



UNISDR
The United Nations Office for Disaster Risk Reduction



IRDR
Integrated Research on Disaster Risk



東京大学
THE UNIVERSITY OF TOKYO

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---

Date: 14th – 16th, January, 2015

Venue: Ito Hall, The University of Tokyo, Tokyo, JAPAN

Organizers: Science Council of Japan (SCJ); United Nations International Strategy for
Disaster Reduction (UNISDR); Integrated Research on Disaster Risk
(IRDR); and Ito International Research Center Conference,
The University of Tokyo (UTokyo)

Objectives

The negative consequences of natural hazards are on the rise. Manmade factors such as population growth, poverty, urbanization, changes in land use, globalization and climate change are aggravating these consequences. The losses in human lives and in properties and other economic resources are increasing both in developed and developing countries. The progress in science & technology and economic development are not necessarily leading to substantial reduction of disaster risk. We have made progress in understanding hazards and risks both in natural and social sciences. However the fruits of these sciences seems to be underutilized, and hence the losses are increasing. Why is it that we cannot fully exploit the advanced science and technology to solve this critical issue? The science and technology community has not found the answer yet.

The 3rd World Conference on Disaster Risk Reduction (3rdWCDRR) will be held in Sendai, Japan in March 2015, and the successor arrangement of the Hyogo Framework for Action (HFA2) which will serve as the global guiding principle for the following years is expected to be adopted on this occasion. In addition, the negotiations on Sustainable Development Goals (SDGs) will be conducted in autumn 2015. Taking this opportunity, it is critically important to discuss integrated strategies for DRR based on science and technology to be embodied in HFA2 and to identify effective methods for its implementation. It is also indispensable to clarify the role of science and technology for DRR in sustainable development and include DRR strategic goals in the expected SDGs. Japan, due to geographical and geological conditions, has been tormented by natural disasters in the course of her history, and most recently hit by the Great East Japan Earthquake (GEJE) in 2011. However her people has overcome these difficulties and based on the lessons of GEJE, the country is in the process of strengthening the societal

resilience and re-establishing her land management and social infrastructure. The Japanese scientific community, in cooperation with Integrated Research on Disaster Risk (IRDR) is ready to share the lessons learnt and to illustrate a roadmap and introduce concrete examples towards integrating disaster risk reduction and sustainable development.

IRDR, which has been co-initiated by the International Council for Science (ICSU), the International Social Science Council (ISSC), and the United Nations International Strategy for Disaster Reduction (UNISDR), is a scientific challenge on natural and human-induced environmental hazard aiming at identifying better solutions for disaster prevention & mitigation and disaster preparedness. In IRDR, data and information are systematized and integrated regardless of the hazard type and beyond the academic confines, and shared across different stakeholders. Knowledge, experiences, and methods are exchanged to pursue an establishment of a methodology for a disaster risk reduction through an in-depth discussion. This is considered to be an essential step to build a resilient society and enable us to follow a sustainable development path.

Therefore, we would like to invite world leaders and top scientists to our Tokyo meeting prior to the 3rdWCDRR to discuss and formulate how the science and technology could help in disaster risk reduction and hence fostering sustainable development. The discussions will be based on the following three viewpoints.

First of all, it is highly likely that the global loss by natural disasters to increase in the future, with the economic loss predicted to rise to US\$ 20 billion per year by 2030. Considering that it is vital for the sustainable development to take early action in recognition of disaster risks and build secure, healthy, wealthy and resilient nations and communities, we seek the possibilities to collaborate with the “Future Earth” in the field of earth environmental sciences, and with the Group on Earth Observations (GEO), and consolidate cooperatively a concept to contribute to the SDGs goal-setting for disaster reduction.

Secondly, to reduce disaster risks, it is necessary to implement disaster preventive measures based on scientific findings at regional, national, local, community levels and at residential neighborhoods. However real practices at any of these levels are below our expectations. We will demonstrate several tested “best practices” of disaster reduction that are based on scientific findings and simultaneously organize discussions with participants from all relevant stakeholder groups (trans-disciplinary study approach).

Thirdly, we have learned from the recovery processes after the GEJE that it is essential to take a comprehensive multi-hazards approach in order to implement effective and efficient disaster preventive measures in our society. We would like to identify better ways of scientific collaboration for avoiding hazards being converted to disaster risks, and for upgrading disaster risk awareness to decision-making & implementation process. We

would like to propose concrete initiatives to support such processes and discuss our directions for the scientific community in this regard. We will also discuss common indicators to measure our progress based on science and to drive HFA2 forward.

Bearing these viewpoints in mind, we will make proposals, as a product of the conference, for establishing close coordination between sustainable development and disaster risk reduction at all aspects of policy-making, planning and programming of infrastructure and social systems, human resources mobilization, and for creation of structures and mechanisms to implement disaster risk reduction at all levels of society, and for incubating innovative science and technology that would guide us in all phases of disaster management cycle.

