



# Promotion of safe fish through traceable production system

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Submitted to



**Bangladesh Aquaculture and Nutrition Activities (BANA)**  
World Fish, House 2/B, Road, Banani, Dhaka, Bangladesh

Submitted by



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## 1.0 Executive Summary

Parmeeda Enterprise, an e-commercial socially and environmentally responsible agribusiness company is one of the pioneer and leading organization that promotes food safety through inclusive business activities.

Starting its operation in 2017 parmeeda gained its footprint to the conscious class of consumers in creating awareness about food safety and providing safe food to the doorsteps of consumers especially in Dhaka. Since inception, Parmeeda was working with value chain actors including directly with the farmers to ensure food safety at the consumer end.

The business idea proposed by Parmeeda Enterprise, has been accepted by World Fish under Bangladesh Aquaculture Nutrition Activity (BANA) with the funding from USAID, Feed the Future initiative. The whole concept has been in operation from **27<sup>th</sup> September, 2018** and completed in **26<sup>th</sup> September, 2019** (01 year).

The project titled as 'Promotion of Safe fish through traceable production system' is unique in several criteria as it targets to implement **Good Aquaculture Practice (GAP)** at farmers level, introduce **traceability system** throughout the supply chain and create a **certified safe fish brand** in the market. The sub-grant agreement has initiated in three districts **Satkhira, Gopalganj and Faridpur** and targeted **200 fish producers** and numbers of value chain actors.

Nonetheless, Parmeeda with its own experience in the market system has designed and implemented a number of interventions to achieve the objectives of the project. One of the key success factor identified in the process is to have farm registration so that everything can be traced back to the source.

**Farmers' group formation and registration:** Total **315 farmers** has been consulted about the initiatives to measure their interest and motivate them to get on board as registered farmers.

**Refreshers' Meeting:** With the interested producers, another level of motivational and operational meeting arranged with the producers. Total **225 producers** has been finally selected as registered producers in 3 districts. Among them **186 producers** were male and rest **39 producers** were female.

The farmers who agreed to work with Parmeeda has been registered in a book in details i.e. name, address, water body description, fish species etc. In order to maintain food safety standards and quality maintenance of the output (fish), Parmeeda has planned to provide them training on safe fish production technology in the light of Good Aquaculture Practice (GAP).

**Increase producers' capacity on modern and safe fish production technology through training:** Total 08 batches training program has been conducted for the registered producers where total **223 producers** attended among them **187 producers** were male and rest **36 producers were female**. In the sessions, pond management, feed management, fish production management, hygiene and safety, safe usages of inputs are shared through

sessions. Local Fisheries office, input companies were also present in the training and shared their thoughts and offered them services.

***Training for the producers on increase producers' capacity on post-harvest***

**management:** Producers were capacitated in post-harvest management, technique, with core focus on fish safety principles, hygiene, time and method of optimum harvesting. A total 8 batch training were provided whereas **219 participants** attended among them **183 participants** were male and **36 participants** were female.

**Mobile Application for Introducing Traceability and Learning of GAP:** Training can be too costly sometimes and time consuming. It is often considered difficult for the participant managing and prioritizing time to attend any such event. Parmeeda introduces digital platform for learning of technologies through video and visual materials. A mobile application has been developed and released for that, farmers started downloading the application and started learning from there. Link of the Mobile application is:

<https://play.google.com/store/apps/details?id=com.parmeeda.nk>

**Introducing Traceability:** Traceability is very important in terms of food safety management and needless to say that it is a very difficult task to implement in the context of Bangladesh. Parmeeda provided traceability registrar to each of the project participant- Parmeeda contracted farmers to maintain the inputs, name, dosages, and timing of application of any input. Besides, the mobile application Nirapad Khamar has also traceability input option to track back, we believe that might take time to adopt for the farmers.

**Safe Fish Brand:** There is no fish brand available in Bangladesh, safe fish brand is literally a miles away. Parmeeda's plan is to be the pioneer in creating and building a safe fish brand in the market. To do so, each of the fish harvested from the project will be branded having label printed in the package with traceability sticker.

**Sales of Harvested Safe Fish:** Parmeeda expected to have finally 300 Mt of Safe Fish from the registered farm areas. Parmeeda plans to sale through 3 channels, a) Online- Parmeeda has its own customer base serving almost 30,000 Customers in last 3 years, it expects to sale at least 20% of the produce through its own online channel. B) B2B: It already is in discussion to sale the safe fish to different institutional buyers i.e. Restaurants and Institutional canteens and c) Wholesale, the rest amount of fish will be sold through wholesale market channel convenient for the producers.

**Producers Interest with Parmeeda:** Fish producers in the region had several constraints from the market, at first they are captive with advance money lending from Arats and forced to sell their product at lower rate without adjusting to market system. Secondly, they were selling at 44 Kg a mound, where extra 4 kgs were paid as risk management. Parmeeda offered 40KG a mound and immediate cash return to the producers which saves them 4KG amount of produces extra benefit from the market system. Besides, following improved training and practice production from the farm also increased and benefit farm producers.



## 2.0 Introduction

Parmeeda Enterprise has been awarded a small sub-grant agreement from World Fish- BANA project a one year project titled as Promotion of Safe Fish through traceable production system. The grant project also entitled with cost-sharing by the grantee private sector Parmeeda Enterprise to ensure sustainability and better ownership in project planning, implementation and future development of any strategy.



<b>Title of the Business proposal</b>	'Promotion of Safe fish through traceable production system'	
<b>Name of the private company/ organization</b>	PARMEEDA ENTERPRISE	
<b>Private company/ organization detail address</b>	Registered Address: 25, SHAHEED MUNIR CHOWDHURY SARAK, DHANMONDI, DHAKA 1205 OFFICIAL ADDRESS: 261, PRIMARY SCHOOL ROAD, IBRAHIMPUR, DHAKA 1206, BANGLADESH	
<b>Contact Person (on behalf of the company/ organization)</b>	Name	ABU DARDA
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<b>Proposed start date and end date</b>	From: 20 September, 2018	To: 19 September, 2019
<b>Proposed Total Budget (In USD)</b>	82,311.18 in USD	
<b>Proposed Budget contribution (%)</b>	BANA: 73.66 %	Company/Organization:26.34 %

### 3.0 Background of the Project

The project for the promotion of safe fish through traceable production system is a project to make consumer introduced to a new system that assures the traceability of safely firmed fish. For this the safe fish firming and aquaculture guidelines dissemination to the farmers of southeastern regions is a subject to be executed by both the parties for achieving the mutual objective to assure the traceability of safely firmed fish.

#### ***Grantee, World Fish***

The Feed the Future Bangladesh Aquaculture and Nutrition Activity aims to sustain positive aquaculture sector growth through an inclusive market system approach. This is a five-year assistance activity awarded by the United States Agency for International Development to WorldFish. The Activity will be implemented in collaboration with public and private sector partners and NGOs across 21 southern districts in the Feed the Future Zone of Influence and 02 north-east districts of Bangladesh.

#### ***Sub-Grantee, Parmeeda Enterprise:***

**Parmeeda Enterprise** (<https://parmeeda.com>) is a socially and environmentally responsible agribusiness which delivers safe nutritious produce i.e. Fish, meat, vegetables, fruits, oils and pulses to consumers especially those are in special needs i.e. New and Expecting Mother, children, autism, obese, people at health risk, etc. through an ecommerce platform through organized farming by rural producer groups specially women. Currently Parmeeda have more than 500 product baskets including 30+ fishes inland and marine.

Parmeeda is one of the leading organic and safe brand in the country operating in agribusiness base e-commerce. Through e-commerce platform we have served over 10,000 customers who in turn repeatedly order and that creates unique opportunity for growth. While Parmeeda is specialized in safe product base business organization it holds the reputation among the upper and upper middle income class consumers. To achieve the sales demand, Parmeeda is working with around 2,000 farming household in 10 districts of Bangladesh, i.e. Narail, Khulna, Faridpur, Bogra, Dinajpur, Nilphamari, Mymensingh, Thakurgaon, Rajshahi and Naogaon. Parmeeda is also focusing on retail and merchant base delivery with the growth potential in minds, having 4 partner outlets in Dhaka city, i.e. Banani (2), Banasree, Mohammadpur. Parmeeda also have sales agreement with other e-commerce market place like Daraz.com, Kiksha.com, NRB Bazar.com and recently signed contract with Grameenphone.

Parmeeda has 14 full time employees with 4 women in the roster. It is also co-owned by women Ms Rashida Hossain, who is ex Head of Department of Marketing at Lalmatia Women

College and a founding director of 'Naripokkho' working for the betterment and empowerment of women across the country. Apart from that, Parmeeda engage 8 temporary labor on hired basis, for loading, unloading, processing and packaging of products.

With present annual turnover nearing **90 lacs BDT**, Parmeeda aims for 10 folds growth by next 2 years' time. While fish (fresh fish and processed) is one of the loved products, we are focusing to be leader in fresh fish supply both online and to B2B platforms i.e. high end restaurants, e-commerce, hospitals and dormitory. While we already started selling processing fish, the growing demand is directing us to establish processing facilities and improved packaging and logistics system in place.

