

Title: **Performance of Fish Farms in Ghana - A Stochastic Frontier Approach**

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Abstract: This study applies the single-stage modelling stochastic frontier approach to assess the performance of fish farms in Ghana. It examines technical efficiency and its determinants of 150 farms surveyed in 2007 and extend the scope of the analysis to explore interactive effects of farm specific variables on efficiency of production. Findings demonstrate that expected elasticities of mean output with respect to all input variables are positive and significant. Computed return to scale reveals that fish farms in Ghana are characterised by technology with increasing return to scale. The combined effects of operational and farm specific factors are found to influence efficiency. The study further reveals that inclusion of interaction between some exogenous variables in the inefficiency model is significant in explaining the variation in efficiency. Comparison of mean technical efficiency according to regions did not show any significant variation. Overall mean technical efficiency is estimated to be 80.8%.

Key Words: Fish farms, technical efficiency, stochastic frontier, elasticity, return to scale.