

ECONOMIC VALUATION OF THE TRANSITION FROM MONOCULTURE TO POLY CULTURE IN SHRIMP FARMING IN TAM GIANG-CAU HAI LAGOON, VIETNAM

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Aquaculture is not merely an economic activity; it significantly reduces poverty and improves the quality of life for thousands in Tam Giang-Cau Hai (TG-CH) lagoon. However, environmental pollution and disease outbreaks have become enormous challenges that shrimp farmers have faced in the past decades. Therefore, the transition of the aquaculture from shrimp monoculture to polyculture is considered an ideal model for sustainable development in the TG-CH lagoon system. This paper used the Propensity Score Matching (PSM) method to evaluate the economic performance of aquaculture model transformation. Average Treatment Effect on the Treated is calculated by Nearest Neighbor Matching algorithm shows that the income increases 26.995 million VND/ha when farmers transfer from shrimp monoculture to polyculture, mainly because of the decrease in feed cost. Low density and utilisation of natural feed and waste from species help significantly reduce the variable costs and environmental pollution, which are the main advantages of the polyculture model.

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