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## Aquaculture in troubled climate: Farmers' perception of climate change and their adaptation strategies in Ghana, West Africa

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Aquaculture is one of the fastest growing industries within the fisheries sector of Ghana, serving as a source of protein, food security, employment, economic growth, and poverty reduction strategy for majority of Ghanaians. Climate change due to low rainfall and high temperatures remains the most serious threat to sustainable aquaculture development in Ghana. The aim of this study was to assess the awareness level and perception as well as adaptation strategies adopted by small scale aquafarmers on climate change. Climatological data, namely, temperature, rainfall and relative humidity were collected for the period 1985-2015 from the Ghana meteorological agency and analysed to determine the trends. The study adopted stratification and simple random sampling technique in obtaining 40 respondents (aquafarmers and other stakeholders) from the sunyani aquaculture zone of Ghana through questionnaires administration. The analysis of the data utilised descriptive statistics. Findings of this study indicate that there have been significant changes in temperature and rainfall pattern. Aquafarmers have considerable knowledge on climate change from sources such as radio, television and schools. A number of adaptation strategies are employed by aquafarmers to deal with climate change, including, water management, construction of bore-holes, sitting farms close to water bodies, adjusting fish stocking time and creation of embankment to avoid floods. Extension education should be carried out to enhance aquafarmers adaptation responses to the negative impacts of climate change which is a threat to aquaculture production and sustainable livelihood.

### Biography

Berchie Asiedu has completed his PhD from University of Ghana and Post-doctoral studies from University of Ibadan, Nigeria. He is a Lecturer and Researcher in Department of Fisheries & Water Resources, University of Energy and Natural Resources, Ghana. He has published more than 150 papers in reputed journals and has been serving as an Editorial Board Member of repute.

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