



International Collaboration

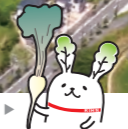


Message from the Director-General

Juichi Yamagiwa
Director-General
Research Institute for Humanity and Nature



RIHN original mascot character "Chikyu-ken" ▶



English

Photo: KIMIJIMA Satomi

Memoranda of Understanding and Research Cooperation Agreements [As of April 1st, 2024]

AUSTRIA

› International Institute for Applied Systems Analysis

CAMEROON

› Green Development Advocates

CHINA

› East China Normal University

› Hainan Provincial Center for Disease Control and Prevention /
› Hainan Provincial Preventive Medicine Association

DEMOCRATIC REPUBLIC OF THE CONGO

› Center for Intercultural and Interdisciplinary Research for Sustainable
Development in Southern and Central Africa

› Forgotten Parks

INDIA

› Lovely Professional University

INDONESIA

› Forestry Faculty of Universitas Hasanuddin

› Universitas Riau › Halu Oleo University

› Wakatobi Regency

› Institut Teknokigi Dan Bisnis Muhammadiyah Wakatobi

REPUBLIC OF KOREA

› Institution for Marine and Island Cultures, Mokpo National University

LAOS

› Lao Tropical and Public Health Institute, Ministry of Health, Lao PDR

› The Faculty of Forest Science, National University of Laos

MALAYSIA

› Universiti Malaysia Sarawak › PACOS Trust

NETHERLANDS

› Copernicus Institute of Sustainable Development, Utrecht University

SWEDEN

› Stockholm Resilience Centre at Stockholm University

UNITED KINGDOM

› University of Gloucestershire

UNITED STATES OF AMERICA

› University of California, Berkeley

Publications

Many individual publications for general and specialist audiences, RIHN has partnered with Springer Nature and established the Global Environmental Studies book series. Titles in the series reflect the full breadth of RIHN scholarship.



The modern era is known as the 'Anthropocene', when human influence has begun to be noticeably left behind in the strata. Global warming, ocean pollution and other changes in the global environment are becoming major threats to humans. If we continue down the current civilizational path, however, weather and water-related natural disasters will intensify, ecosystem degradation and loss of biodiversity will increase, and human livelihood, health, and safety will be at ever-greater risk. Modern civilizations have incessantly expanded the scale of production and consumption, but at nature's expense, and humans are both the perpetrators and victims of this path of development. The Covid-19 pandemic clearly shows the result, as it was caused by ever-expanding global human activities.

New technological fixes will not offer fundamental solutions to such complex problems, unless human lifestyles also change to achieve harmonious relationships with nature on Earth. For the last 20 years RIHN has conducted research with the awareness that the roots of global environmental problems are found in human culture. Based on the results of our past projects, it is time for us to promote new practical research.

Cultural diversity is based on the diversity of nature. However, nature forms ecosystems in which regions are connected through the circulation of materials and energy, while cultures insist on their uniqueness and are sometimes in conflict. Solutions to global environmental problems therefore depend on connecting cultures through common environmental ethics. Great traditions of Eastern environmental wisdom and experience still exist, as do those of other regions; their valuable insights can help to break the deadlock in modern science and capitalism. It is for this reason that RIHN undertakes interdisciplinary research spanning the natural sciences, humanities, and social sciences, and in recent years, has evolved towards transdisciplinary research seeking to expand the kinds of knowledge that are considered valid in scientific inquiry.

RIHN has established three Research Programs, one Strategic Program, and the RIHN Center to promote such research.

We have enhanced collaboration within the institute, across the diverse research community linked to RIHN research projects, and with society in general. RIHN also collaborates with the international research platform Future Earth, which aims to integrate global environmental change research and contribute to the United Nations Sustainable Development Goals. As part of this effort, RIHN hosts the Japan Hub of the Future Earth Global Secretariat to strengthen research collaboration and capacity building across the region.

We will strive to expand these activities in the coming years, and implement new research initiatives in the search for solutions to the many environmental challenges of our planet.



