

## Asian Conference on Disaster Reduction 2018

### Chair Summary

#### Introduction

1. The Asian Conference on Disaster Reduction 2018 commemorates two decades of Asian Disaster Reduction Center's contributions to Disaster Risk Reduction (DRR). It gathered over 110 delegates (including 25 member countries, 1 advisory country, observers, and partners) in Awaji Island in Hyogo, Japan, from 30 October to 1 November 2018, to take stock of ADRC's achievements and strategize subsequent programs and activities.
2. In line with its mandates, ADRC contributes to DRR through information-sharing, human resource development, community capability, and regional cooperation. Among its activities, the Cabinet Office of Japan proposed that ADRC should strengthen: (i) **GLIDE**, unique ID code for disasters, to support in monitoring the Sendai Framework and the SDGs; (ii) **Visiting Researcher** program to improve DRR capacity; and (iii) **Public-Private Partnerships** to improve cooperation in utilizing effective technologies and affordable solutions in addressing DRR issues.
3. Since its establishment in 1998, ADRC membership expanded from 22 to 31 countries with Turkey as the latest member. In the past 20 years, ADRC convened 14 Asian Conferences on Disaster Reduction (ACDRs), hosted 108 Visiting Researchers (VRs), and co-implemented the Sentinel Asia project. While highlighting these achievements, the Chairman of ADRC pointed that disasters triggered by earthquakes, tsunamis, storms, and floods continued to increase (in frequency and intensity) from 1946 to 2015. Most of these were in Asia.
4. As emphasized in the keynote speech, the 'uncertainty' associated with global warming requires new paradigm for DRR. In the case of Japan, a new methodology or paradigm has been adopted for flood control due to the emerging types of rainfall (i.e., *line-shaped* rainfall and *guerilla* rainfall). In this context, the traditional 'deterministic model' of predicting inundation from flooding may no longer be appropriate as observed in three cases of Hokkaido floods in 2015. In these cases, the new 'probabilistic' model of predicting inundation from flood was more useful. This example implies that strategies and programs should take into account how to prepare against the changing nature of hazards.
5. To help facilitate preparedness, the *Special Session for DRR* provided member-countries the opportunity to share their respective challenges and current initiatives. Four common preparedness issues were revealed, and these are in the areas of: (i) capacity building; (ii) data collection, including the role of private sector, (iii) mainstreaming DRR in the plans, policies, and programs; and (iv) community-based resilience efforts, including the role of local governments.

#### Outcomes

6. Key messages from the sessions, posters, exhibits, and side events were incorporated to highlight the outcomes of the four thematic issues of the conference.

#### *Session 1: Regional Cooperation Against Cross-Border Disasters*

7. The Indian Ocean Tsunami of 2004 demonstrated the importance of regional coordination against cross-border disasters. Impacted countries in South Asia shared common challenges (e.g., lack of early warning, policy, and institutional mechanism). The region realized that it would be more effective to cooperate to cope with the impacts and collectively sustain regional growth. In Southeast Asia, in 2018 alone, multiple disasters were experienced in Laos, Myanmar, Vietnam, Indonesia, and the Philippines. The series of disasters is viewed as 'new normal' that requires ASEAN region to engage in a more effective cooperation. In view of these, the conference recognized that sub-regional organizations (e.g., SDMC, AHA Centre, and CESDRR) play an important role for DRR, and can learn from each other's experiences, such as:
  - **Streamlining coordination mechanism.** As reported by AHA Centre, ASEAN adopts: one policy framework (AADMER); one Standard Operating Procedure (SASOP); one response plan (AJDRP); one policy body (ACDM); one point of contact (NDMOs); one regional coordination agency (AHA Centre); and one field coordination centre (JOCCA).