Draft Agenda

Day 1 (Wednesday, 14 January, 2015)

12:00-13:30 Registration

14:00-15:00 Opening Ceremony

Opening Remarks

- **Prof. Takashi Onishi**, President, Science Council of Japan
- **Ms. Margareta Wahlström**, United Nations Special Representative of the Secretary-General (SRSG) for Disaster Risk Reduction (Video Letter)
- **Prof. David Johnston**, Chair of Science Committee, Integrated Research on Disaster Risk (IRDR) / Director of the Joint Centre for Disaster Research, Massey University, New Zealand
- **Prof. Junichi Hamada**, President, The University of Tokyo

Keynote Speech

- ***“Science and Technology in the Post-Hyogo Framework for Action”***
Dr. Han Seung-Soo, United Nations Secretary-General’s Special Envoy on Disaster Risk Reduction and Water /
Former Prime Minister of the Republic of Korea
- ***“Integrated Research to Reduce Risk and Sustain Development”***
Prof. Gordon McBean, President, International Council for Science (ICSU) /
Professor, Institute for Catastrophic Loss Reduction, University of Western Ontario, Canada / Fellow, Royal Society of Canada

(Coffee Break 15:00-15:15)

15:20-17:05 High Level Panel Session

Organizing Committee Report

Prof. Takashi Onishi, President, Science Council of Japan

High Level Panel

Moderator:

Prof. Takashi Onishi, President, Science Council of Japan

Panelist:

- **Mr. Anisul Islam Mahmud**, MP, Hon’ble Minister, Ministry of Water

Resources, Government of the People's Republic of Bangladesh

- **Prof. David Johnston**, Chair of Science Committee, Integrated Research on Disaster Risk (IRDR) / Director of the Joint Centre for Disaster Research, Massey University, New Zealand
- **Ms. Vivi Stavrou**, Senior Executive Manager, International Social Science Council(ISSC)
- **Mr. Jeremiah R.D. Lengoasa**, Deputy Secretary-General(DSG), World Meteorological Organization (WMO)
- **Dr. Flavia Schlegel**, Assistant Director-General for the Natural Sciences, UNESCO
- **Dr. Rolf Alter**, Director, Public Governance and Territorial Development, Organization for Economic Co-operation and Development (OECD) / Member, Global Agenda Council of the World Economic Forum
- **Dr. Ede Jorge Ijjász Vásquez**, Senior Director, Social, Urban, Rural and Resilience Global Practice, World Bank
- **Dr. Bindu N. Lohani**, Vice-President for Knowledge Management and Sustainable Development, Asian Development Bank (ADB)
- **Mr. Shigeru Kiyama**, Vice-President, Japan International Cooperation Agency (JICA)
- **Mr. Kiyoshi Higuchi**, Senior Vice President, Japan Aerospace Exploration Agency(JAXA) / President, International Astronautical Federation (IAF)

(Coffee Break 17: 05-17:20)

17:20-18:00 Session on Recovery from Great East Japan Earthquake (GEJE) and Tsunami

Speaker:

- **Prof. Makoto Iokibe**, Past Chair, GEJE Reconstruction Conference / Chancellor, Prefectural University of Kumamoto / President, Hyogo Earthquake Memorial 21st Century Research Institute
- ***“Science Council of Japan and 30 Academic Societies’ Liaison Global sharing of the findings from the past great earthquake disasters in Japan”***
Prof. Masako Yoneda, Academic Society Liaison Association Corresponding to the Great East Japan Earthquake / Professor, Keio Advanced Research Centers, Keio University

Reception 18:30-20:30

8:00- **Registration**

9:00-10:30 **Session on Coordination with Environmental and Health Activities:
 Towards green growth and sustainable development**

Moderator:

Prof. Toshio Koike, Professor, School of Engineering, The University of Tokyo /
Director, International Centre for Water Hazard and Risk Management under
the auspices of UNESCO (ICHARM)

Dr. Fumiko Kasuga, Advisor to the President, Science Council of Japan /
Director, National Institute of Health Sciences, Ministry of Health, Labor and
Welfare, Japan

Speaker :

- ***“Future Earth and its importance in Asia”***

Dr. Tetsuzo Yasunari, Director-General, Research Institute for Humanity and
Nature / Chairman, Joint National Committee for IGBP, WCRP and
DIVERSITAS

- ***“Coordination of Earth Observations for Sustainable Development”***

Ms. Barbara J. Ryan, Secretariat Director, Group on Earth Observations (GEO)

