# Assessing the Cost of Climate Change Adaptation and Mitigation by Smallholder Farmers in Tanzania: The Case of Kasulu District


## By

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## Abstract

The impact of climate change on smallholder agriculture has led to different strategies of adaptation and mitigation intending to reduce the risks and GHG emissions. But what is the adaptation and mitigation practices taking place and what are the cost implications for smallholder farmers in poor countries? This study is an attempt to fill this gap. A total of 142 farmers were selected randomly in the two villages of Kasulu District. There was also a consultation with focus groups and key informants. Structured and semi-structured questionnaires were used to collect data. The findings revealed different strategies for adapting to climate change impacts by smallholder farmers such as planting drought and disease-resistant crops, the application of fertilizers/pesticides, mulching and irrigation. As regards mitigation, the farmers were sensitized to avoid deforestation and farming on river banks and catchment areas and to plant trees. Nevertheless, the cost of undertaking these activities was found to be high and poor farmers were incurring more costs than benefits. For successful and cost-effective adaptation and mitigation efforts by poor smallholder farmers there should be capacity building and supportive policies. These may include access to credit, timely and accurate climate information, improved infrastructure, environmental education and access to extension services.



## Keywords

Climate change; farmers; Kasulu District;Tanzania