



# ADRC Highlights

Asian Disaster Reduction Center Monthly News

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## ● Promoting Cooperation with Member Countries

### Asian Conference on Disaster Reduction (ACDR) 2021: Session 1-3, Side Event

In this issue, we would like to provide you with the details of Session 1-3 and Side Event of ACDR2021, held on 15 and 16 December 2021.

### Session 1: Strengthening Disaster Preparedness -Developing DRR Technologies that Meet Local Needs to Create a Safe, Secure, and Livable Society -

Following up on two previous online DRR seminars held in September 2021, "Session 1: Strengthening Disaster Preparedness: Developing DRR Technologies that Meet Local Needs to Create a Safe, Secure, and Livable Society" was held on 15 December as part of ACDR2021.

Dr Hendro Wardhono, Director of the Board of Managers, PUSPPITA, Indonesia presented a case study on the 4 December volcanic eruption at Mount Sumeru, Java, and raised issues related to disaster prevention. The eruption produced volcanic ash, ejecta, sediment, and pyroclastic flows, killing 45 people and injuring many others. Dr Hendro stated that the role of BNPB includes disaster management implementation, coordination, planning and budgeting, and capacity building. He also explained that disaster response in Indonesia is a collaborative effort between the national and regional disaster management agencies, the Indonesian Volcano Research Institute, meteorological agencies, the military and other agencies, universities and NGOs (such as PUSPPITA), and the media. In the case of the recent volcanic eruption, he reported that PUSPPITA has been working with the national and regional disaster management agencies to respond quickly, collecting information, providing advice to BNPB, and coordinating with related organizations in the field.

Dr Seong Sam Kim, Team leader, Disaster Scientific Investigation Div., National Disaster Management Research Institute (NDMI), Republic of Korea gave a presentation entitled "Natural Hazard Damage Detection and Scientific Disaster Scene Investigation using Artificial Intelligence and Drone Mapping." Detecting the target disaster and classifying and segmenting the damage are important in mapping a disaster area, and AI technology can enable rapid image analysis and decision making. Dr Kim explained that in Korea, there is a set legal system related to disaster surveys and a workflow for disaster survey and recovery based on that system. However, AI and drone mapping can shorten the survey period, eliminate the risks that occur in traditional surveying, and increase accuracy.

Dr Hasi Bateer, General Manager of Global Business Development Division, Asia Air Survey, Co. Ltd. gave an overview of various data acquisition tools and data as



15 December: Session 1

**Continued**

they pertain to the disaster management use of geospatial data, and gave examples of data processing and utilization. He emphasized that the "Red Relief Image Map" developed by Asia Air Survey Co., Ltd. is excellent in visualizing and interpreting topography, and can show detailed topography and surface features in three dimensions with a single image. He suggested that geospatial data is essential for disaster prevention and can be used for disaster prevention by taking measures in advance, such as covering a wide area or a detailed region.

Mr SUZUKI Koji, Project Director of Asian Disaster Reduction Center (ADRC) gave an update on the Sentinel Asia Project. Step 3 of Sentinel Asia includes the establishment of a pre-disaster early warning system using positioning satellites. Mr SUZUKI introduced the disaster and crisis management reporting service, "Saikitsuho" project, which uses the Quasi-Zenith Satellite MICHIBIKI. He reported that the project they are currently working on will be conducted in target countries in the Asia Pacific region, with research and demonstration experiments scheduled to be conducted from 2021 to 2024.

Dr NGUYEN David N., Associate Professor by Special Appointment at Tohoku University, and Researcher at the Japan National Research Institute for Earth Science and Disaster Resilience (NIED) gave a presentation on smart community infrastructure for disaster management. He explained that the ISO is the International Organization for Standardization, an independent, non-governmental international organization headquartered in Geneva. It is a global standardization organization, with 165 national standardization bodies as members, and consists of Technical Committees (TCs), Subcommittees (SCs), and Working Groups (WGs). And he reported that the ISO publishes documents such as International Standards (IS), Technical Specifications (TS), and Technical Reports (TR). He also reported that urbanization and population concentration will require infrastructure such as water, energy, and roads, that climate change will increase the frequency of disasters, and that resilience is expected to improve through disaster management.

Dr Mandira Singh Shrestha, of the International Centre for Integrated Mountain Development (ICIMOD), moderated the session, organized questions raised by the participants, and compiled the answers and opinions from each presenter. In summary, based on the knowledge and information gained from this session, she emphasized the importance of strengthening networks with government agencies and experts to further improve disaster preparedness in the Asian region.

