



Research scientist on greenhouse gas emission mitigation in the agricultural sector in the context of the Paris Agreement on Climate as part of the CLAND Convergence Institute

At Laboratoire de Météorologie Dynamique / IPSL

Context:

The CLAND Institute of Convergence project (www.cland.lsce.ipsl.fr) funded by the French national research agency for ten years 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 scientific challenge tackled by CLAND is to integrate research in modeling climate change, food and fiber production, biodiversity dynamics, ecosystem functioning and land-use socio-economics, together with data syntheses to understand key feedbacks and assess risks and sustainable options for integrated management of land ecosystems. CLAND spans the full range of disciplines necessary to make breakthroughs in the integrated assessment of the interplay between climate change and land use and management.

Job description:

The job holder will analyze the content of the Nationally-Determined Contributions (NDCs) of the Parties to the Paris Agreement and their relationships to available research-based and official UNFCCC inventories in the sectors of Agriculture, Forestry and Land Use (also called AFOLU). He/She will assess the potential for mitigation of greenhouse gas emissions and for carbon sequestration, with a special focus on land based mitigation solutions that were not specifically taken into account in the NDCs in these sectors. This work will be based on the meta-analysis of scientific literature, the analysis of national plans and objectives, of recent trends in soil carbon, CO₂ and non-CO₂ gases emissions from available global and regional land ecosystem models and integrated assessment socio-economic models. This will feed into our “Paris agreement” emission monitoring tool for 2030 developed at IPSL and policy advice provided to the French Ministry of Environment.

Responsibilities and tasks:

- Analysis of Nationally-Determined Contributions for the agriculture and LULUCF sectors
- Meta-analysis of scientific literature
- Comparison and assessment of available inventories
- Incorporation of inventories in our “Paris agreement” emission monitoring tool
- Assessment of mitigation potentials



Required education, experience and skills:

Applicants should hold an engineering degree or PhD and have experience in one or several of the following subjects: modelling of the land carbon cycle and/or other biogeochemical cycles, emission inventories, agricultural and LULUCF practices, accounting rules, mitigation policies in agriculture and forestry.

Furthermore, applicants should have:

- strong analytical skills to work with large and multiple datasets,
- a good knowledge of at least one programming language and Linux/Unix,
- a proven ability to work in a team and network with a range of scientists.

Experience in python is desirable.

Location:

Jussieu campus in Paris (<https://cmc.ipsl.fr>) or LMD campus at Ecole Polytechnique in Palaiseau (<http://www.lmd.jussieu.fr>) or LSCE campus in Gif sur Yvette (<http://www.lsce.ipsl.fr>), with regular visits to the other site. Regular visits to different teams of the Cland project (<http://cland.lsce.ipsl.fr>) for collaboration, seminars and conferences.

Collaborations:

Dr. B. Gabrielle, B. Guenet, T. Brunelle, J.-F. Soussana, D. Makowski and C. Chenu in Cland, Dr. G Grassi at the Joint Research Centre of the European Commission in Ispra, Jo House at Bristol University and Dr. P. Havlik at the International Institute of Applied Systems Analysis.

Contract duration:

Fixed-term period of 12 months with possibility of an extension.

How to apply:

Applicants should submit a complete application package by email to Olivier Boucher (olivier.boucher@ipsl.fr) and contact@lsce.ipsl.fr and should include (1) a curriculum vitae including most important recent publications, (2) statement of motivation (see above) and (3) names, addresses, phone numbers, and email addresses of at least two references.

The position is available from 01/01/2018 and will remain open until filled with review of applications and interviews. Salary follows national directives including full social and health benefits, and is adjusted for work experience.