Coastal to inland: Expansion of prawn farming for adaptation to climate change in Bangladesh

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18 July 2017

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The practice of prawn (Macrobrachium rosenbergii) farming is widespread in coastal Bangladesh due to favorable biophysical resources. However, export-oriented prawn farming is particularly vulnerable to climate change in coastal Bangladesh. This study identified different climatic variables, including salinity, coastal flooding, cyclone, sea-level rise, water temperature, drought, and rainfall have profound effects on prawn farming in the Bagerhat area of southwest Bangladesh. Considering extreme vulnerability to the effects of climate change on prawn production, one of the adaptation strategies is to translocate prawn culture from coastal to inland (i.e., Bagerhat–Gopalganj) that appear less vulnerable to climate change. Although the prospects for prawn–carp polyculture and integrated prawn–fish–rice farming are positive in Gopalganj, a number of challenges were identified for the expansion of prawn culture. We suggest that institutional support would help to adopt prawn production.

This abstract was excerpted from the original paper, which was in the Aquaculture Reports (2015), 2: 67-76.