



Feed the Future Bangladesh Aquaculture Activity

Quarterly Progress Report: October-December 2020

Activity Description

The USAID Feed the Future Bangladesh Aquaculture Activity (BAA) is intended to foster sustained, positive aquaculture sector growth through an inclusive market systems approach. BAA is a five-year PIO activity (2018-2023) implemented by WorldFish with funding of \$24.5 million. Of this, \$8 million is reserved for sub-grants. BAA sustainably improves the livelihoods of fish farmers and other aquaculture market actors by applying a market systems approach through which BAA joins with the private sector to identify solutions to systemic obstacles and the partners then test the solution via activities funded through the sub-grants and significant cofunding. BAA focuses on improved nutrition through more productive aquaculture and has strong cross cutting elements of environment, youth, and gender which are inculcated into subgrantees.

Activity Goal, objectives, and Targets

BAA's goal is to achieve inclusive aquaculture sector growth through a market system approach. The objectives are:

- Increased productivity of aquaculture production systems.
- Strengthened aquaculture market system, with particular attention to expanding opportunities for women and youth.
- Increased awareness and adoption of nutrition-related behaviors, with a particular focus on women and youth.

Life of activity targets are:

- 400,000 men, women, and youth in the ZOI have improved access to better quality aquaculture inputs, services, and/or market channels
- 30% expansion of investment by the private sector in the ZOI in aquaculture production and market related to inputs and services (e.g., seed, feed, production/ market related information, technology, etc.)
- 30% increase in productivity from ponds and *ghers* in the ZOI
- 20% increase in the number of households adopting improved nutritional practices (consumption of nutritious food, dietary diversity and hygiene practices)

The Market Systems Approach

BAA uses a market systems approach to achieving its objectives. In this approach to development, there is no direct delivery of services, but rather the intent is to discover and replicate practices which overcome obstacles to lasting improvement. These obstacles might lie in any aspect of the aquaculture industry-- in fish health and feeding, certainly, but also in transportation, finance, or marketing.

The market systems approach understands that both the causes of and solutions to market obstacles are known to the market actors. That is, farmers want to grow more food, people want higher incomes, and processors want to reach new customers, but they face difficult challenges. They might have tried to overcome the challenges and fallen short or they have

never tested possible solutions for lack of resources. Virtually all program activities are done through partnerships with private sector enterprises and professional associations. In the ZOR, however, there are few private partners with sufficient capacity to engage in USG funded activities so most of BANA's work in Cox's Bazar and Bandarban is done through conventional sub-grants to NGOs.

Geographical Focus

BAA works in the Bangladesh Feed the Future Zone of Influence (ZOI, consisting of 21 south-western districts) and the Zone of Resilience (ZOR, two districts in the southeast affected by the Rohingya situation).

Acronyms

BAA Bangladesh Aquaculture Activity

BDT Bangladesh Taka

BFRI Bangladesh Fisheries Research Institute

BMP Better Management Practices

CGIAR Consultative Group of International Agricultural Research Centers

CLA Collaborating, Learning, and Adapting

COP Chief of Party

DCOP Deputy Chief of Party
DoF Department of Fisheries
GIP Genetic improvement program
GSC GreenDale Service Centers

GIS Geographical Information System

ICT Information, Communications Technology

IR Intermediate Result LSP Local Service Provider

MEL Monitoring, Evaluation and Learning

NCE No-cost extension

NGO Non-Government Organization

SBCC Social and Behavior Change Communication

USAID United States Agency for International Development

ZOI Zone of Influence ZOR Zone of Resilience

Executive Summary

The aquaculture activity made excellent progress on its workplan implementation this quarter. In spite of continued restrictions on movement and group gatherings, both activity staff and partners moved ahead to meet all milestones. The WorldFish office continues to operate at a reduced level with fewer staff on premises, but adjustments made in the preceding months are now seen as routine and manageable.

