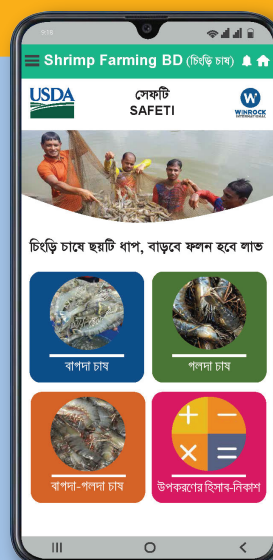


The southwest coastal area of Bangladesh is prominent for commercial shrimp/prawn farming for its auspicious environment that leads to higher economic returns and employment opportunities to maintain better livelihood options. The country's 7th most important source of foreign earnings is the shrimp sector and this has been suffering from its low productivity. Low productivity is due to lack of appropriate improved farming technologies, inadequate supply of quality seeds, cost-effective quality feed and inputs, technical knowledge, skilled manpower, access to finance, and other compliance issues.

The Safe Aqua Farming for Economic and Trade Improvement (SAFETI), a six year project funded by the United States Department of Agriculture (USDA), is working to increase production of farmed shrimp and prawn in Bangladesh to contribute to improved incomes, food security, safety, and environmental sustainability. Additionally, SAFETI aims to expand the trade and export value by building capacity of engaged value chain actors and stakeholders in shrimp/prawn sector. In collaboration with project national and international partners Auburn University, WorldFish, Bangladesh Shrimp and Fish Foundation (BSFF), NGOs CODEC, TMSS, and monetization agent Cantera, Winrock International is implementing this project.

SAFETI Activities

- Activity #1:** Private sector engagement for quality aqua-inputs development and supply.
- Activity #2:** Facilitate agricultural lending for small scale farmers.
- Activity #3:** Development and promotion of climate smart improved farming technologies.
- Activity #4:** Capacity building of government institutions for extension services.
- Activity #5:** Promote improved policy and regulatory framework.
- Activity #6:** Sanitary and phytosanitary standards.
- Activity #7:** Post-harvest handling.
- Activity #8:** Post-harvest handling and storage.
- Activity #9:** Training: Improved marketing and branding.
- Activity #10:** Facilitate buyer-seller relationships for market expansion.
- Activity #11:** Capacity building of trade associations for market expansion.



\$77,891,632

Value of sales by project beneficiaries



9,993 MT

Volume of commodities sold by project beneficiaries



24,398

Number of small-scale farmers applied new techniques or technologies as a result of USDA assistance



571

Private Enterprises (aqua-input traders, shrimp handlers, nursery operators etc.) applied improved techniques in their business.

Significant results based on annual survey on March 2021.

Quick Facts of SAFETI

Period of Performance

Sept 2016 to
Dec 2022

Implementer

Winrock
International

Agreement Value

\$17,847,117

Target production volume & value of shrimp & prawn

9,805 MT
\$88,240,810

Direct Beneficiaries

26,300

Indirect Beneficiaries

250,000

US-BD Aquaculture Trade 2020

Total

\$66.6
Million

Agricultural products
including shrimp & prawn

Agriculture

\$28.1
Million

Shrimp & prawn

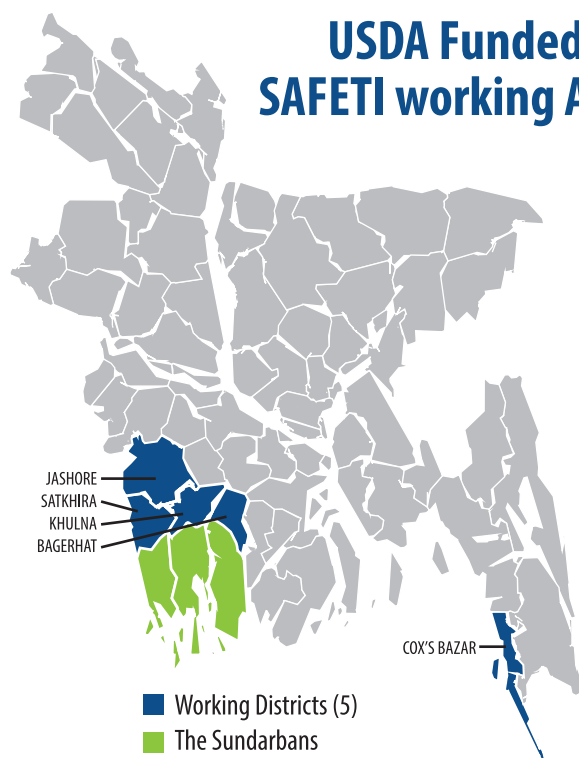
SPF Brood stock

\$1.51
Million

Inputs of Feed

\$1,195.6
Million

USDA Funded SAFETI working Area



The SAFETI project is addressing critical issues which are affecting productivity, farm incomes, trade, and food safety across the giant freshwater prawn (Golda), brackish-water black tiger shrimp (Bagda), value chains in Bangladesh. The project operates in Khulna, Bagerhat, Jashore, Satkhira, and Cox's Bazar districts. SAFETI has provided number of contributions through its activities.



