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AQUACULTURE COLLABORATIVE RESEARCH SUPPORT PROGRAM

RESEARCH REPORTS

Sustainable Aquaculture for a Secure Future

Title: **Exploring the Potential for Aquacultural Development to Promote Food Security Among Indigenous People in Guatemala**

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Abstract: Guatemala is a multi-ethnic, multilingual and highly stratified society in which 55 percent of its 14.7 million people are indigenous Maya, Xinca and Garifuna peoples. The people of non-European origin are much poorer and reside in more remote and difficult locations than their the wealthier Ladino minority (Smith 1984). The guiding questions for the study centered on understanding the motivating interests, barriers, and appropriate intervention points for aquacultural development in indigenous communities. The total of freshwater ponds in Guatemala is about 100 ha, an area less than 10 percent of the total surface dedicated to shrimp production. Some additional 26 ha produce freshwater prawns for domestic consumption . In 1989, FAO reported that five tilapia species *(T. mossambicus, T. rendalli, O. niloticus, O. aureus, and S. hornorum)* have been introduced into the region and stocked in ponds, in large water bodies, or released in open watersheds. The Peace Corps and governmental technical assistance constructed nearly 600 small ponds in recent decades. Most ponds are managed on subsistence and semi-commercial levels, but the coffee crisis and growing market potential have increased interest in tilapia production. Fish are harvested for home consumption and surpluses are sold in local markets. Women often are responsible for the daily management and feeding of ponds while the men are primarily responsible for pond construction and harvest. Two case study areas in were chosen where several indigenous communities have sustained involvement in tilapia culture over extended periods. Each set of communities is located at moderate altitudes in Central Guatemala in coffee-growing areas. Although the ponds are small, communal interest in tilapia production is

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sustained by the absence of alternative sources of fish. The purpose of this paper is to outline the prospects for small and medium-scale tilapia culture in Chimaltenango and Quetzaltenango -- locales where the need the great, market access is often limited, and conditions are often less than optimal for production. The guiding questions for the study centered on understanding the motivating interests, barriers, and appropriate intervention points for aquacultural development in indigenous communities. The results generate insights into the strategies for advancing aquaculture among Guatemala's poorest peoples in areas with appropriate soil and water resources.

This abstract was excerpted from the original paper, which was in the Proceedings for the 7th International Symposium on Tilapia in Aquaculture (ISTA7), Wilfrido M. Contreras-Sanchez and Kevin Fitzsimmons eds., Vera Cruz, Mexico, 6-8 September 2006, pp.297-298.

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