

Determinants of perceptions of climate change and adaptation among Turkana pastoralists in northwestern Kenya

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Abstract

There is a growing concern that climate variability and change, combined with other environmental, social and political pressures, may overwhelm resilience of pastoral systems if local adaptation strategies are not strengthened. Understanding pastoralists' perception of and response to climatic change is necessary for sustainable adaptation strategies. Systematic and purposive sampling techniques were used to select 302 households in Turkana County of northwestern Kenya. Descriptive statistics and Heckman probit model were used to analyse the data obtained from the household's interviews. The results show that majority of households' perceive rise in temperatures and rainfall variability over the past three decades. Pastoralists' perception of climate change was significantly ($p < .05$) associated with gender of the household head, livestock ownership, herd size and access to extension services. Heckman's sample selectivity probit model revealed that factors influencing pastoralist's choices of climate change adaptation include gender and education level of the household head, household size, wealth in terms of livestock ownership, distance to markets, access to credit and extension services. We conclude that as a prerequisite for long-term commitment to household's climate resilience, policies and programmes should aim at improving these factors.

Keywords

- adaptation strategies,
- climate variability and change,
- drought,
- resilience,
- Turkana