

# THE STREAM OF HAPPINESS

10 success stories of shrimp and prawn farmers



Safe Aqua Farming for Economic and Trade Improvement  
(SAFETI) Project



**Safe Aqua Farming for Economic and  
Trade Improvement (SAFETI) Project**

*Supporting the Bangladesh Shrimp and Prawn Sector*

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## Country Representative's Foreword

Winrock International is a non-profit organization with a portfolio of implementation in more than 140 agriculture, environment, and social development projects in over 46 countries. Our mission is to empower the disadvantaged, increase economic opportunity and sustain natural resources.

Winrock International started working in Bangladesh in 1975. Since then, the organization has executed many development projects with the Government - especially in agriculture, fisheries (including shrimp and prawn), livestock, environment, and natural resources management, human resource development, and anti-trafficking sub-sectors.

Unlike other countries, shrimp-prawn production and productivity in Bangladesh were not pacing significantly. In such a situation, the United States Department of Agriculture (USDA) came forward with the Safe Aqua Farming for Economic and Trade Improvement (SAFETI) project implemented by Winrock International. The 6-year-long project is about to end soon. I am overjoyed to be informed that the project is packaging a book with the successes of 10 shrimp and prawn value chain actors. I am hopeful that these stories will positively impact the readers and inspire them to get into shrimp/prawn business, and thus contribute to the national exchequer.

Thank you.

Dr. Mesbahul Alam  
Country Representative  
Winrock International  
Bangladesh

## Message from Chief of Party

United States Department of Agriculture (USDA) funded 'Safe Aqua Farming for Economic and Trade Improvement (SAFETI)' project, has been operating for six years and has identified several challenges to the growth and development of the nation's shrimp and prawn sector. The project worked in the southwest coastal regions and created three improved farming methodologies for smallholder farmers. It then translated these methodologies to the 25,000 direct beneficiaries, reinforced 2500 value chain actors through capacity-building activities, introduced quality inputs (SPF post-larvae, feed and others), appropriate technologies, and trained the target group of people in postharvest handling techniques.

In this book, the project presents ten success stories of SAFETI beneficiaries. We believe readers of this book will be able to see the smiling faces of successful smallholder farmers, input sellers who make profits by selling quality products, shrimp nursery owners who have gained access to new business opportunities, and more.

We believe that the contents of this book will inspire potential entrepreneurs, development workers, fisheries officers, academics, researchers, farmers, input sellers, shrimp/prawn processors, and other stakeholders to get involved in the businesses of this sector.

I would like to express my sincere gratitude to all my professional colleagues for their contribution in finding out suitable farming practices for small-scale commercial farmers, streamline the supply chain, build the capacity of the value chain actors, and ensure the supply of quality shrimp and prawn to the local as well as export market.

I hope that the SAFETI stories will be communicated to the other farmers and stakeholders in non-SAFETI areas so that the wind of change in the shrimp and prawn sector blows and impacts positively in the national economy.

S.M. Shaheen Anwar  
Chief of Party

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Sat Gambuj Mosque - a UNESCO World Heritage site



# Hoimanti Shukla

A family's journey from misfortune to a thriving business



### **Hoimanti maintains blue net to ensure biosecurity of her pond**

Hoimanti Shukla is a shrimp farmer from Rampal, Bagerhat. Hoimanti's son is a grade-X student, she aspires bright future for her son. Previously, the family was in debt and had economic insecurity.

Hoimanti and her husband work at the Post office as temporary staff, Hoimanti as a postwoman and her husband as a runner. In the digital era, the post office work was no longer meeting their needs for livelihood. Together they earn a little. To survive, Hoimanti and her husband started farming shrimp, prawn and crab in their 30 decimal (1200m<sup>2</sup>) pond next to

A woman wearing a red sari with a white floral pattern is standing at a counter in a shop. She is looking at a green packet labeled 'PondCare' that a man in a white shirt is holding out to her. The shop has shelves in the background filled with various boxes and products. The man is looking down at the packet. The woman is holding a white bag with a blue logo. The man is holding a green packet with a white label that says 'PondCare' and has a green and yellow design. The woman is holding a white bag with a blue logo that says 'PondCare' and has a blue and white design. The man is holding a green packet with a white label that says 'PondCare' and has a green and yellow design. The woman is holding a white bag with a blue logo that says 'PondCare' and has a blue and white design. The man is holding a green packet with a white label that says 'PondCare' and has a green and yellow design.

Hoimanti at SAFETI trained input dealers shop and collecting necessary input

their home, using traditional farming methods. While her harvest was poor, the family went through uncertainty. Hoimanti recalls that she couldn't produce 400 grams of shrimp and prawn in one decimal (equivalent to 90 kg/ha) by following the traditional method.

