CALL FOR SCHOLARSHIP APPLICATIONS-MASTERS IN CLIMATE CHANGE RELATED AREAS AT THE UNIVERSITY OF RWANDA

I. Background

In the framework of the project "Building the capacity of Rwanda's government to advance the National Adaptation Planning process" financed by the Global Environment Facility (GEF), Rwanda Environment Management Authority (REMA), the University of Rwanda (UR) and the Higher Education Council (HEC) signed a Memorandum of Understanding (MoU) for the implementation of Long-Term Research Program (LTRP) in order to inform long-term climate change adaptation planning and implementation in Rwanda. The MoU will be implemented in a period of 36 months. The main activities under this MoU are as follows:

- Build knowledge, capacity and skills in Ecosystem Based Adaptation (EbA) related research in post graduate programmes.
- Conduct broader research in priority areas of climate change adaptation and EbA to contribute to well-informed policymaking.

Benefits of the LTRP include:

- Forging long-term partnerships between government, academic and research institutions. This allows for effective participatory in the climate-resilient development.
- Informing policy-making through the generation of extensive socio-economic and ecological data.
- Build the human capacity and skills in conducting research in the area of climate change adaptation and environment.

Under the MoU, scholarships will be provided to selected 25 master's students in UR different key programs related to climate change.

II. Role and description

Given the important role of ecosystem services in supporting livelihoods and understanding that the provision of ecosystem services depends on the functioning of ecosystems, it is pivotal to consider the climate impacts on ecosystems as an essential step in vulnerability assessments. Healthy ecosystems and their goods and services are critical for reducing vulnerability and enhancing community resilience. The potential impacts of climate change on ecosystems would compromise ecosystem services and thus directly affect human populations; therefore, ecosystem conservation should be an integral part of climate change adaptation.

Examples of such ecosystem services include climate and water regulation, protection from natural hazards such as floods and landslides, water and air purification, and disease and pest regulation.

These services determine the central role of ecosystem management in climate change adaptation and disaster risk reduction. Therefore, the conservation, sustainable management and restoration of ecosystems can help people adapt to climate change.

Research in the natural and social sciences has evolved based on observational, lab-based, and site-specific disciplinary analysis of relationships among systems, which has led to highly connected interdisciplinary and transdisciplinary efforts highlighting linkages among biogeophysical, human, and social systems. Research on ecosystem services has grown into a major academic field, based on various academic disciplines, perspectives, and research approaches. Both natural and social science capacity is needed for conducting EbA research.

Natural science is necessary to understand the limits or boundaries of the ecosystem to be managed, to understand basic facts about its functioning, to describe linkages between and within ecosystems, and to understand vulnerability to climate change and potential impacts. Meanwhile, social science allows the researchers to understand the values, attitudes, societal structures, customs, and laws that underlie human behaviours and effects, to place a value on ecosystems and their services, and to understand their importance for adaptation. A combination of natural and social sciences can help better understand ecosystem vulnerabilities, the threats they face, and the extent to which management addresses those threats effectively. Such mutual interdependencies require a specific inter- and transdisciplinary research (Haberl et al., 2015).

II. Call for application

The University of Rwanda in collaboration with REMA and HEC is pleased to announce the availability of 25 MSc scholarships. The program is intended for full-time one-year or two-year master's programmes in the following MSc programs:

- ✓ Atmospheric and Climate Science
- ✓ Public health (with interest in environmental health)
- ✓ Epidemiology
- ✓ Soil Management and Agro-forestry
- ✓ Soil and Water Engineering
- ✓ Renewable Energy and Energy Economics
- ✓ Master of Science in Water Resources and Environmental Management
- ✓ Biodiversity, Conservation and Natural Resource Management
- ✓ Geo-Information Science for Environment and Sustainable Development
- ✓ Economics (Development studies)

III. Funding

The successful candidates will receive a scholarship including tuition fees, living allowance, research expenses and field allowances as per the UR standards/guidelines.

IV. Application requirements

Applicants should:

- Be of Rwandan nationality
- Must have completed Bachelor's Degree or an equivalent in related fields before September 2021. The awards are for academically outstanding students.
- Must have been admitted in the previous mentioned programs and registered at UR in the intake of September 2021 or in the upcoming cohort (Year 2022) for some schools.

V. Application file

The interested candidates should submit the following documents:

- A motivation letter
- Copies of previous degrees
- Project (research) proposal in the scope of this program (Four pages' maximum)

Note: Priority areas for research are:

(i) Climate change impacts on human and natural systems including information climate change risks and potential impacts on specific sectors such as agriculture, water resources, forest ecosystems, 'hot spots' for biodiversity, as well as human health. The influence of other drivers of global environmental change, such as deforestation and invasive species, influence the ability of ecosystems to sustainably deliver adaptation services.

(ii) **Economic aspects and effectiveness of EbA:** Understanding the economic costs, benefits and tradeoffs of different EbA actions can guide policymakers and development practitioners to choose cost-effective and sustainable strategy for a particular situation. Multiple papers highlight the fact that EbA measures bring numerous social, economic and ecological benefits, yet the lack of experience in evaluating EbA in comparison with engineered options remains one important barrier for its mainstreaming.

(iii) **Monitoring and evaluation of EbA:** Ecosystems are dynamic and do not provide a static baseline against which to measure change and thus the success of EbA measures. Often uncertainty is as well a factor to add to the complexity in monitoring socio-ecological systems. Areas of exploration for benchmarking will be provided by the REMA and partners (for new or early starting projects/programs)

VI. Selection methodology

Shortlisted candidates will be invited to the interview on dates that will be communicated through emails.

VII. How to apply and key dates

- A complete application file should be submitted by email to the UR-CPGS officer at ur-cpgscholarship@ur.ac.rw with a copy to:

- Prof. Safari Bonfils (bonfilssafari@gmail.com) in Atmospheric and Climate Science
- Mr. Ndagijimana Albert (andagijimana@nursph.org) in Public health/Epidemiology
- Dr. Celestin Bigirimana (celbigirimana@gmail.com) in Soil Management and Agro-forestry,
- Mrs Niyonkuru Rose (niyonkururose1@yahoo.fr) in Soil and Water Engineering
- Prof. Umaru Garba wali (ugarbawali@gmail.com) in Water Resources & Environmental Management
- Dr. Kabili Charles (chakabiri@gmail.com) in Renewable Energy and in Energy Economics
- Prof. Kablin Beth (bkaplin@antioch.edu) in Biodiversity, Conservation and Natural Resource Management
- Dr. Niyonzima Theophile (theoniyonzima@gmail.com) in Geo-Information Science for Environment and Sustainable Development
- Dr. Charles Ruhara (ruharamch@yahoo.fr) in Economics

The Deadline for application: 16th March 2022

For more information, contact

The project Leader: Mr. Fabrice Mugabo, e-mail: fmugabo@rema.gov.rw ; Phone: 0788 657 116

Done at Kigali, February 23, 2022

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