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POND DYNAMICS/ AQUACULTURE COLLABORATIVE RESEARCH SUPPORT PROGRAM

## RESEARCH REPORTS

Sustainable Aquaculture for a Secure Future

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**Title:** Socioeconomic Factors affecting the Transfer and Sustainability of Aquacultural Technology in Rwanda

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**Abstract:** Beginning in 1983, the Rwanda National Fish Culture Project helped farmers improve their ponds and pond management. It also identified and provided a species of tilapia better-suited to the high-elevation, cool-water environment. The report focuses on the experiences of three specific categories of farmers, about which little systematic information exists.

Interviews were conducted with 115 active farmers including 56 women who were pond group members or individual operators. Interviews were conducted with 21 dropouts about their reasons for quitting fish culture. Similarly, 16 emulators were interviewed about their lack of contact with extension personnel.

The results suggest that aquaculture has become an integral part of the diversification strategy of Rwandan farmers. Despite a lessening in the intensity of extension assistance, farmers continue to grow repeated crops of fish. They express positive sentiments about the activity, its benefits, and the technical support they receive.

The segment of farmers that has stopped growing fish seems to have done so for reasons other than dissatisfaction with the enterprise per se. Dropouts were slightly more involved in other farm enterprises, but the problems they identified were more related to circumstances in their household or in the milieu of neighboring landowners than with fish culture itself. A narrow segment quit because the water was too cold or otherwise was not conducive to

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growing fish. Dropout farmers perceived more time and effort conflicts with other farm enterprises and household work. They were more interested in the cash proceeds of fish culture than the other sample segments and less likely to feel that the pond was the best use of the land it occupied.

Women in groups seemed the most satisfied and productive segment of the study respondents. They had larger harvests, they experienced fewer marketing problems, and they were more attentive to the general practice of fish culture. They also seemed to get better prices. Women in groups seemed better able to exploit pond bank sales as a marketing channel for tilapia. Friends, relatives, and neighbors are an immediate network of fish consumers that are readily alerted and mobilized to purchase fish at harvest. Women in pond groups were characterized by an overlay of multiple social networks, and seem better positioned to distribute fish among rural households.

Women in pond groups seem to have most effectively realized the promise of fish culture to yield benefits for families, particularly children. The access to land, sociability, and perhaps gender solidarity in a male-oriented society, are major advantages of fish culture for women.

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