

GEOINFORMATICS CENTER NEWSLETTER

July 2024



Establishing: PlasticFlow Mekong Kick-off Meeting

GIC officially kicked off the project to implement science, technology, and innovation in plastic monitoring on 8 April 2024. This project, funded by the Mekong- Republic of Korea Cooperation Fund (MKCF), has been awarded to implement in the next two years. Four countries in the Lower Mekong Region participated in this project.

The project deliverables can be found in the project platform here: plasticflow-mekong.com

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Highlighted Events

Knowledge Sharing:
Technical and General

Outreach Collaboration

Geospatial Product

MKCF Regional Design Project Workshop

Highlighted
Events



GIC Research Specialist (Dr. Kittiphon Boonma) during the discussion session

As one of the project-implementing agencies under MKCF, GIC was invited to the workshop organized by the Mekong Institute. The workshop was held from 22 to 26 April 2024, included participants from Mekong countries as well as the Republic of Korea.

The main topic of this workshop was project monitoring and evaluation (MnE), where PIAs have the capacity to manage their project. MKCF provided the know-how to utilize a web-cloud-based MnE system, which sustains the workflow and management of the project.

The 24th Understanding Risk Forum (UR24)



GIC Director (Dr. Manzul K Hazarika) in the parallel presentation session

The Director of GIC, Dr. Manzul K. Hazarika attended the 2024 Understanding Risk forum in Himeji, Japan. The forum brought together more than 1,500 risk assessment and disaster management professionals to exchange knowledge and foster collaborations from 135 countries across the continents are engaged in the forum.

GIC discussed the contributions of the safeguarding power system and risk management. Power system investment implies overlooking the hazard profiles, where it is directed to the electricity networks, generators, and fuel supply.

Visit from the Asian Association for Agriculture Engineering



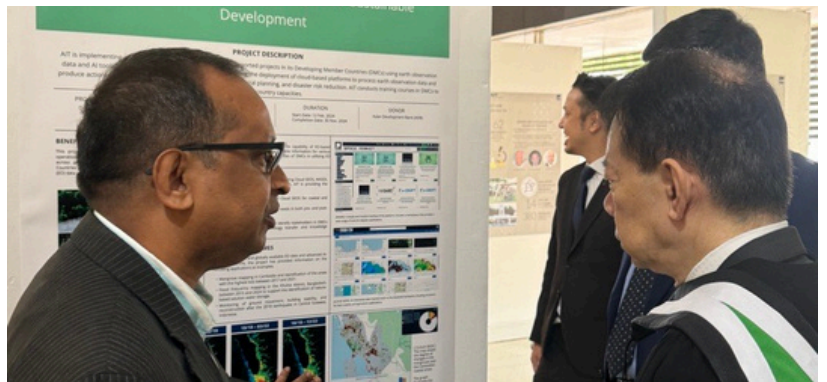
AAAE Delegates with Dr. Manzul during the visit

GIC welcomed a delegation from the Asian Association for Agriculture Engineering (AAAE) on 24 May 2024. During the visit, GIC and AAAE had insightful discussions regarding the advancement of technology in the agricultural sectors, where GIC is well-known for the spatial technologies applied in agriculture, such as drone mapping, rice health monitoring, and agro-ecological zoning tool PyAEZ.



GIC at the event Conferring Honorary Doctoral to the ADB President

GIC prepared a poster on the occasion of conferring the Honorary Doctorate Degree to Mr Masatsugu Asakawa, President of the Asian Development Bank (ADB), on 11 June 2024. The title of the poster was “Applications of Digital Technologies for Sustainable Development”, and several ADB-funded projects were included in the poster to demonstrate the capability of Earth Observation-based services to provide valuable and actionable information for various applications and to enhance the capacities of ADB’s Developing Member Countries in utilising Earth Observation technology.



Dr. Manzul with Masatsugu Asakawa, ADB President



Korea-Mekong Water Center Training



The Korea-Mekong Water Center (KOMECC) organized the technical workshop for the water resource management-related MKCF projects. As one of the grantees under the MKCF, which focuses on plastic waste management, GIC shared knowledge on plastic litter leaking strategies. The workshop took place from 2nd to 3rd May in Bangkok, where implementing partners discussed the problems in the Mekong River water environment.

Panel discussions on the technical session, approaching technology for the water management

The output of this workshop was obtained, where the partners committed to collaboration and prioritizing projects that address the water issues related to the Mekong Basin Region.

