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RESEARCH REPORTS

Sustainable Aquaculture for a Secure Future

Title: Threatening “white gold”: Impacts of climate change on shrimp farming in coastal Bangladesh

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In Bangladesh, tiger shrimp (*Penaeus monodon*) is commercially known as “white gold”, because of its export value. However, the production of “white gold” under shrimp alternate rice and shrimp-only farming systems in coastal Bangladesh has been accompanied by recent concerns over climate change. Field survey reveals that different climatic variables including coastal flooding, cyclone, sea-level rise, salinity, drought, rainfall, and sea surface temperature have had adverse effects on shrimp culture as well as socioeconomic conditions of farming households. There is also overwhelming evidence that changes in climatic variables has detrimental effects on the ecosystem of shrimp farms, and thus, severe effects on survival, growth, and production of shrimp. Considering extreme vulnerability to the effects of climate change on shrimp farming, we propose that community based adaptation strategies and integrated coastal zone management are needed to cope with the challenges.

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