*“ When I started shrimp and prawn farming, there was gossip around the community regarding me being a woman shrimp farmer, casting nets in the pond and doing the work a man would do as the women in this area are not involved in aquaculture. But I ignored everything. No one else will come to help you if you are in distress, you must help yourself. ”*



Hoimanti working in her backyard garden



Out of desperation they took personal loans but were unable to pay back. Their son's education costs were increasing and they began to struggle with the daily expenses.

*“ For us, the burden of our son's education became suffocating. Managing almost BDT 1500 every month for his studies was a burden and we needed that money for food. ”*

Hoimanti acknowledges SAFETI for bringing positive changes in her life. She was about to give up farming and looking for fortune with something else, when SAFETI gave her an opportunity and hope. They thought of 'SAFETI six-step' farming of shrimp-prawn rotational culture as their last chance, but never imagined it would mean a new beginning. Hoimanti produced 03 kg/decimal (741 kg/ha) in the first year with SAFETI project in 2017 and in 2018 she secured 3.5 kg/decimal. The increasing trend in harvest made her confident. Thus she was able to repay her loans. In addition, she started raising livestock and backyard vegetable cropping with the profit money. To leverage her production, she took a BDT 30,000 (\$ 325) loan from CODEC, a partner NGO of the SAFETI project in 2019.



**Hoimanti giving advice to neighbour farmer**

SAFETI six-step' farming methodology is like a magic - you get your desired number of shrimp and prawn without the high risk of diseases and mortality.

*“ My husband was supportive and so was my son. Together, with the help of SAFETI, we pulled our family out of misfortune. ”*

Hoimanti is quite famous in her locality and her SAFETI Farmers' group (25 members, 9 females, 15 male). She has the highest shrimp production in her group. Therefore, not only her group members but also the nearby farmers come to learn from her and see her pond.

*“ I believe that the replication of ‘SAFETI six-step’ farming methodologies and access to finance for small holder farmers can change the livelihood of rural farmers. ”*



Members of SAFETI Farmers' group gathers in Hoimanti's pond

A portrait of a man with dark hair, smiling, wearing a red t-shirt. The background is a blurred green outdoor setting. A dark blue banner is at the bottom of the image.

**Abdul Awal Milon**

Learning from experience

ENJOY THE LITTLE THINGS

Abdul Awal Milon is a shrimp farmer from Bagerhat Sadar Upazila. He had been practicing traditional farming methods on his 5.73 acre (23,200 m<sup>2</sup>) plot jointly owned with his brother for more than 10 years. His production from aquaculture was not satisfactory. His average production of shrimp and prawn was approximately 380 kg/ha and finfish 200 kg/ha.

Milon became involved with the SAFETI project in December 2017 and began to understand the reasons for his low productivity from the training he received as a project beneficiary. To adopt 'SAFETI six-step' for Bagda-Golda rotational farming and hence he re-excavated a pond of 0.51 acre (210 m<sup>2</sup>) as per recommended specifications.



**Abdul Awal Milon casting net in his pond**

He followed recommendations for pond preparation, stocking, and post-stocking management. Within just four months, Milon harvested 127 kg shrimp from 0.51 acre pond (605 kg/ha) and made a profit of BDT 48,395 (\$483). After harvesting of shrimp, he stocked 4,500 prawn PL and fingerlings of carp fish.

After another 04 months in December 2018, he harvested 200 kg of prawn (950 kg/ha) worth BDT 100,000 (\$1000) and 150 kg of fish worth BDT 30,000 (\$300) from the same pond. At the end of the year, he secured a harvest four times higher than that of previous years. This huge change in production thrilled Milon and changed his farming method forever.

*“ Technology has opened my mind and I have found the best way to increase my production and income. My work encourages my neighbors. They visit me and my farm for their own planning and farming. ”*



**Abdul Awal Milon checking growth of shrimp**



Abdul Awal Milon and his family

*“ By applying SAFETI techniques, I feel proud as a father as now I can ensure education for my daughters, and as a neighbor I can help others with needful suggestion regarding to shrimp-prawn farming. ”*



Shrimp and Prawn farming region of the country



**Jhorna Mondol**

A growing shrimp farm



Jhorna Mondol with her husband and son

Just like a childhood drawing, Jhorna Mondol's home sits adjacent to Gangrail river that supports her livelihood. Once struggling with poverty, Jhorna and her family now dream of a better life for themselves.



**Jhorna Mondol is casting net in her pond to check the growth of shrimp**

Jhorna Mondol is a beneficiary of the SAFETI project, owning a 45 decimal (1800 m<sup>2</sup>) pond adjacent to the river (brakish water) and has been cultivating shrimp (locally called Bagda / *Peneus Monodon*) for eleven years. Until she was introduced SAFETI, she and her husband had been using traditional cultivation methods and were not satisfied by their harvest. Their family is mostly dependent on aquaculture and livestock rearing and found themselves struggling with low income.

