

Assessing Smallholder Farmers' Perception of Climate Change and Coping Strategies Adopted in the Olifants Catchment of South Africa

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Abstract : Scientific evidence indicates that climate change is already being experienced by farmers, and its impacts are felt on agricultural and food systems. Understanding the perceptions of farmers on climate change and how they respond to this change is essential to the development and implementation of appropriate policies for agriculture and food security. This paper aims to contribute to the understanding of farmers' perceptions of climate change, adopted coping strategies, long-term implications of their adaptation choices, and barriers to their decisions to adapt. Data were randomly collected from 73 respondents in five districts located in the Olifants catchment of South Africa. A combination of descriptive statistics and Chi-Square statistical tests using the Statistical Package for Social Science (SPSS) was used to analyse the data obtained from the survey. Results show that smallholder farmers have an in-depth perception of climate change. The most significant changes perceived by farmers were increased temperature and low rainfall. The results equally revealed that smallholder farmers in the Olifants catchment had adopted several adaptation strategies in response to the perceived climate change. The significant adaptation strategies from the results include changing cropping patterns and planting date, use of improved seed variety, and chemical fertilizers. The study, therefore, concludes that crop diversification and agroforestry were more effective and sustainable in mitigating the impact of climate change.

Keywords : adaptation, climate change, perception, smallholder farmers

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