

Fish for Livelihoods Newsletter

Issue 4, July - September 2020

Fish for Livelihoods:

The United States Agency for International Development (USAID) funded Fish for Livelihoods project 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 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 five years (October 2019 – September 2024). The project primarily targets small-scale aquaculture households (with small ponds <1 acre) and associated value chain actors. The project targets at least 10,000 individuals, mainly pond farmers and fish value chain market actors over 5-year period of the project.

Project Anticipated Results:

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

IR 1: Production. Small-scale aquaculture production increased by improved and land

and water use, and increased access to information, high quality inputs and to credit.

IR 2: Increased access to food safe fish and fish products in the markets. Access of SSA to domestic markets increased and consistent supply of food safe fish and fish products 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 five.



Figure 1. A Female selling Fish in the local market.

Dried Small Fish Powder Project – FedWell Foods

Fish for Livelihoods in partnership with Fedwell Foods, a private company based in Myanmar, is testing the viability of producing dried small fish powder as complementary food for infants and young children. The aim of the partnership is to

In partnership with

produce a larger volume of fish powder, test the acceptability of the product to target consumers (women with infants over 6 months of age) and to try incorporating the powder in Fedwell products that are available at markets. The project will run for three and a half months. The dried fish powder is a healthy option especially for women of reproductive age and infants (6 months and above) for increasing essential nutrients and bioavailable protein in their diets. The aim is to address undernutrition and micronutrient deficiencies especially for children under five.

Design and Development of Mobile App, Shwe Ngar (Golden Fish)

An android based mobile application (app) named “Shwe Ngar” (Golden Fish) exclusively designed for small-scale aquaculture farmers in Myanmar was launched in August 2020. The app can be downloaded from Google play store; (<https://play.google.com/store/apps/details?id=nl.singlespark.goldenfish&hl=en&gl=US>). Shwe Ngar will be the first app of its kind for SSA farmers in Myanmar.



Figure 2. Shwe Ngar modules layout.

The app will help farmers to formulate fish feed according to their pond size and other parameters. Moreover, they can access

loads of materials on technical aspects including pond preparation, fish seed, better management practices (BMP), information on basic nutrition and WASH, and market actors. This App is linked with Village Link, one of the major agricultural app in Myanmar for enhanced visibility and broader outreach. The app formally launched in October 2020.

GIFT Brood Stock

Fish for Livelihoods liaised with the Department of Fisheries and collaborated with MYSAP¹ Inland to transport Genetically Improved Farmed Tilapia (GIFT) brood stock from Daedayae hatchery to Nat Yae Kan Hatchery, Mandalay, Department of Fisheries (DoF) and Shwe Bo hatchery, Myanmar Fisheries Federation (MFF). Two hundred and thirty (230) brood stock for both of the hatcheries. Genetically Improved Farmed Tilapia (GIFT), a strain of tilapia, is one of the most-farmed aquaculture fish in the region. It has become a fish of choice because it is fast growing and an affordable source of animal protein. This stocking will ensure that hatcheries supply good-quality seed to farmers results in an increase of farm productivity and incomes. This will encourage the expansion of Tilapia farming in Myanmar by supporting quality brood stock to Department of Fisheries (DoF) and Myanmar Fisheries Federation (MFF) among others.

Water, Sanitation, & Hygiene (WASH) Material Distribution:

WASH awareness-raising materials were distributed among project participants in Salin, Ngape, Khin-U, Madaya, Taunggyi, Pehkon, Pindaya, by implementing partners. The purpose of this initiative was

¹ The Myanmar Sustainable Aquaculture Programme (MYSAP) is funded by the European Union (EU) and the German Federal Ministry for Economic Cooperation and Development (BMZ) and is implemented by Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH and the Department of Fisheries.

In partnership with

to equip project participants with necessary materials needed for improved hygiene, especially in the midst of COVID-19 challenging time and crises. Subsequently, pamphlets with key messages on COVID-19, effective water, sanitation and hygiene practices were delivered to them. It is expected that raising awareness on the importance of sanitation and hygiene will result in improved health of participants and their families. The knowledge they acquired about better hygiene and sanitation, are communicated to other community members via word of mouth. The sustained importance of hand washing practice in COVID-19 crises will keep beneficiaries safe from communicable and other diseases resulting in improved health.

