

# DRM committee Newsletter

Newsletter of Standing Technical Committee on Disaster Risk Management

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## DRM committee Action Plans for the 2nd-term (2013-2017)

### • Major purposes:

- (1) Active collaboration with other international organizations
- (2) Awareness campaign through holding international symposiums
- (3) Practical developments of disaster risk management (DRM) and adaptation technologies under global climate change

### • Subcommittee plans:

- (s1) Water-related DRM
  - Development of methods, tools, and guidelines for water-disaster risk management/prevention, warning systems etc. based on a standardized procedure
- (s2) Earthquake-related DRM
  - Contributions/inputs to an international conference for DRM by engineering views.
- (s3) Capacity Building for Natural DRM
  - Creation of practical and training manuals for Capacity Building
  - Establishment of web-based communication of information
  - Holding of seminars, etc.



No.5 Face-to-Face Meeting at Paris, Dec. 11, 2015 by courtesy of Dr. Kanga

## Mid-term report of the DRM committee, Mar. to Dec. 2014

The 2014 midterm report was submitted to the WFEO Headquarters. The following is a summary of the report. For the full report, please visit the WFEO website on the standing technical committee on Disaster Risk Management (DRM committee).

➤ **Organization Structure:** The committee continuously included a Chair, three Vice-chairs, three subcommittees' leaders, a secretary, a deputy secretary, and 36 members from 17 countries in 2014.

➤ **Joint International Symposium on DRM:** The international symposium was held with eight guest speakers from six countries and approximately 50 participants at Kobe Univ. (Japan) in September 2014, with the collaboration of four engineering-related organizations and the support of one academic council.

➤ **Financial Report:** The budget balance for the DRM committee 2014 activities is not yet finalized. However, for the March through October 2014 status shows a revenue of 1500 EUR, allocated by WFEO, and spending of 1522 EUR. The spending may increase by the final balance. If so, the Japan Federation of Engineering Societies and DRM committee secretariat may compensate the potential deficit.

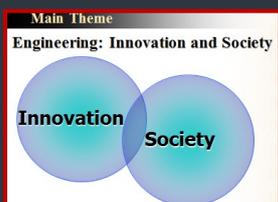
### ➤ 2014 Proposed Plans and Their status:

(a) recruitment of new members; (b) update of official DRM committee website; (c) publication of E-newsletter; (d) creation and update of the DRM guidelines for earthquake, flood-debris, drought and storm-surge disasters; (e) holding of the 8<sup>th</sup> International Joint Symposium for DRM; (f) international collaborations with UN-related and other international organizations; and (g) the DRM committee fifth face-to-face meeting. Regarding progress toward the above goals, (c), (e), and (g) were successfully completed, but (a), (b), (d), and (f) are still on going.

➤ **Near-future Strategic Plans:** In 2015, the DRM committee will be more positively internationalized, owing to several collaborative events with other international organizations. For example, the Chair and Secretary have committed to the Tokyo Conference for Disaster Risk Reduction and Resilience in Sendai (Japan), in the middle of March. The committee will hold two special symposiums, at the International Institute for Infrastructure Renewal and Reconstruction in Seoul (South Korea) in August, and at the World Engineering Conference and Convention in Kyoto (Japan) in December.

**World Engineering  
 Conference and  
 Convention 2015  
 (WECC2015),**

The WECC2015 will be held in Kyoto from November 28 through December 4, 2015 with the main theme "Engineering: Innovation and Society." The conference will have seven technical sessions (tracks), such as "Resilient Infrastructure for Society," in which DRM committee members may be interested. A unique KYOTO program for attendees will highlight the city and culture, which will impress attendees with its beautiful, historical and cultural buildings and its scenery. In addition, DRM committee is slated to have a collaborative symposium on water-related disaster risk management as a side event during the WECC2015. The DRM committee Chair and secretariat strongly recommend that you would participate in this conference.