Partner implementation of program activities is proceeding well. Several partners received nocost extensions following delays caused by lockdowns in the previous quarter, but all are on target now.

The aquaculture activity received an agreement modification on October 22, 2020. The purpose of this modification is to re-align the budget (without any change in the original award amount) to respond to the COVID-19 crisis by making it possible for the activity to design and implement interventions rather directly than negotiate with private sectors to include these objectives in their business plans.

Two new partnerships were formed via direct service contracts in this quarter for a total contract value of \$151,559 in FTF funds.

- MarGen Ltd is improving safe fish handling in a multi-channel distribution system.
- Parmeeda is building on its e-commerce platform to connect small scale fish farmers to the forward market.

Three new partnership agreements were signed this quarter as sub-grants this quarter with a total commitment of FTF funds of \$427,451.

- BRAC Fisheries will work to build a cohort breeding system for fast growing genetically improved tilaplia to fish farms across the ZOI.
- Somoy Prokashon and Classic Melamine will produce and sell products which promote improved nutrition through consumption of fish.
- Shariful Islam is a young entrepreneur working to launch urban very small scale urban fish farming.

The aquaculture activity utilized a total of \$1,007,625 for the first quarter of year four. The total accumulated expenses are recorded at \$11,539,611 leaving an available budget balance of \$12,918,581 as of December 31, 2020.

Collaboration with other Feed the Future activities is important, and the aquaculture activity is working with the Rice Development Activity (RDA) on linkages between small scale fish feed millers and maize growers, the Nutrition Activity (BNA) on linkages between fish processors and local retailers, and the new Digital Agriculture Activity (DAA) to improve data management on the aquaculture advisory service. The aquaculture activity is also designing activities with FAO on clean markets and WFP on school feeding.

The aquaculture activity is fully staffed and has installed new internal procedures to safeguard all staff, beneficiaries, and partners during the COVID-19 crisis while still moving forward well with program implementation.

Re COVID-19

The aquaculture activity conducts regular surveys of aquaculture market actors in the ZOI and ZOR to measure the impact of the COVID-19 crisis. The surveys provide data on all subsectors within aquaculture. Begun in April, 2020, the data shows both the scale of the damage and the trend lines of recovery.

During this quarter, trend lines are mostly flat at levels 30 - 70% below normal levels. Most of the flatness during this quarter is indicative of seasonal variability; activity in aquaculture is low as it always is this time of year, and the numbers most flat throughout this reporting period.

The declines in all sub-sectors of aquaculture hit in April, May, and June of 2020. The loses in production in those months was not recovered and will not be recovered. These losses were very substantial.

IRs, Sub-IRs, and Cross-cutting Programs

Sub-grants remain the aquaculture activity's primary vehicle for delivering service. Only during this quarter has the activity been able to deliver support directly.

Sub-IR 1.1. Increased availability of improved fish seed

To improve business operations of hatcheries and nurseries, the aquaculture activity promotes best management practices (BMP)-- a range of operational and production changes. This quarter, the partner Rupali Fish Hatchery began installation of a water recycling plant to ensure proper use of groundwater in the hatchery and a solar electric system. To bring these improvements to others, Rupali conducted 12 batches of training to 371 fish farmers (354 male and 17 female) on applying similar BMP at the farms, cultivation techniques, and the importance of quality seed.

Three other three hatchery partners (Harun Matshya, Matshya Bangla, and Rabeya Matshya Uthpadan Kendra) worked this quarter to ensure quality carp seed supply and to strengthen their distribution networks. They held capacity building trainings for hatchery technicians and owners on brood management and quality seed production; training and linkage programs with fish seed agents, nurseries and lead farmers; and other linkage activities to strengthen marketing channels. All together, 1,500 fish farmers were trained by these hatcheries.

As part of the GIFT program (genetically improved farm raised tilapia), the partner Bhola Monosex Tilapia Hatchery (BMTH) excavated eight ponds of five decimals each to rear mixed sex fries in eight cohorts and renovated one nursery and one breeding pond, each around 40 decimals, as a part of their brood development program. And a new "mini tilapia hatchery" was established for production of mixed sex breeder fries to 20 multiplier hatcheries later this year.

