

Training Report on Fish Processing with They Mean Chey Agricultural Cooperative

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Introduction

The training program on fish processing was conducted at the Mean Chey Agricultural Cooperative (AC) Office in Theay Commune, Bar Phnom District, Prey Veng Province. The event was organized by WorldFish in partnership with the International Institute of Rural Reconstruction (IIRR) and was synergized between the Multifunctional Landscapes (MFL) under Area of Work 3 and the Scaling for Impact (S4I) initiative under Area of Work 2.

The training was designed in response to the results of the capacity assessment conducted with producers in August 2025, which identified fish processing, post-harvest handling, and cost-profit and loss analysis as the most critical needs. See Annex 1 – Needs Assessment Report in Prey Veng (Ou & Chanthalath, 2025). The training also bridges the importance of strengthening linkages among various actors, including aquaculture farmers, fish processors, technical experts, ingredient suppliers, packaging suppliers, and both retail and wholesale markets within and outside the agricultural cooperative.

This training also supports homestead aquaculture farmers engaged under Area of Work 2 of the Scaling for Impact (S4I) program by enhancing their skills in fish processing and facilitating market connections. These efforts contribute to broader initiatives aimed at scaling climate-resilient, sustainable small-scale farming, food nutrition and food security. Overall, the training is expected to strengthen production, processing capacity, and market linkages.

Objectives

The main purposes of the training were: (1) to provide participants with techniques in family-based fish processing; (2) to build capacity in post-harvest fish handling; and (3) to create opportunities for experience sharing and learning among farmers, processors, market actors, and technical officers, with the broader goal of improving household income through green products

Date, Venue and Participants

From 15–17 October 2025, a training event was organized at Theay commune, Ba Phnom district, Prey Veng province where the target of WorldFish implementing program of scaling for impact (S4I), and Multifunctional Landscape (MFL) to reach a broader participant and address various aspects of the sector. The training event focused on equipping knowledge and skills related to sustainable aquaculture practices, aquaculture post-harvest and fish processing technologies.

A total of 19 participants—including 18 women—took part in the training. Most attendees were Agricultural Cooperative (AC) Committee Members and members of the Fish Producer Group. The sessions were trained by experienced fish processor from Siem Reap Province, and technical experts from the Provincial Department of Agriculture, Forestry and Fisheries (PDAFF), particularly from the Aquaculture Administration Cantonment (FiAC).

Training Process and Result

Welcome remark and orientation by WorldFish’s Project Manager

Ms. OU Phichong, The Project Manager of WorldFish Cambodia and Lead for S4I Area of Work 2 and MFL Area of Work 3 summarized that WorldFish has been implementing several projects in Cambodia since 2006 to improve fish production, strengthen conservation efforts, and enhance nutrition sensitivity. Over the past twenty years, WorldFish has supported the Fisheries sector by implementing projects across the Tonle Sap floodplain and the Mekong region to advance aquaculture development and sustain capture fisheries.

Currently, the MFL project works closely with communities and stakeholders in the agriculture sector, as well as local fish producers, collectors, to support the school meal program. This work is synergized with the Scaling for Impact (S4I) initiative, which is in its transition phase to pilot the school meal program and to improve aquaculture production and value chains.

Opening remark by FiAC's representative

Mr. Ngin Sok, Deputy chief of the Fishery Administration Cantonment (FiAC) of Prey Veng, warmly welcomed participants and supporters. He reiterated the government's commitment to making aquaculture knowledge accessible at the community level. He encouraged farmers to think beyond subsistence fish raising and shift toward commercial production to meet market demands. He also noted the importance of engaging more men in fish production activities, highlighting that the current training was attended entirely by women.

Training Assessment

Pre- and post-tests were administered to assess participants' knowledge before and after the technical training sessions, utilizing a proxy assessment approach.

The results of Pre-Test

All participants reported that they had not previously been trained in fish processing and were unfamiliar with the procedures. As a result, their initial knowledge in this area was assessed as nil.

Post-harvest and Fish Processing session

Mr. Yon Samnang, the owner of a registered fish-processing enterprise in Siem Reap province, has been operating his business since 2003. He is well recognized for producing high-quality processed fish products. He was engaged by the project as a trainer to provide instruction on various topics, including the steps of fish processing and the benefits of processing fish to reduce post-harvest losses and improve farmers' income through value addition.