- ***“Ensuring health as a key strategy for disaster reduction”***

Mr. Alex Ross, Director, World Health Organization (WHO) Kobe Centre

- ***“Resilience to extreme weather”***

Prof. Georgina Mace, Professor, Biodiversity and Ecosystems, University College
London CBE FRS

(Coffee Break 10:30-10:45)

10:45-11:20 **Poster Introduction Session Group A (1 min each)**

11:20-11:30 **Photo Session**

(Lunch 11:30-12:45)

12:45-13:15 **Poster Introduction Session Group B (1 min each)**

**13:15-14:45 Session on Trans-Disciplinary Study Approach for Disaster Risk Reduction:
Towards achieving resilience**

Moderator:

Dr. Satoru Nishikawa, Vice-President, Japan Water Agency

Prof. Haruo Hayashi, Professor, Disaster Prevention Research Institute,
Kyoto University

Speaker :

- ***“Earthquake Early Warning (EEW) provision in Japan
– a result of comprehensive collaboration between science and society”***
Mr. Noritake Nishide, Director-General, Japan Meteorological Agency (JMA)
- ***“The economics in DRR - How safe is safe enough?”***
Dr. Walter Ammann, Founder and President of the Foundation Global Risk
Forum GRF Davos / UNISDR/STAG (Scientific Technical Advisory Group)
- ***“Promoting micro-finance for disaster risk reduction in Ethiopia”***
Mr. Megerssa Miressa Dinsa, Program Director, Microinsurance,
Kifiya Financial Technology Plc., Ethiopia
- ***“International Cooperation for Natural Disaster Mitigation”***
Prof. Masanori Hamada, Chairman, Asian Disaster Reduction Center (ADRC) /
Professor Emeritus, Waseda University
- ***“Transdisciplinary education for disaster risk reduction”***
Prof. Srikantha Herath, Academic Director, Institute for the Advanced Study of
Sustainability, United Nations University
- ***“Holistic approach among private and public sector stakeholders”***
Mr. Naohiro Nishiguchi, President, Japan Bousai (disaster reduction) Platform
- ***“Promoting Area Business Continuity Management (Area BCM) in ASEAN 10,
experience of MMDA (Metropolitan Manila Development Authority)”***
Usec. Corazon T. Jimenez, Undersecretary, Metropolitan Manila Development
Authority

14:45-15:15 Poster Introduction Session Group C (1 min each)

(Coffee Break 15:15-15:30)

**15:30-17:00 Session on Inter-Disciplinary Study Approach for Disaster Risk Reduction:
Towards driving risk management**

Moderator:

Prof. Kennichi Tsukahara, Professor, Department of Civil Engineering,

Kyusyu University

Prof. Kenji Satake, Professor, Earthquake Research Institute,
The University of Tokyo

Speaker :

- ***“Inter-Disciplinary Study for Disaster Risk reduction -toward enforcing risk management from the view point of African countries”***
Dr. Shuaib Lwasa, Associate Professor, Makerere University, Uganda /
Science Committee, Integrated Research on Disaster Risk (IRDR)
- ***“Implementation oriented technology for coping with natural disasters under the climate change”***
Prof. Toshimitsu Komatsu, WFEO Standing Technical Committees on Disaster Risk Management, World Federation of Engineering Organization (WFEO) /
Professor extraordinary, Kyushu University
- ***“New prospects of science and technology on integrated disaster risk management”***
Dr. Wei-Sen Li, Secretary General, National Science and Technology Center for Disaster Reduction, Taiwan / Co-chair, APEC Emergency Preparedness Working Group (EPWG)
- ***“Interdisciplinary Perspectives on Disaster Risk Management: Linking Science to Policy and Practice”***
Prof. Susan Cutter, Professor and Director, Hazards and Vulnerability Research Institute, University of South Carolina, USA / Science Committee, Integrated Research on Disaster Risk (IRDR)
- ***“Helping Countries Establish National Disaster Loss and Damages Data Base- Lessons Learned by the United Nations Development Programme”***
Mr. Sanny Ramos Jegillos, Senior Adviser, Disaster Risk Reduction and Recovery, UNDP Bangkok Regional Hub, Thailand
- **“An Overview to Natural Disaster Risk in West and Central Asia with Emphasize on Water Scarcity”**
Dr. Ali Chavoshian, Director, Regional Centre on Urban Water Management under the auspices of UNESCO / School of Civil Engineering, Iran University of Science and Technology / Director, International Drought Initiative (IDI)
Secretariat

17:00-18:30 Poster Viewing/Presentation Session at the Gallery Hall

Day 3 (Friday, 16 January)

8:30- Registration

9:00-11:30 Panel Discussion on "Tokyo Statement : *from Tokyo to Sendai*"

Moderator:

Prof. Toshio Koike, Professor, School of Engineering, The University of Tokyo /
Director, International Centre for Water Hazard and Risk Management under
the auspices of UNESCO (ICHARM)