**Report for "The 8th Joint International Symposium on Disaster Risk Management --Education for Disaster Prevention, Reconstruction from Kobe Earthquake Disaster, and Adaptation plan under Climate Change Plan--",** Sept. 13, 2014, Kobe, Japan.

*Organized by*  
 World Federation of Engineering Organizations (WFEO)  
 Japan Society of Civil Engineers (JSCE),  
 Architectural Institute of Japan (AIJ), and  
 Japan Federation of Engineering Societies (JFES)  
*Supported by*  
 Science Council of Japan (SCJ)



The engineering-related academic associations (the Architectural Institute of Japan, 'AIJ', the Japan Society of Civil Engineers, the Japan Federation of Engineering Societies) and the international non-governmental organization for engineers (the World Federation of Engineering Organizations, 'WFEO') held the 8th Joint International Symposium on Disaster Risk Management (DRM), at Kobe University (Kobe City, Japan), Sept. 13, 2014 during the AIJ 2014 annual meeting. The Science Council of Japan SCJ supported this symposium. The symposium committee invited eight guest speakers from Japan, Taiwan, India, Israel, Peru, and Colombia. They are all remarkable researchers, educators and engineers, whose backgrounds are primarily education, engineering, and social science for worldwide or local disaster prevention and reduction.

According to the symposium program (see attachment), the AIJ President, Prof. Yoshino, had opening remarks and talked about robust preparedness for future severe disasters based upon the lessons from past disaster events. Four presentations and Q&A were performed sequentially in the first session: Introduction of severe natural disasters that India experienced by Er. Basa (President, Institution of Engineers, India), *A case study of local community activities for disaster prevention* by Prof. Liu (National Chinan Univ., Taiwan), *Assessment for disaster management programs in Taiwan local governments* by Prof. Mars (Ming Chuan



Univ., Taiwan), *Reconstruction process from the 1995 Kobe Earthquake Disaster and Example of disaster management and disaster prevention education in a Bangladesh community* by Dr. Saito (Disaster Reduction and Human Renovation Institution, Japan), and finally Q&A for the first session. Then, the second session started after a short break. Four talks were presented: *Lessons from the tsunami catastrophe in the Tohoku Earthquake for disaster reduction* by Prof. Mas (Tohoku Univ., Japan); *Research needs for efficient quick recovery from earthquake* by Prof. Lavan (Technion-Israel Institute of Technology, Israel); *Control of chemical pollution caused by natural disasters* by Prof. Cruz (Kyoto Univ., Japan); and *Architectural viewpoint in evacuation and reconstruction facilities* by Prof. Furuya (Waseda Univ., Japan). Each session's Q&A had meaningful discussions related to disaster prevention and reduction among the speakers and approximately 60 audience members. Finally, Prof. Komatsu (Chair, WFEO-Committee on DRM) performed closing remarks and announced the World Engineering Conference and Convention 2015, which will be held in Kyoto (Japan) for engineers all over the world.



The proceedings that the symposium committee published can be downloaded from the website of the DRM Committee. (Note) Er.= honorific title of Engineer.

## DRM Committee Face-to-Face Meeting

The fifth face-to-face meeting for DRM committee was held at the UNESCO Bonvin Building, (Room XIII) in Paris from 14:00 to 16:00 on Thursday, December 11, 2014. Fifteen participants (including observers) engaged in many valuable discussions. The minutes are described as follows.

### 1. Opening Remarks

The Chair (Prof. Komatsu) provided welcome greetings and emphasized that the roles of the DRM committee have become more important because of recent disaster situations worldwide.

### 2. Introductions

Each participant briefly introduced themselves.

### 3. 2013 face-to-face Meeting summary

Basic minutes for the previous face-to-face meeting in Singapore were reported, noting the important issues.

