Adaptive Capacity of Farmers to Climate Change in the Kassena Nankana Municipality of Ghana: Implications for climate adaptation strategies

L. Kabobah[1*], D. Nukpezah[2] and Y. Ntiamoa-Baidu[1]
[1]Centre for African Wetlands, P.O. Box LG 67, University of Ghana
[2]Institute for Environment and Sanitation Studies, University of Ghana
**Corresponding author; lkabobah@gmail.com*

Abstract

This study analyzed factors that contribute to the adaptive capacity of farmers based on their settlement types and use/access to five forms of capital assets (natural, social, financial, physical and human). The use/access to assets were estimated and categorized into high, moderate and low adaptive capacities. The data was based on a survey of 155 farmers from three communities in the Kassena Nankana Municipality of the Upper East Region of Ghana. From the findings, Manyoro, the urban community, recorded the highest adaptive score although their illiteracy level was highest. Low adaptive farmers had low access to credits and alternative livelihoods compared to farmers with high adaptive capacity. Access to irrigation had a positive significant influence on adaptive capacity. In general, the more accessible a resource was to a farmer, the more adaptable that farmer was to climate change. Following the findings of this study, it is important that policy interventions in the area prioritize creation and encouragement in alternative livelihoods sources as a means of increasing the adaptive capacity of famers in the rural and semi-urban areas. Also, private and government institutions should invest in irrigation and credits facilities as measures for economic growth and adaptation to the effects of climate change on agriculture. Farmers should be empowered through better extension and agro-climatic information and other affordable modern technologies.