one district per province: Santuk District in the province of Kampong Thom, located in the Tonle Sap floodplain, and Ba Phnom District in the province of Prey Veng, situated in the Mekong River floodplain.

Meanwhile, in Lao PDR the assessment in the province of Attapeu was conducted in areas where the CGIAR Agroecology Initiative has been implemented since 2022.

4. Results

4.1. Cambodia

The two assessments were conducted on 25–26 August 2025 in Prey Veng (Ba Phnom District) and 9–11 September 2025 in Kampong Thom (Santuk District).

4.1.1. Prey Veng

One AC, Theay Mean Chey Agricultural Cooperative, was assessed in Prey Veng.

Key findings:

- Post-harvest handling and fish processing scored 0%, indicating no prior training.
- Business planning and marketing scored 50%, reflecting partial knowledge.
- Recordkeeping scored 100%, requiring no further intervention.

Equipment needs:

- A dual-compartment refrigerator was needed for fish and meat storage.
- Glass bottles were needed for packaging fish sauce to replace low-quality plastic containers.

Theay Mean Chey operates its own shop selling agricultural products produced by its members. These products include homemade fish sauce, various types of fermented fish (*prahok*, *mam*), fresh chicken, fresh vegetables, and dried fish. Approximately 45 farmers from the AC's producer groups supply these products to the cooperative's market. These groups include vegetable producers, chicken producers, and fish sauce processing groups.

The AC market also sells agricultural inputs and products such as vegetable seeds and coffee drinks. It serves around 600 households directly and approximately 1,332 households indirectly, along with 100 traders and middlemen. The AC covers two communes—Theay Mean Chey and Boeng Preh—reaching a total of around 30,000 households (Annex 1).

4.1.2. Kampong Thom

Four AC's were assessed in Kampong Thom: Santuk Sarmky, Prasat Samky, Samky Prasat Taing Krasang, and Kraya Sarmky.

Key findings:

- Technical production skills scored 10%, indicating poor skills.
- Post-harvest handling scored 0%, indicating no prior training.
- Business planning scored 0%, indicating no prior knowledge.
- Marketing scored 10%, indicating limited marketing.

Equipment needs:

- Having a post-harvest facility is important for rice-prawn farmers.
- Infrastructure and capital constraints were also noted.

Opportunities:

- There is an opportunity to form linkages with the SMP supported by the WFP and the government.

Table 2. Summary of assessments and background for each AC.

<p>Santuk Sarmky</p> <ul style="list-style-type: none"> • Established: 2022 • Members: 190 (133 women) • Key activities: Supplies vegetables to SMPs (pilot phase), provides agricultural credit, sells inputs. • Challenges: <ul style="list-style-type: none"> - limited technical skills in farming and aquaculture - poor crop quality for school meals - failed chicken producer group - weak bookkeeping and digital literacy - limited market access and food processing capacity. • Needs: Support for producer groups (vegetable, fish, chicken), crop planning, bookkeeping, and computer literacy. 	<p>Prasat Samky</p> <ul style="list-style-type: none"> • Members: 170 • Committee: 6 (4 women) • Key activities: Organic fertilizer production (main income), vegetable cultivation, hydroponics, chicken raising, rice seed production. • Challenges: <ul style="list-style-type: none"> - limited capital for machinery and a warehouse - price instability and quality issues - small-scale processing and marketing limitations - weak bookkeeping capacity. • Needs: Warehouse, fertilizer machine, net house for vegetables, marketing tools, capacity building.
<p>Samky Prasat Taing Krasang</p> <ul style="list-style-type: none"> • Established: 2021 • Members: 170 • Key activities: Agricultural credit, vegetable production, fertilizer supply, rice cultivation, school supplier, rice milling. • Challenges: <ul style="list-style-type: none"> - limited vegetable and fish supply - no fish producer group - lack of working capital. • Needs: Technical training in aquaculture, formation of a fish producer group, additional operating funds, computer literacy, bookkeeping, and business planning. 	<p>Kraya Sarmky</p> <ul style="list-style-type: none"> • Established: 2016 • Members: 190 (132 women) • Key activities: Cashew nut buying/processing, agricultural credit, school meal supplier. • Challenges: <ul style="list-style-type: none"> - seasonal vegetable supply gaps - limited fish production - slow loan approval processing, insufficient small loans - low market demand for processed cashew nuts - transportation and pricing issues for remote schools. • Needs: Larger vehicle for transportation, improved storage and shelving, cashew shelling machine.
<p>Cross-cutting issues:</p> <ul style="list-style-type: none"> • There is limited technical capacity in aquaculture and vegetable production. • Bookkeeping and digital literacy are weak. • Challenges exist in market access and product diversification. Infrastructure (storage, processing, transportation) and working capital are needed. 	

