



## **Geospatial Data Scientist (Ref No: DDG-R4D/GS/DS/09/22)**

**Background:** The International Institute of Tropical Agriculture (IITA) invites applications for the internationally recruited position of **Geospatial Data Scientist**.

The International Institute of Tropical Agriculture (IITA) is a not-for-profit institution that generates agricultural innovations to meet Africa's most pressing challenges of hunger, malnutrition, poverty, and natural resource degradation. Working with various partners across sub-Saharan Africa, we improve livelihoods, enhance food and nutrition security, increase employment, and preserve natural resource integrity. IITA is a member of CGIAR, a global agriculture research partnership for a food secure future. Please visit <http://www.iita.org/> for more information on IITA.

The sustainable intensification of mixed farming systems (SIMFS) Initiative aims to provide equitable, transformative pathways for improved livelihoods of actors in mixed farming systems through sustainable intensification within target agro-ecologies and socio-economic settings. This Initiative will work in the 5 countries: Ethiopia, Ghana, Malawi, Bangladesh, Nepal, and Laos. The Initiative is implemented through 5 work packages (WP):

- Analysing the status, trends, and future dynamics of mixed farming systems to identify entry points for equitable sustainable intensification, to mitigate negative impacts of change and seize emerging opportunities for livelihoods.
- Building methods and tools for sustainable intensification of mixed farming systems to support decisions on what kind of sustainable intensification might work where, and for whom, in specific contexts.
- Participatory co-design of mixed farming systems with evidence-based, validated sustainable intensification innovation packages that are responsive to improving efficiency, equity and resilience, in regions where mixed farming systems dominate the landscape.
- Advancing and supporting scaling of innovations, through strategic partnerships and building the capacity of relevant actors in scaling approaches — a gender-transformative approach will be central to all innovation and scaling design to enhance equity.
- Capacity-building for mixed farming system design and analyses, to support long-term impact on university and college students, scientists, extension agents, farmers, private sector, policy makers and development actors.

This position is linked to WP1 of the Initiative.

### **Position Responsibilities**

- Apply geospatial and analytical skills using relevant data and tools to map the status, trends, and future dynamics of the mixed farming systems (MFS) in the global south.
- Apply spatial analytics on multi-source data (household surveys, GIS, and remote sensing platforms) to generate technology extrapolation domains (TEDs) to guide the scaling of sustainable agricultural intensification technologies in MFS.
- Apply data science and analytics (e.g., machine learning) to identify the impact of environmental and socio-economic changes on productivity and resilience of MFS in the global South.
- Support the Initiative's team with geospatial data and maps as needed in the relevant reports and studies.

- Contribute to the writing of reports and peer-reviewed publications.
- Contribute to data visualization and summarizing complex datasets to communicate key messages to non-expert audiences.
- Perform any other job-related duties as may be assigned.

### **Educational Qualifications**

The candidate should have an advanced university degree (Ph.D.) in Geography, Geomatics, Data Science, and Environmental Management with a specialization in Geographic Information Systems or other related fields.

### **Core Competencies**

- At least three years of relevant experience in processing and analyzing spatial data.
- Excellent knowledge of state-of-the-art methods for remote sensing/EO data analysis, spatial data, and GIS analysis.
- Ability to work independently and adapt to new statistical and computing techniques.
- Prior experience in working on large spatial data sets, writing, and executing scripts using Google Earth Engine (GEE), R, Python, and/or CG Labs.
- Demonstrated proficiency in version control tools and development of good practices (well-structured, modular code) such as GitHub will be an added advantage.
- Demonstrated ability to write and publish journal articles.
- Ability to work as a member of a multi-disciplinary or transdisciplinary team in a cross-cultural environment.
- Fluency in English with excellent verbal and written communication skills.

**Duty Station:** Nairobi, Kenya.

**General information:** The contract will be for an initial period of two years. IITA offers an internationally competitive remuneration package paid in US Dollars.

**Applications:** Applications must include a cover letter, which should address how the candidate's background/experience relates to the specific duties of the position applied for, curriculum vitae, and names and addresses of three professional referees (which **must** include either the Head of the applicant's current or previous organization or applicant's direct Supervisor/Superior at his/her present or former place of work). The application should be addressed to the Head of Human Resources. Please complete our online application form using this link: <http://www.iita.org/careers>

**Closing Date:** 6th October 2022

**IITA is an equal opportunity employer and is committed to building a diverse workforce, particularly welcoming applications from women.**

*While all applications will be acknowledged, please note that only shortlisted candidates will be contacted.*