### ***Rationale of the Business Idea***

Bangladesh has extensive and highly diversified fisheries resources. Official Department of Fisheries (DOF) statistics estimate total fish production of 4.134 million tonnes (DoF; 2016-17), of which aquaculture accounts for 53% estimated at 2.2million tonnes. 'Homestead pond culture', 'entrepreneurial pond culture', and 'commercial semi-intensive carp culture', and estimate that each type currently accounts for approximately 30% of total aquaculture production. Though per capita fish intake has grown over the decade, still we are deficit and production system facing constraints of quality input, information support and lack of access to market. Fear of chemically treated fish has brought the attention and fear among the household. On top of that inefficient supply and distribution channel impeding the growth of the sector.

### ***The necessity of food safety including safe fish***

Food safety is getting priority due to the adulterated practices at different level of value chain. Preservation, transportation and micro level packaging remains constrains. Increased pressure on population and increased health risk are associated with lack of nutrition both in urban and rural areas. Low cost source of nutrition is obviously fish, vegetables and fruits. Other hand, traditional method of cultivation provides lesser per unit production and hence leave the opportunity of multifold growth.

Megacities residents are too occupied with professional lives and city immobility, on average people spent 3-4 hours on the road and on top of that exhausted with 8-10 hours working. People want convenience. Online market growth is tremendous in last couple of years at the rate of 20% or more (source- ecab)<sup>1</sup>. People are looking at quality products at convenient method. A lot of threats are impeding fish consumption (subsequently impacting fish producers negatively) including **usages of formalin, usages of jelly to increase weight, usages of chemical treated hormones, pesticides and growth promoter** in fish production, and question has mounted for quality fish. The same can be said for fruits and vegetables as well. A part from the regular threats in post-harvest, production system is also under serious threats of using different harmful elements as fish feed i.e. **poultry waste** and mixture of harmful elements in the feed. Maintaining

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<sup>1</sup> E-Commerce Association of Bangladesh



**hygiene** according to standard is a far cry. Overall, future growth and consumption of fish sector is threatened by these constraints.

### **Millennial and Internet Penetration Opens up the digitization of service delivery**

Around 67% of adults in Bangladesh have access to mobile financing services and Internet Users in Bangladesh alone is around 80 Million<sup>2</sup> (including mobile devices). With the growth and penetration of Internet, digital technology base services especially e-commerce in the rise, Alibaba.com is already in Bangladesh acquiring daraz.com.bd and Amazon.com and Walmart has set their eye for opening up operation by 2020.

Parmeeda been in the e-commerce sector from the very inception phase, we know the insights and experienced historical development of the sector. Knowing the challenges we are better equipped to address the market constraints and achieve desire growth.

### ***Goal of the Project***

Goal of the project is to increase affordable nutrition for the people of Bangladesh through safe fish consumption with a traceable supply chain while keeping skilled fishermen at the core of the value chain.

#### **Primary Objectives of the projects were:**

- Create a safe fish brand that gets people trust
- Create awareness on safe fish consumption
- Increase sales growth of safe to eat fish as a national brand
- Increase the production and business management capacity of fishermen to build long term sustainable supply chain of quality fish.
- Create a traceable production system
- Create certified fishermen group

## **4.0 Project Management**

### ***Geographic Coverage***

Traceable Safe Fish Promotion initiative has worked in 3 districts (Satkhira, Gopalganj and Faridpur district). The reason for selecting the working regions is previous working experience working in the district (Satkhira) and management capacity to handle the project in efficient manner (Faridpur and Gopalganj). All three districts fall under feed the future zone under USAID's intervention areas.

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<sup>2</sup> Source: Bangladesh Telecommunication Regulatory Committee (BTRC)

Long term prospects will also be fulfilled with the construction of Padma Bridge these production areas will be very close and will serve the purpose of quickest delivery from the production area to consumer end.

**Working region in 1<sup>st</sup> Year of operation in the FTF Zone**

1. Satkhira District ( 3 Upazillas- Sadar, Deohata, Ashashuni)
2. Gopalganj District (1 Upazilla)
3. Faridpur District (1 Upazilla)

## ***Project Management Team***

The Project team is constructed by both full time and partially employed personnels.

- 01 **Project Leader:** CEO of Parmeeda, Mr Abu Darda led the project. He was also the focal and signing authority of the project from Parmeeda's end. He contribute 20% of his total allocated time to the project.
- 02 **Fisheries Expert and Coordinator, Mr ASM Sadat Mondal** has joined the team as Fisheries Expert and the coordinator and is responsible to monitor, observe, research and coordinate, plan and implement the project's all activities ensuring an effective communication system within the entire team. He is a veteran fisheries expert, having good years of working in the southern part and have good experience and knowledge about food safety and value chain. He had successfully led the team in registration process, providing technical training to the producers and coordinated full project activities during his tenure.
- 03 **Accountant: Parmeeda** as per the grant management policy had to maintain strict accounting principles and methods and to do so, an accountant has been appointed full time. Primary responsibility of accounts team was to manage the financial operations within the prescribed format of month wise financial reporting keeping both parties policies in consideration along with the prescribed budgeted payment schedule
- 04 **Three Field Officers:** Three field officers were appointed successively in Gopalganj, Faridpur and Shatkhira. To collect physical data, monitor, operate and manage the field activities as per schedule and communicating with different stakeholders, engage them whenever necessary. A formal recruitment process has maintained while officiating them and they successfully carried forward the project activities. In addition to that they have also received training on food safety management and enriched their knowledge that helped the project.
- 05 **Account Manager (Partial):** Accounts manager of Parmeeda is partially appointed to maintain the payments according to the pay schedule. **15% for full project duration.**
- 06 **Admin Officer(Partial):** An Admin Officer was partially appointed to serve with all administrative purpose including the staffs internal communication and time sheet issues. **30% for full project duration.**

- 07 **Graphics design and content developer (Partial):** Content developer of Parmeeda was partially appointed to help the project with designing different banners, leaflet for different activities as per the instruction from project lead and project coordinator. **15% for Six months.**
- 08 **A sales executive (Partial):** A sales executive were appointed to boost the fish sale operation. **20% for Six months.**

### ***Project Administration***

**Recruitment:** All the field operation team (Coordinator, Field Officers and Accounts Officer) have been recruited through standard advertisement and selection process. However, due to shortage of time and maintaining the standard policy, on-boarding of staffs have been delayed for 01 month, which had initially impacted the start of the project little late.

**Field Operation:** Project Coordinator, who was primarily responsible for successful implementation of the objectives and field operations, the field operation design purpose he sat in the head office for better planning, and once the project is fully operational, he shifted his operation to field office Satkhira.

From Satkhira, Project Coordinator has moved along three districts on need basis and implemented different project activities. Field officers has maintained movement log book and visited registered producers for providing technical support and guidance before they worked for registering new producers under the project.

Three field officers have been stationed in three districts; Faridpur, Satkhira and Gopalganj.

**Coordination from Head Office:** Head quarter staffs visited field activities at least once in a month to understand about the field operation efficiency and effectiveness. There were couple of visit by the team leader, procurement department and accounts department to the field.

**Office:** Parmeeda has opened a project coordination office at Satkhira where 1 field officer and Project Coordinator were stationed. Besides, Parmeeda head office at Mirpur worked as the principle coordinating office for sales, promotion, accounts and management,

## 5.0 ACTIVITY DETAILS

### ***Farmers' group formation and registration***

Total 315 farmers has been consulted about the initiatives to measure their interest and motivate them to get on board as registered farmers.



*Figure 1: Parmeeda Field Officer Consulting with Women Producers about the Program in Faridpur*

### ***Refreshers' Meeting***

With the interested producers, another level of motivational and operational meeting arranged with the producers. Total 225 producers has been finally selected as registered producers in 3 districts. Among them 186 producers were male and rest 39 producers were female.





The farmers who agreed to work with Parmeeda has been registered in a book in details i.e. name, address, water body description, fish species etc. In order to maintain food safety standards and quality maintenance of the output (fish), Parmeeda has planned to provide them training on safe fish production technology in the light of Good Aquaculture Practice (GAP).

***Increase producers' capacity on modern and safe fish production technology through training:***



Total 08 batches training program has been conducted for the registered producers where total 284 producers attended among them 244 producers were male and rest 40 producers were female.

In the sessions, pond management, feed management, fish production management, hygiene and safety, safe usages of inputs are shared through sessions. Local Fisheries office, input companies were also present in the training and shared their thoughts and offered them services.

