

# Fish for Livelihoods (F4L) Newsletter

Issue 12, July - September 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 by 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 dietary 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.

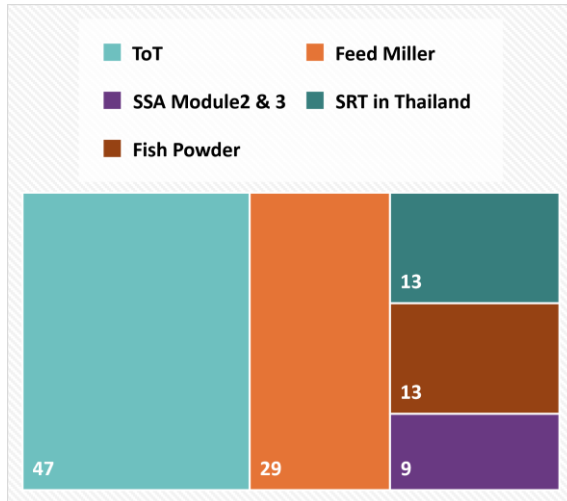


**Figure 1.** Mothers with their children during a Nutrition Awareness Session.

## A. Capacity building of SSA farmers, fisherfolks, and staff:

Capacity building is a crucial component in the implementation of the *Activity*. The *Activity* regularly builds the ability of participants with a range of capacity-building initiatives, primarily through in-

person and virtual training sessions. In this quarter, the *Activity* trained 111 (male=70, female=41) participants, a significant achievement as 37% of the trained participants were women, slightly above than the target of 35%. The detailed proportion of male and female participants for each of the training sessions is shown in Figure 2.



**Figure 2.** Proportion of participants who received training from the Activity.

### 1. SSA for Improved Human Nutrition Training of Trainers (ToT), Keng Tung Township, Eastern Shan State:



**Figure 3.** The *Activity* team led by WorldFish in discussion with a farmer.

The *Activity* conducted an in-person ToT session, which covered a range of topics in Keng Tung Township, Eastern Shan State. It was attended by 27 (male=14,

female=13) participants from sub-grantees of the *Activity*. Twenty (male=12, female=08) persons from WorldFish also attended and facilitated the ToT sessions.



**Figure 4.** Participants involved in an Activity during ToT session in Eastern Shan.

The F4L *Activity* successfully trained 27 staff members of sub-grantees who will now act as Trainers in their assigned constituencies (figure 4). These trainers will train F4L *Activity* participants (farmers, household members of farmers, and market system actors.) to ensure that farmers in Myanmar have a sustainable supply of affordable nutritious food for their families and earn additional income for the household with improved capacity and knowledge.

### 2. Feed Miller Training in Tarlay Township, Eastern Shan:

The *Activity* provided two days of training for feed millers in Tarlay township, Eastern Shan State. The training was aimed at understanding how to produce good quality fish feed by using locally available raw materials. The sessions delivered theoretical and practical demonstrations on the improved quality of sinking pellet fish feed. Sinking pellets are easier to produce than the more expensive and effective floating pellets. In aggregate, 13 (male=10,

female=3) participants attended the two days of training as shown in Figure 5.



**Figure 5.** Feed millers receiving information from a senior *Activity* team member at one of the sessions.

The feed millers and farmers were pleased to receive face-to-face training after many months without having direct human contact. This training enabled feed millers to learn the value of monitoring feed quality, and pellet feed production methods. This will in turn enable farmers to improve their incomes by selling pelleted feed, while local farmers will have access to higher-quality fish pelleted feed at a lower cost.

### 3. Shwe Ngar App and SSA Module 2 and 3 training sessions for new farmers in Mogaung Township, Kachin:

On July 14 and 15, 2022, the Shwe Ngar mobile application (App) and SSA Module 2 and 3 in-person training sessions were organized in Mogaung Township, Kachin. These sessions were attended by 09 (male=06, female=03) participants.



