# Advancing Regional Resilience through Science and Partnership: NCDR's Collaborative Workshops with Japan and Korea on Compound Disaster Risk

## The 5th NCDR–NIED Workshop: Advancing Collaborative Insights on Compound Disasters and Recovery

**January 19–22, 2026; Taiwan (Hualien and Taipei)**

Building upon the foundation established through the renewed Memorandum of Cooperation (MoC) in 2025, collaboration between the National Science and Technology Center for Disaster Reduction (NCDR) and the National Research Institute for Earth Science and Disaster Resilience (NIED) continues to advance. As part of the ongoing bilateral exchange mechanism, the 5th NCDR–NIED Workshop was held in Taiwan from January 19 to 22, 2026, further strengthening joint efforts in disaster risk reduction research and practice.




**Figure 1** The 5th NCDR–NIED Workshop – Field Visit to Hualien for Disaster Assessment of the Taroko National Park

## Field-Based Learning in Hualien: From Earthquake Recovery to Barrier Lake Events

The workshop began with a field visit to Hualien, where participants engaged in in-depth observations of post-disaster recovery and complex hazard interactions. At Taroko National Park, experts examined the ongoing recovery efforts following the April 2024 magnitude 7.2 earthquake, as well as the impacts of subsequent typhoons.

A key focus was the Yanzikou (Swallow Grotto) area, where a slope collapse in 2025 formed a barrier lake, causing significant disruption to transportation and necessitating emergency response measures, including evacuations. Through on-site inspections and technical briefings, participants explored the mechanisms of barrier lake formation, associated risks, and recovery strategies.

The NIED delegation visited the Tzu Chi Charity Foundation where experts from academia, government agencies, and civil society—including National Cheng Kung University, NCDR, and partner organizations—shared integrated perspectives of the Matai'an Creek Barrier Lake events on hazard assessment, hydrological processes, and community impacts.

## Understanding Cascading Risks and Community Recovery

On January 21, participants conducted further field observations in the Matai'an Creek and Guangfu–Wanrong areas, where a series of barrier lake events in 2025 triggered prolonged impacts on downstream communities. Although access to the original site was limited, the delegation visited affected villages and reconstruction sites, gaining insights into:

Temporary infrastructure and emergency access solutions,
Community relocation and prefabricated housing,
Long-term reconstruction planning and resilience-building.

These visits highlighted the challenges of managing compound and sequential disasters, particularly in remote and geologically sensitive regions.



**Figure 2** Field survey at the Matai'an Creek site



**Figure 3** Survey for the Guangfu community recovery

## Knowledge Exchange and Thematic Discussions in Taipei

The workshop concluded at NCDR in Taipei with a series of structured discussions and reflections. Opening remarks were delivered by NCDR Director Dr. Hongey Chen, emphasizing the importance of international cooperation in addressing increasingly complex disaster scenarios.

Participants engaged in thematic group discussions covering: Storms, floods, landslides, and satellite data applications; Urban disaster resilience engineering; Social resilience and community adaptation.

These sessions facilitated interdisciplinary dialogue, to integrate field observations with scientific research, technological applications, and policy, further enhancing bilateral knowledge exchange.

## Strengthening Bilateral Cooperation for Future Challenges

The 5th NCDR–NIED Workshop underscored the critical importance of integrating field-based evidence with scientific research and policy frameworks. Through joint exploration of real-world disaster cases—particularly the Matai'an barrier lake events—participants deepened their understanding of cascading hazards and resilience strategies.




**Figure 4** Knowledge Exchange and Thematic Discussions at NCDR

## The 1st NCDR–NDMI Workshop: Advancing Bilateral Collaboration in Disaster Risk Reduction

**February 23-24, 2026; Taiwan (Taipei)**

The 1st NCDR–NDMI Workshop was held in Taiwan from February 23 to 24, 2026, marking a significant milestone in strengthening bilateral cooperation between Taiwan and Korea in the field of disaster risk reduction (DRR). The workshop was jointly organized by the National Science and Technology Center for Disaster Reduction (NCDR) and the National Disaster Management Research Institute (NDMI) of Korea, following the Memorandum of Understanding (MOU) signed in April 2025.

### Strengthening a Strategic Partnership

The MOU, signed by Director General Dr. Hongey Chen of NCDR and President Dr. Keumho Oh of NDMI, established a formal framework for collaborative research and knowledge exchange. Building on this foundation, the first joint workshop served as a platform to deepen cooperation in disaster science, policy, and technological innovation, while promoting a shared vision of enhancing societal resilience in the Asia-Pacific region. A seven-member NDMI delegation, led by Director General Dr. Keumho Oh, visited Taiwan to participate in the workshop and related technical exchanges.




**Figure 4** NCDR and NDMI held the first joint workshop in Taipei, Taiwan

**Key Discussions: Science, Technology, and Emerging Risks**

The workshop featured comprehensive discussions covering both strategic frameworks and practical applications in disaster management. Major topics included:

- Disaster management paradigms toward inclusive and safe societies
- Scientific investigation of disasters and post-event analysis methodologies
- Decision support information systems for emergency management
- Climate change-related risks and impact assessments
- Emerging risks, including advanced transportation systems and underground infrastructure
- Integration of scientific research into policy and socio-economic decision-making

NCDR also shared Taiwan's experience in emergency operations and technological innovations, including lessons learned from major disaster events in 2025, while NDMI introduced Korea's evolving disaster risk management frameworks in response to emerging and compound risks.

In addition to in-depth discussions, the workshop incorporated a series of technical visits to demonstrate Taiwan's disaster management practices and infrastructure, including:

- The Central Emergency Operation Center (CEOC)
- The Taipei City Emergency Operation Center
- The National Center for Research on Earthquake Engineering (NCREE)
- The International College of National Taiwan University

These visits provided NDMI delegates with first-hand insights into Taiwan's integrated approach to disaster preparedness, response coordination, and scientific research applications.




**Figure 5** The NDMI delegation visited the Taipei City Emergency Operation Center

## Looking Ahead: Expanding Bilateral Cooperation

As the first official joint workshop under the NCDR–NDMI partnership, this event not only reinforced mutual understanding but also laid a solid foundation for sustained collaboration. Through continued exchanges and joint initiatives, both institutions aim to contribute to regional and global efforts in building a more resilient and disaster-prepared society.

**More Events of NCDR:**

- https://www.ncdr.nat.gov.tw/Message?itemid=76&mid=93