

MSc Scholarship in EJP Soil CarboGrass Project

About the scholarship

Grasslands and pastures, covering 40% of Earth's ice-free land, store 20% of global carbon stocks. Overuse and food demand have led to land deterioration and desertification. Improving grazing management and silvopastoral systems can capture up to 150 Tg of soil C annually. Understanding the mechanisms underlying carbon storage is crucial for achieving climate protection.

The EJP Soil CarboGrass project aims to assess the impact of improved grassland management on soil C, N cycling, and soil health globally (for more information, visit [EJP Soil](#)). The specific objectives of the studies are:

1. To determine the impacts of livestock and wildlife grazing on grassland soils in Southern Kenya to inform improved grazing management in order to combat land degradation, mitigate climate change, enhance livestock productivity and livelihoods of rural areas, and increase climate change adaptation and stress resilience of extensive livestock systems
2. To address the gaps that will improve the understanding of the biological controls of soil carbon sequestration to develop meaningful and context-specific recommendations for sustainable grazing management within the African context.

The study will be done in collaboration between [Jaramogi Oginga Odinga University of Science and Technology](#) (JOOUST), University of Nairobi, and the International Livestock Research Institute (ILRI) at the [Mazingira Centre for Environmental Research and Education](#), Nairobi. The student will benefit from being part of a larger project consortium or researchers and students through the [RUFORUM GRADESOIL project](#), the [EJP SOIL CarboGrass project](#), and the CGIAR Research Initiative on [Livestock and Climate](#).

Responsibilities of the Candidates

The project team values innovation and creativity, openness and engagement, teamwork and proactiveness, and respect and reliability. As such, we are seeking to recruit talent aligned with these values in the pursuit of research excellence. The responsibilities will include:

- Data collection, compilation and analysis.
- Implementation of field experiments and data collection.
- Writing and submitting high-quality publications in international scientific journals.
- Willingness to spend a significant part of the time at the study site and maybe Mazingira lab in ILRI.
- Any other responsibilities relevant to the project as might be assigned by the project team.

Desired profile of the candidates

The candidate should fulfil the following requirements:

- Not older than 27 years.
- Has a BSc degree in one of the following areas: Soil Science, Food security, Horticulture, Agriculture general, Agronomy, Land and water management, or any other relevant degree.
- Basic knowledge in field experimentation.
- Has interest in food security and climate change studies, especially GHG emissions/fluxes.
- Excellent project and time management skills to ensure that milestones and deliverables are achieved on time and to high quality.

- Proficient in English, sufficient to communicate effectively with colleagues and write papers and reports.
- Good practical problem solver/ Ability to find appropriate solutions to academic and technical issues.
- Ability to work as a member of a team within a dynamic research group.
- Ready to immediately enroll for an MSc program at JOOUST (having a relevant MSc admission will be an added advantage).
- Willing to be a full-time student cum project assistant for two years.
- **NB:** Those who have already completed their first year in relevant MSc programs in JOOUST, and are willing to undertake their research work in our project might be considered.

The Offer

We offer a 2-year full-time MSc position starting September 2023. This will consist of a 3-month probation period, to be confirmed upon satisfactory performance. The offer includes university tuition, statutory fees and a modest monthly stipend.

How to apply

Applications should be submitted by 11th September 2023, enclosing the following documents:

- One page (A4 size) motivation outlining your background, academic interests, research experience and reasons for wishing to work on this project.
- A 1-page CV with two references.
- Scanned copy of your MSc and/ or BSc degrees, transcripts and KCSE certificate.

Applications need to be submitted via email with the subject "**CarboGrass Project Scholarship**" to Prof. Felix Ngetich <fknetich@jooust.ke> and Dr. Peter Bulli <pbulli@jooust.ac.ke>.