Project Completion Report

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(Establish an inclusive & digital feed supply chain management system using cloud-based mobile technology to ensure on-time appropriate quality feed & related service for small scale fish farmer)



Submitted to



Bangladesh Aquaculture Activity (BAA)

World Fish, House 335/A, Road-114, Gulshan-2, Dhaka, Bangladesh

Submitted by

Aftab Feed Products Limited, 59/B, Kamal Attaturk Avenue, Banani, Dhaka-1213.

Date of Submission: 24.09.2023

Abbreviation

FtF	Feed the Future
BAA	Bangladesh Aquaculture Activity
MD	Managing Director
LSP	Local Service Provider
AC	Aquaculture
PPE	Product Promotion Expert
TE	Technical Executive
BMP	Best Management Practice
PM	Project Manager
AAO	Accounts and Admin Officer
ZOR	Zone of Resilience
ZOI	Zone of Influence
DoF	Department of Fisheries
HQ	Headquarter
Kg	Kilogram
CRM	Customer Relation Management
K	Thousand
SGA	Sub Grantee Agreement
B to B	Business to Business
DFMP	Digital Feed Management Platform
ТоТ	Training of Trainers
Fig	Figure

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Executive Summary

The project's main concern is that Aftab's long-term business vision is to increase the efficiency of current business operation by integrating real-time demand and supply information to extend our business deep to the rural areas while ensuring the utmost customer satisfaction. Therefore, addressing the concept of the solicitation, Aftab will develop an automated smart feed operation management app through a third party (source trace who mainly IT related service provider and has the skill to develop and serve such kind of thing) where we ensure on-time and prompt delivery of feeds to the dealers and farmers according to demand, track the process of delivery including dealer wise feed inventory, ordering options, 18-24- hour call center service, and sales trends according to geography. Actually, source trace will develop 2 apps, one system will work on i) Farmer, Farm Trader, Dealer & Factories enrollment for particular area ii) Item wise daily feedstock inventory at dealer points iii) Fish farmer wise feed sales tracking and help to select appropriate feed according to fish growth iv) Online feed demand & supply from dealer point v) Staff daily activities & movement monitoring thus ensure sales & service to dealer & farmer vi) Fish farmer on-time knowledge tools serve & data profiling & messaging on solution vii) Country wide item wise daily sales monitoring thus helps to produce feed in next viii) Product promotional event & need-based surveymanagement in rural areas. Another system will be common apps for LSPs initially who demand feed from dealer/depo point and get the proper feed easily. Other necessary info on Aquaculture will be there and have an option to call for on-time service & video chat. Aftab will engage another service by 'Agro Solution" a call centerbased service provider who ensures the appropriate call center-based service to Aqua farmers and the call rate will be as the market rate. All farmers over the country, get access to call a common mobile number and also through apps. Aftab in the first three months in the project area, will consider 89 dealers to link the system here another 178 LSP/commission agent will be linked with the digital feed network and they have the option to use common apps for feed demand & digital knowledge tools use. Most of the feed dealers and other feed-related actors even fish farmers are using a smartphone. So, the company takes the privilege to establish an apps-based feed supply platform where the fish farmer has an opportunity to get proper feed through the system. The feed dealer also demands using the application, besides this the sub-dealer/LSP also gets order feed using the system. Call-based service by the system is also helpful for the rural fish farmer to get on-time service which contributes the productivity. After the pilot phase, after getting the response and improved the system based on user feedback Aftab will expand it over the country up to 100 dealers with in project period at our own cost. So, Aftab has several objectives through the proposed business concept and has a long-term vision. Our aim to overcome multi-tier business barriers to increase our brand equity and to ensure the sectorial growth of aquaculture in Bangladesh. Firstly, we will digitalize our entire supply and demand chain to promptly supply feeds according to the demand from the regional inventory through a regional tracking mechanism. Secondly, build geographical sales trend MIS to take a smart decision by tracking our dealers, farmers, warehouse, staff, and logistics movement. Thirdly and most importantly, embed onetouch service management to reduce order cycle to farmers and ensure 18-24 hours digital service to the farmers. The LSP business concept in business community becoming more popular business idea as boost up dealer's sale in the project area. LSP's are taking commission from their related dealers based on sales. These financial dealings fully up to between dealer and LSP. Aftab just link them through this project in the project area. This concept is very newin agro-industry as business view but very effective in field as Aftab working whole Bangladesh on this concept after successful project completion.

Aftab provides advisory services to a total of 7,825 farmers, including 2,106 female farmers, through their call center. A total of 2,411 farmers, out of which 371 were women farmers, gained access to the Aftab Agro Care App. A total of 1,115 farmers, including 149 women farmers take service through 40 OSSCs and 49 dealers. Furthermore, Aftab diligently recorded and created profiles for 3,342 farmers within the app, comprising 759 women farmers, through 12 Local Service Providers (LSPs).

In this year, Aftab sold almost 8,156.4 MT of feed worth USD 5.70 million through 49 Aftab digital service centers and approximately 3,218.7 MT of feed worth USD 2.25 million through 40 OSSCs and 178 LSPs in the Project working areas.

1.0 Project Background

1.1 Sectoral Constraints

Price fluctuation of ready fish is one of the major concerns due to there is no price control and the crisis of raw materials for making feeds. In Bangladesh, aquaculture intensity is increasing with time, but still, now a significant number of marginal and small-scale fish farmers have less access to quality feed and service as well. There are several reasons behind this like, not accessible, small amount required, adulterate feed and less motivated or even proper feed on time. Some commercial farmers have lost their interest to use commercial feed as well. Moreover, recently Covid-19 has impacted feed ingredient supply and price as well. Besides these, appropriate feed selection at the dealer point is another burning issue for the fish farmer. Most time the dealer & farmer are not bothering about what feed needs at this moment. As a result, its impacts the cost of production and water quality as well. The company also has no idea or statistic what types of feed are required for that particular area in a season. So, there is a visible demand-supply quality feed gap that effects on the sector and that's gap takes the non-band feed company as an opportunity. The non-quality partial use of feed destroys the water quality and desires production & profitability as well. Another issues fish farmer has limited access to get on-time service from reliable sources due feed company has limited manpower.

Beside this, other few significant systematic challenges are existed in Feed Sector due to lack of 'Information Integration" like-

- i) Due to a lack of 'Information Integration' into the core sales and distribution network, Feed/AMP companies cannot manage their business operation effectively & efficiently. Here business operation refers to demand and capacity planning, decreased order cycle time, warehouse management, Just-in-time distribution, agility to respond to customer demand, quality customer service with advisory services
- ii) The bullwhip effect is a common phenomenon that hinders companies to reach deep into the market channel with their products in due time. As an upshot, a significant number of the fish farmers are deprived to use formulated feed or partially use the feed in their pond due to the unavailability of feeds during the season
- iii) Most importantly, the distribution network is not expanding as the traditional centralized system cannot generate real-time data regarding the consumer demand, geographical positioning of customers and traders, and evolving market segment- weak, moderate & strong market

1.2 Business Idea

Aftab's long-term business vision is to increase the efficiency of our current business operation by integrating real-time demand and supply information to extend our business deep to the rural areas while ensuring the utmost customer satisfaction. Therefore, addressing the concept of the solicitation, we will develop an automated smart feed operation management app through a third party (source trace who mainly IT related service provider and has the skill to develop and serve such kind of thing, we already signed MoU with them and will work if we get the opportunity to do the task) where we ensure on-time and prompt delivery of feeds to the dealers and farmers according to demand, track the process of delivery including dealer wise feed inventory, ordering options, 18-24- hour call center service, and sales trends according to geography. Actually, source trace will develop 2 apps, one system will work on i) Farmer, Farm Trader, Dealer & Factories enrollment for particular area ii) Item wise daily feedstock inventory at dealer point iii) Fish farmer wise feed sales tracking and help to select appropriate feed according to fish growth iv) Online feed demand & supply from dealer point v) Staff daily activities & movement monitoring thus ensure sales & service to dealer & farmer vi) Fish farmer on-time knowledge tools serve & data profiling & messaging on solution vii) Country wide item wise daily sales monitoring thus helps to produce feed in next viii) Product promotional event & need-based survey management in rural areas. Another system will be common apps for LSPs initially who

demand feed from dealer/depo point and get the proper feed easily. Other necessary info on Aquaculture will be there and have an option to call for on-time service & video chat. We will engage another service by 'Agro Solution" a call center-based service provider who ensures the appropriate call center-based service to Aqua farmers and the call rate will be as the market rate. All farmers over the country, get access to call a common mobile number and also through apps. If we get the opportunity to work with WorldFish, in the first three months in the project area, we will consider 50 dealers to link the system here another 100 LSP/commission agent will be linked with the digital feed network and they have the option to use common apps for feed demand & digital knowledge tools use. Most of the feed dealers and other feed-related actors even fish farmers are using a smartphone. So, the company takes the privilege to establish an apps-based feed supply platform where the fish farmer has an opportunity to get proper feed through the system. The feed dealer also demands using the application, besides this the sub-dealer/LSP also gets order feed using the system. Call-based service by the system is also helpful for the rural fish farmer to get on-time service which contributes the productivity. After the pilot phase, after getting the response and improved the system based on user feedback, we will expand it over the country up to 100 dealers with in project period at our own cost.

So, Aftab has several objectives through the proposed business concept and has a long-term vision. Our aim to overcome multi-tier business barriers to increase our brand equity and to ensure the sectorial growth of aquaculture in Bangladesh. Firstly, we will digitalize our entire supply and demand chain to promptly supply feeds according to the demand from the regional inventory through a regional tracking mechanism. Secondly, build geographical sales trend MIS to take a smart decision by tracking our dealers, farmers, warehouse, staff, and logistics movement. Thirdly and most importantly, embed one-touch service management to reduce order cycle to farmers and ensure 18-24 hours digital service to the farmers.

The target of Aftab is to build the capacity of Aftab's 40 core staff about the system, develop 3 IT officials as a master trainer with the assist of Source Trace. Then IT expert and source trace will build the capacity of 50 feed dealers in terms of apps application & use, simultaneously, 100 commission agents or LSPs (considering 20 % youth and 10% women) will be trained on digital feed operation, apps based feed demand & supply with the certain commission and BMP service. 50 feed dealers maintain (50*100) 5000 farmer's profile with the help of Aftab staff who prepare the farmer profile and then the dealer serves the farmer regarding proper feed accordingly and 100 LSP will also follow another 5000 fish farmer cultivation profile. We will also reach 5000 farmers (considering 20% youth and 10% women) through 250 courtyard meetings on the digital feed service & BMP, and target to reach another 10,000 farmers through several knowledge tools of the digital apps or call-based service. We are also aware of 200 market actors about the digital feed management platform, common apps for feed demand & supply, knowledge tools and call center service through 10 events at Upazilas level. We will arrange 120 haat activation campaign to aware "Aftab Digital feed service center" and assuming (120*3) 3600 farmer & other actorknows on digital feed management, apps based appropriate feed selection for cultivation & BMP service thus branding our feed & service for farmer. 50 model ponds establish to show the feed & service for neighboring farmers (1000 farmers). 50 "Aftab Digital feed service center" will be developed so that farmers can get access to appropriate feed and service through apps. Assuming 2500 will get benefit from the digital service center.