### 4. 2014 activities report

The Chair discussed the DRM committee midterm report that shows the committee organizational chart and 2014 activity progress from March through October. The report includes the international symposium (held at Kobe, Japan on September 13), international collaborations, new guideline updates and other items. There was some Q&A as follows: (Q) How is the progress toward new and renewed disaster-related guidelines? (A) Progress toward creation and updating of new guidelines remain slow or pending. The new guideline for water-related disasters may be greatly changed after the 3rd WCDRR outcomes and consideration of climate change impacts. It may also be necessary for the guideline to be substantially updated after determination of the UN post-2015 development agenda (hereafter, post-2015 agenda).

Dr. Kanga addressed the creation of the resource-sharing website for “Global Natural Disaster Risk Management” as a sub-committee activity of the CBNDRM, and presented a demonstration of the website. This website was developed with WFEO webmaster assistance and is supported by a private insurance company. It is unlikely that the website has security and copyright problems because of the preview system checked by Dr. Kanga and the webmaster. Dr. Kanga also discussed the 2014 international conference, I3R2, at Purdue Univ. in which the Chair and Prof. S. Chen Wirasinghe (a CBNDRM member) participated. Insurance companies worldwide are likely to be interested in the DRM. The JICA is currently working for the DRM in Asia regions.

### 5. Subsequent planning activities

Based on the 2013–2017 term plans of the CDRM targeting severe disasters under climate change, the Chair addressed near-future activities for the DRM committee, including a 2015 international symposium during the WECC2015, potential renewal of organizational structure, international collaboration with 2015-I3R2 and other items.

For inputs to the post 2015 agenda, some members (the Chair and Prof. Tsukahara) have dedicated themselves to the IRDR and UN-ISDR program, which will hold a preparatory meeting (Tokyo Conference on DRRR) in January 2015 in strong-collaboration with the SCJ. The IRDR was established under the UN-ISDR and the ICSU. The audience for this presentation had several questions, for example: (Q) Why not provide input directly to the 3rd WCDRR and SDGs? (A) The Tokyo Conference (January 2015) is a two-month-ahead preparatory meeting for the WCDRR. This meeting has been already prepared by other organizations, including UN systems and the Japanese Government; it is too late to join their preparation committees. However, the WCDRR still has room for input for the preparatory meeting, because the preliminary preparations are currently done with about half complete. This is why the Chair and Prof. Tsukahara are working for the preparatory meeting. Conversely, inputs to the SDGs are more complicated at present. The DRM committee may not now directly affect the SDGs. Other comments were as follows:

- Prof. Nacouzi announced that about five of the DRM committee members may be invited to the Earthquake Risk Management workshop, which will be held in early May, 2016, in Lebanon. He will give more detailed information on the workshop to the potential participants and the Chair.

- In India, disasters differ depending on the region, so each region will prepare international meetings for disaster reduction. These meetings may be potentially advised by the DRM committee (Er. Basa’s report).

- Because the FEIAP (<http://www.feiap.org/>) has a committee associated with the DRM, the Chair may have a consideration of coordinating with the FEIAP in the Asian-Pacific regions (Dr. Kanga’s suggestion). The Chair will ponder this issue carefully.

### 6. Other businesses

The committee-name abbreviation could be changed to DRM, Resilience, Disaster Resilience, Disaster Risk, Management & Resilience etc. Committee members will continue the discussion regarding a new name. “Disaster Resilience” could be one such name. In USA and the UN systems, “Resilience” is a more popular key word for disaster related issues. “Resilience” refers to the effectiveness of risk management before and event and recovery afterward.

### 7. Closing remarks and adjournment

The Chair expressed to us his appreciation for the participants who had valuable discussions and requests for continuous contributions to committee activities”.