Access

By City Subway

From Kyoto Station, take the Karasuma Line to Kokuzaikaikan Station (the last station), and transfer to Kyoto Bus.

By Eizan Railway

From Demachiyangi Station in Kyoto City, take the Kurama Line. Get off at Kyoto-Seikadai-mae Station. RIHN is a 10-minute walk from the station.

By Kyoto Bus

From Kokuzaikaikan Station, take bus No.40・特40, 50 or 52 to Chikyuken-mae. RIHN is at the base of the hill on your left.

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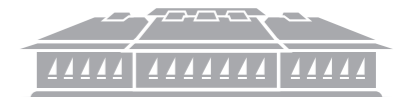
<https://www.chikyu.ac.jp>



Research Institute for
Humanity and Nature
大学共同利用機関法人
人間文化研究機構 総合地球環境学研究所



Research Institute for
Humanity and Nature



2024-2025



RIHN Research

RIHN Research Formation: Project-based Approach

RIHN promotes research through a project-based approach, in which research proposals submitted and selected through an international open-call are implemented as research projects lasting three to five years. 43 research projects have been completed thus far, and 7 research projects are currently underway.



Comprehensive Research Across Disciplines

A diverse group of researchers from all fields, including natural sciences, humanities and social sciences, work together to conduct research. The laboratory space is 150 meters long with no doors, and researchers from different academic fields and disciplines collaborate with each other constantly.

Solution-oriented Research in Collaboration with Society

RIHN research projects conduct research in many regions in Japan and abroad. Researchers collaborate with local communities in various ways, such as by concluding academic agreements (MoUs) with local governments.

Organizational Structure

Programs and Projects

RIHN research is organized into programs and projects rather than pre-existing academic disciplines or domains. Research Programs and Strategic Program are each home to multiple projects that carry out research in line with the program's broad direction.

Research Program

Research programs conduct research on specific global environmental issues through collaborative practice in society by promoting multiple research projects.

> [Global Environmental Culture](#)

> [Combining Knowledge for a Fundamental Innovation of Land Use](#)

> [Co-creation of the Earth-human System](#)

Strategic Program


In collaboration with research projects, strategic program aims to develop concepts and methodologies to solve global environmental problems in collaboration with society.

Research Program

Global Environmental Culture

Program Director: **MATSUDA Motoji**


Towards solving global environmental crises, this program strives to change our behaviors and values not only by advanced science and technology but also by combining science and culture.

2024-2028 [Global Environmental Culture] 
Building up organic material circulation system among urban and rural area: Toward the integration of local perception and scientific knowledge

Project Leader: **OYAMA Shuichi** [Organic Material Circulation Project](#)

Based on the principle of returning to nature what is obtained from nature, we are creating organic material circulation system that contributes to environmental restoration and agricultural production improvement. We return urban organic waste to degraded land in sub-Saharan Africa and Asia including Japan. In the Sahel region of Republic of Niger, we have been working with local residents, municipalities, and central government for 20 years to green the degraded land using organic waste. We aim to contribute to the lives of local residents and prevention of ethnic conflicts among farmers and herders.



2024-2028 [Global Environmental Culture] 
High-resolution reconstruction of resilient indigenous lifestyle in environmental changes to future collective knowledge deduced from the fusion of science and arts

Project Leader: **WATANABE Tsuyoshi** [ScENE Project](#)

How can we make global environmental issues our own? By using high-resolution environmental reconstruction using coral annual bands, this project will discover local indigenous knowledge born from the relationship between humans and nature, and local issues buried in global-scale changes. Using art as a medium, we will discuss how local communities can work toward spontaneous solutions to global environmental problems, and create future collective knowledge to obtain an image of local communities that can easily be empathized with.



Combining Knowledge for a Fundamental Innovation of Land Use

Program Director: **SHOBAYASHI Mikitaro**


This program, with interdisciplinary and transdisciplinary approaches, strives to fundamentally change land use in order to mitigate and adapt to the impacts on the global environment caused by socio-economic activities and changes in land use.