Aftab feed has experience of implementing digital supply chain management project with WorldFish and SKF also did extension service related project. Both company's feeling its solo driven market access project where target beneficiaries get partial information, service or access to market. Actually, they need complete solution which might be on-time and realistic. On that aspect, both company's feeling the importance the proposed proposal goal and agreed to jointly work for own business expansion, aquaculture sector growth and farmer income increase as well. To execute the intervention, Aftab feed will design a collaborative business model where a widely accepted Aqua input company SKF, Bangladesh will be linked with the entire project period by a mutual business & market promotion commitments and follow-ups. Here SKF will engage all of their respective staffs, dealer, retailer and chemist and trained them on business promotion & customer service so that they able to provides Aqua input-related information, service, proper use of Aqua

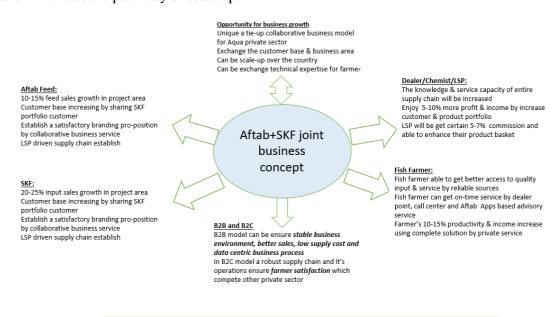
medicinal product and required advisory services can be easily accessed along with Aftab feed & other products. Similarly, Aftab feed will do the same. Beside this, the joint venture project targeted 10 hatcheries and their seed agent as this is their less targeted customer but here is a business for both. Through the linked with hatchery & seed agents Aftab and SKF can able to use their customer base to promote their product. All these engagements significantly add values compare to existing market promotion for both companies. It is assumed that if it really works other independent input company rigorously facing commercial competition to sustain in market in long run.

Beside this, Aftab feed extended their digital advisory service and call center service for all types fish farmer, hatchery, seed agents, LSP, chemist where they able to access on-time solution which enhance farm productivity and income as well.

For this collaborative business intervention, Aftab will hire 1 product promotion expert in ZoR who will get ToT along with core staffs focusing on digital advisory service, call service, on-farm service, modern cultivation & BMP, fish harvesting & marketing and importance on women & youth inclusion in Aqua business and nutritional aspect. Also, will arrange capacity development on digital advisory service and B2B linkage building event with 120 feed dealer, Aqua input dealer, Chemist, LSP, hatchery, nursery & DoF LEAF so that they able to provide necessary service to fish farmer. We will link 60 incentivized LSP with input dealer which enhance their product basket and income. We also re-organized the feed &Aqua input dealer/chemist business points (30 points) as knowledge & service hub for hatchery, nursery, LSP & fish farmer. We will establish 30 model demo farms to exhibit Aftab & SKF product & service performance. Both company's doing farmer motivational training at regular basis, so in continuity we will arrange "Knowledge Sharing & joint business & product promotion events with farmers in ZoI & ZoR lead by LSP" (785 batches, 25 farmers/batch in 750 sessions and 15 farmers/batch in 35 sessions, 3.5 hour long, using 6 Festoons the entire training, 750*25=18750 & 35*15= 525). Here we will address complete solution for fish farmer and linked up with LSP & chemist for further product & service which is the utmost value addition of the joint business model.

The innovation of the project are two reputed feed & aqua input company's joint business initiatives, sharing customer portfolio as no product competition, create access to get complete solution for farmer, hatchery and nursery, access to get digital advisory service and phone call based on-time service and access to quality product through LSP which significantly impact on farmer productivity and income in long way.

The following picture shows the summery of key actor's performance indicators and why it will sustain in long run and will create the path-way of scale-up.



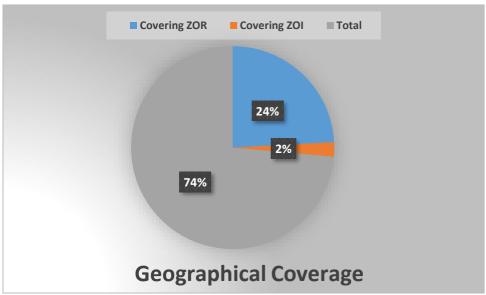
1.3 Objectives

The overall objective of the intervention is-

- ✓ To establish apps base feed supply chain to ensure effective & proper feed supply at dealer & farmer level
- ✓ To ensure appropriate feed to the farmer while purchasing feed at dealer point using their profile
- ✓ To establish a Geo-location for feed for better service providing staff allocation, feed selection & distribution, feed market expansion, Aqua info capturing & knowledge dissemination and thus to kick off new business in the feed sector
- ✓ To establish a knowledge tool & call center based service by an expert which ensures fish farmer on-time quality support service

1.4 Geographical Coverage

Aftab cover 21 districts in ZOI & 2 in ZOR named Patuakhali, Bhola, Barguna, Barishal, Jhalkanthi, Pirojpur, Norail, Madaripur, Shariatpur, Gopalganj, Bagerhat, Khulna, Satkhira, Jashore, Jhenaidah, Chuadanga, Kusthia, Meherpur, Faridpur, Magura and Cox's Bazar & Bandarban.



Graph-1: Geographically Area coverage of the Project

1.5 Key matrices achieved

Aftab will arrange a contract signing ceremony at the Dhaka office immediately after completion of SGA with Source trace to develop & maintain a digital platform and Agro Solution to Improve & serve Knowledge tools & call base service at Dhaka. Aftab will organize a project orientation program at the Dhaka office immediately after completion of recruitment where the proposed project staff, Aftab HQ staff and a few WorldFish staff will participate actively. Aftab feed organized 4 quarterly day-long coordination meetings to ensure the smooth progress of the project to increase the coordination among the staff and the meeting organized at Dhaka. Among 4 quarterly meeting 1 arranged at Barishal. As per the agreement, Source Trace will trail their developed apps-based application to Aftab assigned staff, dealer and LSP level which held at Dhaka. Simultaneously, Agro Solution also demonstration their call center application and inaugurate the call center service for farmer-level use. A dedicated call center number shared here. Aftab organized a grand opening ceremony in Dhaka to announce the digital feed service system. A different official from USAID, WorldFish, Aftab feed, Source Trace, Agro Solution, DoF official, Journalist attend the open ceremony event. A strong media coverage through it to create a positive vibe on digital feed supply management. Agro Solution arrange capacity-building event for their call center staff by experts. All call center staff get two

(02) times training. The core objective of the training is to educate them on customer service, way of telephonic conversation with the rural fish farmer, mode of answering, SMS in Bangla, customer profiling etc. The selected all staff and Aftab existing field staff along with other concerns of Aftab HQ staff train up as ToT course on Apps application, digital feed service, call center service, aquaculture technology focusing on BMP, nutrition, gender and environment compliances. Moreover, the field staff also train up in a way that he/she can be able to deliver the ToT event to market actors (dealers/sub-dealers & LSPs) who can deliver messages to their farmers/clients. To build the capacity of dealers and sub-dealers, Aftab arrange day-long business capacity building & business promotional events for understanding the project working concept, apps installation, apps use and basics of aquaculture technology. Aftab organize day-long 4 batches motivational and capacity building events for LSPs, on digital feed platform, apps-based feed demand & supply and BMP technical services & business promotion to farmers where 25 LSPs attain in each event. To increase the business linkage among the Dealers/sub-dealers and respective LSPs, Aftab arrange 6 linkage building events in different convenient places among project areas. Each batch will contain 25 participants and thus, 6 batches will be conducted in six different areas. Aftab organize 10 workshops cum capacitybuilding event for others Aqua market actors (backward & forward) to link & aware & know on digital feed management, apps-based service and Knowledge tools services at a different location. Aftab IT team arrange the 2 refresher capacity-building event for the dealer on DFMP use, feedback received & improve apps application. Through the event, the IT team shows perform to anchor the system themselves and receive feedback from the user for further improvement.

To establish an effective business linkage among feed dealer/Sub-Dealer, LSP and smallholder farmers and to familiarize the Aftab feed apps allocation for appropriate feed selection, digital service center & product; the project include 250 batches product promotional courtyard event cum farmer training to educate farmers at their homestead place through LSP. Each LSP conduct 2-3 batches of farmer's product promotional event at their business commending area and thus they will reach messages about product & service to 5000 farmers. There are at least 10% youth and at least 20% women who participate in those product promotion courtyard events. Aftab's staff arrange hat/bazar base campaign to promote & aware of Aftab feed and knowledge tools & call center base service for farmers. 120 events organize at different locations in the project working area where all types of actors and fish farmers attend and know about Aftab feed apps base service, call center number, digital service center, LSP based feed & service etc. Aftab branded T-shirts provide for participants. Under close supervision of each dealer/sub-dealer, Aftab establish 50 model farm pond activity to show the feed performance of other farmers during project period. To expand the Aftab feed market besides the apps base service, farmer data profiling, which uses in proper feed selection, service quality improvement and call center based on-time service provision, the company is aiming to ensure the best quality services for end-users. Aftab establish 50 exclusive service centers at the Dealer/ Sub-dealer's business point which brand name "Aftab feed digital service center". Aftab hire IT farm source trace by formal agreement to develop and install of digital feed operation by apps. The development value bare by the project and monthly maintenance cost bear by Aftab. The entire agreement following Aftab's procurement policy and payment system. But during project period source trace not able to deliver Aftab Agro Care Apps as Aftab want. So, unfortunately the agreement with source trace cancelled and hire a new vendor who develop and install Aftab Agro Care Apps as well. Aftab receive call base service from Agro solution maintaining a formal agreement between them. Agro solution uses a dedicated mobile number for Aftab. Agro solution maintaining a farmer data profile and share it with WorldFish whenever ask from them.

There are 10 sets of festoons having 6 number of festoons per set designed & print for conduct training of smallholder farmers by LSPs. The pictorial illustrated festoon developed on aquaculture focusing on BMP, nutrition, gender, environment compliances etc. for smallholder farmers who can easily understand by observing the pictures and figures. These festoons use to connect directly with 5000 smallholder fish farmers. Another 100 set festoon prepare and print for dealer point mentioning digital feed service & call center

information. As a part of promotional materials, 30000 leaflets (10K on carp & 10K on Tilapia & 10K others) prepare on farming techniques focusing on the new feed. To promote the new service on feed, Aftab redesign the 150000 feed bag as 25 KG and put call center number, digital feed service, few feed-related information so that the fish farmer easily gets some information. To promote the call center number and apps-based service, Aftab design & print 10000 stickers, 200 festoons (2 types, courtyard meeting & call center & knowledge tools layout), Prepare 5 promotional video content, apps application manual, call center manual etc.

1.6 Subgrantee

Aftab Feed Products Limited is part of Aftab Bahumukhi Farms Limited. Aftab Bahumukhi Farms Ltd (ABFL) has launched a social campaign for the alleviation of poverty and the creation of self-employment. A number of its products and services have emerged as a means of livelihood both to men and women of the rural areas. Industrial and farming projects, better healthcare, educational privileges and many other social activities are being facilitated at Bhagalpur and its adjacent 6 Upazilas with the establishment of agrobased industries, Jahurul Islam Medical College and Hospital and general educational institutions under the management of Islam Group. As a result, the village Bhagalpur and its adjacent Upazilas are being turned into an academic-cum commercial center through which the people can earn honest money, get proper education and enjoy better health services. All these benefits and privileges bring changes in their thinking, lifestyle, mentality, attitude and behavior. The locality is now humming with new life and economic activities. In due course, Aftab Bahumukhi Farms Ltd., Aftab Hatchery Ltd., Aftab Feed Products Ltd. and Aftab G. P. Farms Ltd. will play a dominant role in shaping a lot of the village and national economy as a whole.

Aftab Feed Products Limited is an agro-based company that deals with livestock and fish feed products and agricultural seeds business like Poultry feed, Cattle feeds, Fish feeds, Day old chicks, fish fries etc.

The corporate headquarter is in Dhaka and factories are in three places; Rupshi-Narayanganj, Bajitpur-Kishoreganj and Bonpara-Natore. Besides, that 11 feed delivering depots are situated around the country to ensure the feed into farmer's doorsteps.

