

## Summary of Pre-session for 2021 IRDR Conference hosted by Japan National Committee

20 May 2021, 11:00-13:00 UTC (20:00-22:00 JST), Online (Zoom)

**Title/Topic:** Promoting Coherence among Disaster Risk Reduction, Climate Change Adaptation, and Sustainable Development by Establishing an “Online Synthesis System (OSS)” and Fostering “Facilitators” using OSS

**Organiser:** IRDR Japan National Committee (Subcommittee for IRDR, Science Council of Japan (SCJ))

Dr. Haruo HAYASHI, Chair of Japan NC, chaired the Pre-session.

Ms. Mami MIZUTORI, SRSG for DRR (Head of UNDRR), gave an opening keynote speech, followed by presentations by Japan NC on OSS and Facilitators.

- 1) Concepts and Application of OSS by Toshio KOIKE (Vice-Chair, International Cooperation Committee, SCJ)
- 2) Fostering Facilitators by Keiko TAMURA (Professor, Niigata University)
- 3) OSS & Facilitators: Case Study in Myanmar by Akiyuki KAWASAKI (Professor, the University of Tokyo)

Panel discussion was animated by

Anthony SALES (DOST, Philippines),

Wei-Sen LI (NCDR, Taiwan),

Rajib SHAW (Chair, APSTAG and IRDR Young Scientists Program),

Riyanti DJALANTE (Chair, IRDR Scientific Committee) and

Qunli HAN (Executive Director, IRDR IPO),

with full of implications, which was moderated by

Kaoru TAKARA (Vice Chair, Japan National Committee and Professor, Kyoto University).

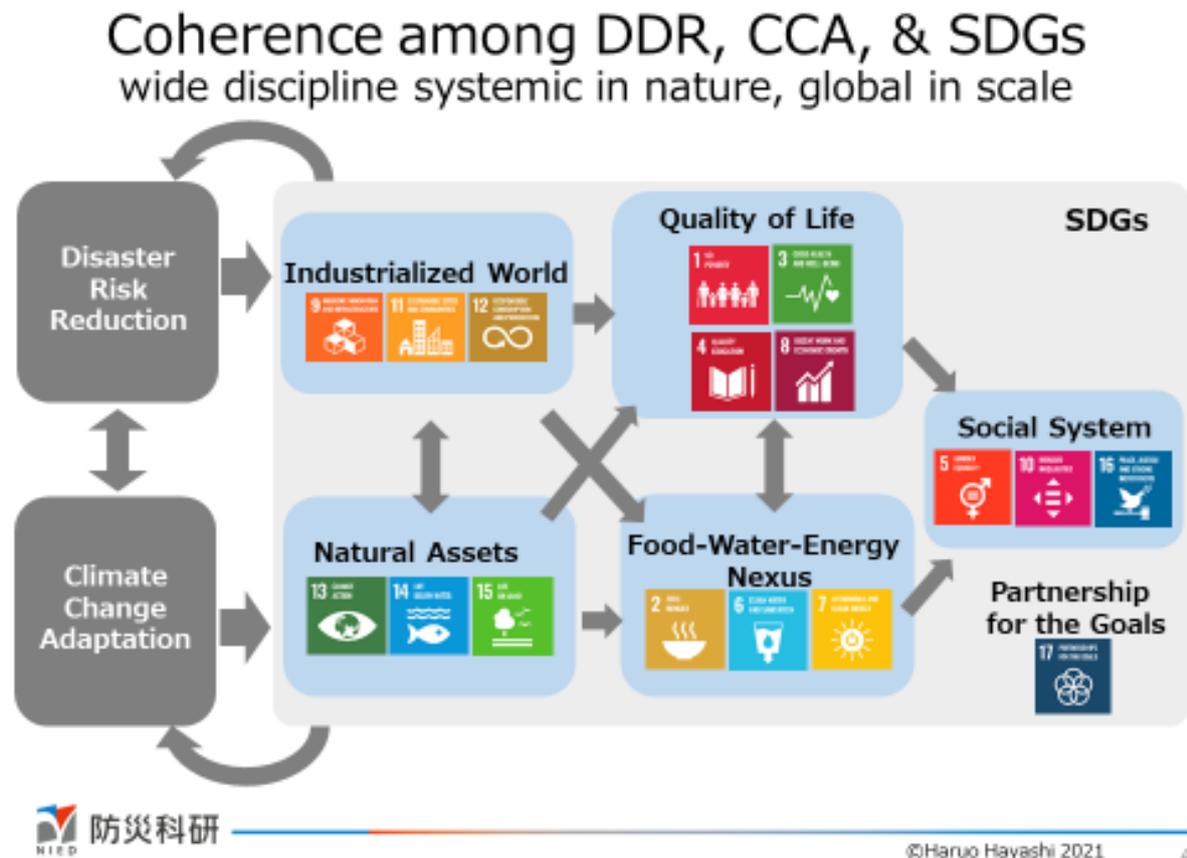
### Conclusions:

