



Examining socio-ecological drivers of forest restoration outcomes in the Copperbelt

MPhil Natural Resources Management (full-time) scholarship tenable in the School of Natural Resources with financial support from WeForest.

Background

Initiatives engaging smallholder farmers in forest restoration in the Zambia's Copperbelt region face a number of challenges. Customary governance structures are generally weak and current environmental law in Zambia does not formally recognise patches of forest on smallholder farms. Consequently, there is a lack of institutional incentives and support for such 'Farm Forests'. In addition, farmers face continued pressure to convert their forest for agriculture to meet the needs of a growing population and in response to declining soil fertility on existing agricultural land, or to participate in an unregulated charcoal industry perceived to be a quick source of income and driven largely by growing urban demand for woodfuel.

Since 2015, > 1,000 smallholder farmers in the Copperbelt have joined a project run by non-profit organisation WeForest, called '[Copperbelt: Forests on Farms](#)'. Farmers commit to meet the rules of engagement and to set aside a minimum of 2 limas of land on their farms for Assisted Natural Regeneration (ANR) of miombo woodland. Once farmers decide to join the project, they receive training in ANR, agroforestry and beekeeping. Community Forest Rangers (CFRs) are equipped to monitor and advise farmers and a process is being developed to deal with non-compliance to the rules of engagement.

Despite being part of the same project, restoration outcomes within the ANR areas have varied between farmers, with some farmers not adhering to the rules of engagement and continuing to produce charcoal. As WeForest expands its programme in the Copperbelt, understanding how socio-ecological factors determine restoration outcomes is now of key importance.

This project provides an opportunity to work at the nexus between biophysical and social sciences. The student will assess the socio-ecological and economic drivers of forest restoration outcomes on farms and the supporting governance structures.

The student will engage in extensive fieldwork to collect new data and review existing socio-economic datasets, livelihoods activity data & forest inventory data spanning the period 2015 to present. The student will also receive training in data collection and analysis tools.

Research Questions

The specific research project will be co-developed by the student, supervisors at Copperbelt University and WeForest during the first 6 months of the scholarship. However, the project should centre on elucidating some of the following questions:

- What drives land use change at the farm level? For instance, what incentivises forest management in favour of other land uses?
- Which other interventions would incentivise farmers to maintain ANR areas once trees are large enough for charcoal production? e.g., would planting of woodlots be a viable option?
- Which socio-ecological factors play the biggest role in determining restoration outcomes?
- What conditions are likely to produce positive/negative restoration outcomes?
- Are the allowances to harvest timber/wood from the 'Farm Forests' enough to meet the annual domestic/household demand?
- What aspects of the charcoal value chain are most attractive to farmers?

Application Process

The School of Natural Resources invites applications for the WeForest 18 month funded MPhil for the 2022-2023 academic year. The funding covers full tuition fees, living stipend and research costs.

Candidate Requirements

- **Applications are invited from candidates with a minimum of an undergraduate degree in a relevant field** (Agroforestry, economics, sociology, forestry, agriculture) with a track record of achieving high grades.
- Demonstrated interest in the social and economic aspects of farm forestry or relevant topics
- Proven ability to collect and analyse qualitative and quantitative data
- Excellent communication, analytical and writing skills
- Ability to communicate with and gather information from a diverse range of stakeholders
- Proactive, proven ability to conduct research independently
- Ability to meet deadlines

The successful candidate is expected to be based in Kitwe and be able to travel for extended periods within Zambia on fieldwork.

Interested candidates to submit their application letter, academic qualifications and 2 references to dean.snr@cbu.ac.zm and copy the project supervisor Professor Felix Kalaba: kanungwe@gmail.com.

Application Deadline: Friday 15th August 2022