Significant capacity building training for six BMTH staff covered cohort breeding system operation for broodstock development, the rotational breeding process, and seed business promotion.

The aquaculture activity's other GIFT partner, BRAC Fisheries Enterprises in Magura, entered into an agreement with WorldFish - Bangladesh to 'Strengthen Cohort Breeding Hatchery Systems for GIFT' under which BRAC will use 30 multiplier hatcheries across the country a part of their broodstock development program in 2021. This begins with a GIFT performance trial at the Nova hatchery Mymensingh.

For the carp Genetic Improvement Program (GIP), the partner MWorld worked this quarter to create and promote a brand identity for the higher yield variety (expected to grow 30% faster than the rohu existing in the country today). MWorld completed a market assessment and organized 109 courtyard sessions with 3,052 participants (2,594 male and 458 female) to display the competitiveness of HYV rohu and four sessions with hatcheries, nurseries and fish traders to increase their knowledge about the new variety. In December, MWorld broadcast a video segment on the popular "Mati o Manush" program on BTV, the national TV channel. This documentary will be further distributed to various mass communication channels to increase awareness on cultivation of G3 rohu. MWorld also created a logo for the project this quarter (please see the appendix).

To move the GIP from a donor-funded project to a sustainable commercial enterprise, the aquaculture activity contracted an international consultancy (Abacus Bio of New Zealand) this quarter to produce an actionable business plan for the operation of the CGIP and ongoing production and sale of the improved spawn. It is expected that this commercial analysis and planning will provide WorldFish with business options for sustainable future development of the program in Bangladesh.

Sub-IR 1.2. Increased availability of affordable quality feed

The partner KNB Agro is working to improve feed quality by increasing production and distribution of "micro feed"-- a reduced pellet size which reduces wasted feed. This quarter KNB began trials and of different feed formulations in pilots with lead farmers.

KNB is using local service providers (LSP) to achieve greater market reach and improve onfarm performance. KNB organized nine LSP trainings on Business Management and Client Servicing with 135 LSPs (120 male and 15 female) which focused on improving the entrepreneurial capacity of the LSPs themselves and their sales performance as KNB sales representatives. To improve business relationships and form market linkages with feed dealers and retailers, KNB held two LSP Dealer and LSP Linkage Building Workshops with 44 dealers (two female) to discuss business models, incentives for feed sales, and the LSPs' role and responsibilities in providing service to fish farmers. Efforts to link small scale fish feed millers with maize suppliers who work with Feed the Future's Rice Development Activity hit a snag this quarter. The market areas of the maize growers does not include any of the small millers. As an alternative, the aquaculture activity will provide business training to the millers in the coming quarter.

Sub-IR 1.3. Increased adoption of improved pond management practices

To improve farm productivity and output, BAA currently has two active partners: FishTech and United Agro Fisheries (UAF).

FishTech has established a privately owned and operated fish health lab in Khulna to serve fish and shrimp hatcheries and the larger commercial farms throughout the central ZOI. This quarter FishTech moved closer to opening a high quality aquatic animal disease diagnostic laboratory by installing equipment and building an inventory of needed consumables. To promote the business, the company is launching a website as part of its market outreach effort.

UAF continues to supply natural carp pituitary gland (PG) during a period of shortage brought about by the COVID-19 crisis. UAF is replacing chemical variants and imports of PG, which is needed to ensure quality fish seed production at hatcheries.

As noted in the aquaculture activity's ongoing COVID-19 surveys, PG is in short supply, and this quarter UAF worked to strengthen its supplier base by training 386 PG harvesters on raw PG collection and preservation techniques. They also trained 208 hatchery owners and technicians on the same topic to increase their knowledge and to reach new customers. To fast-track the learning and promotion, UAF made a video about processing and use of PG to help hatcheries, traders, and other stakeholders such DoF and BFRI on the benefits of natural, dry PG.

