EVENT SNAPSHOT

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CCDRM Resilience Learning Month

Use of geospatial tools and analysis for remote monitoring of projects and building climate resilience

Map showing Semarang City's risk to flooding
Image from Spatial Data Analysis Explorer (SPADE) | Data from the European Space Agency – Earth Observation for Sustainable Development

SEMARANG FLOOD RISK
- Low flood risk
- Medium flood risk
- High flood risk
- Very high flood risk

Event Details

CCDRM Resilience Learning Month
Session | **Use of geospatial tools and analysis for remote monitoring of projects and building climate resilience**
24 November 2021 | 10:30 a.m. –12:00 p.m. (Manila) |Virtual

Moderator
- **Ma. Victoria Antonio**, Knowledge Management and M&E Specialist (Consultant), UCCRTF

Opening Remarks
- **Thomas Abell**, Chief, DTU, ADB

Panel Members
- **Samantha Kuzma**, World Resources Institute (WRI)
- **Mildred Addawe and Ron Durante**, ERCD, ADB
- **Elma Zahir and Wesley Ryan De Witt**, World Bank (WB)
- **Benjamin Stewart**, WB
- **Seok Yong Yoon**, DTU, ADB

Closing Remarks
- **Virinder Sharma**, Principal Urban Development Specialist, SDSC-URB, ADB

GIS tools and platforms to support data and climate risk-informed design

USG-UCCRTF organized a session on "Use of geospatial tools and analysis for remote monitoring of projects and building climate resilience" as part of CCDRM's events under the Resilience Learning Month. The objective of the session is to explore various geospatial tools and platforms that have been developed both by ADB and other development organizations to support data and climate-risk informed analysis and design of projects.

In his opening remarks, Thomas Abell, Chief, Digital Technology Unit, ADB underlined that the primary objective of DTU is to help bring digital technologies into ADB programs and support DMCs. Recognizing that geospatial tools can greatly support ADB's work, they established the GIS working group to

harmonize the GIS activities taking place in the Bank. In the short-term, they have established the platform and standards for the storage and archiving of GIS analysis that have been generated from ADB projects to date. The long-term solution will propose several options based on use cases in order to determine the tools, resources and funding requirements to carry it through.

> *"We know that ADB has had a long history of using geospatial tools but we know that we need to do more to make that work more supportable and reusable."*
> **Thomas Abell, Chief, DTU, ADB**

The panel discussion featured internal and external speakers to highlight the different tools and platforms being used by development organizations to support climate risk and vulnerability analysis, project design, and remote monitoring, among others.

Samantha Kuzma presented the Aqueduct platform developed by the World Resources Institute (WRI). The data sets allows users to evaluate water risks, set targets, inform smart water policies and assess the costs and benefits of water management strategies.

The ERCD-ADB Team composed of Mildred Addawe, Ron Durante and Jazon Mag-atas discussed how they used the combination of satellite imagery, census data and artificial intelligence to develop poverty maps for selected areas in the Philippines in support of designing interventions for poor and vulnerable populations during the Covid-19 pandemic.

Elma Zahir and Wesley Ryan De Witt, from the WB's Geo-enabling Initiative and Monitoring Supervision (GEMS) Team, provided a demonstration of the remote monitoring tool developed to "bring eyes on the ground where we cannot always have feet on the ground," particularly in cases of conflict, crisis or disasters. It triangulates data using a combination of satellite imagery, spatial data and field data collection using smartphones to generate real-time information from the field.

The WB Global Operation Support Team (GOST), presented by Benjamin Stewart, is composed of geospatial analyis experts across various domains (i.e., urbanization, flood mapping, climate time-series data, electrification planning, etc.) that provide just-in-time project support to the operations department.

S.Y. Yoon from DTU elaborated on the short-term (GIS data archive plan carto services migration) and long-term (enhance ADB's ability to leverage GIS technology in operations) initiatives to fully integrate geospatial tools in the way ADB works.

Key takeaways

- Everybody wants to build platforms but they are very difficult to build and maintain, so as much as possible, try to leverage existing solutions that are already within access and functional.

- Keep a separation between data and platform because data has a longer shelf life. Data should be archived in a way that it can be retrieved and processed using different services so even if the platform disappears, the data remains intact for future use.

- When developing data services on a platform, design it with the end-user in mind to ensure that it continues to be relevant. Engage them in the development and testing phase and allow flexibility to accommodate adjustments as needed.

- Ensure that data collected/generated is transparent, accountable, and good quality so that its use can be maximized for various analytical purposes. Only collect personally identifiable information (PII) when absolutely necessary to protect the identity of the subjects.

- SPADE is a content management platform to support data analysis, visualization and uptake for POs in the operations and DMCs which brings together climate information, urban development, water risk, safeguards, remote monitoring. It is one of the short-term solutions identified by DTU in designing the bankwide GIS platform.

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