



**CALL FOR APPLICATIONS FOR FIVE PHD POSITIONS
WITHIN THE RESEARCH TRAINING PARTNERSHIP
PROGRAMME:
ENHANCING WATER RESOURCES AND ENVIRONMENTAL MANAGEMENT
FOR SUSTAINABLE LIVELIHOODS IN RWANDA (E-WREM-SLR)**

1. Background

This call is part of the Research Training Programme (2019-2026) funded by the Swedish International Development Agency (Sida), aiming to strengthen research capacity at University of Rwanda (UR). It is under the subprogramme “Enhancing Water Resources and Environmental Management for Sustainable Livelihoods in Rwanda (E-WREM-SLR)”, which is implemented by three universities – University of Rwanda, Lund University (LU), and Royal Institute of Technology (KTH).

2. Programme description

This call is for five positions to be enrolled for a PhD degree at universities in Sweden. Three of the selected candidates will conduct their studies at Lund University, while the other two will be at the Royal Institute of Technology, Stockholm. The positions will be carried out in sandwich mode, implying that the students will spend part of the time in Sweden attending courses and conducting research for their PhD project, and part of the time in Rwanda, where they will collect data and work on their theses. The PhD programme is fully funded under E-WREM-SLR subprogramme. The supervising team will be made up of staff from the Swedish Universities and the University of Rwanda. The studies are expected to start in 2022 and last 4 years.

The E-WREM-SLR subprogramme has the main objective of contributing to improved natural resources management in Rwanda for poverty eradication, sustainable livelihoods and improved community health. The objective will be realized by building capacity and stimulating solution-oriented research related to water, environmental, and community health management. The training partnership will focus on four main areas: (i) Water Resources Management, (ii) Water, Sanitation and Health, (iii) Water engineering and biotechnologies, and (iv) Hydraulic engineering. Special attention will be given to mainstreaming perspectives of environment, health, gender, climate change, and labour market in the various research applications. The sub-programme is intended to make contribution towards achieving the National Strategy for Transformation NST1 of the Government of Rwanda, through the areas mentioned above.



The project will follow an Integrated Water Resources Management (IWRM) approach, which promotes coordinated development and management of water, land, and related resources to maximise economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems.

3. Funding

The 5 PhD are fully sponsored under the UR-Sweden programme. The scholarship covers the supervision fees, research's field work, minor equipments, and trips to international conferences. Scholarship recipients are expected to be staff of the University of Rwanda and continue to serve the university for a minimum of 5 years after their graduation from the programme.

4. Role of the PhD

We invite five candidates for conducting PhD studies in the field of water and environmental engineering. Four main research areas are listed below, from which candidates are encouraged to identify proposed research topics that matches their qualifications and interests, as well as the future needs of the University of Rwanda. The PhD students will have significant influence in designing their research topics, selecting field sites, and conducting the research. Note that research topics covering multiple areas are possible.

(i) Water Resources Engineering 3 PhD positions at Lund University

Examples of water resources management issues in Rwanda include erosion, landslide and mass movement, floods, sediment transport, channel erosion, and contaminant transport, pollution, climate variability, climate change impacts, and rising water demand for households, industry, agriculture, and application of the principles of fluid mechanics for the design, construction or modeling of water engineering structures, such as, canals, rivers, dams, reservoirs, and water treatment plants. To ensure sustainable management of water resources, it is essential to have access to reliable data, and generate strategies for management of water resources on a catchment level, which account for future water resources situations.

(ii) Water and Sanitation Engineering and Biotechnology 2 PhD positions at KTH

Some of the important aspects of water and sanitation and biotechnology are the collection, transport, quality, treatment of water, identification of locally available biomaterial for coagulation, testing for bioremediation, removal of chemicals and microbial contaminants found in raw water, biological treatment process for removal of nutrients and other chemical contaminants, modeling of the removal of specific contaminants, and development of prototypes, to ensure a safe and reliable access to water.



In the E-WREM sub-programme a new Master's programme in water resources engineering at the University of Rwanda is being developed. On completion of their studies, the selected PhD candidates are expected to contribute to this programme through teaching, research, community outreach and administrative duties. The selected PhD students are also expected to collaborate together throughout their PhD studies.

