

# Fish for Livelihoods Newsletter

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## Fish for Livelihoods:

Aquaculture plays an important and increasing role in fish for consumption in Myanmar, yet it's still below fish of capture origin. Despite the upward trend, Myanmar's aquaculture growth has been disproportionately influenced and constrained by several factors, including existing land use policy, despite significant potential contribution of Small-Scale Aquaculture (SSA) to local and regional markets providing increased income and nutrition. 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 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 (reproductive-age women, children under five years) and fish value chain market actors, for the life of project.



**Figure 1.** A Female farmer working on her pond.

**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.

### **Intermediate Result 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.

### **Intermediate Result 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.

### **Intermediate Result 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.

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RESEARCH PROGRAM ON Fish  
Led by WorldFish

## Key Activities Performed

### a. Scoping study in search of intervention areas:

The broader objective of the scoping mission was to select the potential townships as well as in most need of assistance in terms of aquaculture production and /or improved market systems, nutrition and WASH practices to achieve USAID funded Fish for Livelihoods (F4L) project's development goal.

The key steps of this mission included visiting potential areas, meeting with public and private sector actors, team and network

Government Websites; MoPI (Census 2014), GAD, or, in the case of township and village tract boundaries from the MIMU website.

The scoping study was concluded with the key recommendations that adoption of a flexible/ blended Market Systems Approach to all three components (production, markets and nutrition) will be more appropriate for this project.

### b. Market Systems Analysis:

Market System Analysis was conducted from 16th November 2019 to 31st January 2020 with the aim to carry out a systemic analysis to understand what is causing markets to under-perform and how this can benefit Small Scale Aquaculture (SSA) and fisheries sector in Myanmar.

The study was carried out based on a desk review of secondary data, articles, and reports as well as primary research in the form of private and public stakeholders' interviews. The first part of this study took place during the scoping study took place in 5 states/regions from 16th November 2019 to 21st January 2020. The second part of this study consisted of a value chain analysis carried out from 20<sup>th</sup> to 31<sup>st</sup> January 2020 with a focus on fish seeds and feed.

development, security assessment/verification, preliminary data collection and testing methods on how to select townships.

The purpose of the trips was also to collect useful information from farmers, nurseries, hatcheries, and from major market actors. The trips were made in Mandalay, Magway, Sagaing, Shan, and Kachin states with project teams, USAID representatives, and consultants. It was ensured during the trips that the necessary data around Small-Scale Aquaculture (SSA), market system and nutrition are collected and analyzed for a preliminary fish feed.

The third phase of this study builds on the data collected during phase one and two described above. The third phase consisted of an analysis of opportunities for pro-poor and fish consumption impact an overview of intervention area an analysis market structure and constraints, including the seeds and feeds value chain analysis, and an analysis of market performances.



**Figure 2.** Michael Akester, Country Head, WorldFish addressing participants of the workshop.

A workshop was held in Yangon from 17th to 26th February 2020 with project stakeholders such as the Myanmar Fisheries Federation (MFF) and NGOs. The primary objective of the seven-day long workshop was to present, discuss and refine the findings and conclusions of the seeds and feeds value chain and the market

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**Figure 3.** Dr. Manjurul Karim, CoP, Fish for Livelihoods welcoming participants of the workshop.

constraints analysis. The ultimate objective of the workshop held in Yangon was to engage with project partners and stakeholders to design interventions, including “quick-wins”, for each of the project areas that the project will deliver as part of its implementation strategy.

### c. Capacity Development:

#### Workshop on Gender Transformation;

Fish for Livelihoods has embedded gender as one of the main cross-cutting themes in the project and, included it in project design. The incorporation of gender can be seen in project’s Theory of Change (ToC) which puts an overwhelming emphasis on gender. It has been committed that intervention designs should always be assessed via gendered lens.

Based on this, on 15th and 16th January 2020, a total of 19 participants attended the two-day long Gender Integration Workshop in Yangon. Fish for Livelihoods engaged senior gender specialist from the KIT Royal Tropical Institute in the design phase and jointly facilitated workshop by Dr Julie Newton (KIT) and Jessica Scott (WorldFish).

The overall goal of the workshop was to help Fish for Livelihoods staff and partners understand what gender integration implies for Small-scale Aquaculture Investments for Livelihoods in Myanmar. The workshop

provided a starting point for supporting project staff to prioritize relevant gender outcomes and identify feasible and realistic gender integration strategies to achieve the development and gender objectives of the project/program.

The key objectives were achieved through: 1) revising of the Fish for Livelihoods theory of change to integrate gender throughout the project, 2) identifying priority gender outcomes and relevant gender strategies for different impact pathways of Small-scale Aquaculture Investments for Livelihoods in Myanmar, forming the gender building blocks for each pathway and IR, 3) identifying where there is need for better gender integration in layers of data required for different outputs and identify strategy/next steps to meet these needs, and 4) reviewing opportunities to better integrate gender into MEL.



**Figure 4.** Workshop Participants Group Photograph.

#### Workshop on ToT manual and Participatory Rural Appraisal (PCA);

Fish for Livelihoods team organized a workshop with the aim to review existing Training of Trainers Manual and Participatory Rural Appraisal tools. The workshop was conducted on 12<sup>th</sup> March 2020 at Victoria Palace hotel in Mandalay which brought together teams of WorldFish, Myanmar Fisheries Federation and Implementation Partners such as Building Resources Across Communities (BRAC) and Karuna Mission Social Solidarity

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(KMSS) and where participants acknowledged that broader initiative for good training materials and effective training result.



