



KU LEUVEN



FOUR-YEAR PhD SCHOLARSHIP FOR ELIGIBLE UGANDANS AT KU LEUVEN, BELGIUM: CALL FOR APPLICATIONS

Project Title: Analysis of past and projected future land use change and its impact on sediment fluxes in the Rwizi catchment

The **Department of Environment and Livelihood Support Systems, Faculty of Interdisciplinary Studies (FIS), MUST** is partnering with the **Department of Biology, Gulu University**, and **KU Leuven, Belgium** to implement a 4-year multidisciplinary TEAM project (with the above title) with funding support from VLIR-OUS starting on 1st January, 2018. In the first round of applications, we were able to identify one PhD candidate for the Biophysical strand. We are now looking for a suitable candidate to fill the other **PhD position focusing on the socioeconomic aspects of this project**. A summary of the project is as follows.

Project Summary

Land use changes in rural Sub-Sahara Africa are in many cases unsustainable. They are often characterised by continuous expansion of farmland into marginal landscapes, causing severe degradation of soil and water resources. This project aims at exploring alternative development pathways for these rural areas by evaluating possible future developments for the Rwizi catchment in Uganda which can be considered a representative case-study because of its strong population growth and the rapid land degradation. This project aims to facilitate the development of integrated watershed management: firstly, by strengthening the regional academic research capacity in this field through the training of two PhD-researchers (registered at KU Leuven, Belgium), and several postdoctoral researchers. Secondly, the project will develop fundamental interdisciplinary research that deepens the scientific understanding of bidirectional relationships between demographic developments and the degradation of soil and water resources and the ecosystem services they provide. Thirdly, these insights will lead to the development of an applicable agent-based model (ABM) that can simulate future land cover change and its impact on land degradation under certain policy-controlled boundary conditions. Such models, together with the local expertise to adapt and apply them, are much needed tools for the



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simulation of the effects of potential policy scenarios. After successful completion of the proposed project, the integrated watershed management of the Rwizi catchment could serve as a pilot-case for many other catchments in Sub-Saharan Africa.

Scholarship Benefits

The scholarship caters for tuition fees, research costs, air tickets, and a monthly stipend in Belgium. Half of each of the 4 years will be spent in Belgium with the other in Uganda, but with some minor variations.

Student Selection Criteria

The advert is open to all eligible Ugandans. The applicant interested in the **socio-economic strand** will mostly work on migration and urbanisation patterns, land use change, and an integrated landscape transformation model. The salient attributes we are looking for are as follows:

1. The applicant should not be more than 35 years of age at the time of application.
2. A master's degree in Geography, Physics, Mathematics, Sociology, Computer Science, Land Use Planning, Environmental Science, and a relevant first degree from a recognised university are essential.
3. Strengths in programming, statistics, and remote sensing applications are desirable.
4. The applicant should be willing to work at MUST after the scholarship period.
5. Female candidates are encouraged to apply.

Application procedures

The successful applicant will work under the supervision of Dr. Ronald Twongyirwe (PI – MUST), Dr. Alfonse Opio (Co-PI – Gulu university), Prof. Anton Van Rompaey (PI – KU Leuven), and 4 other project team members from Uganda and Belgium.

The application should include:

- A concept note (no more than 3 pages),
- A cover letter (1 page)



- A CV (2 pages)
- Copies of academic documents (no more than 5 pages)
- A statement of motivation – why you think you are the best candidate for the PhD position (1 page).
- A letter of recommendation from the current employer/immediate supervisor (1 page) – if applicable.
- A letter from an academic referee supporting your application (1 page).

The application should be compiled into one document of **no more than 15 pages in total**.

Only complete applications will be assessed.

The applications should be addressed (and submitted) to the Dean, Faculty of Interdisciplinary Studies (FIS) by email: vnyakato@must.ac.ug. Ensure that the following are included in the cc: rtwongyirwe@must.ac.ug, jodongo@must.ac.ug, tolocas@must.ac.ug

All applications should be submitted by **19th March, 2018, 5:00 pm**.

Interviews

The selection process will involve two stages – a pre-selection phase between 20th and 23rd March 2018, and the final selection between 2nd and 5th April 2018. The successful candidate should be ready to go to Belgium by September, 2018.

Only short listed candidates will be contacted.