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Comparative Study on Water Quality Index Of Lake Vs. Adjoining Tidal Fed Shrimp Farms along Vembanad Lake, a Ramsar Site, Kerala, India.

Rosewine Joy

School of Management, Presidency University, Bengaluru, Karnataka, India

Abstract

Climate change and pollution is impacting ecosystems and life depending on same. Water bodies across world are impacted by these variability which influence the life and production process based on same. Aquaculture is one such food production system which is heavily influenced by the quality of environment for its sustainability and growth. Water quality Indexing (WQI) is an important tool applied in aquaculture to manage the water quality of the farming system. The index helps to comprise the water quality variation to one number and helps to analyse the same in an easy manner. We create four indexes for the study for each study zones, North, central and south zone from Vembanad Lake. The objective of the study is to understand how far WQI of the lake could influence the water quality index of the farm and secondly to assess how far water quality could be improve with human intervention. The methodology adopted for the study is an arithmetic weighted index method proposed by (Pesce & Wunderlin, 2000). The study point out that the water quality index of the lake has a higher influence on the water quality index of the farms. It also points out that though the water quality index of lake and farm area could be related, the water quality of the farms could be managed in the long run through various management practices.

Keywords:

Climate change, Pollution, Water ecosystem, Aquaculture, Water quality Index.

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