



Tokyo Conference on International Study for Disaster Risk Reduction and Resilience

---Towards a new science and technology to consolidate
disaster risk reduction and sustainable development---

14th – 16th, January, 2015

Ito Hall, The University of Tokyo, Tokyo, JAPAN

Brief Summary

Prior to the 3rdWCDDR, the “Tokyo Conference on International Study for Disaster Risk Reduction and Resilience” called on policymakers to empower their national DRR platforms through greater engagement with science and technology. The Conference, which attracted 400 participants from 27 countries, was co-organized by the Science Council of Japan (SCJ), Integrated Research on Disaster Risk (IRDR), the University of Tokyo (UTokyo) and UNISDR at the main campus of UTokyo.

The Tokyo Conference explored the roles and better engagement of science and technology in disaster risk reduction and in enhancing resilience. The outcome document “Tokyo Statement” specifies an important set of recommendations including that Governments need to empower national platforms so that they can practice evidence-based disaster risk reduction for sustainable development. The use of science and technology to improve early warning systems and make risk information more accurate, accessible and understandable has been one of the successes of the Hyogo Framework for Action over the past 10 years.

In the presence of His Imperial Highness, The Crown Prince, the opening ceremony and the High Level Panel were organized. At the opening, the President of the Science Council of Japan, Prof. Takashi Onishi, said part of the way forward was to mobilize and align existing networks of scientific and research institutions at national, regional and international levels. Ms. Margareta Wahlström, Chief of the United Nations Office for Disaster Risk Reduction (UNISDR) said, “Importantly, we need a broader base – including social sciences, economics, and humanities.” The Conference had two keynote lectures, one by Dr. Han Seung-Soo, UN Secretary-General’s Special Envoy on Water and Disaster Risk Reduction and by Prof. Gordon McBean, President, International Council for Science (ICSU). The High Level Panel had also presentations by the Minister of Bangladesh and representatives of the academia (IRDR, ISSC), international organizations (UNESCO, WMO, OECD), donor agencies (WB, ADB, JICA) and a space agency (JAXA).

At the following four thematic sessions, the Conference had the reports on recovery from the Great East Japan Earthquake and Tsunami, and discussed how to cooperate with Earth environment, health and Earth



observation activities and how to promote trans-disciplinary and inter-disciplinary studies. The participants earnestly discussed at the poster viewing session, which presented more than one hundred contributions from all over the world.

In the final panel session, the Conference discussed concrete actions which were summarized as “Tokyo Action Agenda (draft)” as well as approved the “Tokyo Statement”, both of which will be significant inputs for the Third UN World Conference on Disaster Risk Reduction in Sendai in coming March. At the end of the Conference, Ms. Eriko Yamatani, Honorable Minister of State for Disaster Management and Cabinet Office, Government of Japan, emphasized the contributions of science and technology including advanced Earth observations and GIS to disaster risk reduction in her closing remarks.

The Tokyo Conference confirmed commitments of science and technology communities which would contribute to the safety in each community and region in the world and the sustainability of the global society. The discussions were covered and broadcasted by various media including TV News (*see Conference HP* <http://monsoon.t.u-tokyo.ac.jp/AWCI/TokyoConf/en/>).





Tokyo Statement

-Towards a new science and technology to consolidate disaster risk reduction and sustainable development-

1. Our assessment of the present status

- Human factors such as globalization, population growth, poverty, urbanization and changes in land use are aggravating negative consequences of natural hazards. The losses are increasing in both developed and developing countries.
- In this inter-connected world, the impact of an event immediately crosses borders and can lead to cascading consequences, even to geographically remote areas.
- Although we have increased scientific knowledge and technology, we have not been successful in demonstrating concrete methodologies for disaster risk reduction and in convincing those who are not familiar with disaster risk.
- In pursuit of human security, we need to consolidate disaster risk reduction and sustainable development.

2. Our key directions for addressing problems through solidarity towards building resilience

- Policy-makers and practitioners should be fully aware of the latest scientific knowledge on disasters, and be capable of utilizing those scientific findings.
- National platforms should be empowered as focal fora to incorporate science and technology into real practice.
- Science should play an important role in disaster risk reduction by developing collaborative frameworks with Earth environmental sciences and global Earth observations, thus promoting inter- and trans-disciplinary approaches for human well-being.
- National and local governments should improve their preparedness for better response and better recovery of households and communities.

