AN INTERNATIONAL AND MULTICULTURAL WORKPLACE

"REMOTE SENSING AND INFORMATION SPECIALIST "

EXTERNAL VACANCY

Reference: 17SENREMOTOS0726

Division:	Research for Inclusive Green Development
Unit:	Climate Action Unit
Immediate supervisor:	Unit Coordinator
Type of position:	International / National
Duration:	1 year, with the possibility of extension
Workplace:	To be defined

I. NATURE OF THE WORK

CATIE is seeking a talented researcher to join our team and contribute to the development and implementation of geospatial information services based on remote sensing and GIS analysis. The selected candidate will work on the development and implementation of services for multiple stakeholders based on analysis of remote sensing data, information product development and its integration into user-centered designed services. The position will require the candidate to work closely with the team and external partners to design research and technical activities, collect and analyze data, develop and test services, and produce reports and scientific publications. The position will contribute to CATIE's mission, including SERVIR Mesomerica Hub, and other initiatives.

The SERVIR Global Collaborative is a globally connected network of independent regional hubs across Africa, Asia, Central America, and South America. In partnership with leading institutions worldwide, SERVIR leverages satellite Earth observation, advanced geospatial technologies and science, and deep local expertise to co-design operational, decision-ready systems. Tailored to local contexts, these solutions strengthen risk management and advance climate resilience, ecosystem stewardship, water and food security, and public health outcomes.

Around the world, governments and communities confront increasingly complex environmental risks — from extreme weather to water scarcity, deforestation to food insecurity. While satellites generate immense volumes of data about the Earth, turning that data into relevant, trusted, operational information for decision-makers remains a persistent challenge. Traditional tools often misrepresent local conditions or fail to align with country priorities, limiting sustained adoption.

SERVIR was created to change that. By co-designing solutions with national agencies and local stakeholders, SERVIR ensures that science, data, and tools are not only reliable — they are relevant, useful, and embedded into institutional systems.

II. MAIN TASKS AND RESPONSABILITIES

1. Identify, acquire, and process satellite imagery from various sources (e.g., Landsat, MODIS, Sentinel, and other available platforms) relevant to Central America.
2. Perform data preprocessing tasks, including radiometric correction, geometric correction, and atmospheric correction.
3. Develop, integrate and implement novel techniques, algorithms, data, and methods based on remotely sensed and geospatial analysis.
4. Integrate data, methods, results and analysis into operational services, including GeoAI supported platforms
5. Work closely with CATIE's Research Units and SERVIR network hubs, and other international partners to exchange knowledge, best practices, and technical solutions.
6. Conduct advanced geospatial analyses to support decision-making in areas such as climate resilience, natural resources management, and disaster risk reduction.
7. Contribute to develop and customize geospatial tools and models for end users, focusing on regional needs in sectors like food systems, disaster risk management, and biodiversity conservation.
8. Integrate remote sensing data with ground-based observations, socioeconomic data, and other relevant datasets to create comprehensive analytical products.
9. Collaborate with local and regional partners to incorporate indigenous knowledge and local data into geospatial models.
10. Assist in the development of early warning systems and decision support tools for disaster risk management.
11. Ensure that all geospatial data and tools developed under SERVIR Mesoamerica are accessible to stakeholders via appropriate platforms and comply with open data standards.
12. Stay informed about the latest advancements in remote sensing technologies and methodologies and apply innovative approaches to enhance CATIE and SERVIR-MA's capabilities.
13. Contribute to research projects and publications that highlight the impact of CATIE and SERVIR Mesoamerica's work.
14. Prepare technical reports, documentation, and presentations on the progress and outcomes of activities related to remote sensing and geospatial information management.
15. Document case studies and success stories demonstrating the value and impact of CATIE and SERVIR-MA's work in the region.
16. Create and sustain a work environment of mutual respect where the project team strives to achieve excellence.
17. Incorporate CATIE's vision and values and full adherence to Code of Conduct principles.

III. ACADEMIC PROFILE

Academic Level:

- A graduate degree (master's degree or higher) in GIS, remote sensing, geography, natural resources management, engineering or other field relevant to this position, or equivalent verifiable experience.

Experience:

- A minimum of five years of professional experience in managing scientific/ technical/ development projects.
- At least five years of experience in developing user or client driven geospatial tools, or applications, including modeling, database management and data quality control. Project management experience focused on geospatial tools or other science-based research desired.
- Strong knowledge of proprietary and open-source software for spatial analysis and data management.

Languages:

Advanced written and verbal communication skills in Spanish and English.

Additional training and experience:

- Knowledge in preprocessing, classification and interpretation, and time series analysis with passive and active sensors from satellites (multispectral, hyperspectral and radar) from public and commercial sources.
- Knowledge in the use of drones (UAVs), LiDAR or hyperspectral sensors is desirable.
- Skills in scripting (Python, R, JavaScript or similar) and use of remote sensing libraries to automate workflows for image processing and geospatial analysis.
- Experience applying machine learning and deep learning algorithms, convolutional neural networks or advanced statistical methods (e.g., image classification, change detection, time series analysis) is desirable.
- Familiarity with cloud-based analysis platforms such as Google Earth Engine, AWS, or Microsoft Azure for handling large volumes of remote sensing data.
- Familiarity with GeoAI tools, methods and
- Proficiency in using advanced visualization platforms (Power BI, Tableau, custom dashboards) to effectively communicate results to diverse audiences is desirable.
- Expertise in specialized software such as ESA SNAP, GAMMA, or open-source tools for processing SAR data is desirable.
- Proven record of productive engagement with scientists.
- Proven record of productive engagement with government stakeholders and/or other clients/ users of geospatial tools and applications.
- Strong written and verbal communication skills in both English and Spanish.
- Knowledge of the political, social, cultural, environmental, and development context of Central America preferred.

Personal Competencies

- Excellent networking and stakeholder engagement capacities
- Initiative and proactive problem solving and opportunity development
- Good oral and written communication
- Results Orientation
- Experience working, collaborating and participating in multidisciplinary teams
- Ability to delegate tasks effectively.
- Commitment to CATIE's mission and mandate
- Handling multiple tasks
- Excellent oral and written English expression.

Located in Costa Rica, CATIE combines science, postgraduate education and technical cooperation. Its campus is in a natural area rich in biodiversity, where tranquility and security allow a high quality of life. Innovation, excellence, service, integration and appreciation for diversity are within the institution's own values, where professional growth, international projection and multicultural exchange are favored.

For more information go to: www.catie.ac.cr. Interested persons should send an application letter (at their personal discretion), curriculum summary, supporting documentation, salary expectations to: **vacante@catie.ac.cr**

Deadline: August 27, 2026

Only preselected candidates will be contacted.

Please refer to the position reference indicated in the header.

CATIE does not discriminate based on gender, ethnicity, age, religious beliefs or political preferences.