(Note) CBNDRM= Capacity Building for Natural Disaster Risk Management; DRRR=Disaster Risk Reduction and Resilience; FEIAP= Federation of Engineering Institutions in Asia and the Pacific; I3R2= International Institute for Infrastructure Renewal and Reconstruction; ICSU= International Council for Science; IRDR= Integrated Research on Disaster Risk; JICA= Japan International Cooperation Agency; SCJ= Science Council of Japan; SDGs=Sustainable Development Goals; UN-ISDR= United Nations International Strategy for Disaster Reduction; WCDRR= World Conference on Disaster Risk Reduction,

## Subcommittee activity reports from the Capacity Building for Natural Disaster Risk Management (CBNDRM)

### Disaster Risk Management (DRM): Resources for the world's engineers:

The increasing trend in the number and severity of natural disasters, including earthquake and tsunami as well as those related to meteorological events such as flood and cyclones as a result of climate change, has increased the level of devastation and loss to people all around the world. These events are threatening sustainable development and security of people. The application of sound principles of natural disaster risk management is therefore becoming increasingly important around the world. Engineers have a role in developing practical solutions to manage the risks of natural disasters.

The Sub-Committee for the CBNDRM, has established a web based resource, accessible to engineers interested in natural disaster risk management at no cost from the WFEO website: [www.wfeo.org/ndrm](http://www.wfeo.org/ndrm).

This resource will enable engineers from around the world with expertise in various aspects of natural disaster risk management to share their expertise with other engineers. This sharing of knowledge is expected to result in significant humanitarian benefit and contribute to sustainable development by sharing knowledge and technology transfer to manage risks. The web resource covers a range of vital topics including:

- Governance for disaster risk management
- Risk Identification tools
- Risk Assessment
- Risk Mitigation
- Risk Communication
- Emergency Response

The resources can be researched by different types of natural disaster: earthquake, flood, tsunami, storm surge, landslip, hurricane, volcano, drought, extreme heat, fires, extreme cold and solar flares and by country or geographic region.

It is expected that the primary audience for this web resource will be engineers and specialized groups within the engineering profession. It is open to the public via the WFEO website.

The success of this initiative is dependent on the unique ability of the World Federation of Engineering Organizations to draw on international expertise in natural disaster risk management and collate the information in an effective manner for the use of other engineers around the world.

Engineers with expertise in natural disaster risk management and mitigation are invited to contribute resources to the web site. An on line tool is available to facilitate contributions. The information resources need to be publicly available at no cost and copyright free.

We are grateful for the helpful supports from Liberty International Underwriters (<http://www.libertyiu.com>) and the use of their logo.



*reported by Dr. Marlene Kanga AM;  
Vice chair, WFEO DRM committee;  
Leader, Subcommittee for Capacity  
Building for Natural DRM*



### Making a contribution to the WFEO Web resource for natural disaster risk management:

Engineers are invited to contribute to the WFEO web-based resource, based on their knowledge and expertise to build capacity for natural disaster risk management. The collection of will form an important library, accessible worldwide. It will provide valuable support to engineers around the world to develop sustainable solutions for natural disaster risk management. It should be noted that all information should be publicly available, copyright free and non-commercial. To add a resource: Please submit the following information on-line at <http://www.wfeo.net/ndrm/> - "Add Resources"

Information that will be required includes:

1. Title of the resource (e.g.: "New Zealand: Communicating risk to the community")
2. Description:(100 words maximum)
3. Specific area of natural disaster risk management (e.g. risk assessment, risk communication etc.)
4. Type of Natural Disaster (e.g. earthquake, flood etc.)
5. Geographic Region
6. Country where the resource was developed or used
7. Web page link to the resource so it can be accessed

Details of the provider of information are requested to confirm details of the information added to the database, but will not be made public. The Sub-Committee for Capacity Building for Natural Disaster Risk Management thanks you in anticipation of your contribution.

