



SUCCESS STORY

School Ponds Enhance High School Curriculum and Improve Household Nutrition and Food Security in Nepal

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November 2017

AquaFish outreach increases fish consumption



Student participant of school pond curriculum at Janta Higher Secondary School in Kawasoti poses with his mother in front of a pond they constructed within a few months of receiving AquaFish training (Photo courtesy of AquaFish Innovation Lab).

In Nepal, where 8% of the population is undernourished, AquaFish is working to improve food security and household nutrition by partnering with students, teachers, and women's groups while mentoring and teaching them about sustainable aquaculture production and health benefits of consuming fish. AquaFish researchers from the Agriculture and Forestry University in Nepal, the University of Michigan, and Oregon State University in the US created school pond programs at public schools in the Chitwan and Nawalparasi districts. Four ponds were established and used to train teachers and school-age children from grades 8 to 10 on how to manage pond water levels; fertilize, feed, and harvest fish; and prepare fish for household consumption.

To create linkages with the community, AquaFish organized two women's fish farming groups in the school communities. Members learned about the importance of household aquaculture for nutrition and income generation. Connecting the local women's groups to the school pond project spread the value of fish production and consumption among households and ensured long-term school pond sustainability.

The first phase of the school pond program project trained 121 students (64 girls and 57 boys) and eight teachers and engaged with 44 women through women's groups. To measure knowledge transfer, students were given pre- and post-tests. For each school, median grades for pre-tests were <40%, increasing to post-test medians ranging from 61-80%. Only 4% of students scored 60% or better on the pre-test, but after participating in the curriculum and hands on training, 85% of students scored higher than 60%.

Results indicate that the school pond program is contributing to the knowledge of science-based aquaculture in the curriculum, with the added bonus of after school interest in aquaculture for family ponds. After the first year, pond ownership by the households of students increased by 4% and the number of times per year student households consumed fish increased by 47%. Surveys reveal that women and children living in homes with household ponds consume more than twice as much fish as homes without ponds. Most fish cultured in Nepal are consumed in the home; otherwise, pond owners share fish with friends, further contributing to improved nutrition and health among families in local communities.



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In response to the community's increased interest, AquaFish expanded the project to include two additional schools, mentoring 83 more students (44 girls and 39 boys).

Community members recognize the role of the school ponds in improving their community and are seeing the added value among their villages. This project confirms that schools can serve as a foundation to empower women and youth with knowledge and skills on aquaculture to positively impact household nutrition and food security.