5. General eligibility criteria

- i. Permanent staff of the University of Rwanda
- ii. Citizen of Rwanda
- iii. MSc degree in a relevant field
- iv. Ready to spend a minimum of 3-6 months in Sweden every year for 4 years .
- v. Ready to continue working at the University of Rwanda for 5 years after completion of the PhD studies

As per the policy, male applicants below the age of 40 years of age and female applicants below 45 years of age are given priority. If several candidates are assessed to be equally qualified, priority will be given to candidates of under-represented sex and younger candidates. Candidates must be prepared to return to Rwanda directly after completing their degree, to continue their employment at the University of Rwanda. The candidate should be prepared to work full time on the project and should not be in possession of another PhD scholarship.

6. Specific eligibility criteria

Essential criteria:

- i. Strong interest in conducting research
- ii. Ability to work independently
- iii. Ability to collaborate in a project team
- iv. Good understanding of water related issues in Rwanda
- v. Proficient in English

Desired criteria:

- vi. MSc degree in water engineering, water resources management, environmental engineering , environmental sanitation, hydraulics and engineering hydrology or areas related to these fields
- vii. Experience in conducting research
- viii. Experience in writing research reports
- ix. Basic skills in ICT tools

Note that the candidate is expected to contribute to teaching at University of Rwanda. However, during the study period, the teaching load is maximum 20%. Other side activities, assignments, consultancies or employment are strongly discouraged. Applicants of under-represented sex are encouraged to apply.



7. How to apply:

Interested applicants should submit the following:

- i. An application letter for the position, the subject should be PhD.
- ii. A personal motivation statement for the programme of study. This statement should demonstrate commitment, motivation and reasons for interest in the programme (max 2 pages).
- iii. Recommendation letters from two academic or professional referees who can comment on the candidate's intellectual curiosity and academic ability to pursue research, leading to a PhD in the specified thematic area: one of the recommendation letters should be issued by a previous academic supervisor, preferably the Master's degree supervisor.
- iv. Applicants from a College at UR need to inform the Principal about applying for this position; and attach a confirmatory letter from the Principal, who received this information.
- v. Certified copy of the relevant highest prior degree (e.g. Master's degree for PhD applicants).
- vi. Copies of valid identification card or passport.
- vii. Copy of the Master thesis.
- viii. Current CV (maximum of 3 pages) with full name, e-mail, date of birth, sex, formal education at previous university, including full specification of the Masters' degree specialization, teaching experience, previous experience relevant to the programme, present position, scientific publications and/or any other academic experience that may be relevant.
- ix. Concept proposal on any of the selected themes and sub-themes as indicated in section for above

8. Application procedure

Please send the above mentioned (scanned and saved in one document) to the following emails: UR CPGS email: ur-cpgscholarship@ur.ac.rw, with a copy to the subprogramme team leaders [Prof. Umaru Garba WALI; g.umaru@ur.ac.rw for more information please feel free to also contact Prof. Magnus Larson; magnus.larson@tvrl.lth.se . Please name the application folder with your name and "[document name]"

9. Recruitment process:

- i. Applications must be submitted through the indicated email addresses.
- ii. Shortlisted candidates will be notified for an interview arrangement.
- iii. Interview will be conducted on 5th to 6th October, 2021.
- iv. The interview process will include a short presentation of the research concept notes.
- v. The recruitment team includes senior staff from both UR and Swedish universities.
- vi. Successful candidates will be notified a couple of weeks after the interview and expected to start on their new position on 2nd November, 2021.



10. Submission deadline

The deadline for application is at 5 p.m. on 06th September, 2021. Applications received after the deadline will not be process.

11. Contact details for more information:

For further information please contact Professor Umaru Garba WALI; g.umaru@ur.ac.rw
for more information please feel free to also contact Prof. Magnus Larson;
magnus.larson@tvrl.lth.se.

Done at Kigali; August 13th, 2021

Prof. Nosa O. Egiebor
Deputy Vice Chancellor for Academic Affairs and Research
University of Rwanda.

