



GEOINFORMATICS CENTER NEWSLETTER

October 2025



Technical Workshop on Proposal Development

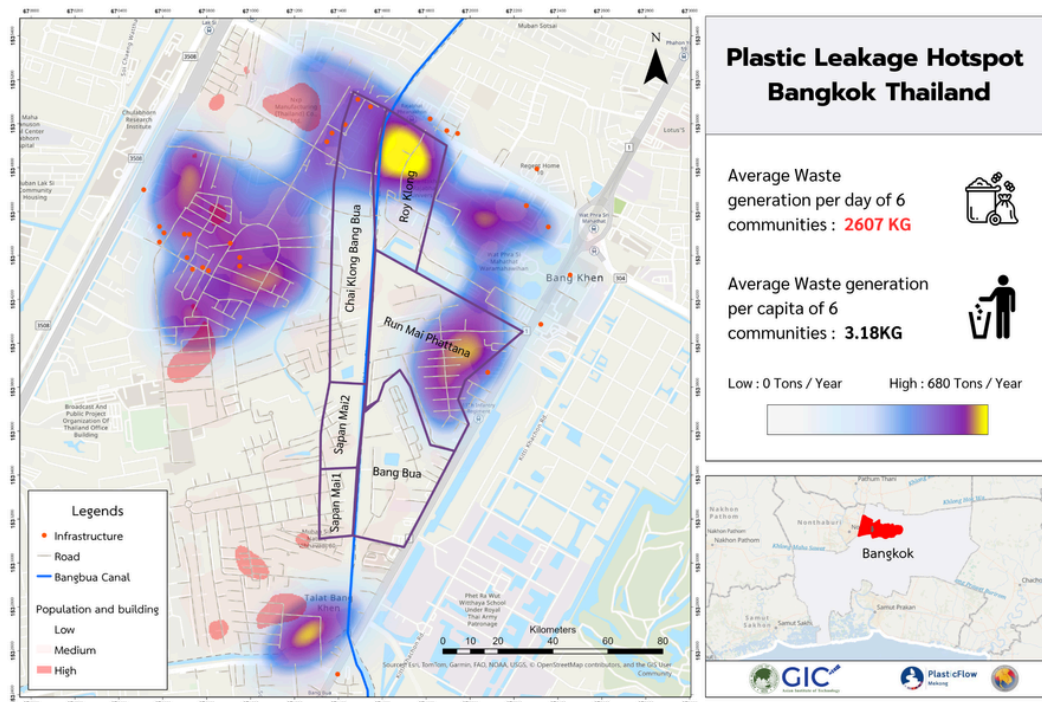
Dr. Kittiphon Boonma, Research Specialist at GIC, participated in a five-day intensive workshop on proposal development from 21-27 September 2025 in Seoul, Republic of South Korea, organised by Korea-Mekong Water Center (KOMEK). The workshop was attended by 22 people, which included 10 PIAs from Cambodia, Lao PDR, Myanmar, Thailand, and Vietnam.

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Plastic Leakage Hotspot Maps Developed for the Mekong Subregion- Phase I

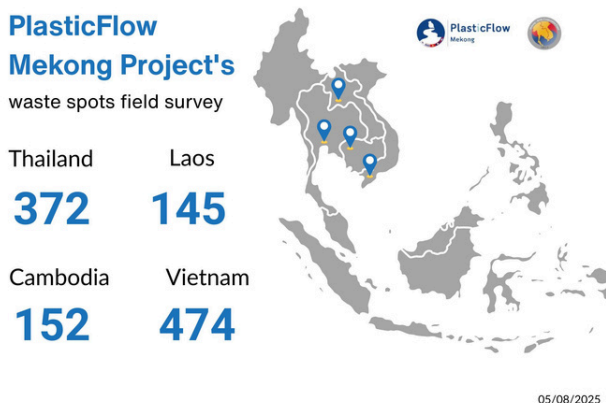
Highlighted
Events



Plastic Leakage Map for project site in Bangkok, Thailand developed by GIC

GIC completed ground surveys using the **Survey123 mobile application (pLitter mobile app)** across four target locations in **Bangkok** (Thailand), **Can Tho** (Vietnam), **Vientiane** (Laos), and **Battambang** (Cambodia) with support from our project partners. A total of 1,143 data points were collected, providing a diverse plastic leakage database to identify plastic leakage hotspots across these locations.

