EMPURECO PROJECT
Call for applications for 1 MSc and 2 PhD candidates

EMPowering Ugandan REfugee–host COmmunities in becoming climate resilient (EMPURECO)

Project background

Uganda is Africa's largest refugee–hosting country. The influx of refugees leads to an increased competition for land and water which, in combination with climate change, results in environmental degradation and higher socio-economic fragility. The EMPURECO project aims to understand these dynamics, and empower the refugee and host communities in two selected settlements (Nakivale and Rhino Camp) in becoming climate resilient.

A multi-actor approach targets the engagement of citizens, governmental, non-governmental organisations and academics in planning climate resilience. A citizen science approach will build capacity and awareness while also gathering needed data on soil and water quality. At the same time, the project aims at improving Mbarara University's academic capacity in the natural and social sciences aspects of climate resilience (including the provision of 1 MSc and 2 PhD scholarships).

The EMPURECO project is coordinated by the **University of Antwerp (UA, Belgium)** and **Mbarara University of Science and Technology (MUST, Uganda)**, implemented in partnership with Muni University, Makerere University and 3 NGOs working with refugee-host communities in Nakivale and Rhino Camp settlements. The project will be implemented over 5-years (September 2024 – August 2029), with funding from the Belgian Government through VLIR-UOS.

Project research focus

Preliminary research has shown that the post-2016 refugee influx in Uganda has led to strong pressure on land and water resources in and around refugee settlements. This has not only led to social tensions (related to competition for land and water), but also environmental degradation (land degradation, deforestation, water pollution). Climate change is already occurring and further adds social tension and environmental degradation. Little in-depth knowledge is available about these dynamics, and as a result, policies and interventions that enhance climate resilience both from an environmental and social point of view remain underdeveloped.

Based on collaborative academic research in 2 refugee settlements in Uganda – Nakivale and Rhino camp– (academic objective), our aim is to support the resilience building of refugee–host communities to both climate change impacts as well as the sustainable use of land and water resource (developmental objective). The MSc and PhD students will contribute to building a better understanding of land and water access and tenure in and around refugee settlements, based on qualitative research (semi-structured interviews, focus groups and participatory methodologies), a household survey and spatio-temporal analysis (remote sensing); constructing a climate resilience index, which is able to score climate resilience at household and institutional level, and serves evidence-based decision-making; and using laboratory-based analysis and a citizen science network (with rapid on-site testing kits) to collect data on soil and water quality.

Both social and natural science PhD students will be involved in a number of key-activities of the project: (i) setting up the citizen scientist network, (ii) involvement in the multi-stakeholder platforms, where they will present their ongoing research for feedback, at the onset of the project.

PhD 1: Natural Science PhD student

The natural science PhD student will concentrate on the biophysical-chemical aspects of the project. In particular, the student will: (i) report on climate-related vulnerability focusing on the access to, and tenure of, land and water, for refugees and host communities, through surveying c. 600 households within each settlement, (ii) construct a climate resilience index at household and institutional level, (iii) establish water quality, detailed land use/farming practices and natural hazards within the two settlements with the help of the citizen scientists (also referred to as the Refugee-Host Community "RHC" scientists) who will utilise rapid on-site testing kits and an electronic mobile phone-based tool, and, iv) undertake laboratory-based water sample analysis for validating and supporting RHC scientist data.

PhD 2: Social Science PhD student

This student will focus on the socio-economic strand of the project. More concretely, this student will operationalise an inclusive multi-actor science–policy–society mechanism that integrates refugees, climate and environment domains, through the involvement of both refugees and host communities, refugee-led organisations and governmental actors from the start to the end of the project. This will culminate in the co-creation of visions and interventions,

building empowerment and policy uptake. It is anticipated that this will be achieved through employing methodologies geared towards knowledge co-creation, exchange of evidence generated by the project, discovery of barriers and opportunities for climate resilience, examining the existing resilience/agency for climate resilience, co-development of a common vision, assessment of feasibility of potential interventions, and provision of a selection of most promising interventions together with recommendations and support on realising the transition to climate resilience. The student will employ innovative social science methods ranging from interviews, focus group discussions, extended participant observation ('vigils'), and leveraging socio-economic data gathered through the citizen science approach.

