

Title: **A Comparative Index Characterization of Shrimp Farms in Bangladesh, India and Indonesia**

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Abstract: The purpose of this paper is to provide a comparative index characterization of shrimp farms in Bangladesh, India and Indonesia. There has been considerable work carried out on shrimp farming in South East Asia with emphasis on biology, environmental factors, management and trade issues but much less work on the economic characterization of shrimp farms. The index approach used in the paper allows for a decomposition of profits measuring the relative importance of output and input prices, pond size utilization and productivity. This is possible by transforming the variables using an index decomposition technique, which is an application of Törnqvist index number theory. The unique properties of the Törnqvist index allow for the combined effect of the different economic factors to be aggregated in measuring changes in profitability. The index approach does not impose economic behaviour on the farms but rather is an accounting approach to the contribution of each factor input to profitability. In this way, changes in profitability can be decomposed into changes in the individual factors of production with the residual change in profitability defined as productivity. For Bangladesh data are available on an unbalanced panel of 190 farms for the period 1998 to 2002. For India data are available on an unbalanced panel of 30 farms for the period 2000 to 2002. For Indonesia data are available on a cross section of 125 farms for 2002. The decomposition index will be applied to each data set allowing a comparative index characterization across farms.