

Disaster Reduction (IDNDR) Project. WSSI was established in 1992 as an implementing agency subordinate to the International Association of Earthquake Engineering (IAEE). WSSI has been playing a catalytic role in activities for helping countries to review their earthquake preparedness strategies. A decade after the establishment of WSSI, the numbers of disasters and affected population are still expanding rather than diminishing. So are the resulting economic losses. Under these circumstances, the WSSI Bangkok Workshop was held in December 2003, inviting delegates of countries where WSSI are active and related organizations, in order to analyze the current situations for future activities. There were presentations on earthquake disaster reduction activities implemented in India, Indonesia, Uganda, Kazakhstan, Thailand, Taiwan, Tajikistan, Nepal, Bangladesh, Pakistan, the Philippines, Vietnam, Myanmar, Mongolia, and Russia. At the Workshop, there were also reports from Japanese organizations and enterprises, such as JICA, OYO International, Pacific Consultants Inc. (PCI), and Nippon Koei, who were involved in earthquake disaster reduction projects. From ADRC, chief researchers, Mr. Tsunozaki and Mr. Ishii, attended the Workshop to give presentations on visions for WSSI's future activities.

6) Earthquake and Megacities Initiatives (EMI)

ADRC has been strengthening its partnership with Earthquake and Megacities Initiatives (EMI) in the field of urban disaster reduction. For example, ADRC invited EMI study mission in July and October 2003, and participated in the Third East Asia Cluster Meeting co-hosted by EMI and Kobe University on Oct 6-7, 2003.

EMI is an international NGO for urban disaster reduction, and is committed to the "Intercity Project" to promote the networking of cities where major earthquake may occur. The network is divided geographically into the American, Euro-Mediterranean, Oceanic, and East Asian "Clusters." The East Asian Cluster consists of four cities in the region, i.e., Kobe, Manila, Shanghai, and Seoul.

In addition to the related authorities of the four cities above, regional and international cooperation organizations were invited to the Third East Asia Cluster Meeting. From ADRC, Dr. Kurita (Senior Researcher), Ms. Tsunozaki (Senior Researcher) Mr. Yoshinaga (Administrative Manager) and Mr. Nakamura (Researcher) attended the Meeting to give a presentation on disaster preparedness activities (e.g., development of tsunami evacuation plans) at community level.

7) The International Institute of Earthquake Engineering and Seismology (IIEES)

IIEES is a governmental institute of Iran. IIEES is providing earthquake information to countries not only in Western Asia, but also the entire Asian region and the world as a whole. The activities of IIEES extend from earthquake forecasts, to seminars and symposiums to foster human resources.

For the mutual cooperation toward common objectives -disaster reduction, in particular earthquake disaster reduction, in Asia-, ADRC and IIEES signed a Memorandum of Understanding (MOU) in October 2002 to make united efforts in the following segments: Information exchange regarding studies and researches on natural disasters, Technical services for public awareness activities (education and training), Promotion of joint researches.

2-1-5. Asian Disaster Reduction and Response Network (ADRRN)

Today, NGOs as well as governments and international organizations play an active role in disaster response and reduction in Asia. In addition to the rescue activities immediately after disaster, they work in close cooperation with local communities to provide support in reconstruction and rehabilitation activities, and even disaster preparedness activities, such as disaster education and awareness-raising activities in normal times. However, limited resources of individual NGOs to deal with disasters require them to further enhance their capabilities and strengthen their ties with relevant authorities.

Asian Disaster Reduction Center (ADRC) co-organized the "Regional Workshop on Networking and Collaboration among Non-Governmental Organizations of Asian Countries in Disaster Reduction and Response" with the U.N. Office of Coordination for Humanitarian Affairs (OCHA), Kobe, in February 2002 in Kobe, Japan. The workshop aimed to facilitate international networking and collaboration among disaster prevention/-rescue NGOs in the Asian region, and gathered 35 participants from disaster-related NGOs in 16 Asian countries. Upon the consensus of the Workshop participants, it was decided to set up the Asian Disaster Reduction and Response Network (ADRRN) to promote cooperation among related NGOs.