Training for the Royal Irrigation Department



In collaboration with the Thailand Royal Irrigation Department (RID), GIC delivered training on geospatial data for water management experts. The highlighted topics under the training:

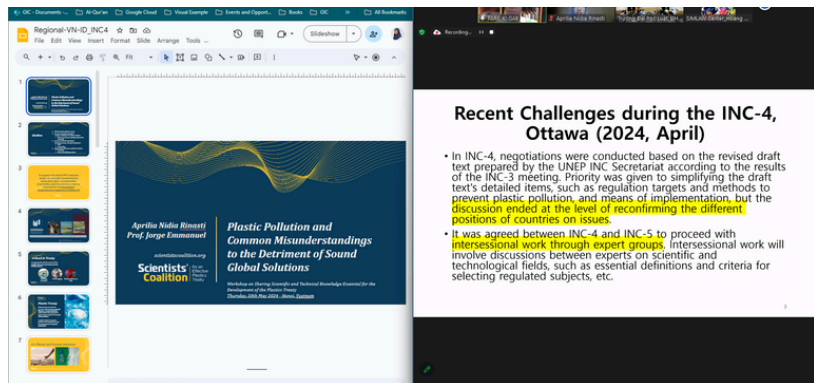
- Basic knowledge of Remote Sensing and GIS
- Downloading satellite data
- Using Google Earth Engine to calculate indexes
- Basic python programming
- AI application on remote sensing

Lecture on the AI use case on Remote Sensing for Water Management

The five days training was held from 10th to 14th June 2024, and 30 participants from the Research and Development Office, Royal Irrigation Department attended the event.

Scientific Measures on Plastic Treaty

from the Regional Workshop ID-VN on INC-4 Plastic Treaty (30th May 2024)

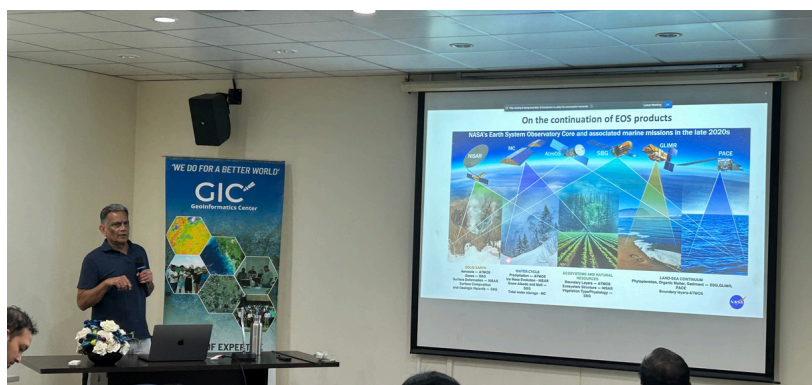


Online Presentation at the Regional Workshop for Plastic Treaty

GIC addressed the common misconception regarding recycling purposes and circular economy concepts, leading to the adjustment of plastic monitoring. This is important from a scientific perspective for negotiations.

Remote Sensing for Climate Change Monitoring

from Ramakrishna Nemani's guest lecture (4th April 2024)