Sl. No	Event Date	Event Venue	No. of Participants		
			Male	Female	Total
1	20.03.2019	Town Sreepur, Debhata, Satkhira	29	1	30
2	21.03.2019	Assasuni Etimkhana, Assasuni, Satkhira	30	0	30
3	17.04.2019	Roispur Primary School, Satkhira Sadar	25	5	30
4	18.04.2019	Assasuni Etimkhana, Assasuni, Satkhira	14	0	14
2	29.04.2019	Mongalcot, Health care Center, Faridpur Sadar	20	09	29
3	25.03.2019	Koijuri Union Parisad, Faridpur	21	9	30
7	27.03.2019	Amtoly, Kotalipara, Gopalgonj	24	6	30
8	24.04.2019	Kusla Union Parisad, Kotalipara, Gopalgonj	24	6	30

Objective of the training was to increase capacity of selected producers on modern and safe fish production technology. Training program covered the following topics:

Pre stocking Management	Management steps during stocking	Supplementary feeding and natural productivity increase after stocking
<ul style="list-style-type: none"> <li>• Pond dyke and bottom reconstruction and management</li> <li>• Aquatic weed controls</li> <li>• Predators and Uncultured fish remove</li> <li>• Liming during pond preparation</li> <li>• Fertilization during pond preparation</li> <li>• Natural feed observe and water toxicity examine</li> <li>• Type of species, stocking density and stocking rate determine</li> </ul>	<ul style="list-style-type: none"> <li>• Good and bad fingerlings determination</li> <li>• Fingerling purification</li> <li>• Fingerling transportation, acclimatization and release in pond</li> <li>• Determination of fingerling survivability</li> </ul>	<ul style="list-style-type: none"> <li>• Supplementary feed application and management</li> <li>• Fertilization after stocking</li> <li>• Liming in pond after stocking</li> <li>• Horah using in time</li> </ul>
Steps after fingerling stocking	Good aquaculture practices	Dyke Cropping
<ul style="list-style-type: none"> <li>• Sampling</li> <li>• Common problem in fish culture and reasonable</li> </ul>	<ul style="list-style-type: none"> <li>• Site selection as well as pond selection</li> <li>• Steps of good</li> </ul>	<ul style="list-style-type: none"> <li>• Summer and winter vegetables and their management</li> </ul>



<p>solution</p> <ul style="list-style-type: none"> <li>• Prevention of fish diseases and management</li> <li>• Partial harvesting</li> <li>• Restocking</li> </ul>	<p>aquaculture practices</p> <ul style="list-style-type: none"> <li>• Band antibiotics, chemicals and medicines</li> <li>• Approved fertilizers and others products</li> <li>• What will farmers do to ensure good aquaculture practices</li> <li>• What will not do farmers to ensure good aquaculture practices</li> <li>• Socials responsibilities</li> <li>• Environmental responsibilities</li> </ul>	<ul style="list-style-type: none"> <li>• How they will identify the good seed and others management</li> <li>• Boddo Mixture preparation to prevent the pest and others harmful animals</li> <li>• Role of women in dyke cropping</li> </ul>
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### ***Training for the producers on increase producers' capacity on post-harvest management***

Producers were capacitated in post-harvest management, technique, with core focus on fish safety principles, hygiene, time and method of optimum harvesting.



A total 8 batch training were provided whereas 222 participants attended among them 186 participants were male and 36 participants were female.

Sl. No.	Event Date	Event Venue	No. of Participants		
			Male	Female	Total
1	26.06.2019	Yethimkhana karigori proshikkon kendra, Assasuni, Satkhira	19	0	19
2	24.06.2019	Yethimkhana karigori proshikkon kendra, Assasuni, Satkhira	23	0	23

3	30.07.2019	Town Sreepur Union Porisad,Deabhata,Satkhira	25	5	30
4	31.07.2019	Roihispur,Primary Scool,Sadar,Satkhira	29	1	30
5	16.07.2019	Mongolkot health care center	19	9	28
6	18.07.2019	Isail club ghor, Faridpur Sadar, Faridpur	20	9	29
7	21.07.2019	Obdar Hat santikutir Amtali, Kotalipara,Gopalgonj	24	6	30
8	23.07.2019	Union Parisad,Kusla, Kotalipara,Gopalgonj	24	6	30

Training has been arranged with an expectation that fish producers understand the difference between their present practice and standard/ideal practice for post-harvest management. This one day training program has been facilitated with a practical session where technical officer

**Topics covered under the post-harvest management training program are:**

- Method of Fish harvesting
- Time of fish harvesting
- Duties before fish harvesting
- How a fish become safe and unsafe
- Importance of good harvesting practice producing on safe fish
- How a fish quality become bad or good
- How microbes and pathogen spread during harvesting of fish

from Parmeeda has showed packaging, grading, and safety-hygiene issues to the producers.

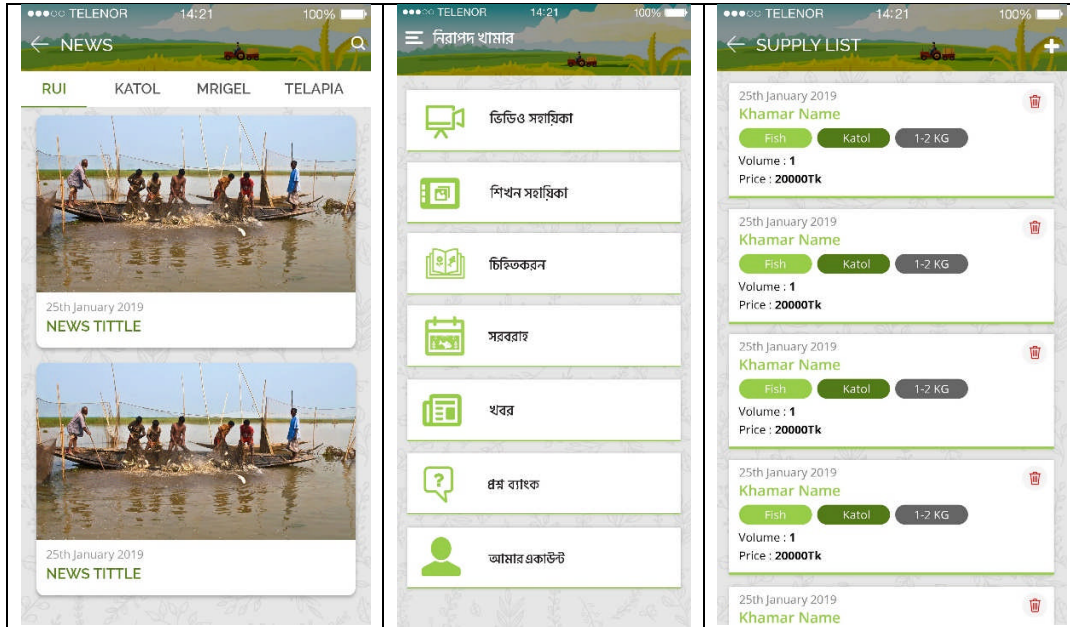
On top of that, producers are also oriented on basics of food safety management, critical points where fishes can be contaminated and how to avoid contamination from outside pathogen and unhygienic materials.

***Mobile Application for Introducing Traceability and Learning of GAP***

Training can be too costly sometimes and time consuming. It is often considered difficult for the participant managing and prioritizing time to attend any such event. Parmeeda introduces digital platform for learning of technologies through video and visual materials. A mobile application has been developed and released for that, farmers started downloading the application and

started learning from there. Link of the Mobile application is:

<https://play.google.com/store/apps/details?id=com.parmeeda.nk>



## Basic Features of the Mobile Application

1. Android Applications
2. Language: Bangla
3. Bandwith: Low to Medium Bandwith
4. Main Crops: Fish, Vegetables, Fruits, Poultry and Livestock

## Key Elements of the Mobile Apps

1. Video Tutorial for Farmers
  - a. Crop Management
  - b. Pest Management
  - c. Post Harvest Management
  - d. Logistics Management
  - e. Learning Modules (Graphics for Farmers)
2. Traceability- (Crops, keeping record of pest management, fertilizer management, field management, super visor log in)
3. Basic Book Keeping (Record Keeping)
4. Calculation (costing of production)
5. Input Database (with communication option- messaging, call)

6. Supply Generation (Farmers can provide how many kilo fish production at which date at what rate)
7. Photo Submission to hot line (like identification of problem, taking the picture of the problem and send)
8. Farmers ID and Other Profile Record Sign up option
10. Communication to Hot Numbers (Help line- messaging and call)
11. Recent News
12. Weather Update (google/third party base)
13. Expandable to different crops (similar modules)
14. E-Commerce Expandable Option (In future farmers can buy and sell products)
15. Payment Integration

**Present Status of the Mobile Application:**

- 3 learning videos on pre-stock management, stock management, and post harvest management has been uploaded on the video.
- Mobile Application has been downloaded over 300+ times.
- Mobile Application has been rating of 3+ at android application download centre
- More crops are being uploaded in the back end system

***Orientation Training on Food Safety Management and Introduction to HACCP***

This training program has been arranged for all the project staffs and core staffs of Parmeeda. This is a very important training considering the subject matter. The two day training program covered the basic understanding of food safety management, 7 principles of HACCP, understanding and identification of reasons why food become unsafe, the danger of food borne disease and hazards. This two days training program has been arranged in Parmeeda head office at Dhaka from 11 May to 12 May of 2019. Pre-test and Post-test evaluation has been also done by the trainer. Training modules has been provided on the subject matter to the training participants.



The training program was conducted by one of the renowned food safety management experts in Bangladesh, Mr Imrul Hassan who also works for Bangladesh Food Safety Authority. Total 22 persons attended the training among them 18 persons were male and 4 persons were women.

### ***Training for the collection point workers to create awareness on Personal Hygiene***

The training was aimed to disseminate technical information related to the fish handling and preservation techniques in small-scale fisheries in order to improve technical know-how of the fisher-folk, fish processors, fish transporters and other fisheries stakeholders to produce quality fishery products in compliance with safety standards.

