

Vacancy for a research position (ca. 1.5 years)

Ghent University, Belgium

## Mixed Forest plantations for climate change mitigation and adaptation (MixForChange)

### Project background

Forest landscape restoration and afforestation have recently received much international attention as a crucial opportunity for mitigating climate change (CC). Therefore, it features prominently in many political initiatives such as the EU Green Deal and the Bonn Challenge. In the current context of climate change, new planted forests preferably focus on species and species associations with high growth and carbon sequestration potential – i.e. climate change mitigation. Simultaneously, they need to be most resistant and resilient against the future impacts of climate change – i.e. adaptation.

A growing body of evidence suggests that mixed forest plantations, i.e. plantations where several tree species are mixed, are more efficient in sequestering C, while better coping with CC-related stress. However, monocultures still dominate the world's forest plantations. The reasons for the apparent resistance to mixed plantations among landowners and stakeholders need to be identified and addressed in future forest policies to promote the large-scale expansion of more CC-resilient mixed forest plantations. One of the possible factors that may have prevented the expansion of mixed plantations at large scales is insufficient translation of scientific evidence to practitioners and policy-makers.

Using a global network of forest biodiversity experiments (<https://treedivnet.ugent.be/>), the MixForChange project will provide a mechanistic understanding of how tree diversity, species identities and management (thinning and fertilization) influence both the potential of mixed forest plantations to mitigate (C sequestration) and adapt (drought and herbivory resilience) to CC, in a win-win approach. In addition, we will translate this knowledge into guidelines that can be widely adopted by practitioners and policy-makers.

**Project team** – MixForChange is a collaborative, European project that involves 13 research institutions from 8 countries as well as important stakeholders of the forest sector. See: <https://mixforchange.cirad.fr/the-consortium/partners>.

**Funding** – The MixForChange project is funded by the BiodivERsA program, under the Horizon 2020 ERA-NET COFUND scheme. This particular position is funded through the Belgian Science Policy Office (BELSPO) - Belgium.

### Vacancy Description

The person hired on this position will contribute to the syntheses work in the project. The overall aim of the synthesis is to bring together all the scientific evidence of the project to achieve four consecutive tasks: (1) identify the 'best species mixtures' that optimize both CC mitigation and adaptation, (2) confront these mixtures with stakeholders' expectations, (3) develop science-based guidelines to design mixed forest plantations (taking 1 and 2 into account), and (4) use this information to reach out to a wide audience of practitioners and policy makers.

**This vacancy is looking for a person leading the third task.** The work will involve systematic review of TreeDivNet-experiment publications for information that is directly relevant for practitioners. This information is complemented with practical knowledge offered by experimental site managers related to the main difficulties encountered in the establishment and management of mixed plantations. The review of 'lessons learned' is combined with the outputs of first and second task, to formulate science-based guidelines for mixed plantations. The outputs are a scientific publication, but also brochures and other formats that are useful for practitioners. These will be developed in interaction with the fourth task.

## Research Environment

The successful candidate will be based at the Forest & Nature Lab ([www.fornalab.ugent.be](http://www.fornalab.ugent.be)) of Ghent University, Belgium. ForNaLab consists of 35 staff members and is headed by Prof. Kris Verheyen, Prof. Lander Baeten, Prof. Jan Mertens and Prof. Pieter De Frenne. The research group is part of the Department Environment at the Faculty of Bioscience Engineering, Ghent University (<https://www.ugent.be/bw/environment>).

The Forest & Nature Lab aims at understanding the interactions between the ecological processes, composition, and structure of terrestrial ecosystems, with a clear link to management and policy. ForNaLab is actively involved in several national and international projects and networks, including forestREplot ([www.forestreplot.ugent.be](http://www.forestreplot.ugent.be)), TreeDivNet ([www.treedivnet.ugent.be](http://www.treedivnet.ugent.be)), TreeDivBelgium ([www.treedivbelgium.ugent.be](http://www.treedivbelgium.ugent.be)), FLEUR ([www.fleur.ugent.be](http://www.fleur.ugent.be)), and sREplot (<https://www.idiv.de/en/sreplot.html>).

## Profile

- You have experience in conducting scientific research and combine this with strong practical knowledge of actual forest management
- You hold an MSc degree in the field of biological sciences, including Biology, Bioscience engineering, Ecology, Environmental Science, and Forestry
- You have a strong background in forest ecology and management
- You are able to synthesize knowledge, based on a multitude of data and insights
- You have strong writing skills, both in a scholarly style and for a broad audience
- You are an enthusiastic and highly motivated person with leadership capacities
- You are a team player with excellent (English) communication skills and are motivated to work in a collaborative project

## Our offer

- We offer a research position for ca. 1.5 year, depending on the percentage and the salary scale of appointment
- Start date from January 2022 onward
- Salary according to the Belgian salary grades
- Collaboration with a dynamic and highly active research group
- Working in a collaborative project with partners from different renown and international institutes
- Participate in an international global network

## Interested?

Please send your CV, two references and a one-page cover letter explaining how you would approach the position to [Lander.Baeten@ugent.be](mailto:Lander.Baeten@ugent.be) and [Kris.Verheyen@ugent.be](mailto:Kris.Verheyen@ugent.be) by **14 November 2021**.

All documents should be merged together into one single PDF file.

All questions related to this vacancy can also be addressed directly to Lander Baeten and Kris Verheyen.