As part of its activities, ADRRN database pages were added to the ADRC website. These database pages, including ADRRN Partnership Database, provide information on the organization of each member NGO, their activities, and event schedules. Moreover, a bulletin board section was added to facilitate exchange of views among members. The registered member NGOs are provided with an ID and password to access these pages via the Internet so that they can update their information as necessary.

In December 2003, the key members of ADRRN were convened to a meeting for the promotion of activities of ADRRN. At the meeting, the attendees took part in lively group works to discuss issues such as what the network makes possible, what is necessary to promote activities of the network, what kind of specific activities should be promoted. At the meeting, it was agreed that ADRRN should establish a framework to operate as an organization. It was decided to start with the preparation of a statement that defines the basic position, principles, and activity policies of the network. It was also agreed to make further efforts for the promotion of ADRRN, including the participation in the UN World Conference on Disaster Reduction in January 2005 to present exhibition to publicize ADRRN activities.

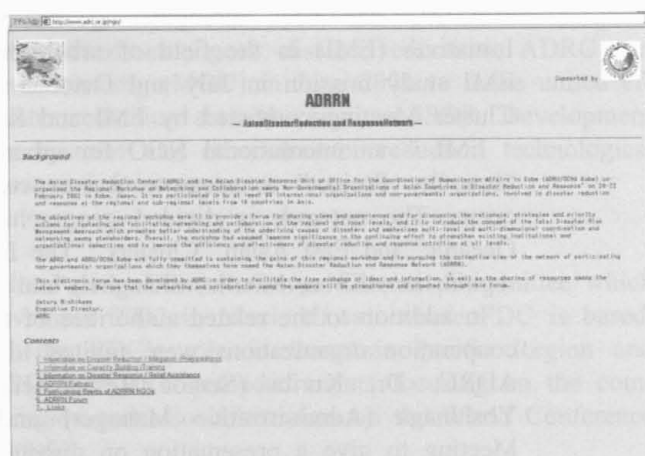


Fig.2-1-5-1 ADRRN web forum, top page

2-2. Promotion of Total Disaster Risk Management (TDRM) in the Asian Region

Asia is prone to natural disasters, accounting for 90% of the total affected population and 50% of all economic damages.

Against this background, Asian Disaster Reduction Center (ADRC) has committed itself to disaster reduction activities, including "sharing of information and experiences," "human resources development in developing countries," and "disaster reduction cooperation projects" since its establishment in 1998.

As part of these activities, ADRC cooperates with the United Nations Office for the Coordination of Humanitarian Affairs Kobe (UN OCHA Kobe) to publicize and raise public awareness of "Total Disaster Risk Management (TDRM)."

2-2-1. Workshop on Total Disaster Risk Management (TDRM)

1) Purpose

In awareness of the importance of "Total Disaster Risk Management (TDRM)" and especially "Disaster Reduction Activities based on Accurate Information," this workshop was held with the focus placed on "Development of Hazard Maps" and "Disaster Assessment Methodologies." Citing examples of successful applications of TDRM, the workshop provided an opportunity for disaster managers in Asian countries to

- (1) Raise their awareness of the importance of TDRM
- (2) Learn about "Hazard Mapping Techniques" and "Disaster Assessment Methods", both of which are effective tools for TDRM
- (3) Establish "Training Methods" tailored to individual countries in order to promote TDRM.

2) Dates

June 10 (Tue) -13 (Fri), 2003

3) Location

Briefing room on the 2nd floor of JICA Hyogo International Center

4) Organized by

Asian Disaster Reduction Center (ADRC), and United Nations Office for the Coordination of Humanitarian Affairs (UN OCHA) Kobe

5) Sponsored by

Cabinet Office, Government of Japan, ASEAN Foundation, and USAID/OFDA

6) Supporters

United Nations University (UNU)

7) In cooperation with

Kakogawa City Government

8) Main Topics of the Programs

Day 1: June 10 (Tue)