These ground data points were integrated with population density, land use, waste collection coverage, rainfall, and flood patterns data to develop four **plastic leakage hotspot maps**. These maps provide a crucial baseline for understanding the extent of plastic waste leakage and identifying pollution hotspots in each target location.



Number of ground survey points in four countries



Ground survey using pLitter mobile app

GIC's Contribution to UN-SDGs



GIC's booth at AIT Decarbonization Nexus



GIC team at Sustainability Expo 2025

The GIC team participated and showcased our contribution to the UN Sustainable Development Goals (SDGs) in two sustainability expos. Ms. Ushnish Tuladhar and Mr. Hau Nguyen, Research Associates at GIC, showcased our ongoing project, **"PlasticFlow Mekong," pLitter CCTV,** and **mobile application** at the AIT Decarbonization Nexus 2025, organised by the Office of Sustainable Campus (OSC).

The team also exhibited our innovations at the Sustainability Expo 2025 in Thailand on 28 September 2025, organised by the C ASEAN, in collaboration with 100+ partners/sponsors. pLitter CCTV, mobile app, and plastic leakage mapping were exhibited at the Queen Sirikit National Convention Center in Bangkok. Our innovations contributed to **SDG 4, SDG 6, SDG 11, SDG 12,** and **SDG 14.**

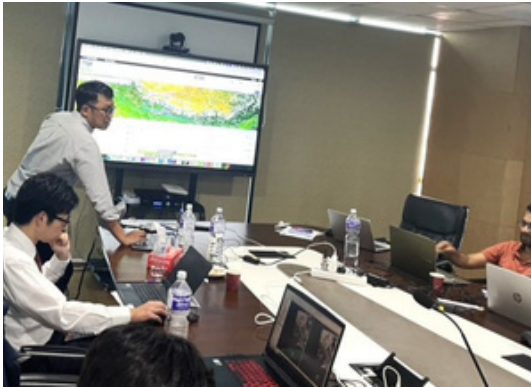
THAICID-NWIKIS 2025 Participation



Mr. Mooksrissai presenting on PyAEZ at THAICID-NWIKS 2025

Mr. Karun Mooksrissai joined the THAICID Network Week for Integrated Knowledge Sharing 2025 (THAICID-NWIKS 2025) held from 7–9 July 2025 at the Chuchart Kampoo Auditorium in Bangkok, Thailand. GIC showcased **PyAEZ** and **RiskChanges** at a booth under the Royal Irrigation Department's Research and Development Unit.

Sentinel Asia Training in Nepal



Mr. Nashrullah (left) and Mr. Boodchuang (right) presenting lectures at training in Nepal

GIC jointly organised the “**Glacial Lake Outburst Flood (GLOF) Mapping using Earth Observation Satellite Data**” training in collaboration with the Japan Aerospace Exploration Agency (JAXA) and the Department of Hydrology and Meteorology (DHM) in Kathmandu, Nepal. Mr. Syams Nashrullah, Senior Research Specialist, and Mr. Thanaphol Boodchuang, Research Associate at GIC, served as lead trainers with lectures and hands-on exercises on remote sensing and GIS-based tools and techniques for glacier monitoring and flood mapping.

Technical Workshop Participation for Korea-Mekong Water Center

Dr. Kittiphon Boonma, Research Specialist at GIC, represented GIC at the 4th Technical workshop of KOMEK held at Bangkok, Thailand. He contributed to the development of the PlasticFlow Mekong project’s **Result Chain Approach** to ensure the sustainability of its impacts.