Panelist:

- **Prof. Takashi Onishi**, President, Science Council of Japan
- **Dr. Fumiko Kasuga**, Advisor to the President, Science Council of Japan /
Director,
National Institute of Health Sciences, Ministry of Health, Labor and Welfare,
Japan
- **Prof. Haruo Hayashi**, Professor, Disaster Prevention Research Institute, Kyoto
University
- **Prof. Kennichi Tsukahara**, Professor, Department of Civil Engineering, Kyusyu
University
- **Prof. Gordon McBean**, President, International Council for Science (ICSU) /
Professor, Institute for Catastrophic Loss Reduction, University of Western
Ontario, Canada / Fellow, Royal Society of Canada
- **Ms. Vivi Stavrou**, Senior Executive Manager, International Social Science
Council (ISSC)
- **Ms. Barbara J. Ryan**, Secretariat Director, Group on Earth Observations (GEO)
- **Dr. Walter Ammann**, Founder and President of the Foundation Global Risk
Forum GRF Davos, UNISDR/STAG (Scientific Technical Advisory Group)
- **Mr. Kiyofumi Konishi**, Senior Special Advisor, Japan International Cooperation
Agency (JICA)
- **Dr. Rudiger Klein**, Executive Director, International Project Office, Integrated
Research on Disaster Risk (IRDR)

(Coffee Break 10:00-10:15)

11:30-11:45 Closing Session

Closing Speech

- **Ms. Eriko Yamatani**, Minister of State for Disaster Management Cabinet Office, Government of Japan

Closing Remarks

- **Dr. Fumiko Kasuga**, Advisor to the President, Science Council of Japan / Director, National Institute of Health Sciences, Ministry of Health, Labor and Welfare, Japan

International Organizing Committee

Chair

- **Takashi Onishi**, President, Science Council of Japan
- **Gordon McBean**, President, International Council for Science (ICSU) / Professor, Institute for Catastrophic Loss Reduction, University of Western Ontario, Canada / Fellow, Royal Society of Canada
- **David Johnston**, Chair of Science Committee, Integrated Research on Disaster Risk (IRDR) / Director of the Joint Centre for Disaster Research, Massey University, New Zealand
- **Margareta Wahlström**, United Nations Special Representative of the Secretary-General (SRSG) for Disaster Risk Reduction

Local Organizing Committee

Co-chairs

- **Toshio Koike**, Professor, School of Engineering, The University of Tokyo / Director, International Centre for Water Hazard and Risk Management under the auspices of UNESCO (ICHARM)
- **Fumiko Kasuga**, Advisor to the President, Science Council of Japan / Director, National Institute of Health Sciences, Ministry of Health, Labour and Welfare, Japan

Members

- **Koichi Miki**, Professor, Keio University Law School
- **Mitsuo Yamakawa**, Professor, Faculty of Economics, Teikyo University
- **Keisuke Hanaki**, Vice-President, Science Council of Japan
- **Tatsuro Irimura**, Director, Institute for Medical Innovation, St. Luke's International University
- **Kenji Satake**, Professor, Earthquake Research Institute, The University of Tokyo
- **Kennichi Tsukahara**, Professor, Department of Civil Engineering, Kyushu University
- **Haruo Hayashi**, Professor, Disaster Prevention Research Institute, Kyoto University
- **Shigeko Haruyama**, Professor, Graduate School & Faculty of Bioresources, Mie University
- **Hiroko Minami**, President, University of Kochi
- **Masako Yoneda**, Project Professor, Keio University
- **Yusuke Amano**, Director, International Affairs Office, Water and Disaster Management Bureau Ministry of Land, Infrastructure, Transport and Tourism (MLIT)

- **Chu Ishida**, Acting Senior Chief Officer of Int'l Affairs for Satellite Applications, Japan Aerospace Exploration Agency (JAXA)
- **Fumihiko Imamura**, Director and Professor, International Research Institute of Disaster Science (IRIDeS), Tohoku University
- **Yuichi Ono**, Assistant Director and Professor, IRIDeS, Tohoku University
- **Akiyuki Kawasaki**, Project Associate Professor, School of Engineering, The University of Tokyo
- **Kaoru Saito**, Director, Cabinet Office, Government of Japan
- **Kuniyoshi Takeuchi**, Advisor, ICHARM
- **Masafumi Nagaiishi**, Senior Advisor to the Director General, Global Environment Department. Japan International Cooperation Agency (JICA)
- Satoru Nishikawa, Vice-President, Japan Water Agency
- **Kenzo Hiroki**, Director, Water Resources Planning Division, Ministry of Land, MLIT
- **Hiroyuki Fujiwara**, Director, Department of Integrated Research on Disaster Prevention, National Research Institute for Earth Science and Disaster Prevention