*“ I didn't know what to do, or the ratio of water versus post larvae and the feed. We used to cultivate different types of fish at a time like Tengra, Bele, Bhetki and some Bagda too. We used to get upset and were struggling with our life. But now, thanks to SAFETI, we know what we need to do. ”*

Jhorna has been involved with SAFETI since 2017. At first, she worried that SAFETI farming would be capital intensive. As poor farmers, they were hesitant to invest and were afraid of loss. After making the leap, she received technical support which gave her confidence to keep forward. Jhorna and her family was overjoyed with their first harvest when she saw a harvest of 812 kg/ha in 2018 in comparison to 220 kg/ha in 2017 (traditional cultivation methods).



**Jhorna Mondol received Best Woman Farmer award during National Fish Week 2018**



**Both Jhorna Mondol and her husband toil for their farm to get anticipated harvest**

*“ SAFETI gave ‘happiness’ a new meaning. When your effort brings you triple results, that is happiness for us as our life completely is dependent on shrimp cultivation. If you just follow the methods, you don’t need to toil for harvest; the harvest will come to you itself. ”*

Jhorna is a ‘Lead Farmer’ of SAFETI farmer group, her peers often come to her for advice. She recognized as the ‘Best Woman Farmer’ of Dumuria Upazila during the ‘National Fish Week 2018’ and was awarded with a crest from the Honorable Minister, Ministry of Fisheries and Livestock.



**Both Jhorna Mondol and her husband talking to SAFETI official**

*“ SAFETI has brought positive changes in our lives. We will not only continue the farming steps that we have learned from the project but also encourage others to follow these. We need to help each other to grow. The project taught us to dream big and work towards our uncertain of their livelihood.”*



**Abdul Gaffar**

A demo-pond building confidence



### Md Abdul Gaffar walking by his pond

Md Abdul Gaffar, a farmer from Dumuria, Khulna district, was striving for fortune with mixed farming (shrimp, prawn and finfish) in his 48 decimal (1950m<sup>2</sup>) ponds. Even after that, he was struggling with harvest and poverty. His effort was falling short to earning a living for his family as his harvest was low due to diseases, and/or poor growth. Gaffar had a family of six consists of his wife, son, daughter, and parents.



Abdul Gaffar preparing to casting net

*“ I was giving my best, but still, I was not getting result. I was devastated! Nothing is worse than the sense of failing to carry out the responsibilities towards your parents and children. SAFETI came to my life as a blessing.”*

As he heard about SAFETI from the project field officers, he immediately connected with it. Ever since then, the story of his life started to change.

Gaffar received complete training package (09 sessions over three years) on semi-intensive shrimp and prawn rotational farming method and key inputs from the SAFETI project, which made him confident to making his pond more productive. By following 'SAFETI six-step' farming method he sold shrimp and prawn worth BDT 210,000 (\$ 2,100) with a net profit of BDT 112,225 (\$ 1,122) in his first attempt with SAFETI in the year 2018.

*“ Neither I, nor anyone else in this area knew about such improved farming technology. The idea of shrimp and prawn rotational farming was unknown to me. Now I know that the 'SAFETI six-step' increases productivity and quality of yield, I will always follow these suggestions.”*



**Abdul Gaffar checking the growth of prawn**



**Abdul Gaffar with his daughter**

Gaffar is a role model for his daughter. His daughter wants to contribute to her father's farming initiatives, so she enrolls herself in university under fisheries subject.

A portrait of Debjani Sardar, a woman with dark hair pulled back, smiling warmly. She is wearing a dark blue garment with intricate gold, purple, and green floral embroidery. The background is a blurred indoor setting with shelves and colorful items.

**Debjani Sardar**

Debjani builds her business through lessons from SAFETI



Debjani Sarder keeping track of products



Debjani Sardar was widowed and left to raise two daughters on her own, one of whom is disabled. Her story is one of a homemaker who turned into a warrior to survive and make a living for herself and her daughters. After her husband's death, she took over the aqua-input business that her husband built over ten years. Although Debjani was stumbling and distressed, she did not give up and kept searching for a way to change her life and improve her business.

Debjani, who is now a successful entrepreneur comes from Paikgachha, Khulna. In late 2017, she heard about the SAFETI project and immediately signed up to be included in the training program and attended business related trainings over the next three years to learn about the basics of shrimp farming, inputs, business planning, promotion, networking, and linkages with suppliers. Through these trainings and networking, she was able to expand her range of quality products and became an advocate for 'SAFETI Six Key Steps' for Successful Shrimp and Prawn Farming.



