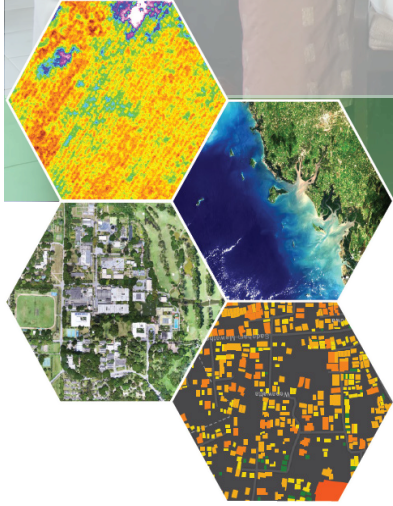





GEOINFORMATICS CENTER

July 2023 NEWSLETTER



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Taking Disaster Risk Management at the National-Level

(23/5) Asia and the Pacific Region is one of the regions which frequently face numerous natural disasters, including in Sri Lanka. The role of digital technology in all phases of disaster risk management has become an essential modern component to enhance reduction of risks, disaster resilience, and preparedness and response. The full potential utilization of current ICT can be achieved for individuals and government institutions to be capable of integrating to components of multi-hazard risk assessment.

Geoinformatics Center and **UN-ESCAP/APCICT**, in partnership with **World Food Programme Sri Lanka (WFP)** and **Sri Lanka Institute of Development Administration (SLIDA)** and **ITC-University of Twente** have conducted national training at SLIDA Building in Colombo.

GIC is also demonstrating **RiskChanges** for the first time in the international training. The tool is aimed for for spatial-decision support tool for dynamic multi-hazard risk assessment.

Find out more about RiskChanges on: riskchanges.org



Trainings for National Authorities in SLIDA Building, Sri Lanka

Capacity Building Program: A method to share on Post-disaster Monitoring in Indonesia

(24/5) Geoinformatics Center in collaboration with the **Ministry of Public Works (PUPR)**, the **National Research and Innovation Agency (BRIN)**, **Geological Department**, and **Diponegoro University** from Indonesia; delivered hybrid training sessions to Indonesian government officials from the PUPR, the **Ministry of National Development Planning (BAPPENAS)**, the **Geospatial Information Agency (BIG)**, the **Meteorological, Climatological, and Geophysics Agency (BMKG)**, and the **National Agency for Disaster Countermeasure (BNPB)**.

The capacity building focused on the delivering the final product of the information reconstruction monitoring. The training program contem-

plated with the final outcomes of last activities under the capacity building program of Support for Emergency Assistance on Rehabilitation and Reconstruction (EARR) project in Central Sulawesi, sponsored by the **Asian Development Bank (ADB)**.

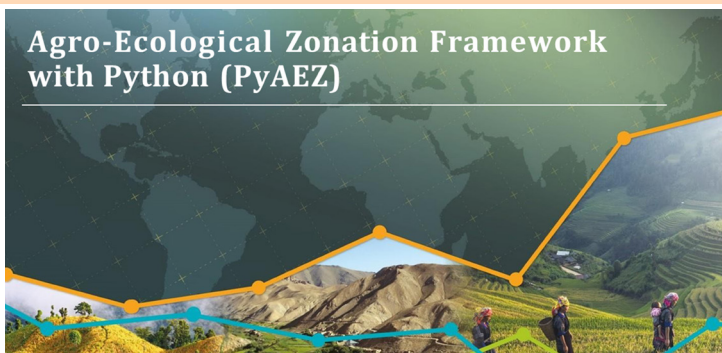
Some hands-on experiences is being delivered such as the utilization on processing multi-temporal Interferometric Synthetic Aperture Radar (SAR) data using Geohazard Exploitation Platform (GEP) The training was also covered the information management using geoportal.

Find out more about post-disaster Monitoring on: pgeo.ait.ac.th



Participants of Capacity Building gathered in Jakarta, Indonesia

New Updates: PyAEZ v.2.1.0 has been released for the widen utilization in Agriculture



PyAEZ New Updates Announcement on Social Media

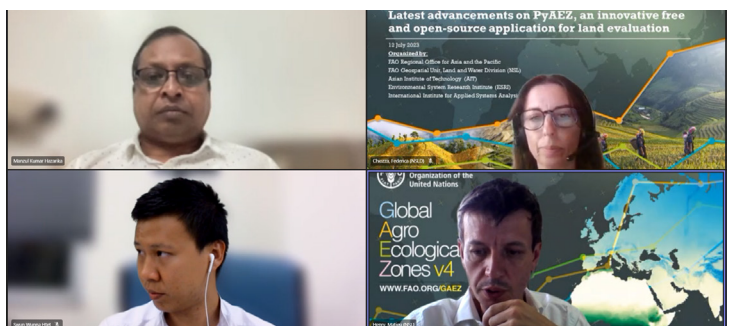
(26/6) A new update for PyAEZv2.1, an open-source python library for working with the Agro-Ecological Zonation (AEZ) methodology has been released.

The update release undergoes overall accuracy and reliability of the AEZ methodology in Module 1, 2, and 3, with validated algorithms, updated tutorial Jupyter notebooks provided to users.

