

Deadline: 15 May 2024



APPLY 11-2024

Spatial data analyst

INTEGRATED BIOSPHERE FUTURES (IBF) RESEARCH GROUP

The **IBF Research Group**, part of the **IIASA Biodiversity and Natural Resources (BNR) Program**, is offering an opportunity for a spatial data analyst to work on processing and analyzing land-use, land management and international trade related large datasets.

BACKGROUND

The IBF Research Group adopts an integrated approach to sustainable land use and ecosystems modeling taking into account i) interactions between different economic sectors, including agriculture, forestry, bioenergy, and fisheries, ii) synergies and trade-offs between multiple societal objectives, including, but not limited to, GHG emissions and climate change mitigation, climate change impacts and adaptation, food security, sustainable nutrient and water management, and biodiversity, iii) across different spatial and temporal scales, going from pixel through the country level up to the global scale, and from annual to a hundred year time horizon.

The group is strongly connected to the international academic community, placing emphasis on transdisciplinary synergies, and applied approaches. The work accomplished has long been recognized through regular publications in high-ranking scientific journals, and the BNR Program includes several Top 1% highly cited researchers. In addition, BNR is recognized as a reliable partner in support of national policy making and international multilateral processes.

THE POSITION

The spatial data analyst will primarily handle spatial dataset processing and management, including raster and vector data for land use and ecosystem modeling projects. Responsibilities encompass data manipulation, cleaning, and alignment with existing models to support creation of projections and analyses for research and policy discussions on land use, climate change mitigation, and biodiversity conservation.

Additionally, the person selected for this position will collect, download, and compile statistical data to complement spatial analyses, identifying and extracting relevant information from diverse sources to enrich our models. This role ensures accuracy and contextual enrichment of spatial datasets, contributing directly to sustainable land management and policy-making efforts within the IBF group.

MAIN TASKS AND RESPONSIBILITIES

- Collect, process, and manage large spatial datasets for model integration.
- Design and develop databases supporting [GLOBIOM](#), [G4M](#), and [downscalR](#) models.
- Implement quality control procedures for data sources and databases.

- Contribute to automated tests and routines for efficient data sharing.
- Support the analysis and interpretation of data using statistical methods.
- In line with the team spirit that prevails at IIASA, the incumbent may occasionally work on other tasks assigned by their superiors, that might not be directly related to this appointment but where the post holder has relevant experience and skills, and/or a shortage of immediate personnel capabilities requires such.

REQUIREMENTS

- Master's degree (or equivalent) in a relevant quantitative field. Suitable fields include but are not limited to: Geography, with a focus on Geographic Information Systems (GIS), Environmental Sciences, with a concentration in spatial analysis, Computer Science, with expertise in spatial data and analysis, Statistics, with experience in spatial statistics, Economics, with a specialization in environmental economics and data analysis.
- Proficiency in R, particularly libraries and packages focused on spatial analysis (e.g., GDAL, raster, sf). Knowledge of python and experience with cluster computing is an asset.
- Practical experience with GIS software (e.g., QGIS, ArcGIS) for spatial data processing and analysis.
- A genuine interest in land use, environmental science, and sustainability, with familiarity with relevant datasets considered a plus.
- Experience in managing and processing large land-use and satellite datasets, with an understanding of database architecture and design beneficial for model support.
- Knowledge of statistical methods and their application in analyzing spatial data.
- Ability to develop and implement procedures for ensuring the quality of data sources and databases.
- Excellent command of English, both written and spoken, with the ability to communicate complex data insights to a non-specialist audience.
- Capability to work effectively both independently and as part of a multi-disciplinary team.
- IIASA offers an interdisciplinary and international workplace, and the possibility to interact with researchers of different nationalities, with strong ties to a world-wide network of research institutions engaged in environmental systems research. The successful candidate must be able to work in, and have respect for, an intercultural environment, and [IIASA core values](#).

APPOINTMENT TERMS

The selected candidate should be available to take up the position as soon as possible in 2024 (start date negotiable). We offer an initial fixed-term, two-year, full-time (40 hours per week) employment contract, with the possibility of extension thereafter. Eligible applicants wishing to work part-time hours may be considered.

Duties will be carried out at the IIASA premises in Laxenburg, near Vienna in Austria.

The successful candidate will be appointed R1 in accordance with the [IIASA profiles for research careers](#).

WE OFFER

- An international atmosphere and pleasant working environment in a historic market town surrounded by green areas.
- The possibility to contribute to environmental sciences for sustainability and global wellbeing.
- The opportunity to deepen and improve knowledge and scientific profile.
- Career development perspectives.
- **An attractive salary which is exempt from income tax in Austria and negotiable, based on the qualifications, skills and experience of the selected individual** and *at least*: EUR 36,875.00 (Subject to deductions for health insurance and/or social security.)

IIASA SALARIES ARE

- Not directly comparable with other employers in Austria, due to the unique legal status and privileges granted to IIASA.
- Subject to the principle of income aggregation (Progressionsvorbehalt in German).

OTHER BENEFITS

- Educational subsidies for children of school age enrolled in private schools in Austria.
- A generous annual leave entitlement.

- Relocation allowances and paid home leave for employees in scientific and professional categories hired from international locations.
- The possibility to work up to 100 days per year in home office (within Austria)
- Assistance for newcomers to Austria with visa, work and residency permit applications.
- Support finding accommodation in Austria.

Further details [here](#).

About IIASA

IIASA is committed to a working environment that promotes equality, diversity, tolerance and inclusion within its workforce. This is reflected in our [IIASA core values](#). We encourage qualified candidates from all religious, ethnic, and social backgrounds to apply. In the case that candidates are equally qualified, preference will be given to applicants from countries where IIASA has a [Member Organization](#).

Further Information

For further information about this opportunity please contact [Michael Le Gohebel](#), BNR/IBF Program and Project Officer or [Petr Havlik](#), BNR Program Director/IBF Research Group Leader.

For general information about working at IIASA, contact: recruitment@iiasa.ac.at

Applications

In order to apply for this opportunity, you will need to provide the following documents:

- A cover letter outlining your motivation for and fit to the position
- A detailed Curriculum Vitae
- The names, addresses (including e-mail), and telephone numbers of two work-related reference givers.

Deadline for receipt of applications: 15 May 2024

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