Dr. Boonma at KOMEK workshop in Bangkok

MDImageNet International Collaboration Forum



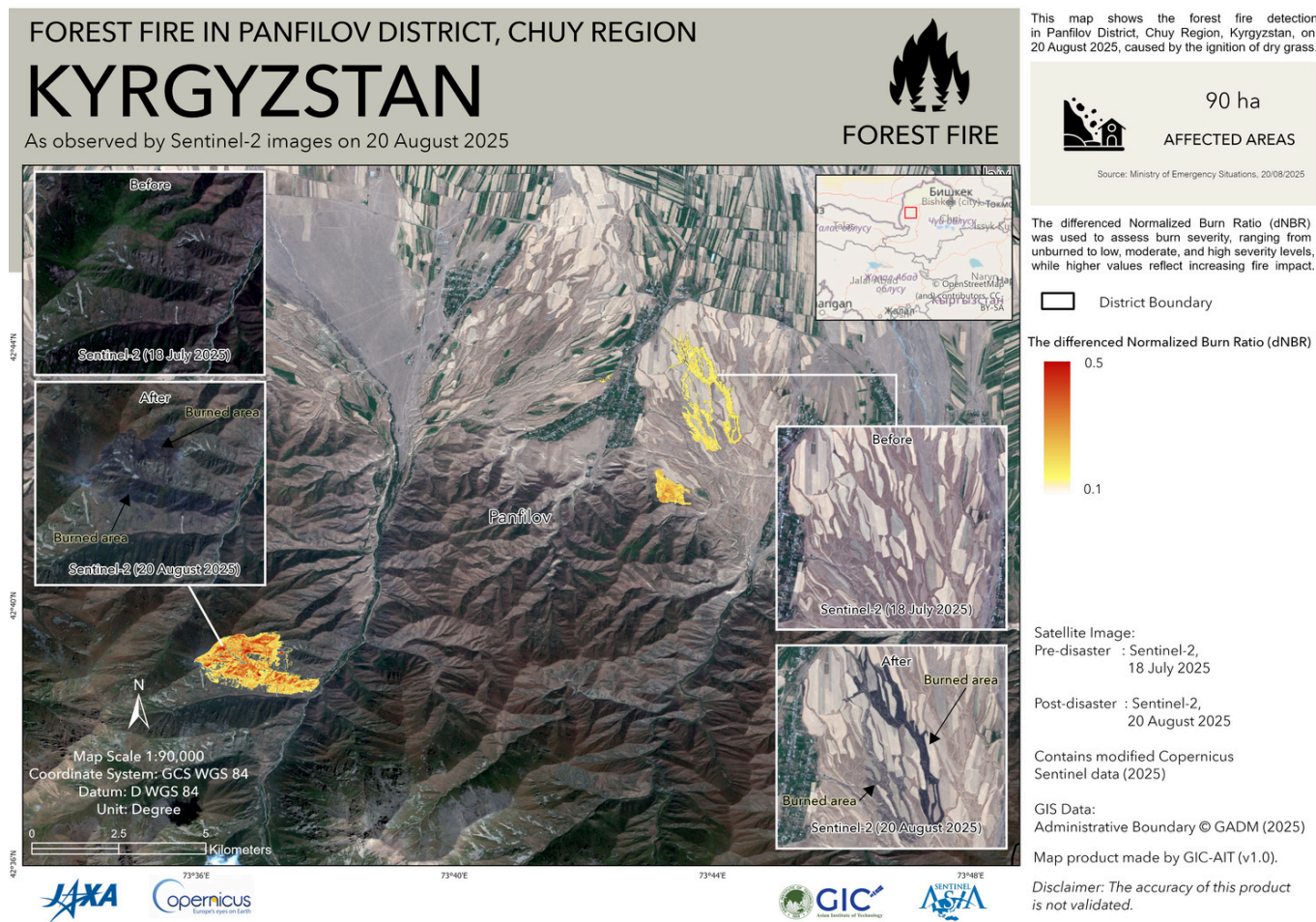
Group photo of MDImageNet forum participants

Mr. Karun Mooksrirai and Mr. Hau Cong Nguyen presented our technology, **pLitter CCTV**, in a forum organised by the IndigoWaters Institute from Taiwan. The presentation highlighted our contribution to plastic litter monitoring through AI-enabled CCTV. The working principles of pLitter CCTV, its database, and application in various environmental projects were highlighted.

Forest Fire in Panfilov District, Kyrgyzstan

Geospatial Product

(Sentinel Asia Activation, 604)



