

**CALL FOR APPLICATIONS FOR DOCTORAL (x1) AND MASTERS (x1) SCHOLARSHIP FOR 2025 : AceWater III Project: Developing a Framework for Strengthening of the Institutional, Technical and Operational Capacity of the I-MRB River Basin for Effective Transboundary Water Resources Management (Funded by the European Union)**

The Centre for Transformative Agriculture and Food Systems at University of KwaZulu-Natal (CTAFS-UKZN) is seeking to recruit driven PhD and MSc students to participate in research for developing a framework for strengthening the capacity of the I-MRB river basin for effective transboundary water resources management. The postgraduate students will register with and be supervised by the University of KwaZulu-Natal at the Pietermaritzburg campus in South Africa.

**Project overview:** The Incomati and Maputo River Basins (I-MRB) are transboundary river basins shared by South Africa, eSwatini and Mozambique and are critical resources for these three countries. The bulk of the transboundary water flow originates from South Africa. The I-MRB face a number of challenges that require research to generate workable solutions. The problems faced in the river basin include the following; limited technical, institutional and operational capacity of the river basin commission; data and information gaps due to lack of continued basin monitoring, inadequate transboundary data and information exchange, including data dissemination protocols; lack of coordination between relevant management authorities; lack of basin-wide development and investment plans, and lack of investment into novel sustainable development and management practices.

The research project seeks, among other outcomes; to develop a generalized framework for improving the institutional, technical and operational capacity of the basin commission. The study further seeks to ensure the (partial) strengthening of the basin commission secretariat to deal with technical problems, institutional challenges and operational constraints; the collection or itemisation of processes and procedures embedded in operational routines for dealing with problems faced on the ground by the secretariat; and develop protocols for across basin/inter-basin data collection for cogent data that is sharable across countries and among different stakeholders for information exchange and improved transboundary water resources management.

**Project funding:** The project is funded by the EU via Stellenbosch University (RSA) under a consortium of 20 water-related institutions in southern, east, west and north Africa. The project is coordinated by the University of KwaZulu-Natal (RSA), Inkomati Usuthu Catchment Management Agency (RSA) and Universidade Eduardo Mondlane (Mozambique).

**Postgraduate Students Required:** The project is seeking to recruit postgraduate students (1 x PhD and 1 x MSc) to partake in the research and generate workable solutions to the stated problems. The requirements are as enumerated below.

i) *General Requirements:*

- A passion for research in water and related issues
- A self-starter. able to work with minimal supervision
- Able to use MS Office packages and tools like EndNote or Mendeley for references management

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- Good writing skills
  - Driver's license valid for the SADC region
- ii) *PhD Requirements:*
- An MSc in a relevant field (e.g., Integrated Water Resources Management (IWRM), Water Resources Engineering and Management (WREM), Natural and/or Social Sciences)
  - Qualify to register for a PhD with the University of KwaZulu-Natal
  - A good grasp of socio-economic issues in water resources management
  - Good in governance matters and understanding of river basin organisations (RBOs) management in the SADC
  - Ability to undertake institutional analysis and development
  - Capable of engaging with stakeholders at various levels, from policy makers down to water users at the catchment level
  - Ability to design, administer research tools for data collection and statistically analyse such collected data
  - Must be good with some common statistical packages for data analysis
  - Willing and able to work with MSc and, possibly, Honours students
  - Able to compile project progress reports with minimal supervision

Only candidates below the age of 35 will be considered for PhD students. For the PhD scholarship, a peer-reviewed scientific publication; presentation skills for internal team meetings and scientific conferences; and the ability to work independently would be an advantage.

- iii) *MSc Requirements:*
- A relevant water-related undergraduate degree (e.g., Hydrology, Engineering, Natural Sciences)
  - Qualify to register for an MSc with the University of KwaZulu-Natal
  - Ability to access, retrieve and work with hydrologic data
  - Conversant with hydrologic models applicable in the SADC region
  - Good in statistics and ability to use common statistical packages
  - Able to design data handling and sharing protocols
  - Able to communicate hydrologic information

**What is Offered:** The postgraduate positions come with a standard bursary as per the University of KwaZulu-Natal conditions for postgraduate students. Opportunities exist for the postgraduate students to attend funded short courses within the AceWater III project to further capacitate themselves.

**Contact for More Details:** For more details on the postgraduate opportunities please contact: Dr A Senzanje ([SenzanjeA@ukzn.ac.za](mailto:SenzanjeA@ukzn.ac.za)) or Prof M Mudhara ([Mudhara@ukzn.ac.za](mailto:Mudhara@ukzn.ac.za)) or Dr T Sawunyama ([sawunyamat@iucma.co.za](mailto:sawunyamat@iucma.co.za)).

**How to apply:** Interested candidates should submit a letter of motivation, one-page concept, accompanied by a detailed CV (listing academic publications), academic transcript(s), expressing their interest and suitability to Ms Nopayi Mkhize ([mkhizen34@ukzn.ac.za](mailto:mkhizen34@ukzn.ac.za)), and cc: Dr A. Senzanje ([SenzanjeA@ukzn.ac.za](mailto:SenzanjeA@ukzn.ac.za)). The one-page concept should be a brief summary detailing how interested candidates plan to approach the research, including research issue(s), research problem(s), main research objective/question/hypothesis, specific objectives/questions/hypotheses, tentative methodology, expected results.

**Closing Date:** The closing date for receiving applications is **6<sup>th</sup> January 2025**.

