

Socio demographic, institutional and governance factors influencing adaptive capacity of smallholder irrigators in Zimbabwe

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Abstract

The provision of resilience and adaptation to climate change to smallholder irrigation communities is a critical component in implementing common pool resource management. Institutions in many smallholder irrigation schemes in developing countries are diverse and have potential to contribute to building climate resilience and improving livelihoods of smallholder irrigator. Human behaviour, institutional capacity and culture play important roles in shaping adaptive capacity of communities to climate change. Although much is known about how these contribute to this adaptive capacity, research focusing on their interaction is limited. In order to close this the gap, this study seeks to explore how socio-demographic, governance and institutional factors influence adaptive capacity in Exchange, Insukamini and Ruchanyu irrigation schemes. Questionnaire-based interviews, group discussions and key informant interviews were used for data collection. Adaptive capacity calculated using the livelihood vulnerability model was used as the dependent variable for this study. Ordinary least square regression was used to assess socio-demographic, institutional and governance factors influencing adaptive capacity in the smallholder irrigation scheme. The study reveals that adaptive capacity is influenced by age, gender, education, land tenure security, irrigation committee satisfaction, cooperatives, and interaction of factors. The link between age and gender were negatively moderated by awareness of irrigation policies, access to credit and land tenure security. Assessing factors influencing adaptive capacity help to improve the livelihoods of scheme farmers in the face of climate change.