# Cutting-edge Research for a Changing World



# hereon

# PhD Position - Model-based assessment of

# climate impacts on conflicting land use systems

Reference code: 50139755\_2

Commencement date: August 1st, 2025

Work location: Hamburg

Application deadline: 04.06.2025

The Climate Service Center Germany (GERICS), a scientific organizational entity of the Helmholtz-Zentrum Hereon, invites applications for a PhD Position (75%), starting August 1st, 2025 (or as soon as possible thereafter), as part of the "Helmholtz Institute for Climate Service Science" (HICSS) - a cooperation between GERICS and the University of Hamburg. The position is limited to 3 years and is intended to complete with a PhD. The place of employment is Hamburg.

GERICS develops science-based prototype products and services in support to government, administration and business in their efforts to adapt to climate change. It builds up a national and international network structure in order to integrate existing competences and knowledge, and to link various actors within the complex area of climate change.

This 3-year position, part of the Helmholtz Institute for Climate Service Science (HICSS) ClimateBridge project cluster, focuses on developing innovative climate services for landowners in Harburg County and the Brazilian Amazon.

The successful candidate will work on the ClimateConnect project, a key component of the HICSS ClimateBridge cluster, which aims to generate practical climate solutions for landowners in these regions.

This project aims to:

- 1. Simulate climate impacts on agro-environmental systems using a state-of-the-art biophysical process model
- 2. Assess adaptation opportunities for land-users under changing climate conditions
- 3. Assess land use change including wetland restoration in the Hamburg-Harburg region
- 4. Contribute model output to a user-friendly dissemination tool to provide actionable climate information directly to farmers

By bridging the gap between complex climate data and practical agricultural applications, this research will contribute to enhancing farm resilience and sustainability in the face of climate change.

Equal opportunity is an important part of our personnel policy.

#### Your tasks

#### Climate Adaptation and Land Use Change Research

. explore land use change and climate adaptation options for agricultural systems in the two focus regions (Hamburg-Harburg County and Brazilian Amazon)

#### **Helmholtz-Zentrum Hereon**

The Helmholtz-Zentrum Hereon conducts cutting-edge international research for a changing world: Around 1,000 employees contribute to the tackling of climate change, the sustainable use of the world's coastal systems and the resource-compatible enhancement of the quality of life. From fundamental research to practical applications, the interdisciplinary research spectrum covers a unique range.

# Climate Service Center Germany (GERICS)

The interdisciplinary team at Climate Service Center Germany (GERICS), an institution of Helmholtz-Zentrum Hereon, develops science-based prototypical products and services to support decision makers from politics, economy and public administration in adapting to climate change. GERICS is an independent scientific organizational unit of the Helmholtz-Zentrum Hereon located in Hamburg's center.



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co-construct with stakeholder and literature review the basis for informing adaptation

strategies

#### Model Proficiency and Application

- · learn the biophysical crop simulation model EPIC or an equivalent alternative
- . apply the model to simulate existing land management systems and land use change

#### **Data Collection and Management**

 gather and organize biophysical and social data from data providers, scientific literature, and stakeholder communications

#### Scenario Analysis

- conduct comprehensive analysis of land management options under various climate scenarios
- · employ biophysical process models to assess outcomes in both focus regions

#### **Database Development**

 create and maintain a model input and output database accessible to farm information devices

#### Collaboration and Communication

- actively collaborate and exchange information with project team members
- participate in interdisciplinary research activities
- participation in stakeholder co-design processes, i.e., with regional authorities, nature conservation organizations, farmers

#### Reporting and Publication

- prepare regular progress reports on research findings
- contribute to scientific publications and conference presentations

#### Your profile

- Master's degree in Agricultural Science, Environmental Sciences, Agroecology, Geoecology, or a related field
- · experience in quantitative assessments, including statistics and/or crop modeling
- · proficiency in programming languages for data processing and analysis
- · strong commitment to inter- and transdisciplinary research approaches
- excellent communication skills in German and English (written and verbal), Spanish and/or Portuguese would be an advantage



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Informal enquiries can be directed to Dr. Maria Manez (maria.manez@hereon.de) and Prof. Uwe Schneider (uwe.schneider@uni-hamburg.de).

#### We offer you

- an exciting and varied job in a research centre with around 1,000 employees from more than 60 nations
- you will benefit from comprehensive academic training by joining the Graduate School of Integrated Climate and Earth System Sciences (SICCS)
- . social benefits according to the collective agreement of the public service and remuneration up to pay group 13 (according to EntgO Bund)
- · an excellent technical infrastructure and modern workplace equipment
- . 6 weeks holiday per year; company holidays between Christmas and New Year's Day
- . very good compatibility private and professional life; offers of mobile and flexible work
- PhD Buddy Program
- . free assistance program for employees (EAP)
- · corporate Benefits
- · office location in the heart of the city of Hamburg in the historic Chilehaus

Interested?

Then we are looking forward to receiving your comprehensive application documents (cover letter, CV, transcripts, certificates etc.) indicating the reference number code no. 2025/KG 4 until 04.06.2025.

Apply now!

Severely disabled persons and those equaling severely disabled persons who are equally suitable for the position will be considered preferentially within the framework of legal requirements.



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