

# Fish for Livelihoods (F4L) Newsletter

Issue 10, January - March 2022

## Fish for Livelihoods:

The United States Agency for International Development (USAID) funds the Fish for Livelihoods (F4L) *Activity*, which aims to increase fish production, labor productivity, food availability, and fish consumption especially for women and children from vulnerable households. It provides opportunities for entrepreneurial activities in small-scale aquaculture (SSA) systems and promotes social behavioral change messages that direct home production and market purchases towards nutritious-conscious household decisions.

Fish for Livelihoods is being implemented in five inland states and regions in Central and Northern Myanmar: Mandalay, Magway, Sagaing, Shan, and Kachin for a period of 5 years (October 2019 – September 2024). The *Activity* primarily targets SSA households with small ponds <0.5 acre (2,000m<sup>2</sup>) and associated supply chain actors. The *Activity* targets at least 10,000 individuals, mainly pond farmers, and fish supply chain market actors, over the 5 years of the *Activity*.

## Activity anticipated results:

Inclusive and sustainable aquaculture growth to improve nutrition and food security, especially for reproductive-age women and children under 5 years of age in central and northern Myanmar.

**IR 1: Production.** Small-scale aquaculture production increased through improved land and water use and increased access to information, high-quality inputs, and credit.

**IR 2: Increased access to food-safe fish and fish products in the markets.** Access of SSA farmers to domestic markets increased and a consistent supply of food-safe fish and fish products was ensured.

**IR 3: Improved nutrition, food safety, and WASH.** Improved diet diversity and consumption of safe fish products and increased access to WASH packages, especially for women of reproductive age and children under 5 years of age.



**Figure 1.** A fish vendor in Shan State who received a fish rack from the *Activity*.

## A. Participatory Community Appraisal (PCA) sessions for new farmers in Kachin:

The *Activity* field team conducted a preliminary survey to identify and select SSA farmers in the Townships. For the selection of farmers, a participatory community appraisal (PCA) technique was adopted and applied as a broad empowerment approach that seeks to build community knowledge – assessing the

local conditions and markets as well as the problems and opportunities – using different visual tools and methods. On January 18, 2022, the PCA session was held in Bhamaw Township, Kachin. The session was attended by 23 (male=21, female=2) participants. Similarly, on January 28, 2022, the PCA training session was held in the Myitkyina Township, Kachin. The session was attended by 12 (male=9, female=3) participants from Myitkyina and Waingmaw Townships. In aggregate, 35 (male=30, female=5) SSA farmers attended these sessions.



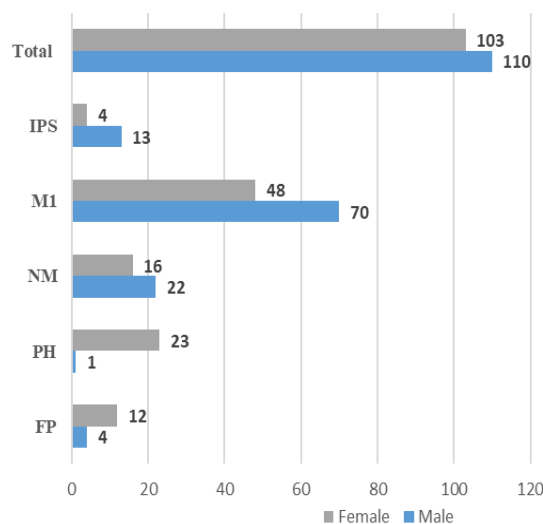
**Figure 2.** Group work during a PCA session in Kachin State.

The PCA is a powerful tool that reinforces and highlights community issues, challenges, and opportunities. The PCA helped illuminate the challenges of SSA in terms of technical aspects and market access. It gave a clear understanding of the situation in the villages, SSA farmers' access to resources (particularly water and land), and assesses the needs and partnerships required for SSA to be developed in the villages. As a result of the PCA exercise, 30 (male=28, female=2) SSA farmers in 8 villages of the Bhamaw and Momauk Townships were selected as potential participants for 2022. The supported SSA farmers will continue their existing fish culture activities and will have a sustained aquaculture income and

consequently, access to nutritious food in the long run.