Based on the presentations and discussions in the Pre-session, we concluded the following proposals for the new DRR Research Agenda.

- Coherence among DRR, CCA, and SDGs is important for disaster resilience
  - ⇒ “Consilience” of knowledge in DRR, CCA, and SDGs to be conducted in a comprehensive manner “on-site”
  - ⇒ Information/knowledge base of interdisciplinary and transdisciplinary science, technology, engineering and innovation to be provided
  - ⇒ Online Synthesis System (OSS) must be useful for integrated disaster management and resilience
- Local or “on-site” implementation with the locals/stakeholders is prerequisite for problem solving and decision making
  - ⇒ Necessity of “on-site” Facilitators as catalysis to bridge consilience and stakeholders through OSS: Fostering local and academic Facilitators and young generation is

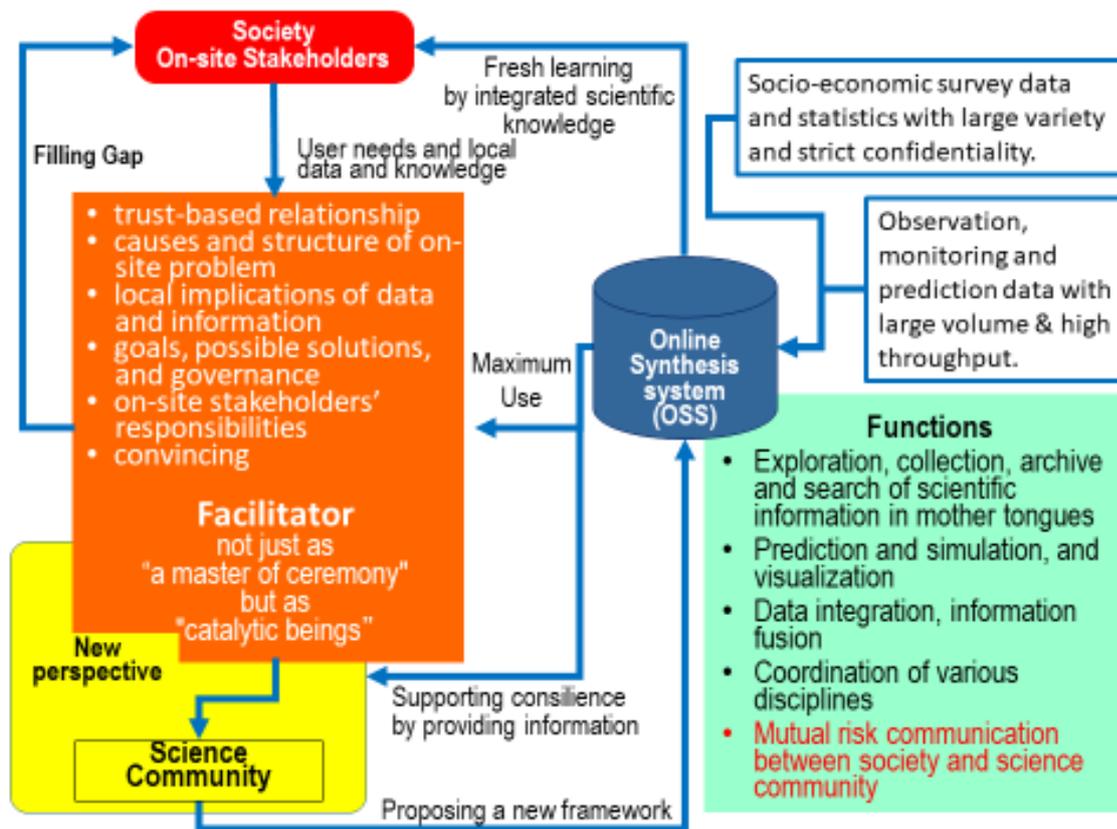
important.