4.2. Lao PDR

The assessment in Sanamxay District in the province of Attapeu took place 8–12 September 2025. It covered five producer groups engaged in red rice production, rice–fish farming, vegetable cultivation using a solar-powered groundwater pump, and legume trials (Annex 3).

Key findings:

- Post-harvest handling scored 10%, indicating little prior training.
- Production planning scored 0%, indicating no prior training.
- Marketing scored 0%, indicating no marketing.
- Profit–loss analysis scored 0%, indicating no prior training.
- Technical knowledge in crop and fish farming was limited.
- There was a lack of market information and cost analysis skills.
- Infrastructure was poor and there were seasonal market access issues.

Equipment needs:

- Rice storage facilities and community shops need to be built to enable bulk sales and provide accessible marketplaces for local producers.

Opportunities:

- There is an opportunity to form linkages with the SMP supported by the WFP.

Plate 1. WorldFish and the IWMI conduct a needs assessment with producer groups in Inthi Village, Attapeu, Lao PDR.



Credit: Chan Bunrong/WorldFish-Cambodia

5. Selected intervention support

The results of the assessments in the two countries revealed a range of challenges, including technical production, supply-side constraints, marketing limitations, and financial issues, which vary by commodity.

The vision of the MFL program is to co-promote territorial markets as key retail hubs for accessing fresh and healthy diets, fostering stakeholder engagement to create green business opportunities, and supporting income-generating activities, as outlined in the MFL's full design document, November 2024. To align with this vision, and considering the short implementation period and project team capacity, the project team, producer groups, and ACs agreed to prioritize interventions that contribute to achieving this vision.

Planned interventions include constructing red rice storage facilities (where red rice is produced with minimal or no chemical inputs), supporting fish processing using traditional techniques (without chemical substances), installing solar pumps and refrigerators, and providing capacity building on post-harvest management, cost-profit-loss, accounting, and management skills to producer groups.

5.1. Cambodia

In Prey Veng, a total of 19 participants, 18 of whom were women, received training on fish processing and post-harvest handling. Techniques included fermented fish (*Trey Praheum*), dried fish (*Trey Ngeat*), and fish paste (*Pha Ork*). Emphasis was placed on hygiene, quality, and cost-profit analysis. All participants were able to process three types of fish products during the training (Annex 4).

"The cooperative had long sought support for fish processing, and this training successfully met that need thanks to contributions of donor, WorldFish and its partners,"

– Mrs. Sous Nak, chief of Theay Mean Chey

In Kampong Thom, participants received training on cost, profit, and loss analysis using four commodities: cashew nuts, rice-prawn integration, rice milling, and organic fertilizer. By the end of the training, their knowledge had improved from 0% to 60%–70%.

After a one-day hands-on training session, Mrs. Ngok Seng Hong and other participants shared their feedback. They found that the session was highly beneficial in improving their current businesses, as they learned how to identify unnecessary costs, mitigate expenses, and analyze new business opportunities before making investment decisions. All of the participants expressed that they had never attended such practical training before. The approach was simple, easy to understand, and used real examples from their communities and businesses for analysis. The participants were actively engaged, contributed cost inputs, and interacted closely with facilitators and peers through discussions, consultations, and advice on what was working well and what needed improvement. Mrs. Seng Hong stated, "Now I know that before starting any business, I should use a simple cost-profit analysis method to calculate and decide whether or not to proceed."

Plate 2. Participants practice post-harvest handling and fish processing in Prey Veng in October 2025.



Credit: Chum Tina/IIRR

5.2. Lao PDR

Based on the needs assessment conducted in September, the identified priorities included post-harvest techniques—such as proper drying, storage, and packaging—as well as accounting and management skills to strengthen the governance structure for collective red rice marketing and business development. Two red rice storage facilities have been supported, and market linkages have been initiated in two villages.