### Session 2: Strengthening Disaster Preparedness: Education and Awareness Raising for Promoting Proactive Disaster Risk Reduction Actions

Session 2 dealt with strengthening disaster preparedness through education and awareness-raising, taking these as entry points for promoting proactive DRR actions. This session was held based on the outcomes of the Second Online DRR Seminar held on 13 July 2021. Speakers were introduced by Ms KODAMA Miki, Deputy Director, Research Department, ADRC. The session was moderated by Dr SAKAMOTO Mayumi (Professor, Graduate School of Disaster Resilience and Governance, University of Hyogo). In introducing the session, Dr SAKAMOTO presented Japan's perspective of DRR education, noting that a comprehensive DRR

education is required in schools. This means that DRR education should be covered in all subjects, aiming to enhance "knowledge and skills," "humanities," and "abilities to think, judge and express," which are identified as three pillars of education in the latest Japanese curriculum.

Dr Le Quang Tuan (Deputy Director, Department of Science Technology and International Cooperation, Vietnam Disaster Management Authority) shared the experience and efforts of Vietnam in enhancing disaster resilience through community awareness-raising and community-based disaster risk management



15 December: Session 2

**Continued**

(CBDRM). He introduced the achievements of the Scheme 1002 on CBDRM (2009-2020), as well as current efforts of the updated Scheme 1002: Introduction Decision 553/2021 on Public Awareness Raising and CBDRM up to 2030. The activities include providing training on DRM knowledge and enhancing the communication capacity of reporters, editors, and district radio and television staffers who are in charge at the grassroots level.

Ms Syuzanna Kakoyan (Head of the Department of Education, Administration of Activities with Public, Regional Survey for Seismic Protection, Ministry of Emergency Situations, Armenia) shared efforts related to the strengthening of DRR education, including of dissemination of Armenia's Code of Conduct on Earthquake Protection. This Code of Conduct is designed for school children to increase their level of knowledge on preparedness, response, and evacuation in the event of an earthquake. The Department of Education implements the code of conduct through games, drills, and quizzes, and also works closely with the mass media and private sector.

In his commentary of the session, Mr FUKASAWA Yoshinobu (Secretary, TeLL-Net/Specially Appointed Professor, Kyushu Sangyo University) highlighted the importance of preserving and passing on "real-life" experiences and lessons from disasters to other areas and generations. Sharing real-life lessons from disasters through oral storytelling, photographs, audiovisual materials, remnants, museums, monuments, and music and pictures are powerful means of transmitting lessons that also complement the formal DRR education in schools.

At the end of the Session, Dr SAKAMOTO presented a question raised by a member of the audience to one of the speakers regarding the impact of community in response to COVID-19. She then concluded the session by reaffirming the importance of integrating disaster education in national policies, as well as the making effective use of past experiences and lessons learned from past disasters.

**Session 3: Investing in Disaster Risk Reduction for a Resilient Society**

In preparing for the discussions to be held in Session 3, two DRR seminars were separately organized on 15 June 2021 (DRR Seminar 1) and 18 October 2021 (DRR Seminar 5). Then, at ACDR 2021, Session 3 allowed for deeper discussions of investing in disaster risk reduction for a resilient society, where officials from ADRC member countries shared recent learnings, perspectives, and approaches to accelerate risk-informed investments.

This session was moderated by Mr TAKEYA Kimio (Distinguished Technical Advisor on Disaster Risk Reduction, Japan International Cooperation Agency; and Visiting Professor at the International Research Institute of Disaster Science, Tohoku University). He explained that the session would give an overview of practical methods of investing in DRR. Speakers in this session came from a supporting agency, a national DRM agency, a national planning agency, and a line ministry.

Representing a supporting agency, Dr Renato Solidum, Jr (Undersecretary, Department of Science and Technology; and Officer-in-Charge, Philippine Institute of Volcanology and Seismology, Philippines) reported that "GeoRisk Philippines" is one of the country's investments in DRR, aimed at achieving greater understanding of hazards and risks. "GeoRisk Philippines" is an ICT and geospatial platform, where tools (e.g., database systems and mobile/web applications) are developed for data integration, management, and analysis of information for planning, risk assessment, research, and other purposes. It also serves as a governance platform, where different government agencies and stakeholders can collaborate to share, standardize, and agree on how to optimally use information for risk valuation, planning, and good governance.

