



FRAME Project Description

The project, Fostering Research and Intra-Africa knowledge transfer through Mobility and Education (FRAME) aims at strengthening research and education exchange to help finding solutions to the challenges of Food, Energy and Water Security (F.E.W.S) in Africa amid increased pressure from climate change, population, development and related impacts. FRAME has five African university partners (i.e. Buea, Cameroon; Hawassa, Ethiopia; KNUST, Ghana; Free State, South Africa and NUST, the applicant and coordinator, Namibia) with University of Twente, Faculty of ITC and Namibia Qualification Authority as technical and associate partners respectively.

The objective of FRAME is to implement mobility via a strong graduate research and studies programme (GRSP) on Food, Energy, and Water Security (F.E.W.S) with a suite of academic programmes that contribute to this topic. The GRSP model is based on the research plan built on the needs of partner countries and using university centres as hosts of the mobility beneficiaries. Using GRSP, FRAME seeks to foster an integrated approach that encourages multi and trans-disciplinarily research aimed at contributing to the capacity required to improve F.E.W.S in partner countries.

The composition of the graduate degree programmes on offer and the existing overlap in thematic fields allows for academic mobility and research in this scheme that is beneficial for each partner. For example, countries with a similar defined need in agricultural sciences (Namibia, Cameroon, Ethiopia, Ghana) still offer different areas of specialisation within their programmes: Crop production/crop protection, Agronomy, Agroforestry, Soil Science, Agricultural economics, and Animal science. Ghana, South Africa and Namibia offer expertise in Energy technologies which others tap into while Namibia has a strong and proven natural resources management track record that is shared with partner universities.

Some of the programmes chosen are research based aimed to increase research skills and capacity of students and also increase research outputs. Through the combined areas within the consortium, the diversity of the programmes is targeted considerable so that students can either expand their study spectrum or to acquire specialisations. In case of non-degree mobility, mobility up to 9 months are offered to comply with an area that matches the previous degree of the applicant to enhance future academic career options and employability.

Description and Number of Positions

Field/discipline: Agronomy Type: PhD in Crop Production Number: 1 scholarship Position Duration: 48 months Mobility Scholarship duration: 36 months

Host Academic Programme

Agricultural growth in Cameroon, like the case of many sub-Saharan African countries, is generally achieved by cultivating more land and by mobilising a larger agricultural labour force, with very little improvement in yields. On average, crop yields are less than half those obtained in other countries with similar resource endowments. That notwithstanding, agriculture forms a significant portion of Cameroon's and sub-Saharan African economy, contributing towards major national priorities, such as reducing poverty and hunger, boosting sub-regional central Africa trade and investments.





Unfortunately, agricultural productivity still remains far from the developed world standards. Over 90% of agriculture in Cameroon and sub-Saharan Africa in general, depends on rainfall, with very little artificial irrigation aid, limited access to fertilizers, pesticides high-yield seeds. Agriculture in these countries also experiences basic infrastructural problems such as access to markets and financing.

In view of addressing the above challenges to agricultural production in Cameroon as well as sub-Saharan Africa in general, the PhD Programme in Crop Production is structured to meet the needs of prospective students who have an interest in the application of biological principles to the solution of problems in crop production and resource management. The objective of this program is to provide students with a fundamental understanding of the scientific method, to develop their ability for critical thinking and to provide them with strong communication and technical skills as well as in-depth knowledge in crop production.

The programme is structure in such a way that graduate can be self employment in agricultural production or gain employment in higher agricultural institutions, agricultural companies, etc.

Course Structure

- **Duration**: a minimum of six (semesters) and a maximum of ten (10) semesters
- **Structure:** offered by coursework, examination and thesis. Students will undertake a year of course work and examination. Course work consists of lectures, tutorials, practicum and seminars. On successful completion of course work and comprehensive examination, student will devote the rest of the period to research in a given approved subject area and writing of a PhD thesis under supervision, and public defense of the PhD thesis before an approved examination panel

Students can study for electives in other PhD programmes in Crop Protection, Postharvest Technology and Agricultural Economics

Description of Host

The Department of Agronomy and Applied Molecular Sciences (AAMS) in the Faculty of Agriculture and Veterinary Medicine of the University of Buea engages in teaching, research and outreach community services in crop production, crop agronomy, crop protection, soil micro biology, soil science, agroeconology, soil biology, and related fields. It offers three degree programmes: Bachelor, Master's and Doctorate. The Department has access to a seasoned scientist/specialist who are full time staff as well as a pool of part time staff drawn from related faculties, universities and research institutions.

Research interest: soil biology; soil fertility management; crop physiology; crop agronomy; farming systems; plant breeding; soil chemistry. virology, soil science, plant pathology.

Research Project: University farm & other individual projects;

Faculty and areas of expertise:

- Ngosong Christopher (PhD), Associate Professor of Soil Biology
- Andrew E. Egbe (PhD), Professor of Agroecology and Agroforestry
- Aaron S. Tening (PhD), Professor of Soil Chemistry
- Tonifor (PhD), Associate Professor of Crop Protection
- Eneke E. T. Bechem (PhD), Professor of Soil Microbiology
- Thomas E. Njock (PhD), Associate Professor of Virology





- Godwin S. Yinda (PhD), Lecturer of Soil Chemistry
- Oben Tom Tabi (PhD), Senior Instructor of Plant Pathology

Part-time staff and areas of expertise:

- Tabot T (PhD), Lecturer of Plant Ecology
- Justine N. Okolle (PhD), Scientist/Soil-Entomologist
- Lawrence Ndam (PhD), Senior Instructor of Biotechnology and Weed Science
- Priscilla M. Mfombep (PhD), Lecturer of Soil Microbial Ecology
- Oben Fritz Tabi (PhD), Associate Professor of Soil Biology
- Honore Beyegue (PhD), Lecturer of Plant Breeding
- Joyce B. Mbongo épse Endeley (PhD), Professor of agricultural Extension Education & Gender Studies

Position requirements

University/Department Admission requirements

- i. Prospective applicants should be holders of Master's Degree in agriculture.
- ii. Candidates with at least one publication have added advantage.
- iii. Candidates would be required to submit a proposal detailing their research interest. the research topic must be in the area of crop production and related fields.
- iv. English is the language of instruction. English Proficiency Certificate is required for applicants whose first language is not English.

Scholarship Position Benefits

- Settling Allowance
 900 €
- Monthly Subsistence Allowance 900 €
- Allowance for female scholarship holders (per academic year only for mobility equal or longer than 2 academic years) 900 €
- Research Costs (per academic year only for mobility equal or longer than 10 months) 2000 €
- Insurance Costs
 75 €/per month
- Travel and Visa Costs

Who can apply (Scholarship Eligibility)

All applicants must have studied and obtained a qualification at any African Higher Education Institution. In addition:

• **Target Group 1 (TG 1):** Nationals and/residents of African countries who are staff, alumni and or students registered in one of the Partner Universities at the time of application





 Target Group 2 (TG 2): Nationals and residents of Africa, registered in or having obtained a university degree or equivalent in a higher education institution of such countries and not included in the Partnership.

Application Documents

- Scanned copy of Bachelor's Degree or Equivalent
- Scanned copy of Master's Degree
- Scan copy of any other relevant academic certificates
- Scanned copy of birth certificate
- 3 letters of recommendation (two academic referees and one other)
- Statement of proposed PhD Research.
- Prove of sponsorship

Contacts Details

FRAME Coordinator (University of Buea)

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Head of Department of Agronomy

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Visit the FRAME website: <u>https://frame.nust.na/</u> and click on the call for further details.