In collaboration with the IWMI, the LFA agreed to deliver training on the above and construct rice storage facilities and community shops. Both the training and construction activities were expected to be completed by early 2026.

6. Key outcomes

6.1. Cambodia

- Thirty-five participants improved their knowledge of post-harvest handling, fish processing, and financial analysis, increasing from 0% to approximately 70%.
- They Mean Chey received post-harvest equipment from the initiative, including one refrigerator (90 cm × 1.8 m), 300 glass bottles (500 ml), and 30 earthen jars, improving the quantity and quality of processed fish products and increased sales.
- An integrated rice–prawn and vegetable producer in Kampong Thom received one refrigerator (90 cm × 1.2 m) and a solar pump set from the project to enhance production.
- Fish processing has been initiated along with improved packaging of fish sauce at the AC level and in provincial markets in Prey Veng. Currently, processed fish products are being sold at They Mean Chey's shops and in weekend markets in provincial towns (Plate 3). To achieve a suitable profit and market position, processed fish products (e.g., *Trey Praheum*) include a 25% markup on the total cost as a profit margin. Thus, the more products sold, the higher income generated.

Plate 3. Improved packaging of fish sauce and newly introduced fermented fish products sold at a They Mean Chey shop as well as provincial markets in November 2025.



Credit: Chum Tina/IIRR



Credit: Chum Tina/IIRR

A set of solar pumps was installed for a committee of ACs engaged in fish, rice-prawn, and vegetable production. The pumps support the expansion of production and improve the quality of rice-prawn, vegetables, and other crops. This initiative serves as a model for farmers by promoting the use of renewable energy in multifunctional farms. Each farmer and their producer group are potential suppliers for the SMP (Plate 4).

Plate 4. A rice-prawn and vegetable producer installs a solar pump in Kampong Thom in Cambodia in December 2025.



6.2. Lao PDR

- Strengthened collaboration with the WFP for SMP integration.
- Infrastructure support planned for rice storage and community shops.

The initiative supported the construction of two red rice storage facilities, each with a capacity of 30 t. One facility was built in each village to enhance red rice quality and strengthen collective marketing for producer groups (Plate 5).

Plate 5. A red rice storage facility being constructed in Dongbarkmai Village, Attapeu, Lao PDR, in December 2025.



The initiative also supports the establishment of community shops located along main roads for easy access. These shops allow community members to bring and sell agricultural products from their farms. One shop is set up in each village (Plate 6).

Plate 6. An agricultural community shop constructed in Inthi Village, Attapeu, Lao PDR, in December 2025.



Credit: Ammala Chanthalath/IWMI

7. Recommendations

1. Continue capacity building: The project team will continue to provide refresher training and coaching to producers and ACs in 2026 to reinforce their skills.
2. Form and maintain market linkages: The project will strengthen partnerships with SMPs and private sector actors by engaging producers of green products.
3. Improve financial literacy: The project will expand training in bookkeeping and cost-profit and loss analysis to relevant ACs in 2026, if demand persists.
4. Ensure gender inclusion: Priority is given to maintaining high participation of women in training and leadership roles across most activities.
5. Assess effectiveness: As needed, an evaluation will be conducted post-assessment to evaluate the effectiveness of supported interventions.
6. Monitor construction and capacity building: Pending support and unfinished deliveries, the project team will monitor ongoing construction of red rice storage facilities and capacity building for producer groups in Attapeu, which were expected to be completed by early 2026.

8. Conclusion

The needs assessment and capacity building activities under the MFL program have significantly enhanced technical and managerial capacities among producer groups in both Cambodia and Lao PDR. Continued support in infrastructure, training, and market integration will be critical to achieving sustainable and profitable agrifood systems.

Annex 1. Needs assessment report, Prey Veng

AC: Theay Mean Chey
 Location Ba Phnom District, Prey Veng, Cambodia
 Date: 25–26 August 2025

Background

Theay Mean Chey's committee and members received support from the Heifer organization on raising and marketing chickens. The support included training on poultry farming, seed production, chicken sales, and establishing an AC store and market. Additionally, from 2022 to 2024, the AC and its members received support from the CGIAR Initiative on Asean Mega-Deltas (AMD), led by WorldFish in partnership with International Institute of Rural Reconstruction (IIRR), focusing on culturing fish and integrated homestead aquaculture vegetable production.