- ⇒ Languages for OSS to be native tongue used by the locals, which could be supported by ICT innovation
- Roles of science communities are getting more and more important to cope with the new complex, cascading, systemic and emerging risk landscape at global level
- ⇒ IRDR Second Phase should be carried out
- ⇒ IRDR Japan ICoE to be established to promote disaster resilience and coherence among DRR, CCA, and sustainable development at global and regional levels with international stakeholders

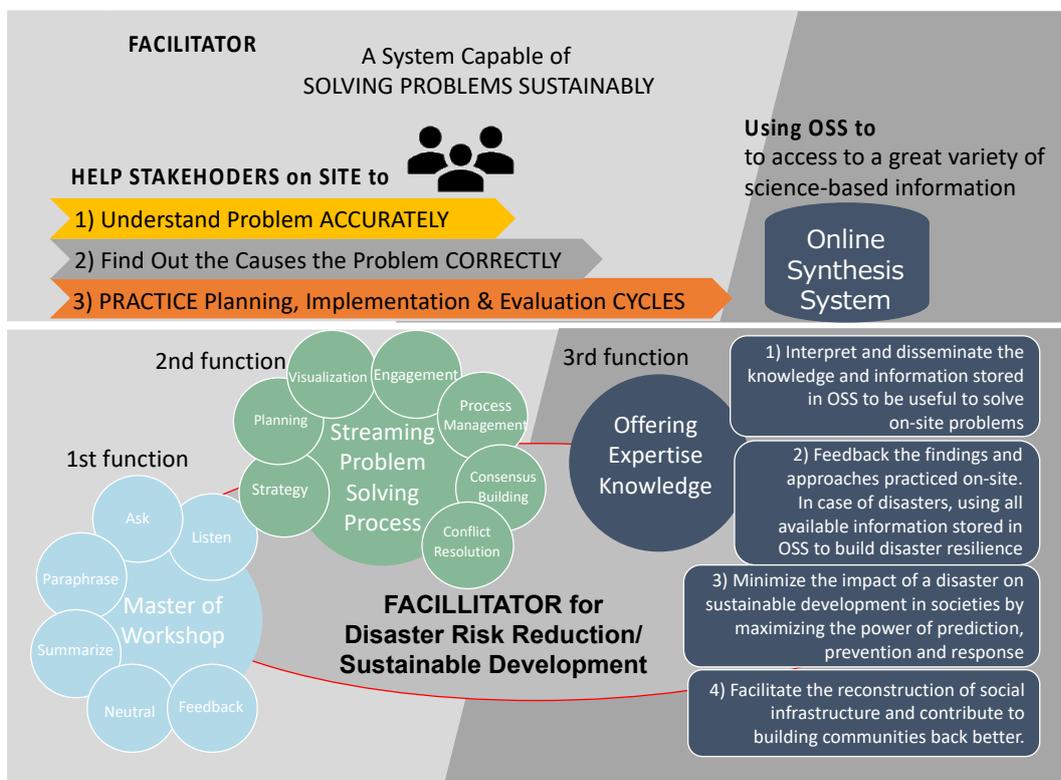


**Figure1: Conceptual Diagram of Coherence among Disaster Risk Reduction, Climate Change Adaptation, and Sustainable Development**

*To promote coherence among DRR, CCA, and SDGs, any stakeholders have to have a wide range of expertise to cover these wide disciplines which are systemic in nature and global in scale.*



**Figure2: Image of OSS and Facilitators to Support On-site Problem Solving and Decision Making**



**Figure3: Qualifications for and Functions of Facilitators**

The Facilitator has to be catalysts on-site with capabilities of 1) facilitating meetings, 2) streamlining problem-solving processes, and 3) offering expertise through OSS.



### Answers/Responses to the Global Research Agenda:

The Japan National Committee discussed and summarized the answers and responses to the questions for the GRA as follows.

