



2 doctorate opportunities

Agroforestry systems for ecosystem-based Carbon Dioxide Removal: stocktaking and case studies in the Brazilian Amazon and the Upper Rhine region

As part of an upcoming BMBF funded project **CDR-PoEt (Carbon Dioxide Removal Options – Policies and Ethics)**, the Chair of Silviculture (Working Group “Forestry and Rural Development”) at the Faculty of Natural Resources and Environment University of Freiburg, invites applications for **two 3-year doctoral positions**. Both doctoral researches are dedicated to assess the potential of agroforestry systems as a land-based carbon dioxide removal approach for achieving the Paris Agreement by analysing the functionality of respective enabling policy instruments and their applicability including ethical considerations. The doctorate researchers will work in two case study regions: the Brazilian Amazon (doctorate position 1) and the transnational Upper Rhine region (doctorate position 2)

Starting date is 01.10.2021 (pending final project approval).

Background of the project consortium

The **CDR-PoEt** project is a principle-based, stakeholder-led, transparent approach to researching possible political instruments and fairness implications for carbon dioxide removal (CDR). Concrete policy options (as for scaling Agroforestry practice) are identified and evaluated on the basis of guiding principles that will allow examining the economic, socio-cultural and institutional feasibility of specific CDR technologies, like in the land use sector, as a basis for policy recommendations at local and (inter) national level. Stakeholder views inform all research steps: in the identification and formulation of governance principles, the operationalization of evaluation criteria, the definition and evaluation of CDR policy instruments and scenarios for a fair share of responsibility. We apply our conceptual considerations to three CDR cases, from purely technological to ecosystem-based approaches: DACCS, BECCS and Agroforestry. Our comparative and evidence-based analysis helps to identify key elements and distribution policy implications. We work out similarities and differences that should be reflected in policy-making as well as in technology-specific policy elements. Our research relies on an understanding of social acceptability and acceptance and as such is an important contribution to refining understanding of ‘CDR feasibility’ or ‘potentials’ as going beyond economic calculations of costs and engineering-based calculations of technical potentials, towards a sociotechnical systems perspective. Accordingly, the offered doctorate positions are embedded in a program that allows for fruitful exchange with research institutions across the country, and provide excellent early career training and networking possibilities.

Sub-project at the University of Freiburg

The University of Freiburg is coordinating the project consortium and leads the sub-project for the empirical investigation of the acceptability and policy instruments for different CDR technologies – including BECCS or DACCS as well as Agroforestry. regarding the latter, the University holds responsible for a better understanding of how agroforestry-based Afforestation and Reforestation approaches (A/R) can provide multiple benefits to society compared to sole agricultural or forestry uses, especially with regard to local livelihoods and CO₂ sequestration

(in woody components and soils). Despite the manifold benefits reported, in practice, farmers tend to hesitate to adopt agroforestry systems. It remains still unclear how they have to look like and what social, political and financial support is needed to promote a broader adoption of agroforestry systems by farmers, especially smallholders. To address the policy related limitations and hurdles for scaling of agroforestry, the research team will apply a systematic empirically informed analytical effort structured from global stocktaking and deliberations - to regional contextualization - down to local practitioners' perspectives for validation. Global stocktaking of the technical and political peculiarities of a diverse set of agroforestry options will be complemented in regional contexts, namely of the trinational Upper Rhine Valley area in the centre of Europe, and the Brazilian Amazon. In direct engagement with practitioners on the ground the applicability not only of the technology itself, but also envisaged policy instruments and ethical considerations will be validated. The case studies will serve to elaborate and 'test' policy options and fair distribution approaches for scaling agroforestry practices in these contexts and beyond.

Candidate profile: We are looking for two highly motivated and co-operative scholars with a strong background at the nexus of forestry and/or land use with governance and/or development studies, ideally with a record in forest (carbon) inventories as well as (at least first) experience in policy and governance considerations related to agriculture, agroforestry or forestry, and the promotion of sustainable land use and/or measures against climate change, e.g. community forestry, REDD+. The ideal candidate will have demonstrated his/her ability to successfully carry out relevant empirical research, data analyses and to communicate results. Experience in publishing in scientific journals is an asset. The applicant should be able to independently plan and undertake reviews and field studies (including interviews or stakeholder workshops), coordinate work with other project partners and compile and analyse large data sets. A strong background in quantitative and qualitative data analysis and experience with systematic reviews and meta-analysis are desirable. A willingness and suitability to travel (including abroad under tropical conditions, especially doctorate 1) is required.

A strong command of English is indispensable. For the first doctorate position also fluency in Spanish/Portuguese is required; for the second fluency in German (plus good command of French). Generally, for international candidates, knowledge of German (or a willingness to learn) would be beneficial to enhance the experience of living and working in Germany.

Salary is the German standard for doctoral students (TV-L E13, 65% of a full scientist salary) with a starting date in October 2021 anticipated. The University of Freiburg is an equal opportunity employer and encourages women to apply. Severely disabled applicants with equal qualification and aptitude will be given preferential consideration. For international candidates, the University of Freiburg offers support with the logistics of relocating to Germany (<http://www.welcomecenter.uni-freiburg.de>).

Founded in 1457, the University of Freiburg is one of the oldest German universities and now one of the nation's leading research and teaching institutions. Freiburg is a vibrant city at the foot of the Black Forest in close vicinity to France and Switzerland, with a rich cultural and academic life and excellent recreational opportunities.

Your application in English language will consist of a letter of motivation clearly exploring your qualifications and your focus area of interest (Amazon or Upper Rhine), a CV, academic transcripts (non-official copies are acceptable in this phase), and contact details of at least two academic references. Please send your application **as a single PDF** by email with the subject "PhD position in CDR-PoEt" by 6th of August 2021 to Sabine Reinecke (sabine.reinecke@waldbau.uni-freiburg.de). Questions regarding the content of the project can be discussed with Dr. Reinecke or Prof. Dr. Pokorny (benno.pokorny@waldbau.uni-freiburg.de).

Interviews with the most qualified candidates are likely conducted between 12-20 August. Ideally you inform us about your availability for interviews already in your application email.