

FEED THE FUTURE INNOVATION LAB FOR COLLABORATIVE RESEARCH ON AQUACULTURE & FISHERIES



ENRICHING LIVELIHOODS AND PROMOTING HEALTH



Boy with a big carp in Vietnam. Photo by Vu Cam Luong.

The AquaFish Innovation Lab builds on nearly 30 years of successes and lessons learned from Oregon State University's Pond Dynamics/Aquaculture Collaborative Research Support Program (PD/A CRSP) and Aquaculture CRSP. Our mission is to enrich livelihoods and promote health by cultivating international multidisciplinary partnerships that advance science, research, education, and outreach in aquaculture and fisheries. AquaFish contributes to advancements in aquaculture by identifying constraints to production, designing responses that are environmentally and culturally appropriate, and building capacity in developing countries.

AquaFish accomplishments have been made possible by collaborating on projects in 20 countries with more than 17 US universities and 43 institutions worldwide. Some project highlights in our four global themes include:

IMPROVED HUMAN HEALTH AND NUTRITION, FOOD QUALITY, AND FOOD SAFETY

- Advancing human health and welfare by transferring reliable and high-quality aquaculture and fisheries information
- Improving food safety and production through control of cyanobacteria
- Promoting sustainable technologies in rice-fish polyculture through research and trainings to increase food security, food safety, income generation, and environmental protection

ENHANCED TRADE AND INVESTMENT FOR GLOBAL FISHERIES MARKETS

- Fostering in-country expertise, technology, and policy assistance to help bring farmers into aquaculture
- Reaching a diverse audience along the fish value chain through short-term training opportunities in partnering countries
- Assessing the supply chain for tilapia markets to open new income opportunities in production, marketing, and processing



Photos by Dr. J. Lannan.

INCOME GENERATION FOR SMALL-SCALE FISH FARMERS

- Advancing tilapia cage culture to promote and model small-scale fish farming
- Reducing operating costs by implementing alternate-day feeding strategies that maximize profits while maintaining optimal fish growth
- Optimizing strategies for non fed systems using natural pond productivity enhanced by organic and inorganic fertilizers to boost profit

ENVIRONMENTAL MANAGEMENT FOR SUSTAINABLE AQUATIC RESOURCE USE

- Conducting on-farm polyculture trials to contribute to local community development and ecosystem protection
- Preventing pollution from pond effluents from reaching surrounding water bodies by promoting water-reuse strategies as part of a best management practices dissemination effort
- Understanding the adaptive range of species to climate change effects and developing cultivation techniques for new species, such as air-breathing fish

TOPIC AREAS

AquaFish has supported 138 investigations, resulting in nearly 500 publications, research reports, videos, and podcasts that span the following 10 topic areas:

PEOPLE, LIVELIHOODS, AND ECOSYSTEM INTERRELATIONSHIPS

- Human nutrition and human health impacts of aquaculture
- Food safety, post harvest, and value-added product development
- Policy development
- Marketing, economic risk assessment, and trade
- Watershed and integrated coastal zone management
- Mitigating negative environmental impacts

INTEGRATED PRODUCTION SYSTEMS

- Production system design and best management alternatives
- Sustainable feed technology and nutrient input systems
- Climate change adaptation: Indigenous species development
- Quality seedstock development



AQUAFISH AROUND THE WORLD...



Each of our projects includes partners from a US university and from a Host Country institution. Particular emphasis to date has been in Africa, Asia, and Latin America and the Caribbean as determined by USAID. Current project countries and partners include:

KENYA AND UGANDA

US: Auburn U.*, U. of Arizona, Alabama A&M
Uganda: Makerere U., National Fisheries Resources Research Institute, Gulu U.
Kenya: U. of Eldoret, Kenyatta U.

BANGLADESH AND THE PHILIPPINES

US: North Carolina State U.*
Bangladesh: Bangladesh Agricultural U., Khulna U., Shushilan NGO, Hajee Mohammad Danesh Science & Technology U., Patuakhali Science & Technology U., U. of Dhaka
Philippines: SEADEC Aquaculture, Central Luzon State U.

CAMBODIA AND VIETNAM

US: U. of Connecticut*, U. of Rhode Island
Cambodia: Inland Fisheries Research and Development Institute
Vietnam: Can Tho U.

NEPAL

US: U. of Michigan*
Nepal: Agriculture and Forestry U., Nepal Agricultural Research Council, Directorate of Fisheries Development

GHANA AND TANZANIA

US: Purdue U.*, U. of Arkansas at Pine Bluff, Virginia Tech U., U. of Hawaii at Hilo
Ghana: KNUST, U. for Development Studies, FarmerLine
Tanzania: U. of Dar es Salaam Institute of Marine Sciences, WIOMSA, Sokoine U. of Agriculture

*Lead US Institution

CAPACITY BUILDING

Building aquaculture capacity for individuals, communities, and institutions in developing countries is central to the AquaFish mission. Aquaculture is increasingly important for overcoming poverty and hunger, and its success relies on the transfer of reliable and high-quality information. AquaFish's significant and still growing international network of aquaculture professionals is able to train and empower the next generation of aquaculturists through a continuous pipeline of knowledgeable aquaculture researchers and professionals. Gender equity is an integral theme of our capacity building effort, and supported AquaFish researchers strive to create significant opportunities for both women and men.



Boy helping to sort fish in Cambodia.
(Photo by Peg Herring.)

SINCE 2006, AQUAFISH HAS:

- Trained more than 9,000 stakeholders, including farmers and fishers, extension agents, and government policy makers in 250+ workshops and hands-on trainings.
- Supported nearly 600 long-term training degrees in PhD, Master's, and Bachelor's programs. Since 2006, participation by women increased to 47%.
- Collaborated with accomplished researchers at more than 275 US and Host Country institutions and maintained a vast network of participants worldwide.

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