3. Our findings and recommendation

- We need to adopt a common methodology on data collection and economic analysis of disasters which can be practiced by national and local platforms to realize evidence-based policy making on disaster risk reduction to be practiced globally.
- We need to enhance numerical pre-assessments of damage by various hazards based on inter-disciplinary knowledge to formulate preventive policies and strategies
- We need to fully share these valuable “best practices” of disaster risk reduction that are based on scientific findings.

4. Our proposals for concrete initiatives to be taken in cooperation with national and international stakeholders

- Governments need to empower national platforms so that they can practice evidence-based disaster risk reduction for sustainable development
- The science community needs to enhance forecasting and visualization capabilities of new risks and their potential social impacts in order to prevent further disasters due to intensification of hazards.
- The disaster management community and the Earth observation community need to collaboratively enhance their capability to monitor existing risks and their social impacts and to mitigate disasters due to augmentation of vulnerabilities.
- Science communities on disaster risk reduction, Earth environment and health need to bring practitioners and researchers together in collaborative efforts to improve disaster resilience.
- The international community needs to set up a process of encouraging existing and future programs and initiatives to create research networks and practices for promoting evidence-based disaster risk reduction for sustainable development.

To realize our proposals, we discussed the Tokyo Action Agenda as attached.



Tokyo Action Agenda (draft)

(1) How to support national platforms to practice evidence-based disaster risk reduction?

- 1) Collect and archive disaster damage data and potential impact on populations (health, social) and to identify the nature of vulnerable groups ahead of a disaster through in-situ and satellite observations and model integration : **Monitoring**
- 2) Maintain national disaster damage statistics : **Monitoring**
- 3) Monitor disaster risk changes through in-situ, satellite and model integration : **Monitoring**
- 4) Assess current and future risks on economic growth, public health and social equality and demonstrate effects of investment in collaboration with donors: **Assessment**
- 5) Conduct capacity building activities and enhance education on disaster damage data collection, statistics maintenance, risk monitoring, risk assessment and information sharing, synthesis, and forensic approach beyond disciplines, : **Capacity building**

(2) How to mobilize existing networks of scientific and research institutions at national, regional and international levels?

- 1) Create a regular, independent, authoritative, policy-relevant international assessment of science on disaster risks, resilience and transformation: **Assessment**
- 2) Provide a clear and unambiguous scientific view on the current state of knowledge in disaster risk, the potential socio-economic impacts of natural hazards, and the ways to reduce significant human and economic losses for international policy use: **Synthesis**
- 3) Conduct co-designed and policy-relevant integrated research by promoting inter-disciplinary and trans-disciplinary programs : **Communication and engagement**
- 4) Activate coordination between governments and science and technology communities at national, regional and global levels: **Communication and engagement**
- 5) Empower international scientific advisory functions to offer effective assessments and syntheses in collaboration with UN agencies, countries and donors: **Advice**



Tokyo Action Agenda			
How to support national platforms to practice evidence-based disaster risk reduction ?			
Target		Action	Executer
Monitoring	Data Collection & Sharing	IRDR/DATA ICSU-WDS Data Portal and Knowledge Network International Charter Space & Major Disasters Sentinel Asia Coordinated Satellite Observation Plan SATREPS Post-2015 GEO Implementation Plan Data Integration & Analysis System (DIAS)	IRDR ICSU-WDS CEOS APRSAP CEOS JICA, JST GEO MEXT
	Statistics	Governmental Disaster Statistics	UNDP, ESCAP, Tohoku U.
	Risk Monitoring	Post-2015 GEO Implementation Plan Data Integration & Analysis System (DIAS) Future Earth Priority Initiative	GEO MEXT, DIAS ICSU, ISSC, BF
Risk Assessment		Future Earth Priority Initiative SATREPS	ICSU, ISSC, BF JICA, JST
Capacity Building		IRDR Flagship Future Earth Priority Initiative SATREPS Technical Assistance	IRDR ICSU, ISSC, BF JICA, JST JICA

Tokyo Action Agenda		
How to mobilize existing networks of scientific and research institutions at national, regional and international levels ?		
Assessment	Disaster Risks Research and Assessment to Promote Risk Reduction and Management	ICSU, ISSC
Synthesis	Disaster Risks Research and Assessment to Promote Risk Reduction and Management	ICSU, ISSC
Advice	Empowerment of Scientific Advisory Enhanced Cooperation between STAG, IRDR, Donors and Funding Agencies	ISDR, ICSU, ISSC, Donors
Communication and engagement	Transformation to Sustainability SATREPS International Disaster and Risk Conference Private-Public-Academia Partnership DRR Institute Summit	ISSC JICA, JST GRF Davos JBP, SCJ Kyoto Univ.