Support from AMD included techniques for growing home vegetables and also technical training in fish farming, which covered pond preparation, stocking, feeding, and provided fingerlings to small-scale households. The initiative also organized an exchange visit, bringing vegetable farmers from Prey Veng to supermarkets in Phnom Penh to observe the required standards for grading and packaging vegetables and ensuring quality.

One vegetable farmer shared that after participating in the exchange visit, she began sorting and packaging her vegetables and offering free samples to her middlemen, who sell at the district market. As a result, she was able to sell all of her produce, and her customers expressed satisfaction with the improved quality. She was grateful to the project for providing her with the opportunity to participate in the exchange visit.

Table 3. Result of the training assessment in Prey Veng province.

Topics	Scoring	Notes
Recordkeeping: Tracking income, expenses, profit, and profit margins	100%	The committee members and their producer groups received training and demonstrated strong performance. There is no need further training on this subject.
Post-harvest knowledge: Proper techniques for harvesting, storage, and packaging	0%	The committee members and producer groups have never received any formal or informal training and are unfamiliar with proper techniques. They rely on their own experience and practices. The chief of the AC strongly recommended and requested the project to support this, especially for processing and fermenting.
Business planning: Developing and managing business strategies	50%	Although Heifer trained 11 committee members to develop a business plan for exporting 1 t of chicken, the plan has not yet been successful. The knowledge from the training was applied, but the participants were able to understand and implement only about half of it. The AC has strongly requested this, though it is not urgent.
Marketing: Promoting and selling agricultural products effectively	50%	Theay Mean Chey regularly showcases its products at provincial-level exhibitions. Currently, the AC is planning to participate in weekly fairs every Thursday and Friday, organized by the Accelerating Inclusive Markets for Smallholders (AIMS) project. Previously, the AC sent one staff member to receive training on film production and video shooting to promote its products on Facebook. Product labels for AC items have been developed and applied at the community level only. Standard certification has not yet been obtained.
Fish processing: Fermenting fish (<i>Trey Praheum</i>), producing quality fish sauce, and pickling vegetables	0%	The farmers have never received training and are not familiar with proper techniques for processing the proposed quality products. These subjects are strongly suggested to have project support.

Equipment needed to support AC business and market activities

Currently, the AC has one cold storage unit with limited capacity for fresh chicken, vegetables, and small quantities of fruit. To expand operations and improve product quality, two key equipment items were identified: (1) a refrigerator with dual compartments and (2) glass bottles for fish sauce.

Refrigerator:

- Two compartments are needed—one for frozen fish and the other for chilled storage of fresh fish and meat. The proposed size is 2 m (L) × 1.2 m (W) × 1 m (D) with a glass cover.
- The AC has sufficient capacity (30 amperes) for continuous operation.
- The refrigerator would enable fish sales, which currently are not possible because of a lack of storage, and would also help diversify meats (fish, goose, comb duck) and increase chicken sales. Estimated sales increase would be as much as 80% compared to current levels.

Glass bottles:

- For retail sales, 500 ml bottles are needed.
- For bulk storage, 25-liter glass bottles are needed, with lids and tubs.
- Ten bulk bottles and 300 retail bottles are also needed.
- The plan is to implement a bottle return incentive of KHR 500 (USD 0.12) per returned bottle.
- Currently, fish sauce is sold in poor-quality plastic bottles, limiting market reach and consumer confidence in product safety. Glass packaging would improve quality perception and enable access to provincial markets.

Annex 2. Needs assessment report, Kampong Thom

ACs: Santuk Sarmky, Prasat Samky, Samky Prasat Taing Krasang, Kraya Sarmky
Location: Santuk District, Kampong Thom, Cambodia
Date: 9–11 September 2025

Santuk Sarmky

Santuk Sarmky was established in 2022. It has 190 members (133 women) and 14 committee members (9 women). As of 2025, the AC was engaged in several key activities, such as supplying fresh agricultural produce to the SMPs in three primary schools in Kokos Commune: Kokos, Cheay Sbai, and Chi Mek. It also provided agricultural credit to its members and sold agricultural inputs to support farming operations.