**Figure 6.** Participants who attended the SSA Module 2 & 3 sessions.

The *Activity* team delivered SSA Module 2 and 3 training to selected farmers (Figure 6). The Shwe Ngar App is a useful virtual platform for farmers that reinforces and highlights the needs and challenges of SSA farmers. Farmers also get information about market linkages and opportunities in the SSA sector through the App. The utilization of the App will help in the resolution of SSA farmers' technological and market access difficulties.

### 4. Tilapia Mass Production and Sex Reversal Technique (SRT) training at Nam Sai Farm, Thailand:

To contribute to the 2030 WorldFish Research and Innovation Strategy and to enable WorldFish in Myanmar to meet the *Activity*'s objectives, key hatchery and nursery owners, and crucial *Activity* field staff attended the 'Tilapia Mass Production and Sex Reversal Technique (SRT)' training at Nam Sai Farm, Thailand from August 17 to 26, 2022. The main purpose of the visit is to replicate SRT in Myanmar and to promote the national and international market linkages on Genetically Improved Farmed Tilapia (GIFT) production. In aggregate, 13 (female=3, male=10) participants attended the training (Figure 7).



**Figure 7.** USAID officials and *Activity* team members at Nam Sai farms, Thailand.

Localizing the production of SRT Tilapia in Myanmar, the trained private hatchery and nursery owners will maintain the quality of brood stocks by getting technical inputs internationally to enhance the production of quality sex-reversed GIFT seed to fulfill the local demand while being sustainable.

### 5. Dried Fish Powder and Feed Miller Training in Shwebo Township, Sagaing Region:

**a. Fish Powder:** a training session on dried fish powder was organized with a total of 13 (male=8, female=5) participants. This training increased knowledge on the preparation and the use of dried fish powder as food for infants and young children as can be seen in the discussion among participants in Figure 8.



**Figure 8.** Participants preparing dried fish powder during the training session.

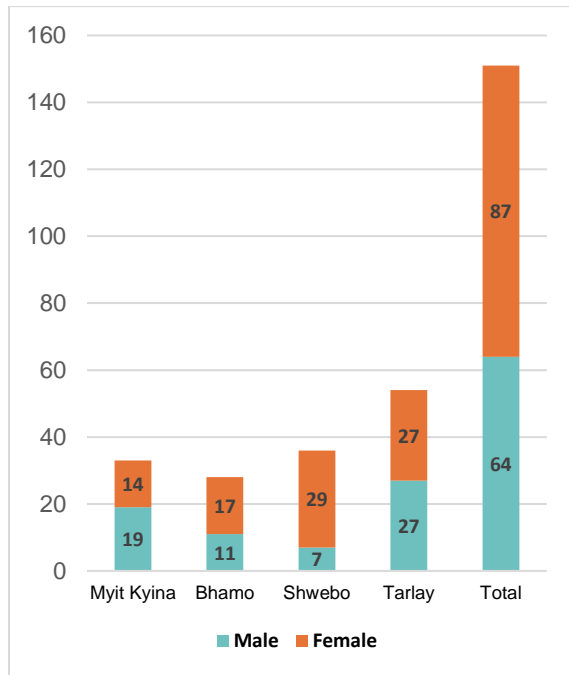
The purpose of producing dried small fish powder is to reinforce the knowledge of leveraging fish availability during seasonal abundance. It engages women and youth in the home-based production of dried fish for increased self-consumption with surplus sold to generate income. It also conveys the benefits of consuming fish among children and pregnant and lactating women as a source of essential macro and micronutrients for improved nutrition.

**b. Feed Miller:** The *Activity* taught fish feed millers how to manufacture good sinking fish feed pellets. The training was held in-person for sub-grantee staff members and grow-out SSA farmers. This training session was attended by 16 (male=10, female=06) participants. The key objectives of the training were to empower fish farmers and feed millers to improve the quality of sinking fish feed pellets at a lower cost than commercial floating pellet feed. The fish feed miller and farmers were very excited to undergo face-to-face training. This assisted fish feed manufacturers in learning about importance of feed quality management and pelleted feed processing methods.