The training focused on good environmental sanitation and personal hygiene practices for the small-scale fishery sector. The training materials help all the participants to educate the fisher-folk and other stakeholders in producing fishery products that are safe and of high quality. Fishery supply chain stakeholders especially farmer, worker, landing site operators, fish processors, fish packers and fish transporters could understand technical knowhow on





implementing Food safety, hygiene, sanitation and good practices for workers on Fish collection, handling, processing, packaging and distribution.

The training materials covers overview of the fishery sector, health and sanitation; good hygiene practices; fish spoilage; fish handling practices; fish processing practices; fish preservation techniques; fish transport, fish markets and fish packaging.

This one day training has been organized on **20 September, 2019** at Parmeeda Project Office at Satkhira where 20 Supply Chain Partner, Field officers of Parmeeda and Local Processing labor participated. All the participants were male. Mr Imrul Hasan, Food Safety System expert facilitated the training session.

### ***Introducing Traceability***

Traceability is very important in terms of food safety management and needless to say that it is a very difficult task to implement in the context of Bangladesh. Parmeeda provided traceability registrar to each of the project participant- Parmeeda contracted farmers to maintain the inputs, name, dosages, and timing of application of any input. Besides, the mobile application **Nirapad Khamar** has also traceability input option to track back, we believe that might take time to adopt for the farmers.

### ***Sales of Harvested Safe Fish***

Parmeeda expected to have finally 300 Mt of Safe Fish from the registered farm areas. Parmeeda plans to sale through 3 channels, a) Online- Parmeeda has its own customer base serving almost 30,000 Customers in last 3 years, it expects to sale at least 20% of the produce through its own online channel. B) B2B: It already is in discussion to sale the safe fish to different institutional buyers i.e. Restaurants and Institutional canteens and c) Wholesale, the rest amount of fish will be sold through wholesale market channel convenient for the producers.





Parmeeda has already started buying fish from the safe fish producers, 2 lots of fishes are purchased from the fish producer from Satkhira managing the ideal fish harvesting process learnt from the training and the program. At the first lot 100 KGs of Carp fishes have been sold through.

### ***Innovation within the project***

Parmeeda has realized that producers need more than training support in their production as the new challenges arises. So Parmeeda management has instructed the project management team to visit the farmers field regularly and solve the day to day challenges that farmers are facing.



*Figure 2: Fish Growth Monitoring by Parmeeda Field Officer, Satkhira*

Besides, Parmeeda also provided field team test tool kits for PH measurement, Amonia Measurement. This has been a huge impact, as the producers realized the real methods of taking care of the pond.

## **6.0 Forward Market Access Program**

### ***Food Safety Awareness Campaign***

The fundamental objective of Parmeeda was to create an interest among the students about eating safe fish. Added to that Parmeeda has also build awareness about the importance of safe fish.



Figure 3: Managing Partner of Parmeeda, Ms Rashida Hossain talking about importance of consuming safe fish with the students

Keeping the importance of consuming safe fish in mind, Parmeeda Enterprise has taken an initiative of hosting seminars in educational institutions with a mission of making students aware of the food safety (fish) issues. Recently, Parmeeda has successfully conducted a seminar in **3 schools in Dhaka**, thus building awareness among the young boys and girls on the benefits of eating fish and importance of safe fish.

Sl.	Event Date	Event Place	Total Participants		
			Male	Female	Total
1	04.08.2019	Tejgaon Government GirlHigh School,Dhaka	0	47	<b>47</b>
2	05.08.2019	Tejgaon Government High School,Dhaka	0	48	<b>48</b>
3	07.08.2019	Green Gems International School	22	30	<b>52</b>
Total			22	125	147

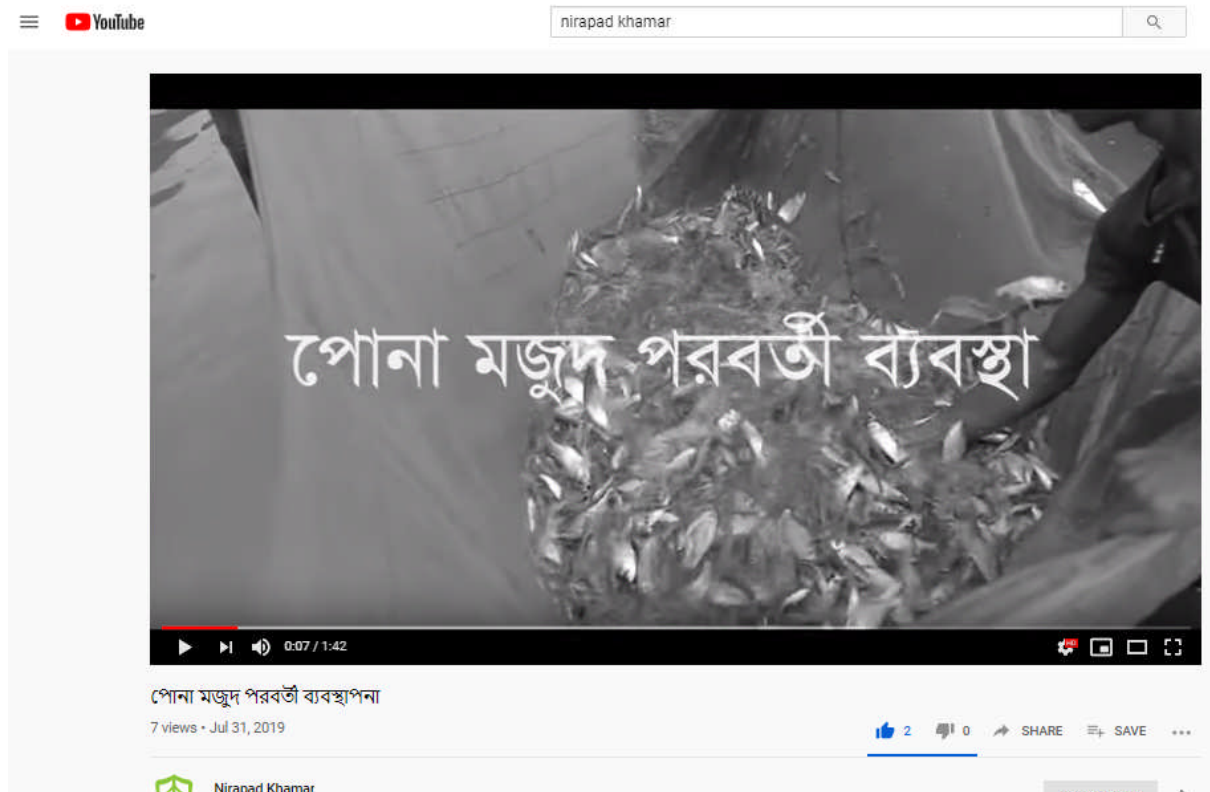
### ***Digital Promotion***

YouTube Channel

A youtube channel has been created for promotion of safe fish consumption, technology promotion and creating awareness among the stakeholders.

Youtube channel link: <https://www.youtube.com/channel/UC5aNI7UP6WjigWFA4H3JLQ>





Three videos have been already uploaded in the channel and more videos will be uploaded shortly on different technologies and awareness related issues of Safe Fish promoted by Parmeeda.

### ***Website Home Page Banner Promotion:***

Safe fishes are now promoted to Parmeeda homepage where a banner showing the safe fish related information and promotion.

Link to the promotion can be found here: <https://parmeeda.com/fish/>

Parmeeda receives a great response from the consumers demanding the detail of the production process, the technologies that we are promoting and of course with the interest to purchase of such kind of fish those are safely produced.

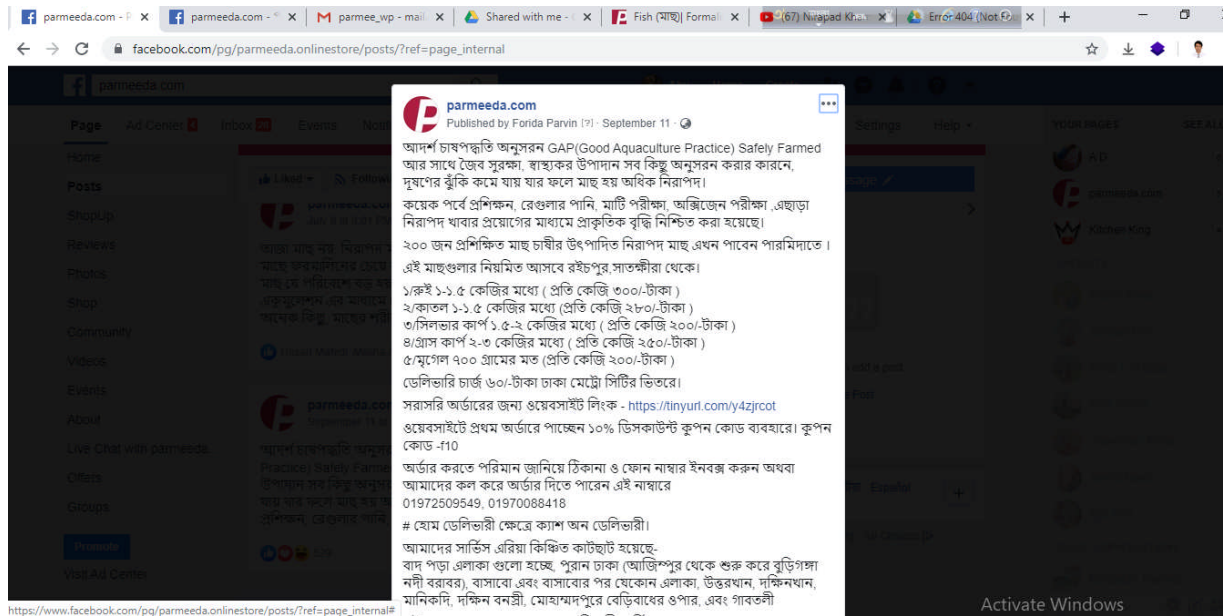
Besides, Safe Branded Fishes are uploaded as product in the e-commerce site where consumers can directly order for the fish and get the fish home delivered.