The cooperative sources a variety of vegetables directly from its members, including morning glory, eggplant, green papaya, pumpkin, and other leafy greens. However, items such as carrots, pork, and eggs are purchased from the local market to meet demand. Although five to 10 members maintain homestead ponds, fish is not currently included in the school meal supply. This is due to feedback from schools indicating that students generally dislike fish because of the bones and the relatively low edible portion after cleaning.

The contract to supply fresh ingredients to schools is still in its pilot phase. Notably, farmers can earn approximately KHR 300,000 (USD 75) per month by selling vegetables like morning glory or amaranth to the cooperative, which then distributes them to the schools.

Current challenges:

- **Agricultural skills are limited and producer groups are underperforming:** The AC faces a shortage of technical knowledge in vegetable farming, poultry, and aquaculture. Although the cooperative adheres to chemical-free practices for school meal produce, the crops often have poor growth and appearance, which schools find unappealing. A previous attempt to form a chicken producer group failed because of disease outbreaks. The AC is seeking support to establish new producer groups for fish and vegetables, along with guidance on developing a production calendar.
- **Bookkeeping and digital literacy are low:** Only one member of the cooperative has basic computer skills. Although they received training from Caritas Cambodia, most members still struggle with digital tools and recordkeeping.
- **Market access is limited:** The AC previously participated in the One Village One Product fair under the AIMS project for two months, selling chicken, winter melon, and morning glory. However, limited product variety and customer preference for comprehensive grocery options posed challenges, as buyers prefer not to visit wet markets for additional items.
- **Post-harvest storage is lacking:** The AC stored produce before delivery to schools using a cooling storage unit it owned that was provided by AMRU Rice, a private company producing and exporting organic rice from Cambodia. Now that schools have their own refrigerators, the unit will be used for other produce, such as fish and other meats.
- **Food processing capacity is low:** One member is currently attending training on fruit and vegetable processing at the Kampong Thom Provincial Innovation School. However, the AC has not yet developed a business plan for food processing.

Needs assessment:

- Provide support to help establish producer groups for vegetables, fish, and chicken.
- Provide support on crop production and planning.
- Provide training on bookkeeping (income, expense) and computer literacy.

Prasat Samky

This AC has 170 members covering two communes (Chrob and Prasat) and has six committee members (four women). The cooperative produces organic fertilizer and has previously organized producer groups for chicken and vegetables, as well as activities related to producing rice seed. Under the umbrella of safe agricultural products, the AC promotes hydroponic crops, chicken raising, rice seed, and rice producer groups. Currently, three farmers are raising fish individually but not as part of a formal group. The main source of income for the cooperative comes from selling organic fertilizer. Additionally, 20 members are cultivating vegetables for sale in the local community market and supplying produce to another ACs that provides ingredients for SMPs.

Current challenges:

- There is limited capital: The AC lacks the financial resources needed to purchase machinery to produce fine, round organic fertilizer and to construct a warehouse for drying the fertilizer before packaging. This would help protect the product from direct exposure to rain and sunlight.
- Prices are unstable and there are quality issues: Vegetable prices fluctuate frequently, and there is a need to improve the quality of produce. The AC previously supplied vegetables and chicken to markets in Phnom Penh, such as Sna Dai Mae Organic Mart, but faced delayed payments and complaints about product quality because of long transportation times. Although the chicken producer group is still active, members currently sell their chickens directly from their farms.
- Small-scale processing is limited: One committee member processes vegetables into pickles for sale, but this is done individually and sold locally to restaurants and within the community. The AC is interested in forming a group to process agricultural products like green mustard, pok choy, and daikon. A few committee members have received training in fruit and vegetable processing from the Federation of Farmer Associations Promoting Family Agricultural Enterprise in Cambodia (FAEC).
- Market options are limited: The AC aims to expand sales of its organic fertilizer to larger markets but lacks promotional tools such as banners and a social media presence (e.g., Facebook). It also plans to register a trademark with the Ministry of Commerce to strengthen its brand.
- Bookkeeping capacity is low: Knowledge of bookkeeping remains limited among members, though the AC has received some support from the UNI4COOP project to improve financial recordkeeping.