**Figure 5.** Kyaw Win Khaing, Field Coordinator, Fish for Livelihoods delivering a session to audience.

The workshop provided a good opportunity to foster the networking among Field Coordinators and Community Facilitators and the sharing of knowledge on technical and training experience in the context of improved methodology, post training activities and effective development delivery and results.

Participants reviewed all the topics, methodology of three modules and Participatory Community Appraisal guideline. As a result, the Small-Scale Aquaculture and nutrition manual was modified to engage audiences with understandable and usable key messages with various methods, which flows logically for better learning and for application in fisheries production.

### **On-line Training on Small-Scale Aquaculture Technology, Human Nutrition and WASH;**

Online Training of Training (ToT) course on Nutrition and WASH knowledge was delivered for Field Coordinators by Quennie Vi Rizaldo, Human Nutrition Specialist (Sustainable Aquaculture) on 27th April 2020. The purpose of the ToT was to build WorldFish staff capacity on Nutrition and WASH practices so that they could deliver

same trainings to effectively to Community Facilitators and Aquaculture Promoters.



**Figure 6.** Distribution of IEC Material.

As a result of the ToT delivered, online training courses on Small-Scale Aquaculture, Nutrition and Water, Sanitation and Hygiene were organized simultaneously in all areas of the project areas for 30 Community Facilitators from Building Resources Across Communities (BRAC), Karuna Mission Social Solidarity (KMSS) and PACT Myanmar.

Although it was online training, the participants were very active and enthusiastic in learning, sharing their experience and eager to attend more training. It was a result of good practice and an extra effort of all field coordinators to help participants persist and learn deeply. Field coordinators facilitated online courses via social applications such as Viber, Skype and Messenger and produced participant-learning outcomes comparable to those of in-person courses.

### **d. Distribution of PPEs and IEC materials on SSA, Nutrition, and COVID 19;**

The COVID-19 pandemic has had impact in Myanmar since March 2020. From the immediate onset, Information, Education, and Communications (IEC) materials on COVID-19, small-scale aquaculture and nutrition were developed by the project and

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shared with the project participants and other stakeholders Fish for Livelihoods also distributed face masks, hand washing soap and gel, and sanitizers.

The IEC materials; pamphlet, brochures, and banners are equipped with messages on how to take precautions with the novel virus. IEC materials communicated messages on the importance of washing hands, social distancing, and effective usage of masks via these IEC products. The Fish for Livelihoods, WorldFish team distributed over 5,000 masks and essential sanitary products and communications materials on small-scale aquaculture technology, nutrition and COVID-19 to the project participants.

### Online and face to face trainings on Small-Scale Aquaculture Technology, Nutrition and WASH;

Field Coordinators of Fish for Livelihoods delivered online trainings on Small-Scale Aquaculture technology, Nutrition, Water, Sanitation and Hygiene (WASH) and COVID-19 messages for our implementation partners. Afterwards, the implementing partners delivered the online as well as face to face training to Aquaculture Promoters and participants.



**Figure 7.** Kyaw Moe Ooe, Field Coordinator, Fish for Livelihoods delivering a session to train Partners' staff.

Online trainings were conducted simultaneously in all regions. A total of 869

participants were trained on basic aquaculture technology, nutrition and water, sanitation and hygiene from April to June 2020.

Although it was online training, the participants were very active and enthusiastic in learning, sharing their experience and eager to attend more trainings. It was a result of good practice and an extra effort of all field coordinators to help participants persist and learn deeply. Field coordinators facilitated online courses via social applications such as Viber, Skype and Messenger and produced participant-learning outcomes comparable to those of in-person courses.

Training participants had the freedom to interact with the field coordinator, community facilitators and aquaculture promoters and asked for further clarifications and assistance needed. Both face to face and online trainings met the objectives of raising awareness on small-scale aquaculture and improve human nutrition, and importance of consuming fish and vegetables.



**Figure 8.** Kyaw Moe Ooe, Field Coordinator, Fish for Livelihoods delivering a session to train Partners' staff.

### e. Fish Hatchery Improvements;

In Myanmar, the quality of seed in hatcheries has been deteriorating due to various factors, including inbreeding, inter-specific hybridization, negative selection, and improper broodstock management

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resulting in a low growth rate, high mortality, disease susceptibility and deformities. One of the vital reasons that triggers fish seed mortality is poor water quality which was observed repeatedly during the Fish for Livelihoods scoping mission.

To address these challenges, Fish for Livelihoods has successfully been able to introduce modern technology and equipment into hatcheries despite the effect COVID-19 has had on mobility across Myanmar. During this time, steel made incubation hatching jar, oxygen towers, water filtration systems were set up successfully in a hatchery in the Southern Shan state.



**Figure 9.** Steel Jar set up at Hatchery.

This intervention is the first of its kind in Myanmar. These simple and affordable systems are suitable for hatching of eggs of various fish species; carp, pike, perch, catfish, burbot, and sturgeon amongst others. This entire system saves space, water, and eventually improve seed quality, reduce operation costs and increase profitability.

## F. Fish Pond Stocking;

A total of 150 project participants from Mandalay, Moe Kaung, Bamaw, and Taunggyi stoked their ponds with more than 150,000 fish fingerlings by June 2020. The fish species included rohu, common carp and grass carp which are popular and in demand in the local markets. The fingerlings were sourced from private and public



**Figure 10.** Fish stocking activities in Field.

hatcheries from and around the project areas. Stocking Fish despite challenges posed by COVID-19 was a great achievement of field team along with Implementing partners (IPs).



**Figure 11.** Farmers stocking Fish in their ponds.

More information about the project and to access communications products, please visit the link given below:

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

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