

Executive Summary

Demand for farmed fishes specially pangasius and tilapia are increasing in global and domestic markets in developing countries due to cheap protein sources from larger aquaculture production and shrinking supplies from the capture fisheries. Such dynamics of the aquaculture industry motivated the research within this project to focus on markets, and value chain analysis, production and industrial certification scheme from the perspective of a country where it highly contributing to GDP, socio-economic development, food and nutritional security and food safety. Methodologically, the project applied different econometric models like co-integration, gravity model and, hedonic price model for analyzing market dynamics, and transaction cost theory, SCOR model and power relation matrix for market power and governance structure analysis. Also, a multi-dimensional value chain framework was used for identifying the improvement potential of the value chain performance of eight different actors. FAO prescribed Sustainability Assessment of Food and Agriculture (SAFA) frameworks were applied to assess the competency of pangasius farmers in adopting the guidelines of aquaculture certification. In all, the study interviewed 2407 respondents from the ten most important aquaculture producing districts and fifteen fish processing plants for export data. To identify the differentiated market in the globe, data on Vietnamese pangasius export were used. The results indicated that farmed fish markets have the potential to grow both domestically and internationally if barriers to access to high-value market like quality (taste, color and flavor), third party production certification (Global GAP, BAP, ASC etc.), industrial/food safety certification (HACCP, BRC) and efficient price formation is removed. The study assessed underlying reasons for discoloration and synthesized the strategies to avoid discoloration of pangasius flesh for exports and also identified a positive correlation between water exchange, price and yield at the farm. The study also found the possibility of improving the performance of the pond aquaculture industry by transferring knowledge from shrimp industry. The value chain performance can be improved by modifying how fishes are raised, transported, sold and by linking farmers with up and downstream of the value chain. However, evidence of this study suggests that farmers are less willing to link with backward linkages due to exploitation. Furthermore, financially constrained farmers mostly enjoy poor bargaining power in the markets and limited access to information, and markets. In terms of the guidelines of aquaculture certification, farms have various shortcomings and also plenty of opportunities for the farmers to adopt the regulations of certification in the domains of good governance, environmental integrity, production and economics and social well-being that needs further research and development interventions. The implications are that if the barriers identified in this project are addressed effectively and efficiently markets will pay back its actors as desired improving the overall performance of the industry, which will in return contribute to the Bangladesh economy in increasing supply of fishes in the domestic market, generating employment, raising foreign currencies and poverty alleviation.

