

Perceived Effects of Climate Change on Inland Artisanal Fisheries in the Volta Basin of Bono East Region of Ghana

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Abstract : Globally, the fishery sector is experiencing numerous challenges. Prominent among them is the changing climatic conditions. In Ghana, marine and freshwater fish catch per unit efforts have been on a downward trend, with most of the causes coming from climate change. Whilst there is enough literature that suggests that artisanal fishers are aware that climate has changed, little is known about their knowledge of the effects of climatic variables as well as climate change on fishing. This study empirically assessed artisanal fishers' perception of the effects of climate variability and change on fishing along the Volta Basin in the Bono East Region of Ghana. With the help of a Likert scale, we quantitatively estimated the perception index of artisanal fishers about the effects of climate change on fishing. The study also used a generalized linear model to identify the drivers of artisanal fishers' perception index. Primary cross-sectional data was obtained from 332 respondents with the help of a semi-structured questionnaire and interview. Artisanal fishers have relatively good knowledge about the negative effects of climate change on fishing. Also, the majority of the fishers agreed that low rainfall, high temperature, strong wind, and high sunshine negatively affect fishing. Education, fishing experience, annual fishing income, monitoring of weather information, bad roads, and longer distances increase fishers' perceived effects of climate change on fishing negatively. It is, therefore, prudent for fishery extension service delivery to be intensified. Good infrastructure, especially roads, should be constructed from fish marketing centres to communities, as well as improving weather information delivery.

Keywords : climate change, fishing, generalised linear model, perception index, volta basin

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