IR 2. Strengthened aquaculture value chains

Sub-IR 2.1. Increased market linkages

Bank Asia Ltd. is improving access to finance for smallholder aquaculture farmers. In partnership with the aquaculture activity, the bank developed a digital financial transaction platform, and 906 farmers have entered into the financial ecosystem by opening up bank accounts with Bank Asia. Bank Asia has provided BDT 1.63 crore (\$194,000) in loans to 441 farmers (20 female) involved in aquaculture under this new digital credit system.

Fish Card is a totally new financial product in Bangladesh which brings essential banking services and better access to financial products to smallholder fish farmers.

It is an NFC-enabled credit card (near field communication, a no-touch card) which is used to apply for loan products and get credit within a very short time. The Fish Card eliminates paper and organizes all transaction data into a credit scoring system to review farmers' eligibility for loans. 100 dealers and Retail Agent Points are Bank Asia's "Micro-Merchants", and they promote the financial product. (Please see images and additional info in the appendix.)

Another partner, Gorai Films, is working to popularize Tilapia and counter negative food safety rumors through media engagement and social marketing.

Gorai completed two stakeholder outreach meetings in Jessore and Khulna with 53 tilapia farmers to document their views on countering the rumors and the nutritional and economic value of tilapia.

These led to creation of a social media page 'Tilapedia' (https://www.facebook.com/tilapedia/). The video has been seen 4,298 times and the page was read by 32,501 people. In addition, Gorai engaged Mosarraf Karim, a well known television actor, to make a TV commercial which will air in 2021.

Gorai was also active this quarter in forming market linkages for tilapia. Four agreements were signed this quarter (with Parmeeda, EDOS, Chefcart and Jogaan) to facilitate sales of tilapia from ZOI farmers. Under the agreement framework, these firms will directly collect tilapia from rural fish farmers.

Sub IR 2.2. Increased engagement of private sector in aquaculture markets

To promote broader mechanization in aquaculture, Alim Industries Ltd., a national agromachinery distributor, will apply an LSP-driven distribution model to sell aqua-machinery. Beginning with an aerator, Alim organized 12 demonstration sessions for 1,769 participants in Jessore and Khulna to show the effectiveness and benefits of the equipment. To date, Alim has recruited and trained five LSPs.

To increase financial literacy among aquaculture market actors, the aquaculture activity formed a partnership with City Bank. With its two training partners (North South University and the Bangladesh Institute of Banking Management) the partner will provide financial literacy skills training to 1,500 aquaculture stakeholders (hatchery, nursery and farmers). This quarter, City Bank completed three ToT sessions for 72 staff and agents (all male) on financial management, bookkeeping, and loan management.

To strengthen the aquaculture service market, the aquaculture activity formed a partnership with an Indian software company, ByteAlly, to pilot a food traceability system. The partner will demonstrate the blockchain-based system at the WorldFish carp genetic improvement program to demonstrate how the system can work in Bangladesh. This quarter ByteAlly conducted its scoping assessment to identify opportunities to apply blockchain technology across the fish value chain and also completed supply chain validation. These led to a draft demonstration plan of a fish traceability framework.

The aquaculture activity joined with iSocial, a social business venture, to create a sustainable micro franchise-based supply chain model to serve the needs to small-scale aquaculture farmers. In this partnership, there will be a network of 370 women micro-franchisees to sell

aquaculture inputs. In the reporting period, iSocial completed a needs assessment to understand the market dynamics of aquaculture inputs and identify demand. The partner will develop a product basket for the sales agents and conducted three stakeholder engagement workshops in three *upazillas* of Jessore district with government officials and private sector actors.

To develop the forward market of aquaculture market system, two partners, MarGen and Parmeeda, are helping fish farmers tackle the disruption in the value chain caused by the ongoing COVID-19 crisis by increasing the volume of fish being traded through 'e-commerce'. Both partners completed field assessments, farmer meetings, and cluster selection this quarter.

