

LUCCIA Project Land Use and Climate Change Impact Assessment

Vacancy: Technical Assistant Computer Programming and Spatial Analysis

Nitidæ is a French non-governmental organization (NGO) and its objective is to develop projects that combine the preservation of the environment and strengthen local economies. With a team of 120 employees (economists, agronomists, foresters, energy process engineers, specialists in soil carbon, GIS and remote sensing), Nitidæ implements more than 50 projects in Madagascar, Burkina Faso, Côte d'Ivoire and Mozambique. It also provides technical assistance to agribusiness companies to improve the performance of agricultural value chains, mitigate environmental impacts (preservation of natural resources, energy efficiency of processing processes, carbon offsetting activities) and encourage local economic development in connection with producer organizations. Nitidæ is a member of UEBT (Union for Ethical Bio Trade), Conferences of the Parties on the Climate and many initiatives aimed at the sustainability of the almond sector (cashew, cocoa...).

The LAUREL program (Land Use Planning to Improve the Resilience of Landscapes) launched in 2018 and financed by the World Bank, aimed to support the operationalization of low-carbon strategies and was implemented by Nitidæ. The LAUREL program aims to foster integrated decision-making for landscape management in Mozambique through the production of geospatial data on land degradation and the development of a prototype modeling platform (LANDSIM-P) to model and assess the impacts of land degradation. changes in land use caused by public policies. This project resulted in two main results:

- A nationwide study of land use and land cover changes between 2000 and 2016, as well as an in-depth analysis of the factors explaining these land use changes;
- A prototype modeling platform (LANDSIM-P) that has been developed on a national scale.

The second phase of this program called LUCCIA (Land Use and Climate Change Impact Assessment) aims to improve the aspects found in the first phase and include modules for analyzing projects and extreme events of climate change. The project will be implemented by the NGO Nitidæ in partnership with the Monitoring, Reporting and Verification (MRV) unit of the National Sustainable Development Fund (FNDS). In order to support the technical staff involved in the development of the prototype, the project foresees the hiring of a technical assistant, computer programming and spatial analysis.

Objective

The main objective of the technical assistant position is to ensure the smooth development and implementation of the LUCCIA modeling tool.

Workplace

The technical assistant will be based in the office of the Monitoring, Reporting and Verification Unit of the National Sustainable Development Fund (FNDS). This will report to Nitidæ, and will be under the general supervision of the coordinator of the MRV Unit, and under the direct technical supervision of CIRAD, a French research organization that is a member of the project's consortium. The post is based in Maputo city and includes possible trips to the project implementation sites in the country and abroad.

Responsibilities

The technical assistant will have the following tasks and responsibilities:

- Monitor and participate in the development of LUCCIA's mathematical simulation models;
- Interact with the NITIDAE Technical Assistant, the CIRAD team and the MRV Unit, in order to ensure the successful implementation of the objectives established for the success of the LUCCIA project;
- Analyze, propose and test different methods and algorithms to be implemented in LUCCIA;
- Analyze the results of different simulations and report lessons learned;
- Clarify doubts related to the functioning of LUCCIA;
- Lead, together with the Technical Assistant of NITIDAE, the meetings to follow up on LUCCIA activities;
- Leading capacity building activities on the use of LUCCIA by stakeholders;
- Participate in the preparation of reports, studies and activities linked to the planned regional and national studies;
- Provide support, whenever necessary, to other processes related to other FNDS projects, always prioritizing the LUCCIA program.

Candidate profile

The technical assistant must have a Bachelor's degree, preferably with a Bachelor's degree in the areas of Computer Engineering, Mathematics, Statistics or other related fields, and with the following skills:

- Deep knowledge of mathematical models, scientific programming and the preferred Java programming language and others (Python, R, Julia...);
- Practical programming experience linked to simulation models will be considered an advantage;
- Knowledge of collaborative development tools (git and GitLab or GitHub)
- General knowledge of geographic information systems and remote sensing;
- Understand the software architecture to support defect resolution;
- Knowledge in user interface design;
- Availability to make frequent and regular trips to project implementation sites;
- Proactiveness, creativity and willingness to learn and always innovate as well as share acquired knowledge;
- Fluent in Portuguese and English, oral and written (knowledge of French is an asset).

Terms and conditions

The project duration is 24 months. The terms and conditions of the contract will be discussed depending on the candidate's profile.

Application

The application letter accompanied by the curriculum vitae (maximum 3 pages), certificate of academic qualifications and 3 contactable references, must be submitted through the email address: rh.mocambique@nitidae.org until the 25th of February 2022.

Reference: Assist. LUCCIA technician-name and surname of candidate

Without a response within 2 weeks of the application deadline, you may consider your application has not been successful.