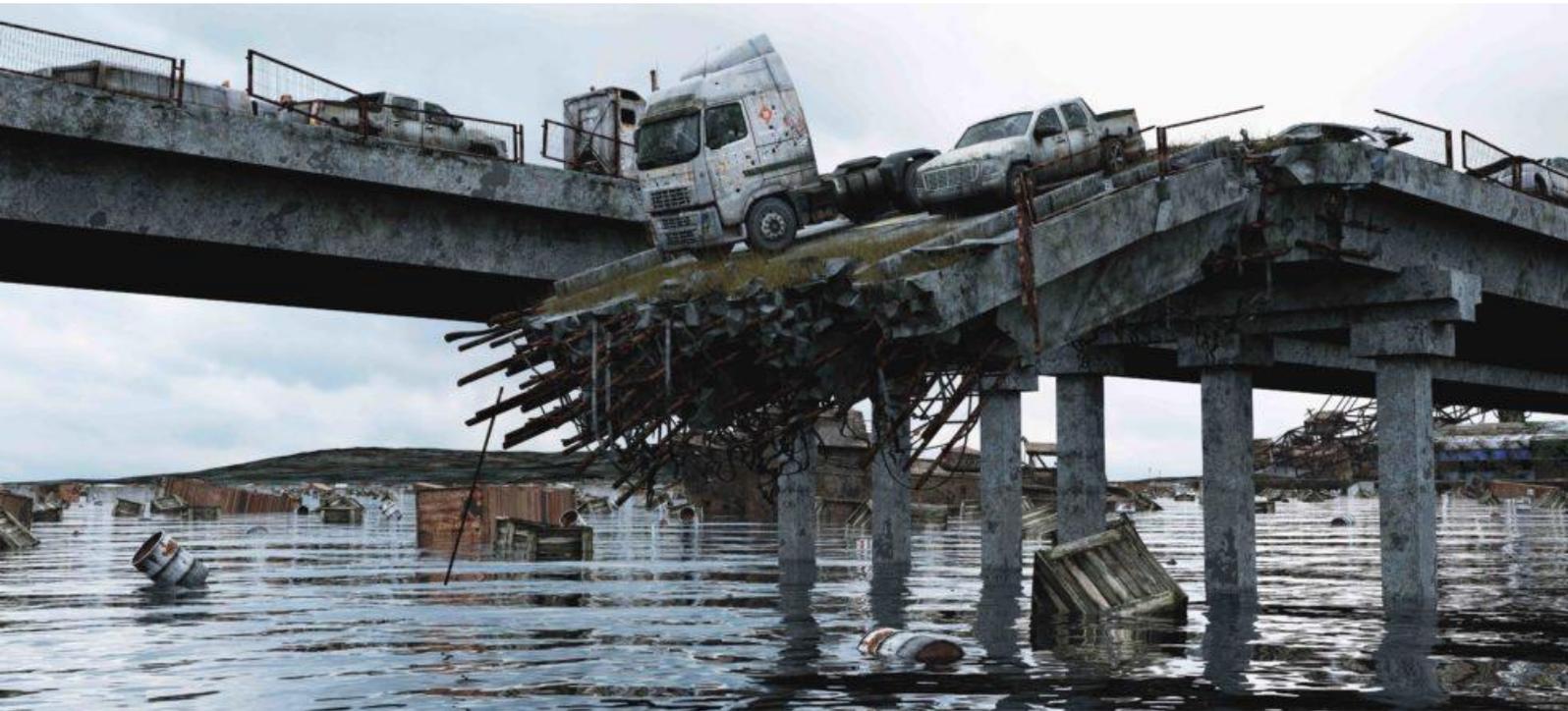


# Association of Pacific Rim Universities Program Report 2020



## Multi-Hazards

## Report of the APRU Multi-Hazards Program for 01.2019-03.2020

*Takako Izumi, IRIDeS, Tohoku University*

### Introduction and overview of the APRU Multi-Hazards Program

The Multi-Hazards (MH) program was initiated in April 2013 in collaboration with APRU and Tohoku University. The International Research Institute of Disaster Science (IRIDeS) hosts its program hub, provides the secretariat service as well as coordinates the activities and programs. The Program mainly aims to:

- A. Harness the collective capabilities of APRU universities for cutting-edge research on disaster management and,
- B. Contribute to international policy-making processes to steadily improve disaster management.

The major and regular activities under the MH program include the summer school, the research symposium and the campus safety program. In addition to these regular activities, it has also actively involved in discussions on DRR policies and strategies at regional and international levels with focus on strengthening the application of science and technology through the Asian Ministerial Conference on DRR, the Global Platform on DRR, the UNISDR Science and Technology Conference on DRR, the World Bosai Forum and so on. Dr. Takako Izumi, Associate Professor of IRIDeS, Tohoku University and Program Director of the APRU Multi-Hazards Program has been appointed as a member of the UNISDR Asia Science, Technology and Academia Advisory Group (ASTAAG) since May 2015.

