

Climate change adaptation for rain-fed agriculture in Africa

Walker Institute research

Supporting evidence based adaptation to climate change

The University of Reading's Walker Institute and Statistical Services Centre are providing support to eight Rockefeller Foundation Climate Change Units in East and Central Africa to help them develop "evidence-based" adaptation options for rain-fed agriculture in East and Central Africa.

The Rockefeller Foundation, a charitable organisation which has strong interests in climate change, has established eight Climate Change Units within five countries in East and Central Africa: Rwanda, Uganda, Kenya, Ethiopia and Tanzania.

The aim of these Units, which are located in agricultural research institutions and universities in the region, is to develop climate change adaptation strategies and technologies that will build the resilience of rural rain-fed farming communities in the face of anticipated climate change. The units are expected to contribute to climate smart rural development by generating new knowledge, building capacity and promoting sustainable land management practices.

Aims of our backstopping project

For these climate change units to be able to fulfil the aim of developing evidence-based adaptation strategies for rain-fed agriculture in Africa, the Foundation identified the need for external support aimed at enhancing their capacity in climate change research, and for a region-wide collaborative research agenda amongst their eight climate change units

The University of Reading is providing the scientific and technical support for these Units in order to achieve this goal. Through consultation with the units and with Rockefeller, the following areas were identified as requiring our support:

- Climate change research
- Curriculum development
- Long-term sustainability

THE ROCKEFELLER FOUNDATION

The Rockefeller Foundation's philanthropic mission is to "promote the well-being" of humanity. One of their current activities is to "develop climate change resilience" and aims at helping communities cope with imminent consequences of climate change. African agriculture is one their foci under the initiative on **Climate Smart Rural Development for Africa**.



[Dr John Gathenya](#) has been appointed by the University of Reading as the Rockefeller Research Fellow to support the project. He is based with the Rockefeller Foundation in Nairobi. His role is to support training, identify additional opportunities for collaboration, research and funding, and ultimately enhance the research capacity of the units.

Using state of the art climate science

Working with the Walker Institute and the Statistical Services Centre gives the Rockefeller Climate Change Units access to state of the art climate research and a range of climate related expertise. We are focusing on:



Climate risk assessments

- Training and collaboration in using more modern methods of analyzing historical data for trends, risk and other tailored products.
- Use of satellite data and weather generators to complement ground based climate data for various applications.

Climate modelling

- access to literature and expertise on regional climate predictions for East and Central Africa.

Crop modelling

- Expanding the use of crop growth simulation models is a key element needed by the climate change units, particularly those in the Agricultural Research Institutes. This could include training in the use of crop modelling and dialogue with farmers.

Learning and curriculum development

Curriculum development

The University of Reading is well placed to help with the design of curriculum around the subject of climate change and to share best practice in delivery of its programmes. We anticipate the possibility of staff exchanges, sharing of materials and methods, support with quality control, etc.

E-learning

The University of Reading, in collaboration with the University of Maseno, Kenya, is conducting part of the training through e-learning. Most participants are using this approach to learning for the first time.



Climate change units—long term sustainability

Sustainability of work

One important aim of these units is for them to attract additional sources of funding to enable them to continue with their adaptation research beyond the support provided by Rockefeller. Our team is working with the units to identify new opportunities and proactively put together collaborative research proposals for a variety of funders.

Synergies and networking

We are supporting and exploiting the synergies among the eight units aiming for a collaborative regional research programme and network. We are also supporting the working network that has been set up among the Units and other climate change initiatives within East and Central Africa to help ensure that efforts are not duplicated and collaboration is effective.

The Walker Institute team involved on this project are:

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