

JSPS Core-to-Core Program
FY2013 Implementation Plan (Project No. : 23001)

Research Theme Establishment and advancement of Global Meta-Network on Sustainability Science

Duration of Project April 1st, 2013~March 31st 2016, (36 months)

Core Institution in Japan (Co-Chair) Integrated Research System for Sustainability Science, Todai Institutes for Advanced Study, The University of Tokyo
(Kazuhiko Takeuchi Director • Professor)

Implementing Organizations

○ **Japan**

Japan	Core Institution	Integrated Research System for Sustainability Science, Todai Institutes for Advanced Study, The University of Tokyo	
	Co-Chair (name and title)	Kazuhiko Takeuchi, Director/Professor	
	Cooperating Institutions	Institute for Sustainability and Peace, United Nations University	Number of Cooperating Institutions 1

○ **Partner Countries**

Sweden	Core Institution	University of Stockholm	
	Co-Chair (name and title)	Thomas ELMQVIST, Professor of Stockholm Resilience Centre	
	Cooperating Institutions	Stockholm Resilience Centre, Chalmers University of Technology	Number of Cooperating Institutions 2

U.S	Core Institution	Arizona State University	
	Co-Chair (name and title)	Sander VAN DER LEEUW, Dean/Professor of School of Sustainability	
	Cooperating Institutions	University of Arizona, Massachusetts Institute of Technology, University of Hawaii	Number of Cooperating Institutions 3

Italy	Core Institution	Sapienza University of Rome	
	Co-Chair (name and title)	Vincenzo NASO, Professor of Interuniversity Research Centre for Sustainable Development	
	Cooperating Institutions		Number of Cooperating Institutions

			0
France	Core Institution	Aix-Marseille University	
	Co-Chair (name and title)	Jean-Louis ARMAND, Professor of Department of Mechanical Engineering	
	Cooperating Institutions		Number of Cooperating Institutions
			0

Swiss	Core Institution	Swiss Federal Institute of Technology Zurich	
	Co-Chair (name and title)	Gerhard SCHMITT, Senior Vice President(in charge of international affair)/Professor of Department of Architecture ,	
	Cooperating Institutions		Number of Cooperating Institutions
			0

Objectives of Research Exchange (including the five years after the project finishes)

• Objectives of Research Exchange under the Integrated Action Initiatives

The purpose of this project is to invite the universities which actively practice sustainability science programs to jointly build an International Network for Sustainability Science (INSS), the primary objectives of which are to 1) hold conferences, 2) publish works, and 3) practice educational collaboration.

• Objectives of Research Exchange under Strategic Research Networks

In addition to further develop the existing programs, the following three objectives have been established to expand the foundation created in the program of Integrated Action Initiatives to the program of Strategic Research Networks. 1) Establish six fields (1. Adaptation to climate and ecosystem change; 2. Resilience-building strategies; 3. Resource co-management; 4. Energy sustainability; 5. Sustainability design; and 6. Cultural diversity) and an integrated field, and build and develop a meta-network strategically. 2) Partner with the leading doctoral education program, Graduate Program in Sustainability Science – Global Leadership Initiative (GPSS-GLI), to foster young researchers through short-term exchange programs and the like. 3) Partner with research and educational institutions in Asia and Africa offering and promoting sustainability science programs locally.

Ultimately, we will build a global meta-network led by the IR3S of the University of Tokyo and having hubs at our partner organization the United Nations University and at the relevant entities at five collaborating universities.

Results to the present

Research conferences: The third International Conference on Sustainability Science (ICSS 2012; www.icss2012.net) was held in February 2012. Though outside the scope of Integrated Action Initiatives, the ICSS Asian regional conference (ICSS-Asia) was held in Indonesia in January 2012 and Australia in February 2013.

Publications: Published special sustainability science issue of Sustainability Science (Volume 7, Supplement 1, February 2012) in collaboration with Springer publisher. Additionally, report on sustainability of water during disasters (Agenda Setting Report: Sustainability of Water in Extreme Condition) was published in the online edition in March 2013.

Fostering young researchers: In addition to mutual visits among individual graduate students and young researchers, a half-day session was set up the day before the above-mentioned ICSS for sessions hosted by students. Discussions included sustainability research by students from various universities. In February 2013, a workshop was given in Costa Rica by students (especially graduate students, but also some undergraduates) from the University of Tokyo, United Nations University, Arizona State University, and Chalmers University of Technology on the topic of sustainable agriculture.

International academic information has been developed through Sustainability Science, an international academic journal on sustainability science. This journal is published regularly about four times a year, including special issues, and has a high impact factor. (Impact factor for the past five years: 1.598.) In fiscal 2012, we planned the publication of a series of e-books in accord with the journal. Springer has already approved planning proposal, and we are currently proceeding with the editing and writing process based on the planning proposal.

Through activities like the above, we founded the International Society for Sustainability Science (ISSS; <http://sussci.org/>) during ICSS 2012. Its official conferences are ICSS and ICSS-Asia, and its official journal is Sustainability Science. With this foundation, we will promote the collaboration in joint education program and cooperative research. .

Summary of FY 2013 Exchange Plan

Joint Research

We work together with partner institutions in other countries to make symposium proposal, and consult with them on research directions and objectives in relation to the six issues of interest (1. Adaptation to climate and ecosystem change; 2. Resilience-building strategies; 3. Resource co-management; 4. Energy sustainability; 5. Sustainability design; and 6. Cultural diversity). Together, literature reviews will also be conducted when making proposal. Survey on potential partner universities in Asia and Africa is planned to be conducted.

Seminar

The fourth International Conference on Sustainability Science will be held in Paris, Marseille, and Aix-en-Provence. This conference will use the case study of the Mediterranean Sea to discuss four topics: water, health, governance, and the region.

Researcher Exchanges

In order to contain the cost of communication, medias like teleconferencing are used for the meetings such as conference preparatory meeting for the planning and operation of ICSS 2013, editorial meetings for writing reviews of joint research. Face-to-face meetings (communication) are also held when necessary. In order to foster young researchers, workshop for young researchers (including graduate students) is organized right after ICSS 2013. (The planned training camp program is canceled for budgetary reasons.)