Sub IR 2.3. Improved enabling environment for inclusive growth in aquaculture

The Bangladesh Shrimp and Fisheries Foundation finalized a roadmap for a recommended policy on aquaculture medicinal products through policy consolidation and improvements in the licensing process. BSFF also consolidated and delivered seven policy documents before the partnership closed in December.

Moving forward on its planned aqua-cluster approach, the aquaculture activity began making contacts in three areas in the ZOI: Clalishia union in Jessore; Keralkata and Helatala unions in Satkhira; and Guarnadi, Barthi, and Chandshi unions in Barisal. In addition, an international consultant conducted training for professionals to become advisors to aqua-cluster leadership teams. Based on their performance in the training, two were selected to guide the "aquacluster development teams" (ADT) through their planning process in the coming months.

This quarter activity Program Officers met with local government fisheries officers, hatcherynursery owners, feed dealers, and other input sellers to began building a stakeholder group to support the ADTs and crowd in the lessons and best practices of all aquaculture partnerships.

A partnership contract to launch an interactive advisory service for aquaculture was concluded this quarter. As part of the activity's COVID-19 response, at least 100,000 fish farmers will receive advisory and market linkage support via a self-sustaining advisory service business. The key to success is proper, profitable management of data, and the aquaculture activity has reached out to Feed the Future's Digital Agriculture Activity (DAA) to improve data management capacity in the partner (The Right Kind).

IR 3. Improved nutrition related behaviors in rural households

Sub-IR 3.1. Improved nutrition awareness and practices

The aquaculture activity's nutrition unit worked this quarter to finalize two nutrition videos: "fish in the diet for the first 1,000 days" and "nutrition-sensitive pond polyculture". These videos will be used as SBCC tools to sensitize LSPs, local government health workers, and other relevant stakeholders to improve nutrition among women of reproductive age and young children. The videos are here:

fish in the diet for the first 1,000 days: https://cgiar-my.sharepoint.com/:v:/g/personal/m hali cgiar org/ERzewlKx3LdNl79CK2Kh-FwBGNl676L2JbXKAfCcNvsq g?e=D0ueij

nutrition-sensitive pond polyculture:

https://cgiar-

my.sharepoint.com/:v:/g/personal/m h ali cgiar org/EZ71TppW7ERFkeslNj6FoRkBb x gvCCGqefFRhH3JHxuGQ?e=BGHcv3

The aquaculture activity is working with three "Nutri-champ" chefs trained in Feed the Future's closed SBCC activity. The Nutri-champs are competition winning chefs will act as 'nutrition ambassadors' and promote nutritious fish via events at universities in communities in Cox's Bazar, Jessore, and Patuakhali.

The aquaculture activity formed a partnership with Somoy Prokashon to produce and sell cookbook of fish recipes. Somoy produced a first draft of the book this quarter. The aquaculture activity formed a similar partnership with Classic Melamine to produce and sell a plate with information about the nutritional value fish printed on it. Typically given away for free by some programs, these partnerships will demonstrate to publishers and dinnerware producers that a market exists for these products.

In a similarly market-centric approach, the aquaculture activity has partnerships with Rohita Advertising and Backbenchers Communications to bring nutrition messages to the public in a profitable way. Rohita is working to publish a syndicated newspaper column and developed five articles on aquaculture and nutrition awareness which will be published in the newspaper *Daily Bhorer Dak*. Backbenchers is creating a syndicated radio program and has produced five episodes to be aired on *Radio Jhinuk*.

These partnerships join advertising and editorial content into a package the producers can offer to newspapers and radio stations across the country in an arrangement profitable to all parties.

