

AIWEST-DR 2024 Conference Report (2024/11/8-10)

Theme: “Bridging History and Horizons Towards Sustainable Resilience, Adaptive and Inclusive World:
Commemorating 20 years of the 2004 Aceh Tsunami”

Venue: TDMRC, Syiah Kuala University (Banda Aceh, Indonesia), online

URL: <https://aiwest-dr.usk.ac.id/>

Video archive: <https://www.youtube.com/watch?v=4cVcR4khhh8>

Organized by the Tsunami and Disaster Mitigation Research Center (TDMRC), at Syiah Kuala University, Banda Aceh, Indonesia, to share lessons from the historic human suffering and infrastructure damage and reconstruction since the 2004 Indian Ocean Tsunami, the 16th Aceh International Workshop and Expo on Sustainable Tsunami Disaster Recovery (AIWEST-DR 2024) was held on 8-10 November 2024, at TDMRC, Syiah Kuala University, in Banda Aceh, Indonesia. This year, the event commemorated 20 years since the 2004 Aceh Tsunami and shared knowledge and experiences from various countries and from multiple groups such as academics and practitioners in handling tsunami disasters.

Co-organizers included the University of Sydney, IRIDeS, Tohoku University, National Defence University of Malaysia (UPNM), Universitas Gadjah Mada (UGM), Indonesian Disaster Experts Association (PIT-IABI), and Indonesian Geographical Society (IGI). IRIDeS members, particularly Assoc. Prof. Sebastien Boret (International Research Collaboration Office), Assoc. Prof. Elizabeth Maly (International Research Collaboration Office), Assoc. Prof. Anawat Suppasri (Tsunami Engineering Lab), and Assoc. Prof. Erick Mas (Disaster Geo-informatics Lab) have been involved with organizing AIWEST-DR conferences for several years.

The first day of AIWEST-DR 2024 started with a plenary session and two panel sessions. IRIDeS Deputy Vice-director Prof. Shunichi Koshimura (Disaster Geo-informatics Lab and Co-creation Center for Disaster Resilience) gave a keynote speech about “Revisiting Banda Aceh Tsunami: Proposal of Global Tsunami Inundation and Damage Forecast Facility.” Assoc. Prof. Anawat Suppasri shared the experience of the 2004 Indian Ocean Tsunami and the 2011 Great East Japan Earthquake and Tsunami in a panel session titled “Lessons Learned and Best Practices in Hazard and Technology, Infrastructure Development.”

The second day of AIWEST-DR 2024 began with a special session titled “Disabilities, Inclusion, and Disaster Education in Banda Aceh: Learning from the 2004 Indian Ocean Earthquake and Tsunami,” organized by Assoc. Prof. Sébastien Boret and Asst. Prof. Hyejeong Park (International Cooperation for Disaster Medicine Lab). Prof. Anawat Suppasri led a special session “A New Era of Coastal Disaster Prevention and Mitigation Integrating Nature and Technology.” Parallel sessions included 27 presentations authored or co-authored by IRIDeS members and graduate students, presented in person and online. Prof. Kozo Nagami (2030 Global DRR Agenda Office) and Assoc. Prof. Elizabeth Maly respectively received prizes for best presentations.

AIWEST-DR 2024 concluded with a closing and award ceremony. The organizers highlighted that it was an opportunity to gather international researchers and experts from different countries and share current advances in research on a broad range of topics to deal with future disaster risks. The conference highlighted active international collaborations between all the participants and countries and learning from past disaster experiences. Also, through a mini expo exhibition during the AIWEST-DR 2024, the IRIDeS exhibit booth exhibited significant international collaboration and the upcoming World Bosai Forum 2025. The next AIWEST-DR will be organized by UCL in 2025 (place and dates TBC).

(continues to the next page)

Presenters and titles from IRIDeS members in the special session and parallel sessions

Session	Presenters/authors	Title
Plenary Session	Shunichi Koshimura	Revisiting Banda Aceh Tsunami: Proposal of Global Tsunami Inundation and Damage Forecast Facility
Panel Session	Anawat Suppasri	Tsunami Warning and Evacuation Facilities in Thailand and Tohoku
Special Session	Sébastien Boret & Hyejeong Park	Disabilities, Inclusion, and Disaster Education in Banda Aceh: Learning from the 2004 Indian Ocean Earthquake and Tsunami
Special Session	Anawat Suppasri	A New Era of Coastal Disaster Prevention and Mitigation Integrating Nature and Technology
Parallel Session	Anawat Suppasri, Miwako Kitamura, David Alexander, Shuji Seto and Fumihiko Imamura	Lessons from the 2024 Noto Peninsula Earthquake
	Sesa Wiguna, Bruno Adriano, Ruben Vescovo, Erick Mas, Ayumu Mizutani and Shunichi Koshimura	Building damage recognition using remote sensing and semi-supervised learning for rapid assessment
	Erick Mas, Luis Moya, and Shunichi Koshimura	When is the shortest path not the best alternative for a tsunami evacuation?
	Bruno Adriano, Ruben Vescovo, Sesa Wiguna, Erick Mas and Shunichi Koshimura	AI-based Framework for Collapsed Buildings Mapping: Case Study of the 2024 Noto Peninsula Earthquake Using Aerial
	Shunichi Koshimura, Abdul Muhari, Erick Mas, Bruno Adriano, Takashi Abe and Akihiro Musa	Proposal of Real-time Tsunami Inundation and Damage Forecast System in Indonesia
	Yuta Hara, Kimiko Takeda, Ryohei Yamashita, Ryo Saito, Daisuke Sasaki and Tatsuto Aoki	The risks of "fallacy of composition" as remaining ethical challenges by scientific research in disaster-affected areas
	Mohd Muhaimin Ridwan Wong, Nordila Ahmad, Anawat Suppasri and Syamsidik	Proposal of a Tsunami Intensity Scale Derived from a Tsunami Building Vulnerability Index
	Daisuke Sasaki, Yolanda Yolanda, Yuta Hara, Novi Reandy Sasmita, Nudzran Yusya and Hizir Sofyan	How can Local Academic Institutions Play a Key Role in
	Muhammad Daffa Al Farizi, Syamsidik Syamsidik, Anawat Suppasri and Hayyan Ghifary Armaya	Evaluating Tsunami Risk and Economic Loss: Integrating Event Loss Table Methods in Western Coast Part of Aceh, Indonesia
	Daisuke Sasaki, Anawat Suppasri and Fumihiko Imamura	Japanese Foreign Aid to Fisheries in Response to Disaster: The Case of the 2022 Tonga Volcanic Eruption
	Mari Yasuda and Toshiaki Muramoto	Disaster Prevention Awareness -Based on 10 years practice of the Tohoku University DRR Education "YUI" Project-
	Aiko Sakurai, Takeshi Sato, Makoto Kumagai and Yoshiyuki Murayama	Supporting for school teachers to update tsunami evacuation plans