Debjani Sarder in front of her shop

“ I am very happy. By the grace of God, I have made good progress. My customers as well as sales and profit have increased greatly. ”



Debjani Sarder advising her clients

Sukur Ali, one of her customer says, *“ Unlike other input traders, Debjani helps us by providing necessary farming related information during selling. ”*



Sundarbans- Mangrove forest, a UNESCO heritage site



**Md. Amirul Islam**  
When passion leads to success

“From a very early age, I always liked shrimp and prawn farming. I felt I should do something that will not only help me but help other farmers too. So, I started input business such as feed, probiotics, prebiotics, blue net, etc. Ever since I received training from the SAFETI project, I leveraged my passion and interests to help myself and others.”



Abdul Md. Amirul Islamm standing in front of his shop

Md. Amirul Islam is an input trader and a farmer from Shatkhira District. He had been selling aqua-inputs and feed for over four years (before SAFETI) and was looking for fortune. His business was not securing him expected level of sales. The major underlying cause was the farmers in his village were unaware of the necessity of feed and medicines for shrimp farming. Besides his trade, he is also a shrimp farmer. He owns 06 ponds of one acre and believed that traditional shrimp farming as profitable.



### **Md.Amirul is a Demo Farmer of the project too**

He always had an urge to contribute to society through helping farmers in his community. But, similar to his trade, he was not satisfied with the harvest he was getting from his ponds. Amirul is a person, who not only thought about himself but also had an urge to contribute to society through helping farmers in his community. Observing his passion, he was reached out by SAFETI field officer, ever since then he maintained close relation with the project. This was an added advantage for him as he received training for both of his identity as farmer and as a trader.



**Md.Amirul checking shrimp feed**

SAFETI trainings taught him more about quality of shrimp feed and aqua-inputs in one hand, and on the other he learnt 'SAFETI six-step' methodologies. Considering his potentiality, the project selected him as a demo farmer for SAFETI farmers' group of his locality. Amirul is selfdriven person and he shares his aquired knowlede from the project to other farmers enthusiastically. This gave him exposure to more farmers. These altogather impacted positively in his input business as well as farm productivity.

*“SAFETI has done a lot for the farmers in terms of capacity building. It has made them confident to carry forward the farming methodologies and brought sustainable change in their farming system. I am very happy that this change has leveraged my sales in great deal.”*



**Md. Amirul explaining SAFETI six-step farming methodology**

Amirul notes a significant change in the feed purchased by farmers.

*“The farmers are now purchasing quality feed in accordance to the density of shimp and prawn. The SAFETI farmers are cascading the farming knowledge to their fellow farmers.”*

Amirul’s shop is well-known and successful because of the availability of ready-made feed that benefits fisheries and farms.



Happy moment with family

*“ More projects like SAFETI need to be established with more enriched knowledge.”*

Amirul's son who is a undergrad student shares his interest to join his father's business in the future. Amirul is optimistic that his business will expand to double in next five years.



**Debola**  
Struggle Vs Success



Debola showing her pond

*“If you don’t dream big,  
you can’t achieve the goal.”*

Debola has been farming shrimp for almost 27 years, but her journey was not easy. A few days after her marriage she started farming to earn a living for herself and her son. Debola's husband used to be a migrant laborer and his coming back to home or sending money was uncertain. Sometimes, he would return empty handed. Often, Debola and her son had to starve for food. Sometimes, it was only the packets of saline they had for a meal to survive!



Out of poverty and hunger, she had to start working as day laborer and shrimp farming in her backyard pond. It was difficult for her to farm shrimp, she faced a lot of difficulties due to lack of knowledge and having to work alone. With her hard work, little did she earn, but she never stopped dreaming of a better life. She invested in the education of her children and for the pond.



Debola adjusts feed as per growth of the shrimp

In 2018, she encountered SAFETI and followed the methods as guided by the project. Eventually, she was selected a demo farmer. Before SAFETI, she used to sell fish worth BDT 10,000 only, moreover, she had 1.5 bigha land which was not benefitting her. After SAFETI she leveraged her shrimp sales worth BDT 90,000 within the following year while her investment was only BDT 25,000.