Needs assessment:

- The AC plans to invest in several key facilities and equipment, including a warehouse for drying processed organic fertilizer, a machine to produce finely rounded fertilizer, and a net house to support the vegetable producer group. Importantly, the AC has been awarded a USD 10,000 innovation prize from Khmer Enterprise and is currently in the process of securing the funds. Additionally, it has received a 50% matching grant to help finance the purchase of the fertilizer processing machine.

Samky Prasat Taing Krasang

This AC was formally established in 2021 with a committee of eight members, including five women, and began full operations in 2023. The cooperative was initiated through support from the FAEC and the Provincial Department of Agriculture, Forestry and Fisheries (PDAFF). Currently, the AC has 170 members. To strengthen the AC's operational capacity, the UNI4COOP project has provided support in computer literacy training and donated essential equipment, including a computer and printer.

The AC currently operates in several areas, including agricultural credit, vegetable production groups, fertilizer input supply, and rice paddy cultivation. It serves as a key supplier of fresh agricultural produce to four primary schools under the SMP. Training and technical support have been provided by the FAEC in areas such as composting, organic fertilizer production, bookkeeping, leadership, vegetable processing (e.g., pickles), and salted duck egg production. Although members have applied these skills for household use, they have not yet formed a formal business group for processing. The AC's core business activities currently focus on supplying fresh produce to SMPs, selling agricultural inputs, and preparing to launch a rice milling operation next year that is supported by a matching grant from UNI4COOP. It is also exploring expansion into cashew nut purchasing.

Current challenges:

- Production capacity is limited: The AC has difficulty producing enough vegetables and fish to meet demand. To bridge this gap, it purchases vegetables from Prasat Samky and sources fresh fish (e.g., snakehead, catfish, and pangasius) and meat from the local market, averaging 10–20 kg of fish per week for the SMP. Additional supplies like green leafy vegetables, fruit vegetables, and eggs are also bought locally. Although the vegetable producer group includes 40 farmers, it still falls short of meeting demand. Items like carrots and daikon are sourced from the market. Currently, the AC does not have a fish producer group, but there are around 10 farmers with homestead ponds, presenting an opportunity to form one. Although UNI4COOP has shown interest in developing rice–fish farming, such activities are not yet in place. The chicken producer group, consisting of 20 members, sells poultry directly to middlemen within the village.
- There is a lack of working capital: The AC provides fertilizer to members and local farmers on credit. Although there have been no defaults, the cooperative still faces challenges because of limited cash flow.

Needs assessment:

- There is a need for technical training on fish farming techniques, particularly for homestead pond management, and support to form a fish producer group to improve supply capacity.
- Additional operating funds are needed to support ongoing cultivation and production activities, especially as fertilizer is currently provided on credit to members and local farmers.
- The AC committee requires training in computer literacy and bookkeeping. At present, the AC leader, who holds a degree in accounting, manages all financial records. There is also a need for business planning support, which UNI4COOP previously provided.

Kraya Sarmky

This AC was founded in 2016 through the support of Caritas Cambodia and the PDAFF. The cooperative is led by a 10-member committee, of which 8 are women, and has a total membership of 190 individuals, including 132 women.

The AC is involved in buying and selling fresh cashew nuts, as well as processing them. It also provides agricultural credit, which is a major source of income but carries a high level of risk, and supplies fresh agricultural produce to schools under the SMP. The cooperative has the capacity to process 1.2 t of cashew nuts, with dried cashew priced at KHR 5,500/kg. Technical support and processing materials have been provided by the Cambodian Muslim Association, which also assists with packaging and reselling the final products. To promote its products, the AC engages in various marketing channels, including networking, participation in local product fairs, online sales through Facebook, and selling to local food catering services within the village.

Current challenges:

