

Climate Change Effects and Perceived Sustainability of Adaptive Capacity Resources among smallholder farmers in Manyoni District, Tanzania

By

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Abstract

This paper assessed climate change future effects and determined the perception of sustainability of adaptive capacity resources among smallholder farmers in Manyoni District, Tanzania. The paper adopted a cross-sectional study design. A multistage sampling was used to select four wards randomly from which two villages were randomly selected in each ward to make a total of eight villages. Using simple random sampling guided by lottery method, 30 respondents were selected from each village. The specific objectives were to identify the future climate change effects; to determine the perceived sustainability of adaptive capacity resources and to analyse the weights of perceived sustainability resources. Data collection was done through a household questionnaire survey, focus group discussion and key informant interviews. Descriptive analysis was used for analysis using SPSS. Kruskal-Wallis Test was performed to test the perception of adaptive capacity resources in relation to age. It was found that the expected future effects are: fall of grain production, acute water shortage, washing away of fertile soil, reduced motivation to cultivating, increased food insecurity and soil erosion. Furthermore, 60.4% of the smallholder farmers were found to have low perception on the sustainability of adaptive capacity resources. Based on the findings the study concludes that climate change will pose more serious effects in the future as indicated by the majority who perceive sustainability of their adaptive capacity resources to be low being more worried of these effects. Furthermore, the study concludes that, the critical adaptive capacity resources are governance and human capital. The study recommends that smallholder farmers in collaboration with the District Agricultural Department devise proactive measures to address the anticipated effects. Similarly, smallholder farmers and the local government should set plans to strengthen a more sustainable access to and use of adaptive capacity resources.

Key words: Smallholder farmers, Climate change, Sustainability