## B. In-person and virtual capacity-building and training sessions

The *Activity* delivered a range of capacity-building and training sessions across the regions the *Activity* is implementing interventions. A total of 213 (male=110, female=103) participants – 48 percent of which were female farmers or market actors – attended these capacity-building sessions either in person or virtually. These training sessions covered a range of topics including good post-harvest practices, fish handling, and hygiene practices, carp nursery management, and SSA module-1. Details of each session will be briefly discussed in the ensuing paragraphs and a summary of participants for the respective sessions can be seen in Figure 3.



*FP*=Fish Processing, *PH*=Good Post-harvest, *NM*=Nursery Management, *M1*=SSA Module-1, *IPS*=Integrated Production System

**Figure 3.** Number of participants trained this quarter.

### 1. Good post-harvest practices training for the fresh fish retailers in Pindaya and Nyaung Shwe Townships, Southern Shan State:

On January 11 and 15, 2022, the *Activity* conducted in-person good post-harvest practices training sessions for fresh fish retailers in Pindaya and Nyaung Shwe Townships, Southern Shan State. From the training, the vendors learned; 1) to improve the quality of their fish in order for them to increase their incomes from better sales, and 2) to provide food-safe fresh fish to consumers. These sessions were attended by 16 women retailers – 11 from Pindaya Township, and 5 from the Inle Lake area.

The *Activity* helped the women gain knowledge on the importance of food safety practices, post-harvest quality control, and fish preservation methods. When the retailers apply the knowledge acquired from these sessions, it can help them increase their incomes and provide healthy and nutritious food to the consumers (Figure 4).



**Figure 4.** Participants in the Nyaung Shwe Township learning to arrange fish in a box before covering them with ice.

### 2. “Fresh fish vendors’ fish handling and hygiene practices” survey training among sub-grantees staff:

On February 1, 2022, the *Activity* conducted a half-day training of trainers for

22 (male=08, female=14) sub-grantees staff from BRAC, Myanmar Fisheries Federation (MFF), PACT, and KMSS. The training provided an understanding among staff of how to collect data on the current fish handling and hygiene practices among fresh fish vendors that will serve as baseline information before the start of interventions.

The training helped in ensuring quality data is collected that informs the *Activity* team on the types of intervention to provide and the messages to reinforce during training. The approaches benefit the fresh fish vendors and local consumers through increased income and improved quality of fresh fish sold, meeting the objectives of the *Activity*.

### 3. In-person carp nursery management training with field demonstration at Nyaung Shwe Township:

On February 16, 2022, the *Activity* delivered theory sessions on carp nursery management to the nursery farmers. The training sessions covered a range of topics including; 1) type of nursery, 2) pre-stocking management, 3) stocking management, 4) post stocking management, 5) fry hardening, 6) transportation and packaging, and 7) marketing. A total of 13 (male=9, female=4) participants – five nursery farmers and one sub-partner’s staff from Nam Sang Township, two staff members from Taunggyi Township, and three nursery farmers along with two team members from Pindaya Township – participated in the training sessions as can be seen in Figure 5.

The supply of larger fish to stock ponds is always a problem for farmers due to the high purchase price, high mortality for longer distances from the hatchery, and lack of availability throughout the year. The farmers can address these issues while



**Figure 5.** A facilitator explaining to farmers the operations of the hatchery.

ensuring that larger fish are available at an affordable price in their area with the establishment of a new nursery. The participants, who attended the training session, acquired new learning on carp nursery management that will help improve the quality of fingerling production and healthy survival rates when better nursery management practices are adopted.

#### **4. Carp and tilapia nursery farmer training in Tarlay Township, Eastern Shan:**

On March 04, 2022, the *Activity* organized a training session for nursery farmers in Tarlay Township, Eastern Shan. This training session was attended by five male nursery farmers – four nursery farmers from Tarlay Township and one farmer from Keng Tong Township. The training session was delivered in person. The facilitators demonstrated how a nursery hapa is set up in the pond for carp and tilapia, as well as how to manage and nurse the fish (Figure 6).