MSc Student

The MSc student will reconstruct detailed land use and land cover change patterns linked to refugee influxes in the two settlements, validate remotely-sensed data, undertake land use change detection and soil analysis over several growing seasons in refugee-host communities, to explore the linkage between yields (stablished through the Citizen Science [RHC] network) and soil quality. The MSc student will double as a "Research Associate" with a pivotal role of managing the RHC network on a day-to-day basis, and supporting PhD students' research and basic project management.

PhD 1: Natural Science PhD Applicant's Profile

- Must hold a **MSc degree in Geography, Environmental Science, Climate Change, Natural Resource Management,** or a related science discipline;
- Must have **obtained upper second class** (or better) from Bachelor's and Master's degree;
- Must have experience in survey-based field research and/or participatory approaches;
- Must have **experience in the use of geomatics (GIS) and quantitative analytical techniques**;
- Must be **highly motivated** to **undertake academic research in an international context**;
- Must be **hard-working** and able to manage a project independently, taking initiative and meeting deadlines;
- Must develop **a Succinct concept note** (pre-proposal) of **max. 5 pages** (Font: Times New Roman, Font size 12, Line spacing 1.15) and demonstrate ability to finish it and produce a fully researchable and competitive proposal;
- Ready to bring creativity, uncovering hidden issues that will benefit the project, science and local livelihoods in general;

- Must be sincere, and willing to respect agreements; must understand the relevance of project confidentiality and proper data handling and processing;
- Must be willing to contribute to administrative management of the project;
- Must demonstrate **academic leadership** and are –if needed– keen to **supervise MSc students**;
- Must demonstrate good interpersonal and organizational skills, with attention to detail, to interact with other project partners and stakeholders;
- Affiliation to a university or research institute or already a staff member of MUST (preferably) is advantageous, but **Ugandan candidates** outside these institutions are equally eligible to apply.
- Must be willing to develop research at MUST and continue to contribute to the teaching and research mission of MUST beyond the project lifetime.
- Female candidates that satisfy the above conditions are particularly encouraged to apply.

PhD 2: Social Science PhD Applicant's Profile

- Must hold a **MA degree in Development Studies, Sociology, Political Sciences or Anthropology,** or a related discipline;
- Must have **obtained upper second class** (or better) from Bachelor's and Master's degree;
- Must have **experience in social science research, and qualitative research in particular**;
- Must be **highly motivated** to **undertake academic research in an international context**;
- Must be **hard-working** and able to manage a project independently, taking initiative and meeting deadlines;
- Must develop **a Succinct concept note** (pre-proposal) of **max. 5 pages** (Font: Times New Roman, Font size 12, Line spacing 1.15) and demonstrate ability to finish it and produce a fully researchable and competitive proposal;
- Ready to bring creativity, uncovering hidden issues that will benefit the project, science and local livelihoods in general;
- Must be sincere, and willing to respect agreements; must understand the relevance of project confidentiality and proper data handling and processing;
- Must be willing to contribute to administrative management of the project;
- Must demonstrate **academic leadership** and are –if needed– keen to **supervise MA students**;

- Must demonstrate good interpersonal and organizational skills, with attention to detail, to interact with other project partners and stakeholders;
- Affiliation to a university or research institute or already a staff member of MUST (preferably) is advantageous, but **Ugandan candidates** outside these institutions are equally eligible to apply.
- Must be willing to develop research at MUST and continue to contribute to the teaching and research mission of MUST beyond the project lifetime.
- Female candidates that satisfy the above conditions are particularly encouraged to apply.

MSc Applicant's Profile

- Must hold a **BSc degree in Agricultural or Environmental Sciences,** with a first class or second class upper;
- Must be enrolled on the **MSc Biology (Natural Resources) programme at MUST**;
- MUST have **experience in the use of geomatics (GIS)** and quantitative analytical techniques is desirable;
- Must be **hard-working** and able to manage a large project, taking initiative and meeting deadlines;
- Must demonstrate **good interpersonal and organizational skills**, with attention to detail, to interact with other project partners and stakeholders, be **able to work well with multidisciplinary teams** in an international project;
- Must have extensive experience working as a research associate/assistant, managing large datasets;
- Must be willing to learn how to manage a citizen science network, including programming and uploading the data gathering tool into the Kobo toolbox, following up RHC scientists on a regular basis
- Experience in project management in general will be an added advantage;
- Must be sincere, and willing to respect agreements; must understand the relevance of project confidentiality and proper data handling and processing.