Owner of the company: Mr. Manzurul Islam Board of Directors:

- 1. Mr. Manzurul Islam
- 2. Mr. Abu Luthfe Fazle Rahim Khan
- 3. Mr. Md. Abdur Rahim Choudhury
- 4. Mr. Md. Abdul Wadud

Number of employees: 418 Permanent employees: 367

Temporary employees: 41 Number of offices: 02 Regions: 02 (East

& West)

1.0 Brief Budget Summary

Table-1: Budget Summary of the Project

		Amount (BDT)	
Activities	Total cost BDT	WorldFish	Sub-Grantee
Direct Labor (Personnel)	21,632,820	9,449,250	12,183,570
Equipment, Supplies' and Operation Cost	3,097,533	351,242	2,746,291
Travel	7,288,001	2,505,020	4,782,981
Activity Cost (Services, training, workshops, products & etc.)	20,827,600	11,502,900	9,324,700
Total in BDT	52,845,954	23,808,412	29,037,542
Total in USD	\$565,161	\$255,441	\$309,720
(%) Contribution	100%	45%	55%

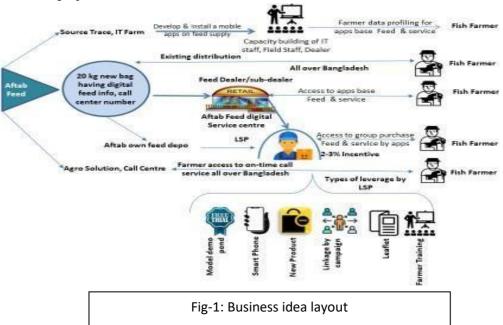
2.0 Project Implementation:

2.1 Business Model and Its Description

Aftab's long-term business vision is to increase the efficiency of current business operation by integrating real-time demand and supply information to extend Aftab business deep to the rural areas while ensuring the utmost customer satisfaction. Therefore, addressing the concept of the solicitation, Aftab develop an automated smart feed operation management app through a third party (initially source trace but now bug fixers who mainly IT related service provider and has the skill to develop and serve such kind of thing, Aftab sign MoU with them and work to do the task) where ensure on-time and prompt delivery of feeds to the dealers and farmers according to demand, track the process of delivery including dealer wise feed inventory, ordering options, 18-24- hour call center service, and sales trends according to geography. Actually, bug fixers develop 2 apps, one system will work on i) Farmer, Farm Trader, Dealer & Factories enrollment for particular area ii) Item wise daily feedstock inventory at dealer point iii) Fish farmer wise feed sales tracking and help to select appropriate feed according to fish growth iv) Online feed demand & supply from dealer point v) Staff daily activities & movement monitoring thus ensure sales & service to dealer & farmer vi) Fish farmer on-time knowledge tools serve & data profiling & messaging on solution vii) Country wide item wise daily sales monitoring thus helps to produce feed in next viii) Product promotional event & need-based survey management in rural areas. Another system common apps for LSPs initially who demand feed from dealer/depo point and get the proper feed easily. Other necessary info on Aquaculture is there and have an option to call for on-time service & video chat. Aftab engage another service by 'Agro Solution" a call centerbased service provider who ensures the appropriate call center-based service to Aqua farmers and the call rate will be as the market rate. All farmers over the country, get access to call a common mobile number and also through apps. Aftab consider 50 dealers to link the system here another 100 LSP/commission agent link with the digital feed network and they have the option to use common apps for feed demand & digital knowledge tools use. Most of the feed dealers and other feed-related actors even fish farmers are using a smartphone. So, the company takes the privilege to establish an apps-based feed supply platform where the fish farmer has an opportunity to get proper feed through the system. The feed dealer also demands using the application, besides this the sub-dealer/LSP also gets order feed using the system. Call-based service by the system is also helpful for the rural fish farmer to get on-time service which contributes the productivity. After the pilot phase, after getting the response and improved the system based on user feedback expand it over the country up to 100 dealers with in project period at Aftab's own cost.

So, Aftab has several objectives through the proposed business concept and has a long-term vision. Aftab aim to overcome multi-tier business barriers to increase brand equity and to ensure the sectorial growth of aquaculture in Bangladesh. Firstly, Aftab digitalize entire supply and demand chain to promptly supply feeds according to the demand from the regional inventory through a regional tracking mechanism. Secondly, build geographical sales trend MIS to take a smart decision by tracking our dealers, farmers, warehouse, staff, and logistics movement. Thirdly and most importantly, embed one-touch service management to reduce order cycle to farmers and ensure 18-24 hours digital service to the farmers

Business model: From the above discussion on business idea Aftab feed follow the following business model for this collaborative project.



The proposed partnership project with Bangladesh Aquaculture Activity, Aftab feed initiate a flagship platform with the following service providers-

i) Source Trace and Bug Fixers: A USA-based renowned award winner ICT company that has proven skill in Agricultural digital tools and solutions development, maintenance and capacity building of ICT staff. Source Trace is the global leader in mobile technology for digital agriculture. Source Trace is the only company who able to deployed real ICT solutions in Government, Corporate, INGO, private sector even in WorldFish (Shrimp traceability piloting for USAID AIN project) in Bangladesh. Through the project, initially Source Trace but now bug fixers develop an app and it is used from company to dealer level to manage the appropriate & effective feed supply chain. A linked provision is inbuilt there for Farmer Groups, lead farmers, or LSP for bulk feed procurement directly from Aftab Feed designated distribution points and feed dealer shop with a certain commission. A possible layout of the apps is showing here

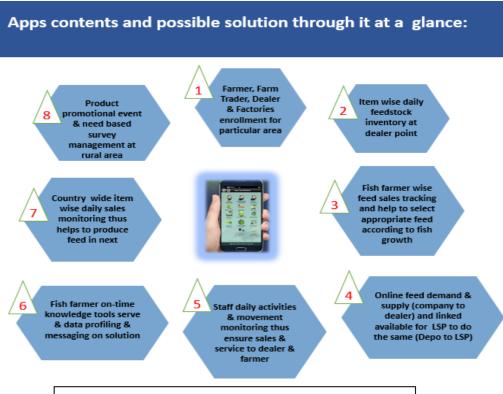


Fig-2: Apps based service content layout

i) Agro Solution: A call center-based service provider based in Dhaka that mainly provides corporate service for the Aquaculture sector. They provide on-time call base service for the fish, cattle and poultry sectors. A dedicated expert panel ensures the farmer's solution throughout 18-24 hours. The call rate will be at a market rate so that the fish farmer can afford it and there will be a feedback SMS to the farmer in Bangla option for better understanding for the farmer. They will maintain a farmer profile who ever calls and get service from the center. A working layout is described here.

Calls to O9614-XXXXXXX Agent receives the call Center Agent supports the caller as per the requirement. CRM CRM ESCALATION To Supervisor Gets information from CRM Monitor/ QC and Report Collect Information to provide feedback to CC Agent CRM CRM ESCALATION To Supervisor Gets information from CRM Monitor/ QC and Report Collect Information to provide feedback to CC Agents

Fig-3: Call center based service layout

Mobile App-based working layout: A holistic view of mobile apps operation for Aftab feed supply chain, staff role, farmer data profiling, dealer & LSP service and farmer connection are showing here.

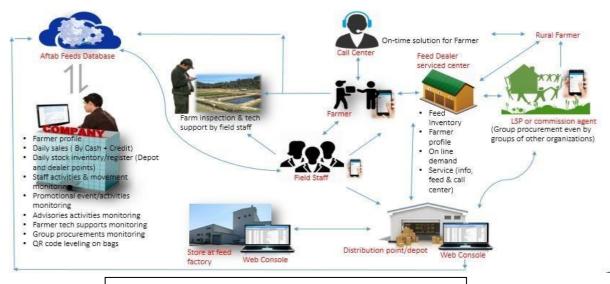


Fig-4: Apps based Aftab business layout

2.2 Grant Chart

Table-2: Activity plan and achievement with time line (Grant Chart)

							Time	line					
SL	Activities	21	21	21	21	21	21	22	22	22	22	22	22
		July'	Aug'	Sep'	Oct'	Nov'	Dec'	Jan'	Feb'	Mar'	Apľ	May	June'
1	Staff recruitment												
2	Agreement signing ceremony with Source traces to develop & maintained digital platform and Agro Solution to Improve & serve Knowledge tools & call base service at Dhaka (25 participants along with journalist)												
3	Project orientation meeting at Dhaka HQ staff (Total 22 person)												
4	Quarterly progress review & coordination meeting (4 meetings at Dhaka, 25)												
5	Annual project performance workshop with the presence of all parties, feed dealers, field staff etc. at Dhaka (35 participants)												
6	Pre-trial of digital feed management platform using mobile and start call center service at the dealer level, staff level, and HQ level												

									,	,	,	
7	Grand opening of digital feed management platform (DFMP) & Knowledge tools service at Dhaka (50 participants with DoF, WF, USAID & journalist)											
8	Capacity building ToT Event on digital feed management, feed stock, staff movements, knowledge tools service and aquaculture technology focusing BMP, Nutrition, gender & environment to project staff, field staff & HQ staff by Source trace (ST) & PM (2 days, 2 nights, 40) at Dhaka											
9	Capacity building event for the dealer on DFMP use, apps installation and BMP technical services & business promotion to farmers – 50 Dealers/Sub- dealers (at least 20% youth; 1 day, 02 batches) at a suitable location with the assistance of ST		1	2								
10	Capacity & skill development for call center staff on Customer Relation Management (CRM) and service delivery by an expert at Dhaka (2 times)		1				1					
11	Capacity building event for LSPs on digital feed platform, apps-based feed demand & supply and BMP technical services & business promotion to farmers – 100 LSP (atleast 20% youth; 1 day, 04 batches) at a suitable location with the assistance of ST		1	3								
12	B to B Linkage event with 50 dealer & 100 LSPs on Business and incentive issue and capacity development for using digital feed platform and BMP service (1 day, 06 batch, suitable location)			2	4							
13	Workshop cum capacity-building event for others Aqua market actors (backward & forward) to link & aware & know on digital feed management, apps based service and Knowledge tools services (10 events, 20 actors)						2	2	2	2	2	
14	Refresher capacity-building event for the dealer on DFMP use, feedback received & improve apps application and BMP technical services & business promotion to farmers - 50 Dealers/Sub- dealers (at least 20% youth; 1 day, 02 batches) at Suitable location by Aftab IT staff					1	2					
15	Product promotion court yard events (Uthan Boithok) with farmers to aware feed based digital service & BMP of Aquaculture (250 batches, 20 farmers/batch, 2.5 hrs. long, using 6 Festoons in whole the event)											

16	Organize hat activation campaign										
17	Establish 50 model farm pond activity to										
17	show the feed performance led by the										
	dealer										
18	Establish 50 "Aftab feed digital Service										
10	Center" at dealer point										
19	Develop festoon to provide group message					-					
17	to farmers about aware feed based digital										
	service and on aquaculture focusing BMP,										
	nutrition, gender, environment etc. (Total 10										
	sets- 06 festoon per set; field staff -05 sets										
	and others-5 sets)										
20	Prepare 30,000 (10K on carp & 10K on										
20	Tilapia & 10K others) leaflets for Aftab										
	feed on aquaculture technology and										
	distribution among farmers										
		+					+		- 		
21	Prepare 2500 T-shirt for branding which										
	uses in hat based campaign to aware Aftab										
	feed & digital service					1	+				
22	New 20 KG bag design & printing with										
22	necessary info for farmer						+		\dashv		
23	Prepare 10000 stickers for call center										
	number & service promotion										
24	Prepare 200 festoon focusing call										
	center related service layout										
25	Prepare 5 types of video content (for dealer										
	apps use layout, for farmer how they get										
	service from digital feed service apps &										
	benefit, other for call center work layout)										
Acti	vity under Cost Extension										
26	Project orientation cum ToT to assigned						1				
	staff for the project at Islam Chamber,										
	Dhaka (Total 45 person)										
	_							1		1	
27	Quarterly progress and project							1		1	
	coordination meeting at field level (2										
	event)				1						
28	B2B linkage event with feed dealer, Aqua						2	2	2		
	input dealer, Chemist, LSP, hatchery,										
	nursery & DoF LEAF at suitable location										
20	(total 6 events, 120 market actors)				-			1		1	
	B2B Linkage event with dealer & LSPs on Business and incentive issue and capacity							1		1	
	development for using digital feed platform										
	and BMP service (2 events, 2 dealer, 4 LSP)										
	with refresher (2 main & 2 refresher)										
30	Establish One-Stop Service Center (Total 32				1		7	15	10		
	service points, 15 Aftab & 15 SKF; 2 ZOR)										
31	Product promotion events with farmers lead						150	200	200	200	
	by LSP (750 batches, 20 farmers/batch, 3.5										
	hour long, using 6 Festoons the entire										
	training, 750*20=15000) (Aftab+ SKF)										