- Their vegetable and fish supply is insufficient: The vegetable producer group includes 43 members who grow green leafy and fruit vegetables from November/December to May, leaving a supply gap during the rest of the year. To meet demand, the AC purchases ingredients such as carrots, meat, and fish from the local market. Fish are sourced year-round from unknown suppliers, with wild fish costing KHR 15,000–20,000/kg (USD 3.75–5), while the SMP offers only KHR 7,000 (USD 1.75) for pangasius, KHR 7,500 (USD 1.87) for catfish, and KHR 8,500 (USD 2.12) for snakehead. The lack of water sources, homestead ponds, and financial resources limits local fish production. Existing trap ponds in rice fields are only suitable for catching wild fish and for a seasonal and short supply and for household consumption.
- Access to capital is limited: Members often need small loans (KHR 2–3 million) to purchase fertilizer and pesticides during the cultivation season. However, the loan approval process from the Agricultural and Rural Development Bank (ARDB) is slow and often misses the planting cycle. Additionally, the ARDB and other microfinance institutions typically offer larger loan amounts, which do not meet the immediate needs of members.
- Market demand is low for processed cashew nuts: There is currently no significant market demand for processed cashew nuts. All final products are sold to the Cambodian Muslim Association, which plays a key role in retail distribution.
- There are transportation and pricing challenges: Some schools under the SMP, such as Thmor Samleang Primary School, are located in remote areas, making transportation difficult. This leads to increased food prices, often exceeding the initial bid price.

Need assessment:

- The AC requires improved transportation to deliver fresh agricultural produce to schools, especially over long distances. A larger vehicle, such as a car or a two-ton truck, is needed to safely transport heavy food items and to purchase cashew nuts directly from plantations.
- In terms of storage and processing, the current setup is limited, with all activities compacted into one small building. There is no dedicated space for storing final products, and the AC urgently needs a cupboard or shelving system for proper storage. Additionally, a machine to separate cashew shells from the nuts after cracking is needed to improve processing efficiency.

Annex 3. Needs assessment report, Attapeu

Producers group

Location: Sanamxay District, Attapeu, Lao PDR

Date: 8–12 September 2025

This assessment was conducted across four villages in Sanamxay District: Done Muang, Hom, DongBark, and Inthi. The assessment engaged five producer groups involved in rice–fish farming, red rice production, legume trials, and vegetable cultivation using groundwater and greenhouse systems.

In total, 51 participants took part in discussions, including village chiefs, group leaders, farmers, and district agriculture officials.

The assessment focused on four key questions:

1. What is the current situation of group activities, including capacity and facility/equipment needs for post-harvest and market access?
2. Are current activities oriented toward sale or home consumption, and are they profitable or loss-making?
3. What challenges have groups faced in their activities/business so far?
4. If training is needed, what type of training model is preferred (e.g., on-the-job, hands-on)?

Open-ended questions were used to encourage detailed responses. Group discussions, brainstorming, and participant suggestions were applied to identify needs and priorities. Additionally, one primary school was visited to understand the ongoing SMP and explore opportunities to link local producers to this program as a potential market outlet.

Production challenges:

- There is limited technical knowledge in crop cultivation and fish farming.
- There is insufficient capital to start or expand businesses.
- For example, in Inthi village, 2–4 members of a greenhouse–vegetable–duck group sell products locally and to collectors in Samakixay District, but scale remains limited.

Market access:

- Market information and planning are lacking.
- For example, a compost producer group failed because of an absence of a clear market strategy.
- Farmers lack skills in cost calculation, profit/loss analysis, and post-harvest handling, which are critical for quality and pricing.

Infrastructure constraints:

- Road access during the wet season is poor, despite the district market being only 15 km away.

Opportunities:

- Sanamxay District has 22 primary schools participating in the SMP.
- The government provides LAK 1,000 per meal per student, while the WFP adds LAK 5,000 per meal per student.
- The WFP, with German funding, is piloting support for around 200 farmers in vegetable and poultry production for school meals.
- Opportunities exist to link MFL project farmers to SMP markets in collaboration with the WFP.

Capacity building on five priority training topics:

- Post-harvest practices (scored 10%)
- Production planning (0%)
- Marketing strategies (0%)
- Profit and loss analysis (0%)
- Packaging techniques (10%).

Equipment and infrastructure requests:

- Two rice storage facilities (one in each of two villages), and two community shops (one in each of two villages) are needed. These facilities will reduce post-harvest losses, enable bulk sales, and provide accessible marketplaces for local producers.

Training development:

- Design programs tailored to varying literacy levels, using visual aids and participatory methods.

Infrastructure implementation:

- Review and plan construction of rice storage facilities and community shops.

Annex 4. Training reports for fish processing

<https://hdl.handle.net/20.500.12348/6861>

Annex 5. Training reports for cost, profit, and loss analysis

<https://hdl.handle.net/20.500.12348/6871>



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