

Safeguarding Cities against

Water-related Hazards and Earthquakes

13:15 - 14:15 | UN Conference Centre, Conference Room 3 (Hybrid)

Towards sustainable water and seismic resilience through multi-level governance

This event is jointly organized by the Government of Japan, UN Human Settlements Programme (UN-Habitat), UN Economic Social & Economic Commission for Asia and the Pacific (ESCAP); and Regional Integrated Multi-hazard Early Warning System (RIMES), in collaboration with the Republic of Indonesia and partner organizations.

Building resilience to natural disasters, including ecological threats such as water stress, coupled with sudden disasters such as earthquakes, will become increasingly important, requiring substantial investment and coordinated responses. In the Asia region during 2023, a total of 79 hydro-meteorological hazard events resulted in over **2,000 fatalities and 9 million people** being directly affected. While ADB in 2022 found **72.4%** of 30,000 of the assets it assessed in Asia-Pacific to be exposed to earthquakes, as we saw recently in Myanmar, Thailand, Tonga. Economic losses due to drought, floods, and landslides were estimated to have caused damages of **USD $35.6 billion** in 2021, affecting nearly **50 million** people, while a potential megaquake in Japan alone has been estimated could result in economic losses of **USD $1.8 trillion**.

Yet poorly managed enforcement of regulatory controls or standards and poor city planning can put cities and other human settlements in a vulnerable situation. For example, with regard to water-related hazards, a combination of poorly managed enforcement of regulatory controls, **intensified depletion of regional freshwater resources**, along with rising sea levels is putting coastal and island communities at risk more intense **storm surges, coastal erosion, and flooding**. In urban areas, this is being accelerated by the over-extraction of groundwater leading to exposure to **land subsidence, liquifaction, and even sinkholes**.

Earthquakes can also trigger tsunamis and cascading impacts such as severe flooding and damage to critical infrastructure. Yet within the next 50 years, it is estimated there is a **20% probability that large areas of Asia** will experience intense earthquakes, while **Oceania had possessed the highest average magnitude of earthquakes (7.7)** out of any continent globally, being susceptible to strong tectonic events.

This side-event at the 81st session of the Commission for Asia and the Pacific in Bangkok, Thailand, will bring to bear experiences of Member States, affected cities, leading scientists and practitioners at the very forefront of addressing **multi-pronged hazards and risks**, especially those of both **hydrological and geophysical** nature.

Key objectives

- **Sharing of experiences** – stakeholders ranging from national water asset managers, satellite data service providers, planning bodies, cities and scientists offering their experiences to tackle the impacts of water and/or seismic stress;
- **Regional partnerships fostered** – bringing together partners from diverse disciplines working together to help ensure new pathways for regional partnerships are established;
- **Mitigation measures discussed** – dynamic approaches and solutions mitigating the impacts of water stress led by Member States and partners put forward for discussion.
- **Prepareness and resilience** – recent concerns within the region around the capabilities of institutions and society, along with their preparedness and resilience to earthquakes.

Discussion themes

Sustainable water and seismistic resilience through multi-level governance approaches	Availability of data and national environment accounts including water and land	Vulnerability of coastal and urban areas to intensified water stress and to earthquakes

Expected outcomes

- **Harmonized approaches to hazards** – providing a more holistic view of land subsidence, flooding, and other hydro-meteorological water-related as well as geophysical hazards;
- **Role of spatial planning enhanced** – underlying the sustainable water and seismic resilience, the role of integrated urban and territorial planning is enhanced and better understood;
- **Science and policy-based interventions explored** – leveraging innovations in science and technology in disaster settings, the development of fit-for-purpose policies is unpacked.

Provisional agenda

Agenda	Institution or Organization
Opening remarks	Executive Secretary, United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP)
Opening remarks	Minister of Foreign Affairs of Japan (video) and Ambassador of Japan to Thailand
Scene-setting	Chief, Disaster Risk Reduction (DRR) Section, UNESCAP
Case studies	- JICA (online) - Indonesia (online)
Panel discussion	Moderator: Asian Disaster Preparedness Centre (ADPC) - International Centre for Water Hazard and Risk Management (ICHARM) - Malaysian Medical Relief Society (Mercy Malaysia) - Monash Sustainable Development Institute (online) - United Nations Satellite Centre (UNOSAT)
Closing remarks	Regional Integrated Multi-hazard Early Warning System (RIMES)
Closing remarks	Regional Director, United Nations Human Settlements Programme (UN-Habitat), Regional Office for Asia and the Pacific

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