*by Dr. Marlene Kanga*

## Activity reports from the committee members

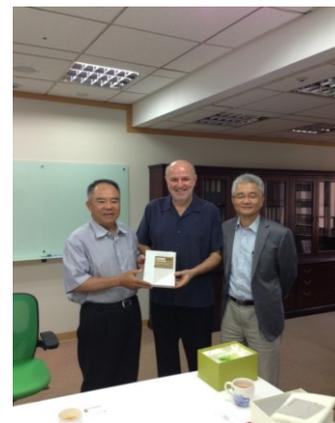
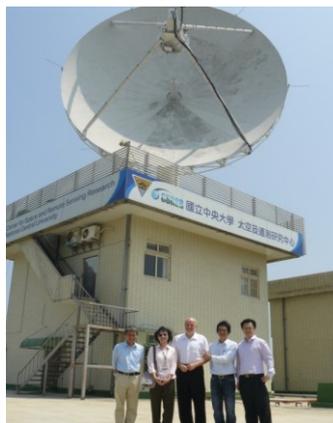
**Professor Slobodan P. Simonovic** (a member of the subcommittee of the Water-related Disaster Risk Management) **visits Academia Sinica Taipei, Taiwan:**

On the invitation by Academia Sinica Prof. Simonovic stayed in Taipei during the month of April of 2014. The visit included four major institutions: (a) National Taiwan University, April 7 and 10; (b) National Science and Technology Center for Disaster Reduction, April 8 and 9; (c) National Central University, April 15; and (d) National Chiao Tung University, April 17 and 18. In addition an extensive discussion was conducted at Academia Sinica on April 2, followed by the end of visit lecture on April 22.

The focus of the communications during the visit was the impact of changing climate on natural disasters management. Discussions at various institutions provided Taiwanese experience with the climate change and natural disaster management and five lectures by Prof. Simonovic presented the Canadian experience.

Taiwan is exposed to different natural hazards that in interaction with high population density, urbanization and existing infrastructure can produce very significant impacts on the economy of the country and social capital.

The role given to research in support of natural disasters management and funding provided by the national funding agencies is again putting Taiwan ahead of many developed countries of the world. The visit and numerous contacts with the research community provided for valuable exchange of the experience. The focus of Taiwan on climate change adaptation is commendable. Very small number of countries is so clearly focused on the development of active climate change adaptation plans and policies. Investment in adaptation, and research to support it, will reduce the potential negative impacts of climate change.



## SDGs-related activities

**Reports for “Tokyo Conference on International Study for Disaster Risk Reduction and Resilience”:**

Prof. Komatsu (DRM committee Chair) and Prof. Tsukahara (DRM committee Secretary) have worked for the Tokyo Conference on International Study for Disaster Risk Reduction and Resilience (“Tokyo Conference”). This conference was held by the UNISDR, the IRDR, the SCJ and others at Tokyo during January 14–16, 2015, attracting approximately 500 attendees. Invited guest were Japanese Crown Prince Naruhito and the Minister of State for Disaster Management. Information may be found at <http://monsoon.t.u-tokyo.ac.jp/AWCI/TokyoConf/en/>. The Tokyo Conference, which consisted of keynotes lecture and parallel sessions, will potentially affect the 3rd WCDRR at Sendai (Japan) in March 2015, which will address mutual reinforcement related to SDGs. Prof. Komatsu (a guest speaker) provided input from an engineering point of view to the Inter-Disciplinary Study Approach for Disaster Risk Reduction at the Tokyo Conference.

(Note) IRDR= Integrated Research on Disaster Risk; SCJ= Science Council of Japan; SDGs= Sustainable Development Goals; UNISDR= United Nations International Strategy for Disaster Reduction; WCDRR= UN World Conference on Disaster Risk Reduction



Prof. Komatsu Prof. Tsukahara



### Joint Statement of 30 Disaster-Related Academic Societies of Japan, Global sharing of the findings from the Past Great Earthquake Disasters in Japan:

Dr. Wada (leader of the Earthquake-related Disaster Risk Management Subcommittee) has worked for the Science Council of Japan academic forum, which frequently hosts high-level academic conferences. The forum recently formulated a joint statement cooperatively with 30 Japanese academic societies, such as the Architectural Institute of Japan and the Japan Society of Civil Engineers, with which the DRM committee often collaborates.