32	Product promotion court yard events with							5	10	10	10	
	farmers to aware feed based digital service,											
	Aftab service center & BMP (35 batches,											
	35*15=525) (in ZOR)											
- 22			-									
	Upgradation of "Aftab Agro care" Apps											
	advisory service content with Aqua input &											
	call center service for all types of fish farmer											
	and promote it through farmer training event											
	(Aftab+SKF)											
34	Capacity building event for 30 dealers on								1			
	Digital feed management practice, customer											
	service and BMP (Aftab+SKF)											
25	` ´			1					1			
	Capacity building event for 10 dealers on								1			
	Digital feed management practice, customer											
	service and BMP (in ZoR)											
36	Capacity building event for LSPs on digital								2		2	
	feed platform, apps based feed demand &											
	supply and BMP technical services &											
	business promotion to farmers –30 LSP/											
	batcher_ (2 main & 2 refresher)											
	(Aftab+SKF)											
37	Capacity building event for LSPs on digital								1		1	
31	feed platform, apps based feed demand &								•			
	supply and BMP technical services &											
	business promotion to farmers –20 LSP,											
	2batch) with refresher (2 main & 2 refresher)											
	(in ZoR)											
20	**	 		+					1.7	1.7	1.7	~
38	Hat Activation to promote and branding the								15	15	15	5
38	Apps based service & call center number to								15	15	15	5
38	Apps based service & call center number to fish farmer (at local bazar/hat area, 50 event,								15	15	15	5
	Apps based service & call center number to fish farmer (at local bazar/hat area, 50 event, 15/event, 50*15=750) (In ZoR)								15	15	15	5
	Apps based service & call center number to fish farmer (at local bazar/hat area, 50 event, 15/event, 50*15= 750) (In ZoR) Attending environmental and climate								15	15	15	5
39	Apps based service & call center number to fish farmer (at local bazar/hat area, 50 event, 15/event, 50*15= 750) (In ZoR) Attending environmental and climate training								15	15	15	5
39	Apps based service & call center number to fish farmer (at local bazar/hat area, 50 event, 15/event, 50*15= 750) (In ZoR) Attending environmental and climate								15	15	15	5
39	Apps based service & call center number to fish farmer (at local bazar/hat area, 50 event, 15/event, 50*15= 750) (In ZoR) Attending environmental and climate training								15	15	15	5
39	Apps based service & call center number to fish farmer (at local bazar/hat area, 50 event, 15/event, 50*15= 750) (In ZoR) Attending environmental and climate training Develop festoon to provide complete								15	15	15	5
39	Apps based service & call center number to fish farmer (at local bazar/hat area, 50 event, 15/event, 50*15= 750) (In ZoR) Attending environmental and climate training Develop festoon to provide complete package of information to farmers & other market actors on new collaborative business								15	15	15	5
39	Apps based service & call center number to fish farmer (at local bazar/hat area, 50 event, 15/event, 50*15=750) (In ZoR) Attending environmental and climate training Develop festoon to provide complete package of information to farmers & other market actors on new collaborative business concept, B2C business linkage, aquaculture								15	15	15	5
39	Apps based service & call center number to fish farmer (at local bazar/hat area, 50 event, 15/event, 50*15=750) (In ZoR) Attending environmental and climate training Develop festoon to provide complete package of information to farmers & other market actors on new collaborative business concept, B2C business linkage, aquaculture focusing BMP, nutrition, gender,								15	15	15	5
39	Apps based service & call center number to fish farmer (at local bazar/hat area, 50 event, 15/event, 50*15= 750) (In ZoR) Attending environmental and climate training Develop festoon to provide complete package of information to farmers & other market actors on new collaborative business concept, B2C business linkage, aquaculture focusing BMP, nutrition, gender, environment etc (Total 30 sets- 06 festoon								15	15	15	5
39 40	Apps based service & call center number to fish farmer (at local bazar/hat area, 50 event, 15/event, 50*15= 750) (In ZoR) Attending environmental and climate training Develop festoon to provide complete package of information to farmers & other market actors on new collaborative business concept, B2C business linkage, aquaculture focusing BMP, nutrition, gender, environment etc (Total 30 sets- 06 festoon per set (Aftab+ SKF)								15	15	15	5
39 40	Apps based service & call center number to fish farmer (at local bazar/hat area, 50 event, 15/event, 50*15= 750) (In ZoR) Attending environmental and climate training Develop festoon to provide complete package of information to farmers & other market actors on new collaborative business concept, B2C business linkage, aquaculture focusing BMP, nutrition, gender, environment etc (Total 30 sets- 06 festoon per set (Aftab+ SKF) Prepare 35,000 leaflet (4 pager) on								15	15	15	5
39 40	Apps based service & call center number to fish farmer (at local bazar/hat area, 50 event, 15/event, 50*15= 750) (In ZoR) Attending environmental and climate training Develop festoon to provide complete package of information to farmers & other market actors on new collaborative business concept, B2C business linkage, aquaculture focusing BMP, nutrition, gender, environment etc (Total 30 sets- 06 festoon per set (Aftab+ SKF) Prepare 35,000 leaflet (4 pager) on appropriate feeding, safe use of Aqua								15	15	15	5
39 40	Apps based service & call center number to fish farmer (at local bazar/hat area, 50 event, 15/event, 50*15= 750) (In ZoR) Attending environmental and climate training Develop festoon to provide complete package of information to farmers & other market actors on new collaborative business concept, B2C business linkage, aquaculture focusing BMP, nutrition, gender, environment etc (Total 30 sets- 06 festoon per set (Aftab+ SKF) Prepare 35,000 leaflet (4 pager) on appropriate feeding, safe use of Aqua medicine, aquaculture technology,								15	15	15	5
39 40	Apps based service & call center number to fish farmer (at local bazar/hat area, 50 event, 15/event, 50*15= 750) (In ZoR) Attending environmental and climate training Develop festoon to provide complete package of information to farmers & other market actors on new collaborative business concept, B2C business linkage, aquaculture focusing BMP, nutrition, gender, environment etc (Total 30 sets- 06 festoon per set (Aftab+ SKF) Prepare 35,000 leaflet (4 pager) on appropriate feeding, safe use of Aqua medicine, aquaculture technology, harvesting & marketing and distribution								15	15	15	5
39 40 41	Apps based service & call center number to fish farmer (at local bazar/hat area, 50 event, 15/event, 50*15= 750) (In ZoR) Attending environmental and climate training Develop festoon to provide complete package of information to farmers & other market actors on new collaborative business concept, B2C business linkage, aquaculture focusing BMP, nutrition, gender, environment etc (Total 30 sets- 06 festoon per set (Aftab+ SKF) Prepare 35,000 leaflet (4 pager) on appropriate feeding, safe use of Aqua medicine, aquaculture technology, harvesting & marketing and distribution among farmers (Aftab+ SKF)								15	15	15	5
39 40 41	Apps based service & call center number to fish farmer (at local bazar/hat area, 50 event, 15/event, 50*15= 750) (In ZoR) Attending environmental and climate training Develop festoon to provide complete package of information to farmers & other market actors on new collaborative business concept, B2C business linkage, aquaculture focusing BMP, nutrition, gender, environment etc (Total 30 sets- 06 festoon per set (Aftab+ SKF) Prepare 35,000 leaflet (4 pager) on appropriate feeding, safe use of Aqua medicine, aquaculture technology, harvesting & marketing and distribution among farmers (Aftab+ SKF) T-shirt for branding Apps & call center using								15	15	15	5
39 40 41	Apps based service & call center number to fish farmer (at local bazar/hat area, 50 event, 15/event, 50*15= 750) (In ZoR) Attending environmental and climate training Develop festoon to provide complete package of information to farmers & other market actors on new collaborative business concept, B2C business linkage, aquaculture focusing BMP, nutrition, gender, environment etc (Total 30 sets- 06 festoon per set (Aftab+ SKF) Prepare 35,000 leaflet (4 pager) on appropriate feeding, safe use of Aqua medicine, aquaculture technology, harvesting & marketing and distribution among farmers (Aftab+ SKF) T-shirt for branding Apps & call center using in farmer meeting (ZoR)								15	15	15	5
39 40 41	Apps based service & call center number to fish farmer (at local bazar/hat area, 50 event, 15/event, 50*15= 750) (In ZoR) Attending environmental and climate training Develop festoon to provide complete package of information to farmers & other market actors on new collaborative business concept, B2C business linkage, aquaculture focusing BMP, nutrition, gender, environment etc (Total 30 sets- 06 festoon per set (Aftab+ SKF) Prepare 35,000 leaflet (4 pager) on appropriate feeding, safe use of Aqua medicine, aquaculture technology, harvesting & marketing and distribution among farmers (Aftab+ SKF) T-shirt for branding Apps & call center using								15	15	15	5
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39 40 41 42 43	Apps based service & call center number to fish farmer (at local bazar/hat area, 50 event, 15/event, 50*15= 750) (In ZoR) Attending environmental and climate training Develop festoon to provide complete package of information to farmers & other market actors on new collaborative business concept, B2C business linkage, aquaculture focusing BMP, nutrition, gender, environment etc (Total 30 sets- 06 festoon per set (Aftab+ SKF) Prepare 35,000 leaflet (4 pager) on appropriate feeding, safe use of Aqua medicine, aquaculture technology, harvesting & marketing and distribution among farmers (Aftab+ SKF) T-shirt for branding Apps & call center using in farmer meeting (ZoR) Design & print - Prepare 4,000 (2K on carp & 2K on Tilapia) leaflets (ZoR)								15	15	15	5
39 40 41 42 43	Apps based service & call center number to fish farmer (at local bazar/hat area, 50 event, 15/event, 50*15= 750) (In ZoR) Attending environmental and climate training Develop festoon to provide complete package of information to farmers & other market actors on new collaborative business concept, B2C business linkage, aquaculture focusing BMP, nutrition, gender, environment etc (Total 30 sets- 06 festoon per set (Aftab+ SKF) Prepare 35,000 leaflet (4 pager) on appropriate feeding, safe use of Aqua medicine, aquaculture technology, harvesting & marketing and distribution among farmers (Aftab+ SKF) T-shirt for branding Apps & call center using in farmer meeting (ZoR) Design & print - Prepare 4,000 (2K on carp & 2K on Tilapia) leaflets (ZoR)								15	15	15	5
39 40 41 42 43	Apps based service & call center number to fish farmer (at local bazar/hat area, 50 event, 15/event, 50*15=750) (In ZoR) Attending environmental and climate training Develop festoon to provide complete package of information to farmers & other market actors on new collaborative business concept, B2C business linkage, aquaculture focusing BMP, nutrition, gender, environment etc (Total 30 sets- 06 festoon per set (Aftab+ SKF) Prepare 35,000 leaflet (4 pager) on appropriate feeding, safe use of Aqua medicine, aquaculture technology, harvesting & marketing and distribution among farmers (Aftab+ SKF) T-shirt for branding Apps & call center using in farmer meeting (ZoR) Design & print - Prepare 4,000 (2K on carp & 2K on Tilapia) leaflets (ZoR) 2000 sticker Design & print - Prepare call center number & service promotion								15	15	15	5
39 40 41 42 43 44	Apps based service & call center number to fish farmer (at local bazar/hat area, 50 event, 15/event, 50*15= 750) (In ZoR) Attending environmental and climate training Develop festoon to provide complete package of information to farmers & other market actors on new collaborative business concept, B2C business linkage, aquaculture focusing BMP, nutrition, gender, environment etc (Total 30 sets- 06 festoon per set (Aftab+ SKF) Prepare 35,000 leaflet (4 pager) on appropriate feeding, safe use of Aqua medicine, aquaculture technology, harvesting & marketing and distribution among farmers (Aftab+ SKF) T-shirt for branding Apps & call center using in farmer meeting (ZoR) Design & print - Prepare 4,000 (2K on carp & 2K on Tilapia) leaflets (ZoR) 2000 sticker Design & print - Prepare call center number & service promotion materials (ZoR)								15	15	15	5
39 40 41 42 43 44	Apps based service & call center number to fish farmer (at local bazar/hat area, 50 event, 15/event, 50*15= 750) (In ZoR) Attending environmental and climate training Develop festoon to provide complete package of information to farmers & other market actors on new collaborative business concept, B2C business linkage, aquaculture focusing BMP, nutrition, gender, environment etc (Total 30 sets- 06 festoon per set (Aftab+ SKF) Prepare 35,000 leaflet (4 pager) on appropriate feeding, safe use of Aqua medicine, aquaculture technology, harvesting & marketing and distribution among farmers (Aftab+ SKF) T-shirt for branding Apps & call center using in farmer meeting (ZoR) Design & print - Prepare 4,000 (2K on carp & 2K on Tilapia) leaflets (ZoR) 2000 sticker Design & print - Prepare call center number & service promotion materials (ZoR) 2 set festoons containing 6 pages for product								15	15	15	5
39 40 41 42 43 44	Apps based service & call center number to fish farmer (at local bazar/hat area, 50 event, 15/event, 50*15= 750) (In ZoR) Attending environmental and climate training Develop festoon to provide complete package of information to farmers & other market actors on new collaborative business concept, B2C business linkage, aquaculture focusing BMP, nutrition, gender, environment etc (Total 30 sets- 06 festoon per set (Aftab+ SKF) Prepare 35,000 leaflet (4 pager) on appropriate feeding, safe use of Aqua medicine, aquaculture technology, harvesting & marketing and distribution among farmers (Aftab+ SKF) T-shirt for branding Apps & call center using in farmer meeting (ZoR) Design & print - Prepare 4,000 (2K on carp & 2K on Tilapia) leaflets (ZoR) 2000 sticker Design & print - Prepare call center number & service promotion materials (ZoR)								15	15	15	5

