Recruitment Information for Project Researcher in Projects for Postdoctoral Researcher in Global Vegetation Remote Sensing & Biodiversity Monitoring, Institute for Future Initiatives, The University of Tokyo

1. Available positions: Project Researcher
   1 person.
2. Contract period: July 1, 2026 or the earliest possible date - March 31, 2027
3. Renewal or not: The contract may be renewed on an annual basis, considering the budget situation, the worker's progress engaged in, the workload at the end of the contract period, work performance, work attitude, health status, etc. However, renewal shall be limited to two times until September 30, 2028
4. Trial period: 14 days from the date of hire.
5. Work location: Hongo Campus, The University of Tokyo (7-3-1 Hongo, Bunkyo-ku, Tokyo)
   <Scope of change>
   ・Project Researcher: In principle, within the same institution.
6. Affiliation: Center for Global Commons, Institute for Future Initiatives
7. Job description: In our research center, we work at the interface of global vegetation ecology, remote sensing, and climate change, addressing fundamental questions about ecosystem functioning and biodiversity in a changing world. We integrate experimental, meta-analytical, and large-scale modelling approaches to understand feedbacks between plants and their environment.

   We are seeking a postdoctoral researcher to lead development of a next-generation global biodiversity index built on remote sensing time series. The project advances beyond current biodiversity intactness frameworks — including the SEED Index and Biodiversity Intactness Index — by delivering annual, high-resolution (≤500 m) estimates of ecosystem state across all terrestrial biomes.

   The core concept is to model the potential state of vegetation — what each location on Earth should look like under undisturbed conditions — and quantify deviation from that potential as a continuous, multi-dimensional index of ecological integrity. Variables include vegetation height, gross primary productivity, leaf area index, vegetation optical depth, spectral diversity (Rao's Q), landscape connectivity, and vegetation phenology. The index is designed to support global biodiversity reporting under the Kunming-Montreal Global Biodiversity Framework and to provide a spatially and temporally explicit tool for tracking the state of nature over time.

   Key tasks and responsibilities are;

   •Compile, harmonise, and quality-control multi-source remote sensing datasets (MODIS, Sentinel-2, ICESat-2/GEDI, SMAP, Landsat) for global analysis,

   •Develop and implement machine learning models to extrapolate potential vegetation states from undisturbed reference sites to the global extent,

   •Compute annual global layers for assigned index components, including spectral diversity (Rao's Q via Sentinel-2) and landscape connectivity (Omniscape framework),

   •Design and implement the index aggregation framework, including sensitivity analysis of variable weighting,

•Process and manage large geospatial datasets using Google Earth Engine and/or HPC clusters,

•Lead at approximately two first-author peer-reviewed publications per year arising from this work,

•Present findings at international conferences (e.g. AGU, ESA Living Planet, IAVS),

•Contribute to grant reporting and assist in co-supervision of graduate students where appropriate.

<Scope of Change>

・Project Researcher: The University may order employees to be reassigned to different positions, or order them to take up additional positions or to work on an external assignment.

8.	Working days and working hour	Under the Discretionary Labor System for Professional Work, the employee is considered to have worked 7 hours and 45 minutes a day, 5 days a week.
9.	Holidays	Saturdays, Sundays, holidays based on the National Holiday Law, and December 29th through January 3rd are holidays.
10.	Vacation	Annual paid leave granted in accordance with employment regulations. Special leave granted in accordance with employment regulations.
11.	Wages, etc.	An annual salary system will be applied, including performance and achievement allowances, in the range of 400,000 yen to 600,000 yen per month, to be determined according to qualifications, experience, etc. Commuting allowance (up to 55,000 yen/month, calculated in accordance with our company's regulations, if the employee meets our requirements). No retirement allowance or bonus. In principle, payment is made on the 17th of each month.
12.	Insurance Coverage	Joined the Ministry of Education, Culture, Sports, Science, and Technology Mutual Aid Association Employment Insurance Coverage.
13.	Eligibility Requirements	Required qualifications for the applicants are; - PhD in ecology, remote sensing, geography, environmental science, or a closely related field, completed by July 1, 2026, - Demonstrated experience with large-scale geospatial analysis in R and/or Python, - Proficiency with Google Earth Engine or equivalent cloud-based remote sensing platforms, - Experience with at least two of the following: MODIS time series, Sentinel-2, LiDAR products (GEDI/ICESat-2), passive microwave (VOD/SMAP), - Track record of first-author peer-reviewed publications commensurate with career stage, - Strong written and oral communication skills in English. Desirable Qualifications are; - Experience with machine learning applied to spatial or ecological data - Familiarity with biodiversity or ecosystem integrity frameworks (BII, MSA, SEED, EBV) - Experience with connectivity modelling (Omniscape, Circuitscape, or equivalent) - Knowledge of the terra, rasterdiv, or tidyverse R ecosystem - Background in vegetation ecology, phenology, or ecosystem functioning Conversational Japanese (not required but welcomed)
14.	Application documents	(1) Cover letter: Description of your relevant experience and motivation (max 2 pages) (2) Curriculum Vitae: The official format of The University of Tokyo must be used and

can be downloaded at https://www.u-tokyo.ac.jp/en/about/jobs.html

(3) List of publications by category (peer-reviewed journal articles, books, invited talks, etc.)

(4) Names and contact information of two people who can provide reference opinions about the applicant.

15. Application Deadline: Applications must be submitted by April 30th (Thursday), 2026 at 17:00 (Japan Standard Time). Short-list finalists may be contacted to schedule an interview (online). The recruitment will be closed as soon as the recruitment of suitable personnel is decided.

16. How to submit: Applications must include all materials indicated in 14. (1)-(4) as pdf format in one zip folder, and send to zohnerlab@ifi.u-tokyo.ac.jp with subject line *"Postdoc Application – Global Biodiversity Index"*.

17. Name of recruiter: The University of Tokyo

18. Enquiries: Prof. Constantin Zohner
Institute for Future Initiatives, The University of Tokyo
e-mail: zohnerlab@ifi.u-tokyo.ac.jp

19. State of working measures to avoid passive smoking：
Smoking is prohibited inside the grounds of our university. There are smoking areas outdoors on campus

20. Others:
・Personal information received through this application process will not be used for any other purposes.
・Please note that we are unable to answer any questions regarding the results of the selection process.
・Submitted documents will not be returned.
・Applications from women are encouraged as per "Declaration of Gender Equality Acceleration" of the University of Tokyo.We strongly encourage applications from women and international candidates.
・If you are personally in contract with foreign governmental bodies, corporations or universities, or you are in receipt of a large benefit (financial or any other form) from foreign governmental bodies during the period of your employment, the provisions of the Foreign Exchange and Foreign Trade Act (FEFTA) may prohibit or restrict the sharing of technology that are designated as controlled technology possibly making it difficult for you to fulfill your duties as an academic or administrative staff of the university as a result. Therefore, in such cases it is necessary to keep such contracts/benefits within the scope where it does not hinder the sharing of technologies necessary for your duties by the university.