- **Conducting regional exercises.** Azerbaijan reported the conduct of Regional Disaster Emergency Response Exercise CASPIAN 2017, participated by 5 countries, to simulate disaster response, test the performance of equipment, and improve capacity for regional cooperation.
  - **Preparing the mechanism for receiving support.** Lao PDR, based on 2018 flood experience, reported that the country received assistance from ASEAN as well as from outside the region that created complexities in coordination.
  - **Enhancing capacity.** The Center for Emergency and Disaster Risk Reduction (CESDRR) reported that as a new sub-regional organization, it engages many activities for enhancing capacity. This includes conducting 40 seminars and trainings from countries of Central Asia and South Caucasus to develop the international community in DRR and emergency.
8. The conference acknowledged that disasters recognize no boundaries, and there are many benefits of working together through regional cooperation. These include: sharing of best practices in case of major disaster; responding together for search and rescue; and understanding and improving DRR through early warning, mutual exchange of information, joint education, joint training exercises, and joint assistance in case of disaster.

### *Session 2: Enhancement of Global Disaster Data*

9. The conference acknowledged that disaster data is key to governance. It is useful in understanding risk, planning, and decision-making. Without past data, it is difficult to reduce the amount of future disaster. In monitoring the Sendai Framework and the SDGs, mortality, affected people, and economic losses are among the disaster data for reporting. However, most National Disaster Managements Offices (NDMOs) can hardly obtain these data for lack of power and budget. In addition, NDMOs are faced with technical and political challenges. In the case of **Korea**, the Ministry of Interior and Safety found it technically challenging to gather disaggregated data (e.g., age, gender, disability, and income). In **Mongolia**, disaster data collection and sharing is not yet fully integrated into NEMA for limited of capacity to handle horizontal and vertical political coordination. In **Bangladesh**, strategies and policies for use 'big data' are in place for application in DRR. They have developed model for 25-100 years return period of flood, cyclone and earthquake and climate parameter as well as risk and vulnerability assessment database of 8 (eight) major hazards for DRR planning. Recognizing these challenges, the conference acknowledged that there are existing initiatives in the region that can assist NDMOs, including:
- **Global Identifier Number (GLIDE).** This is systematic referencing of disaster information, useful for member countries in collecting and linking disaster data necessary for Sendai Framework monitoring report.
  - **Global Center for Disaster Statistics.** This center supports the development of disaster statistics to monitor the progress of the Sendai Framework and SDGs.
10. The conference recommended the following in addressing the challenges of disaster data collection. Firstly, to address the political challenge, the NDMOs can take advantage of the power of the SDG team monitoring of respective governments since this SDG team comprises the highest level of coordination. Secondly, to address technical challenge, the UNISDR, UNDG, and UNFCCC should come up with a common policy for monitoring the Sendai Framework, SDGs, and Paris Agreement. Finally, to address capacity gaps, all available tools and guidance such as GLIDE, GCDS, and e-learning modules related to disaster data in the region shall be made accessible to member countries. It is recommended that a soft network of voluntary contributions to assist countries to monitor the global targets of the Sendai Framework shall be formed by UNISDR towards the Global Platform on DRR to be held in May 2019.

### *Session 3: Promotion of Regional Collaboration for Capacity Development for DRR including ADRC*

#### *Visiting Research Program*

11. Capacity development for DRR, promoted through regional collaboration, strengthens international cooperation and networking. It also contributes to developing and improving DRR capacities. The conference highlighted two types of programs that achieved these benefits. One type is the **ADRC Visiting Researcher (VR) program**, as this provides opportunity to learn DRR knowledge, technology, and experiences from Japan and other member countries. The VR from **India** reported that the country is heading for single National Emergency Number (112) which was also one of his recommendations in the

