Linkages between rural livelihood, adaptive capacity and agricultural adaptation strategies to climate change: a synthesis of lessons from Cameroon and Uganda

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Abstract

In the last few years there has been a rapid increase in government and donor attention to delivering successful adaptation to climate change impacts, particularly to enhance productivity and food security, as well as reduce poverty. However, the assumptions and impacts of strategies have not always been well assessed. For example, recent research by Osbahr et al (2011) and Abongu (2013) found differences between narratives of climate risk as communicated to farmers, actual patterns of climate change and variability, and local perceptions of risk, which directly impact on farmer investment choices and differentiated strategies. The paper presents analyses of two empirical studies: the first from the extreme North Region of Cameroon, which is experiencing increased temperature, declining rainfall and droughts, and the second from south west Uganda, which is experiencing increased temperatures and continued variability. Similar methodologies and analyses were employed for both locations, drawing on a semi-structured questionnaire conducted with 100 households in Cameroon and 90 households in Uganda. We report on farmers’ coping and adaptive responses to a range of specific climate characteristics, explore perceptions of impact and compare the responses undertaken with livelihood analysis to understand differentiated adaptive capacity and willingness to adapt. This involves consideration of a number of factors, including local perception, interpretation and experience, access to resources (such as microfinance, inputs, labour, land and information), cost, household dynamics, cultural identity and the nature of gendered roles. Farmers are also exposed to challenges resulting from the land tenure system, limited extension services and environmental degradation. We refer to adaptive capacity as the combination of skills, assets, networks, institutions and policies that enable communities to continually assess their situation against the current and emerging context and make appropriate changes to their livelihoods. We also explore the role of access to inputs, microfinance and advice for new technology, as well as challenges inherent to the land tenure system. Farmers in both locations could be characterised in similar ways, undertaking coping adjustments such as changes in technology and practice, timing and planting density but also more significant adaptations to practice, including innovations in new technology, introduction of new crops, increased livestock integration, and livelihood diversification and commercialisation. The research provides valuable insights from empirical evidence which help to understand farmer decision making, aspirations and judgements about choices or investment in future strategies. The findings have implications for policy and practice seeking

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to initiate transformational agriculture or scale up promising responses, and focus attention on both the importance of first understanding local perceptions of vulnerability and adaptive capacity and second recognising the difficulties to enhancing climate resilience within the dynamics of broader social-ecological change.

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