

# ASSESSING THE VULNERABILITY TO CLIMATE CHANGE OF THE INTENSIVE WHITE-LEG SHRIMP FARMERS IN THE COASTAL AREAS OF BEN TRE PROVINCE

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## Summary

The article introduces the results of developing a set of indicators for assessing vulnerability to climate change at farm level and apply vulnerability measurement of the intensive *Litopenaeus monodon* farmers in Ben Tre province. Data was collected through a survey of 170 white-leg shrimp farmers in three coastal districts namely Ba Tri, Binh Dai and Thanh Phu. Climate change vulnerability index were proposed based on the IPCC approach (2007) that includes three factors of vulnerability such as exposure, sensitivity and adaptive capability. The Human Development Index (HDI) by UNDP (2006) was used to standardize variables and the unequal weighing method developed by Iyengar and Sudarshan (1982) was used to calculate the vulnerability index. Set of indicators for assessing vulnerability to climate change of shrimp farmers was established includes 3 main indicators, 14 sub-indicators and 45 variables. The results of quantifying the vulnerability index of each shrimp farmers ranged from 0.40 to 0.66 with an average value of 0.53. About 8% of the surveyed shrimp farmers have a high vulnerability index while the remaining (92%) have a medium vulnerability index. The results of this study are significant for the planning and implementation of climate change's adaptation projects for *Litopenaeus monodon* farming industry in Ben Tre province.

**Keywords:** *Climate change, Ben Tre province, set of indicators vulnerability assessments, Litopenaeus monodon famers.*