*“ SAFETI provided training sessions were like magic. If you follow them accordingly, it will be surely a success. On top, I have received manuals too to catch up with instructions in case of necessity. ”*



**Debola showing growth rate of shrimp**

*“ For a shrimp farmer, the ladder of success is the six-step farming process. SAFETI also has a mobile-based app which has answers for all my farming questions.”*

*“ SAFETI taught us what to do and how to do it. If we don't follow those, the loss will be ours. So, we need to preserve the knowledge and use it for our benefit.”*

*“ I believe if all the farmers are enabled with improved farming knowledge, we will become successful together. With this motto, I will continue sharing the knowledge I received from SAFETI with other farmers whenever they need it.”*

Both of her sons contribute to farming. Debola gets three times the yield a year. In January she farms shrimp along with some other white fishes. Step by step, now Debola has a dairy farm too from which she gets 8-9 liters of milk which is also helping her financially. She adds,

*“ If you don't dream big, you can't achieve the goal.”*

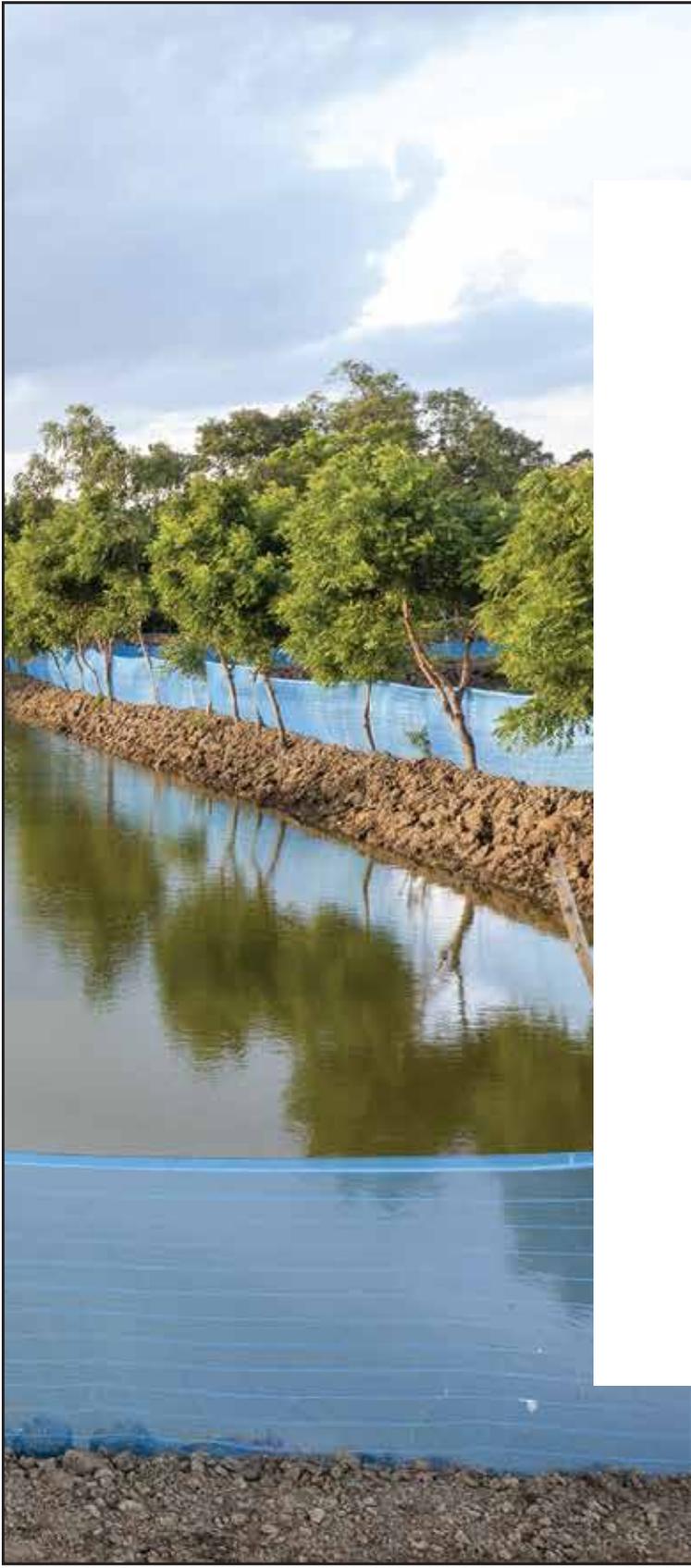


**Hisbullah**

A dream come true



**Hisbullah posing happily in front of his pond**



Hisbullah is a shrimp farmer from Shyamnagar Upazila, Satkhira. His father had been producing shrimp for the last 10 years following traditional farming methods and was unable to achieve sufficient production. Hizbullah first came into contact with SAFETI as his friend invites, later in 2017 he joined SAFETI's farmers' Bagda mono-culture group.

After participating in the training and follow-up, he began farming in his 0.39 acre (1580 m<sup>2</sup>) pond in May 2018 carefully following the SAFETI methodologies. He made his pond four feet deep, build dike, installed net fence for biosecurity, filled the pond with salt water by filtering through 500 micron net, water treated with bleach, and stocked SPF PL. He also carried out regular monitoring of water quality parameters and shrimp health, and administered quality shrimp feed.

