

Training Women and Youth to Enhance Sustainable Aquaculture and Increase Food Security

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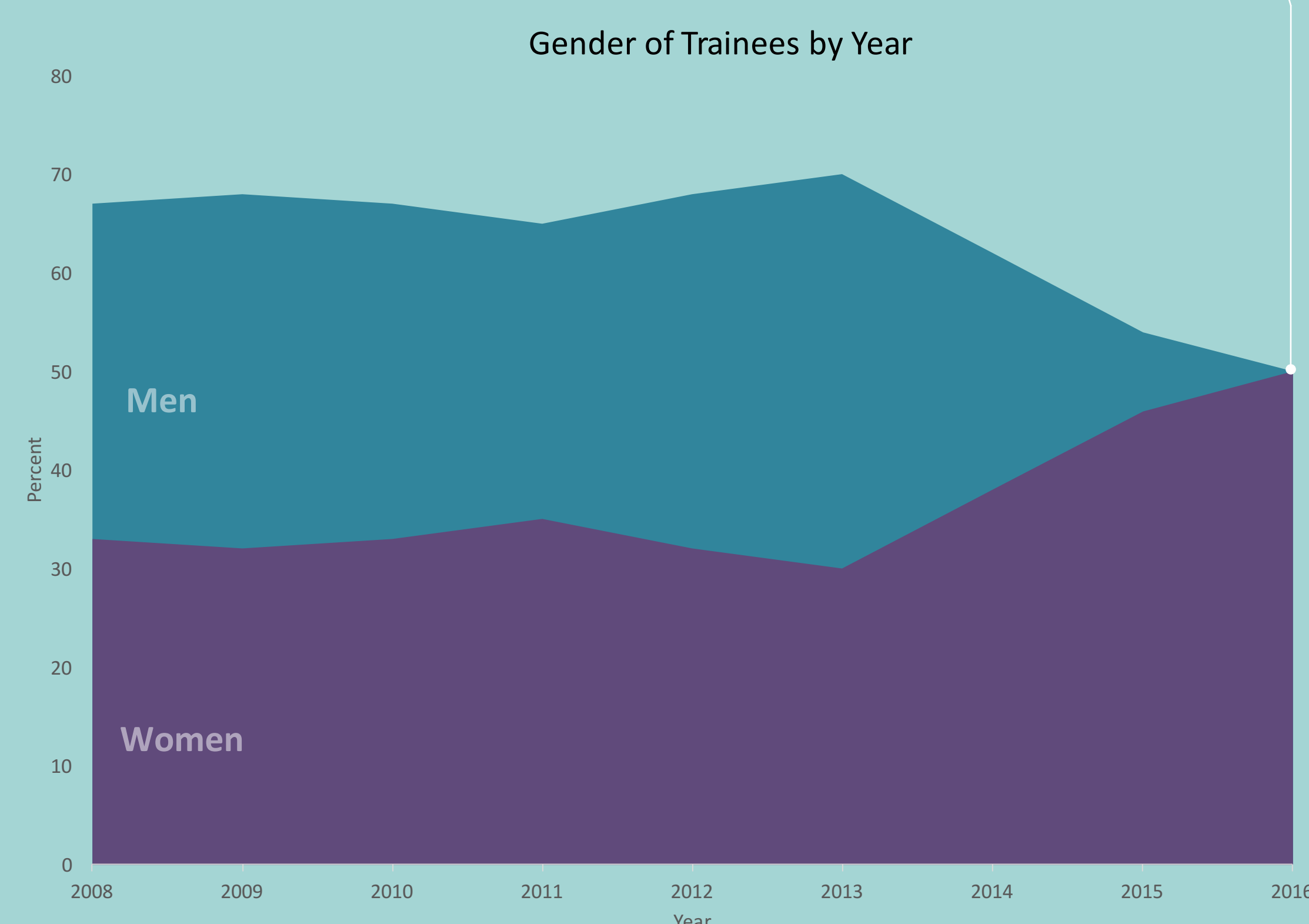
Introduction

