Promoting Sustainable Aquaculture and Fisheries Development through Capacity Building: A Synopsis of Short- and Long-Term Training Conducted by the AquaFish CRSP

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Introduction

The Aquaculture and Fisheries Collaborative Research Support Program (AquaFish CRSP) is actively engaged in aquaculture and fisheries research, training, and outreach activities in 15 countries in Africa, Asia, and the Americas. These efforts are made successful through close collaboration between researchers and educators at 17 US and 30 Host Country institutions. One of the key objectives of the AquaFish CRSP is to build and strengthen the capacities of aquaculture and fisheries institutions and personnel at all stakeholder levels.

Capacity building under the AquaFish CRSP largely emphasizes human resource and institutional development through training and outreach activities. AquaFish CRSP capacity building efforts benefit stakeholders in the US and in participating Host Countries through the transfer of knowledge and new technologies and the dissemination of information about best management practices. This approach offers increased economic opportunities that ultimately enhance livelihoods and promote the sustainability of aquaculture and fisheries in the Host Countries and surrounding regions.

Training supported by the program takes a number of forms, with the most important being short-term and long-term training programs. Since its inception in 2006, the AquaFish CRSP has supported the training of 288 students enrolled in academic programs and conducted 115 short-term trainings targeting over 4000 trainees.

Short-Term Training

Short-term training is under 6 months in duration and typically includes seminars, workshops, short-courses, and internships. These trainings target Host Country extension specialists, fisheries officers, local fish farmers, processors, vendors, small business owners, and local NGO personnel.

During FY10, 25 short-term AquaFish CRSP training sessions were run under the eight core research projects for 694 trainees, including 275 (40%) women and 419 (60%) men. Of these, 11 training sessions were held in Asia (6 in Cambodia, 2 in the Philippines, 2 in Vietnam, and 1 in Nepal), 8 were held in Latin America and the Caribbean (5 in Mexico, 2 in Nicaragua, and 1 in Guyana), and 6 were held in Africa (2 in Ghana, 2 in Tanzania, 1 in Kenya, and 1 in Uganda) (Figure 1).

Women traders giving applause during a workshop in Kenya

Native Gar Training in Mexico

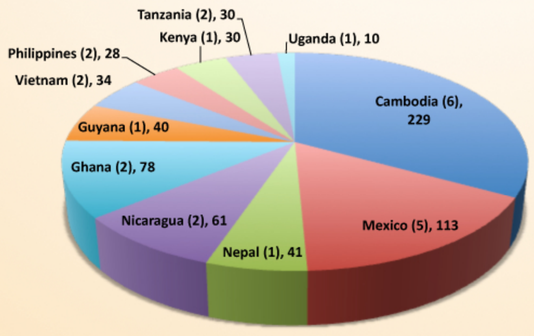

Figure 1. Numbers of participants in AquaFish CRSP short-term training events, by country. Numbers in parentheses indicate number of short-term training events held in each country.

Workshop Examples:

- Experimental design and analysis for researchers (Ghana)
- Snakehead breeding and weaning (Vietnam)
- Integrated aquaculture/agriculture (Mexico)
- Milkfish postharvest procedures for women (Philippines)
- Aquaculture production of native species (Guyana)

Long-Term Training

Long-term training is defined as formal training occurring in an academic setting lasting 6 months or longer and culminating in either an academic degree or a technical certificate. Direct involvement in AquaFish CRSP research projects provides Host Country and US students opportunities for both academic training and experience, ensuring positive impacts on international development. Long-term training typically takes the form of participation in degree programs (BS, MS, or PhD) at higher education institutions, either in the US, in a participating Host Country, or in a third country. The goal is that these students will become the next generation of Host Country and US researchers and research administrators in aquaculture and fisheries.

In FY10, the AquaFish CRSP supported the long-term training programs of 196 degree program students, including 109 men and 87 women (55.6% and 44.4% respectively). These students represented 22 countries, including Brazil, Cambodia, China, Ecuador, Eritrea, Ghana, Guyana, Indonesia, Ivory Coast, Kenya, Mexico, Micronesia, Nepal, Nicaragua, Nigeria, the Philippines, Samoa, South Africa, Tanzania, Uganda, the US, and Vietnam.

Among the 196 students supported in FY10, 73 were seeking BS degrees (58% men and 42% women), 98 were seeking MS degrees (53% men and 47% women), and 21 were seeking PhDs (57% men and 43% women). Of the 4 students classified as "other" (high school or certificate students), 3 were men (75%) and 1 (25%) was a woman (Figure 2).

Student involvement and training is a powerful vehicle to ensure positive impacts on international development.

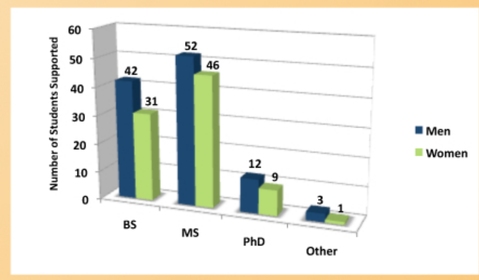

Figure 2. AquaFish CRSP long-term training for FY10, separated by degree and gender

Women in the AquaFish CRSP

Ensuring gender-equitable access to training opportunities and resources is a high priority in all aspects of the CRSP's capacity building activities. We have therefore set a target for participation by women at 50%.

The AquaFish CRSP has promoted gender equality and engaged women in training activities by collecting gender disaggregated data, setting explicit goals, and evaluating the outcomes. These sustained efforts have been successful in increasing women's participation in long- and short-term training over time.

Gladys Kuria, an MS student at Moi University in Kenya, sets up an integrated culture system to study feed recycling in tilapia ponds at the Mwea Aqua Fish Farm (MAFF).

Gertrude Atukunda, CRSP investigator, recording data with two young female scientists at the Kajjansi Aquaculture Research and Development Center (KARDC) in Uganda.

Lucero Vazquez Cruz, an MS student at the Autonomous Juarez University of Tabasco in Mexico, studies how bacteria can degrade the steroid, methyltestosterone.

Gifty Anane-Taabeah from Ghana in San Diego at the World Aquaculture Society's Aquaculture 2010 conference in March 2010. Gifty is an MS student in Fisheries Science at Virginia Tech University.

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