GEOINFORMATICS CENTER

NEWSLETTER

January 2026

A Warm Welcome for 2026

The Geoinformatics Center (GIC) of the Asian Institute of Technology wishes you a blessed and happy New Year 2026. We start a fresh page of our lives with joyous and cheerful spirits.

In this issue

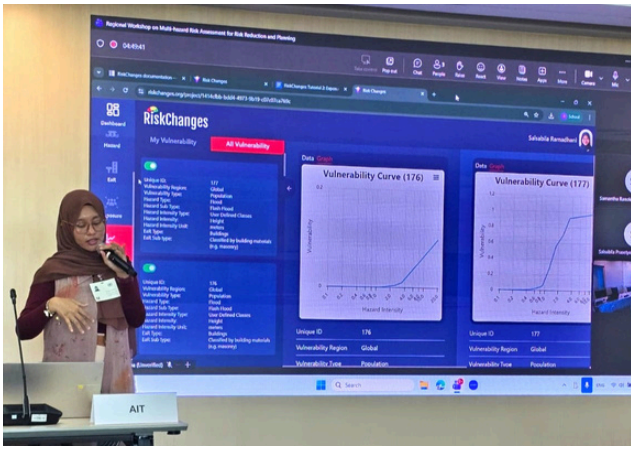
Regional Workshop on Multi-hazard Risk Assessment for Risk Reduction and Planning

Group photo for Regional workshop in Bangkok

GIC co-organized this workshop in partnership with IDD-UNESCAP, UN-SPIDER, APCICT-UNESCAP, and the Asia-Pacific Space Cooperation Organisation (APSCO) during the 5th Disaster Resilience Week.

Dr. Manzul Hazarika, Director of GIC, served as a speaker in the sessions on “Integrated Geospatial Information for Local SDG Monitoring” and “ICT for Disaster Response”, highlighting the role of information and communication technologies and remote sensing in emergency response, while Ms. Salsabila Ramadhani Prasetya, Research Associate at GIC, conducted hands-on demonstrations of the **RiskChanges** platform.

GIC Director, Dr. Manzul Hazarika delivering welcoming remarks



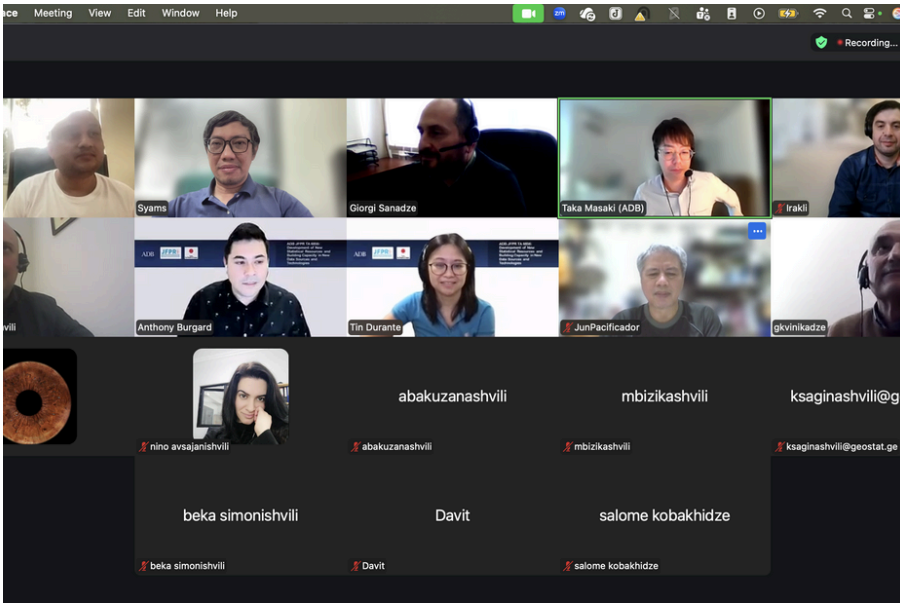
Ms. Salsabila presenting RiskChanges platform

GIC Participated at Workshop on Bangladesh Energy Sector

Dr. Manzul Kumar Hazarika, Director of GIC, attended this workshop as one of the speakers and panelists as part of a World Bank–supported project in Bangladesh. He delivered a presentation on the exposure of the **Bangladesh Rural Electrification Board's** power system assets to these future scenarios and shared global best practices for adaptation and risk mitigation.

