



FEED THE FUTURE

The number of people suffering from chronic hunger totaled 925 million in 2010. In developing countries, vitamin and mineral deficiencies affect 1 out of 3 people. Such undernourishment severely impairs productivity and the physical and intellectual development of adults and children, thereby restricting their future earning capacity and perpetuating poverty. USAID is responding to this crisis with their global initiative, Feed the Future (FtF). As part of an overall strategic approach, FtF promotes actions that sustainably reduce global hunger and extreme poverty.

OUR COMMITMENT

In aligning our goals with FtF, AquaFish CRSP strives to improve the livelihoods of smallholder fishers and farmers by:

- Promoting development of regional government-led programs that honor locally identified needs in sustainable aquaculture and fisheries management.
- Mobilizing aquaculture resources through collaboration with international partners to strengthen the capacity of stakeholders.
- Implementing comprehensive approaches to improve nutrition through sustainable aquaculture development and fisheries management initiatives.
- Leveraging resources and investments to align US and Host Country development priorities and provide essential financial and technical support.
- Establishing benchmarks to gauge Host Country progress towards improving livelihoods and building local capacity and infrastructure.

GLOBAL THEMES

AquaFish CRSP brings together resources from US partners and Host Country institutions to target constraints facing poorer countries through four global themes:



Improved Health and Nutrition, Food Quality, and Food Safety



Income Generation for Small-Scale Fish Farmers and Fishers



Environmental Management for Sustainable Aquatic Resources Use



Enhanced Trade Opportunities for Global Fishery Markets

U.S. & INTERNATIONAL PARTNERS

Oregon State University- Lead Award Institution
 Alabama A&M University
 Auburn University
 Direction Nationale de la Pêche, Mali
 FishAfrica, Kenya
 Gulu University, Uganda
 Kenyatta University, Kenya
 Kwame Nkrumah University of Science & Technology, Ghana
 Makerere University, Uganda
 Ministry of Fisheries Development, Kenya
 Ministry of Natural Resources & Tourism, Tanzania
 Moi University, Kenya
 National Fisheries Resources Research Institute, Uganda
 Purdue University
 Sokoine University of Agriculture, Tanzania
 University of Arkansas-Pine Bluff
 University of Georgia
 Virginia Polytechnic Institute & State University

REGIONAL CENTERS OF EXCELLENCE

The RCE is a support center that provides technical advice from a regional perspective.

For more information, contact the Lead Coordinators at aquafish@oregonstate.edu

RCE-East & Southern Africa—Dr. Charles Ngugi

RCE-West Africa—Dr. Héry Coulibaly

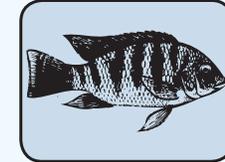
Sources:

Feed the Future. March 2011. <<http://www.feedthefuture.gov/>>

World Health Organization. March 2011. <<http://www.afro.who.int/>>

Supporting ongoing research in

AFRICA



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USAID
FROM THE AMERICAN PEOPLE

Oregon State UNIVERSITY OSU

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RESEARCH HIGHLIGHTS IN AFRICA



NUTRITION

Approximately 26 percent of Africa's children are currently malnourished. Tanzania is among the sub-Saharan countries that have embraced fish farming as a smallholder enterprise that can provide affordable protein to the poor. Tilapia, an indigenous African fish that is farmed worldwide, is a relatively easy fish for small farmers to cultivate. However, feed costs present significant budget challenges that impede aquacultural development in the rural communities that need it most. **To address this issue, Tanzanian researchers have developed a lower cost feed containing leafmeals derived from local leguminous tree species. These high-protein leafmeals replace the more costly soybean meal used in tilapia diets.**



A CRSP graduate student runs laboratory experiments to demonstrate that fats and proteins in local leafmeal make it a suitable and cost-effective protein alternative in fish feed.

REGIONAL PROJECTS

AquaFish CRSP promotes integrative, crosscutting research to address the root causes of poverty and hunger through aquaculture development and fisheries management. Our projects are actively implementing USAID's FtF objectives to accelerate inclusive agriculture sector growth and improve the nutritional status of rural stakeholders. In Africa, these projects are:

Improving Competitiveness of African Aquaculture through Capacity Building, Improved Technology, and Management of Supply Chain and Natural Resources

US Lead Institution: *Purdue University*

US Partners: *University of Arkansas-Pine Bluff; Virginia Polytechnic Institute & State University*

Host Countries: *Ghana, Kenya, & Tanzania*

Hydrology, Water Harvesting, and Watershed Management for Food Security, Income, and Health: Small Impoundments for Aquaculture and Other Community Uses

US Lead Institution: *Auburn University*

US Partners: *Alabama A&M; University of Georgia*

Host Countries: *South Africa & Uganda*



PRODUCTIVITY

Aquaculture production in Africa increased by 56 percent in volume and more than 100 percent in value between 2003 and 2007. Despite this growth, most sub-Saharan nations are net food importers. Building a viable aquaculture economy requires improved access and integration into urban fish markets for small- and medium-scale commercial fish farmers. Through CRSP trainings, farmers are learning collective marketing techniques to plan production and manage supply and sales. **Kenyan baitfish farmers who have put these techniques to practice are serving as a regional model. Up the supply chain, new market opportunities are opening for the fish brokers and women vendors who sell the baitfish to Lake Victoria fishers.**



Farmers in Kenya and Ghana have learned group marketing and value chain management techniques to successfully sell in urban centers such as this Nairobi fish market.

ENVIRONMENT

Environmental degradation and water scarcity in Africa threaten inland fish production. At issue are the competing water needs of agriculture and aquaculture. Agricultural irrigation demands threaten productive freshwater fishery habitats. Effluent from poorly managed agriculture and aquaculture operations contaminate watersheds. Best solutions follow a cooperative model to manage community water supplies and conserve natural resources. **Ugandan researchers are modeling surface catchment using an integrated suite of software approaches to assess water availability and promote wetland protection. These tools will aid local decision makers in their efforts to sustainably utilize community water resources.**



Development of a water resource management center at Makerere University in Uganda is leading the way for regional cooperation in sustainable water usage for aquaculture.