

Helvetas is an organization specialized in development cooperation and humanitarian response, anchored in Switzerland. Our vision is a just world in which all men and women determine the course of their lives in dignity and security, using environmental resources in a sustainable manner.

For our team based in Tanzania we are looking for a motivated individual to join our organization as per September 2024 or upon agreement for 6 months.

ETH4D INTERNSHIP SUSTAINABLE CHARCOAL PRODUCTION & PYROLYSIS TECHNOLOGY- USEMINI PROJECT IN TANZANIA

PROJECT

Under the European Union Integrated Approach to Sustainable Cooking Solutions Programme, Helvetas Tanzania is implementing the initiative called 'Sustainable forest management and renewable energy through inclusive community empowerment' (Kiswahili abbreviation USEMINI) in the Morogoro region in Tanzania.

The overall objective of the initiative is to promote inclusive, sustainable forest management and wood fuel production in four rural districts of Morogoro region and improve the livelihoods of rural women and men through a sustainable wood fuel value chain with more efficient energy supply and increased income-generation opportunities, whilst reducing deforestation and mitigate adverse effects of climate change.

One of the main outputs of the project focuses on actors investing in sustainable charcoal and other renewable fuel solutions. In an analysis of the actual charcoal production practices, the deficiencies and inefficiencies of current practices and their impact offer several measures for technical improvement which can evolve into viable business opportunities.

The project is exploring and piloting different facilities for sustainable charcoal making that fit the project context and local requirements best.

The main role of the student would be to support USEMINI to develop operational guidelines for the different facilities based on the local experiences and challenges of the operators.

YOUR MAIN TASKS

As part of the USEMINI team, in collaboration with local experts and with guidance from the pyrolysis expert, the proposed activities for the student work are:

- Visit and assess operational status of different facilities based on predefined criteria (linked to pilot set-up, requirement profiles, technical guidance by pyrolysis expert)
- Look into strengths and weaknesses of the current carbonization practices / technologies compared to the pilot facilities.
- Assess the pilot facilities on:
 - a. safety and security
 - b. Design weaknesses
 - c. environmental requirements
 - d. and quality of the different productsand recommend improvements
- Review the initial operational manuals for the pilot facilities

- Economic assessment of the Carbon value chain aiming to identify trigger point for improving the business case for sustainable charcoal.
- Modularization of scenarios for different carbonizing facilities aiming to identify entry points for the improvement of the carbon footprint of charcoal (optionally enhanced by simple carbon dioxide spot measurements)
- Develop detailed operational manuals based on the experiences and challenges of the operators.

Corresponding activities are:

- Get acquainted with the different local experts and local existing facilities.
- Design a database with all technical, economic, environmental and social data of local and pilot facilities.
- Organize and collect data on existing charcoal facilities and on pilot facilities and upload in the database.
- In addition, the student would contribute to a general reflection within the project on wood fuel and energy and come up with ideas for actions and interventions.

YOUR QUALIFICATIONS

- Completed or ongoing studies in Environmental Engineering / Mechanical engineering / Energy Sciences and Technology, or another discipline relevant to the topic
- An interest in applied pyrolysis technology and sustainable energy use and management of various data for ecological restoration
- Strong communication and interpersonal skills combined with a high degree of cultural sensitivity
- A high degree of self-dependence and the willingness to travel within Tanzania
- Excellent spoken and written English
- An interest in the field of development cooperation

OUR OFFER

We offer you an interesting challenge in a motivated and supportive team as well as an insight into the work in development coordination. You will have the chance to experience life in Tanzania, put your competences from your studies into practice, and gain experience working in a development project. You will be part of the project team in **Morogoro city**. The project is 250 km from Dodoma, where the Tanzania head office is located, but can be reached very well by bus or car. Cost of Living expenses (simple accommodation & monthly food allowance) and local travel & transport costs related to field assignments are covered by Helvetas.

We look forward to receiving your complete application including CV, motivation letter, work certificates and diplomas by **June 18th, 2024** via [our online recruiting portal](#). For further information please contact Annet Witteveen and Felix Bachmann, Country Directors Tanzania, at annet.witteveen@helvetas.org or felix.bachmann@helvetas.org. Visit our website www.helvetas.org.