Hizbullah invested about BDT 10,000 (\$100) to re-excavate the pond to remove bottom mud and increase the pond depth. He stocked 4,000 High-Health PL and followed post-stocking management that he learned through SAFETI training. The total expenditure was BDT 38,525 (\$385) and he sold BDT 80,360 (\$800) from 98 kg shrimp (620 kg/ha) harvested after three and a half months after his engagement with SAFETI project. His profit with the first crop was BDT 41,835 which encouraged his readiness for the second crop in the same year.

*“ I never thought that my dream could come true, and I would get such good harvest! ”*

Hizbullah restocked 6,000 SPF PL for the second cycle. The success in harvest continued till the day which inspires other farmers of his community to adopt ‘SAFETI six-step’ farming methodologies and get good harvest.



An aerial photograph showing a large, rectangular pond with a blue net barrier along its perimeter. The pond is surrounded by a dense forest of palm trees and other tropical vegetation. In the background, there are several small buildings and a large, open field. The water in the pond is a dark, muddy brown color. The blue net is stretched across the top and sides of the pond, creating a barrier. The surrounding area is lush and green, with many palm trees and other tropical plants. In the distance, there are some buildings and a large, open field, possibly a rice paddy. The overall scene is a rural, tropical setting.

**Hisbulla ensures biosecurity of pond with blue net**



Hisbullah's family members support his farming

# কাজী এস পি এফ নার্সিং

প্রোঃ কাজী আফসার হোসেন লিটু

এখানে জৈব নিরাপত্তা বজায় রেখে শুধুমাত্র এস পি এফ PL নার্সিং করা হয় এবং সুস্থ সবল রোগ বালাইমুক্ত দ্রুতবর্ধনশীল নার্সিংকৃত বাগদার PL সরবরাহ করা হয়।

নেহালপুর, ধুলিহর, সাতক্ষীরা। মোবাঃ ০১৭২৪-৩২৫০

**Kazi Afsar Hossain Litu**  
The first SPF PL nursery owner of the country!



**Kazi Afsar Hossain Litu at his SPF PL nursery**

Kazi Afsar Hossain Litu has been engaged with shrimp and prawn farming for a long time. His interests and expertise led him to become the local distributor for MKA Hatchery. He has always been keen to learn new knowledge and technologies associated with shrimp and prawn. With such thirst, he visited Malaysia for a training and learnt about SPF shrimp PL. This was an eye opener for Litu. After the training received from Malaysia, he was looking for a scope to trickle down the knowledge to the small holder farmers of Bangladesh and make SPF shrimp PL available for them. Kazi Afsar Jossain Litu has the country's first SPF shrimp PL nursery owner and a distributor of MKA Hatchery.



### Specific Pathogen Free Shrimp Post Larvae (SPF Shrimp PL)

*“While I was receiving training in Malaysia, I was thriving to do something for the small-holder farmers of farmers of my district whose production gets badly affected due to non-SPF shrimp PL. I was looking for a scope to share them how important SPF PL is for shrimp farming.”*



Litu supplying SPF PL to farmer

2018, Kazi Afsar Hossain Litu got connected with SAFETI project.

*“This is such a sector that undergoes rapid technological changes. We need to keep learning and adapting them at the quickest time to succeed. I found SAFETI as a blessing. I attended every possible training facilitated by SAFETI, as it gave me opportunity to learn and stay updated. I also contributed and engaged myself in SAFETI initiatives as much as possible.”*

Litu began visiting farmers' ponds in the area and speaking about their existing farming methods. He disseminated information and knowledge of SPF shrimp PL and SAFETI six-step farming methodologies to his farming community.

*“I want to help improving the production for hatcheries and shrimp farmers of my country.”*

He is very well accepted by the farmers of his area. His own production of shrimp and prawn has doubled ever since his active engagement with SAFETI project.

*“I have good relationship with many farmers and I visit their ponds. I feel exceptionally good when they are happy with the SPF shrimp PL and production they are receiving. Now, it is my responsibility to provide quality SPF shrimp PL and support them with useful information I have learned from SAFETI.”*



**15 days of SPF PL**







# Jakir Hossain Razu

A key to a treasure

*“I had a treasure with me, but I was unable to see it! SAFETI unfolded it to me!”*



**Jakir Hossain at the auction market**

He learnt about SAFETI while the project was setting in his community. Jakir Hossain reached out to the project and became a member of 'bagda semi-intensive farming' group under the SAFETI project. He quickly applied new knowledge in his pond like removing black soil and pond weed, repairing dikes, removing predator fish, using fertilizer and lime, monitoring plankton in the pond water, stocking fingerlings, and feeding.





Jakir Hossain Razu is a shrimp farmer from Satkhira. He has a 0.45 acre (1820 m<sup>2</sup>) pond. Previously, Jakir Hossain used to stock shrimp post larvae (PL) in pond besides his finfish, but he never considered it to be a potentially important resource for his business.