**Private sector engagement
for quality aqua-inputs
development and supply**

To develop the capacity of agro-dealers and input suppliers, SAFETI has conducted technical and business capacity building training and linked them with small-scale farmers and suppliers. As part of this, the project has facilitated training and technical assistance to various private sectors such as Specific Pathogen Free (SPF) shrimp hatcheries, prawn hatcheries, shrimp nurseries and aqua feed manufacturer and aqua inputs trader. A total of 571 individuals have received advanced knowledge & skills training, technical guidance and resources.

At present, Bangladesh imports shrimp feeds exclusively and no national company produces shrimp feed. A national fish feed company the Nourish Feed Ltd. has been influenced by the project for producing shrimp feed. In collaboration with SAFETI, Nourish has developed a shrimp feed and the final round performance trial is ongoing in farmer's ponds.

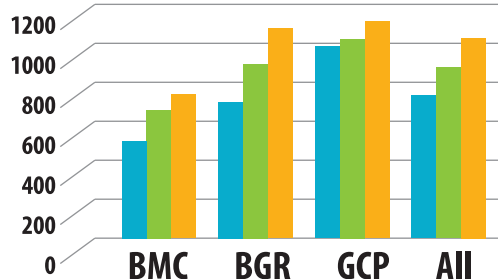
In addition to that, SAFETI has organized capacity building events on improved hatchery operation for 111 shrimp hatchery technicians for quality improvement of the shrimp seed Post Larvae (PL) and sharing the feedback from the field. During the production season, the project provides a surveillance program regularly by testing the quality in collaboration with FIQC (Department of Fisheries). Alongside, a total of 64 prawn hatchery technicians have also received training on advanced hatchery management to overcome the prawn seed's production failures since 2011. A number of capacity development trainings, technical and business workshops were organized by SAFETI where 100 Shrimp nursery owner technicians and 107 prawn PL traders participated.



**Facilitate agricultural
lending for small scale farmers**

SAFETI has organized several meetings/workshops to facilitate microfinance partners to expand their interest into the shrimp sector to address farmers' access to finance so that Shrimp farmers can invest in the improved inputs, and technologies necessary for success. SAFETI partner organizations CODEC & TMSS and other public and private 116 MFIs and banks disbursed loan to 4,245 individuals that worth USD2,346,159 (BDT 187,692,7200).

kg/ha



2018 GCP: Golda Carp polyculture – for low to freshwater area
 2019 BMC: Bagda Monoculture – for medium to high (10-20ppt) saline area
 2020 BGR: Bagda Golda Rotational Culture – for low to medium (5-12ppt) area

SAFETI Recommends Three Farming Method

Mean bagda plus golda production demo farmer 2018, 2019 & 2020



Development and Promotion of Climate smart improved farming technologies

SAFETI promoting climate smart improved shrimp/prawn farming and based on six key steps for success has developed several training manuals, farming guidebooks, posters, festoons, leaflets, folders, video documentary, farm record books and distributed among the project beneficiaries and stakeholders. The Project organised 25,000 small-scale farmers in 1,000 groups, supported with several capacity and linkage development events, and 2028 demonstrations. More than 80% of farmers have started adopting some key steps of SAFETI developed technologies.



Capacity building of government institutions for extension services

SAFETI conducted 5 days training course on 'SAFETI Promoted Improved Shrimp and Prawn Farming Methods' for 121 Upazila and district level officers of Govt. Department of Fisheries (DoF) and Local Extension Agent for Fisheries (LEAF). Moreover, training course on ISO/IEC for Fish Inspector and Quality Control Officers has been organized.



Promote improved policy and regulatory framework

SAFETI has supported DoF on review of the policies affecting the shrimp/prawn sector. The project has recommended the issues of regulating the import of SPF broodstock, monitoring the hatchery industries, introduction of non-native species and food safety. Provided technical advice on topics affecting policy and the regulatory framework, and developed protocol and farming guide for introducing new species of white leg shrimp *L. vannamei*.



