FEED THE FUTURE
The U.S. Government's Global Hunger & Food Security Initiative

AQUACULTURE TRAINING TEACHES BANGLADESH FARMERS BUSINESS PRACTICES TO BE MORE PROFITABLE

By Md. Takibur Rahman and Md. Akhtaruzzaman Khan

Farmers in southern Bangladesh are vulnerable to a range of challenges, from natural disasters like cyclones, floods, and increasing water salinity to difficulty accessing input and output markets. Hiron Mia lives in Patuakhali district and has faced many of these issues, each time trying to respond after the fact and rebuild from the losses. Providing farmers with the tools and knowledge to diversify their operations and make long-term business plans can help strengthen their resilience to shocks and capacity to plan ahead to mitigate risks.

All fish farmers were awarded a certificate after the day-long training at PSTU. (Photo by Md. Nafis/PSTU)

The Feed the Future Innovation Lab for Fish project on Strategies for Inclusive Aquaculture Value Chain in Bangladesh is working to do just that. On March 14, 2022, the project organized a day-long training workshop for fish farmers on scientific and farm business management practices at Patuakhali Science and Technology University (PSTU) in Bangladesh.

This training program contributed to the project's objective of strengthening the capacity of local fish farmers by promoting sustainable aquaculture practices. Thirty-seven fish farmers, including 10 women, participated from two upazilas (sub-districts) of the Patuakhali district.

"After participating in the training, I gained the necessary knowledge and expertise and decided to go ahead with my fish farming business with more confidence and motivation," said Firoz, the youngest participant of the training session.

The agenda included a professor from PSTU, Lokman Ali, leading the training sessions on fish farming in cages while Md. Sajedul Haque trained on integrated fish farming. Md Mahfujur Rahman, an upazila fisheries officer in Patuakhali, trained on multispecies fish farming, and Md. Zakir Hosen, dean of PSTU, trained on business management practices and record keeping.

Another participant, Md. Dulal Khalifa, stated, "Prior to this training, I was making farming decisions on an ad hoc basis; however, now I see that this might be one cause for failing to achieve desired returns from fish farming." He went on to say that preparing a business plan ahead of time is an important part of fish farming.

The Patuakhali District Fisheries Officer Mollah Imdadullah said that the training was necessary because the challenges encountered by farmers in this region are unique. “Understanding how to diversify farming income by combining fish farming with other agricultural operations can assist them in reducing risk and surviving during challenging times,” he said. “Knowing how to operate a farm business can also help them access markets and information.”

PROJECT TEAM

U.S. PI	Madan M. Dey, PhD Texas State University
Bangladesh PI	Md. Akhtaruzzaman Khan, PhD Bangladesh Agricultural University
U.S. Co-PI	Prasanna Surathkal, PhD Texas State University
Bangladesh Co-PI	Md. Takibur Rahman, PhD Patuakhali Science and Technology University

Ali and Haque stressed the importance of farmers learning to diversify their farming operations to earn more income, which can help them adapt to changing climate and market conditions. Ali highlighted in his presentation that the key advantages of fish cage aquaculture over pond aquaculture are stock management and monitoring and capital costs. Ali also discussed the benefits and drawbacks of cage-based fish aquaculture.

Haque emphasized the benefits of integrated fish farming approaches like rice-fish farming, jute-fish farming, vegetable-fish farming, aquaponics, integrated floating cage aqua geoponics systems, and integrated multi-trophic aquaculture.

These farming practices boost farm-level resource and investment efficiency while also providing more revenue and nutrition to farmers. According to Haque, integrated farming practices provide off-season job alternatives for farmers and farm employees.

Two farmers noted they were hoping to learn how to cover operational costs and get back into fish farming in case they suffer losses due to natural disasters such as flooding. This training showed them how to better manage money in fish farming while also adding vegetables to their farm, which can benefit the family's diet as well as provide additional income.

The farmers appreciated the training and receiving the certificate recognizing their attendance, which will aid them in approaching loan institutions and other government and non-government financial and non-financial assistance. Ataur Khan, the oldest participant at 74 years old, claimed that this training session was one of the most valuable learning experiences of his life.

A female farmer said that she often does not get access to formal finances, although she is doing well in fish farming, because she cannot show any documentation that she has the required knowledge and technical skills for fish farming. Thus, the certificate awarded recognizing her participation in this training will help her to access formal financing sources like banks and NGOs.

"Because of their remoteness, the farmers of this region are usually out of the reach of the organizations and institutions that offer such training programs," said Mollah Imdadullah, the district fisheries officer of Patuakhali. "Therefore, this project is enhancing their farming knowledge, so that they can have more productive and profitable farming operations."

ABOUT THE FISH INNOVATION LAB

The Fish Innovation Lab supports the United States Agency for International Development's agricultural research and capacity building work under Feed the Future, the U.S. Government's global hunger and food security initiative. Mississippi State University is the program's management entity. The University of Rhode Island, Texas State University, Washington University in St. Louis, and RTI International serve as management partners.

www.feedthefuture.gov
www.fishinnovationlab.msstate.edu

This story was made possible by the generous support of the American people through the U.S. Agency for International Development (USAID) under the Feed the Future initiative. The contents are the responsibility of the Feed the Future Innovation Lab for Fish and do not necessarily reflect the views of USAID or the United States Government.