

Deadline: 15 May 2024



APPLY 12-2024

Lead spatial data scientist

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 scientist to lead the development of a novel integrated land-use and land management database connected to a world leading modeling cluster.

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

This role requires a PhD in a relevant field such as Geography, Environmental Sciences, Computer Science, or Statistics, focusing on spatial data analysis. The ideal candidate will have a solid foundation in geospatial analysis, environmental, and agricultural statistics, complemented by a successful history in data integration, harmonization across large-scale projects, and acquiring funding for research initiatives. The responsibilities of this position are twofold: technical leadership in spatial data science and strategic development of data resources to support environmental and agricultural modeling.

The lead spatial data scientist will be tasked with building and maintaining a comprehensive database that integrates diverse datasets, including biophysical, costing, spatial, and statistical data. This role is pivotal in ensuring the database supports integrated assessment models in agriculture, biodiversity, water, and crop modeling. The successful candidate must possess experience in setting up databases, designing transparent and maintainable data architectures, and collaborating with interdisciplinary teams to enhance the database's relevance and utility for advanced modeling efforts. The position demands a blend of technical expertise, innovative thinking, and leadership capabilities to drive the research group's contributions to global sustainability efforts.

MAIN TASKS AND RESPONSIBILITIES

- Lead the development and ongoing management of a comprehensive database integrating biophysical, costing, spatial, and statistical datasets.
- Design and implement a transparent, easily updatable data architecture, ensuring data accuracy and consistency across various modeling projects.
- Coordinate with interdisciplinary teams to identify and integrate new data sources, expanding the scope and impact of the database.
- Apply advanced spatial analysis techniques and statistical methods to analyze complex datasets, drawing insights to inform research and policy.
- Contribute to scientific publications and presentations, sharing research findings with the broader scientific community and stakeholders.
- Seek and secure funding opportunities to support and expand research initiatives within the group.
- 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

- PhD in Agricultural Economics, Environmental Sciences, Geography, Computer Science, Statistics, or a closely related field, with a significant emphasis on spatial data analysis. A minimum of five years of post-PhD experience is required.
- Proven track record in data integration and harmonization within large-scale environmental or agricultural projects.
- Demonstrated experience in setting up databases and creating a maintainable data architecture.
- Advanced proficiency in GIS and programming languages such as R or Python, with extensive knowledge of database management systems.
- Successful history of acquiring funding for research projects.
- Excellent communication skills, with the ability to lead teams, mentor early career researchers, and engage with interdisciplinary stakeholders.
- A deep understanding of agricultural and environmental statistics and their application in sustainability research.
- 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 corresponding profile for this opportunity is **R3** according to the [IIASA profiles for research careers](#). *IIASA reserves the right to hire a researcher with a lower profile, and at a corresponding lower salary than the minimum stated below if the qualifications and professional experience of the selected candidate do not meet the criteria described in the researcher profiles adequately.

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 69,996.00 (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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