Group photo for Bangladesh workshop

GIC and ADB Jointly Organize Training on Crop Mapping Using Earth Observation Data and Machine Learning



Group photo for ADB workshop

The Asian Development Bank (ADB), in partnership with the Geoinformatics Center AIT, organized an advanced online training course on 26-28 November 2025, to build the capacity of Georgia's **National Statistics Office (GEOSTAT)** to apply Earth Observation (EO) techniques and open-source tools for crop area estimation. Mr. Syams Nashrrullah, Senior Research Specialist at GIC, delivered sessions on "Overview and Getting Started with Open EO" and "Crop Mapping Workflow", while Mr. Dwijendra Das, Senior Research Associate, conducted training on "Model Optimization and Feature Importance".

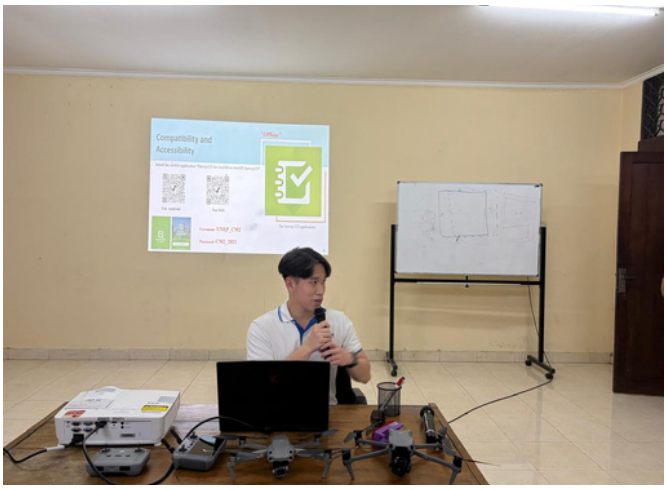
GIC Strengthens Plastic Monitoring Capacity Under DECIDE Programme

GIC team (centre) with ERIA-RKCMPD team at DECIDE workshop

The GIC team represented by Ms. Ushnish Tuladhar, Mr. Karun Mooksrisai, and Mr. Hau Nguyen to serve as one of the trainers at the Data and Evidence to Catalyze Informed Decision-making and Engagement (DECIDE) workshop held in Bali, Indonesia, from 2–4 December 2025.

The workshop was organized by the **Economic Research Institute for ASEAN and East Asia (ERIA)** under the DECIDE project.

Ms. Tuladhar presenting on pLitter CCTV at Bali



Mr. Mooksrisai presenting on pLitter mobile app

They presented plastic monitoring tools such as pLitter CCTV, drones or UAVs, Remote sensing and satellite imagery. Practical demonstrations and hands-on training on monitoring tools such as drones and mobile applications were also provided to the participants.

GIC Participates at IPPIN Demo Day 2025

GIC team at IPPIN Demo Day event

Ms. Ushnish Tuladhar and Mr. Karun Mooksrisai, Research Associates at GIC participated in the IPPIN Demo Day in Bangkok, Thailand. The event was organised by the **Commonwealth Scientific and Industrial Research Organisation (CSIRO)** with support from the Australian Government's Mekong–Australia Partnership, in partnership with the Thailand Environment Institute (TEI) and the Thailand National Metal and Materials Technology Center (MTEC, NSTDA). The GIC team was invited as IPPIN alumni following their participation in the 2025 Incubator Program earlier this year.