Improve sanitary and phytosanitary standards during post-harvest handling

SAFETI has trained 25,082 farmers, 410 depot holders and auction market workers on maintaining sanitary and phytosanitary standards during shrimp and prawn post-harvest handling. Moreover, trained the ice-plant owners on sanitary standards of using clean water. As a result, 196 depot holders and the supported auction markets applied improved techniques and technologies in their business.



Training: Improved Marketing and Branding

To promote the global brand and a multi-stakeholder approach to different challenges, SAFETI organized different workshops in collaboration with DoF and the Bangladesh Frozen Foods Exporters Association (BFEEA). Alongside, the project has demonstrated ten events for fresh shrimps supply from farm gates to depot/auction markets to processors. Those events emphasized raising awareness on new domestic and international market opportunities.



Facilitate buyer-seller relationships for market expansion

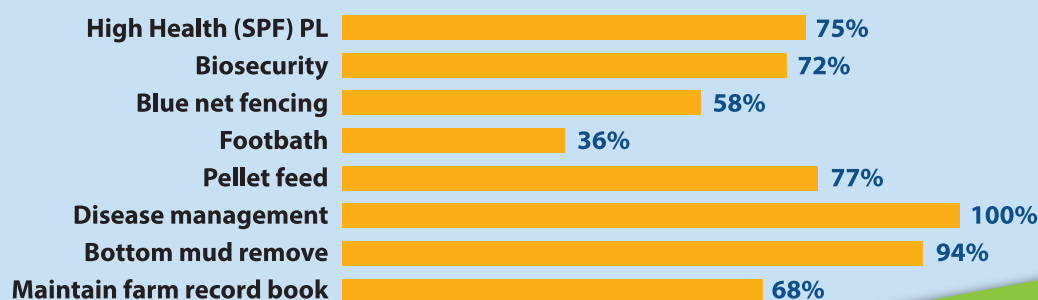
The project has supported growth of shrimp/prawn production through facilitating agro-based service linkages, coaching and supporting input traders and farmers on pursuing market opportunities; assisting lead firms to develop sustainable business models. SAFETI provided trade facilitation to market actors throughout the shrimp value chain at upstream level between input sellers and farmers and at post-harvest level between farmers and buyers of the product.



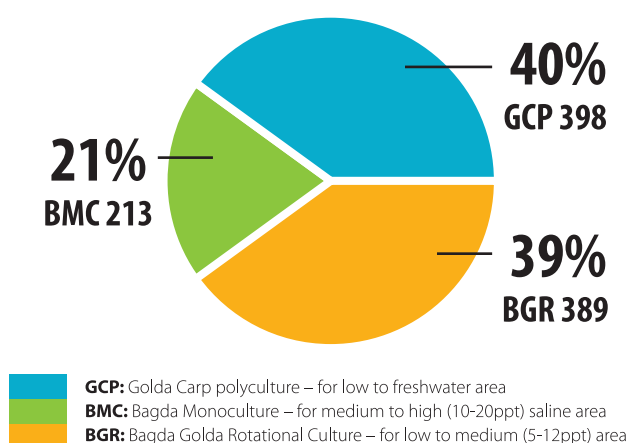
Capacity Building: Trade associations for market expansion

The project has helped in building technical capacity and sustainable business plan of the members of Bangladesh Shrimp Hatchery Association (SHAB) on how to improve conventional hatcheries to bio secured SPF ones, technicians capacity and technical assistance for importing the quality broods. The project has also provided technical supports to the members of the Feed Industries Association of Bangladesh (FIAB) on feed improvement & quality control; and the members of Bangladesh Frozen Food Exporters' Association (BFEEA) are being oriented on the international market opportunities 10 capacity building events conducted for these trade and business associations.

Recommended improved technology practiced in SAFETI supported farms



SAFETI Farming methods over 1000 farmer groups



Shrimp harvested by SAFETI couple farmers in Shyamnagar Upazilla, Satkhira district, Khulna.

“Previously, by following the traditional method I couldn’t produce 400 grams (90 kg/ha) of shrimp and prawn in one decimal but after following SAFETI’s Six Key Steps for improved farming, I produced more than three kgs per decimal (741 kg/ha), “I believe if the SAFETI project continues their technical & business development training for the farmers and CODEC and other microfinance institutes provide seasonal loans, many more success stories can be created.”

Hoimanti Shukla
SAFETI Farmer
Rampal Bagerhat

For more information: **Safe Aqua Farming for Economic and Trade Improvement (SAFETI)**

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