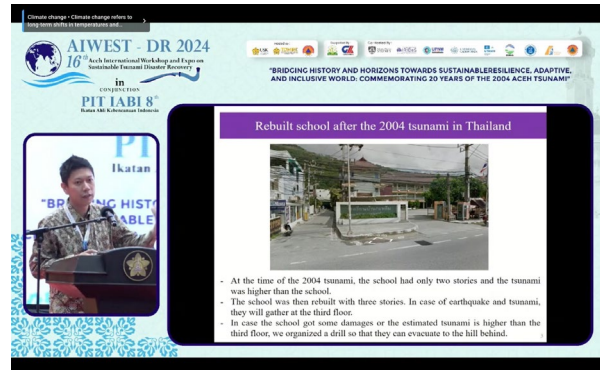
Yifei Wang and Akihiro Shibayama	Consideration of the Use of Hydrogen Fuel Cell Vehicles in the Event of a Natural Disaster
Takashi Oda, Aiko Sakurai and Takeshi Sato	Leveraging Web-GIS for School Safety: Insights from Japan and Taiwan
Elizabeth Maly, Julia Gerster, Ryo Saito and Naomi Chiba	Visualizing the Earthquake, Tsunami, and Nuclear Accident: Disaster Images in 3.11 Picture Books
Hyejeong Park and Sebastien Boret	Consideration of People with disability in Inclusive Disaster Risk Reduction
Hayley Leggett, Miwako Kitamura, Anawat Suppasri, Fumihiko Imamura and Tiziana Rossetto	Understanding community attitudes and response to tsunami mitigation infrastructure and DRR methods in Kesenuma, Japan
Kenichi Kamata and Fumihiko Imamura	The Impact of Major Earthquake Disasters on the Establishment of Earthquake Insurance in Japan
Hiroyuki Miura, Osamu Murao, Ryo Saito, Mizuki Sato, Mufidatun Khoiriyah and Muzailin Affan	Time-series analysis of satellite images for spatially evaluating long-term changes in Banda Aceh after the 2004 Indian Ocean Tsunami
Osamu Murao, Mizuki Sato, Kazuya Sugiyasu, Hiroyuki Miura, Mufidatun Khoiriyah, Ryo Saito and Muzailin Affan	Tsunami Evacuation Risk Change Associated with Urban Recovery in Banda Aceh after the 2004 Indian Ocean Tsunami
Kozo Nagami, Tomoki Miyano and Mohammad Naser Sediqi	Medium to Long-term Impacts from In-situ Housing Reconstruction: Insights from Post-disaster Surveys of the Indian Ocean Tsunami and Nepal Earthquake
Elizabeth Maly and Tamiyo Kondo	Rooted Placemaking for Long-term Disaster Recovery: Community-based Initiatives in Tohoku after the Great East Japan Earthquake
Mufidatun Khoiriyah and Osamu Murao	A Review of the Effectiveness of Tsunami Evacuation Buildings Distribution in the Government-Designated Planning Area (BWP) in Cilacap Using GIS Simulation
Julia Gerster	Food culture and community recovery – a case study from post-3.11 Miyagi and Fukushima.
Miku Okuba, Shoko Araki, Michio Ubaura and Elizabeth Maly	A study on the relocation from Floating Villages to land in Cambodia: focus on the living environment
Ryo Saito, Osamu Murao, Hiroyuki Miura, Mizuki Sato, Mufidatun Khoiriyah, Muzailin Affan, Toshiaki Muramoto and Pradytia Putri Pertiwi	Memory as Build Back Better and its Spatio-Temporal Change: Measurement and Future Direction
Sébastien Boret, Hyejeong Park, Alfi Rahman, Muzayin Nazaruddin, Yulia Direzkie and Pradytia Putri Pertiwi	Disaster Educational Programs for Children with Special Needs: An Interdisciplinary Study of a Special Support School in Banda Aceh in Indonesia

Text and Photos: Hyejeong Park (Disaster Medical Informatics Lab)
Sébastien Boret, Elizabeth Maly (International Research Collaboration Office)
Anawat Suppasri (Tsunami Engineering Laboratory)
Erick Mas (Disaster Geo-informatics Laboratory)

(continues to the next page)



Prof. Koshimura, Keynote Speech



Assoc. Prof. Suppassri, Plenary Session



Disabilities, Inclusion, and Disaster Education in Banda Aceh, Special Session



A New Era of Coastal Disaster Prevention and Mitigation Integrating Nature and Tsunami



Prof Kozo Nagami, Assoc. Prof. Elizabeth Maly Best Presenters award



Group Photo of IRIDeS participants