



“Adaptation of African Agriculture to Climate Change” Research Program of Federal Ministry for Economic Cooperation and Development of Germany (BMZ)

Particularly Africa is affected by climate change. Even now, extreme weather events such as droughts and flooding are already occurring more frequently and with greater severity than in the past. Water shortages, heat and increasingly diseases result. The consequences are lower - or even total loss of - crop and livestock yields. Enhancing the capacity of the most vulnerable poor to adapt to climate change is going to be one of the main issues technical development cooperation is facing in the near future.

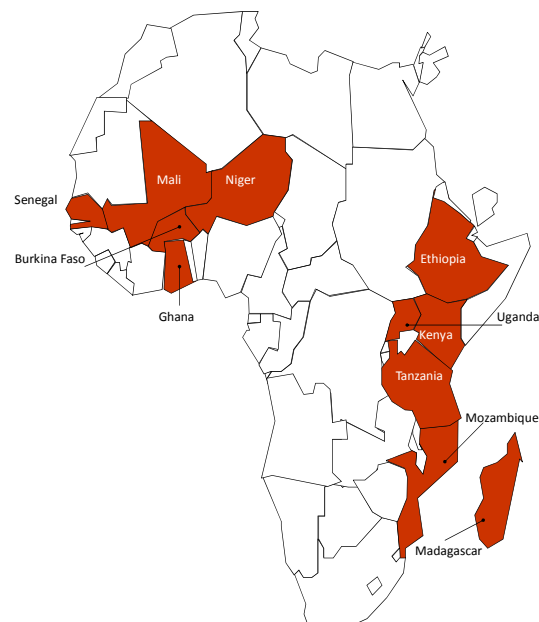
However, the changes differ locally and depend on natural conditions such as species and variety of crop and cropping system, but also on political and socio-cultural factors. A precise understanding of these factors as well as their local and regional impact is essential to manage against climate change.

To guarantee this and to develop measures of adaptation to climate change, the Federal Ministry for Economic Cooperation and Development (BMZ) assigned the Advisory Service on Agricultural Research for Development (BEAF) of the Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) with the design of the priority research area “Adaptation of African Agriculture to Climate Change”. Already in summer 2007 the call for proposals started and led to the submission of 18 project suggestions. Eight of these were selected after close examination and expert appraisal. During 2008 another project was accepted.

Five international agricultural research institutes (CIP, ICRISAT, IFPRI, ILRI, IWMI), two German universities (Göttingen, Hohenheim) and one of the Leibniz centres (ZALF) have received research funding totalling EUR 10 million for the programme, which is scheduled to run for three years.

The research program is designed interdisciplinary and multi-institutional. There is a manifold network between the participating institutes and universities professional tasks range from climatology over classical agricultural disciplines - cropping systems, plant breeding, grazing management and agroforestry - to water management and policy research. Regional focuses are the Sahel belt countries in West Africa with Senegal, Mali, Burkina Faso, Niger and Ghana as well as Eastern Africa, here in particular Ethiopia, Kenya, Tanzania, Uganda and Mozambique (Box 1).

One of the main issues of the research program is to involve local stakeholders to enhance their capacity as well as to feed their knowledge into the research approach. At least two non-governmental organizations, farmer associations or National Agricultural Research Centers are participating in each project to assure an appropriate connection to the persons concerned.



Locations of granted projects

Box 1: Granted projects of the Research Program ‘Adaptation of African Agriculture to Climate Change’

Project leader	Project title	Collaborating Institutions	NGO/ Farmer Org./ NARS
CIP ¹	Participatory development and testing of strategies to reduce climate vulnerability of poor farm households in East Africa through innovation in potato and sweet potato technologies and enabling policies	Max Planck Institute of Meteorology, Germany	KARI (Kenya Agricultural Research Institute) and EIAR (Ethiopian Institute of Agricultural Research)
ICRISAT ¹	Community management of crop diversity to enhance resilience, yield stability and income generation in changing West African climates	University Hohenheim, Germany	IER (Institute d’Economie Rurale), INERA ³ , INRAN ³ , SARI ³ , Centre Régional AGRHYMET
IFPRI ¹	Strategies for Adapting to Climate Change in Rural Sub-Saharan Africa: Targeting the Most Vulnerable	PIK ⁴ and ZALF ²	ASARECA (Ass. for Strengthening Agric. Res. in Eastern and Central Africa), FANRPAN ⁵
ILRI ¹	Supporting the vulnerable: Increasing the adaptive capacity of agro-pastoralists to climatic change in West and Southern Africa using a transdisciplinary research approach.	PIK ⁴ and DITSL ⁶	IIAM, IER; AU, Inter-Africa Bureau of Animal Resources ⁷
IWMI ¹	Re-thinking water storage for climate change adaptation for sub-Saharan Africa	PIK ⁴ and ZEF (Centre for development research, University of Bonn, Germany)	Institute of Statistical, Social & Economic Research (ISSER), Univ. Ghana; Ethiopian Economic Association (ECA)
CeTSAF- Uni Göttingen, Germany	Adaptation of land use to climate change in Sub-Saharan Africa - ALUCCSSA	ICRAF (World Agroforestry) and ZIAF ⁸	INERA ³ ; Centre Régional AGRHYMET
University Hohenheim, Germany	Developing rice and sorghum crop adaptation strategies for climate change in vulnerable environments in Africa - RISOCAS	WARDA (Africa Rice Centre)	IER ⁹ , FOFIFA ⁹
ZALF ²	Climate change impact assessment and adaptation options in vulnerable agro-landscapes in East Africa	ICRAF and PIK ⁴	United Republic of Tanzania (Ass. Director of Environment, Vice President’s Office)
ZALF ²	Strategies to use Biofuel Value Chain Potential in Sub-Saharan Africa to respond to Global Change - Enhancing low-productivity Farming and linking to SMEs	Institute for Environmental Economics and World Trade (IUW), University of Hannover; Wuppertal Institute for Climate, Environment and Energy (WI); ICRAF; IFPRI ¹	ASARECA (Association for Strengthening Agricultural Research in Eastern and Central Africa)

¹ CIP: International Potato Center, ICRISAT: International Crops Research Institute for the Semi-Arid Tropics, IFPRI: International Food Policy Research Institute, ILRI: International Livestock Research Institute, IWMI: International Water Management Institute

² ZALF: Leibniz Centre for Agricultural Landscape Research, Germany

³ INERA: Institut National de l’Environnement et de Recherches Agricoles, Burkina Faso; INRAN: Institut National de Recherche Agronomique du Niger; SARI: Savannah Agricultural Research Institute

⁴ PIK: Potsdam Institute for Climate Impact Research, Germany

⁵ FANRPAN: Food, Agriculture, and Natural Resource Policy Analysis Network

⁶ DITSL: German Institute for tropical and subtropical agriculture, University of Kassel, Germany

⁷ IIAM: Instituto de Investigacao Agraria de Mocambique, IER: Institut d’Économie Rurale du Mali, AU: African Union

⁸ ZIAF: Centre for Interdisciplinary Research on Africa, University of Frankfurt, Germany

⁹ IER: Institut d’Économie Rurale, FOFIFA: Le Centre National de la Recherche Appliquée au Développement Rural

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