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“Development on the margin”

## Climate Change Impacts, Coping Strategies, and Adaptation Practices in East Africa: A Comparative Analysis of Ethiopia and Kenya

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### Abstract

Climate change has become a highly prominent topic in the 21<sup>st</sup> century with its impacts, adaptation and coping mechanisms being examined in numerous recent studies. The current prominence of this subject among researchers and decision-makers is justified by its far-reaching social, political, environmental, and economic consequences on rural households who depend largely on rainfall for farming activities. This paper examines the impact of extreme climatic events on farm households in Ethiopia and Kenya based on a review of recent empirical studies in these countries. The conceptual framework used for the analysis differentiates the socio-economic implications of climate change into (1) impacts on livestock and crop production systems, (2) ex-ante adaptation and ex-post coping strategies, and (3) household resilience. The study was based on a review of climate change publications, expert interviews, and key informant discussions. Secondary data from recent studies based on a sample size of about 1200 farm households from each country were analysed to examine the coping strategies and adaptive capacity of households. The main coping strategies identified are the sale of productive and household assets. Some households reduced the quantity and frequency of food consumption or borrowed money from informal credit sources, such as relatives and friends, for consumption smoothing. Planting of early yielding trees, soil moisture conservation, and investments in shallow wells for watering livestock and irrigating crops were some of the common adaptation practices employed by farm households in Ethiopia and Kenya. However, there is evidence that farmers in Kenya are better adapted to climate change than farmers in Ethiopia. Some identified reasons for the relatively low degree of adaptation in Ethiopia are lack of information, inadequate access to credit, and lack of technical knowledge. We recommend an integrated approach consisting of proactive Government interventions to formulate policies that will create social networks to support farm households. Better credit access to farmers will facilitate private investments in irrigation systems. Crop and livestock insurance should be used as an alternative means of supporting the poor. Seasonal weather forecasts should be made accessible to farmers to increase awareness of future weather conditions for effective planning.

**Keywords:** Adaptation practices, climate change, coping strategies, impacts