## Fish

[parmeeda.com organic agro-products](#) > Fish


## Facebook Promotion:

Parmeeda Enterprise regularly posted on facebook page and group about the progress of the project. Parmeeda facebook page (<https://www.facebook.com/pg/parmeeda.onlinestore/>) which has around 70,000 likes is a well known page for promotion of safe and traceable agro-produce.



parmeeda.com

Published by Farida Parvin (7) · September 11 ·

আদর্শ চাষপদ্ধতি অনুসরণ GAP (Good Aquaculture Practice) Safely Farmed আর সাথে জেব সুরক্ষা, স্বাস্থ্যকর উপাদান সব কিছু অনুসরণ করার কারণে, দুগ্ধের ঝুঁকি কমে যায় যার ফলে মাছ হয় অধিক নিরাপদ।  
কয়েক পর্বে প্রশিক্ষণ, রেগুলার পানি, মাটি পরীক্ষা, অক্সিজেন পরীক্ষা, এছাড়া নিরাপদ খাবার প্রয়োগের মাধ্যমে প্রাকৃতিক বৃদ্ধি নিশ্চিত করা হয়েছে।  
২০০ জন প্রশিক্ষিত মাছ চাষীর উৎপাদিত নিরাপদ মাছ এখন পাবেন পারমিটারে।  
এই মাছগুলোর নিয়মিত আসবে রইচপুর, সাতক্ষীরা থেকে।  
১/রুই ১-১.৫ কেজির মধ্যে (প্রতি কেজি ৩০০/- টাকা)  
২/কাতল ১-১.৫ কেজির মধ্যে (প্রতি কেজি ২৮০/- টাকা)  
৩/সিলভার কার্প ১.৫-২ কেজির মধ্যে (প্রতি কেজি ২০০/- টাকা)  
৪/গ্রাস কার্প ২-৩ কেজির মধ্যে (প্রতি কেজি ২৫০/- টাকা)  
৫/মুগেল ৭০০ গ্রামের মত (প্রতি কেজি ২০০/- টাকা)  
ডেলিভারি চার্জ ৬০/- টাকা ঢাকা মেট্রো সিটির ভিতরে।  
সরাসরি অর্ডারের জন্য ওয়েবসাইট লিংক - <https://tinyurl.com/y4zjrcot>  
ওয়েবসাইটে প্রথম অর্ডারে পাচ্ছেন ১০% ডিসকাউন্ট কুপন কোড ব্যবহারে। কুপন কোড -f10  
অর্ডার করতে পরিমাণ জানিয়ে ঠিকানা ও ফোন নাম্বার ইমবন্ড করুন অথবা আমাদের কল করে অর্ডার দিতে পারেন এই নাম্বারে 01972509549, 01970088418  
# হোম ডেলিভারী ক্ষেত্রে ক্যাশ অন ডেলিভারী।  
আমাদের সার্ভিস এরিয়া কিকিত কাটছাট হয়েছে-  
বাদ পড়া এলাকা গুলো হচ্ছে, পুরান ঢাকা (আজিমপুর থেকে শুরু করে বুড়িগঙ্গা নদী বরাবর), বাসাবো এবং বাসাবোর পর ঘেকোন এলাকা, উত্তরখান, দক্ষিণখান, মানিকদি, দক্ষিণ বনরী, মোহাম্মদপুরে বেড়িবাধের ওপার, এবং গাবতলী

We have created facebook posts regularly and also boosted few of the posts which have great responses from the customers. To site example this above post has been boosted in the facebook and have reached 55,000 audience in facebook and have 35,000 post engagement, From this post, we have generated 100 KG of safe fish orders.



parmeeda.com  
Shopping & Retail

 Send Message

**55,724**  
People Reached

**6,393**  
Engagements

[Boost Again](#)

Boosted on Sep 21, 2019 Completed  
By Mahzabin Kjær

People Reached	<b>52.2K</b>	Messaging Conversati...	<b>63</b>
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[View Results](#)

   529

33 Comments 20 Shares

 Like

 Comment

 Share





## Summary Activity Table

Name of the Activity/Event	Type of event	Quantity	Participants Type	No. of Participants		
				Male	Female	Total
Orientation meeting at Community level to select the producer	Producer orientation Meeting	20	Fish producer	513	101	614
Refreshers meeting with selected producer groups	Producer refreshers Meeting	15	Fish Producer	186	39	225
Increase producers capacity on modern and safe fish production technology through training	Classroom Training	8	Fish Producer	187	36	223
Post-harvest management training on safe fish	Classroom and Hands-on Training	8	Fish Producer	183	36	219
Monthly Coordination Meeting	In-house meeting	3	Parmeeda Project Staffs, World Fish	23	6	29
Stakeholder Meeting	In-house meeting	4	Value Chain Stakeholders	49	1	50
Food Safety management and Orientation to HACCP	Classroom Training	1	Parmeeda Staffs	18	4	22
Safe Food Awareness Campaign on Schools	Workshop with Students, Parents, Teachers	3	Students, Parents, Teachers	22	125	147
Training on warehouse management and safe handling of fish	Hands On Training	1	Warehouse labor, Supply Chain Partner	20	0	20
<b>Total</b>	<b>0</b>			<b>1262</b>	<b>341</b>	<b>1603</b>

## Safe fish Definition

Parmeeda Enterprise Will Classify Fish as per food safety standard into 5 Categories:

1. **Common Fish (CF):** Fish as defined under the Bangladesh Gazette<sup>1</sup> bgd 153882 (3), either wild catch or cultured in a general condition, origin or source of production unknown and has not been tested or certified.
2. **Standard Fish (SF):** Fish as defined under Bangladesh Gazette bgd 153882 (3), either wild catch or cultured in a general condition, can be traceable up to Farm label. With good judgment and supervision, no additional treatment as defined by adulteration has been done and standard practice of post-production/harvesting (i.e. icing, injury prevention) measures have taken.
3. **Standard Green:** Fish as defined under Bangladesh Gazette bgd 153882 (3), either wild catch or cultured in a general condition, can be traceable up to Farm label. Strongly prohibited to use banned antibiotic, low quality unauthorized drugs as well as Adulterated fish feed and low quality growth hormones. Record keeping for farm management book will be maintain at culture system to ensure the traceability. With good judgment and supervision, no additional treatment as defined by adulteration has been done and standard practice of post-production/harvesting (i.e. icing, injury prevention) measures have taken. These fishes shall be labeled “Certified Green”.
4. **Certified Safe:** Fish as defined under Bangladesh Gazette bgd 153882 (3), either wild catch or cultured in a general condition, can be traceable up to Farm label. Farm is registered under NirapadKhamar Program and have accepted to follow guideline under Good Aquaculture Practice. Strongly prohibited to use banned antibiotic, low quality unauthorized drugs as well as adulterated fish feed and low quality growth hormones. Record keeping book will be maintain in each step of culture system to ensure the traceability. With good judgment and supervision, no additional treatment as defined by adulteration has been done and standard practice of post-production/harvesting (i.e. icing, injury prevention) measures have taken. These fishes shall be labeled “Safe Certified”. A certification process shall be conducted in line with the GAP guideline by any third party farm auditor.
5. **Unhygienic fish:** Defined under Fish and Fish Products (Inspection and Quality Control) Rules. 1997 as any fish that is micro-organism of public health significance or substances toxic or aesthetically offensive to human being or any fish with hanging meat which is not meant for export but which encourages quick bacterial growth and deterioration of the quality of the fish.
6. **Decomposed fish:** Defined under Fish and Fish Products (Inspection and Quality Control) Rules. 1997 as any fish that has offensive or objectionable color, odour. taste or textural defects and not of the nature expected to the fresh fish product and it includes tainted fish;
7. **Iced or chilled fish:** Defined under Fish and Fish Products (Inspection and Quality Control) Rules. 1997 as any fish kept at a temperature in between 0°C to 5° C.
8. **Tainted fish:** Defined under Fish and Fish Products (Inspection and Quality Control) Rules. 1997 as any fish that is unsuitable for human consumption
9. **Adulterated fish:**
  - a. Which is , with a view to making it colored, flavored , preserved, processed or attractive, mixed with such amount of ingredients that is harmful to public health and is prohibited in law; or
  - b. Use of poisonous elements. No person shall, directly or indirectly, by himself or by any other person acting on his behalf, use or include in any article of food any chemical or ingredient or substance (such as: calcium carbide, formalin, sodium cyclamate), insecticides or pesticides (such as: DDT, PCB oil, etc.), or intoxicated food colour of flavouring matter, whether attractive or not, or any other intoxicated additives or processing aids, which may cause injury or toxicity to human health in any article of food; or shall store, market or sell any such article of food
  - c. Which is, with a view to making it colored, coated or stained, mixed excessively with such amount of ingredients that impairs the food and diminishes the food value or nutritive qualities of such food...

the market, at first they are captive with advance money lending from Arats and forced to sell their product at lower rate without adjusting to market system. Secondly, they were selling at 44 Kg a mound, where extra 4 kgs were paid as risk management. Parmeeda offered 40KG a mound and immediate cash return to the producers which saves them 4KG amount of produces extra benefit from the market system. Besides, following improved training and practice production from the farm also increased and benefit farm producers.

