# International Collaboration

# Memoranda of Understanding and Research Cooperation Agreements [ As of April 1st, 2022 ]

## AUSTRIA

> International Institute for Applied Systems Analysis

# **CAMEROON**

> Green Development Advocates

- > Hainan Provincial Center for Disease Control and Prevention
- > Hainan Provincial Preventive Medicine Association

### **GERMANY**

> Institute for Advanced Sustainability Studies

# INDIA > Lovely Professional University

# **INDONESIA**

- > Halu Oleo University
- > Institut Teknologi Bandung
- > Research Center for Biology, Indonesian Institute of Sciences
- > The State University of Gorontalo
- > University of Lampung

# **REPUBLIC OF KOREA**

> Institution for Marine and Island Cultures, Mokpo National University

> Lao Tropical and Public Health Institute, Ministry of Health

# MYANMAR

- > Ministry of Natural Resources and Environmental Conservation, Environmental Conservation Department
- > Network Activities Group

## NETHERLANDS

> Copernicus Institute of Sustainable Development, Utrecht University

# OMAN

> Sultan Qaboos University

# SWEDEN

> Stockholm Resilience Centre at Stockholm University

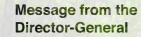
### UNITED STATES OF AMERICA

> 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.

Triangle



Most human beings have benefited greatly from modern civilization. If we continue down the current civilizational path, however, weather and water-related natural disasters will intensify, ecosystem degradation and the loss of biodiversity will increase, and human livelihood, health, and safety will be at serious risk. The scale of our production and consumption has exponentially increased, but at nature's expense, leaving humans as both the perpetrators and victims. The Covid-19 pandemic is just one example of the result.

New technological fixes will not offer fundamental solutions to such complex problems unless human lifestyles also change. For the last 20 years RIHN has conducted research with the belief that the roots of global environmental problems are found in human culture.

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, leaving nature and culture sometimes in conflict. Solutions to global environmental problems therefore depend on connecting cultures through common environmental ethics. Great traditions based on environmental wisdom and experience occur throughout the world and offer valuable insights 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 gained from scientific inquiry.

RIHN has recently established three Research Programs, one Strategic Program, and the RIHN Center to promote such research. We have enhanced collaboration within the institute, with diverse research communities, and with society in general. RIHN also collaborates with the international research platform Future Earth, which aims to integrate global environmental research and contribute to the United Nations Sustainable Development Goals. As part of this effort, RIHN hosts the Future Earth Asian Regional Centre 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 search for solutions to the many environmental challenges of our planet.



# Access

# By City Subway

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

# By Eizan Railway

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

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

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# 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. 39 research projects have been completed thus far, and 8 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 Program

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

# 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 

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2018-2022

Research and Social Implementation of Ecosystem-based Disaster Risk Reduction as Climate Change Adaptation in Shrinking Societies

Project Leader: YOSHIDA Takehito

**Eco-DRR Project** 

Disasters, such as floods, landslides, and storm surges, are increasing due to climate change. In response, we are studying disaster risk reduction by focusing on ecosystem-based approaches that utilize functions ecosystems and biodiversity provide. Population decline is bringing opportunities to improve our land use so that we can benefit

from ecosystems and biodiversity while achieving disaster risk reduction.



# Global Environmental Culture Program

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 by also combining science and culture.

2019-2023 [Global Environmental Culture Program] — Mapping the Environmental Impact Footprint of Cities, Companies, and Households

Project Leader: KANEMOTO Keiichiro

the environment

Supply Chain Project

Rapid economic growth in China and other developing countries due to expanding global supply chains is causing severe environmental burdens. These burdens, such as PM2.5 emissions, have a critical effect on health hazards and other environmental problems, but the full extent is unknown. This project is investigating the effects of global supply chains in cities, companies, and households on



2019-2023 [Global Environmental Culture Program]

- Risk of

Co-creation of Sustainable Regional Innovation to Reduce Risk of High-impact Environmental Pollution

Project Leader: SAKAKIBARA Masavuki

SRIREP Project

This project is based on sustainable and local innovation for mercury pollution from small-scale gold mining (ASGM) through the learning and practice of Transdisciplinary Communities of Practice (TDCOP) with residents using Transformative Boundary Objects (TBOs: local icons with high cohesive power for the residents). In addition, it is using the

"Mercury Free Society Networks" to link bottom-up and top-down approaches to build solutions.



2020-2024

An Interdisciplinary Study Toward Clean Air, Public Health and Sustainable Agriculture: The Case of Crop Residue Burning in North India

Project Leader: HAYASHIDA Sachiko

Aakash Project

In the Punjab region located in North India, a large amount of rice straw is burned after the rice harvest, releasing large amounts of pollutants into the atmosphere. It has been pointed out that the effects of this practice extend as far as Delhi. This project is exploring ways to shift people's behavior to sustainable agriculture in the Punjab region to clean the air and reduce health

hazards.



2022-202

Fair for Whom? Politics, Power and Precarity in Transformations of Tropical Forest-agriculture Frontiers

Project Leader: WONG, Grace

**FairFrontiers Project** 

In the tropics of Central Africa and Southeast Asia, frontier deforestation is rapidly transforming landscapes, livelihoods, and the well-being of its local people. This is not only a global environmental problem, but also a crisis of local social and ecological systems. This project is conducting case studies on the development

and transformation of the forest frontier to identify conditions that will enable more equitable and sustainable development.



2022-2020

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

In collaboration with Research Projects, Strategic Program aims to develop concepts and methodologies to solve global environmental problems in collaboration with society.

2020-2022

Methods and Tactics to Foster Knowledge Co-creation: A Practical Framework for Implementing Transdisciplinary Research

Project Leader: ONISHI Yuko

Co-creation Project

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Transdisciplinary (TD) approach is increasingly recognized as a promising method to address the environmental issues, in which researchers and the stakeholders co-create knowledge for innovative and sustainable solutions. This project aims to develop a framework for implementing TD projects effectively by synthesizing the lessons learnt from recent literature as well as the practices by RIHN researchers and the stakeholders.



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 presently, it is impossible in principle to incorporate their perspectives. Therefore, we are trying to capture these future perspectives into scientific language.