*“Just these steps gave me great leverage. I wish I knew this before!”*





**Jakir Hossain with his family members**

The first yield with SAFETI methods provided him a net profit of BDT 41,000 (\$ 410). This encouraged him to concentrate more on the improved technology. He ensured quality feed for the shrimp, and regularly managed the pond by himself, which he never considered important before.

“ I never realized before that the shrimp needs to be fed. Just adding good feed is giving me a healthy harvest. ” Seeing his success other smallholder farmers of his neighborhood developed a positive attitude towards SAFETI six-step farming methodologies. “ My pond sets the example to my neighbors that those who do not follow the SAFETI suggested improved technology suffer from diseases, low weight, and low production in comparison to stock. Therefore, they are also gradually adopting these steps. ”

## Interesting Facts

- ➡ • Shrimp has its heart in its head!
- ➡ • A female shrimp can lay 1 million eggs each time!
- ➡ • Black tiger shrimps are amazing hunters.
- ➡ • Shrimp are not found in school.
- ➡ • A shrimp can live up to 6 years!
- ➡ • Shrimp use their antennae to communicate, and it is work as their sensory organ.
- ➡ • Shrimp grabs food with their claws.
- ➡ • Shrimp has cancer fighting mineral.
- ➡ • USA celebrates 'National Shrimp scampi day' on 28 April every year.
- ➡ • 10 May is the 'National Shrimp Day' for Americans.

## SAFETI six-step farming methodology

- 1** Maintain water depth 3-5 feet and remove bottom black mud
- 2** Filtrate and disinfect of pond water
- 3** Protect infection from animal and disease through establishing biosecurity management
- 4** Stock high health PL (SPF/PCR tested) with proper density
- 5** Administer good quality feed regularly with appropriate rationing
- 6** Ensure good health and stable water quality parameter

## Glossary

Shrimp or Black Tiger Shrimp (locally known as Bagda)- *Peneus monodon*

Prawn (locally known as Golda)- *Macrobrachium rosenbergii*

Traditional method- Non scientific method

SAFETI Farmers Group- There are 1000 as such groups each having 25 farmers as members.

Lead Farmer- Lead Farmer is the leader/ representative of Farmer Group. S/he is comparatively promising. A Lead Farmer holds a demonstration shrimp/prawn farm that showcases SAFETI six-steps. S/he acts as the information and communication hub for his/er peer group and neighbouring farmers.

## List of acronym

- BDT : Bangladesh Currency
- BMC : Bagda Mono-Culture. Single species culture
- BGR : Bagda Golda Rotational. First crop Bagda, and second crop Golda in same pond
- GCP : Golda Carp Polyculture. Mixed culture method of prawn and finfish
- SPF PL : Specific Pathogen Free Post Larvae
- PCR : Polymerase chain reaction Test

## About Winrock International

Winrock International is a nonprofit organization that implements a portfolio of more than 140 agriculture, environment and social development projects in over 46 countries. It has annual revenue of \$100 million, employing over 1,000 staff around the world managed from five Winrock offices and dozens of project offices. Created over three decades ago through the philanthropy of Winthrop Rockefeller and John D. Rockefeller III, Winrock has extensive on-the-ground experience in Asia, Africa and the Americas, and provides evidence-based solutions to some of the world's most complex problems. Our mission is to empower the disadvantaged, increase economic opportunity and sustain natural resources. Whether it's improving the water supply in Tanzania, tackling human trafficking in Bangladesh or supporting Asian entrepreneurs who deliver new tools to poor farmers, Winrock's legacy and practice of continuous innovation help us adapt to challenges that are more urgent and interrelated than ever before.

Winrock International, has been working in Bangladesh for about 30 years, especially in agriculture, fisheries (including shrimp and prawn), livestock, environment & natural resources management, human resource development, and anti- trafficking sub-sectors. Winrock has been awarded the project 'Safe Aqua Farming for Economic and Trade improvement (SAFETI)' funded by the United States Department of Agriculture (USDA), The project has been approved by the NGO Affairs Bureau (NGOAB) of the Government of Bangladesh.

## About SAFETI Project

The Safe Aqua Farming for Economic and Trade Improvement (SAFETI) project in Bangladesh, a six years' project funded by the U.S. Department of Agriculture (USDA), has worked to increase agricultural productivity by improving production and management of hatcheries and farms in the shrimp and prawn value chains to contribute to improved incomes, food quality and safety, and improve livelihoods and environmental sustainability in the Bangladesh prawn and shrimp industry. Additionally, SAFETI worked to expand the trade of agricultural products by assisting processors and others to connect to higher paying markets, working with the industry to improve handling and sanitary controls, increasing the number of intermediaries in the value chain, promoting embedded and other extension services, and building the capacity of trade associations and government trade promotion bureaus.

