



# ADRC Highlights

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## HAPPY NEW YEAR 2021

As we take the early steps into this New Year, I want to take a moment to express my deep gratitude for all the support that has been shown for ADRC's activities over the course of last year. Your cooperation in our efforts is an invaluable resource to the work we do.

As you know, we are starting off this New Year in the middle of an unprecedented disaster caused by the ongoing spread of the new coronavirus around the world. Since the first infections were confirmed in December of 2019, the virus has continued to spread rapidly. Even now it has yet to reach its peak. As of the end of January 2021, approximately 100 million people had been infected with the virus, and more than 2.1 million people had lost their lives to it. This is the first time we are experiencing a situation in which the entire world is grappling with the same crisis all at the same time. Now, at long last, several vaccines have been developed and tested in clinical trials, and vaccinations are starting to be deployed primarily in some countries. However, it is still unclear whether the vaccines will allow us to overcome this global disaster.

Given the challenges posed by the pandemic, the Asian Conference on Disaster Reduction (ACDR) 2020 had to be held online. This presented many new challenges, including time zone differences and differences in the communications technologies available in different countries. Nonetheless, we were able to have a productive event thanks to all those who were able to participate. I would like to extend my sincere gratitude to all the country participants who helped make this event a success.

The main topics of the virtual ACDR were the mitigation of the growing disaster risks and disaster management policies for dealing with the coronavirus. By engaging in preliminary discussions with our member countries ahead of the conference, we were able to pursue deeper discussions during the conference in a whole different way from what is normally possible during years when we gather in person. We hope to continue using online conference platforms to conduct the ACDR in the future, so that we can develop even more robust connections with our member countries.

In addition to earthquakes and tsunami disasters, the world has been experiencing many climate disasters, such as heavy rains, storms, and droughts, which are believed to be triggered by the changes that have taken place in the climate in recent years. About 70% of the world's disasters, such as earthquakes, tsunamis, and flooding, occur in Asia. ADRC will continue serving as a hub of connection and cooperation for its 31 member countries, and remains dedicated to making every possible endeavor to reduce the impacts of disasters throughout Asia.

In pursuit of that goal, I ask the governments and stakeholders in all of our member countries for your continued support and enthusiasm for our work.



HAMADA Masanori  
Chairman, Asian Disaster Reduction Center

## ● Promoting Cooperation with Affiliated Institutions

### Second Online Tsunami Seminar

ADRC held the Second Online Tsunami Seminar on 22 December 2020. Mr. NAKAGAWA Masaaki, Executive Director of ADRC noted at the start that the seminar was being held in connection with the occurrence of the Indian Ocean Tsunami on 26 December 2004, and invited the presenter to report on the current tsunami countermeasures in Indonesia.

Dr. Khaerunnisa, Associate Professor, University of Atma Jaya Yogyakarta (UAJY) gave a presentation entitled "Tsunami Awareness in Indonesia." She started by reviewing the tsunamis that have occurred in Indonesia between 1990 and 2020. Government records

show that 19 large-scale tsunamis impacted Indonesia during this period. The Indian Ocean Tsunami of 2004, which impacted the provinces of Aceh and Nias, were the most impactful in terms of magnitude (9 Richter scale) and death toll (over 166,000 people). She introduced innovative recovery projects launched in Aceh and Nias following the tsunami, including structural projects (e.g., tsunami escape buildings, breakwaters, ports, parks, and a museum) and non-structural projects (e.g., education, training, and drills).

To describe the tsunami awareness of people in Indonesia, she presented the results of a survey that she administered to 100 respondents, and highlighted the following:

- A majority of respondents know whether or not they live in tsunami-prone area. Their assessment of hazards is based on their experience, knowledge of past tsunamis, and information from government websites and local news.
- A majority of respondents said that on a scale of 1-5, their level of awareness has increased to a rating of "4," noting that they are receiving education and training related to tsunamis.
- A majority of the respondents said that social media and evacuation drills are the most effective means to increase awareness.

However, she pointed out that it is essential to validate this information by cross analyzing the survey responses with factual data, such as records of tsunami-prone areas and existing hazard maps. In doing so, she observed that there is no significant correlation between having actual experience of a tsunami and the current knowledge and behavior. In view of this, she suggested that education programs should be accompanied by regular training and drills to make comprehension more effective.

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The third seminar was held on 26 January 2021. Watch for details in the next issue of ADRC Highlights!



22 December 2020: Second Online Tsunami Seminar

### Initiative for Creating a Space-Based Technologies

ADRC has joined a new initiative for creating space-based technologies which provides a platform for applying artificial intelligence (AI) technology to analyzing satellite images. This initiative is being led by Yamaguchi University, in partnership with ADRC, the National Research Institute for Disaster Resilience (NIED), and AXELSPACE.

In recent years, a favorable environment has been developed both at home and abroad for the use of images from a variety of satellites. To use satellite images from multiple satellites, the image data needs to be calibrated to accommodate for several factors. That is, the sensors of the satellites have their own characteristics, the optical sensors have their own wavelength range bands, and the satellite data differ depending on atmospheric conditions. Under this initiative, a methodology of calibration (the process of checking a measuring instrument to see if it is accurate) will be developed for the AI analysis of multiple satellites data.

Joint Project Team Members of Sentinel Asia are expected to support this initiative, which will run for three years starting in FY2020. It is financially supported by the Ministry of Education, Culture, Sports, Science and Technology.

## ● Promoting Cooperation with Member Countries

### (ACDR2020) Report from Member Countries: Viet Nam

In this issue, we would like to take this opportunity to highlight extracts from Viet Nam's report on Theme 1 "Disaster Risk Reduction (DRR) Measures and Challenges to the Intensifying Disaster Risks," which is introduced in the ACDR2020 website.

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#### Natural Disasters and Disaster Risk Management in Vietnam - Floods and Flash floods -

In Vietnam, economic growth and urbanization have continued to be developing in recent years. That induces population and assets accumulation in areas where natural disaster risk is high, and many types of natural disasters damage the whole country every year. Water-related natural disasters are most common in Vietnam. From 2007 to 2017, around 80% of death tolls and missing were caused by floods and storms and 10% were from flash floods and landslides. In the northern mountainous region in Vietnam, heavy rain or storm often causes flash floods and landslides which damages people's lives and their properties. Due to its severe situation of the living environment and land condition, people are facing many difficulties and exposed high risks of flashflood and landslide. In October 2020, prolonged heavy rains and a series of typhoons caused severe floods, flash floods, and landslides in the central region of Vietnam. It counted 243 people of death tolls and missing and the total damage cost is estimated at 29 trillion VND (approximately 1.3 billion USD). To strengthen the capacity in the field of planning and implementing disaster risk reduction programs, the Vietnam Disaster Management Authority is responsible for disaster risk management in Vietnam while coordinating with related ministries and other agencies. This paper introduces an overview of natural disasters in Vietnam and the characteristics of a flood, flash flood, and landslide. Then through the experience of disaster in October 2020, some policies and programs and their challenges to be overcome for the future are discussed.

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You can see this full report, as well as other reports on the ACDR2020 website: <https://acdr.adrc.asia/>.

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