The work to form these partnerships provides an opportunity to describe a recurring challenge in the design and first stages of implementation which is common in the aquaculture activity's experience. The business leaders often have genuine trouble understanding that this is a business activity not merely a production issue-- that is, in the case of these two partnerships, the partner had trouble moving away from "a writing assignment" to the concept of a new approach to producing and selling content. They tried to sell the column to the papers as they have always done rather than go to them with advertising revenue in a package along with a story for publication or broadcast. The business acumen of many partners is simply not a strong as one might expect.

Sub-IR 3.2. Improved access to diverse and nutritious foods

The aquaculture activity is working closely with the Feed the Future Bangladesh Nutrition Activity (BNA) to bring fish products to BNA's "last mile retailers". This quarter collaboration included technical discussions and preparing trainings for the last-mile sales agents to promote fish products and establish "school food corners". The aquaculture activity reviewed a training

module for fish vendors on hygiene, nutrition, and fish handling, and shared its three nutrition videos.

The aquaculture activity continued its meetings with the World Food Program to develop a design for a feasibility study for a community-based model to include fish in the WFP's school feeding program. It continues to appear, however, that this will require quite some time to bring to fruition. There are numerous GoB questions to answer; it might prove too difficult to take this forward.

Cross-cutting Program Areas

Gender

This quarter the data profiling of 20,00 female fish producers was completed by the 100 members of United Purpose's Women's Business Centers (WBC). The 100 WBC members went through TOT with seven modules related to fish farm management, nutrition (carp mola), gill nets, and gender inclusion. The partner also developed yearly business plans for 20 WBCs aimed at growth in sales and income, and identified a location for its "WBC outlet" (Gollamari, Khulna), a retail outlet. The aquaculture activity team provided technical guidance on promotional materials and plans.

The aquaculture activity's partner to provide training and mentorship for women in aquaculture, Enliven, a local consultancy firm with a special focus on youth development, finalized its workplan to reach at least 100 women entrepreneurs from the ZOI and ZOR. The BAA database will be used to identify the participants. A simple data count shows 12,089 female aquaculture market actors in the ZOI and ZOR, but these are women's names on various documents and does not give an accurate picture of women in aquaculture in Bangladesh. The aquaculture activity has looked more deeply at the role of women in aquaculture and has identified a far lower number in ownership or leadership positions to be offered this opportunity.

The aquaculture activity marked International Men's Day with the theme "Better Health for Men and Boys". 25 participants (six women) attended the Jessore event.

Youth

As part of the Positive Youth Development effort in aquaculture, the activity's two youth entrepreneurs started their activities this quarter. Rana is working on providing quality aquaculture inputs and expert guidance services via online platform and retail service, and this quarter he developed his website and prepared marketing materials for promotion. Shariful will be raising fish in tanks in urban areas and has also begun preparing a website.

Environment

The aquaculture activity works with all partners to ensure that no intervention leaves negative impacts on the environment or on people. During this reporting period, nine Environmental Due Diligence reviews were completed with partners.

The activity also moved close to completion of three integrated guidelines on safe fish feed and seed production for carp and tilapia. The focus of the integrated guidelines is on fish health, biosecurity, traceability, workers' safety, mill/hatchery sanitation, and environmental issues. The audience is GoB and universities with aquaculture faculty.

The Zone of Resilience

In the ZOR, the aquaculture activity has three partners. Two NGOs (GRAUS and Tahzingdong) and one private firm (Maa Matshya Khamar) are working to build aquaculture in Bandarban, where commercial aquaculture is not a major source of income.

GRAUS works to bring improved aquaculture to rural areas, conducts training to increase nutritional knowledge and practices, works to enhance fish and vegetable production to address malnutrition, and has activities to increase incomes for women and youth.

During the reporting quarter, GRAUS organized a total of 151 batches of training for a total of 1,366 people (919 women) on nutrition, marketing, IYCF, hygienic fish production, and the best management practices of small holder fish farming. GRAUS also organized four farmer field days for 783 people (438 women) and two market linkage events which reached another 100 people (42 women). GRAUS distributed inputs to 20 fish farmers and small scale processors (4 women) and mola brood fish to 329 fish farmers (228 women). To increase awareness of these interventions in the community, GRAUS posted 339 signboards on the dykes around ponds and creeks.