Winrock international executed the project in Bangladesh along with local partner organizations namely BSFF, CODEC and TMSS. The implementation areas of the project were Paikgachha, Dumuria of Khulna division, Abhoynogor of Jessore district, in Bagerhat Sadar, Rampal, Chitolmari of Bagerhat district, in Assasuni, Debhata, Kaliganj, Shyamnagar of Satkhira district and Cox's Bazar district of Bangladesh. SAFETI worked with the different actors in the aquaculture sector like smallholder farmers, handlers, packers, aggregators, suppliers, and processors of the products they supply; government phyto-sanitary and para-veterinary extension workers; as well as trade associations, government departments, and export and trade promotion organizations of national level. The project worked with a total of 25,000 direct farmers and around 250,000 indirect farmers.

Throughout the project timeframe, SAFETI worked closely with the Ministry of Fisheries and Livestock, the Department of Fisheries, Bangladesh Fisheries Research Institute, and other relevant public organizations that support Government of Bangladesh initiatives in the shrimp/prawn sector.

## We thank

Department of Fisheries (DoF)  
Bangladesh Fisheries Research Institute (BFRI)

TMSS

Codec

BSFF

World Fish

Auburn University

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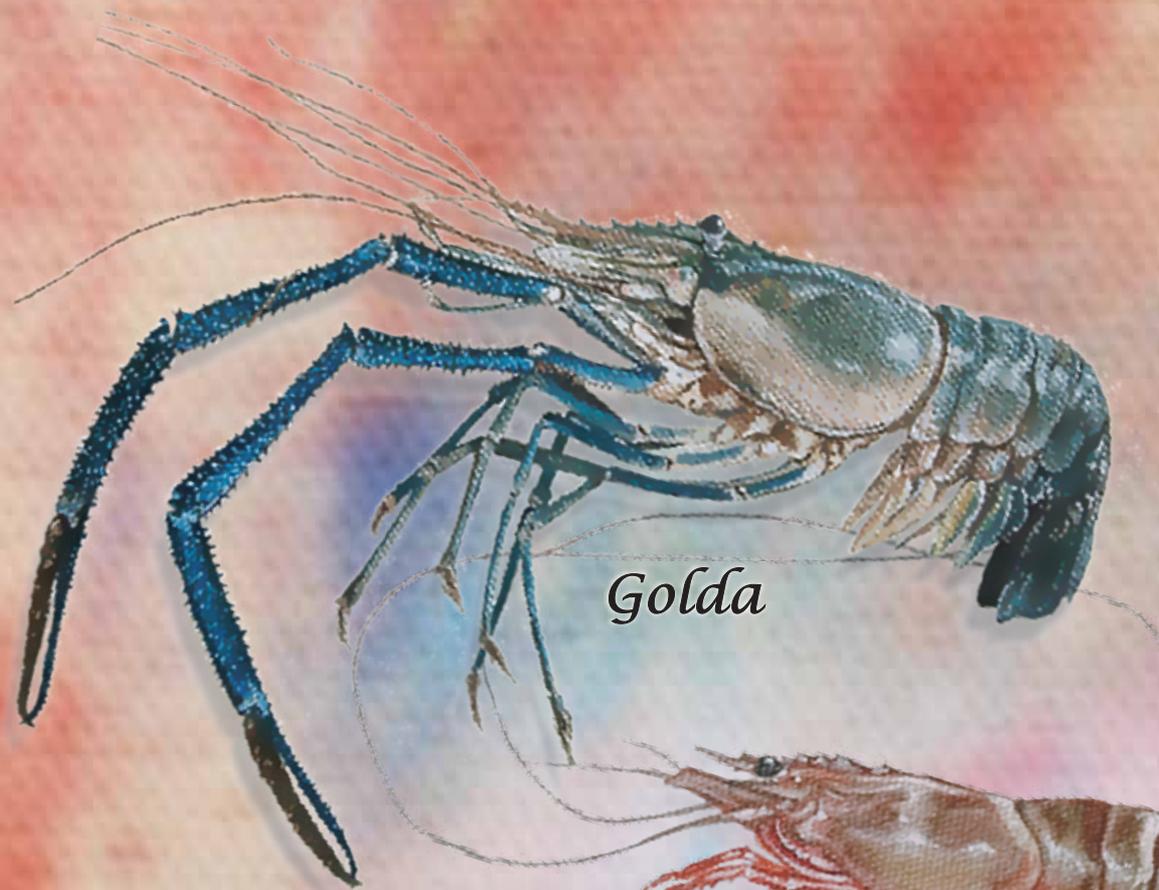


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*Bagda*

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