JOB OFFER

Post-doctoral research position (2 years) on Integrating Land-based mitigation measures for agriculture in Europe and assessing their impacts on food security and the environment

The French National Research Institute for Agriculture, Food, and Environment (INRAE) is a major player in research and innovation. It is a community of 12,000 people with 272 research, experimental research, and support units located in 18 regional centres throughout France. Internationally, INRAE is among the top research organisations in the agricultural and food sciences, plant and animal sciences, as well as in ecology and environmental science. It is the world's leading research organisation specialising in agriculture, food and the environment. INRAE's goal is to be a key player in the transitions necessary to address major global challenges. Faced with a growing world population, climate change, resource scarcity, and declining biodiversity, the Institute has a major role to play in building solutions and supporting the necessary acceleration of agricultural, food and environmental transitions.

WORK ENVIRONMENT, MISSION AND ACTIVITIES

▪ This post-doctorate is part of the CLAND project. Work will be carried out at the INRAE-AgroParisTech ECOSYS UMR "Functional ecology and ecotoxicology of agroecosystems" (https://www6.versailles-grignon.inrae.fr/ecosys) located in Palaiseau (91, France). The CLand Convergence Institute (www.cland.lsce.ipsl.fr) is funded by the French national research agency for ten years (2017-2027) gathers the efforts of more than 100 researchers in the Paris Saclay area from key institutions in the field of climate change impacts, sustainable agriculture, ecosystem services, environmental impacts and land use socio-economics. The ECOSYS unit hosts approximately 110 permanent agents, including about 50 researchers and teacher-researchers. The UMR's work aims to address the functioning of agroecosystems and their relations with the environment.

▪ From a climate change point of view, agricultural lands are both part of the problem and the solution. Agriculture is facing new and sometimes contradictory challenges: the need to increase crop yields to feed an increasing population, combined with the constraint of reducing adverse environmental impacts in terms of GHG emissions, fertilizer and pesticide inputs, water and energy consumption, or biodiversity loss. Agriculture is also a key proponent in the deployment of land-based climate change mitigation measures (LMM), which aim at reducing GHG emissions from terrestrial land and even creating negative emissions via soil C sequestration or bioenergy pathways including carbon capture and storage (BECCS).
You will be in charge of:
- defining agronomic scenarios for the deployment of a portfolio of land-based climate change mitigation measures (LMMs) over the next decades,
- assessing methodologies to evaluate these LMMs at the European and/or French scales (availability of data (meta-analysis), modelling approaches, etc.),
- estimating their impacts on food security and the environment as well as perform an overall cost/benefit analysis.

TRAINING AND SKILLS

▪ Recommended training: PhD in the domain of agricultural science and/or biogeoscience.

▪ Skills required: data management, agricultural practices and biogeochemical cycles. Good proficiency in English is required (French speaking will not be a selection criterion).

▪ Experience: Command of R programming and GIS is a plus. You are familiar with recent research on climate change, impact evaluation and land use changes.

↘ Hosting conditions

■ Unit: UMR ECOSYS

■ Address : Campus INRAE Agro Paris-Saclay (22 place de l'agronomie, 91120 Palaiseau, France)

■ Type of contract : Fixed term contract (CDD)

■ Durée du contrat : 26 months

■ Date d'entrée en fonction : December 1st 2023

■ Rémunération : 2100€ net salary (follows national directives including social and health benefits, and is adjusted for work experience)

↘ How to apply

Applicants should submit a single document file in English including (i) a 2 page-CV, (ii) a list of scientific publications and other productions, (iii) a statement of research experiences and technical skills appropriate to the proposed subject, and (iv) a list of three potential references.
⬛ e-mail : raia-silvia.massad@inrae.fr and francesco.accatino@inrae.fr

❌ Deadline : 31st October 2023