Small Indigenous Species (SIS) in Ponds

Fish for Livelihoods aimed to improve production and consumption of Small Indigenous Species (SIS) in Myanmar. SIS species when eaten whole contains vitamin-A essential for good vision, calcium for bone development and Vitamin B12 and essential fatty acids for cognitive development in infants and young children. Burmese loach, one of the types of SIS was stocked by farmers in their ponds in Taunggyi township, Southern Shan. Increased production of SIS will ensure regular access to small fish for household members and people will get more opportunity to consume such fish. Regular SIS consumption will have positive nutrition implications and, will contribute to the project results on improved nutrition especially for women and children in Myanmar.



Figure 3. Farmers stocking SIS in a pond.

Nutrition Month-Celebration in Myanmar



Figure 4. A pregnant mother with her kids reading Nutrition posters.

Fish for Livelihoods, with support from IPs, conducted numerous events on account of celebrating Nutrition Month in Myanmar. There were over 1,500 people engaged through events and campaigns, which saw Information Education & Communication (IEC) materials on nutrition distributed to 1,007 (men = 594, women = 413) community members and their families. A series of activities such as World Café, hanging of posters, cooking demonstration, nutrition talks, games, quizzes, and cooking competitions were conducted in Kengtung, Pekhoh, Pinlaung, Taunggyi,

In partnership with

Khin-U, Madaya, Salin, Nga Phe, and Shwebo townships. Women, men and children participated in the community's celebration while observing precautionary COVID-19 measures as directed by the national and local authorities.



Figure 5. Representation of indigenous communities in Nutrition events.

The Nutrition Month campaign puts emphasis on; exclusive breastfeeding, good nutrition for under 5-year-old and school age children, good nutrition during pregnancy and lactation, prevention of iodine deficiency disorders, and importance of consuming fortified food. These events exposed communities with targeted messages on importance of nutrition in their lives especially for women and children. Knowledge and awareness acquired from these events will be helpful in shaping positive nutrition behaviors of Fish for Livelihoods participants, their families, friends and neighbors.

In-person Capacity Building of Fish for Livelihoods, WorldFish and Implementing Partners

A series of in-person training sessions were steered from August 24 to 28, 2020 in Yangon, Myanmar. These training sessions were delivered by professional trainers and companies. The training sessions delivered on themes including, photography, extension methods, team building, and

leadership. Fish for Livelihoods team and key personnel of implementing partners attended these sessions. Learning acquired and capacity developed through these sessions will be inculcated into IP teams primarily those working directly with farmers and communities. These sessions gave a chance to WorldFish and IP staff members to exchange, interact, and plan ideas for improved implementation of activities in their respective areas in current year, year-2 and beyond.

In-person Consultation Workshop with Aqua-pharmaceutical companies

On August 31, 2020, Fish for Livelihoods conducted a consultative workshop with aqua-pharmaceutical and aqua-equipment companies in Yangon. The purpose of this consultative session was to get perspectives from the firms on potential support and partnerships. The idea was to innovate areas of interventions around their businesses and implement from the project's second year and onward. The workshop was attended by six participants from four companies.

The group discussed issues and challenges they are facing and brainstormed potential solutions to these challenges and, where these could be bridged with the help of Fish for Livelihoods. Companies who have attended the workshop showed interest and willingness to collaborate with Fish for Livelihoods in future. They were particularly interested in potential collaborations around fish feed and market system. These companies will be contacted in future to design and implement innovative interventions around market system and fish feeds.

In partnership with

Conservation of Intha Carp (Nga Phein) Species



Figure 6. A female farmer at the time of stocking Intha Carp.

Intha carp (*Cyprinus intha*), or Nga Phein is a bottom dweller species of carps which is endemic in Inle Lake, Myanmar. Due to electrical shock fishing and a poor water quality, Intha Carp fishes migrated to other water sources and it is almost extinct species in the Inle Lake region. The Fish for Livelihood project in collaboration with Inle Lake committee started breeding efforts of this fish using simple selective breeding method to improve stock levels in the lake. Since then, more than 30,000 Intha carp fingerlings were raised in nursery pond and stocked in the Inle Lake. The effort will help conserve Intha Carp, an indigenous fish species in Myanmar. Intha carp will remain continue to grow in the growth-out pond until it reaches marketable size. Good quality fish will be reared to produce bloodstock so that we can produce the seed in upcoming years in the Inle lake.

Post-harvest innovations survey online training sessions

On September 07, 09, and 11, 2020 Fish for Livelihoods and Asper Consulting conducted an online training session for 35 participants from the project team.

From the training, the participants were

able to a) familiarize the basic concepts and themes in the questionnaires, b) learn how to collect data using the Kobo software application via android and computer browser, and c) learn the different ways on how to gather and ensure validity of data. The training ensured that the partner staff who serve as enumerators can collect data from the respondents (fish processors, processed fish retailers, processed fish wholesaler, fresh fish retailers, and fresh fish wholesalers) accurately using the Kobo application. Based on the findings from the assessment, innovative technologies/trainings are identified that can help in improving the businesses of the supply and value chain actors.