Successful aquaculture development depends upon building and sustaining a gender-balanced community of students, professionals, and community members. However, women's potential to contribute to agriculture sector growth and improved nutrition is limited by restricted market opportunities, lack of access to education, and by inequalities in economic participation and decision-making power. Likewise, the world's 1.8 billion youth, most of whom live in developing countries, encounter similar obstacles due to inadequate access to employment, education, and decision-making. Not only are women and youth tied by their barriers to participation in the agriculture sector, they also are intrinsically linked to household nutrition by maternal health through early childhood development.

AquaFish conducts research and training to help women and youth overcome barriers

Undernutrition in the first two years of a child's life can have permanent consequences on their well-being. Mothers, as gatekeepers of household nutrition, have the power to improve children's health — if given the opportunity. Towards uplifting these marginalized groups, the Feed the Future Innovation Lab for Collaborative Research on Aquaculture & Fisheries (AquaFish) is conducting research and training activities that engage women and youth on sustainable aquaculture practices. Since 2008, AquaFish has engaged **over 3,300 women** in short-term trainings (non-degree training activities such as workshops, seminars, and on-farm trainings) on sustainable aquaculture and household nutrition. In 2016, **50% of degree-seeking students supported by AquaFish were women**.

AquaFish has successfully increased the proportion of women participating in short-term trainings, with an average of 50% participation in 2016.



Empowering women and youth in aquaculture can positively impact household nutrition, food security, and income



Female High School students visit Mwea Aquafish Farm in Kenya to learn about aquaculture. Photo by Charles Ngugi



AquaFish researchers in Kenya conducted a training with 45 youth and extension agents on establishing cage culture systems. The training, co-sponsored by the Food and Agriculture Organization (FAO) of the United Nations, covered several aspects of pond culture from site selection and construction to production, management, and fish farming as a business. As a result, the youth trainees, who have no access to land, were able to establish aquaculture cages in dams through cooperative agreements. A follow up training, held one year after the first training in 2015, allowed the youth to provide updates on their cages and receive additional training in advanced topics.

In 2016, AquaFish researchers held a five-day Aquaculture Best Management Practices workshop at Mwea Aquafish Farm in Kenya. The workshop, which included women and youth participants, covered pond construction and design, fertilizer applications, feed practices, and pond management. At the conclusion of the workshop, participants agreed to form a farmer's association to continue working together.



Trainees learn best practices in building dykes. Photo by Charles Ngugi



In Nepal, where 8% of the population is undernourished, AquaFish is working to improve food security and household nutrition by training students, teachers, and women's groups in sustainable aquaculture production.

From 2013-2016, AquaFish researchers established four school ponds and used them to train 121 students and eight teachers on how to manage pond water levels; fertilize, feed, and harvest fish; and prepare fish for household consumption. To create a linkage with the community, AquaFish organized two women's fish farming groups in the school communities and trained the groups on the importance of household aquaculture ponds for nutrition and income generation.



An earthen pond at a school in Nepal. Photo by Jim Diana

The ponds have already made a positive impact on nutrition and food security.

- Pond ownership at student households increased by 4%
- Fish consumption at student households increased by 47%

I would now ask the members of my extended family to have a pond on their own so that they could frequently have nutritious fish in the dinner for free.

-School Ponds Student-



Students participate in an aquaculture curriculum in Nepal. Photo by Jim Diana

AquaFish researchers have built a legacy and a network of aquaculturists dedicated to carrying forward inclusive research and capacity building in developing countries.



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The AquaFish Innovation Lab is supported in part by United States Agency for International Development (USAID) Cooperative Agreement No. EPP-A-00-06-00012-00 and by contributions from participating institutions. This work was made possible by the generous support of the American people through USAID. The contents are the responsibility of the authors and do not necessarily reflect the views of USAID or the United States Government.

World Aquaculture Society - Aquaculture America, San Antonio, Texas, USA, February 2017