



Potential of integrating indigenous and introduced innovations to reduce impacts of climate change in cereal and cassava based farming systems in Tanzania.

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Both Climate Variability and Change (CVC) and their associated impacts are major concerns worldwide. Events such as irregular and unreliable rainy seasons, frequent floods and droughts, rising air temperatures, rising of sea levels and melting of ice caps are among the climate variability and change related phenomena worldwide. These events will reduce security in livelihood, increase health risks and constrain economic opportunities. Although the impacts of climate variability and change are expected to affect the world at large, the poor countries whose economies depend largely on rain fed agriculture will be affected first and most. This is because rain fed agriculture is the most vulnerable activity to the climatic changes and also there is limited economic strength, access to knowledge and technological adaptive capacity in these countries. Hence specific means to adapt to the impact and reduce the effects are required in different production systems in developing countries. It has been found that, several adaptation methods have been introduced in farming areas, however their effectiveness is generally low and varies between farming systems. It has been established that, there is great potential of increasing the effectiveness if the Indigenous Climate Knowledge (ICK) and innovations are integrated with the Western Climate Knowledge (WCK) or innovation. This work therefore aims to carry out a comparative research to establish the potential of integrating the indigenous knowledge with introduced innovations to enhance adaptation to the impacts of climate change in cereal and cassava based farming system in Tanzania. A dissimilar systems design will be used in interviewing 360 respondents to document evidences of CVC and the associated impacts based on record from ICK and WCK. Also an inventory of ICK and WCK available in each farming system under study will be carried out. Further more the occurrence frequency and use rate of ICK and WCK based innovations meant to adapt to CVC and its impacts will be analyzed. Not only that but also the factors influencing adoption of innovations for adaptation to CVC will be investigated. Data collection will be done using literature reviews, questionnaires and other participatory approaches. In this both qualitative and quantitative analysis will be carried out.