### Major activities, accomplishments, and outputs in 2019-03.2020

#### **Contribution to international and regional discussions for policy influence**

- **Science and Policy Forum for the Implementation of Sendai Framework for DRR** (13-14 May) in Geneva: This event was organized by UNISDR, the Integrated Research on Disaster Risk (IRDR), and the International Science Council at Palais de Nations in Geneva. On 13 May, the launching of new journal – Progress in Disaster Science – was held during this Forum. The new journal was published in collaboration with Elsevier and the APRU Multi-Hazards Program (MH program). Program Director of the MH program who is also Associate Editor of this journal introduced the objective and target of this journal and encouraged to submit papers in the field of disaster science.



- **Global Platform for DRR (15-18 May)** in Geneva: the MH program organized a session “Innovations and Disaster Risk Reduction” during the Global Platform on 14 May. The session aimed to showcase the publication “30 innovations for DRR” developed by Tohoku University, University of Tokyo, Keio University, UNU and CWS Japan and to share information about the most effective technology and innovations for DRR. The event was successful with more than 100 audience and very active discussions was made.



**APRU** **UNIVERSITY OF TOKYO IRIDeS**

Innovation Platform at the 2019 Global Platform  
**Innovations and Disaster Risk Reduction**  
16:00-17:30 on May 15 (Wednesday) at Room 15, CICG

Join us for the session at the Innovation Platform 'Innovations and Disaster Risk Reduction'

This session will showcase the recent publication "30 innovations for DRR" developed by Tohoku University, Keio University, University of Tokyo, United Nations University, CWS Japan and the Association of Pacific Rim Universities (APRU). It aims to share information about the most effective technology and innovations for DRR.

**Program:** Moderated by Prof. Rajib Shaw

<p><b>16:00 - 16:10</b> Opening/Introduction Prof. Rajib Shaw, Graduate School of Media and Governance, Keio University</p>	<p><b>16:30 - 16:40</b> Key DRR innovations 1: Prof. Mitsuo Ishikawa, Visiting Professor, Graduate School of Frontier Science, The University of Tokyo</p>
<p><b>16:10 - 16:20</b> DRR innovations after the Great East Japan Earthquake and Tsunami Prof. Fumihiko Imanura, International Research Institute of Disaster Science (IRIDeS), Tohoku University</p>	<p><b>16:40 - 16:50</b> Key DRR innovations 2: Dr. Riyant Djelantik, Academic Programs Officer, The United Nations University - Institute for the Advancement Study of Sustainability (IAS)</p>
<p><b>16:20 - 16:30</b> 30 Innovations for Disaster Risk Reduction Dr. Tohiko Izumi, IRIDeS, Tohoku University</p>	<p><b>16:50 - 17:30</b> Q&amp;A / Panel discussion</p>

**CWS JAPAN** **UNU** **IRIDeS** **APRU**



- **APEC Resilience Week (30 Sep - 1 Oct)** at Taipei in Chinese Taipei: the APEC Resilience Week was organized by the APEC Emergency Preparedness Capacity Building Center (EPCC) to share the case studies and good practices on capacity development on preparedness, climate change adaptation and food security, public private partnership, disaster risk financing, and

community-based disaster risk management. Program Director of the MH program was invited as a keynote speaker at the session of Capacity building and emergency preparedness of sustainable development and made a presentation on “the capacity development program under the MH program”.

### Events organized

- **APRU-IRIDeS Summer School** (22-25 July) at Tohoku University: It was attended by more than 60 participants this year. We received the generous financial support from the Association of East Asian Research Universities (AEARU) to cover the local accommodation for the participants from AEARU. The participants learned the lessons-learnt and experience from the 2011 Great East Japan Earthquake and Tsunami, the recovery efforts in the affected areas and discuss the contribution of academia in the implementation of the SFDRR.



- **APRU MH symposium** (29-31 October) at Tecnológico de Monterrey (TEC) in Mexico: The 15<sup>th</sup> MH annual symposium was hosted by TEC on 29-31 October 2019. It was attended by 90 participants from different sectors such as universities, governments, the private sectors, NGOs, international organizations, UN agency etc. Ms. Mami Mizutori, Special Representative of the UN Secretary-General for DRR, and Head of the UNDRR also joined the event, and gave a keynote lecture. Furthermore, she was a part of the APRU MH panel and shared her comments especially on the need for and importance of the science, technology and innovations in DRR to prepare for potential disasters.