Mr. Ngin Sok, a technical expert in aquaculture under the Fisheries Administration Cantonment (FiAC), also served as a trainer, delivering sessions on aquaculture post-harvest handling. This activity was synergized with, and reported under, the S4I program.

Training content

Mr. Yon Samnang presented the content, covering all steps of fish processing from fish selection to packaging. Key aspects of hygiene, quality, and safety were emphasized throughout each stage, including selecting appropriately sized fish (1.5–2 kg) with low oil content, using natural and chemical-free fish, ensuring all cleaning processes use clean water, and processing fish quickly to preserve freshness and quality. Participants received both theoretical and practical instruction in producing three products. Please see the attached training materials.

- **Fermented fish (គ្រីកាម), Dried fish (គ្រីង) and Fish paste (ក្រូច)**

Practical Session

Under the guidance and demonstration of the trainer, the hands-on session allowed participants to practice each stage of the processing workflow — from raw fish selection and cleaning to fermentation, drying, and packaging. This approach deepened participants' technical knowledge while building confidence in implementing fish processing techniques at the household or cooperative level.

The participants acknowledged that fish processing provides a viable strategy to address seasonal over supply and price fluctuations. It also opens new income-generating opportunities, particularly for women, who are already highly engaged in aquaculture activities.

Post test assessment

After the training, all participants estimated that their knowledge had increased by 70% compared to before the training.

In addition to fish-processing techniques, the trainer also taught participants how to calculate the cost and profit of processed fish products. All participants actively engaged in the analysis.

Cost and profit analysis of processed fish

The costs include both fixed and variable costs, as well as selling price.

Table 1: Result of the cost analysis

| No | Description | Quantity | | Unit | Price/Unit | Total | |
|-----------------------------------|------------------|--------------------|--------------------|----------------|------------|-----------------|-----------------|
| | | Pangasius 10 Kg | Pangasius 30 Kg | | | 10 Kg | 30 Kg |
| 1 | Fresh pangasius | 30 | 100 | Kg | \$ 2.00 | \$ 60.00 | \$ 200.00 |
| 2 | Salt | 1 | 2.6 | Kg | \$ 0.25 | \$ 0.25 | \$ 0.65 |
| 3 | Sugar | 1 | 3.9 | Kg | \$ 0.75 | \$ 0.75 | \$ 2.93 |
| 4 | MSG (ဖိစိစ) | 2 | 2.6 | Kg | \$ 3.00 | \$ 6.00 | \$ 7.80 |
| 5 | Water | 2 | 5 | M ³ | \$ 0.50 | \$ 1.00 | \$ 2.50 |
| 6 | Hygiene material | 1 | 2.5 | Time | \$ 2.50 | \$ 2.50 | \$ 6.25 |
| 7 | Electricity | 5 | 15 | Kw | \$ 0.20 | \$ 1.00 | \$ 3.00 |
| 8 | Packaging | 0.2 | 0.5 | Kg | \$ 2.50 | \$ 0.50 | \$ 1.25 |
| 9 | Labor | 3 | 3 | PP | \$10.00 | \$ 30.00 | \$ 30.00 |
| 10 | Transportation | 1 | 1 | Time | \$ 2.50 | \$ 2.50 | \$ 2.50 |
| Total | | | | | | \$104.50 | \$ 256.88 |
| Cost per kg | | | | | | \$ 10.45 | \$ 8.56 |
| Selling price/kg (Add 25%) | | | | | | \$ 2.61 | \$ 2.14 |
| | | | | | | \$ 13.06 | \$ 10.70 |

Conclusion

Note: Through cost analyses, it was high production cost because:

- The high cost of raw fish.
- Ingredients purchased at retail prices.
- High labor costs.
- Small-scale production.

Drawing on the results of the profit-cost analysis, which was used as an example during the training, participants learned how to mitigate high costs as follows:

- Reduce fish cost by ordering a few days in advance and purchasing in bulk instead of buying at retail prices.
- Process fish on a larger scale expecting lower price, ideally between 50kg and 100kg .
- Purchase ingredients in bulk at wholesale prices.
- The labor costs should be calculated based on hours worked.



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