The statement targets toward the 3rd WCDRR at Sendai and the WECC2015 at Kyoto. The statement was introduced at the Tokyo Conference, and may be accessed at [http://jeqnet.org/sympo/30seimei\\_20141129.pdf](http://jeqnet.org/sympo/30seimei_20141129.pdf)



## Upcoming events

### The 11th International Institute for Infrastructure Renewal and Reconstruction (I3R2):

The DRM Committee Secretariat is preparing an internationally collaborative, special symposium (a half-day session with eight speakers, titling "Disaster Risk Management") for the 11th Annual Conference of the I3R2, to be held in Seoul, South Korea, August 27–28, 2015. The Chair and Prof. S. Chen Wirasinghe (a subcommittee member of the Capacity Building for Natural Disaster Risk Management) would have a talk in the symposium. Note that The I3R2 is a natural disaster-related consortium, run by multiple universities in the world, which provides overall leadership in research, education, planning, design and implementation for natural disaster related mitigation, resilience enhancement, and reconstruction projects. Please look at <http://i3r2.uos.ac.kr/> in detail.



### DRM Committee Membership & Organization (As of January, 2015)

-Approximately 36 members from 17 countries.

-Chair: Prof. Toshimitsu Komatsu

-Vice chairs: Dr. Marlene Kanga, Prof. Syunsuke Ikeda, Prof. Vilas Mujumdar

-Subcommittees

\*Water-related Disaster Risk Management (WDRM), Leader: Prof. Kenichi Tsukahara

\*Earthquake-related Disaster Risk Management (EQDRM), Leader: Prof. Akira Wada

\*Capacity Building for Natural Disaster Risk Management (CBNDRM), Leader: Dr. Marlene Kanga

### Related News:

DRM-Committee contributions for Post 2015 (Sustainable Development Goals, SDGs): According to the reports from the UN Open Working Group on SDGs and other SDGs groups, disaster risks under global climate change have recently become a more serious problem, which negatively affects sustainable development. Therefore, a practical method/plan for reducing disaster risks is urgently needed.



DRM Committee Newsletter Issue 01, January 2015

## WFEO Standing Technical Committee on Disaster Risk Management (DRM Committee)

### Background

The CDRM was established at the General Assembly held in December 2009, Kuwait.

### Vision

Introduce and recommend knowledge and experiences to avoid disasters and promote sustainable and sound development. Contribute to identification, evaluation and mitigation of, and adaptation to disasters which are related to all aspects of human life, economy, social activities and environment.

### Mission

- Exchange, share and transfer knowledge, technologies and expertise which are useful for minimizing risks of disaster by identifying, evaluating and mitigating, and adapting to disaster risks.
- Foster studies and investigations which are useful to disaster risk management including examples of the best practice and implementation, and document the results in the form of recommendations, guidelines, reports and booklets.
- Gather and disseminate information and provide recommendations on the mitigation of and adaptation to disaster risks to WFEO member countries, engineering societies and leading engineers.
- Facilitate capacity building of engineers in these areas.

### Goals

- Create awareness of disaster risk, and introduce knowledge and experience to avoid disasters.
- Document recommendations, guidelines, reports and booklets to foster disaster risk management.
- Disseminate the information through WFEO member country linkages to decision makers, governmental organizations, engineering societies and leading engineers.
- Coordinate international efforts related to disaster risk management
- Organize and support conferences, presentations and workshops related to disaster risk management

The CDRM has a role of minimizing the potential damage and risk to human life and damage through the proper application of technology. The disasters which are closely related to all aspects of human life, economy, social activities and environment should be considered in the CDRM. Because there are broad ranges of disaster, disasters to be focused on should be determined based on the interests and concerns of the members of CDRM taking account of its role and priority.

[http://www.wfeo.net/stc\\_disaster\\_risk\\_management/](http://www.wfeo.net/stc_disaster_risk_management/)