2.3 List of activities Conducted

- Staff Recruitment.
- Agreement Signing with Source Trade
- Project orientation meeting
- Develop & installation of digital feed operation apps from Source trace
- Improvement of call service system for Agro Solution
- Pre-trial of digital feed management platform using mobile and call center service at the dealer level, staff level, and HQ level
- Develop festoon to provide group message to farmers about aware feed based digital service and on aquaculture focusing BMP, nutrition, gender, environment etc.
- Quarterly progress review & coordination meeting
- Grand opening of digital feed management platform (DFMP) & Knowledge tools service at Dhaka
- Capacity building ToT Event on digital feed management, feed stock, staff movements, knowledge tools service and aquaculture technology focusing BMP, Nutrition, gender & environment
- Capacity building event for the dealer on DFMP use, apps installation and BMP technical services & business promotion to farmers
- Capacity & skill development for call center staff on Customer Relation Management (CRM) and service delivery by an expert at Dhaka
- Capacity building event for LSPs on digital feed platform, apps based feed demand & supply and BMP technical services & business promotion to farmers
- B to B Linkage event with 50 dealer & 100 LSPs on Business and incentive issue and capacity development for using digital feed platform and BMP service
- Establish 50 model farm pond activity to show the feed performance led by the dealer
- Establish 50 "Aftab feed digital Service Center" at dealer point
- Prepare 30,000 (20K on carp & 10K on Tilapia & 10K others) leaflets for Aftab feed on aquaculture technology and distribution among farmers
- Prepare 2500 T-shirt for branding which uses in hat based campaign to aware Aftab feed & digital service
- New 25 KG bag design & printing with necessary info for farmer
- Prepare 10000 stickers for call center number & service promotion
- Prepare 200 festoon focusing call center related service layout
- Product promotion court yard events (Uthan Boithok) with farmers to aware feed based digital service & BMP of Aquaculture
- Prepare 5 types of video content
- Workshop cum capacity-building event for others Aqua market actors (backward & forward) to link & aware & know on digital feed management, apps-based service and Knowledge tools services Refresher capacity-building event for the dealer on DFMP use, feedback received & improve apps application and BMP technical services & business promotion to farmers
- Annual project performance workshop

2.4 Activity wise Implementation

2.4.1 Staff Recruitment thorough recruitment process

According to the proposed proposal, there are 06 new staffs recruit for the implementation of this project who are project manager (PM-01), Aquaculture expert for call center (01), Accounts & Admin Officer (AAO-01), Product Promotion Expert (PPE-03), all 06 competent staffs select and recruit as per organizational policy. Further, another 4 staff from the field sign an official agreement for contributing to the project activities and 3 IT support engage. Their involvement is necessary to adopt the new business model with the core business strategy. The supporting staff from the management team will be MD (Managing Director), Head of Marketing and Sales, Operation Director (Finance & admin), Head of IT, Manager (Field Operation).

2.4.2 Agreement signing ceremony

Aftab arrange a contract signing ceremony at the Dhaka office immediately after completion of SGA with Source trace to develop & maintain a digital platform and Agro Solution to Improve & serve Knowledge tools & call base service at Dhaka. It is a short event to complete a formal agreement with two service providers considering the COVID situation. Few journalists attend for media cover.



Fig-5: Agreement Signing Ceremony at Dhaka Office

2.4.3 Project orientation to field staff and Aftab feed HQ staff

Aftab organize a project orientation program at the Dhaka office immediately after completion of recruitment where

the proposed project staff, Aftab HQ staff and a few WorldFish staff participate actively. The program is anchored by The Project Manager. The main objectives of the meeting would be to highlight the project model and concept, the budget in detail, the cost-sharing, the Gantt chart, the activities, geographical locations, implementation strategy, challenges & threats including way forwards, the tentative duties and responsibilities of staff's, the tentative output or benefits, the market actor's selection criteria, mode of the standard operating procedure (SOP), the incentive of market actor's, the backward and forward marketing, LSP selection criteria etc. All respective Aftab staff, project staff, call center staff will be attending the event.



Fig-6: Project Orientation at Banani, Dhaka Office

2.4.4 Quarterly progress review & coordination meeting

Aftab feed organize 4 quarterly day-long coordination meetings to ensure the smooth progress of the project to increase the coordination among the staff and the meeting organized at Dhaka, but the venue change as per the project demand. Project PM lead those meetings, though other HQ staff attend the meeting. The main objectives of that meeting to check the progress, to strengthen the team building, challenges, roadblock/ risks and to way forward, deadlines and major milestones, budget burning, working efficiency, next month work plan, previous achievement analysis etc.



Fig-7: Quarterly Meeting at Motijheel, Dhaka Office

2.4.5 Pre-trial of digital feed management platform at Dhaka

As per the agreement, initially Source Trace but now bugfixes trail their develop apps-based application to Aftab assigned staff, dealer and LSP level which held at Dhaka. They demonstrate the entire system to the

ultimate user and Aftab's own IT official digest the entire system for their better understanding and way forward. Source Trace describe each part of the system and how it is linked with the central database, which is controlled by the IT team. Source Trace also install and show this application some feed dealer and staff's mobile and describe how it is used. Simultaneously, Agro Solution also demonstration their call center application and inaugurate the call center service for farmer-level use. A

dedicated call center number share here. Few on test call checks by Aftab staff. There are some improvement provisions before the grand opening of the system.



Fig-8: Pre-Trial Meeting at Banani,
Dhaka Office

2.4.6 Grand opening of digital feed management platform (DFMP) & Knowledge tools service

After the pre-trial, Aftab IT official, field staff, feed dealer and LSP use the application. Bug fixers improves the system whenever observed or discomforted by the users. However, Aftab organize a grand opening ceremony in Dhaka to announce the digital feed service system. A different official from USAID, WorldFish, Aftab feed, Source Trace, Agro Solution, DoF official, Journalist attend the open ceremony event. A strong media coverage ensues through it to create a positive vibe on digital feed supply management.



Fig-9: Apps Grand Opening Program at Ptainum Grand, Banani, Dhaka

2.4.7 Capacity & skill development for call center staff on Customer Relation Management (CRM)

Agro Solution arrange the capacity-building event for their call center staff by experts. All call center staff get two times training. The core objective of the training is to educate them on customer service, way of telephonic conversation with the rural fish farmer, mode of answering, SMS in Bangla, customer profiling etc. Both events take place in Dhaka.



Fig-10: CRM Training at Sena Kallyan Sangstha, Mohakhali,

2.4.8 Capacity building ToT Event on digital feed management, feed stock, staff movements, knowledge tools service and aquaculture technology focusing BMP

The selected all staff and Aftab existing field staff of the proposed project along with other concerns of Aftab HQ staff train up as ToT course on Apps application, digital feed service, call center service, aquaculture technology focusing on BMP, nutrition, gender and environment compliances. Moreover, the field staff train up in a way that he/she can be able to deliver the ToT event to market actors (dealers/sub-dealers & LSPs) who can deliver messages to their farmers/clients. This event conducted in Dhaka. Data collection, monitoring and reporting system focus through that event to build the capacity of the field staff. The project manager responsible to provide all those technical things to the trainees.



Fig-11: Capacity Building ToT Event at Motijheel Office, Dhaka.

2.4.9 Capacity building event for dealers on DFMP use

To build the capacity of dealers and sub-dealers, the company arrange daylong business capacity building & business promotional events for understand the project work concept, apps installation, apps use and basics of aquaculture technology. Those events venue select as a convenient place for participants. In the beginning Source Trace but now Bug Fixers lead the training event and Aftab IT official assist them. The key topic was apps application, apps-based service, feed business, better management practice (BMP), nutrition, gender, utilization of Aftab feed, harvesting, marketing, business linkage, etc.



Fig-12: Dealers Capacity Building at CODEC Training Ceneter, Bagerhat.

2.4.10 Capacity building event for LSPs on digital feed platform, apps-based feed demand & supply and BMP technical services & business promotion to farmers

Aftab organize day-long 4 batches motivational and capacity building events for LSPs, on digital feed platform, apps-based feed demand & supply and BMP technical services & business promotion to farmers where 25 LSPs attain in each event. A module on business management, business etic, way of business service, customer relation, Aquaculture better management practice (MBP), fish harvesting & processing for marketing, forward market actor linkage etc. prepared and provided to them. Also, discussing smartphone operation, apps application, feed demand using apps linked and way of communication for video calling with the dealer, Aftab staff, call center so that they able to serve fish farmer properly. Considering the location and LSPs convenience the training arranges in four different places.



Fig-13: LSP'S Capacity Building at SAINT Bangladesh, Barishal.

2.4.11 B to B Linkage Event with dealer and LSP on Business and Incentive issue and capacity development for using digital feed platform and BMP Service

To increase the business linkage among the Dealers/one stop service center and respective LSPs, Aftab arrange 10 linkage building events in different convenient places among project areas. Aftab staff assist dealers and LSPs to make a negotiation so that a business interest creates. Each batch contain 25 participants and thus, 10 batches conducted in six different areas. The main topic was business negotiation, a relationship business, incentive policy, proper functioning of Aftab digital service center and role on each other to expand the feed business and capture a new customer base using apps allocation.

