



Seeking Postdoctoral Researcher in Soil Science for International Project: Agroecological Transitions for Climate Mitigation and Adaptation (Agroecology4Climate)

Project Overview:

The Agroecology4Climate project will assess how transitions towards **diversified perennial systems (e.g. agroforestry)** can support climate adaptation (improving resilience in livelihoods and food security) and mitigation (increasing carbon sequestration). We understand agroecological transitions as the intentional diversification of farming in collaboration with social networks to create landscapes that foster dignified work, conservation of biodiversity, and climate resilience.

The Agroecology4Climate project builds on transdisciplinary research on agroecological transitions with climate-vulnerable farming communities in **Canada** (British Columbia Lower Mainland), **Germany** (Brandenburg), **India** (Kerala), and **Brazil** (São Paulo). The project works directly with farming communities, social movements, and policy makers to improve evidence-based decision-making to assess the potential of agroecological transitions for climate adaptation and mitigation. The project consortium includes as academic partners the University of British Columbia (UBC), University of Hohenheim (UHOH), State University of São Paulo (UNESP), Kerala Agricultural University (KAU) and the Leibniz Centre for Agricultural Landscape Research (ZALF), as well as farming associations and/or cooperatives in all four case study regions.

The project has 3 main objectives: 1) **evidence synthesis** on agroecological transitions, 2) **field studies** to test climate mitigation and adaptation outcomes across a diversification gradient, from low-diversity farming systems to perennial and agroforestry-based management systems, 3) **scaling transformations** through co-production of knowledge both locally within case studies and globally across case studies.

Position Summary:

The *Department of Agricultural Extension Education* in the *College of Agriculture (Vellayani)* at *Kerala Agricultural University* is looking to fill a position for a Postdoctoral Researcher with expertise in Plant and Soil Sciences to contribute to the project Agroecological Transitions for Climate Adaptation and Mitigation (Agroecology4Climate). The **Postdoctoral Researcher position will be for 1 year, starting November 15, 2025 (or earlier, if possible) and is based in Kerala, India**. The position will be supervised by Dr. Archana Raghavan Sathyan, Assistant Professor at KAU.

The role of the Postdoctoral Researcher will be to carry out **soil and plant sampling and laboratory analysis in Kerala, India**, working across a diversification gradient from low-

diversity farming systems to highly diversified homesteads and perennial systems as part of Objective 2 (Field studies). The Postdoctoral Researcher will then use statistical methods to determine total organic carbon stocks on sampled farms and assess climate change mitigation potential of agroecology in Kerala and (if feasible) across three other international case studies. This position requires travel to field sites and engagement with farmers across the state of Kerala.

Duration: 1 year (starting from last week of November 2025)

Job Responsibilities:

- Collect and analyze soil and plant biomass samples from organic (agroecological) and conventional farms in Kerala for total organic carbon content (e.g., on select farms in Idukki, Wayanad, Palakkad).
- Lead field work and laboratory analyses in alignment with the international team, to ensure comparability across cases.
- Using established methods, estimate total organic carbon content of soil, aboveground biomass, and tree biomass in diversified and homestead farms across different land uses and cultivated species.
- Analyze data to determine the organic carbon stocks across farms in the study and use to assess climate change mitigation potential of agroecology in Kerala.
- If feasible, synthesize carbon stock data from farms across international case studies to contribute to writing of journal articles for publication.
- Help mentor graduate and undergraduate students and coordinate with the project research coordinator and research assistant to complete project tasks.
- Engage with farmers and other agricultural stakeholders through participation in workshops.

Required qualifications:

- Ph.D. in Soil Science/Agronomy/Agroecology
- Experience in field and laboratory techniques to analyze organic carbon stocks in plants and soils.
- Proficiency with data analysis and coding in R or another statistical program.
- Excellent written and oral communication skills in English and ability to communicate in Malayalam.
- Strong interest in working with a transdisciplinary and international project team.
- Organizational skills and ability to work independently.

Preferred skills: Experience with field- and laboratory-based research on climate change mitigation; experience with data collection on diversified farms with annual and perennial crops; experience with data synthesis across agricultural contexts; a record of research productivity; and excellent interpersonal skills for communicating with diverse stakeholders.

We offer:

- Opportunity to work in an international inter- and transdisciplinary research project including collaboration with research and community partners from four case study regions from across four continents.

- Opportunity to work in an exciting solutions-oriented research project that aims to contribute new societally relevant knowledge to support sustainability transformations.
- Opportunity to gain insights into current research topics and innovative research methods in the field of sustainable agriculture and food systems.
- Flexible working time in consultation with the team.
- A pleasant, highly collaborative, and inclusive working atmosphere.
- Remuneration according to established rates. (**₹ 60,000 per month**)

How to Apply: Applications are encouraged from all qualified individuals regardless of background and identity.

To apply, please submit the following items in a **single PDF** to Dr. Archana Raghavan Sathyan by email: nfrfkau@gmail.com

Deadline: 14/11/2025

1. Cover letter describing your research experience and interest in the position
2. A copy of your CV
3. Sample of writing (i.e., relevant scientific publication or PhD thesis)
4. Contact information for two professional references

Applications will be reviewed and intimated to the shortlisted candidates for an interview.

More about the project: <https://sustainability.uni-hohenheim.de/en/agroecologicaltransitions>

More about the department: <https://coavellayani.kau.in/institution/department-agricultural-extension-0>

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