2022-2025 [Combining Knowledge for a Fundamental Innovation of Land Use] 
Fair for Whom? Politics, Power and Precarity in Transformations of Tropical Forest-agriculture Frontiers

Project Leader: **WONG, Grace** [FairFrontiers Project](#)

Deforestation and land use intensification in the tropical frontiers of Central Africa and Southeast Asia are rapidly transforming landscapes, livelihoods, and local well-being. This is both a global environmental problem and a local social-ecological crisis. This project carries out critical policy analyses and case study research to identify the conditions for how development and transformation of forest-agriculture frontiers can enable more equitable and sustainable development.



2023-2027 [Co-creation of the Earth-human System] 
Towards Sustainable Nitrogen Use Connecting Human Society and Nature

Project Leader: **HAYASHI Kentaro** [Sustai-N-able Project](#)


Nitrogen provides great benefits to humankind as a fertilizer, industrial material and fuel. However, our use of nitrogen unintentionally causes nitrogen pollution and threatens the health of humans and nature. In this project, we will elucidate the dynamics of nitrogen, of which much remains unknown; quantify the environmental burden and impact of nitrogen use; evaluate its benefits and threats and the effects of countermeasures and behavior change; and design the future to realize sustainable nitrogen use.



Co-creation of the Earth-human System

Program Director: **TANIGUCHI Makoto**


This program strives to understand the various thresholds and linkages in the earth-human system, and to transform the relationship between humanity and nature for the sustainable future.

2020-2024 [Co-creation of the Earth-human System] 
An Interdisciplinary Study Toward Clean Air, Public Health and Sustainable Agriculture: The Case of Crop Residue Burning in North India

Project Leader: **PATRA, Prabir K.** [Aakash Project](#)

A large amount of rice straw is burned after the kharif crop season in the northwest India region. This practice of crop residue burning releases large amounts of pollutants into the atmosphere, causing severe conditions for human health and economic activities. The Aakash project is delineating the science of air pollution in the region (including the national capital of Delhi), raising social awareness, and exploring ways for sustainable agriculture.



2022-2026 [Co-creation of the Earth-human System] 
Adaptive Governance of Multiple Resources Based on Land-Sea Linkages of the Water Cycle: Application to Coral Reef Island Systems

Project Leader: **SHINJO Ryuichi** [LINKAGE Project](#)

Focusing on coral reef island systems located in the Ryukyu Arc as well as in the tropical and subtropical western Pacific, we are elucidating the connections between land and sea through the water cycle, the biocultural diversity and community capability, and the evolution and structure of organizations and institutions that govern the use and management of multiple resources. By integrating and visualizing the above interconnected components, we aim to shed light on adaptive governance of multiple resources based on the water cycle.



Strategic Program

Program Director: **TANIGUCHI Makoto**

2022-2024 
Development and Pluralistic Coexistence of Sustainability Visions Through Future Design

Project Leader: **NAKAGAWA Yoshinori** [Future Design Project](#)

Our goal is to formulate a vision of a sustainable society that incorporates the perspectives of its future populations and to develop methods that apply this vision. Since future populations do not exist currently, it is impossible in principle to incorporate their perspectives. Therefore, we are trying to capture these future perspectives into scientific language.

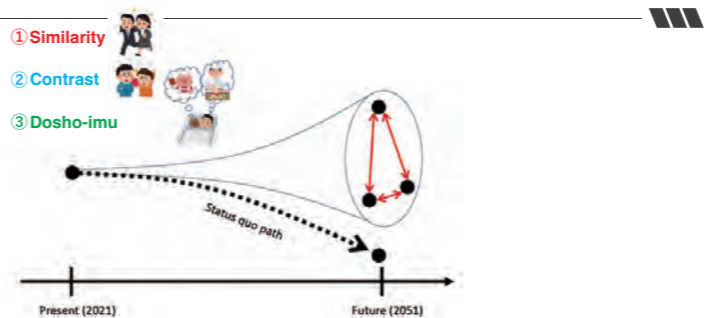


Photo: Ahmad Dhiaulhaq