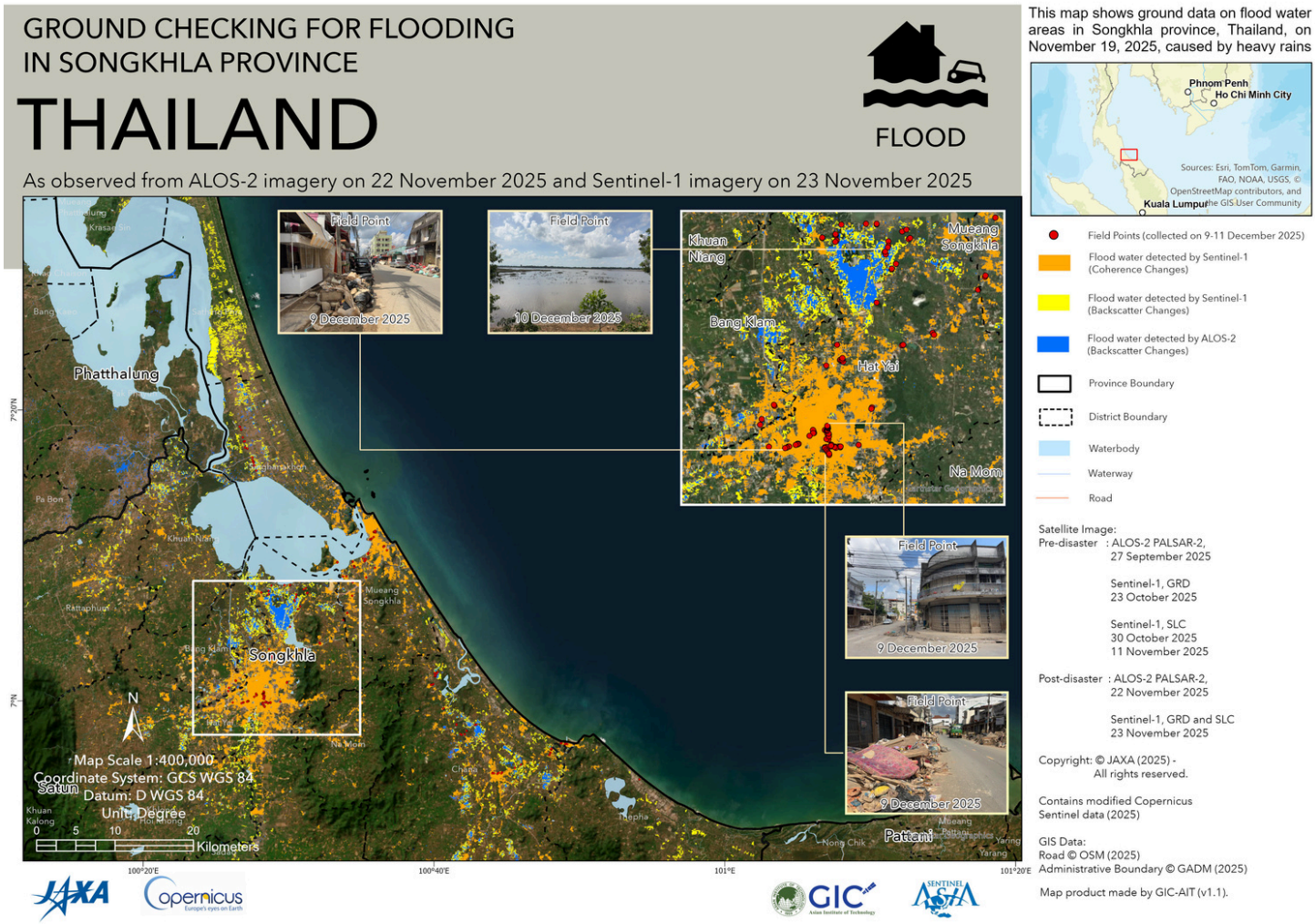
GIC's pLitter CCTV Featured at NHK World Japan News

GIC and pLitter CCTV telecasted at NHK World Japan

pLitter CCTV—an AI-based plastic monitoring technology developed by GIC under the CounterMEASURE II project, funded by the Government of Japan—was featured on NHK WORLD-JAPAN News on 11 December 2025. The feature was part of the news segment titled "**Bangkok Community Fights Plastic Waste**," highlighting Bangkok's initiatives to tackle plastic waste in waterways, alongside the TerraCycle Thai Foundation. **NHK WORLD** (Japan) is the international broadcasting service of Japan's public media organization, NHK, headquartered in Tokyo, Japan.

Field Survey and Flood Mapping for Hat Yai Flood

Geospatial Product



Disaster map for the Flooding in the Songkhla province, Thailand (developed by GIC)

Following the major flood event in Songkhla Province on 19 November 2025, which caused significant damage and losses to local communities, the Geoinformatics Center of the Asian Institute of Technology (GIC-AIT), under the **Sentinel Asia Programme**, conducted an assessment of the flood extent using Synthetic Aperture Radar (SAR) imagery from ALOS-2 and Sentinel-1 satellites.

To validate the satellite-based results, the GIC team carried out a field survey in Hat Yai District from 9 to 11 December 2025, during which 233 ground-truth points were collected. The validation confirmed an overall accuracy of over 80%, demonstrating the effectiveness of SAR satellite imagery for flood mapping and its value in supporting disaster response and management efforts.