"World Food System —
A Contribution from Europe"

Factors Influencing the Decision to Adapt to Climate Change: The Cases of two Wards in Rural Tanzania

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Abstract

Tanzania is likely to suffer significant socio-economic and physical impacts from climate change. In Eastern Africa, climate change may reduce crop yields by 10-20 % to 2050, although in some zones losses are likely to be much more severe. People in the central eastern region of Tanzania already practice autonomous adaptation to climate variability, but this will be probably not enough to cope with the impacts of future climate change. Policy driven planned adaptation is necessary. Assessing effective adaptation practices, identifying obstacles for implementation of these practices and suggesting options to overcome them are prerequisites for planned adaptation.

The objective of this contribution is to assess factors influencing the decision of rural households in two Tanzanian administrative wards to adapt to climate change. One ward is disadvantaged in terms of food production and the other ward has a higher agricultural potential due to its biophysical characteristics. The assessment departs from identifying the socio-economic characteristics of the household in terms of land use, access to productive assets, education, training and income. The underlying hypothesis is that the adoption of micro-level measures for adaptation to climate change depends on households' perception of climate variability and change; household characteristics (*e.g.* access to credit, farming experience) and households´ livelihood activities (the mix of crops and livestock etc.). The hypothesis is tested using quantitative data of 300 households in two wards of Tanzania. The household data is complemented by findings from focus group discussions with farmers in the two wards following the methodology of Rapid Rural Appraisal. Data was collected between May and October 2009 and in May 2010. The focus group discussions are analysed by means of a qualitative content analysis. The household data is analysed using descriptive statistics and statistic regression techniques.

The results show that households' vulnerability to climate variability and change is a function of demographic aspects, household assets, livelihood strategies and other factors. Effective adaptation policies need to take into account the heterogeneity of different household types.

Keywords: Adaptation, adoption, agriculture, climate change, household survey, livelihood strategies, micro-level practices, small-scale farmers, Tanzania , vulnerable groups

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