Sustainability of Livelihoods Impacted by Climate Changein Kapsokwony Division, Mt. Elgon Sub-County, Kenya

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Abstract

Mt. Elgon Ecosystem (MEE) is greatly endowed with vast natural resources that include fauna, flora, soils, river water and minerals. However, in recent years the ecosystem has witnessed accelerated environmental degradation and loss of natural capital due to impacts of climate change. The climate change impacts have adversely affected livelihoods of area residents by threatening food production systems, increased poverty levels and slowed down economic development. The societal problems that include lack of clean drinking water, deepened poverty, food security, waterborne diseases, soil erosion, environmental degradation and loss of ecosystem services, economic ruins, decline in agricultural output and poor livelihoods are a big challenge. The farmers in the region have little adaptive capacity due to limited economic resources and heavy reliance on rain-fed agriculture. The ultimate aim of the study was to generate long term policies and adaptive strategies to be implemented to lead to desirable improved livelihoods and sustain development. In general, the study was designed to analyze the impacts of climate change on livelihoods and deepened poverty levels. Both long and short term changes in climate will disproportionately continue to impact the poor smallholder farmers in the future if correct mitigation and adaptation measures are not put in place. Smallholder farmers in the region have continued to depend on traditional technologies to cope with climate change vulnerabilities. The research therefore highlights the existing scientific and indigenous technologies to counter the impacts of climate change in the study area. The collaborative research is characterized by top – bottom and bottom – top integrated research structure and entails dialogue by all the stakeholders. Primary data was collected by informant and in-depth interviews, focused group discussions (384). The data analysis for quantitative and qualitative data was carried out by use of the SSPS version 23.0 method. Using descriptive, tabular and graphical statistics, the data was analyzed in terms of frequency distribution and percentage using the SPSS as raw data was difficult to understand and meaningful conclusions to be made. The data was then presented in tables, frequencies, figures and percentages. The research study achieved capacity building, adaptive learning, community empowerment and application of transformation knowledge. The results will play a significant role in attitude and behavior change as well as create awareness amongst area residents. The new societal knowledge was used to elucidate long term policies and adaptive strategies to enhance climate resilience, improve livelihoods and sustain social economic development. The new adaptive policies and transformation knowledge will be domesticated to household levels in the study area.