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Job Vacancy Announcement Research Associate

The Material Cycles Division invites applications for the position of Research Associate as detailed below.

# 1. Position and workplace

- Position: Contract Research Employee (Research Associate)

- Open Position: 1 candidate

- Affiliation: Global Resource Sustainability Research Section, Material Cycles Division, National Institute for Environmental Studies (NIES)

- Workplace: 16-2 Onogawa, City of Tsukuba, Ibaraki Prefecture 305-8506, Japan

- Scope of changes in work location: None

## 2. Research Topic

Social Simulation of Pro-environmental Behavior

### 3. Description of Research and work duties

The National Institute for Environmental Studies (NIES) engages in research that supports the transformation towards sustainable societies, with a particular emphasis on achieving decarbonization (carbon neutrality), resource circulation (circular economy), and biodiversity restoration (nature positive). As environmental impacts associated with everyday lifestyles and consumption patterns—such as mobility, food, and housing—continue to intensify, it has become increasingly important to deepen our understanding of the mechanisms of decision-making and behavioral change, as well as policy instruments capable of facilitating meaningful societal shifts.

The successful candidate will contribute to research aimed at examining how proenvironmental behavioral changes emerge, evolve, and diffuse within society, using social simulation methods such as Agent-Based Modelling (ABM).

### **Key responsibilities include:**

- Developing and implementing models of consumer decision-making and

behavioral change within social simulation frameworks. Potential areas of application may include one or more transportation mode choice, renewable energy adoption, dietary habits, leisure activities, durable consumer goods, civic participation, and support for environmental policies. Specific topics will be determined based on the candidate's interests and the overall research objectives;

Designing and analyzing simulation experiments to explore patterns of behavioral change, assess the effectiveness of policy interventions, evaluate the feasibility of long-term sustainability targets, and/or identify conditions under which social tipping points may arise. Analytical approaches may include global sensitivity analysis, machine learning, or optimization, depending on the candidate's interests and expertise.

This research will be conducted within an interdisciplinary team that bridges engineering and the social sciences. The successful candidate is expected to bring their expertise and creativity to approach the research from an interdisciplinary perspective. Opportunities for collaboration — both within and beyond the institute — are encouraged, including work that integrates complementary modelling techniques (e.g., system dynamics, life cycle assessment) and diverse datasets (e.g., GIS data, synthetic population data, questionnaire survey data).

 Scope of changes in work duties: Research and general administrative work related to research

#### 4. Qualifications

- (1) A Ph.D. degree or equivalent at the time of appointment
- (2) Academic background in environmental engineering, systems engineering, computational science, behavioral science, economics, policy studies, technology management, industrial ecology, or related discipline
- (3) Experience in programming for simulation or statistical analysis

### 5. Selection Process

The selection process will be by means of screening applications followed by individual interviews. Applicants whose applications have passed the initial screening process on details of the interview will be informed on a later date.

In the selection process, the following points will be taken into consideration.

- (1) Experience with, or strong interest in, social simulation
- (2) Knowledge of pro-environmental behavior, environmental policies, and/or quantification of environmental impact is considered an advantage
- (3) A demonstrated commitment to disseminating research outputs internationally and to working collaboratively within interdisciplinary teams

## 6. Application Documents and Process

Applicants are requested to submit the following documents as instructed below.

- (1) Curriculum Vitae (using the prescribed format)
- (2) Publication list (organize by original research papers, books, review articles/commentaries, and oral presentations. You may also list manuscripts under review, non-academic publications, data, software, etc.)
- (3) Major publications in a PDF format (up to three papers, which may include published papers, manuscripts submitted or under review, or your thesis)
- (4) Summary of previous research (approximately 1 page, A4 size)
- (5) Motivation letter (approximately 2 pages, A4 size)
- List past employments (organization names, address, employment periods) in the prescribed format CV.
- Include information if having worked with NIES other than employment contract such as Visiting Researcher, Collaborative Researcher, Research Student, Interns, and dispatch employee.
- ➤ To submit electronically, the applicant must email the contact person listed under "12. Contact Information" in advance for submission instructions, with the subject titled "Application documents for Social Simulation on Pro-environmental Behavior".
- ➤ The documents submitted will not be returned. Application materials submitted by applicants other than the successful candidate will be properly discarded after selection is completed.

#### 7. Deadline

Applications will be considered on a rolling basis and it will be closed once a suitable candidate has been found. Applications are also welcome from candidates who have substantially completed their doctoral dissertation and are expected to obtain their doctoral degree in the near future.

## 8. Work Conditions and Related Regulations

- Research Associate is treated as Contract Employee.
- Working Hours: Exempt Working Hours (deemed to have worked 8 hours and 15 minutes per day regardless of the actual hours worked on weekdays)
- Basic Remuneration: JPY 5,400,000+ per annum
- Probationary Period: 6 months under same working conditions
- The employee may be requested to work overtime and/or on holiday if necessary.
- Compensation will be based on the Regulations Regarding Remuneration for Contract Employees at NIES.
- Social insurance is provided in accordance with the National Public Officers Mutual Aid Association Act, the Health Insurance Act, the Employee's Pension Insurance Act, the Employment Insurance Act, and the Long-Term Care Insurance Act.
- Smoking is allowed only in designated smoking areas for secondhand smoking policy.
- For other matters pertaining to this employment please ensure to refer to the Rules
  of Employment for Contract Employees at NIES and related regulations.

(Japanese only) <a href="https://www.nies.go.jp/kihon/kitei/index.html">https://www.nies.go.jp/kihon/kitei/index.html</a>

#### 9. Date of Commencement

This position will start as soon as possible after April 1, 2026.

#### 10.Term of Contract

This is a contract position that, in principle, terminates at the end of the fiscal year (March 31, 2027). However, depending on the status of the research plan and performance evaluations, it may be possible for the Contract Employee to renew their yearly contract, although in principle, it cannot be extended past March 31, 2031.

The employment contract may be renewed only within the scope not exceeding the fiscal year (April 1 to March 31) that includes the day before the employee reaches

the age of 65. If the day before reaching the age of 65 has already passed at the time of hiring, the contract will be limited to one fiscal year.

#### 11.0thers

This work falls under the subject matter of Article 15-2 of the Act on Activation of the Creation of Science and Technology Innovation.

(Japanese only) https://elaws.e-gov.go.jp/document?lawid=420AC0100000063

## **12.** Contact Information

Applications and any inquiries should be directed to the following person.

Dr. Ryu KOIDE

**Global Resource Sustainability Research Section** 

**Material Cycles Division** 

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Email: koide.ryu \*Add "@nies.go.jp" at the bottom of the address.

This is an English translation of a Japanese document. If there is a discrepancy between the two documents, the Japanese version takes precedence.