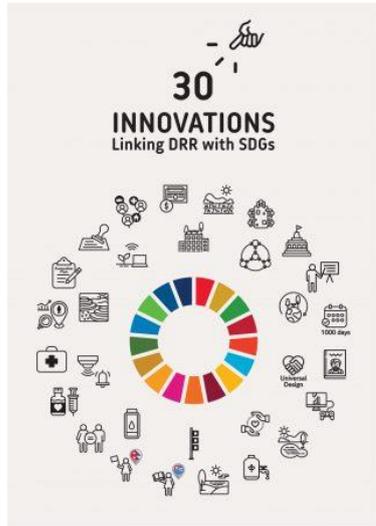
- **Data Science Workshop at UC Davis (26-28 June)** at UC Davis, USA: UC Davis hosted this workshop with a lead of Prof. John Rundle who is an active and senior member of the MH core group. It aimed to understand how the methods of data and decision science in the commercial and business worlds can be used to improve societal resilience in the face of increasing threats from natural disasters. Program Director of the MH program joined 2 sessions and gave a presentation on the recovery efforts from the Great East Japan Earthquake and Tsunami and on the challenge and recommendations.
- **Campus safety workshop (12-13 February 2020)** at IRIDeS, Tohoku University in Japan: The 3rd APRU MH Campus Safety Workshop was held at IRIDeS, Tohoku University. 24 participants from 15 universities and organizations attended the workshop. Due to the impact of the COVID19, nearly 10 participants had to cancel their participation at the last minute. The workshop focused on not only natural hazards but also man-made hazards such as technological hazards and Natech (natural hazards induced technological hazards), and discussed how to incorporate both hazards into the process of risk assessment and management. The Program will continue to discuss the risk assessment and management with the whole society and all hazards approaches to strengthen the community resilience against any types of hazards and disasters.

### **Publication**

- **Report of the APRU-IRIDeS summer school:** This report includes the abstracts of the presentations made at the summer school, the presentation slides, a brief report of the field visit, the results of the group discussions as well as many photos taken during the event.

- **30 Innovations for DRR:** This was introduced at the session “Innovations and DRR” of the Global Platform of DRR held in Geneva in May 2019. It was developed by the project team that consists of the experts from Keio University, the University of Tokyo, United Nations University, CWS Japan and IRIDeS. This publication collects 30 innovative products and approaches considered to be extremely effective and those that have already contributed to reducing disaster risks. Also, it includes the summary result of the survey to determine the innovations for DRR considered to be the most effective among academia, NGOs, international organizations, governments and the private sector.
- **30 Innovations linking with DRR and SDGs :** This publication is the second volume in the “30 Innovations” series, and includes an additional 30 innovations focusing on 10 sectors—Emergency response, Gender, Health, Agriculture, Water, Children, Education, Disabilities, Livelihood, and Early warning—to demonstrate the strong association between DRR and SDGs.
- **Progress in Disaster Science (a new journal) in collaboration with Elsevier:** A new journal “Progress in Disaster Science” was launched in May 2019 at the Global Platform for DRR in Geneva. This journal focuses on integrating research and policy in disaster research, and publishes original research papers and invited viewpoint articles on disaster risk reduction; response; emergency management and recovery. So far more than 60 papers were published in 6 volumes.





## Key Objectives for 2020

The MH program continues working for strengthening the research capacity of the APRU member universities on DRR, and contributing to international and regional policy making discussions to improve DRR. However, due to the impact of the COVID 19, the plan for 2020 is very uncertain at this moment. For instance, the summer school scheduled on 8-11 June was canceled, however, alternatively we are considering to organize a seminar attached to the annual symposium to be hosted by University of Indonesia or a workshop in 2021. It is not also uncertain whether it is possible to organize the annual symposium scheduled in October 2020 at University of Indonesia.

## Planned Activities in 2020

### Contribution to discussions at international and regional events

- UN Asian Ministerial Conference on DRR on 28-30 June in Australia (It may be postponed to December 2020)
- UNDRR Asia-Pacific Science and Technology Conference for DRR on 26-27 March in Malaysia (cancelled)

### Events to be organized

- APRU-IRIDeS Summer School at Tohoku University (8-12 June) Postponed/Cancelled
- APRU MH core group meeting at Tohoku University (13 June) Postponed/Cancelled

- Kick-off symposium for Architecture and Urban Design for DRR and Resilience (ArcDR3), joint project by UCLA, IRIDeS, and the MH program (June) Online
- Workshop on ArchDR3 in March 2021 in Sendai

### **Publication**

- Report of the APRU-IRIDeS summer school (if it is organized in a different format)
- Report of the Campus Safety Workshop

### **Others**

- Campus safety survey / publication of the case studies by universities on disaster management
- Strengthening the collaborative research/initiative on Natech and other man-made hazards

### **The Multi-Hazards core group members**

Prof. Osamu Murao (Chair) (Tohoku University)

Prof. Fumihiko Imamura (Tohoku University)

Prof. John Rundle (UC Davis)

Prof. Hung Chi Kuo (National Taiwan University)

Prof. Supot Teachavorasinskun (Chulalongkorn University)

Prof. Hugo Romero (University of Chile)

Prof. Hui Zhang (Tsinghua University)

Prof. Kuniyoshi Takeuchi (Professor emeritus of Yamanashi University)

Prof. Benito M. Pacheco (University of the Philippines)

Prof. Denise Konan (University of Hawaii, Manoa)

Dr Takako Izumi (Associate Professor, Tohoku University)