Fig-14: B to B Linkage Event at SAINTBangladesh,

2.4.12 Refresher capacity-building Event with digital signboard dealer and LSP on Business, Incentive Issues, and Capacity Development for Using the Digital Feed Platform and BMP Service

To increase the business linkage among the digital signboard dealers and respective LSPs, Aftab arrange 5 linkage building events in different convenient places among project areas. Aftab staff assist dealers and LSPs to make a negotiation so that a business interest creates. Each batch contain 25 participants and thus, 5 batches conducted in six different areas. The main topic was business negotiation, a relationship business, incentive policy, proper functioning of Aftab digital service center and role on eachother to expand the feed business and capture a new customer base using apps allocation.



Fig-15: Refresher capacity-building Event at CSS Ava Center, Khulna

$2.4.13\ Workshop\ cum\ capacity-building\ event\ for\ others\ Aqua\ market\ actors\ (backward\ \&\ forward)\ to$ link & aware & know on digital feed management, apps-based service and Knowledge tools services

Aftab organize 10 workshops cum capacity-building event for others Aqua market actors (backward & forward) to link & aware & know on digital feed management, apps-based service and Knowledge tools services at a different location. Through the event, all respective Aqua market actors including DoF aware on digital feed management and call center base service initiated by Aftab feed. So that, those actors disseminate the information among many people and use its self.



Fig-16: Workshop cum Capacity Building event at PASA Training Center, Patuakhali.

2.4.14 Refresher capacity-building event for the dealer on DFMP use, feedback received & improve apps application

Aftab IT team arrange the refresher capacity-building event for the dealer on DFMP use, feedback received & improve apps application. Through the event, the IT team shows perform to anchor the system themselves and receive feedback from the user for further improvement. 2 Event take place at a different place.



Fig-17: Refresher Capacity Building at SAINT Bangladesh, Barishal.

2.4.15 Product promotion courtyard events with farmers to aware feed based digital service

To establish an effective business linkage among feed dealer/one stop service center, LSP and smallholder farmers and to familiarize the Aftab feedapps allocation for appropriate feed selection, digital service center & product; the project include 365 batches product promotional courtyard event cum farmer training to educate farmers at their homestead place through LSP with support from dealer/one stop service center, the LSPs conduct those events to increase the capacity of their clients, to increase the linkage with their clients and thus the brand image is increased. Each LSP conduct 2-3 batches of farmer's product promotional event at their business commending area and thus they reach messages about product & service to 6597 farmers. There are at least 10% youth and at least 20% women who participate in those product promotion courtyard



Fig-18: Courtyard Meeting at Bagerhat, Khulna.

events

2.4.16 Product promotion events with farmers to awarefeed based digital service

To establish an effective business linkage among feed dealer/one stop service center, LSP and smallholder farmers and to familiarize the Aftab feedapps allocation for appropriate feed selection, digital service center & product; the project include 1050 batches product promotion event cum farmer training to educate farmers at their homestead place through LSP with support from dealer/one stop service center, the LSPs conduct those events to increase the capacity of their clients, to increase the linkage with their clients and thus the brand image is increased. EachLSP conduct 2-3 batches of farmer's product promotion event at their business commending area and thus they reach messages about product & service to 28949 farmers. There are at least 10% youth and at least 30% women who participate in those product promotion courtyard events.



Fig-19: Product Promotion Event at Monirampur, Jashore.

2.4.17 Farmer's Field Day programmes show the feed performance of other farmers

In the farmer's field day program organized by the pond owner, OSSC owner and LSP, in the presence of prominent people in the area, the pond owner's success story, best management practices and feed performance are discussed in detail, pond activities to show the feed performance of other farmers are given, and the call center and app are discussed. A total of 14 farmer's field day programs were held in different locations in the ZoI and ZoR regions, where 748 participants were present, including 265 female participants.



Fig-20: Farmer's Field Day Program at Abhaynagar, Jashore.

2.4.18 Video Show events with farmers to make them aware of feed-based digital services

In the video show program organized by the OSSC owner and LSP, in the presence of prominent people in the area, product promotion, best management practices and feed performance are shown in detail video; pond activities to video show the feed performance of other farmers are given; and the call center and app are shown in detail video. A total of 9 video show programs were held in different locations in the ZoI and ZoR regions, where 1412 participants were present, including 97 female participants.



Fig-21: Video Show Event at Monirampur, Jashore.

2.4.19 Organize hat/bazar base campaign to promote & aware about Aftab feed and knowledge tools & call center base service for the farmer

Aftab's staff Organize hat/bazar base campaign to promote & aware of Aftab feed and knowledge tools & call center base service for farmers. 230 events organize at different locations in the project working area where all types of actors and fish farmers attend and know about Aftab feed apps base service, call center number, digital service center, LSP based feed & service etc. Aftab branded T-shirts provide for participants.



Fig-22: Hat Activation Campaign at Palong, Shariatpur.

2.4.20 Establish model farm pond activity to show the feed performance of other farmers

Under close supervision of each dealer/sub-dealer, Aftab establish 50 model farm pond activity to show the feed performance of other farmers. In the model farm 5000 to 11000 no. of fry & 14 bags (25 kg/bag) feed support is provided from Aftab and the project bear the signboard cost. Field staff will monitor the entire activity, growth performance and thus prove their feed performance to a neighboring farmer.



Fig-23: Demo Farm at Damudda,
Shariatpur.

2.4.21 Establish model farm pond activity to show the feed performance of other farmers (Extension Period)

Under close supervision of each one stop service center, Aftab establishes 40 model farm pond activities to show the feed performance of other farmers. In the model farm, 3 bags (25 kg/bag) of feed support are provided by Aftab, and the project bears the signboard cost. Field staff will monitor the entire activity and growth performance and thus prove their feed performance to a neighboring farmer.



Fig-24: Demo Farm at Shakharia, Amtoli, Barguna

2.4.22 Establish "Aftab feed digital Service Center" at dealer point

To expand the Aftab feed market besides the apps base service, farmer data profiling, which uses in proper feed selection, service quality improvement and call center based on-time service provision, the company is aiming to ensure the best quality services for end-users. Aftab will establish 50 exclusive service centers at the Dealer/ Sub- dealer's business point which brand name will be "Aftab feed digital service center". The service center will be decorated as per the direction of the company branding protocol and considering the budget line where Digital signboard, chair, table, visitor chair etc will be added by the company end. A certain register will be maintained for whoever visits and receive service from the center.



Fig-25: Digital Service Center dealer point at Patuakhali

2.4.23 Establish "One Stop Service Center" at dealer point

To expand the Aftab feed market besides the apps base service, farmer data profiling, which uses in proper feed selection, service quality improvement and call center based on-time service provision, the company is aiming to ensure the best quality services for end-users. Aftab will establish 40 exclusive service centers at the One Stop Service Center business point which brand name will be "Aftab feed digital service center". The service center will be decorated as per the direction of the company branding protocol and considering the budget line where Digital signboard, chair, table, visitor chair etc will be added by the company end. A certain register will be maintained for whoever visits and receive service from the center.



Fig-26: One Stop Service Center dealer point at Fultola, Khulna

2.4.24 Develop & install digital feed operation apps from Source trace

Aftab hire IT farm initially source trace but at this period bug fixers by formal agreement to develop and install of digital feed operation by apps. The development value bare by the project and monthly maintenance cost bear by Aftab. The entire agreement following Aftab's procurement policy and payment system.



Fig-27: APPS Demo

2.4.25 Improvement of call service system for Agro Solution

Aftab receive call base service from Agro solution maintaining a formal agreement between them. Agro solution uses a dedicated mobile number for Aftab. Simultaneously, the Agro solution also promotes their number for better access to the farmer over the country. The entire agreement follows Aftab procurement policy and payment system. Aftab ensures the market price for each phone call so that the fish farmer affords it. Agro solution maintaining a farmer data profile and share it with WorldFish wheneverasked from them.



Fig-28: Call Center at Mohakahli

2.4.26 Develop festoon to provide group message to farmers about aware feed based digital service

There are 10 sets of festoons having 6 number of festoons per set was designed & printed for conduct training of smallholder farmers by LSPs. The pictorial illustrated festoon developed on aquaculture focusing on BMP, nutrition, gender, environment compliances etc. for smallholder farmers who can easily understand by observing the pictures and figures. LSPs bring that festoon set to train farmer's on-field and trail pond area or any other convenient area where he/she wants to promote the service & feed to the rural farmer. These festoons developed by taking assistance from WorldFish staff and maintaining a branding system both of Feed the Future BAA and Aftab. These festoons used to connect directly with 5000 smallholders farmers. Another100 set festoon prepared for dealer point mentioning digital feed

Fig-29: Festoon Sample used in Courtyard Meeting

2.4.27 Prepare leaflets

service & call center information.

As a part of promotional materials, 30000 leaflets (10K on carp & 10K on Tilapia & 10K others) prepared on farming techniques focusing on the new feed. The leaflet must be pictorial and color full so that the fish farmer easily understands. The leaflets shared through farmer training and also supplied to the "Aftab feed digital service center" to supply to the farmers. These leaflets are helpful to create the brand image of the company. The sample copies distributed to the local fisheries offices.



Fig-30: Leaflet Sample Distributed to beneficiaries

2.4.28~New~25~KG bag design & printing with necessary info for farmer

To promote the new service on feed, Aftab re-design the feed bag as 25 KG and put call center number, digital feed service, few feed-related information so that the fish farmer easily gets some information. Initially, Aftab having the plan to produce 150000 bags and then based on necessary they produce more bags/sac for the new feed. Sample of bag/sac share as deliverables.

2.4.29 Prepare Call Center Number and Service Promotion Materials

To promote the call center number and apps-based service, Aftab Design & print 10000 stickers, 200 festoons (2 types, courtyard meeting & call center & knowledge tools layout), Prepare promotional video content, apps application manual, call center manual etc.



Fig-31: Sticker with hotline number distributed to beneficiaries

${\bf 3.0\ Project\ Performance\ and\ Milestones}$

Table-3: Project activity wise plan and achievement

Sl	Activity	Planned	Achieved	Achievement (%)	Remarks
1	Staff Recruitment	6	6	100	
2	Agreement signing ceremony	1	1	100	
3	Project orientation to field staff and Aftab feed HQ staff	1	1	100	
4	Quarterly progress review & coordination meeting	6	6	100	
5	Annual project performance workshop at Dhaka	1	0	0	
6	Pre-trial of digital feed management platform at Dhaka	1	1	100	
7	Grand opening of digital feed management platform (DFMP) & Knowledge tools service at Dhaka	1	1	100	
8	Capacity & skill development for call center staff on Customer Relation Management (CRM) by an expert at Dhaka	2	2	100	
9	Capacity building event for Dealers	3	3	100	
10	Capacity building event for LSPs	6	6	100	
11	Dealer and LSP Capacity Building Event on BMP and usage of digital services (ZoI and ZoR)	8	8	100	
12	Refreshers for Dealer and LSP Capacity Building on BMP and Usage of digital services	5	5	100	
13	Establish One-Stop Service Center	40	40	100	
14	Product promotion events with farmers lead by LSP in ZoI	1050	1050	100	
15	Product promotion court yard events with farmers in ZoI and ZoR	365	365	100	
16	ToT to Technical expert on App usage and Call center	1	1	100	
17	Dealer training on App usage and Call center	150	40	26.67	
18	Continue to support 40 model (average 15 decimal each) farm pond activity to show the feed performance of other farmers	90	90	100	
19	Haat Activation to promote and branding the Apps based service & call center number to fish farmer	230	230	100	
20	Farmer's Field Day	20	14	70	
21	Video Show	15	9	60	
22	Farmer's profiling through LSP	8,000	3,291	41.14	