**Safe Fish Brand:** There is no fish brand available in Bangladesh, safe fish brand is literally a miles away. Parmeeda's plan is to be the pioneer in creating and building a safe fish brand in the market. To do so, each of the fish harvested from the project will be branded having label printed in the package with traceability sticker.



*Figure 4: Logo of Safe Fish Brand*

A separate logo has been designed to market the safe fish brand. This logo will represent the symbol and mark of food safety. This logo has been designed by a professional designer and with the approval from BANA Team. This logo is also used in Mobile Application and Other Branding assets of Safe Fish.

## **Supply Chain Partner**

Supply Chain Partner is a contingency model for creating sales of the safe fish. Supply chain partners are those, who are already in the business in the area and have experience in wholesale of fish. In the model role of supply chain partner is to maintain the business relationship with the producers and traders (mainly as wholesale agent) at the same time maintaining the quality of the products at post-harvest level, maintain the hygiene standard, and thus play a vital role in selling the safe fish. The main incentive from the business will be sales commission they would have earned from the buyer in this case traders from other districts.

<b>District</b>	<b>Supply Chain Partner</b>	<b>Gender</b>
Satkhira (4)	Name: Hossain Islam, Address: Satkhira Sadar, Mobile-01797595049	Male
	Name: Md.Morshed Ali Address: Debhata,Satkhira, Mobile: 01719635041	Male
	Name: Md.Jahidul Islam, Address: Assasuni, Satkhira Mobile: 01746483098	Male
	Name: Md.Maksudul Islam Address: Assasuni,Satkhira Mobile:01856256300	Male
Faridpur (2)	Name: Rahim Hawlader Address: Kojjury Union,Faridpur Mobile:01779824327	Male
	Name: Nimai Malo Address: Gerda,Mogolcot,Faridpur Sadar Mobile: 01798353877	Male
Gopalganj (2)	Name: Anower Sarder Address: Horenhat,Amtoly,Kotalipara Mobile:01986387614	Male
	Name: Chonchol Shek Address: Kusla,Kotalipara Mobile: 01770373718	Male

Parmeeda has selected 8 supply chain actors, have several meetings with them and agreed on business terms and conditions when the fishes will be available in the market. Supply chain actor selection process has started in February 2019 and through March-April 2019, finalized the list. However, actual business deal is yet to happen during the project period as the fish harvesting has not been started then.

All the selected supply chain partner has their own outlet, which can be as they have agreed work as collection point. They also have received orientation about collection point management, warehousing, cleaning, washing, packaging and labeling of fishes.

In Satkhira we have initially selected 3 Supply Chain and Faridpur we have selected 2 Supply Chain partner in February-2019. March-2019 we have selected another two supply chain Partner. We have selected supply chain Partners who have experiences in this field as well as interested to work with project goals and objective. The rest one has been selected in April-2019. (Total target-8 and achieved-8) Name of the Supply Chain Partner with collection point

## 7.0 Quarterly Progress

### **Annual Progress of Parmeeda:**

The sub-grant agreement between WorldFish and Parmeeda Enterprise was signed on 26 September 2018. The title of the business proposal is “Promotion of Safe fish through traceable production system”. The goal of the intervention is to increase the production and supply of safe fish with a traceable supply chain while keeping skilled farmers at the core of the value chain’. Parmeeda planned to work with 200 registered small fish farmers, providing technical support for safe fish production and post-harvest management, introducing manual and mobile app base information record system and buyback the products from registered farmers. Parmeeda planned to work in Satkhira, Gopalganj and Faridpur district.

They set-up their field office at Satkhira, recruited staff and enlisted 225 farmers from Satkhira (105 farmers), Gopalganj (60 farmers) Faridpur (60 farmers) respectively. They formed 15 groups with 225 farmer, in each group 15 members present. Of them 8 groups were in Satkhira, 4 at Faridpur and 4 at Gopalganj. They have completed 20 community level orientation meetings with 606 farmers of which 244 were at Satkhira, 182 at Faridpur and 180 at Gopalganj. In the Project Staff orientation meeting total 12 participants were present, of them 9 were male and 3 were female that were held at Faridpur. Later on Parmeeda conducted 15 batches of refresher meetings with 227 participants, including 40 women. Parmeeda also conducted a few informal FGDs and individual interviews with farmers to assess the farmers’ need and the knowledge gap on Good Aquaculture practices during the community orientation & refreshers community orientation meeting. Based on farmers’ need, Parmeeda developed training module on ‘Modern and safe fish production technology’ which they have finalized incorporating feedbacks from WorldFish. Parmeeda organized eight batches of capacity development training on modern and safe fish production technology for 225 participants. Altogether 223 participants received the training where 187 were male and 36 were female. After completing the technical training on modern and safe fish production technology 225 farmers registration completed by Parmeeda Enterprise to buy-back the products from these registered farmer. Parmeeda also organized 8 batches of training on post-harvest management training where altogether 219 participant’s participated, of them 183 were male and 36 were female. Parmeeda also selected 8 supply chain partner targeting these eight groups. Besides training, Parmeeda provided all technical support to the farmers through regular field visits, phone links to the farmers and stakeholder consultation workshops.

Parmeeda has identified eight collection points for fish producers. Parmeeda also conducted two stakeholder’s consultation meeting at Satkhira with different market actors and supply chain partners for establishing better market input for farmers. Toward traceability and safe fish production, trainings on introduction to HACCP and guidelines/SOP for production and post-harvest management are provided to Parmeeda staffs at Dhaka where field officers were also present. Parmeeda selected five digital services providers for promotional materials development. They are White Canvas Software Limited for mobile application development, Potato Digital for mobile application requirement analysis, KAW for logo development of Nirapad Khamar & audio visual development and PIXELOMATIC for mobile application user interface/UI/UX design Parmeeda also organized 3 school campaign at Dhaka & it was organized by third party named Uddom Business Services Limited.



### ***1<sup>st</sup> Quarter Progress of Parmeeda:***

The Activity team signed a sub-grant agreement with Parmeeda Enterprise in the final quarter of year-1. The goal of the intervention is to increase the production and supply of safe fish with a traceable supply chain by engaging 200 farmers who will be trained and registered. During this quarter, they set-up their field office at Satkhira recruited staff and completed 7 community level orientation meetings out of the planned 20. Parmeeda primarily enlisted 225 farmers from Satkhira (105 farmers), Gopalganj (60 farmers) and from Faridpur (60 farmers). During the community orientation meetings, they also conducted a few informal FGDs and individual interviews with farmers to assess the farmers' need and the knowledge gap. Based on farmers' need, the partner drafted the contents of the training module followed by a detailed training module which has been shared with the Activity team for feedback. In addition, Parmeeda selected five vendors for operations. They are White Canvas Software Limited for mobile application development, Potato Digital for mobile application requirement analysis, KAW for logo development of Nirapad Khamar & audio visual development and PIXELOMATIC for mobile application user interface/UI/UX design.

### ***2<sup>nd</sup> Quarter Progress of Parmeeda:***

Parmeeda Enterprise is a processor working to establish a traceable supply chain to ensure a supply of safe fish. They are working with 200 farmers to produce a pond to plate quality assurance system. In this reporting year, Parmeeda registered 225 fish farmers in three districts (Satkhira, Faridpur, and Gopalganj). They delivered training on modern and safe fish production technology and post-harvest management. Parmeeda also provides technical support directly to the farmers through regular field visits, phone links, and stakeholder consultation workshops. Parmeeda has identified eight collection points for fish producers and are improving their supply chain by addressing communication, use of ice, and packaging in collaborative design meetings. Toward traceability and safe fish production, they delivered trainings on an introduction to HACCP and guidelines/SOP for production and post harvest management.

Momentum on this sub-grant seems strong as the final month of the sub-grant included a flurry of farmer training-- six batches of training for producers to increase capacity building on improved post-harvest management (177 farmers, 36 female), brand promotion on safe fish, nutritional value of safe fish, three school campaigns, and two stake holder consultation meetings. Parmeeda trained collection point workers on personal hygiene during handling and post-harvest management.

The sub-grant agreement with Parmeeda ended with this reporting year. The activity will continue engagement to support and monitor a potentially important additional element-- a mobile application development for supply chain monitoring-- which might become a replicable model for others.

