Feed the Future Country Fact Sheet

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Fish Fill Ponds, Plates and Pocketbooks in Nepal

AquaFish Innovation Lab

Students and teachers participating in the school ponds curriculum pose near a pond site with AquaFish researchers.

When it comes to nutritional value, fish are hard to beat. They are rich in high-quality protein and contain assorted vitamins and minerals, such as iodine and selenium, which are important to human health. Fish also happen to be the best source of omega-3 fatty acids, making it a popular food choice around the world; billions of people include fish in their diets.

According to the Food and Agriculture Organization, about half of the fish that's consumed in the world is produced by aquaculture—the farming of aquatic life—making this activity a valuable source of nutrition as well as income.

In Nepal, where 41 percent of children under 5 suffer from stunting, families can increase their consumption of nutrient-rich fish by raising them at home. It can also provide a source of income to women, who often manage their households but lack opportunities to improve their livelihoods.

Aquaculture does, however, come with some challenges and limitations for households in developing countries. It requires significant resources, including land and access to information, water, labor and funding. It also requires quality training. To help address this last requirement, the Feed the Future Innovation Lab for Collaborative Research on Aquaculture & Fisheries (AquaFish) has trained nearly 130 young people and teachers, as well as women's groups in Nepal, on sustainable aquaculture production and the nutritional value of fish.

Feed the Future Innovation Lab researchers at Nepal's Agriculture and Forestry University established ponds at four schools in different communities and used them as training sites for students and teachers, enabling hands-on learning. Students and teachers learned how to manage pond water levels and understand water quality and economics, thereby enhancing the school's curriculum. Tests were given to student participants before and after training, and results showed a substantial increase in the percentage of participants scoring higher than 60 percent. Before the training, only 4 percent of students scored that high. Afterward, 85 percent of them met the mark. The results suggest the training effort led to a significant improvement in students' knowledge about aquaculture production and the preparation of fish for consumption.

In the first year following the training, school pond creation also had a noticeable impact on student households: Pond creation and ownership in those households increased by 4 percent, and student consumption of fish expanded by 47 percent.

“I would now ask the members of my extended family to have a pond of their own so that they could frequently have nutritious fish in the dinner,” one of the students said.

Various types of local fish, provided from nearby government fish hatcheries, were grown together to improve efficiency and decrease costs. To help ensure these ponds will be sustained over the long term, the Feed the Future Innovation Lab organized two fish farming groups of women and connected the groups to the pond projects.

The women’s groups were trained in the importance of aquaculture at home for boosting nutrition and generating additional income. The women are continuing to work with teachers and students to help care for the school ponds, which have proven to be a valuable resource not only for instruction but also for funding. The schools have even been able to purchase various teaching materials with the profits from fish sales.

With the right tools and resources, schools can serve as a foundation for empowering women and youth with aquaculture knowledge and skills that improve nutrition and food security. The Innovation Lab will soon extend its instruction to two other schools, where it plans to establish ponds, train 40 new students on fish nutrition and pond maintenance, and educate at least 20 more women on the advantages of fish consumption in the household.