- Keynote address: Mr. Satoru Nishikawa (Executive Director of ADRC)
- Presentations on successful implementations of the Total Disaster Risk Management approach in member countries. Governments of member countries
- The Humanitarian Principles in Disaster Work and the Role of UN OCHA: Mr. Jamie McGoldrick (Chief, Asia & Pacific Section, UN OCHA Geneva)
- Setting the Agenda for TDRM in Asia : Future Directions and Initiatives: Mr. Tom Brennan (UNDP, Bangkok, Thailand)

Day 2 June 11 (Wed)

- Quantifying Hazards and Risks for Disaster Loss Reduction. Prof. Srikantha Herath (Senior Academic Programme Officer, United Nations University)
- How to Prepare a Flood Hazard Map. Mr. Kenzo Hiroki (Head, Flood Disaster Prevention Division, Disaster Risk Management Center, National Institute for Land and Infrastructure Management, Ministry of LIT, Japan)
- Introduction to Hazard Map Manual: Mr. Ryosuke Kikuchi (Director, 2nd Research

Department, International Construction Technology Institute, Infrastructure Development Institute, Japan)

- Applications and Advantages of Hazard Maps for Sabo in Japan: Mr. Masaru Kunitomo (Senior Researcher, Erosion and Sediment Control Division, Disaster Risk Management Center, National Institute for Land and Infrastructure Management, Ministry of LIT, Japan), Philippine Institute of Volcanology and Seismology, Nagoya Industrial Science Research Institute, etc.

Day 3: June 12 (Thr)

- Field Exercise (Basin of Kakogawa River): Takashi Komura (Fuji Tokoha University, Japan), Kakogawa City

Day 4: June 13 (Fri)

- Introduction to Disaster Assessments and Assessment Methodologies: Mr. Terje Skavdal, (Regional Disaster Response Advisor, UN OCHA Kobe)
- How to Develop Training Methods and Tailor them to Individual Countries' Needs: (UN OCHA)



Fig.2-2-1-1 Snapshot of a workshop



Fig.2-2-1-2 Snapshot of the Field Exercise



Fig.2-2-1-3 Snapshot of the Table-top Exercise on Hazard Mapping

2-2-2. International Conference on Total Disaster Risk Management (TDRM)

1) Purpose

From the perspectives of "Total Disaster Risk Management" and especially "Involvement and Cooperation with a wide range of stakeholders," this conference was held as an opportunity for disaster managers in Asian countries to create guidelines for disaster reduction on the basis of successful examples in Asian countries.

The conference was attended by 160 people from 21 countries including government officials in charge of disaster reduction and other stakeholders such as the mass media, educational circles, NGOs, and business circles. Citing lessons from past disaster experiences, the participants discussed how to involve these related organizations in a wide range of disaster reduction activities and facilitate cooperation between them for the promotion of the TDRM approach in Asia.

2) Dates

December 2 (Tue) - 4 (Thr), 2003

3) Location

Kobe Portopia Hotel

4) Organized by

Asian Disaster Reduction Center (ADRC) and United Nations Office for the Coordination of Humanitarian Affairs (UN OCHA) Kobe

5) Sponsored by

Cabinet Office of Japan, Hyogo Prefecture Government, UNI/ISDR, United Nations University (UNU), UNESCO, ASEAN Foundation, NHK Kobe, AM Kobe, the Great Hanshin-Awaji Earthquake Memorial Research Institute, and Nakauchi Foundation

6) Main Themes of the Program

The first day program of the conference was an open forum for the general public. NHK BS1 aired the proceedings of the conference in BS Forum on January 17, 2004, which fell on the ninth anniversary of the Great Hanshin-Awaji Earthquake.

Day 1: December 2 (Tue)

○ Opening Speeches (9:00 - 9:30)

Mr. Terje Skavdal, Regional Disaster Response Advisor, OCHA Kobe

Mr. Katsuhiko Hara, Director for Disaster Preparedness, Cabinet Office, Japan

Mr. Yutaka Kitabayashi, Director General, Disaster Management Bureau, Hyogo Prefecture Government

○ Keynote Speeches (9:30 - 12:30)

Total Disaster Risk Management for Sustainable Development

Mr. Satoru Nishikawa (Executive Director, ADRC)

A single natural disaster could wipe out a whole year's GDP of a country. Disaster reduction constitutes an essential part for sustainable development of a country.