### **3<sup>rd</sup> Quarter Progress of Parmeeda:**

BANA sub-awardee Parmeeda Enterprise has the goal of increasing the production and supply of safe fish with a traceable supply chain by engaging 200 farmers who will be trained and registered. Parmeeda Enterprise registered 225 fish farmers in three districts-- in Satkhira 125 farmers, Faridpur 50, and in Gopalganj 50. They have completed training on modern and safe fish production technology for 103 registered farmers (20 female), and training on post-harvest management in the reporting quarter for 41. Besides training, Parmeeda provided all technical support to the farmers through regular field visits, phone links to the farmers and stakeholder consultation workshops. Parmeeda has identified eight collection points for fish producers and are addressing communication, use of ice, and packaging along with a stakeholder's consultation meeting at Satkhira with 23 different market actors and supply chain partners. Toward traceability and safe fish production, trainings on an introduction to HACCP and guidelines/SOP for production and post harvest management are underway.

### **4<sup>th</sup> Quarter Progress of Parmeeda:**

The goal of Parmeeda Enterprise is to increase the production and supply of safe fish with a traceable supply chain while keeping 200 small holder registered farmers at the core of the value chain. Parmeeda organized 6 batches of training for the producers to increase producers capacity on post-harvest management where altogether 177 participants participated, of them 141 were male and 36 were female. Three school Campaign organized by third party Uddom Business Services Limited where total participants were 147 of them were 22 male and 125 were female. Two stake holder consultation meeting held with different market actors and selected supply chain agents for establishing better market input for farmers where male 27 participants participated the meeting .Two monthly meeting held in this quarter where total participants were 19 of them 15 were male and 4 were female. Parmeeda has identified eight collection points for fish producers. Parmeeda also organized one training for the collection point workers to create awareness on personal hygiene where 20 participants participated the training where all collection point workers were male. Besides training, Parmeeda provided all technical support to the farmers through regular field visits and telephonic conversation. Parmeeda worked with White Canvas Software Limited for mobile application development, Potato Digital for mobile application requirement analysis, KAW for logo development of Nirapad Khamar& audio visual development and PIXELOMATIC for mobile application user interface/UI/UX design. Apps downloaded target was 250 in this quarter which has achieved through Parmeeda's selected fish producers. One supply chain agents of Parmeeda collected 110 kg safe *Ruhu* and 170 kg safe *Catla* from Parmeeda 30 registered fish producers and sold by premium price.

## 8.0 Key Challenges

### ***Climatic Risk***

- Water level is low in Satkhira area and farmer still waiting for rain those who have no scope to take underground water
- High level of PH & late rain in some areas especially Satkhira delayed stocking.
- Water level is low in Satkhira region and most of the farmers are waiting for rain who has no scope to take underground water
- Lack of water quality test kit: Farmers are more interested to ensure the water quality parameters and would like to know the reason of mortality of their fish
- In month of June 2019 some fish mortality occurred due to high temperature and lack of water depth (Among 15 farmers 200 pcs fish was died each fish body weight was 400 gm.
- Due to sudden rain and algal crash some farm get shortage of oxygen and with consultation us finally we minimized this problem.
- Mortality occurred due to high temperature and high PH especially in Satkhira in some area. It occurred in satkhira Sadar. Our 7 producers' newly stocked fingerling was died due to high temperature and high PH. With the help of us finally realize this and restock this amount of fish in their pond.
- 

### ***Technological Challenge***

- Lack of water quality test kit. Farmers are more interested to ensure the water quality parameters and would like to know the reason of mortality of their fish
- In Satkhira sadar about 40% farmers have paddy in their pond. So it took longer time to prepare the pond for fish culture though all selected farmers are more potential
- In Satkhira sadar some farmers has harvested paddy and now doing pond preparation, so it will take some more time to prepare the pond for fish culture though all selected farmers are more potential

### ***Project Implementation Challenge***

- Lack of resource person in local level as well as government people have less interest and time to attend the producers meeting
- Farmers showed less interest in day long training, they would like to participate in short time (half day) training session • High level of PH in some area delayed stocked as well as due to lack of quality fingerling in this area
- Producers prefer half day long training session
- Some producer asked cash or money for fingerling or other quality inputs and we are resolving this by doing stake holder meeting in different area of the project
- To make more clean and hygienic condition some of our collection point agents would like to demand some materials for their collection point.

## ***Value Chain Challenge***

- Lack of quality inputs as well as medicines in Upazilla level
- Female farmers drop out was big problem in initial stage of the project. Now Parmeeda selected the right female farmers in three district. Now all are very concern and attending different training program & events organized by Parmeeda.
- Most of the supply chain partners place their requirement of cash or materials to operate the collection point effectively.
- Low quality fish medicines is very available in Satkhira and fish producers are using this medicines due to low prices and easily available in market. We are developing a linkage between our producers and quality inputs supplier by doing different stakeholder meeting
- Sudden increase price of quality fish feed some producers get stress to buy high price of fish feed.

## ***Partnership Challenge***

Though the whole 1 year journey was full of excitement and challenges overcoming together between grantee and sub-grantee team, management, there were ups and downs in the professional way.

Few of the challenges were to mitigate to bring the project successful

- There were couple of changes in the policy (especially with financial administration, policy) in the middle of the project created confusion and ambiguity for the project management team. First of all, advance payment was done for quarterly payment, then the decision came for monthly disbursement, then another decision came for disbursement in two months, this financial disbursement model created confusion and difficulties in managing the project.
- USAID financial management policy or World Fish Financial Management policy had been mandatorily governed the project while almost ignoring the organizational internal financial and administration procedure. For example, Parmeeda had policy of cash disbursement if the value is less than 50,000, but the project has limited cash disbursement to almost 0 events, in every instance cheque disbursement made the project extremely difficult even for making photocopy.
- 3 quotation system applied for every small to large procurement of assets and consultancy. While Parmeeda appreciate the transparency and accountability, but also expects respects in terms of selection process and judgment from the partner, if it calls for that.
- Financial reporting was very much critical and difficult to understand and there were several changes in the reporting system.
- Without the first payment disbursement event, all the next payments were delayed due to complexity in systemic procedures, which made it extremely difficult to manage the project, as the project budget was heavily dependent on the funding.
- There were number of reporting system, which many times were redundant and not necessarily important for the success factor of the project. Weekly activity report was a severe burden to the project management team, while monthly, event wise and quarterly report were too submitted.

## 9.0 Monitoring and Reporting

To capture the progress and learning of the project, BANA MEL team, Project team, Grants team combine monitor field activities, financial expenses and overall progress of the project. Parmeeda project management team fully complied with the requirement of the grantee's requirement.



*Figure 5: BANA team collecting data from Parmeeda Safe Fish Producers*

**Field level monitoring:** Parmeeda's core operation team regularly followed the activities and maintained close communication with the operation team, on top of that regular interval field visit was done by the core operation team. Any discrimination of the field plan or budgetary activities were brought under judgment

### REPORTS

#### Financial Reporting

- Monthly Financial Report
- Justification of any under-spent or over-spent amount and getting approval from BANA grants team for that
- Quarterly Financial Report
- Final financial report
- Bank Reconciliation Report

**Financial reports included at a minimum the following information:**

- Budget versus actual expenses, with current reporting period data and grant to date data.
- Detailed list of expenses that include description, transaction date, amount, expense category, exchange rates used to convert to reporting currency.
- Cost Share or Matching progress report for period;
- Supporting documentation, as necessary.
- Fund balance status – cash received from WorldFish versus expenditures reported to WorldFish

**Besides financial reporting, Parmeeda team has to submit the following justification and documentation**

- Purchase note, requisition, at least 3 quotations submitted, before going into the selection process, every assets, equipment list purchase decision has to get approval and follow the guideline of USAID and BANA procurement process
- Any recruitment shall pass through standard procedure, job description and advertisement shall be pass through approval process
- Any hiring of consultant shall be taken with full approval process and with proper justification, 3 quotation of similar services were mandatory in each and every selection of consultant.
- Asset registrar
- Inventory Registrar

**Technical Reports**

Parmeeda will submit the following reports to WorldFish according to the timetable below:

Report Description	Period Covered	Due Date to WorldFish
Justification Report	Any deviation with the field plan whenever occurred	
Case Studies	Any Success or key learning events / Any time of the project	1 success story submitted
Activity Report	1 week after completion of any activities  (Training report, coordination meeting report, refreshers meeting report, application development report, application download report,	



	field visit report, etc)	
Weekly Progress Report	Every Week Introduced in the middle of the project	Every Wednesday
Monthly plan and progress report	One month	Last date of every month
Quarterly progress report	One quarter	2 <sup>nd</sup> week of following month for each quarter
Project completion report/ Final report	Whole agreement period	Within 2 weeks after the completion of the project period

### Notes to the technical report

#### Every technical report shall consists of following

- In case of event, event registrar, participant list, photographic evidence
- Scanned copy of participants list and soft copy of participant list
- Future activities plan
- Any deviation of project planned with proper justification and if such case happen what is the next course of action
- Farmers Registrar (Name, Address, Phone Number, ID, Signature)
- Farmers profile with pond size, water quality, environment quality
- Farmers agreement paper
- Farmers registration ID

## 10.0 Project Budget

<b>Baselined Project Budget (key expenditures)</b>	<b>Actual Project Budget (key expenditures)</b>	<b>Description &amp; Explanation of Variances</b>
<i>Cumulative Budget of the project</i> <b>=BDT 72,09,000.00</b>  <i>Grantee's contribution</i> <b>=BDT 5,415,000.00</b>  <i>Sub-grantee's contribution</i>	<i>Cumulative Actual Expenditure on the project</i> <b>=BDT 53,35,070.00</b>  <i>Grantee's contribution</i> <b>=BDT 4,436,267.00</b>	<b>BDT 18,73,930.00</b> remained as a budget balance since Product testing, warehouse development and training, some of the activities of creating safe brand is

<b>Baselined Project Budget (key expenditures)</b>	<b>Actual Project Budget (key expenditures)</b>	<b>Description &amp; Explanation of Variances</b>
<u>=BDT 1,794,000.00</u>	Sub-grantee's contribution <u>=BDT 898,803.00</u>	remained undone and the given budgeted amount remained as a balance of the project. Of which grantees contribution is <u>BDT 978,733.00</u> and sub-grantee cost share is <u>BDT 895,197.00</u> .

