



Postdoctoral Research Assistant (PDRA) in Water Resources Management in Kenya, Malawi and Ghana.

The **Building Research Capacity** for sustainable water and food security in sub-Saharan Africa (**BRECCIA**) project (www.gcrf-breccia.com) is led by the University of Southampton in the United Kingdom and partners with five Universities located in three countries (Malawi, Kenya and Ghana), and partnerships with 8 international organizations, working on research and capacity development in the coupled areas of water and food security. The 4 year project is part of the Global Challenges Research Fund (GCRF) RCUK Collective Fund “Growing Research Capability to Meet the Challenges Faced by Developing Countries” programme which is ‘one of the most ambitious international research programmes created; with £225 million being invested across 37 interdisciplinary projects’ to address a range of global development challenges.

The overall objective of the proposed work is to strengthen research capacity and capabilities in institutions in three Sub-Saharan African countries to carry out impactful research that seeks to address food and water security in drylands of sub-Saharan Africa, and to ensure that this capacity is sustained and propagated throughout and after the project. To achieve this, the BRECCIA project provides a number of research positions to collaborate and work together through trans-, multi- and interdisciplinary research projects designed for collaborative and partnership working on international development issues and policy-influence. Within this project framework, the Technical University of Kenya (TUK) seeks to engage a Postdoctoral Research Assistant (PDRA) in Hydrology and Water Resources Management to support regional project activities in Kenya, Malawi and Ghana.

The specific objectives of the proposed project are:

1. To enable partner institutions to understand the barriers and enablers to high quality scientific research, and to co-develop a pipeline of capacity-building activities to strengthen research technical and management skills, professional skills, and professional development.
2. To develop research networks across African institutions around water and food security, and to leverage these to co-design pertinent research questions on key global challenges.
3. To engage in collaborative research programmes that advance knowledge of food and water security in partner countries, identifies solutions to water and food security challenges, and

produce a new cohort of trained researchers in this field that are capable of leading and shaping the direction of future research.

4. To ensure impactful research that influences policy/practice through engagement with regional climate, hydrological and agricultural information providers, and with stakeholders and policy makers at national and local levels to empower local communities.

5. To facilitate sustained research capacity within partner institutions after the end of the project and to provide opportunities to self-propagate capacity to a broader set of institutions and researchers across Africa.

This will be delivered through high-level research programmes that integrate across disciplines and are underpinned by local and regional priorities. The Universities of Ghana and Malawi, as well as the universities of Nairobi (UoN), Kenyatta (KU), the Technical University of Kenya (TUK) and Masinde Muliro University of Science and Technology (MMUST) in Kenya are key African academic partners. Regional centers include AGRHYMET in West Africa and SADC/Waternet in southern Africa. We are also collaborating with impact champions: LEAD and IIED; as well as training champions: SARIMA and Vitae.

Job Summary: The project BRECCIA seeks one (1) qualified candidate to serve as a Postdoctoral Research Assistant (PDRA) for a three (3) year fixed term appointment in the area of hydrology and water resources management focusing on addressing water and food security in challenges in the drylands of sub-saharan Africa. The position will reports to the Co-Investigator of TUK, working closely with the other PDRAs and Co-Investigators from other collaborating institutions. The post holder will carry out research that enables the project to better understand factors, processes and mechanisms affecting food and water security among the partner countries. Using the information obtained to facilitate the impact of BRECCIA's wider research; disseminating research and advising project partners, where appropriate, on the factors influencing aspects of capacity building.

Essential Duties: The essential duties include but are not limited to:

Developing statistics on the dry and wet spells of hydrological processes, including their representativeness across selected drylands of Africa. The position will involve acquisition, reanalysis and integration of satellite data with hydrological and other climate diagnostic tools to investigate associations of local rainfalls (and other hydrological drivers) to the drought and flood processes affecting agriculture and food security.

Strengthening capacity through research collaboration and training events, including developing and overseeing individual work plans, managing or coordinating research projects, assisting in the development of in-house research funding proposals and, preparation of project reports.

- Maintaining active communication with other PDRAs, national counterparts in the respective countries through individual consultations and regular meetings.
- Working with the projects stakeholder engagement group to plan stakeholder workshops at community, national and regional levels. The position may require supervision or assisting in supervising or coordinating the work of research support staff.
- Maintaining a high level of research output for possible dissemination and publication

Required Qualifications and Experiences: Qualifications for the position will include:

- Ph.D. in Hydrology, Meteorology, Geography, Environmental Engineering, Geospatial Engineering or any closely related field.
- Requisite skills in working with satellite data to support hydrological analysis in areas with data limitations is necessary.
- Demonstrated ability to perform critical analyses of own, as well as existing research. Experience in developing, managing and/or reporting on project activities is important.
- Willingness to travel extensively as required by the project.
- Excellent written and spoken English communication skills with demonstrated excellence in written and oral presentations.
- Demonstrated computer based skills, including the application of quantitative and qualitative data analyses software packages.

Postdoctoral Research Assistant (PDRA) – special requirements

- Demonstrated capacity to produce good publications record in high impact factor peer reviewed journals.
- Experience in effective interactions in a multicultural setting with other researchers, policymakers, donors, and civil society, facilitating impact of research & capacity strengthening.
- Demonstrated interaction and participation in professional networks in resource management or related field.
- Working in African countries, preferably Kenya, Ghana, Malawi.

Other Details of the PDRA Position:

Location:	Technical University of Kenya, Nairobi – Kenya. Every year, the project seeks to provide 2 - 3 months training and joint research exchange visits through the University of Southampton, UK.
Term:	Fixed Term for 3 Years subject to yearly evaluation/renewals depending on the performance.
Application Closing Date:	5 th of October 2018
Begin of work:	November 2018
Application Reference:	PDRA – TUK 2018

The Application Procedure:

Your applications to include a Cover Letter (not more than two pages), and a CV summary (with three traceable referees) should be submitted to the contacts provided below. If you need any informal assistance, please send an email to the Co-PI through the contacts below. Please quote the reference: PDRA- TUK on all correspondence. The BRECCIA Project offers a multicultural, collegial research environment and believes that diversity of its staff contributes to excellence. The TUK hosting this position is an equal opportunities employer and welcome applications from all sections of the community. Potential candidates who recently finished PhD studies are also strongly encouraged to apply.

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