Workshop with Nursery Farmers in Taunggyi township

Fish for Livelihoods organized half day nursery farmer workshop with five nursery farmers and five aquaculture promoters (APs) in Taunggyi township, Southern Shan. The objective of the workshop was to a) develop nursery farmer business plan and, b) link nursery farmers with their customer and hatchery. Nursery farmer is taking the key role to supply bigger fingerlings to make sure higher survival and growth rate at stocking. Nursery farmers were able to develop on their own nursery business plan covering cost-benefit analysis. Stocking plan for nursery pond was developed including stocking density, species selection, culture period, etc. Nursery farmers are able to create linkage with seed supply sources (hatchery) and their customers to sell the product.

Introduction of Mono-Sex Nile Tilapia:

Fish for Livelihoods helped private sector in importing a total of 61,200 mono-sex Nile Tilapia seeds from Nam Sai Hatchery, Thailand to Tarlay township, Tachilek, Eastern Shan, Myanmar with almost a 100

In partnership with

percent survival rate. The seed (0.25g) were nursed for around two weeks and stocked in in 40 grow-out ponds. Mono-sex Nile tilapia grows quickly and production of this fish expected to increase income and profitability.



Figure 7. Transporting Nile Tilapia from Thailand.

Fish feed trial:



Figure 8. A staff member setting up trial in Nyaung Shwe.

Fish for Livelihoods set up feed trial to assess economic and production performance of locally available feed ingredients and formulated feed in September, 2020 initially for 120 days. A total of seven types of feed and feed ingredients are being tested with silver barb and tilapia in Madaya township, Mandalay and one in Nyaung Shwe township, Southern Shan state.



Figure 9. Farmers setting up feed trial.

Based on the results of the trails, improved feeding regimes will be promoted in Myanmar.

Information, Education, and Communication (IEC) products and materials:

Nutrition Briefs; August and September, 2020:

Fish for Livelihoods has issued its nutrition briefs for August and September, 2020. The issues capture information on what has been achieved on nutrition and a look forward for the upcoming months. Nutrition briefs captures succinct information about nutrition and, communicates this to internal and external audiences. The nutrition briefs help inform audiences on what has been accomplished so far during each month.

Fish for Livelihoods page and animated video:

The project page was created and launched on the WorldFish website to increase the project visibility to global, regional, and national audiences. The page provides a glimpse on what the project aims and objectives are, and what will be achieved during the course of five years. Moreover, it provides a snapshot about the funder, USAID, and the information about current implementing partners involved with the provision of the services to SSA

In partnership with

farmers and their families. Fish for Livelihoods team developed an animated video which portrays the information about the project effectively to the external and internal audiences. The video is aimed at delivering messages on what the project is and what will be achieved with this activity in Myanmar during the five years (2019 – 2024). The video was dubbed both in English and Burmese languages. The following link will take you to the video; <https://www.youtube.com/watch?v=eagyUSDLBec&t=12s>

Fish for Livelihoods has launched the project official page on the WorldFish website along with the publication of various communication materials on WorldFish's official website and other communications forums including MEL platform, FISH website and DSpace – a CGIAR database. The following links to view pages;

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

<https://fish.cgiar.org/research-areas/projects/fish-livelihoods>

The communication products developed so far, in English and Burmese, will expand the outreach of messages on SSA, Nutrition, WASH, COVID-19 and other areas to be delivered to internal and external audiences.

The products can be accessed via following links;

Nutrition approaches in the Fish for Livelihoods project
<https://hdl.handle.net/20.500.12348/4213>

Fish for Livelihoods: SIS partial harvest (Burmese version) <https://hdl.handle.net/20.500.12348/4216>

Fish for Livelihoods Small: Indigenous Species (SIS) Q&A (Burmese version)
<https://hdl.handle.net/20.500.12348/4215>

Fish for Livelihoods: 1000 days (Burmese version)
<https://hdl.handle.net/20.500.12348/4214>

Fish for Livelihoods: Mola comic story (Burmese version)
<https://hdl.handle.net/20.500.12348/4219>

Fish for Livelihoods: Recipe card fish pumpkin ball (Burmese version)
<https://hdl.handle.net/20.500.12348/4217>

Fish for Livelihoods: Mola comic story (English Version)
<https://hdl.handle.net/20.500.12348/4218>

More information about the project and to access communications products, please visit the link given below;
<https://www.worldfishcenter.org/content/fish-livelihoods>

In partnership with