The update announced through the virtual event which was hosted by **Food and Agriculture Organization (FAO)** on 12th July 2023. The focus of the event is to promote the usages on PyAEZ notebooks in GAEZ Data Portal.

Find out more about PyAEZ on:

GitHub Repository github.com/gicait/PyAEZ
GAEZ Data Portal gaez.fao.org/pages/pyaez



Virtual Events of PyAEZ with GIC Director, Dr. Manzul K Hazarika and Research Associate, Mr. Swun W Htet

Online Training on Solid Waste Management Capacity Building in Myanmar



Participants of Training for Solid Waste Management Capacity Building in Myanmar: Mawlamyine (left) and Patheingyi (right)

(10/2) The training is part of the work under the **Supporting the Shaping of National Action Plans in Reducing Marine Debris** located in Myanmar's 3 pilot cities. Under the approach to develop the capacity building, GIC held the online training for the respective authority staff from the 2 cities (Patheingyi and Mawlamyine).

The training was held in hybrid mode alongside with the vary participants form **CDC (City Development Committee)**, **ECD (Environmental Conservation Department)**, and **PCD (Pollution Control Department)** of each city, who deliberated for the responsible in the waste management and environmental problem.

The training was begun with introduction in brief how we can get involved in the shaping the national action plans through the capacity building. Therefore, the training continued with the hands-on for utilization of *Waste Flow Diagram (WFD)* tool and using the data collection tool using mobile application for macroplastic survey in the city.

In the final, GIC was showing the result on the overall as the policy making baseline in the mapping concept. Closing remarks were regarded by the local partner lead and continued with the next day survey dissemination.

Find out more about Plastic portfolio mapping on plitter.org/leakage-mapping

Tackle Plastic Waste! pLitter-CCTV in INSPIRE Kick-off Meeting

(27/6) GIC attended a project kick-off meeting for the EU's Horizon consortium called **INSPIRE (Innovative Solutions for Plastic Free European Rivers)** at the **Flanders Marine Institute (VLIZ)** in Oostende, Belgium. The meeting consisted of 26 EU partners and AIT (only non-EU partner) aiming for drastic macro and micro-plastic pollution reduction in European rivers.

The consortium focused on three main conceptual activities related to plastic pollution: DETECTION, COLLECTION, and PREVENTION for the European rivers by bringing together 20 technologies and actions.

During the meeting, Dr. Kittiphon, highlighted GIC-AIT's pioneering technology, pLitter, as a potential element of a modular masterplan of INSPIRE. pLitter is an AI-enabled CCTV solution for plastic litter monitoring using land-based and airborne sensors. The significant advantages of tackling plastic pollution with citizen science and being

replicable at multiple sites on a broader scale are immensely valuable and widely impressed to various esteemed institutions throughout Europe. pLitter's contribution was well established GIC role as a meaningful impact of addressing plastic issues to INSPIRE's goals.

Find out more about pLitter CCTV on: plitter.org/cctv



Participants of the Kick-off Meeting at the Flanders Marine Institute, Belgium

Disaster Activation on Mocha Tropical Cyclone

DAMAGE ASSESSMENT IN RAKHINE STATE, MYANMAR

As Observed by Pleiades Satellite on 17 May 2023



DAMAGED BUILDINGS



This map shows the detected damaged buildings in Urban Village, Pautaw Town, Sittwe Districts, Rakhine State, Myanmar, on May 17, 2023, due to heavy rains and strong winds on May 14, 2023, from Cyclone Mocha.

- Damaged Building
- Urban Village
- Village Boundary
- Road

Satellite Image:
Pre-disaster : Pleiades on 10 Nov 2022,
Post-disaster : Pleiades on 17 May 2023.

Copyright: "Pleiades © CNES (2023),
Distribution Airbus DS"

GIS Data:
Road © OSM (2023)
Administrative Boundary
© Myanmar Information Management Unit
(2023)

Map Scale 1:12,000
Coordinate System: GCS WGS 84
Datum: D WGS 84
Unit: Degree

0 0.12 0.23 0.47 0.7 0.94
Kilometers

Map product made by GIC-AIT (v1.0).

Disclaimer: The accuracy of this product
is not validated.



Value-added Product of Damaged BUILDING Detection, created by Geoinformatics Center

(16/5) Tropical Cyclone MOCHA just happened in the period of the rainy season and affected the Western part of Myanmar and Southern Bangladesh. The disaster occurred on 14th May 2023, significantly impacting the coastal region of Rakhine State in Myanmar and the Chittagong Division in Bangladesh, according to JTWC.

There were nearly 3.2 million inhabitants impacted during the disaster happened. According to the OCHA report on 16th May 2023, more than 1200 houses were damaged in the townships across Chin. GIC was involved in the project management along with **NDRCC** and **UNOSAT** as the value-adder to deliver the information regarding how much the area was impacted.

As ADRC and AHA Center escalated to activating the **International Disaster Charter**, several data providers responded to submit their images within the network. Managing the disaster response activities, GIC developed the spatial information regarding the flooded area using ALOS-2 PALSAR-2 and Pleiades Image for the damage assessment. We detected approximately 1,185 sq km observed as a flood, and over 700 buildings were damaged. Following this information, the activation and map product submissions will be sequentially updated to assist the local government in helping those affected.

Find out more about the activation:
disasterscharter.org



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