The farmers will have local access to quality fish fry at affordable prices as well as healthier and bigger fish fingerlings. As a result, the survival rate of the fish will improve, and it will ultimately increase fish production in their ponds.



**Figure 6.** Carp nursery management demonstration to farmers in Tarlay Township.

#### **5. In-person carp nursery management training session at Shwebo Township, Sagaing region:**

The *Activity* identified and selected nursery farmers with the primary goal of improving access to fish seeds in the intervention area. The *Activity* conducted face-to-face training on carp nursery management with a practical demonstration for nursery in Shwebo Township, Sagaing Region on March 24, 2022. Ten (male=4, female=6) farmers – seven nursery farmers from four villages, and three staff members from Shwebo Township – attended the carp nursery management session.

The *Activity* aims to ensure bigger fingerlings are available to farmers at an affordable price in their area to help improve the quality of seed production and healthy survival rate. The participants, who attended the training session, acquired new knowledge on carp nursery management. With these newly acquired skills, nursery farmers will be able to professionally work in fry nurseries and continue working there in the long run. Figure 7 highlights a glimpse of the session.



**Figure 7.** A staff member delivering a training session to nursery farmers in Shwebo Township.



**Figure 8.** Group photo of SSA farmers who attended a training session in Waingmaw Township

## 6. Small-scale aquaculture (SSA) training sessions in Southern Shan, Kachin States, and Sagaing, Magway Regions:

In FY 2022, the *Activity* will be extending support to new farmers in the existing townships where the *Activity* operates. The first step is to identify and select new potential SSA farmers. On January 26, 2022, in Nam Sang Township, the *Activity* field team delivered an in-person SSA module-1 training to select SSA farmers. A total of 17 (male=12, female=5) new SSA farmers participated and completed the training session. Farmers expressed their keen interest to learn the SSA technology from the *Activity*.

Information, Education and Communication (IEC) materials including pamphlets on SSA were also distributed to the attendees during the training sessions.

The *Activity* imparted knowledge through SSA training to newly identified SSA farmers. Through the training, they received clear guidance on how to adopt aquaculture Better Management Practices (BMPs) as well as knowledge on human nutrition and pond dike cropping systems (Figure 8).

On February 16, 2022, the SSA module-1 training session was held in Waingmaw Township, Kachin with 25 (male=18, female=07) participants. In Waingmaw Township, the *Activity* selected potential participants for the current implementation year. Careful selection of SSA farmers is critical for the successful implementation of activities in the Township. All selected farmers will participate in the *Activity's* work throughout the year. The supported SSA farmers will continue their existing fish culture activities and will have a sustained aquaculture income and consequently, access to nutritious food in the long run. Figure 9 is a group photograph of SSA farmers who attended the session.



**Figure 9.** Staff visiting a pond with farmers in Nam Sang Township, Southern Shan.

From February 15 to 18, 2022 training sessions were delivered to farmers in Shwebo Township, Sagaing Region. In aggregate, 51 (male=23, female=28) farmers, hence more than 50 percent are female farmers, participated in these training sessions. The training was delivered in two groups. A demonstration can be seen in Figure 10.



**Figure 10.** Demonstration of filling a pond with water using a water filtering net in Shwebo Township

The face-to-face training sessions were delivered successfully. The *Activity* provided SSA training to newly identified SSA farmers, and with that, they received clear guidance on how to apply BMPs in aquaculture as well as knowledge on human nutrition and pond dike vegetable cropping systems.