23	Capacity building ToT Event on digital feed management, feed stock, staff movements, knowledge tools service and aquaculture technology focusing BMP 40 staff, 2 days	1	1	100	
24	Capacity building event for 50 dealers on DFMP use	3	3	100	
25	Capacity building event for LSPs on digital feed platform, apps- based feed demand & supply and BMP technical services & business promotion to farmers	4	4	100	
26	B to B Linkage event with dealer & LSPs on Business and incentive issue and capacity development for using digital feed platform and BMP service	10	10	100	
27	Workshop cum capacity-building event for others Aqua market actors (backward & forward) to link & aware & know on digital feed management, apps-based service and services Knowledge tools	10	10	100	
28	Refresher capacity- building event for the dealer on DFMP use, feedback received & improve apps application; estimated 50 dealers; by Aftab	3	3	100	
29	Product promotion courtyard events with farmers to aware feed based digital service	250	250	100	
30	Organize hat/bazar base campaign to promote & aware about Aftab feed and knowledge tools & call center base service for the farmer	120	120	100	
31	Establish "Aftab feed digital Service Center" at dealer point	50	50	100	
32	Develop & install digital feed operation apps from Source trace	1	1	100	
33	Improvement of call service system for Agro Solution	1	1	100	
34	Develop festoon to provide group message to farmers about aware feed based digital service	10	10	100	
35	Prepare leaflets	30,000	30,000	100	
36	New 25 KG bag design & printing with necessary info for farmer	150,000	150,000	100	
37	Prepare call center number & service promotion materials	10,000	10,000	100	
38	ToT to assigned staff for the project (2 Days long on technical, Business management and Record Keeping)	1	1	100	
39	Develop and print festoon to provide complete package of information to farmers & other market actors on new collaborative business	20,000	20,000	100	

	concept, B2C business linkage, aquaculture focusing BMP, nutrition, gender, environment etc.				
40	Design Promotional Materials (ZOR): T-shirt & design	20,400	20,400	100	
41	Call Center Management	11	11	100	
42	OSSC Supplies (visiting cards and register book)/OSSC	40	40	100	

4.0 Key Innovation of the Project

4.1 Develop & install Aftab Agro Care apps

Aftab hire IT farm firstly source trace but finally bug fixers by formal agreement to develop and install of digital feed operation by apps. The development value bare by the project and monthly maintenance cost bear by Aftab. The entire agreement will be following Aftab's procurement policy and payment system. Through the project, Source Trace develop an app and it is use from company to dealer level to manage the appropriate & effective feed supply chain. A linked provision is inbuilt there for Farmer Groups, lead farmers, or LSP for bulk feed procurement directly from Aftab Feed designated distribution points and feed dealer shop with a certain commission.

4.2 Establish Call Center for call service system

Aftab establish a call center-based service provider based in Dhaka that mainly provides corporate service for the Aquaculture sector. They provide on-time call base service for the fish, cattle and poultry sectors. A dedicated expertpanel ensures the farmer's solution throughout 18-24 hours. The call rate at a market rate so that the fish farmer can afford it and there will be a feedback SMS to the farmer in Bangla option for better understanding for the farmer. They will maintain a farmer profile who ever calls and get service from the center. A working layout is described here.

4.3 Establish Local Service Provider (LSP) Business Concept

LSP for bulk feed procurement or group procurement even by groups of other organizations directly from AftabFeed designated distribution points and feed dealer shop with a certain commission. The LSP establish as a self business agent as well as commission agent during the project period providing advisory service.

4.4 Establish One Stop Service Center for Multipurpose

To expand the Aftab feed market besides the apps base service, farmer data profiling, which uses in proper feed selection, service quality improvement and call center based on-time service provision, the company is aiming to ensure the best quality services for end-users. Aftab establish 50 exclusive service centers at the Dealer/Sub-dealer's business point which brand name "Aftab feed digital service center". A certain register will be maintained for whoever visits and receive service from the center.

5.0 Sustainability of the Intervention Model:

Sustainability of Intervention model focuses on training, courtyard meeting, established apps based digital supply chain management system for Aftab feed, establish call center based on-time service for small scale fish farmers, increase brand image through hat activation, seminar/workshops. Through implementing the

project Aftab developed a remarkable number of skilled human resources which would help to run the project demonstration as well as field level marketing channel in sustainable manner. Besides that, Aftab build a win network with quality service through apps and call center throughout the country. After completion of the project the activity is running in the community level people. Apps based and call center based service increase the business in the field level. Aware mass community people about nutrition through courtyard meeting. Aftab build a strong linkage between stakeholders and online market entrepreneurs through different seminars that continuing till now. Thus expand the market of the products. At present, household level farmers apply modern fish culture technology to increase their production.

6.0 Impact of the Intervention Model

Aftab provided training on concept of fish business, polyculture, Best Management practice, importance of fish feedduring culture period, Aftab farms and basic nutrition. Through the training, they are now choosing right feeds fromthe dealer point. They are known about Aftab call center service that receive on-time service. During field visit we observed that farmers started utilizing their gained knowledge and brought change in their total farming behavior in pond preparation, fertilization, feeding regime. As a result of practicing improved methods of aquaculture farmers have got higher production compared to the past. on the other side, in field it is observed that establish LSP business which open a new window in business sector through this project as well as some LSP become dealer.

6.2 Beneficiary outreach trend over the intervention period

Table-4: Beneficiary coverage during project period

Quarter	Region	Month	Beneficiario	Beneficiaries (Quantity)		Remarks
	0		Male	Female		
	Khulna		541	106	647	
2^{nd}	Kushtia	September to November'21	620	53	673	Product Promotion courtyard meeting
	Barishal	November 21	449	111	560	courty and injecting
	Khulna		490	246	736	Dec dest Decreation
	Kushtia	December' 21 to	488	254	742	Product Promotion courtyard meeting
3 rd	Barishal	February'22	314	66	380	- county and mocking
	Cox's Bazaar		80	3	83	Product Promotion courtyard meeting
	Khulna		372	26	398	D 1 (D)
4^{th}	Kushtia	March to May'22	389	31	420	Product Promotion courtyard meeting
	Barishal		410	47	457	courtyard infecting
5 th	Cox's Bazaar	July to September'22	346	197	543	Product Promotion courtyard meeting
7^{th}	Cox's Bazaar	January to March'23	189	66	255	Product Promotion courtyard meeting
8 th	Cox's Bazaar	April to June'23	363	57	420	Product Promotion courtyard meeting
9 th	Cox's Bazaar	July to August'23	282	1	283	Product Promotion courtyard meeting
	Total		5333	1264	6597	

6.2 Table-4: Beneficiary coverage during project period

Quarter	Region	Month	Beneficiarie	s (Quantity)	Total	Remarks
	_		Male	Female		
	Khulna		2,828	644	3,472	
5 th	Kushtia	July to	2,646	1,548	4,194	Product Promotion
3	Barishal	September'22	2,308	871	3,179	Event
	SK+F		5,105	0	5,105	
	Khulna	0 . 1	135	8	143	B 1 . B
6 th	Kushtia	October to December'22	94	41	135	Product Promotion Event
	Barishal	December 22	86	54	140	Event
	Khulna		1,159	316	1,475	B 1 . B
7 th	Jashore	January to March'23	1,465	589	2,054	Product Promotion Event
	Barishal	Wiaich 23	1,173	934	2,107	Event
	Khulna		267	545	812	B 1 . B
8 th	Jashore	April to June'23	805	782	1,587	Product Promotion Event
	Barishal		594	841	1,435	Event
	Khulna	Y 1	627	223	850	D I (D (
9 th	Jashore	July to August'23	393	775	1,168	Product Promotion Event
	Barishal	August 23	491	602	1,093	Lvent
	Total	_	20,176	8,773	28,949	

Table-5: Beneficiary with others actor coverage during project period

Quarter	Region	Month	Beneficiaries (Quantity)		Beneficiaries (Quantity) Total		Beneficiaries (Quantity) Total	
			Male	Female				
	Khulna		699	0	699			
ord	Kushtia	December;21 to	900	0	900	Hat Activation		
3 rd	Barishal	February'22	660	0	660	Campaign Provide T-shirt		
	Cox'sBazaar		60	0	60	1-SHIIt		
	Khulna	3.6 13.00	510	0	510	Hat Activation		
4 th	Kushtia	March' 22 to May'22	360	0	360	Campaign Provide		
	Barishal	Way 22	417	1	418	T-shirt		
5 th	Cox's Bazaar	July to September'22	746	11	757	Hat Activation Campaign		
7 th	Cox's Bazaar	January to March'23	195	0	195	Hat Activation Campaign		
8 th	Cox's Bazaar	April to June'23	300	0	300	Hat Activation Campaign		
9 th Cox's Bazaar		July to August'23	315	0	315	Hat Activation Campaign		
	Total			12	5174			

Table-6: Local Service Provider (LSP) Sales during project period

Quarter	Region	Month	LSP Fish Feed Sales (ton)	Remarks
	Khulna	Cantanahanta	121.1	Local Service Provide Fish Feed Sales
2 nd	Kushtia	September to November '21	91.05	
	Barishal	November 21	75.25	during project Period
	Khulna		135.9	
3 rd	Kushtia	December' 21 to	62.9	Local Service Provide Fish Feed Sales
3	Barishal	February'22	20.2	during project Period
	Cox's Bazar		3.75	
	Khulna	March to	69	Local Service Provide Fish Feed Sales
4 th	Kushtia	June'22	40.4	- during project Period
	Barishal	June 22	46	during project Feriod
	Khulna		132.5	
5 th	Kushtia	July to September'22	96.2	Local Service Provide Fish Feed Sales
3	Barishal		83.3	during project Period
	Cox's Bazar		5.2	
	Khulna	October to December'22	154.5	
6 th	Kushtia		75.6	Local Service Provide Fish Feed Sales
0	Barishal		56.3	during project Period
	Cox's Bazar		7.6	
	Khulna	January to	143.4	
7 th	Jashore		72.5	Local Service Provide Fish Feed Sales
	Barishal	March'23	68.4	during project Period
	Cox's Bazar		8.3	
	Khulna		165.5	
8 th	Jashore	April to June'23	74.2	Local Service Provide Fish Feed Sales
0	Barishal	April to Julie 25	76.4	during project Period
	Cox's Bazar		8.8	
	Khulna		76.2	
9 th	Jashore	July to August'23	37.5	Local Service Provide Fish Feed Sales
9	Barishal		33.2	during project Period
	Cox's Bazar		5.5	1
	Total		2046.65	

6.3 Dealer, distributor, retailer trend over the intervention period

Table-7: Market actors during project period

Quarter	Upazilla	Month	Market Actor		Total	Target	Achievement	
	_		Dealer	LSP	Retailer	achievement	8	(%)
	Khulna		10	20	15	45		
1st	Kushtia	July to Sep'21	12	24	13	49	300	96%
	Barishal		12	24	17	53		
	Khulna	October to December	6	12	20	38		
_	Kushtia		1	2	25	28		
2 _{nd}	Barishal		7	14	26	47		
	Cox'sBazaar	'21	2	6	22	30		
Total		50	102	138	290	300	96%	

Table-8: Market actors during project period (Extension Period)

			Market	Market Actor Total			Achievement
Quarter	Region	Month	OSSC Owner	LSP	achievement	Target	(%)
	Khulna		13	26	39	122	100%
5 th	Kushtia	July to	4	8	12		
3	Barishal	Sep'22	13	26	39		
	Cox's Bazar		2	4	6	122	100%
7 th	Cox's Bazar	January to March'23	8	18	26		
Total		40	82	122	122	100%	

7.0 Business Risk and Intervention Strategy

Price fluctuation of ready fish is one of the major concerns due to there is no price control and the crisis of raw materials for making feeds. In Bangladesh, aquaculture intensity is increasing with time, but still, now a significant number of marginal and small-scale farmers have less access to quality feed and service as well. There are several reasons behind this like, not accessible, small amount required, adulterate feed and less motivated or even proper feed on time. Some commercial farmers have lost their interest to use commercial feed as well. Moreover, Covid-19 has impacted feed ingredient supply and price as well. Besides these, appropriate feed selection at the dealer point is another burning issue for the farmer. Most time the dealer & farmer are not bothering about what feed needs at this moment. As a result, its impacts the cost of production and water quality as well. The company also has no idea or statistic what types of feed are required for that particular area in a season. So, there is a visible demand-supply quality feed gap that effects on the sector and that's gap takes the non-band feed company as an opportunity. The non-quality partial use of feed destroys the water quality and desires production & profitability as well. Another issues fish farmer has limited access to get on-time service from reliable sources due feed company has limited manpower. Thus, sudden disease outbreaks may cause poor profitability for the rural fish farmer.