VR Report. That his State Himachal Pradesh has established 112 network in the Police Department. His State has been strengthening EOC Network, and working to create a "culture of safety" through various initiatives such as School Safety, Community awareness and capacity building programs. The VR from **Thailand** introduced the "Culture of safety" which is the goal of National Disaster Prevention and Mitigation Plan 2015; the achievement has been go on throughout the 76 provinces by DRR adaptation into education sectors. By linkage SDGs goal plus SFDRR into Comprehensive school safety, she has been initiate first youth camp in Chiangrai province; and go on by using human bond network among active volunteer networking targets, applying the knowledge she learned from Japan. Additionally, in **Armenia**, having sent a total of 8 VRs in past, reported that all of them contributed to developing country's capacity, especially in the implementation of National Survey for Seismic Protection (NSSP). The other type refers to programs delivered by regional partners to facilitate *exchange of information* on good practices, cost effective approaches, and easy to use technologies as well as *lessons* on policies, plans, and measures for DRR. Examples of these, include:

- **JICA's knowledge co-creation program (KCCP)**. This program, delivered by JICA Kansai, adopts a two-way learning process, where Japan share knowledge and technologies to participating countries and also learn from them. It showcases effective coordination and utilization DRR resources from key partners (e.g., ADRC, universities, and other institutions).
- **ADRRN's hub approach**. With innovative programs respectively initiated by hubs in Malaysia, India, Japan, Pakistan, Philippines, and Nepal, the ADRRN serves as: (i) intentional mechanism for sharing of innovation, (ii) encouraging spontaneous initiatives, (iii) promoting dialogue from different angles in a safe space, (iv) collective partnerships, and (v) networking opportunities.

12. The conference recommended strengthening of Visiting Researcher program by ensuring that researchers continue to contribute substantive value in their countries' DRR efforts, monitor the impacts of their works, and continue networking to update their knowledge and experiences. The conference suggested that regional training providers to consider exploring various practical ways of delivering training programs (e.g., face-to-face and e-learning) depending on the needs and situation.

#### *Session 4: Space-based Technology and Affordable Solutions Facilitating DRR*

13. The conference reaffirmed the contributions of the **Sentinel Asia** to DRR, where near real-time observations from space, delivered online, can be used as early warning or as information to guide response and post-disaster recovery planning or operations.
  - **JAXA**, secretariat for the Sentinel Asia, reported that eight space agencies are providing satellite data to Asian countries for emergency response, mapping, evaluation, and recovery.
  - **AIT**, acting as primary data analysis node (P-DAN) of the Sentinel Asia, reported the relevance of value-added products (VAPs) for response planning, such that it provides pre and post disaster maps derived from satellite data.
  - **Vietnam** reported the challenges and benefits of activating Sentinel Asia following Storm Doksuri in September 2017. It concluded that assessment may not be as quick as needed citing that the products arrived 2-3 days after the data acquisition and the lack of coordination mechanism for real-time assessment of disaster impacts. However, the products are useful for damage and loss assessment.
14. The conference also showcased affordable solutions to facilitate DRR.
  - **NIED**, reported on drone technology for DRR. Good practice regarding Earthquake and Tsunami Hazard & Risk Assessment in Iloilo, Philippines (in collaboration with PHIVOLCS) was shown in this presentation.
  - **NIED**, introduced outline about NIED and reported gabion which is used to reinforce road against flood as shown in Nepal. It was pointed out that multipurpose and effective utilization of gabion for adaptive disaster resilience that is Low-tech, Low-cost and local utilization for various gabion structures.
  - **Kozo Keikaku Engineering Inc**, reported "relay-by-smartphone" via Quasi-Zenith Satellite System (QZSS) that enables to send text message in case of disaster
  - **GeoThings**, reported ICT tools to develop a hazard map for disaster resilience. It is mentioned that ICT tools enable to reflect real time information by residents.

## **Way Forward**

15. **Prepare to respond to the increasing trend of disasters in Asia.** Subsequent strategies and programs of ADRC should take into account 'uncertainty' and climate change projections.
16. Further enhance capacities of member countries **to take leadership for mainstreaming DRR, pre-investment and holistic approach for residual risks**
17. **Strengthen key ADRC activities.** This includes, Visiting Researcher program, Sentinel Asia project, and Public-Private Partnership for improving DRR in Asia.