Ramakrishna Nemani presented on Remote Sensing data in Tracking Climate Change

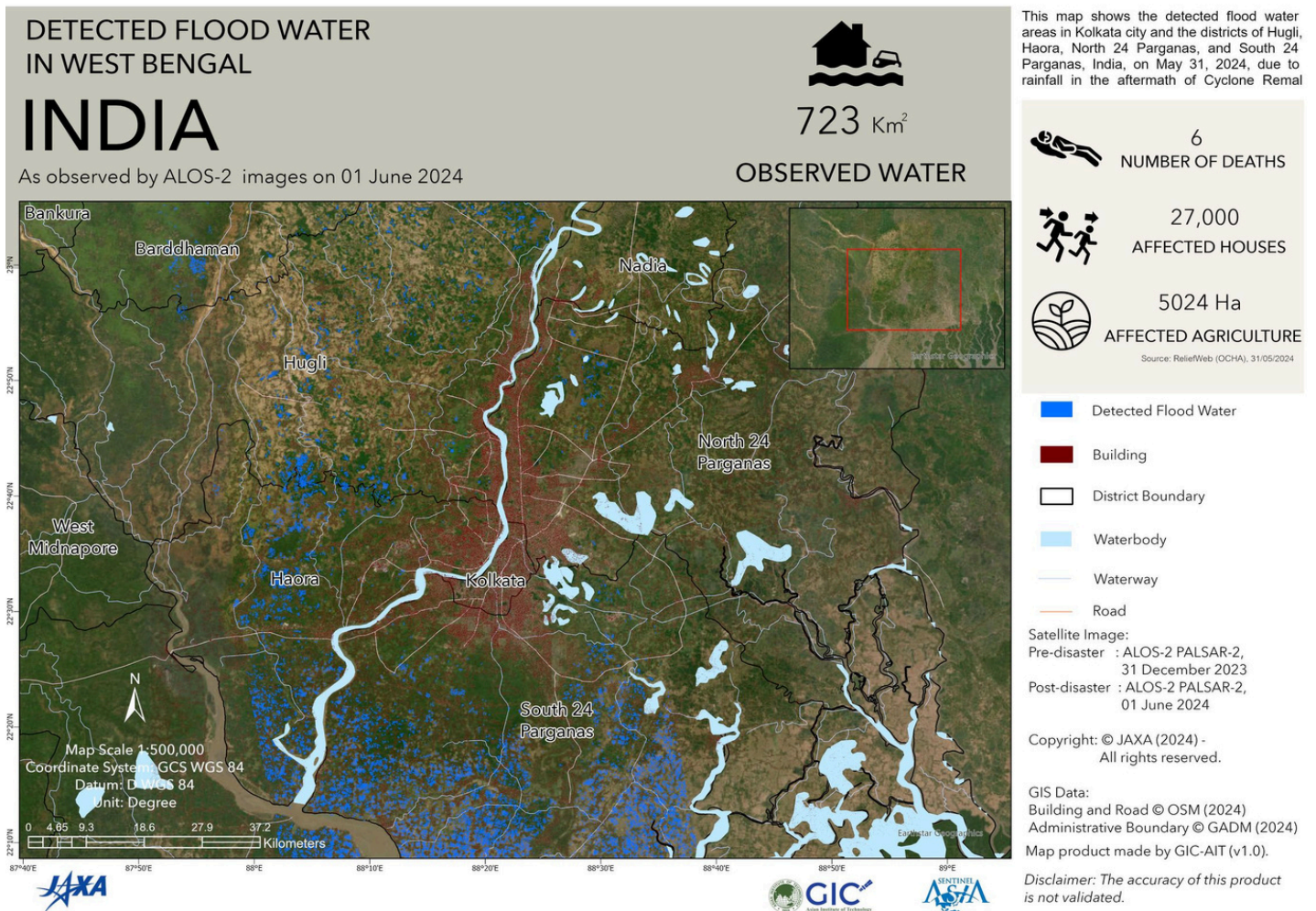
GIC invited Dr Ramakrishna Nemani, an eminent scientist who earlier worked at NASA, for a talk titled "Satellites Helping Track Climate Change," which was held in hybrid mode on 4 April 2024. Dr. Nemani introduced climate change and its correlation with NASA's satellite monitoring approaches in his lecture. He was referring to the satellite monitoring as the "storyteller," which tells the weather through the distribution of the clouds.

The clouds can be tracked from the sensor featured in the satellite, according to the reflection of red and near-infrared (NIR) canals inside the sensor. He also presumed that the ongoing 27 satellite missions in NASA are incorporated into earth observation and monitoring.

Heavy Rains by Cyclone in India

Sentinel Asia Activation

Geospatial
Product



Flood Map area due to the Cyclone Remal hit the West Bengal region, India, generated based on the analysis of ALOS-2 PALSAR-2 data.

Cyclone Remal made landfall on 27 May 2024 in the State of West Bengal in India, which caused heavy rainfall and high winds. The event triggered floods that damaged several areas in Kolkata City. The cyclone also ravaged the adjacent coasts in Bangladesh, between Sagar Island and Khepupara.

GIC mapped the flood-affected areas using radar imagery acquired on 1 June 2023 through emergency observations under the Sentinel Asia. From the four hours of intense rainfall, more than 723 sq. km was inundated by the cyclone.

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www.geoinfo.ait.ac.th



Geoinformatics Center AIT



@gicait

CONTACT



geoinfo@ait.ac.th



+66 2-524-5580