PROMOTING SUSTAINABLE AQUACULTURE AND FISHERIES DEVELOPMENT THROUGH CAPACITY BUILDING: A SYNOPSIS OF TRAINING CONDUCTED UNDER THE AQUAFISH CRSP

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Overview

The AquaFish Collaborative Research Support Program (AquFish CRSP) is actively engaged in aquaculture and fisheries research, training, and outreach activities in 15 countries in Africa, Asia, and Latin America. One of the key objectives of the AquaFish CRSP is to build and strengthen the capacities of institutions and individuals, largely emphasizing human resource and institutional development through training and outreach activities. Graduate and undergraduate students receiving AquaFish CRSP support for their training come from 19 countries (Figure 1).

The AquaFish CRSP capacity-building efforts benefit stakeholders in the US and participating Host Countries through the transfer of knowledge and technology, the dissemination of information about best management practices, and increased economic opportunities. This component of the CRSP development focus ultimately increases the sustainability of aquaculture and fisheries in all regions.

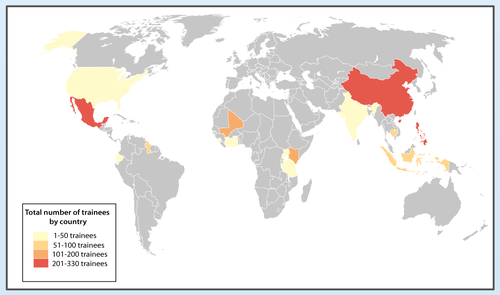

Fig. 1 The total number of short- and long- term trainees during FY09 according to country

Gender Integration

Ensuring equitable access to training resources is a high priority in all aspects of AquaFish CRSP capacity building activities. Thus, a target of 50% is set for participation by women. The goal is to create equal opportunities for men and women to participate in and benefit from the program's research, training, educational, or other activities.

Societies that discriminate on the basis of gender pay a hefty price—in greater poverty, lower levels of economic growth, weaker governance, and an overall lower quality of life.
—The World Bank




Long-Term Training

Long-term training is defined as formal training occurring in an academic setting (six months or longer) either for 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.

Since the beginning of the AquaFish CRSP, a total of 187 long-term students have been supported: 96 men and 93 women, for an almost 50:50 balance. Of the 169 students supported during fiscal year 2009, 75 are seeking BS degrees (54.7% men: 45.3% women), 73 are seeking MS degrees (50.7% men: 49.3% women), 18 are PhD students (55.6% men: 44.4% women), and 3 are seeking other degrees (66.7% men: 33.3% women) (Figure 2).

The majority of AquaFish CRSP undergraduate students (97%) are trained in their home countries. Similarly, most Masters level students (92%) are also trained in their own countries. In contrast, most AquaFish CRSP PhD students are educated in the US with only 45% trained in their home countries.

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

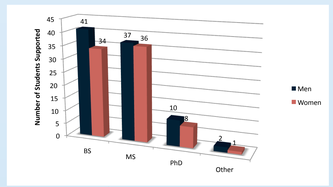

Fig 2. AquaFish CRSP long-term training for FY09, separated by degree and gender


CRSP student Saul Lopez Sanchez at project site in his home town, Mexico


Margareth Kibodya CRSP graduate student from Tanzania


Borlaug LEAP Fellow, Nhuong Van Tran a CRSP student from Vietnam


CRSP PhD graduate Sunila Rai with major professor, Yang Yi


UA graduate student research team: Mauricio Torres-Benavides, Rafael Martinez-Garcia and Kyle VanderLugt receive an EPA P3 award

Short-Term Training

Short-term training is under six months in duration and typically takes the form of seminars, workshops, short-courses, and internships. Workshops focus on training Host Country extension specialists, fisheries officers, local fish farmers, processors, vendors, small business owners, and NGOs.

During FY09, 45 short-term AquaFish CRSP training sessions for 1,243 trainees were run under the Program's 7 projects (6 core projects and 1 associate award project). Of these 45 short-term training sessions, 12 were held in the Asian region, 18 were held in Latin America and the Caribbean (17 in Mexico and 1 in Nicaragua), and 15 were held in Africa (Figure 3.)

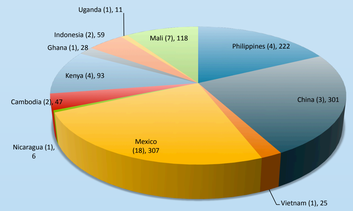

Fig 3 Numbers of participants in AquaFish CRSP short-term training events, by country. Numbers in parentheses indicate number of short-term training events held in each country.

Representative AquaFish Workshops

Tilapia Podcast Workshop

- The podcast series, a development out of North Carolina State University's "Practical Feeding Strategies" project, is a broad new tool being used to share the most current information on tilapia culture.
- A workshop (84 trainees) held in the Philippines in January 2009 launched the tilapia podcast and provided extension activities to promote the use of online information by students in their tilapia culture work.

Shellfish Culture and Sanitation in Mexico

- A two-part workshop on aquaculture sanitation for researchers, practitioners, and community stakeholders was conducted at Universidad Autónoma de Sinaloa–Culiacán in September 2008 (129 trainees total). The workshops consisted of presentations and field trips to an oyster growing site and a shellfish polyculture site.
- A regional workshop on shellfish culture and sanitation was held September 28-30, 2009 at UAS in Culiacan, Mexico. Forty-three attendees were present, representing educational, private sector and governmental institutions.


Training in Supply Chain and Marketing of Farmed Fish in Kenya and Ghana

- AquaFish CRSP researchers from the Purdue University project trained small- and medium-scale fish farmers in Ghana and Kenya how to successfully enter urban markets.
- Workshops in June 2009 (61 trainees) covered the importance of value chain, principles of supply chain management, principles of marketing, group marketing, developing new markets, and developing distribution and marketing networks.


Sustainable Alternatives for Shrimp Farmers in Indonesia and the Philippines

- Shrimp monoculture in Indonesia and the Philippines has led to a decline in mangroves, degradation of water quality, diseases in shrimp, and low prices due to over-production.
- To deal with these issues, workshops have been designed help farmers move away from shrimp monoculture by incorporating seaweed culture into tilapia-shrimp polyculture and educating them in production and management practices that will improve productivity and control diseases.

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