



CALL FOR APPLICATION FOR ONE PhD SCHOLARSHIP UNDER THE UR-SWEDEN PROGRAM / SUB-PROGRAM “INTEGRATED AGRICULTURE PRODUCTION SYSTEMS “INTAGRIC”

Background

The University of Rwanda – The College of Agriculture, Animal Sciences, and Veterinary Medicine (CAVM- UR) - in collaboration with the Swedish University of Agricultural Sciences (SLU), Sweden through the Research Training Partnership Programme, Rwanda (2019/24) has received funding from the Swedish International Development Agency (SIDA), Sweden, to implement a research and training subprogramme entitled: **Integrated Agriculture Production Systems (INTAGRIC)**. The subprogramme integrates three broad thematic areas: 1/ Integrated farming systems, 2/ Climate smart agriculture production systems; and 3/ Healthy and nutritious agriculture production systems. The major outputs will be 7 PhD holders (2 sandwich PhDs at SLU and 5 local PhDs at UR-CAVM). The major outcomes will be the promotion of quality, multidisciplinary and impactful research; further development of supervising skills for CAVM staff; an enhanced culture of publication and scientific exchange; collaboration with farmers, the private and public sectors and policy-makers; and administrative/academic structures and systems supporting innovation and promoting a vibrant research environment.

The proposed sandwich research training under the INTAGRIC subprogram will focus on one area: “Integration of urban organic waste stream into integrated agriculture systems (under **Climate smart agriculture production systems**).

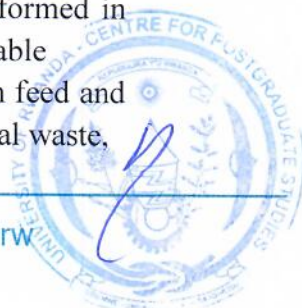
Call for application

The University of Rwanda is inviting committed potential candidates to apply for the sandwich based PhD position in Integrated Agriculture Productions with focus on sustainable waste management starting May 2020. The PhD student will be registered at SLU, Sweden but field research will take place in Rwanda. According to the Sandwich PhD training model, student is expected to spend a maximum of 6 months per year in Sweden and carrying her/his research activities at UR, Rwanda for the remaining period of the year. The student will be jointly supervised by professors and senior researchers from both SLU and UR.

The research area: **Integration of urban organic waste stream into integrated agriculture**

Background and Rationale:

Solid waste management in many low-income countries often have a great proportion of recycling of valuable fractions, e.g. metal, hard plastics. However, the organic waste is not considered to be valuable and therefore often end up at landfills. In a study performed in Uganda, over 90% of the waste taken to landfills was demonstrated to be biodegradable (Komakech et al. 2014). At the same time there is a lack protein to be used for fish feed and plant nutrients to fertilise the fields. Treating the organic waste, including agricultural waste,





with invertebrates have the potential of solving these two problems. In the invertebrate assisted waste management, using either earthworms or fly larvae, highly valuable products are generated: treatment residue that can be used as fertiliser and animal biomass that can be used as animal feed (Lalander et al. 2015a; b). Generating high-value products introduce a shift in the organic waste value-chain and the increased revenue permit a reduced total cost of treatment.

Actions: 1) Identification of potential waste streams eligible for invertebrate assisted treatment in urban and peri-urban Rwanda. 2) Evaluation of the efficiency of process parameters and schemes for improved recovery of plant nutrients and proteins in the biodegradable urban and agricultural waste. 3) Evaluation of risk in terms of disease transmission within the recovery system. 4) Evaluate product quality of the generated products as feed and fertiliser.

Expected results: 1) Identification of potential waste streams; 2) Proposed treatment systems for productive waste management for local production of sustainable feed and fertilisers; 3). Evaluation of the potential hygienic and environmental risks associated to the proposed invertebrate assisted waste management strategy.

Funding

The funding for these PhD positions will be supported by the UR-Sweden Program for Research, Higher education, and Institutional Advancement.

Eligibility

The potential PhD Candidate is expected to express her/his motivation and interest to undertake the PhD programme in the area of Integrated Agriculture Productions for a maximum period of four years from date of registration. Applicants must qualify and meet the admission criteria and conditions both at UR and SLU. The following are key eligibility criteria:

The applicant should be:

- Be a Rwandan Citizen;
- Be a permanent staff of UR, contractual staff are not eligible
- Hold a Master's Degree in agriculture/environmental engineering and allied sciences
- Be ready to adhere to UR capacity building policies and regulations;
- Be ready and able to conduct research in a collaborative way;
- Proof of English proficiency (i.e., TOEFL or equivalent) if a Master's degree was obtained from a non-English language of instruction;
- Show interest and passion for sustainable waste management
- All things being equal, priority is given to women staff
- Be predisposed to listening and learning





Application file

Applicants must submit the following documents (well numbered):

1. Application letter addressed to the Ag. Director of Centre for Postgraduate Studies, University of Rwanda [Max 1 page];
2. A motivation letter stating your interest in this programme and the gap to bridge after your PhD research and education. the letter should demonstrate commitment, motivation and reasons for interest in this PhD program. A special section should be devoted to demonstrating how the applicant meets the above requirements; [Max: 2 pages];
3. Curriculum Vitae demonstrating your previous experience relevant to this PhD program plus the publication or academic experience [Max: 3 pages]
4. Certified copy of the degrees (Masters' degree relevant to this PhD program)
5. Administrative recommendation letter from the direct supervisor;
6. Three recommendation letters: one from the current employer, one from your previous supervisor, and the other from any other reference person (former employer or professor
7. Indicative PhD Project proposal. This should comprise (1) the background, (2) the problem statement demonstrating the research gap and the current art of science in the area of research of interest among the three thematic areas; (3) the methodology and anticipated sources of data to be used, (4) how you intend to make this project successful and what you see as future challenges in undertaking this research, (5) five to ten key references well documented likely to inform this study, (6) other relevant additional statements. [Max 5 pages].

How to apply?

- The hard copy application files shall be submitted to the office the Ag. Director of the UR-CPGS at the UR Head-Quarters (Gikondo);
- The soft copy of the complete application files should be emailed to the official email of the Centre for Postgraduate Studies at UR (E-mail: dcgs@ur.ac.rw) with Cc to the Subprogramme Deputy Team-leader (Dr Simon Rukera Tabaro; email: simon.rt@gmail.com).
- Eligible applicants will be invited for an interview for the final selection of the candidate.

For more information and further clarifications can be addressed to Dr. Simon Rukera Tabaro, Deputy Team Leader of the subprogramme. E-mail: simon.rt@gmail.com

Deadline for application

Not later than 31st January 2020 at 5:00 p.m.





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For more information

Applicants can contact Dr. Simon Rukera Tabaro, Deputy Team Leader of the Programme. E-mail: simon.rt@gmail.com.

Done at Kigali, on 17th January 2020

A circular blue stamp of the University of Rwanda Centre for Postgraduate Studies. The outer ring contains the text 'UNIVERSITY OF RWANDA' and 'CENTRE FOR POSTGRADUATE STUDIES'. The inner circle features a crest with a book, a torch, and a gear, with the text 'UNIVERSITY OF RWANDA' and 'CENTRE FOR POSTGRADUATE STUDIES' around it.

Dr Celestin NTIVUGURUZA

Acting Director, University of Rwanda Centre for Postgraduate Studies (UR CPGS)