

The Research Institute for Humanity and Nature (RIHN) was established in April 2001 by the Government of Japan to promote integrated research in the field of global environmental studies.

RIHN solicits, develops, hosts, and funds fixed-term research projects on pressing areas of interaction between humanity and nature.

RIHN promotes coordinated, problem-centered, context-specific, and multi-dimensional science.

RIHN projects usually last five years plus two-three years of preparation; they are always interdisciplinary including researchers from the natural and social sciences and the humanities, and they strive to offer solutions to the environmental problems under study.

RIHN maintains extensive national and international research networks and serves as the Regional Center for Future Earth in Asia.





# Laboratory

Our laboratories specialize in stable-isotope analysis and a wide range of equipment is available for use by RIHN projects and outside users.

# Social Outreach



## ■ Events

### 1. RIHN International Symposium

Each year RIHN holds an international symposium with leading academic figures from around the world.

#### 2. RIHN Public Seminars

Public seminars are held throughout the year at RIHN or in the city center.

#### 3. RIHN Open House

RIHN opens its doors to the public once a year with a special curriculum for children.

# ■ Publications

In addition to many individual publications for general and specialist audiences, RIHN has partnered with SpringerNature and established the Global Environmental Studies book series. Titles in the series reflect the full breadth of RIHN scholarship.



# ■ YouTube

We have a YouTube Channel for sharing RIHN research findings and events.



# International Collaboration

Memoranda of Understanding and Research Cooperation Agreements (As of April 1st, 2021)

#### **▼**AUSTRIA

International Institute for Applied Systems Analysis

#### **▼**BHUTAN

· College of Natural Resources, Royal University of Bhutan

#### **▼BURKINA FASO**

· l'Association des Jeunes pour la Protection de l'Environnement et d'Elevage

#### **▼**CAMEROON

- · Association Okani
- · Association Tam-Tam Mobile
- mutcare

#### **▼**CHINA

- · East China Normal University
- Hainan Provincial Center for Disease Control and Prevention, Hainan Provincial Preventive Medicine Association
- · Peking University

#### **▼ GERMANY**

· Institute for Advanced Sustainability Studies

#### **▼INDONESIA**

- Indonesian Institute of Sciences
- · Institut Teknologi Bandung
- · Research Center for Biology, Indonesian Institute of Sciences
- · The State University of Gorontalo
- Universitas Riau
- · University of Lampung

#### **▼LAOS**

· Lao Tropical and Public Health Institute, Ministry of Health

#### **▼**MYANMMAR

- 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

#### **▼UNITED STATES OF AMERICA**

· University of California, Berkeley

#### **▼ZAMBIA**

University of Zambia





# 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.

# 📮 By Kyoto Bus

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

457-4 Motoyama, Kamigamo, Kita-ku, Kyoto 603-8047, JAPAN

TEL.+81-75-707-2100 FAX.+81-75-707-2106 https://www.chikyu.ac.jp RIHN









Inter-University Research Institute Corporation National Institutes for the Humanities

Research Institute for Humanity and Nature

2021-2022



# Societal Transformation under Environmental Change

This program aims at providing realistic perspectives and options to facilitate the transformation towards a society that can flexibly respond to environmental changes caused by human activities such as global warming and air pollution, as well as to natural disasters. In addition to coordinating the following three projects, the program conducts research on Asia's long-term paths of social and economic development in relation to environmental change.

Project Leader: KOZAN Osamu

# Toward the Regeneration of Tropical Peatland Societies: Building International Research Network on Paludiculture and Sustainable Peatland Management

Tropical peatlands are in crisis. The peatlands drained for industrial purposes often suffer from great fires that threaten local people's life and emit enormous amounts of CO2. The haze also causes health hazards over a wide area. This project aims to create solutions to this problem, mainly in Indonesia. The project takes transdisciplinary approaches, in which researchers explore the effective ways of rewetting, reforestation and paludiculture on peatlands in collaboration with local communities and other stakeholders, paving special attention to the transformability of environmentally vulnerable societies.



Project Leader: YOSHIDA Takehito

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

The rate of natural disaster occurrence has been increasing, partly due to contemporary climate change, and adaptation to natural disaster risks is increasingly important to the sustainability of human societies. At the same time, many societies are experiencing shrinking populations. Eco-DRR takes advantage of the multi-functionality of ecosystems and biodiversity, including their capacity to mitigate natural disasters while providing multiple ecosystem services, and population decline provides ample opportunity for implementing Eco-DRR. Our project will develop practical solutions for implementation of Eco-DRR.