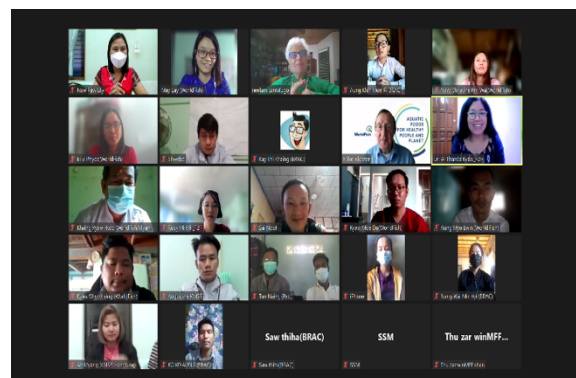
As part of the capacity-building initiative, the *Activity* delivered a virtual SSA module-1 training session to nine (male=8, female=1) SSA farmers on March 21, 2022 and the same was delivered to five male SSA farmers in Myothit Township, Magway Region on March 23, 2022. Similarly, on March 24, 2022, the *Activity* delivered an online SSA module-1 training session to 11 (male=4, female=7) SSA farmers in Salin Township. In aggregate, 25 (male=17, female=8) SSA farmers received virtual capacity-building in Myothit and Salin Townships.

The *Activity* delivered module-1 content to newly identified SSA farmers. The farmers received clear guidance on how to apply BMPs as well as knowledge of human nutrition and a pond dike cropping system.

### 7. F4L and Farmer-to-Farmer (F2F) joint technical assistance to the WorldFish trainer group:

The USAID-funded Farmer-to-Farmer (F2F) Program provides technical assistance to agricultural producers, organizations, agribusinesses, and universities in Latin America and the Caribbean. Through F2F, U.S. specialists spend two to three weeks on specific technical assignments, working directly with counterparts in the region to address local needs.

From January to March 2022, four virtual training sessions on 1) business planning, 2) financial record keeping, 3) risk management of integrated aquaculture, and 4) vegetable nursery and seed production were delivered to the hosts (WorldFish Myanmar as well as four sub-grantees namely BRAC, PACT, MFF, and KMSS). These sessions are attended by 150 (male=76, female=74) staff members who attended the sessions virtually. A screenshot of one of the virtual sessions can be seen in Figure 11.



**Figure 11.** Participants who attended a virtual joint session between F4L and F2F.

## 8. Good fish processing training in Nyaung Shwe and Pindaya Township, Southern Shan State:

On March 29 and 30, 2022, the *Activity* organized training sessions in Nyaung Shwe and Pindaya Townships, Southern Shan State, respectively. Five female fish processors in Nyaung Shwe Township and 11 (male=3, female=9) retailers in Pindaya Township attended the training. The key

objectives of the training were to empower fish processors to improve the quality of processed fish, reduce loss and waste as well as enhance their ability to provide food-safe and nutritious fish to consumers.

This initiative helped fish processors to gain knowledge on the importance of food safety practices and quality control as well as fish processing methods (dried, smoked, and salted fish). When the processor applies the knowledge gained from the sessions, it will help them to increase their income and provide healthy and nutritious food to consumers.

## 9. Capacity-building of Community-Based Organizations (CBOs) and Civil Society Organizations (CSOs):

The *Activity* is building the capacity of local organizations in Myanmar as part of the USAID localization agenda. A consortium of three organizations – one international and two locals – is leading this task. They have delivered training sessions to several Community-Based Organizations (CBOs) on a range of topics including strategic planning, financial management, monitoring and evaluation as well as reporting to mention a few. This is an ongoing activity and will end in the third quarter of FY 2022. A session of the in-person trainings can be seen in Figure 12.

The increased capacity built through this initiative of local entities will strengthen the



**Figure 12.** A consortium member facilitating a training session held for a CBO.

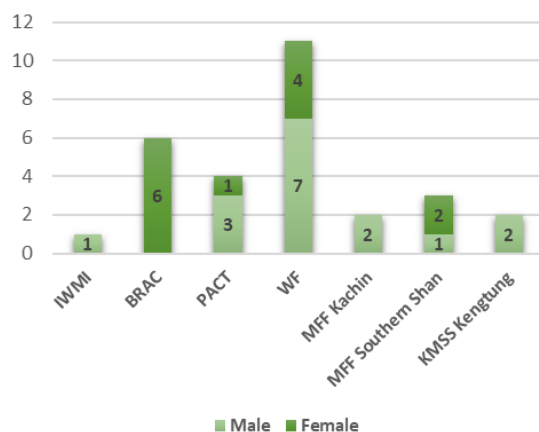
institution. The CBOS and Civil Society Organizations (CSOs) engaged through this initiative will have the possibility to work with the *Activity* in future years. This initiative will also contribute to a very important capacity-building USAID indicator in Myanmar.