Tahzingdong is working to increase yield and incomes in aquaculture by increasing the availability of fish seed, improves nutrition by enhancing fish and vegetable production, and increases incomes by establishing market linkages.

In this reporting period, Tahzingdong conducted 300 training sessions for a total of 3,429 people (2,872 women) on marketing and market linkages, gender, aquaculture, and nutrition. To provide input support, Tahzingdong distributed fish feed to 260 beneficiaries (238 women), mola brood fish to 495 fish farmers (473 women), and vegetable seeds to 495 dyke farmers (473 women). Two market linkage events drew 103 attendees (40 women), and two exposure visits to aqua-enterprises in Cox's Bazar drew 53 fish farmers (21 women). Four farmers' field days drew 410 more (277 women) as well as *upazilla* fisheries officers and other government stakeholders.

Our private sector partner, Maa Matshya Khamar (MMK), provides higher quality stock to area farmers to increase yield and farm income in very under-served areas of Bandarban and Cox's Bazar.

In this period, MMK completed three trainings for a total of 50 people (three women) on fingerlings, fry, and stocking density for the seasonal fry traders (*patilwala*) and finance, nursery management, and good aquaculture practice for owners of "mini nurseries". To form aquaculture groups and identify additional nurseries as potential partners, MMK held a community outreach meeting attended by 17 people (all men) and two market linkage events with 47 attendees (five women) and printed marketing materials on fish culture and nursery

management. In operations, MMK added good quality pangas spawn, Thai puti, and carp to its stock.

Project Management

The aquaculture activity received an agreement modification on October 22, 2020. The purpose of this modification is to:

- i) re-align the distribution of the a portion of the amount budgeted for sub-grants to other direct costs and staffing (without any change in the original award amount)
- ii) describe the changes in the activity's scope of work which necessitates the budget re-alignment

The changes to the activity's scope of work enabled the aquaculture activity to respond to the COVID-19 crisis by making it possible for the activity to design and implement interventions rather than negotiate with private sectors to include such objectives in their business plans.

As part of the aquaculture activity's continuous process improvement, a new sub-grant due diligence form was created this quarter. In the new form, all previous info is gathered in one place and a few new items for review are added. (attached)

The aquaculture activity is fully staffed and has installed new internal procedures to safeguard all staff, beneficiaries, and partners during the COVID-19 crisis while still moving forward well with program implementation.

Grants and Finance

The aquaculture activity utilized a total of \$1,007,625 for the first quarter of year four. The total accumulated expenses are recorded at \$11,539,611 leaving an available budget balance of \$12,918,581 as of December 31, 2020.

The activity signed three sub-grants in this quarter with a total value of \$170,099 including sub-grantees' cost share. A total of \$3,267,194 was expended under the Sub-grant budget that gave a remaining budget balance of \$2,533,171 by the end of this reporting period.

In all, the aquaculture activity has signed forty seven 47 sub-grant agreements with a total value of \$6,749,225 (including sub-grantees' cost share). Among these forty seven, three were terminated and twenty two were completed by the end of December.

Two direct service contracts were also signed in this quarter for a total contract value of \$600,155 including contractors' own investment.

Additional detail on the budget is a separate file (attached).

Monitoring Evaluation and Learning

The aquaculture activity completed another three rounds of surveys on the impact of COVID-19 on the aquaculture sector. The surveys show data over time since the crisis began in April, 2020. Changes in production, sales, prices, transportation, market activities, and buyer

behavior are tracked. During this quarter, trend lines are mostly flat at levels 30 - 70% below normal levels. Most of the flatness during this quarter is indicative of seasonal variability. Activity in aquaculture is low as it always is this time of year, and the numbers are flat throughout this reporting period.

