



## Advertisement

### MSc. Scholarship under the project

# Uncertainty reduction in models for understanding development applications (UMFULA)

## Background

UMFULA, or “Uncertainty reduction in models for understanding development applications”, is a four-year research project running until June 2019. UMFULA means ‘river’ in Zulu.

It is led by the Grantham Research Institute on Climate Change and the Environment at the London School of Economics and Political Science (GRI-LSE). It has four other institutions based in the UK: the Universities of Oxford, Manchester, Sussex and Leeds; and seven institutions spread across South Africa, Tanzania and Malawi: Kulima Integrated Development Solutions, University of Cape Town, Sokoine University of Agriculture, Lilongwe University of Agriculture and Natural Resources, the Council for Scientific and Industrial Research, the University of Kwazulu-Natal and the University of Dar Es Salaam. We also collaborate with the University of Yaoundé in Cameroon, the Tanzanian Meteorological Agency and Mozambique’s National Institute of Meteorology.

The project is being carried out under the Future Climate for Africa (FCFA) Programme which is supported jointly by the UK’s Department for International Development (DFID) and Natural Environmental Research Council (NERC).

## Aims and objectives

UMFULA’s aim is to support long-term (5 to 40 years) planning decisions in central and southern Africa around resource use, infrastructure investment and cross-sectoral growth priorities, to make development in the region ultimately more resilient to climate change.

To do so, we organise the work around two major streams: we generate new insights and more reliable information about climate processes and extreme weather events in central and southern Africa, and their impacts on water, energy and agriculture; and we support the more effective use of this climate information in national and local decision-making. It is a two-way flow: decision-makers inform the team of their needs for climate information and we produce tailored climate information as a result.

UMFULA has the following objectives, which span both climate and social sciences:

- i. Identify and understand key climate processes and how they are represented in existing models;
- ii. Understand the physical mechanisms used by models to simulate climate change in the region and assess the credibility of these mechanisms;

- iii. Develop climate scenarios and apply them with impacts models to generate critical information required for decision-making;
- iv. Analyse the current use of climate information in decision-making and determine opportunities for greater adoption;
- v. Understand the local contexts for decision-making, including the processes for adaptation planning, the power dynamics and institutional capacity, and develop socio-economic scenarios for drivers of change;
- vi. Develop a portfolio of approaches for long-term decision-making and apply them to our case studies; this will lead to a set of policies and investments that are robust, climate-informed and compatible with socio-economic contexts, for direct implementation

### **MSc. Research support**

Within the “Future Climate for Africa Innovation Fund” project under UMFULA, **three** exciting MSc. scholarships are available under for Tanzania nationals at the Sokoine University of Agriculture, IRA-UDSM or Ardhi University. The project intends to engage **MSc. students who have or are about to complete their coursework** to undertake their research within the project’s objectives.

### **Required competencies (Combined)**

- Good BSc. Degree (GPA > 3.5) in natural science or related fields
- High social competences in interacting with stakeholders at different levels
- Good understanding of climate aspects
- Experience with stakeholder or institutional analysis
- Excellent skills in Microsoft Office applications including statistical packages (e.g. SPSS, SAS)
- Excellent skills in oral and written communications in English
- Great interest in working with an interdisciplinary and international team
- Willingness to work in the field for extended periods.

### **What the research project offers**

- Work in a strong international team
- Training in inter- and trans-disciplinary research
- Field expenses and travel allowances
- Supervision by experts from SUA and the collaborating institutions.

### **Application**

Please send an application letter, CV, academic transcript, two academic referees’ letters, and a brief concept note proposal related to any UMFULA key research objectives to the **Project Leader (Tanzania) Prof. J.J.**

**Kashaigili** ([jkashaigili@gmail.com](mailto:jkashaigili@gmail.com), [jkashaigili@suanet.ac.tz](mailto:jkashaigili@suanet.ac.tz)) and **Dr. Makarius Mdemu**

([makmdemu@gmail.com](mailto:makmdemu@gmail.com)). Applications will be reviewed on a rolling basis until **20<sup>th</sup> June 2017**. Only short-listed candidates will be contacted immediately after the deadline to set up the interviews. Female candidates are encouraged to apply.