



# AQUACULTURE CRSP 21<sup>ST</sup> ANNUAL TECHNICAL REPORT

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## OPTIMAL (PROFIT-MAXIMIZING) TARGET MARKETS FOR SMALL AND MEDIUM-SCALE TILAPIA FARMERS IN HONDURAS AND NICARAGUA

*Tenth Work Plan, Marketing and Economic Analysis Research 1 (10MEAR1)  
Abstract*

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### ABSTRACT

Tilapia exports from Honduras to the United States have increased dramatically in recent years. However, small and medium-scale farmers have expressed difficulty in obtaining and maintaining markets. Identification of optimal markets to target within the domestic economy of Honduras could provide a market alternative for small and medium-scale tilapia farmers in Honduras. Market survey data from the previous work plan will be used as a basis for establishing market characteristics of alternative types of market outlets in various regions of the country. Data have been collected on location on tilapia farms of different sizes. Data also have been collected to estimate marketing costs for various farm sizes located in various regions of Honduras. A prototype mathematical programming model—a spatial allocation transportation model—has been constructed. The model includes demand, supply, transportation, and marketing submatrices. Farm scenarios have been defined, supply origins and capacities have been mapped and categorized, and demand requirements have been determined from secondary government sources and market survey data. Price data likewise have been compiled from the previous surveys. After validation, the model will be used to analyze a variety of scenarios, and sensitivity analyses will be conducted. Results will be summarized, and a journal article will be drafted.

