Title: Addressing ground sinking and land subsidence for resilient and sustainable cities

Date & Time Options: 15:45-17:00 hours on Wednesday, 23 April 2025 (1hrs 15 mins)

Mode of meeting: Hybrid (Microsoft Teams Link)

Room: Meeting Room H (MR-H)

Co-organizers: Embassy of the Islamic Republic of Iran in Bangkok, Permanent Mission of China to ESCAP, ESCAP (EDD and APDIM), & UN- Habitat

Background

Aligned with the Commission session theme, Regional Cooperation for Resilient and Sustainable Urban Development in Asia and the Pacific, this side event provides a better understanding of the key issues of ground sinking and land subsidence in the region.

Excessive ground water extraction induced by climate change, geological condition and rapid urbanization exacerbated the silent crisis of ground sinking and land subsidence in cities across Asia and the Pacific.

Many cities across the Asia-Pacific region are experiencing severe ground sinking and land subsidence at alarming levels. This phenomenon places millions of residents and trillions of dollars in physical and cultural assets at severe risk. Land subsidence is further exacerbated by climate change and rising sea levels, intensifying threats to infrastructure, housing, water security, and public safety, and compounding existing urban vulnerabilities. Without effective policy and planning interventions, affected cities will face escalating economic and social costs.

As emphasized by the Expert Group Meeting (EGM) on sinking cities in the Asia-Pacific region held by ESCAP and UN-Habitat in November 2024, there is an urgent need for regional focus through actionable recommendations and greater regional cooperation.

This event will bring together policymakers, urban planners, researchers, and development partners to explore solutions, share best practices, and strengthen regional cooperation in addressing this pressing issue. The side event also highlights policy measures and technological innovations that can support monitoring frameworks, mitigate land subsidence, and enhance urban resilience.

Objectives

The event aims to:

1. **Raise Awareness** – Increase understanding of land subsidence challenges, its causes, and impacts on urban infrastructure, water resources, and livelihoods.
2. **Promote Regional and Multi-Stakeholder Collaboration** – Facilitate dialogue on partnerships, knowledge exchange, and joint initiatives to address land subsidence across the region.
3. **Exchange of Best Practices and Innovations** – Present successful case studies from cities mitigating land subsidence through improved water management, urban planning, and technology.

Tentative Programme

Time (1hr 15 mins)	**Agenda Item**	**Speaker(s)**
15 mins	Welcome Remarks Opening Remarks	**Representative Embassy of the Islamic Republic of Iran in Bangkok** Mr. Mahdi Rouzeh Gir Qaleh Noei Third Counsellor and Deputy Permanent Representative, Embassy of the Islamic Republic of Iran in Bangkok **Representative from ESCAP** Letizia Rossano, Director Asia and Pacific Centre for the Development of Disaster Information Management (APDIM)
10 mins	Impact Presentation on Land Subsidence Challenges and Solutions	**Stockholm Environment Institute (SEI)** Mr. Thanapon Piman, Senior Research Fellow

40 mins	Panel Discussion: Tackling Land Subsidence Through Policy, Innovation, and Regional Cooperation	**Moderator: Curt Garrigan, Chief Sustainable Development Section at ESCAP** **Panelists:** 1. **Dr. Yuan Li, Tsinghua University, China (10 minutes)** 2. **Mr. Kenji Nagata, JICA (10 mins) (Online)** 3. **Ms. Nalia Ahmed, Joint Secretary at the Ministry of Housing and Public Works, Bangladesh (10 mins)**
10 mins	Closing Remarks & Key Takeaways	**Curt Garrigan, Chief Sustainable Development Section at ESCAP**

Key Discussion Themes

- **Understanding the Drivers and Social and Economic Impacts of Land Subsidence** – Examining how groundwater extraction, urbanization, and climate change contribute to subsidence in cities.
- **Strengthening Governance and Policy Responses** – Exploring legal, institutional, and regulatory measures to mitigate land subsidence.
- **Innovative Technologies for Monitoring and Prevention** – Discussing remote sensing, GIS mapping, and smart water management solutions.
- **Sustainable Groundwater and Land Use Management** – Promoting alternative water sources, aquifer recharge, and improved urban planning.
- **Regional Cooperation and Knowledge Sharing** – Identifying opportunities for cross-border collaboration, capacity-building, and financing mechanisms.

Expected Outcomes

- **Increased Awareness –** Strengthening national and local government understanding of land subsidence challenges and solutions to inform policy actions
- **Enhanced Regional Collaboration** – Identifying potential partnerships and initiatives to scale up effective responses across the region.
- **Exchange of Best Practices and Innovations** – Showcasing practical approaches for mitigating land subsidence and promoting sustainable urban development.

Contact Information

For further inquiries, please contact:

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Description for Posting on the Commission Website:

This side event will bring together policymakers, urban practitioners, experts, and development partners to explore actionable strategies for addressing land subsidence and ground sinking in Asia-Pacific cities. With millions of residents and critical infrastructure at risk, the event will highlight innovative policy measures, technological solutions, and regional cooperation efforts. Discussions will focus on strengthening governance, improving urban planning, and promoting sustainable groundwater management to enhance urban resilience. Participants will contribute insights to inform regional strategies, fostering collaboration and knowledge exchange to tackle this pressing urban sustainability challenge.