## B. WASH, Nutrition, and post-harvest activities:

This quarter, the *Activity* took part in Myanmar's Nutrition Month celebrations by organizing several nutrition awareness campaigns in select States and Regions. These highlighted the importance of nutrition in farmers' daily life and how they can consume a balanced and nutritious diet with little effort. In all, 151 (female=87, male=64) farmers, their family members, and community members attended these events held in four townships. Women made up more than half of the participants at 58%. Figure 09 shows the breakdown of

participants by township. More details will be provided in the next subsection.



**Figure 9.** Breakdown of participants who attended the Nutrition Month events in Myanmar by township.

### 1. Nutrition Awareness Campaign in Kachin State, Sagaing Region and Shan State:

August is celebrated as the ‘month of nutrition’ in Myanmar. The *Activity* conducted nutrition awareness sessions in Sagaing Region, Kachin and Shan States. The events included cooking competitions, nutrition promotional material dissemination, and raising awareness on the consumption of nutritious food, especially for women and children. In total, 61 participants attended the nutrition events, 33 (male=19, female=14) and 28 (male=11, female=17) in Myit Kyina and Bhamo townships, respectively.

The events in Shwebo Township, Sagaing region reached 36 (women=29, men=7) adult participants and 13 (girls=7, boys=6) children under 5 years of age as can be seen in Figure 10. Furthermore, in Eastern

Shan State, a total of 54 (female=27, male=27) participants attended the event.



**Figure 10.** Participants during an awareness session in Shwebo Township.

These events reinforced the important message of consuming a balanced diet and washing hands with soap at critical moments to maintain good health. In addition, the demonstration and small indigenous fish species (SIS) cooking competition made the event interactive and fun, reminding participants to share their knowledge with their neighbors and adapt it to their life.

### 2. WASH material distribution in SeikPhyu Township, Magway Region:

With the help of Aquaculture Promoters (APs), the *Activity* provided 14 targeted SSA farmers with seven toilet bowls and pipes, three water filters, and four water containers to 14 SSA farmers. The APs also explained to farmers how to set up the

WASH material and how to use the water filter to get safe drinking water.



**Figure 11.** A female participant receiving WASH material from an *Activity* team member.

WASH materials are very important for promoting cleanliness in the area which leads to improved human health. The farmers appropriately installed the provided materials in their homes and compounds. Following that, they reaped the benefits of clean drinking water, and clean and improved latrines near their homes.

### 3. Fish cold supply chain management survey focus group discussion (FGD) and interview in Shwebo Township:

To improve fish processors' capacity to supply safe and healthy fish to consumers, the *Activity* carried out an FGD and interviews with vendors, processors, wholesalers and ice producers from August 30 to 31, 2022 in Shwebo Township, Sagaing Region. The survey involved a total of 11 (male=5, female=6) persons, comprising fish processors and vendors.

The key objectives of the FGD were to understand the current practices of using ice among fish vendors, fish wholesalers, and fish processors, and to identify opportunities that can support improving the quality of marketed fish to help improve their incomes and ability to provide safe and healthy fish to consumers. According to the vendors, fewer fish were traded as a

result of high fish prices, which has reduced their incomes (Figure 12).



**Figure 12.** Enumerators collecting data from a fresh fish vendor.

Fish value chain actors received training on good fish processing practices. This activity helped fish market agents in learning the various fish processing methods (dried, smoked, and salted fish) and the importance of food safety practices and quality control. When the value chain actors apply the new knowledge they learned from these sessions, it will help them to provide customers with healthy and nutritious food while increasing their income.

## C. Planning and Monitoring Evaluation Learning (MEL)

### 1. Fish for Livelihoods (F4L) Planning Meeting for FY 2023:

The *Activity* conducted a two-day in-person Planning Meeting in Yangon, Myanmar. This is the first time that WorldFish and the *Activity* sub-grantees (partners) assembled in person for an annual work planning session. The participants discussed the *Activity's* past performance and planning for the upcoming year, FY 2023. The meeting was attended by 57 (male= 28, female=29) participants.



**Figure 13.** Group photo of USAID, WorldFish and *Activity* partners who attended the planning meeting.

The planning meeting provided USAID, WorldFish, and partners a rare opportunity to interact and exchange valuable lessons learned throughout the *Activity's* implementation. The exchange of information and lessons learned among participants validated what went well, what didn't and what needs to be improved. It helps WorldFish and partners build a successful approach that will continue in upcoming years of the *Activity's* implementation. A group photograph of the participants can be seen in Figure 13 above.

