Strategies for Adapting to Climate Change in Rural Sub-Saharan Africa: Targeting the Most Vulnerable

Implementing Partners:

Supported by BMZ (Germany), this project is led by the International Food Policy Research Institute (IFPRI). Other partners include:

1. Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA)
2. Food, Agriculture, and Natural Resources Policy Analysis Network (FANRPAN)
3. Potsdam Institute for Climate Impact Research (PIK)
4. Leibniz-Centre for Agricultural Landscape Research (ZALF).

Summary Project Description:

Goal: Reduced vulnerability of rural households to climate change through better-coordinated and targeted food system adaptation strategies.

Purpose: To provide regional organizations, policymakers and farmers in Sub-Saharan Africa with tools to identify and implement appropriate adaptation strategies.

Outputs:

1. Set of alternative global change scenarios, based on projected changes in climate, land use, socio-economic factors, and alternative policies.

2. Typology of production systems that integrates biophysical and socio-economic factors, including intensity of production, land use, cropping/livestock systems, and a range of food security indicators.

3. Household-level impact and response matrix by production system under alternative global change scenarios.

4. Micro-level adaptation analysis to support regional/meso-level analysis (selected ASARECA and FANRPAN member countries)

5. Robust framework to support policy decisions, which indicates regions and groups to be targeted as well as the appropriate adaptation strategies for target groups/regions based on the matrix of household-level impacts and responses, and associated investment requirements.

6. Synthesis reports and manuals for policymakers, outreach, and capacity development

Project Justification:

Climate change will have a significant impact on the livelihoods and living conditions of the poor in developing countries. Long-term changes in climate will disproportionately affect regions in both the semi-arid and arid parts of the globe and the more humid tropics. Within these areas, the effects of climate change vary across regions, farming and food systems, households, and individuals. Moreover, other simultaneous global changes, including changing trade patterns and energy policies, have the potential to exacerbate the negative effects of climate change on some systems and groups.

Thus, an analysis of biophysical and socio-economic factors determining exposure and adaptive capacity and adaptation to climate change are urgently needed to make more effective and informed policy decisions.

Given limited resources, adaptation strategies must be targeted to those populations and households that are most vulnerable to global change, and must also equip those unable to adapt—generally the poorest—with tools and incentives that will allow them to undertake adaptation. In order to facilitate a coordinated and effective policy response to this complex set of challenges, this project will identify where exposure is strongest and

adaptive capacity weakest, and will develop a robust framework to support policy decisions by food (livestock/crop) production system, which indicates regions and groups to be targeted as well as the appropriate adaptation strategies for target groups/regions based on the matrix of household-level impacts and responses. Investment requirements will be developed for alternative adaptation strategies. To ensure adoption, in addition to the production system analysis, a micro-level analysis of farm households will help identify both constraints to adaptation and means to undertake adaptation.