Dr Le Minh Nhat (Deputy Director of Emergency Response and Disaster Recovery Department, Vietnam



16 December: Session 3

## Continued

Disaster Management Authority) presented on the investment priorities under Vietnam's National DRR Plan 2021-2025. He noted that one of Vietnam's priorities is the implementation of a comprehensive DRR program for storms, floods, and drought. This program invests in the construction of hydrological monitoring equipment for river water levels, dams, and rainfall as well as investments in a water disaster prevention information system.

Mr Abdul Malik Sadat Idris (Director of Water Resources and Irrigation, Ministry of National Development Planning, Indonesia) reported on the government's investments in disaster-resilient infrastructure, which have been integrated into the National Medium-Term Development Plan of Indonesia. These investments include strengthening critical infrastructure for flood resilience in 50 high-risk cities. He added that the national annual budget for flood control has been increasing over the last five years (2017-2021), and that the allocation increased substantially in 2021 due to a higher risk of floods, especially in Central Java.

Finally, from the perspective of a line ministry, Mr Jerry A Fano (Assistance Core Head at Office of the Project Director, Unified Project Management Office, Department of Public Works and Highways, Philippines) shared the pre-disaster investments in flood mitigation in the Philippines. These investments include the construction and strengthening of flood control structures (e.g., flood gates, flood walls, and spillways). As these projects remarkably reduced flood inundation and economic damage by an impressive 85%, the government has significantly increased the annual budget for flood management since 2011.

Through the sharing of experiences from the Philippines, Vietnam, and Indonesia, Session 3 has drawn conclusions regarding the bottlenecks in investing in disaster risk reduction. These include insufficient budget, lack of government leadership or political momentum, insufficient understanding of hazard and risks, insufficient understanding of the impact of disasters, and institutional capacity to act on risk reduction (e.g., institutional mechanisms, legal provisions, and cross-ministry coordination). After listening to the speakers, the audience were asked to answer these questions: What do you think are the keys to "increased investment" for disaster risk reduction to promote resilience?

Answers from the audience showed that leadership, which is often associated with political will to allocate budget and engage the community, is seen as the key factor to increase investment in disaster risk reduction.

Based on the results of the session, we will further deepen our discussions of investments in disaster risk reduction.

## Side Event "Public and Private Seminar for Disaster Risk Reduction"

Following Session 2, the "Public and Private Seminar for Disaster Risk Reduction" was organized by the Cabinet Office, also in an online format. This seminar was intended to use ACDR2021 to provide an opportunity for the private sector to introduce their technologies and products to member countries for further facilitating DRR efforts in Asia.

In the first part of the event, the United Nations Office for Project Services (UNOPS) introduced their efforts to support private companies in expanding their businesses to achieve the SDG goals in the world. This was followed by a presentation by USHER, a Filipino company selected under the SDGs Challenge Program supported by UNOPS, Hyogo Prefecture, and Kobe City. In the second part of the event, 11 member companies of the Japan International Public-Private Association for Disaster Risk Reduction (JIPAD) presented their latest DRR products and technologies to the audience. Company booths were set up for virtual browsing during this part of the event.

**Side Event of ACDR 2021**

Organized by  
Cabinet Office Japan

**PUBLIC AND PRIVATE SEMINAR FOR DISASTER RISK REDUCTION**

Discover  
Future Technology

15TH DECEMBER

17:15-19:05  
(UTC+9)

VIA ZOOM  
[https://bit.ly/ACDR2021\\_SideEvent](https://bit.ly/ACDR2021_SideEvent)

