

Climate Change and Livelihood Strategies in Bayelsa State, Nigeria

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Abstract

This study analysed the impact of climate change on farming and fishing livelihood in Bayelsa State, Nigeria with the aim of determining the perception of farmers and fishers on climate change vulnerability on their livelihood. The study adopted cross sectional household survey and multi-staged sampling techniques to sampled 400 (200 farmers and 200 fishers) respondents from three Local Government Areas and twelve communities. Data for the study was obtained through the use of questionnaire and structure interviews which were analysed. The sampled respondents had good perception of climate change with majority (92.75%) relating it to increasing daily temperature. Among the perceived impact of climate change on farming livelihood in the study area, decreased quantity and quality of crop yield with mean values of 3.75 was perceived to be of the highest effect of climate change by the sampled farmers while for fishing livelihood, it was increasing difficulty of access/increasing distance to fishing ground (3.72). The most favoured on-farm adaptation strategy by farmers was changing of planting time (92.5%) and livelihood diversification for off-farm livelihood diversification (95%) while fishers also preferred to diversify their livelihood sources to non-fishery activities (93.5%). Both farming and fishing livelihood were found to be moderately vulnerable to climate change impact with overall livelihood vulnerability index (LVI) of 0.392 and 0.390 as well as -0.086 and -0.089 (for IPCC-LVI approach) respectively. Despite exposure to flood and climate variability, social network remained the most important causal factor that explained farming and fishing livelihood vulnerability in the region by impacting negatively on adaptive capacity due to poor interpersonal relationship among the fishers and farmers. This paper therefore recommends that both farmers and fishers are advised to collaborate with one another, form associations or join existing relevant one as this would help them adapt to or cope with the impact of climate change on their livelihood through giving of all forms of assistance and sharing of information which will enhance their adaptive capacity.

Keywords: Adaptation, Climate change, Farmers, Fishers, livelihood.