Japan drew its lessons from the Ise Wan Typhoon and successfully minimized typhoon damages through a total disaster risk management approach including cooperation among related organizations, early warnings by the media, awareness-raising campaigns at schools, and involvement of citizenry, in addition to the development of infrastructures such as dams, dykes among other things. The Philippines effectively used volcanic hazard maps to evacuate residents with no casualties. Mr. Nishikawa cited these lessons from disaster experiences in the past to emphasize the necessity of promoting the TDRM in Asian countries.

The Needs of Holistic Approach ~Lesson learned from Hanshin-Awaji Earthquake

Prof. Haruo Hayashi (Disaster Prevention Research Institute,
Kyoto University)

The Great Hanshin-Awaji Earthquake left two valuable lessons. First, structures built

to the Building Codes survived. Second, structural measures have their limitations, necessitating "Damage Reduction Capabilities/Preparedness" to complement them. Only combination of these two modes of measures can ensure effective "Disaster Reduction."

Taking as an example the recovery process from the Great Hanshin-Awaji Earthquake, Prof. Hayashi stressed that it is necessary to regard a recovery process as the best opportunity for sustainable development in future, rather than mere physical restoration, in order to implement a comprehensive recovery plan that turns a reconstruction and rehabilitation process into a momentum for social and economic development.

○ Presentations on Cases of Member Countries (14:00 - 15:40)

China: The Policies and Measures on Flood Disaster Reduction in China since 1998

Mr. Hongtao Wan (Research Center on Flood and
Draught Disaster Reduction, China)

Following the Changjiang Flood in 1998, which killed 3,600 people, China made a fundamental shift from a post-event response-focused disaster management policy to one focusing on pre-event measures. Mr. Wan cited cases in China to explain that investment in enhancement of damage reduction capabilities does not only prevent floods and protect people's safety, but also promote an overall socio-economic improvement, including stimulation of local economies and social development, income increases among local populations, and harmonization with the natural environment.

Japan: NHK's Disaster Report; The Role of the Media

Mr. Noboru Yamazaki (Chief commentator, NHK, Japan)

The Disaster Countermeasures Basic Act designates NHK as one of the national designated public agencies. Mr. Yamazaki explained the process through which NHK shifted its priority, after Toyamaru and Ise Wan Typhoons, from "how to provide accurate information on affected areas as quickly as possible" for quick rescue operations to "how to "forecast and inform" in order to prevent disasters.

He also explained about missions NHK has carried out to raise its audience's disaster awareness through "efforts to make the invisible visible" and to prevent damages from tidal waves and other disasters through "efforts to inform at as early a stage as possible." He also explained the direction NHK is heading.

India: Development of an Integrated Disaster Risk Management System; Importance of Reliable Information

Mr. Anil K. Sinha, (Former Executive Director,
National Centre for Disaster Management, India)

Since Orissa Cyclone in 1999, which took 9,500 lives, and Gujarat Earthquake in 2000, which killed 14,000 people, India has been making efforts to reform its disaster reduction system.

Mr. Sinha explained how India has integrated early warnings and reliable information into its new four-pillared "culture of prevention" policy consisting of "Preparedness," "Quick Responses," "Strategic Information Network," and "Enhancement of Damage Prevention Capabilities." He also explained about India's commitment toward a safer society.

Vietnam: Mangrove- Disaster Preparedness Program; Community's Involvement

Mr. Nguyen Hung Ha (Vietnam Red Cross)

Vietnam has suffered serious damages from high waters caused by typhoons. Vietnam Red Cross has been promoting mangrove plantation projects as a countermeasure to high waters. Not only have these projects raised the disaster reduction awareness in local communities through the involvement of local populations, schools, and the media, but also brought business profits to disaster-prone communities. Mr. Nguyen presented these projects as a model for NGOs' roles and civil participation.