Map of pre and post forest fire in Panfilov district, Kyrgyzstan

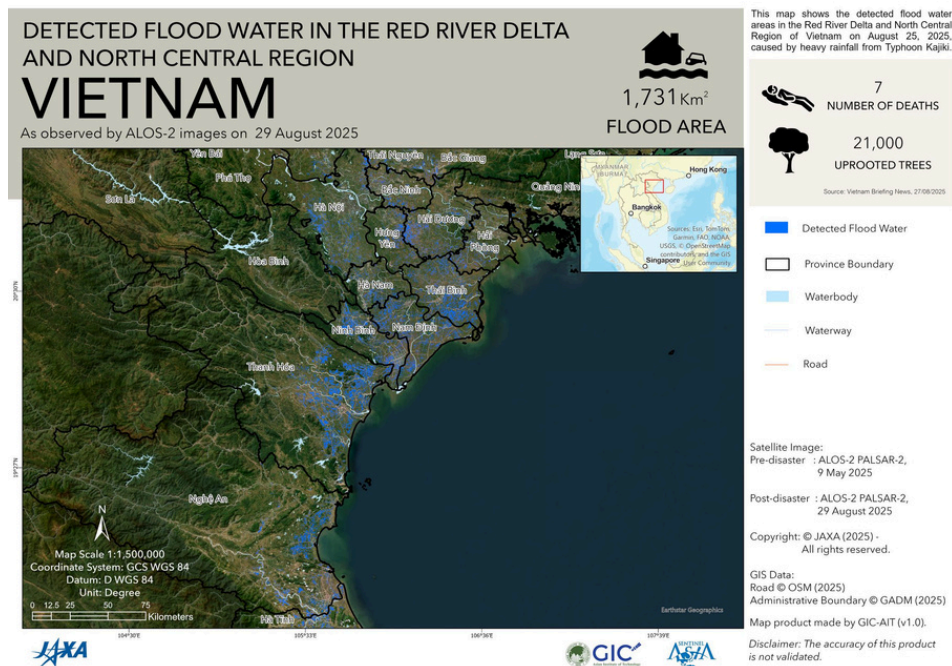
On 20 August 2025, a forest fire broke out in the village of Orto-Aryk in the Panfilov District of the Chui Region, Kyrgyzstan. The fire was caused by the ignition of dry grass, which spread from Mount Bert-Bulak to the slopes of Uzun-Bulak, damaging more than 90 hectares.

Using pre-disaster and post-disaster imagery from the Sentinel-2 satellite and Administrative Boundaries, GIC produced a damage map and delivered **two Value-Added Products (VAPs)** to support rapid response and damage assessment.

Flood in the Red River Delta and North Central Region of Vietnam

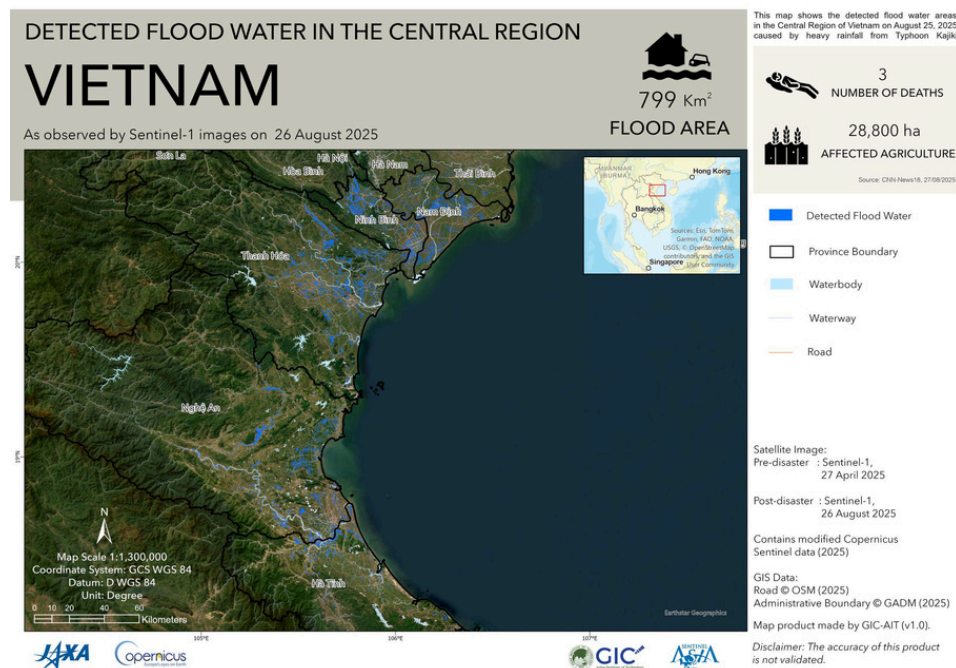
Geospatial Product

(Sentinel Asia Activation, 605)



Map of detected flooded area in the Red River Delta, North Central Vietnam

On August 25, 2025, Typhoon Kajiki, brought heavy rainfall, triggering widespread flooding across the Thanh Hoa, Nghe An, and Ha Tinh provinces in the Red River Delta and North Central region of Vietnam. The flooding submerged approximately **1,731 square kilometers** with seven fatalities.



Map of detected flooded area in the Central Vietnam

GIC provided a second map product on flood-affected areas in the Red River Delta and North Central region using the observations made by the Advanced Land Observing Satellite-2 (ALOS-2) and delivered **two Value-Added Products (VAPs)** on 26 and 29 August 2025.