## 11.0 Completion and Achievement

Activities- Planned vs Completion

<b>Activity</b>	<b>Status at the end of the Project</b>
<b>Signing of Agreement</b>	<b>Complete</b>
<b>Recruitment</b>	<b>Complete</b>
<b>Office Setup</b>	<b>Complete</b>
<b>Project Staff Orientation</b>	<b>Complete</b>
<b>Farmer's Group Formation and Registration</b>	<b>Complete</b>
Orientation meeting at community level to select the producers	<b>Complete</b>
Producers' group formation	<b>Complete</b>
Registration of the producers to ensure the traceability	<b>Complete</b>
Need assessment of the producers	Complete
Increase producers' capacity on modern and safe fish production technology	Complete
Increase producers' capacity on Post-Harvest Management	Complete
Increase producer's capacity on Business Management and Digital Technology	Incomplete
Exposure visit of the farmers	Incomplete
Guideline and SOP development for production and post-harvest management.	Complete
Mobile Application Development for traceability production knowledge management	Complete
Video tools development and dissemination among the farmers.	Partial Complete
Product testing (Fish testing for chemical residue free)	Incomplete
Application for HACCP/GAP	Incomplete
Collection Point Development	Incomplete
Branding of Packaging to ensure traceability	Incomplete
Mini Processing Facility Development	Partial Complete
Training of the workers on hygiene, processing and packaging	Complete
Increase Consumer Awareness Program through media endorsements and School Campaign	Complete
Increase promotional activities offline and online	Partial Complete
Attending Fairs to promote safe fish consumption	Incomplete
Video Promotional Development for Usage in Media (Digital)	Incomplete

Printed tools development and dissemination at mass gathering points	Incomplete
Create institutional sales channel (Market Places, local fish retailers, gourmet bazar, jatra biroti, manas, gourmet bazar, hospitals and restaurants, etc.	Partial Complete
Create contingency sales channel with mainstream fish suppliers (institutional Buyers	Partial Complete

Despite of our clear efforts we were unable to complete few of the activities designed during this time frame but we believe few of them are necessary to achieve desired outcome from the intervention.

### ***Justification of Incomplete Tasks during project period***

1. Parmeeda have started program during the start of the lean season, and closing the program at the beginning of harvesting season. As a result we do not have enough time resources to complete the full harvesting cycle.
2. Many of the producers have late seed stocking in their pond, as a result producers have not achieved desired marketable size by this time. We could not have started promotional campaigns for example radio endorsement, promotional videos development and showcase in youtube, facebook campaign, as per plan due to the lack of supply.
3. Few of the activities planned at the time of proposal based on the previous assumptions, seems do not have leveraging impact and not cost efficient in terms of business decisions, for example: exposure visit and business management training, hence we do not wish to carry forward.
4. Producers are very new with the concept of safe and traceable production system. It is taking time to prepare their pond and cultivation method according to good aquaculture practice (GAP) standard. One of our activities was to prepare at least one group of producers for GAP application. It seems before the harvesting season is over, it is not feasible for a producer group to apply for GAP certificate. We like to drop the activity as well.
5. One of the key challenges of this initiative is to complete the sales of total production from the registered producers which is estimated at nearly 300 MT of Fishes, which is multiple times higher than the present sales volume of Parmeeda. However, we have taken steps in connecting local merchants with the producers so that they can sell the excess harvest (other than what Parmeeda take supplies with) so that producers do not face any difficulties in selling the harvest and get a good price for better production.
6. However, it is of great opportunity for both producers and Parmeeda to create the safe fish brand in the market and we like to tap the opportunity and the time here is very crucial. The main harvesting will start at Mid-October and it will be the top time to create the brand value with individual customers and institutional buyers who are quality sensitive. To address this opportunity we need to have time at least until December to carry out maximum benefit and fish supply from registered producers. To do so, we will heavily emphasize on supply chain quality control, advertisements on facebook and social media platforms, and create business contract with institutional quality sensitive buyer for example catering services, high end restaurants and hospitals canteen.
7. One of our key learning during the intervention period is that producers need technical advisory services, so in our proposal we like to include one fisheries officer who can provide technical advice to the producers as well as to our field officers as well.
8. We like to discontinue the post of project coordinator for the extension phase, as the salary package become business burden and will impact in the profitability of the business. However, he may continue for another month for the sack of handing over responsibilities and tasks.

9. Other human resource assortments will remain same as proposed.

## 12.0 No Cost Extension Request

**Parmeeda proposed for No Cost Extension on the following ground and proposed activities perceived necessary for successful completion and achievement of the project goal:**

1. **Collection Point Development:** Proposed 8 collection point development need to be carried forward, as per HACCP standard, post-harvest processing at the farm-level plays critical role in maintaining fish quality. Collection points will provide the existing facilities to maintain the standard.
2. **Leaflet and Promotional Materials Printing:** Hard promotional materials will help to reach more customers in terms of awareness and create demand for safe fish.
3. **School Campaign and Awareness Program:** From the completed school campaign we have found interest from the target audience. Direct campaign interaction with the customers have quick and effective impact on understanding the importance of safe fish among the customers and potential customers.
4. **Traceable Sticker Development:** One of the key component for traceability and compliance requirement. It must be done to address the standard practice.
5. **Institutional Buyer Linkage:** Only the individual customers will not be able to meet up the huge production from the registered producers. Hence institutional buyer will play important role in consuming/purchasing the fish production. We are communicating with catering, Armed Police Battalion Canteen, Office Canteens and Restaurants for creating supply opportunity and like to continue when the harvest in full swing.
6. **Facebook and SMS Advertisement:** Facebook is the key digital promotional tool for e-commerce. A good advertisement will help us in creating more awareness and demand in the market and create more sales opportunity.
7. **Warehouse Facility Development:** Simple processing tools for example: Cutting tools, cleaning equipment, washing equipment, processing table is necessary as per HACCP standard. We like to introduce the system as soon as the fish started to coming.
8. **Training of warehouse labor:** Warehouse labor/personnel will be trained up on maintaining quality and safe hygiene standard in the main warehouse facilities and understands the food safety standards and process.
9. **Product Testing:** As fishes started coming, chemical test of the fishes are necessary to provide evidence to customers and stakeholders about the safety of fishes, so that confidence of customers and other stakeholders increases.

### ***No Cost Extension Request Declined by BANA***

BANA Project management team has declined the no cost extension request due to very last day submission that was delayed due to complex process of financial closing & settlement. They have kindly informed to apply for a new project but to end the ongoing project.



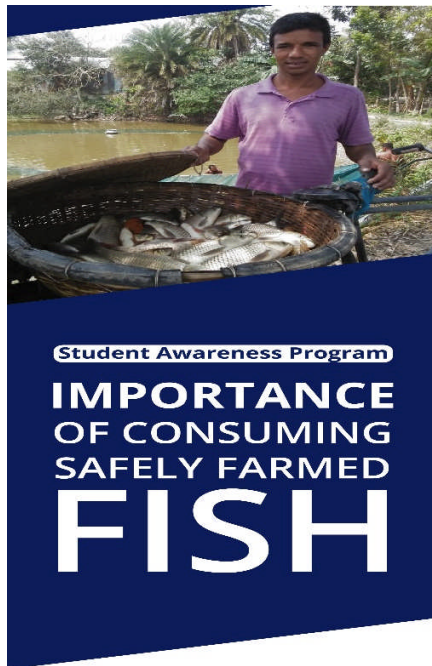
## 13.0 Conclusion and Recommendation

While food safety is a burning issue for Bangladesh now, traceability and good agricultural practice is at the core of any food safety management system. Parmeeda intended to be the pioneer in systemically address the food safety issue in fisheries sector and believe it has achieved a certain level of success in implementing such a challenging interventions. A lot of challenges including time-frame and limitation of technical resources has impeded the final outcome in due time, Parmeeda still hopes to carry on the learning and harvest the benefit to make the fish safe at consumer end and at the same time benefit the poor producers.

To end the report, it is to express little disappointment of not carrying out the project while it was widely justified for the project management team, sub-grantee and a lot of need from the fish producers was to carry forward the project activities if not for another 3 years but at least to complete the unfinished business at a no-cost extension of 3 months' time. It would certainly benefit to test the model more efficiently and will benefit the producers more and create more trust between producers and business organizations like Parmeeda.

However, Parmeeda appreciates the contribution and grant from WorldFish, the way it helped in learning the technical side, business management, Parmeeda will be able to create more systemic changes in next.

**Awareness Building Campaign:**



***Beneficiaries' List (Registered farmers ID):***