The aquaculture activity also collected data from some participants in the previous FTF aquaculture activity (Aquaculture for Income and Nutrition, AIN). Operators of 60 small scale feed mills 84 aqua input suppliers were analyzed to better understand their market situation, and partnerships were designed based on the findings. These partnerships should begin in the coming quarter.

"Learning for Crowding In" is now a major focus of the aquaculture activity. As a market systems project, the aquaculture activity works with private sector partners to discover practices which overcome obstacles to lasting improvement in the sector and then works to replicate the successes more broadly. Now in its fourth year, the aquaculture activity has many best practices to crowd in.

A staff workshop in November generated a list of potential learning areas, and a cross-departmental learning team was formed to develop a list of priorities, assign tasks, and set deadlines. 13 topics made it onto the priority list. The top three are:

- Access to Quality Feed and Seed effectiveness of Feed School/ AMP Center/ One-Stop Service Point
- Demand-Driven Advisory Services: Sustainable means of extension services to link farmers and private sectors and Local Service Providers in Ensuring Access to Quality Inputs and Services
- BAA's 'Access to Finance and Literacy Interventions' to address the credit need of diverse stakeholders of Aquaculture

Data analysis for Annual Performance Survey FY2020 was completed in October followed by data verification and data cleaning. Documents pertaining to the Data Quality Assessment for FY2020 results were submitted to USAID.

Analysis for FY2020 results against each indicator was completed. This was delivered to USAID and also reviewed by the aquaculture activity team in a workshop in November. Standard indicator results including appropriate disaggregates, respective deviation narratives, and out-years target (FY2021-FY2023) were entered in to the FTF module on the newly introduced Development Information Solution (DIS) platform.

The MEL team supports partners with their MEL and data needs, and during this reporting period the focus was on United Agro Fisheries Ltd. in Jessore and Coast Trust in Cox's Bazar. Partners were updated on MEL requirements and provided with an orientation on farmer training data collection tools. The activity team also briefed the partners on USAID data quality requirements and WorldFish's real-time training data reporting system.

The aquaculture activity's MEL team also made several other field visits this quarter to review and strengthen partners' record keeping systems and reporting processes. The findings were shared with the activity's senior management and program team for follow up.

The GIS tool contributed strongly to the selection of the first three aqua-clusters, and continuous improvements are being made. An interactive mapping tool showing the locations of hatcheries and partner intervention areas at the district level was added this quarter, and later this tool will be expanded to show LSPs, feed mills, and other market actors. The GIS database has been updated with duplicate entries were detected and cleaned.

The MEL team continued to upgrade and functioning web-based MIS system this quarter and established a paperless and online data collection (ODK platform) for surveys.

Communications

The aquaculture activity added a new Communications Specialist this quarter and finalized a communications strategy for the nest two years. The strategy integrates knowledge management objectives and focuses on a wide range of interested audiences.

This quarter the activity assisted several partners with their communications needs. A promotional video was written and produced for City Bank's SME Loan Promotion effort, a range of print materials were prepared with KNB Agro, and material for a key stakeholders' workshop was was prepared for the opening of the Fishtech Laboratory.

WorldFish released a video on coping with COVID-19 video this quarter. You can view it at:

https://drive.google.com/file/d/12VrsedUcQOxCV-tcbTKaDGZRizkXgIAB/view?usp=sharing

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Appendix

The logo of the high yield variety carp



Bank Asia's New FISH CARD



Bank Asia formally introduced Fish Card, a unique credit tool for aquaculture.

For the first time in Bangladesh, fish farmers can apply for credit using this card and get approval within a very short time. The Fish Card organizes all transactions and data about the farmers and combines them into a credit scoring system which the bank can use to review farmers' eligibility for loans. The Fish Card does not require any paper works and greatly reduces loan processing time.

Another unique feature is the use of near field communication (NFC) ins the card's functionality. It is no-touch: the card is brought in close proximity of a mobile device on which Bank Asia's app is installed, the device will automatically access the farmer's information.

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