Questions	Answers/ Responses	Stakeholders
1. Changing global/regional/national risk landscape	<p>Unprecedented scale of damage and losses due to a series of earthquake and tsunami disasters are anticipated to occur in the first half of the 21<sup>st</sup> century in Japan. In recent years, extreme weathers, many of which are increasing in frequency and intensity by climate change, have been recorded and unprecedented water-related disasters have caused significant damages at global/regional/national levels and thus impede progress towards sustainable development.</p> <p>“Consilience” of knowledge in DRR and climate change adaptation (CCA) as well as sustainable development should be conducted in a comprehensive manner “on-site” to improve resilience at global/regional/national levels, thus to reduce such an existential risk as the basis for sustainability through promoting interdisciplinary and transdisciplinary science, technology, engineering and innovation. Therefore, it is necessary to create “consilience knowledge base” (Online Synthesis System: OSS) and cultivate and increase Facilitators who will undertake development and management of OSS. Such a guidance and notion would also benefit Asian countries, many of which have undergone rapid population growth particularly in densely populated urban areas and also suffered from unprecedented disasters, as well as other disaster-prone regions and countries.</p>	<p>At global/ regional/national levels: Scientific communities, Facilitators, On-site stakeholders including governments, communities, and citizen/individual</p>
2. Identify three major research priorities (refer to the Global Research Agenda) <b>Theme 1:</b> <b>Understanding risk</b>	<p>As written above, “consilience” of knowledge in DRR, CCA, and SDGs should be conducted in a comprehensive manner “on-site” by establishing OSS and fostering Facilitators, which will promote cohesion among these important notions.</p> <p>On-site stakeholders, in cooperation with Facilitators</p>	<p>At global/ regional/national levels: Scientific communities, Facilitators,</p>

<p><b>creation and perpetuation in the contemporary risk landscape: systemic, cascading and complex risks:</b></p> <p><b>Theme 6: Harness technologies, innovations, data and knowledge for risk reduction</b></p>	<p>and effectively taking advantage of the OSS, should develop integrated scenarios for DRR and Environment/Development and execute concrete measures toward enhancement of disaster resilience and achievement of SDGs.</p> <p>The scientific community should develop OSS under interdisciplinary cooperation with international scientific organizations, various on-site stakeholders, and UN/international agencies, to support enhancement of synthesis for strengthening disaster resilience and promoting sustainable development. The OSS should be equipped with functions for users to explore, collect, archive, and search in various languages, scientific information as well as information of experiences, including good practices and success/failure stories, shared from all over the world and basic information on legal systems and policies. The OSS should also have functions to integrate these data and information, conduct forecast and simulation, facilitate effective risk communications through visualization, and establish information exchange and dialogue among stakeholders. The OSS should be functional in each mother tongue so that it will be used in each country/local/community under international/regional/local cooperation.</p>	<p>On-site stakeholders including governments, communities, and citizen/individual</p>
<p><b>Theme 7: Foster interdisciplinary and multi-stakeholder collaboration for solutions to risk challenges:</b></p>	<p>The scientific community should foster Facilitators in collaboration with local universities, disaster research centers, and scientific institutions and in mutual cooperation with society. Taking advantage of the OSS, knowledge, experiences, and methods suitable for their location should be provided and external experiences and resources should be effectively introduced so that on-site stakeholders can effectively enhance disaster resilience and sustainable development in an inclusive and participatory manner. To do so, Facilitators are required to assist stakeholders who effectively apply science and</p>	

	technology, protect their lives and assets, and continue their livelihoods and businesses.	
3.Implementing the Agenda/Science in actions	<p>The newly established Japan ICoE could more effectively and more efficiently promote coherence among DRR, CCA and Sustainable Development as a representative of the national science community to support national and regional scientific knowledge for policy and action (Theme 8). For disaster prone Asian countries, all stakeholders should share issues and priorities for both national and regional disaster risks as well as global agreements. All communities relevant with IRDR should further collaborate and tackle with facing problems for improving national and regional resilience.</p> <p>International scientific organizations, UN/international agencies and international aid agencies should support the development of the OSS, Facilitators and integrated scenarios for each country and region to take actions. International and regional scientific organizations should accelerate activities of scientific communities in countries in terms of knowledge sharing on science and technology and designing information base. UN/international agencies and international aid agencies should establish a system to assist countries to raise awareness on the above, and develop and manage the information base in the context of improving quality and effectiveness of assistance in DRR and Environment/Development fields.</p>	<p>National science community, ICoE</p> <p>International scientific organizations, UN/international agencies, regional scientific organizations, international aid agencies</p>
4.Other suggestions and comments on the Global Research Agenda		