## 2. Collaborating Learning Adapting (CLA) Monitoring Evaluation and Learning (MEL) workshop in Yangon:

The *Activity* conducted a two-day in-person workshop in Yangon, Myanmar with the objectives of discussing the basics of Collaboration, Learning, and Adapting (CLA) and its components in light of the *Activity's* implementation, taking a 'deep dive' into what was learned and how the team adapted in the course of implementing the activities, and developing a common understanding of MEL, Data Collection, and Reporting of the *Activity's* work to USAID. The workshop was attended by 36 (male=21, female=15) participants representing all seven *Activity* partners (Figure 14).

The CLA/MEL workshop increased the capacity of the *Activity's* partners and key staff members in CLA and MEL aspects of

the *Activity*. The participants learned how to apply CLA key concepts to their work and would develop a CLA plan for their organizations based on the implementation of the *Activity*. Moreover, the WorldFish MEL team discussed with participants about the *Activity's* 'Data Tools Package' and reporting templates. The participants



**Figure 14.** Group photo of USAID, WorldFish and F4L partners.

now have clarity on how to fill data collecting and reporting templates, ensuring high-quality, reliable and verified data will be collected and then reported as a result.

## 3. Lessons Learned Workshops in Kachin and Shan States:

On August 01-02, and August 05-06, 2022, the *Activity* conducted Lessons Learned workshops in Myit Kyina and Bamaw Townships, respectively in Kachin State. The workshops aimed to document key lessons learned during the implementation of the *Activity* in the field. In aggregate, 55 participants attended both workshops, 27 (male=16, female=09) participants and 28 (male=21, female=07) participants in Myit Kyina and Bhamo townships, respectively. The evidence from these workshops revealed the key production, nutrition, and related challenges that can be addressed with the *Activity's* intervention in the forthcoming years.

The *Activity* conducted Lessons Learned workshops in Nyaung Shwe Township, Southern Shan State, on September 13-14, 2022, and 15-16 September 2022. In aggregate, 40 (male=27, female=13) participants attended the workshops. A glimpse of the workshops can be seen in Figure 15. The workshops aimed to document key lessons learned during the *Activity*'s implementation in the field.



**Figure 15.** A participant presenting at the Lessons Learned workshop in Shan State.

The Lessons Learned workshops provided an interactive in-person platform for staff, farmers, and market actors to celebrate the achievements of the *Activity* and to reflect on what had worked and what hadn't since the implementation in Southern Shan had started. This stocktaking from the grassroots level will help document critical aspects of successes and failures in the field for the next two years of the *Activity*'s implementation. The key lessons will feed into ongoing WorldFish and the *Activity*'s sub-grantee work plans to be implemented in FY 2023.

## D. Operational Research:

### 1. Feed Trial Set-up at Nyaung Shwe Township for Research:

Based on the results of a research trial in 2021, the *Activity* established a scaled-up feed trial to assess the productivity and profitability of common carp (*Cyprinus carpio*) culture by applying different types

of farm-made feed compared to commercial feed available in Nyaung Shwe, Southern Shan State, Myanmar. The setup is shown in Figure 16. The research trial aims to achieve the following objectives: 1) to assess the performance of different types of feed formulated with locally available agricultural by-products on fish productivity and profitability, and 2) to optimize the feed formulation and ingredient selection to produce low-cost, affordable and nutrient-rich feed for small



**Figure 16.** Setup of feed trial in Nyaung Shwe Township, Southern Shan.

and medium-scale feed producers. Since feed cost comprises 60-80% of the total operation cost, farmers are often unable to use feeds in their ponds. The results of the feed trial will demonstrate the performance of formulated farm-made feeds and the selection of ingredients that are affordable and nutritionally adequate, with no negative impact on the environment to increase fish productivity. It would also help feed producers and farmers to optimize their feed formulation to produce nutritionally rich feed using locally available ingredients effectively.

**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>