## C. Monitoring, Evaluation, and Learning (MEL):

### Collaborating, Learning, and Adapting (CLA) Workshop

The *Activity's* Monitoring, Evaluation, and Learning (MEL) Team facilitated a one-day virtual workshop on Collaborating, Learning, and Adapting (CLA). The main purpose of the workshop was to interact with the management of WorldFish and sub-grantees to explore the concept of CLA and how this will help the *Activity's* implementation. Throughout the workshop, participants learned and discussed how they are collaborating, learning, and adapting to the current circumstances. They exchanged their experiences and each partner developed a plan on how to effectively collaborate and learn in the future. A total of 29 (male=16, female=12) participants attended this virtual session. (Figure 13). Participants comprised of WorldFish (WF) and *Activity* partners – BRAC, IWMI, PACT, MFF, and KMSS.

More details on the proceedings are discussed in ensuing paragraphs.



**Figure 13.** Gender composition of CLA participants for sub-grantees.

## D. Reduction of post-harvest loss:

### 1. Distribution of fish display racks to fresh fish retailers in Pindaya and Nyaung Shwe Townships, Southern Shan State:

The *Activity* provided support to fresh fish retailers to build their capacity. This was carried out through training sessions to improve food safety practices that minimize post-harvest losses.

One of the key findings of the assessment was that having good quality display tables/racks will enable fish retailers to adopt good fish handling practices. Recognizing the need, the *Activity* distributed fish display racks and handwashing buckets to 10 retailers in Pindaya, three retailers in Nyaung Shwe, and one retailer in Nam Pan market. The distribution of the racks is a pilot and will be further assessed in terms of positive differences these will make to good fish handling practices.

The provision of fish display racks is a novel intervention in the area and it demonstrates the importance of applying

good practices that contribute to increased income and eventually result in adoption by other vendors creating a ripple effect in the communities.

### 2. A contest for the best-integrated fish agri-food system in Nam Sang, Pindaya, and Taunggyi Townships:

The *Activity* encouraged SSA farmers to practice an integrated fish agri-food production system in their homesteads so that SSA households can easily consume both fish and vegetables daily through their own production. To promote an integrated fish agri-food production system, the *Activity* conducted a competition among SSA farmer households for the best-integrated fish agri-food system in Nam Sang, Pindaya, and Taunggyi Townships on 15, 21, and 24 March, respectively. The *Activity* selected nine SSA farmer households from the three townships to evaluate on the best integrated fish-agri-food production system. The evaluation was attended by other SSA farmers as well so they were able to learn the importance of an integrated farming system so they can consume diverse foods at home.

The SSA households learned and witnessed with their own eyes the best integrated fish agri-food production system and how it provides nutritious fish and vegetables produced in their own gardens. The contest reinforced the promotion of an integrated fish agri-food production system, and it may result in the adoption by other SSA households in the community. This will directly contribute to one of the three components of the *Activity* – the consumption of nutritious food by SSA farmers' households. Figures 14 and 15 show the winners from Namsang and Pindaya Townships.





**Figure 14.** Awarding the prize to the winner in Namsang Township.



**Figure 16.** The winning integrated fish agri-food production system in Pindaya Township.



**Figure 15.** Awarding the prize to the winner in Pindaya Township.



**Figure 17.** The winning integrated fish agri-food production system in Taunggyi Township.

### Blog published for International Women's Day (IWD)

As part of the WorldFish global campaign for the 2022 International Women's Day (IWD), the work of a female farmer is highlighted in a [blog](#). This farmer is supported by the *Activity* in Southern Shan State, Myanmar.

**For more information about the *Activity* and to access communication products and material, please visit the link given below:**

<https://www.worldfishcenter.org/project/fish-livelihoods>



**Figure 18.** The winning integrated fish agri-food production system in Namsang Township.