

Rural Livelihood under a Changing Climate Pattern in the Zio District of Togo, West Africa

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Abstract : This study was carried out to assess the situation of households' livelihood under a changing climate pattern in the Zio district of Togo, West Africa. The study examined three important aspects: (i) assessment of households' livelihood situation under a changing climate pattern, (ii) farmers' perception and understanding of local climate change, (iii) determinants of adaptation strategies undertaken in cropping pattern to climate change. To this end, secondary sources of data, and survey data collected from 235 farmers in four villages in the study area were used. Adapted conceptual framework from Sustainable Livelihood Framework of DFID, two steps Binary Logistic Regression Model and descriptive statistics were used in this study as methodological approaches. Based on Sustainable Livelihood Approach (SLA), various factors revolving around the livelihoods of the rural community were grouped into social, natural, physical, human, and financial capital. Thus, the study came up that households' livelihood situation represented by the overall livelihood index in the study area (34%) is below the standard average households' livelihood security index (50%). The natural capital was found as the poorest asset (13%) and this will severely affect the sustainability of livelihood in the long run. The result from descriptive statistics and the first step regression (selection model) indicated that most of the farmers in the study area have clear understanding of climate change even though they do not have any idea about greenhouse gases as the main cause behind the issue. From the second step regression (output model) result, education, farming experience, access to credit, access to extension services, cropland size, membership of a social group, distance to the nearest input market, were found to be the significant determinants of adaptation measures undertaken in cropping pattern by farmers in the study area. Based on the result of this study, recommendations are made to farmers, policy makers, institutions, and development service providers in order to better target interventions which build, promote or facilitate the adoption of adaptation measures with potential to build resilience to climate change and then improve rural livelihood.

Keywords : climate change, rural livelihood, cropping pattern, adaptation, Zio District

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