Beside this, other few significant systematic challenges are existed in Feed Sector due to lack of 'Information Integration" like-

- I. Due to a lack of 'Information Integration' into the core sales and distribution network, Feed/AMP companies cannot manage their business operation effectively & efficiently. Here business operation refers to demand and capacity planning, decreased order cycle time, warehouse management, Just-in-time distribution, agility to respond to customer demand, quality customer service with advisory services.
- II. The bullwhip effect is a common phenomenon that hinders companies to reach deep into the market channel with their products in due time. As an upshot, a significant number of the fish farmers are deprived to use formulated feed or partially use the feed in their pond due to the unavailability of feeds during the season
- III. Most importantly, the distribution network is not expanding as the traditional centralized system cannot generate real-time data regarding the consumer demand, geographical positioning of customers and traders, and evolving market segment- weak, moderate & strong market
- IV. The unutilized production capacity of Feed/AMP companies at the year-end as they make demand planning based on the traditional market trend not truly based on the real-time demand of dealers and customers. Out of stock in the middle of the season is quite a regular scenario for the feed/ AMP companies. Despite some feed companies, most of the industry leaders are still suffering to reap a healthy return on investment (ROI) due to a lack of 'information integrated' smart sales and distribution solutions.

As the company has a wide connected distribution feed network, staffs and end consumer as well. If we can

develop a software-based feed supply management then we can minimize the problem a bit. With a well-defined regional and dealer-based feed tracking inventory using apps with support from IT service providers, we are very much optimistic to ensure appropriate feed supply to end farmers. So, there is an opportunity to establish an effective supply chain using apps developed by IT service providers and ensure the on-time need-based service by service providers. Thus, company feed management and embedded service efficiency increase in the long run.

8.0 Project Budget and Financial Management

8.1 Payment Schedule

Payments will be made as shown in Table-7 (Financial Plan) and summarized below a total of not more than BDT 11,293,120 or a total of USD135,706. Payment will be made after completion of the milestone and the sub-grantee submission of: (1) invoice or payment request; and (2) a statement certifying that the milestone is completed or the deliverables/report associated with the milestone

Table-8: Payment Schedule of the Project

Payment Number	Milestone Description	Estimated Due date	WF Contribution	Partner Contribution
1	Milestone-1: As per payment schedule activities & deliverables mentioned in below table	8 July'21	1,559,010	567,190
2	Milestone-2: As per payment schedule activities & deliverables mentioned in below table	22 August'21	568,010	1,403,190
3	Milestone-3: As per payment schedule activities & deliverables mentioned in below table	22 November'21	1,153,766	1,124,190
4	Milestone-4: As per payment schedule activities & deliverables mentioned in below table	22 November'21	719,010	939,190
5	Milestone-5: As per payment schedule activities & deliverables mentioned in below table	5 December'21	1,014,752	992,190
6	Milestone-6: As per payment schedule activities & deliverables mentioned in below table	5 March'22	1,327,010	1,747,690
7	Milestone-7: As per payment schedule activities & deliverables mentioned in below table	24 March'22	890,510	562,690
8	Milestone-8: As per payment schedule activities & deliverables mentioned in below table	24 March'22	700,010	471,190
9	Milestone-9: As per payment schedule activities & deliverables mentioned in below table	14 June'22	1,724,820	1,506,180
10	Milestone-10: As per payment schedule activities & deliverables mentioned in below table (Partial-1)	29 August'22	2,792,015	3,709,530

	Total	22,832,021	28,534,813	
18	Milestone-16: As per payment schedule activities & deliverables mentioned in below table	24 September'23	834,341	1,363,800
17	Milestone-15: As per payment schedule activities & deliverables mentioned in below table	24 September'23	2,851,040	3,018,870
16	Milestone-14: As per payment schedule activities & deliverables mentioned in below table (Partial-2)	24 September'23	222,292	1,033,044
15	Milestone-14: As per payment schedule activities & deliverables mentioned in below table (Partial-1)	30 May'23	2,348,596	2,121,427
14	Milestone-13: As per payment schedule activities & deliverables mentioned in below table	20 Fedruary'23	1,132,640	956,000
13	Milestone-12: As per payment schedule activities & deliverables mentioned in below table	22 December'22	942,100	1,355,300
12	Milestone-11: As per payment schedule activities & deliverables mentioned in below table	29 September'22	1,885,047	2,959,388
11	Milestone-10: As per payment schedule activities & deliverables mentioned in below table (Partial-2)	29 September'22	167,052	2,703,754

9.0 Monitoring and Reporting

With the support from Bangladesh Aquaculture Activity Monitoring, Evaluation and Learning (MEL) team, Coast Trust followed prescribed format in Monitoring Evaluation Reporting plan MERP. The MERP consist of:

- a) brief activity description,
- b) target setting,
- c) data collection process,
- d) data quality assurance, and
- e) reporting plan with frequency.

Bangladesh Aquaculture Activity MEL team provided training on management information system and always assist to entry data and related activities.

There is a focal person who is responsible to provide MEL/progress related data as needed. MEL team of this Activity have opportunity to review existing monitoring and reporting tools in a participatory manner and it is integrated in the existing MEL system of this Activity. The Coast assist the MEL team to accomplish the following activities.

- Farmer preselection and profiling data through Kobo collect apps
- Entry near real-time training data into Tab
- Coast follow the data management protocol of this Activity as well as support the MEL team members conducting data quality assessment.

After selection of beneficiaries, we had to change some beneficiaries due to died, migrated to other pace, women participants less interested, went to abroad etc.

> Technical Reports

Table-9: Monthly Reporting

Report Description	Period Covered	Due Date to World Fish
Monthly Progress Report	01 July to 31 July 2021	02 August 2021
Monthly Progress Report	01 August to 31 August 2021	03 September 2021
Monthly Progress Report	01 September to 30 September 2021	03 October 2021
Monthly Progress Report	01 October to 31 October 2021	04 November 2021
Monthly Progress Report	01 November to 30 November 2021	03 December 2021
Monthly Progress Report	01 December to 31 December 2021	03 January 2022
Monthly Progress Report	01 January to 31 January 2022	03 February 2022
Monthly Progress Report	01 February to 28 February 2019	03 March 2022
Monthly Progress Report	01 March to 31 March 2022	02 April 2022
Monthly Progress Report	01 April to 30 April 2022	02 May 2022
Monthly Progress Report	01 May to 31 May 2022	02 June 2022
Monthly Progress Report	01 June to 30 June 2022	03 July 2022
Monthly Progress Report	01 July to 31 July 2022	02 August 2022
Monthly Progress Report	01 August to 31 August 2022	03 September 2022
Monthly Progress Report	01 September to 30 September 2022	02 October 2022
Monthly Progress Report	01 October to 31 October 2022	02 November 2022
Monthly Progress Report	01 November to 30 November 2022	05 December 2022
Monthly Progress Report	01 December to 31 December 2022	01 January 2023
Monthly Progress Report	01 January to 31 January 2023	05 February 2023
Monthly Progress Report	01 February to 28 February 2023	03 March 2023
Monthly Progress Report	01 March to 31 March 2023	03 April 2023
Monthly Progress Report	01 April to 30 April 2023	03 May 2023
Monthly Progress Report	01 May to 31 May 2023	04 June 2023
Monthly Progress Report	01 June to 30 June 2023	06 July 2023
Monthly Progress Report	01 July to 31 July 2023	02 August 2023
Monthly Progress Report	01 August to 15 August 2023	29 August 2023

Technical report template provided by the World fish.

10.0 Challenges/Lesson Learned

10.1 Project Design and Implementation Challenges

Selection of original LSP is one the major challenges of this project. Developed and finish apps which support digital supply chain of the company's business too much difficult during the project period. Because Aftab initially hire source trace but now change the vendor and fix up new vendor name bug fixers for accomplishing the apps which was the main focus of this project. Selection of actual beneficiary during farmers training as well as courtyard/hat

activation events was very difficult. Because always in a field there was a announcement that an organization running a project in that area then all are want to become a beneficiary. Not available Govt. Officials in the event as required timeframe to do. Staff drop out is another challenge for successful implementation of the project. So, recruit staff and become them skilled through this project was little bit risky for the project implementation and for organization. Working area of the field staffs were very large so that the working load should be huge for individual.

> Project implementation Challenge:

- Male participants did not attend the training in time some cases.
- Female participants in some events as like courtyard are less interested to attend
- During paddy culture season time especially, participants are less interest to attend the training.
- In some cases, conflicts between small scale fish farmer and large scale farmers
- Development and go live the Aftab Agro Care Apps
- Maintain time during training
- Inbound call

Lesson learns:

- Through call center the farmers get better service against their problems.
- Farmers attend the training have better fish production
- New LSP business concept in this business sector opens a new window and very effective

11.0 Recommendations

- ➤ Should be more focus on mobile apps based business
- ➤ Need to introduce LSP business all over the Bangladesh
- ➤ Need to build a strong linkage and make easily accessible common online market platform.
- ➤ Need to to providing more finance becomes a farmer to successful entrepreneur as well as women entrepreneurship.
- ➤ Need to increase fish feed dealer availability in the ZOR area for commercialization of aquaculture
- ➤ Need to more focus on one stop service center.

12.0 Conclusion

The fishing sector plays a vital role in our national economy as well as earning foreign currency. Now a days fisheries sector is 3rd position in the World. This project works with three major focuses of the fisheries: app-based business, LSP business, and call center service. Through this project, there are many interventions in the ZOI area to improve the feed purchase behavior of mall-scale farmers as well as marginal fish farmers. The project will develop 50 digital service centers and 40 one stop service centers for multiple services for farmers. Provide different kinds of training and arrange meetings to make people aware of best management practices and appropriate feeding in the project area. Farmers in that area took technical training in carp polyculture and now culture fish in a scientific way and use good quality feed. So, their production is increasing more than before. Establish a call center where farmers can get support whenever they need it. To increase long-term business, Aftab provided LSP and established that business in the project area.

Appendix:

Table-1: Staff of DAWN Project

Sl.	Designation	Working Place	No. of	Remarks
No.			Staff	
1	Nutrition and Aquaculture Coordinator (NAC)	Head Office, Dhaka	1	
2	Finance and Administration Officer (FAO)	Head Office, Dhaka	1	
3	Administration Focal	Head Office, Dhaka	1	
4	Field Operation Manager	Head Office, Dhaka	1	
5	IT Head	Head Office, Dhaka	1	
6	Product Promotion Expert (PPE)	Cox'sBazaar Sadar, Teknaf and	3	
		Pekua		
7	Technical Executive, Fisheries	Cox'sBazaar Sadar, Teknaf and Pekua	4	
	Total		12	

Table-2: Other Particulars of the Project

Sl no	Particulars	No.	Remarks
1	Laptop	2	For using NAC & FAO
2	Printer	1	For using project purpose
3	Multi-media	7	To show different project related activities in a slide for successful arrangements
	Projector		of training/meeting/seminar etc.
5	Table	2	
6	Chair	2	
7	Almirah	1	Store and well keeping of important projectfile.
8	Cabinet	2	Store and well keeping of important projectfile.

Table-3: Fish Seed (Monosex Tilapia) distribution During Project Period

SL	Region	No. Of Beneficiary	Fish Seed Amount (PCS)	Remarks
01	Barishal/Patuakhali	19	171000	
02	Kushtia/Jashore	13	114000	
03	Khulna/Bagerhat/Satkhira	16	147000	
04	Cox'sBazaar/Bandarban	02	18000	
	Total	50	450000	