2020 ~ 2024 2020 **2021** 2022 > 2023 > 2024 Project Leader: HAYASHIDA Sachiko

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

This study addresses air pollution caused by large-scale post-harvest burning of rice-straw in October and November in the states of Punjab and Haryana in North-West India. The burning causes severe air pollution in the surrounding areas, most notably in the Delhi-National Capital Region. Some evidence suggests that crop-residue burning negatively affects air quality over the entire Indo-Gangetic Plain (IGP), demonstrating the potential negative impact of changing agricultural practices on regional air quality, affecting public health and well-being of hundreds of millions of people.



Program 2 Acting Program Director: MALLEE, Hei

# Fair Use and Management of Diverse Resources

Taking tradeoffs into account, this program provides multifaceted options to stakeholders involved in production, distribution, and consumption of resources, in order to realize fair use, optimal management, and wise governance of diverse resources including energy, water and ecological resources

Project Leader: KANEMOTO Keiichiro

# Mapping the Environmental Impact Footprint of Cities, Companies, and Households

Economic growth in China and other developing countries is associated with severe global environmental problems, such as climate change and loss of biodiversity. Studies have shown that consumption in developed countries drives environmental emissions in developing countries. Unlike most studies, which focus on environmental emissions and international trade, this is the first study to clarify the effect of global supply chains on environmental impacts. In addition to countries and regions, we will estimate the environmental footprint of cities, companies and households.



Project Leader: WONG, Grace Mun Yee

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

Throughout the tropics, forest-agriculture frontiers dominated by diverse swidden mosaics are being converted to homogenous landscapes of commodity agriculture. Despite being labeled as "development", smallholders in these landscapes often benefit less than local elites and external investors in frontier transformations, reflecting underlying politics, institutional and power structures around forests and land-use tenures. FairFrontiers applies inter- and transdisciplinary approaches to ask: whose interests drive transformations of forest-agriculture frontiers, who benefits and who is made precarious? What are possible policy options that can deliver ecologically sustainable and socially equitable outcomes?



Project Leader: SHINJO Ryuichi

# Adaptive Governance of Multiple Resources based on Land-Sea Linkages of the Water Cycle: Application to Coral Reef Island Systems

Natural resources in small islands have been affected by global and local processes, human activities and related impacts. This research project explores how to strengthen adaptive governance of multiple resources in tropical and subtropical western Pacific coral reef islands by integrating natural science research on land-sea resources linked by water cycle with those examining biological and cultural diversity and natural resource governance focusing on norms, institutions, processes and local-global linkages.



Program 3 Program Director: SAIJO Tatsuyoshi

# Designing Lifeworlds of Sustainability and Wellbeing

This program proposes research aimed at illuminating reciprocal linkages between diverse rural and urban lifeworlds and contributing to the solution of sustainability problems by working with various societal partners. Special emphasis is placed on envisioning sustainable futures that improve wellbeing and gauging their feasibility.

Project Leader: YAMAUCHI Taro

2017~2021

The Sanitation Value Chain: Designing Sanitation Systems as Eco-Community-Value System

Achieving sustainable sanitation that hygienically separates people from harmful excreta and promotes safe treatment and disposal of waste is a global challenge. For this purpose, we propose the Sanitation Triangle as a new holistic concept that encompasses three interactive dimensions: (1) health and wellbeing, (2) materials (technology and economy), and (3) socio-culture. Based on this foundation, we aim to co-create the Sanitation Value Chain in collaboration with various local actors in order to improve the health and well-being of people in both developed and developing countries



## Core Program Program Director: TANIGUCHI Makoto

# Core Program

Based on the mission of RIHN, and in order to realize the strategies and policies formulated by the Council for Research Strategy, the Core Program undertakes research projects on an ongoing basis. During Phase III, the Core Program will develop concepts and methodologies to solve global environmental problems in collaboration with various groups in society.

Project Leader: ONISHI Yuko

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

This project aims to identify a practical framework for TD research. The practical framework consists of methods and tactics for fostering knowledge co-creation, identified from the current TD practices implemented throughout the world, as well as from knowledge and perspectives of experienced TD researchers and stakeholders. In order to make sure that the proposed framework is useful, the project uses the above results for capacity building and will revise our framework as necessary



Project Leader: SAKAKIBARA Masayuki 2019 2020 2021 2022 2023 Co-creation of Sustainable Regional Innovation for

# Reducing Risk of High-impact Environmental Pollution

In order to reduce Hg pollution from artisanal and small-scale gold mining (ASGM) in ASEAN countries, this project investigates a way to co-create sustainable societies using a transdisciplinary approach. It does this through regional innovations in ASGM areas, interregional networks generating Hg-free societies, and strengthening environmental governance. Using theory and practice, the project develops transformative boundary objects (TBO) and transdisciplinary communities of practice (TDCOP).



# RIHN Research Project Field Sites