PhD Scholarship Offer

- Both **PhD degrees will be awarded by the University of Antwerp (UA, Belgium).**
- Both **PhDs will be undertaken in 4 years following a sandwich mode**; the researcher will spend part of the year in Belgium (at UA) and the rest of the year in Uganda with an affiliation at MUST;

- The thesis **begins on November 1, 2024 and ends on September 30, 2028**.
- The number of months in Belgium and Uganda per year will be clarified for each PhD student at the start of the scholarship;
- The **scholarship covers travel and living expenses in Belgium**, registration at the UA, **field expenses and a modest stipend in Uganda**, IT equipment costs, and other miscellaneous expenses up to a certain budget. The scholarship funding is compliant with the official scholarship schemes of VLIR-UOS;
- The **doctoral candidate is placed on availability at MUST** and **devotes himself/herself full-time to his/her thesis when in Uganda**. Freed from his/her professional obligations for the duration of the thesis, he/she can participate in the scientific activities of the institution (seminars, conferences, etc);
- The candidate will be subject to the regulations of the host university in Belgium which involves monitoring the progress of the work by a PhD committee (including its promoters). The full PhD funding is conditional to the successful defense of a PhD proposal and obtaining sufficient course credits during the first stay in Belgium;
- The PhD candidate will interact with other PhD students both from Uganda and Belgium; he/she will interact with the other researchers in the research groups that the promoters in Belgium belong to, and various collaborators from the South;
- The Natural Science PhD candidate will be supervised by Dr. Ronald Twongyirwe (MUST), Dr. Jan Cools (University of Antwerp), and Dr. Nelson Ndugu (Makerere University).
- The Social Science PhD candidate will be supervised by Professor Kristof Titeca (UA), Dr. Specioza Twinamasiko and Dr. Frank Ahimbisibwe (MUST).

MSc Scholarship Offer

- The **MSc degree is tenable at Mbarara University of Science and Technology** (Biology Department, Faculty of Science)
- The scholarship is **available for 2 years** and <u>**covers stipend and research costs only**</u>
- The scholar will be facilitated to execute his/her additional duties as the project research associate (including local travel to/fro the settlements where the RHC network will be established)
- The MSc student will be supervised by Dr. Atwebembeire Jeninah (MUST) and Dr. Ronald Twongyirwe (MUST)

Application Procedure

The application should include:

• **A concept note (max. 5-pages), is mandatory (<u>For PhD applicants only</u>)**. The Concept note must include a title for the proposed study, brief background highlighting key literature, research problem, main research questions, methodology and list of key references

• A CV (2 pages max) + list of publications (if applicable)

• Copies of academic degrees documents and transcript of records

• A statement of motivation (1 page)

• A letter of recommendation from the current employer/immediate supervisor (1 page)

• A letter from an academic referee supporting your application (1 page)

• A digital copy of your master thesis (and, if applicable, publications) (<u>For PhD applicants only</u>)

• The applications should be addressed (and submitted) to Dr. Ronald Twongyirwe (rtwongyirwe@must.ac.ug), Professor Kristof Titeca (kristof.titeca@uantwerpen.be), Dr. Jan Cools (Jan.Cools@uantwerpen.be), and Dr. Specioza Twinamasiko (specioza@must.ac.ug)

• **<u>The application should be compiled in one standalone PDF file</u>**

• All applications should be submitted by **15th of September, 2024, 17:00 East African Time**.

Selection Procedure

- The selection process will involve two stages – a pre-selection phase within 10 days after the application deadline;
- Pre-selected candidates will be contacted for interviews in early October;
- The successful candidate should be ready to start his/her PhD studies by 1st November 2024.
- The MSc student is expected to start earlier, c. 1st October 2024.

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