Coping better with current climatic variability in the rain-fed farming systems of sub-Saharan Africa: An essential first step in adapting to future climate change.

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Abstract

Rain-fed agriculture will remain the dominant source of staple food production and the livelihood foundation of the majority of the rural poor in sub-Saharan Africa (SSA). Greatly enhanced investment in agriculture by a broad range of stakeholders will be required if this sector is to meet the food security requirements of tomorrow's Africa. However, production uncertainty associated with between and within season rainfall variability remains a fundamental constraint to many investors who often over estimate the negative impacts of climate induced uncertainty. Climate change is likely to make matters worse with increases in rainfall variability being predicted. The ability of agricultural systems, particularly those dominated by smallholder farming in SSA, to cope better with the
agricultural communities and agricultural stakeholders in SSA to cope better with the constraints and opportunities of current climate variability must first be enhanced for them to be able to adapt to climate change and the predicted future increase in climate variability. Tools and approaches are now available that allow for a better understanding, characterization and mapping of the agricultural implications of climate variability and the development of climate risk management strategies specifically tailored to stakeholders needs. Application of these tools allows the development and dissemination of targeted investment innovations that have a high probability of biophysical and economic success in the context of climate variability.

Keywords
Current climate variability; Climate change; Sub-Saharan Africa; Rain-fed farming; Climate risk management

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