Japan: Comprehensive Approach to Earthquake Risk Management: True Disaster Prevention

Associate Prof. Kimiro Meguro (Institute of Industrial Science,
Tokyo University)

In the Great Hanshin-Awaji Earthquake, buildings and furniture that collapsed within 15 minutes after the impact were responsible for 90% of the immediate death tolls. In other words, post-event measures alone cannot prevent most of human damage without being combined with pre-event physical measures. It is impossible to prevent damages unless citizens and governments prepare for disasters with clearly defined scenarios in their minds. Associate Prof. Meguro emphasized the necessity of thoroughgoing campaigns for raising awareness on quake-proofing of housings, and made proposals for effective measures, including hazard maps and incentives to promote quake-proofing measures such as housing performance indications, quake-resistance diagnosis, and reinforcements.

○ Panel Discussion (16:10 - 18:00)

Facilitated by: Osamu Miyata (NHK announcer, Japan)

Day 2: December 3 (Wed)

○ Latest Strategies for Total Disaster Risk Management

- The Socio-Economic Impact Methodology (Mr. Tom Brennan on behalf of UN/ESCAP)
- Climate Forecast Applications for Monsoons (Mr. A.N.H. Akhtar Hossain, Bangladesh Water Development Board, Bangladesh)
- Climate Risk Management and Agriculture in Australia and beyond. Linking Research to Practical Outcomes (Dr. Holger Meinke, Agency for Food and Fibre Sciences, Department of Primary Industries, Australia)
- Humanitarian Supply Management System for Disasters (Dr. Arturo Pesigan, WHO West Pacific Regional Office, Ms. Ardi Voets, FUNDE SUMA)
- The Primer on "Total Disaster Risk Management" (Mr. Loy Rego, ADPC, Bangkok)

○ Group Discussion

- Road Map toward Total Disaster Risk Management in Asia

Day 3: December 4 (Thr)

○ Approaches to Cooperation among Relevant Organizations (Risk Communication)

- Role of the Media
 - Japan (Mr. Hiroyuki Saegusa, Director, Management Division, Broadcasting Station AM Kobe)
 - Republic of Korea (KBS)
 - India
 - Presentations on the role of the media in the disaster reduction
- Role of the Business Sector
 - Philippines (Mr. Alberto Aldeba Lim, Cooperate Network for Disaster Response)
 - India (Mr. Pawan Devraj Kant, Hindustan Construction Company)
 - Presentations on the role of the business sector in disaster reduction
- Role of NGOs
 - Japan (Japan Red Cross)
 - Nepal (Mr. Amod Mani Dixit, NSET)
 - Vietnam (Mr. Dang Thanh Son, World Vision)
 - Presentations on the role of NGOs in disaster reduction
- Roles of the Education System
 - Japan (Mr. Seiji Suwa, Environment and Disaster Mitigation Course, Maiko High School, Hyogo Prefecture)

Armenia (Mr. Alvaro Antonyan, NSSP, Armenia)

UNESCO (Mr. Badaoui Rouhban)

Presentations on the role of the education system in disaster reduction

□ Discussion

Future Direction for Cooperation between Related Organizations

□ Closing Ceremony

7) **Chairperson's Summary**

It was recognized that the following three concepts are important for the Total Disaster Risk Management (TDRM) approach:

- (1) Risk management based on a risk management flow to incorporate disaster reduction measures into national policies and development plans
- (2) "Culture of Prevention" consisting of all the four phases of disaster reduction, namely, damage prevention/mitigation, preparedness, disaster response, and reconstruction and rehabilitation
- (3) Implementation of TDRM Strategies
 - National framework (legal, organizational, etc) for promoting TDRM
 - Establishment of a systematic disaster information network
 - Investment on disaster reduction
 - Partnerships and civil participation

Moreover, it was also recognized as important to "integrate disaster risk management into national policies and development plans," "promote cooperation among relevant organizations," "share information on successful cases of disaster prevention," and "create a culture of prevention." It is desired to apply the TDRM approach as an effective tool for disaster reduction in forms tailored to the backgrounds, needs, and conditions of individual countries.