**Seminar Schedule**

17:15	Introduction of the Side Event by Asian Disaster Reduction Center (ADRC)	
17:18	Introduction of UNOPS Global Innovation Challenge	
17:23	Presentation by USHER TECHNOLOGIES INC (Philippines)	
17:33	Introduction by Cabinet Office Japan	
17:38	Presentations by Japanese DRR Companies	
17:38	AKAO & CO., LTD. (Pre/Post FPE)	GIKEN (Disaster Evacuation)
17:44	CHALLENGE (Early Warning System)	KAWASAKI (Rescue Equipment)
17:50	OYO (Iyo Corporation) (Earthquake Technology)	SAKAI (Road Construction Equipment)
17:56	J.P.E. (Disaster Prevention Products)	FUSO (Water Treatment Facilities)
18:02	SAKAI (Road Construction Equipment)	SAKAI (Road Maintenance)
18:08	CHALLENGE (Early Warning System)	FUJITA (DRR Technology of General Contractor)
18:14	SAKAI (Road Construction Equipment)	SAKAI (Road Maintenance)
18:20	SAKAI (Road Construction Equipment)	SAKAI (Road Maintenance)
18:26	SAKAI (Road Construction Equipment)	SAKAI (Road Maintenance)
18:32	SAKAI (Road Construction Equipment)	SAKAI (Road Maintenance)
18:38	SAKAI (Road Construction Equipment)	SAKAI (Road Maintenance)
18:44	SAKAI (Road Construction Equipment)	SAKAI (Road Maintenance)

**Exhibition Booth (17:15-19:00)**

AKAO & CO., LTD.  
AKAO, Fire & Rescue Equipment

GIKEN  
GIKEN, Disaster Mfg & Recovery

CHALLENGE  
Challenge, E4S Expert

OYO  
Iyo Corporation  
OYO, DRR Packages

FUSO  
FUSO, Disaster

SAKAI  
SAKAI, Road Maintenance

SAKAI  
SAKAI, Road Maintenance

PIXELA  
PIXELA, Road EVMS

weathernews  
weathernews

Cabinet Office

Click here / scan the code to join:  
[https://bit.ly/ACDR2021\\_SideEvent](https://bit.ly/ACDR2021_SideEvent)

15 December: Side Event (Flyer)

## ● Participation in International Conferences

### The 4th Spatial Planning Platform Forum

ADRC organized a session entitled "Resilient Society through Disaster Risk Reduction" at the 4th Spatial Planning Platform (SPP) Forum held online on 9 February 2022. The SPP is an organization led by UN Habitat and the government of Japan, with the participation of Asian countries and specialized organizations, which aims to contribute to the creation of a sustainable society through better urban and regional planning.

The 4th SPP Forum featured presentations by Prof NISHIKAWA of Nagoya University on planning efforts for disaster risk reduction (DRR) in Japan; by Sendai City on the integration of DRR into local government planning; and by the government of the Philippines on lessons learned on community relocation in the process of disaster recovery and reconstruction.



Forum Participants

At the end of the session, the participants drew the following three conclusions:

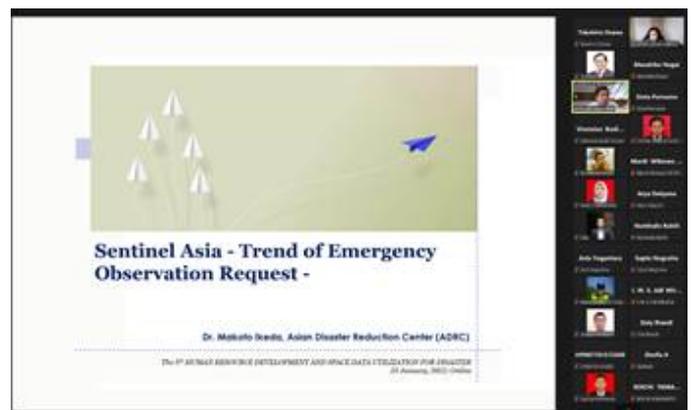
1. DRR is indispensable for preventing recurrent disasters and thus achieving sustainable development. This method has been well established by empirical research.
2. In its implementation, we should give consideration to other important factors that make up the local context, such as livelihoods, economies, and cultures.
3. Therefore, DRR should be integrated with urban or regional development planning as a whole policy of national and local governments.

For more information, please visit <https://spp-pr.com/conferences/4thMeeting/>

### Online Symposium: 5th Human Resource Development and Space Data Utilization for Disasters

ADRC participated in the 5th Online Symposium on Human Resource Development and Space Data Utilization for Disasters, which was organized by Yamaguchi University and Udayana University on 25 January 2022. This symposium was held in an online format, and attended by about 70 participants representing local disaster management organizations, Tokyo University, the National Research Institute for Earth Science and Disaster Resilience, and the organizing institutions (Yamaguchi University and Udayana University).

ADRC presented information on Sentinel Asia and the activation of emergency observations. ADRC also explained how emergency observations are requested during disasters and how to become a member of the Sentinel Asia program.



Online Symposium

### **For Inquiries & Subscription Information**

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