CONCEPT NOTE

Training Workshops on Policy and Applications of Geospatial Technologies and Data in support of Disaster Risk Management (DRM) in the Caribbean- Online

<u>**Workshops titles, venue, date and time**</u>

- Workshop #1: Policy Issues towards effective Applications of Geospatial Technologies and Data in DRM: Venue and Date - Online via WebEx on August 30, 2021.
- Workshop #2: Technical Issues towards effective Applications of Geospatial Technologies and Data in DRM: Venue and Date - Online via WebEx on September 6-8, 2021.

Introduction: Caribbean Small Island Developing States (SIDS) are considered to be particularly vulnerable to external shocks that stem from climate change impacts and in particular the increase in frequency and magnitude of natural disasters (ECLAC, 2011).[1] To significantly reduce the devastation caused by these disasters, the region needs to develop strategies of mitigation, preparedness, response, and recovery. In support of these requirements, a national database is required to provide accessible and up-to-date information containing such data as hospitals, infrastructure, logistics, hazard type and zones, population, building, transportation, hydrology, utilities etc. Decision makers can obtain precise information at all DRM stages by applying geospatial technologies (and data) such as remote sensors, drones, weather channels, Global Navigation Satellite Systems (GNNS).

Geospatial technologies and data: Geospatial technologies comprise of the following components: computer hardware, data collection hardware, computer software, data and databases, personnel, and applications. These components work together to generate data to inform decision-makers and other stakeholders. These technologies also allow for information to be uploaded and shared globally to all agencies involved in disaster risk management. Geospatial technologies and data provide the platform for undertaking the following spatial analyses peculiar to DRM. This is illustrated in Figure 1. The following are examples of geospatial technologies and data :
- Temporal analysis of natural hazard parameters.
- Trend analysis of the occurrence of disasters.
- Spatial analysis of the impacts of disaster and over a geographic region.
- Three-dimensional analysis of the effects of natural hazards.
- Multivariable disaster risk analysis.

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[1] Reference: Economic Commission for Latin America and the Caribbean (ECLAC), Study on the vulnerability and resilience of Caribbean Small Island Developing, States (SIDS), LC/CAR/L.354 (2011)

- Natural hazard prediction and modelling.
- Simulation of response rate to vulnerable communities.
- Analysis of impact zones or anticipated degree of severity.
- Storm runoff prediction and early warnings from watersheds.
- Site suitability screening and safe management for hazardous waste facilities.
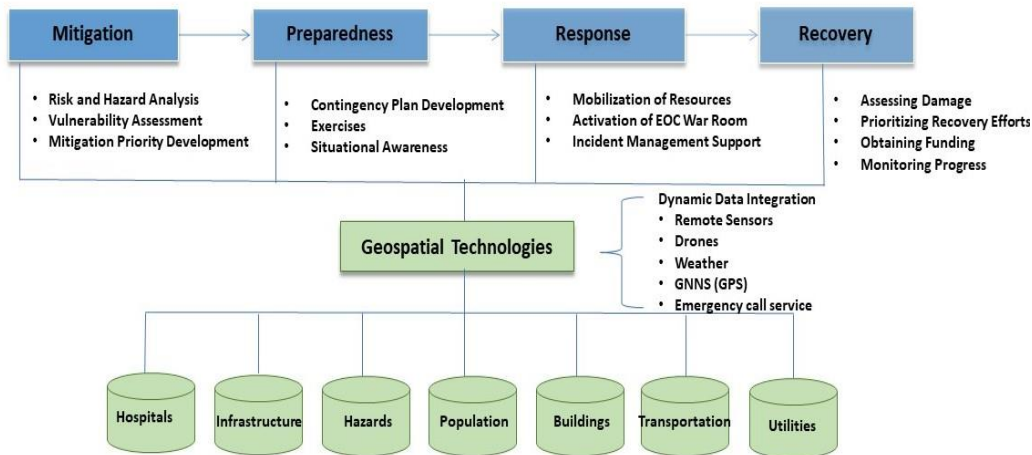
The Figure 1: Geospatial Technologies and data in support of DRM

Caribbean Countries are at varying stages in the adaptation and applications of geospatial technologies and data in DRM. These include establishing policies, legislative procedures, institutional settings, determining technology and data requirements, and addressing capacity requirements. This approach is consistent with emerging global guidelines to provide geospatial support to DRM in all its phases.[2]

The benefits of use and applications of geospatial technologies and data in disaster risk management are:
- Provide integrated data storage, access, and data retrieval capabilities.
- Support a systematic approach to data collection and management.
- The facilitation of data sharing and access can reduce the overall costs of data collection and management.
- Increased comparability and compatibility of diverse data sets.
- It makes data accessible to decision-makers, and other stakeholders and supports informed decision making.
- Provides data and information to support the analysis of the impacts of disasters.

Towards supporting the Caribbean region in building national and regional capacities in the applications of Geospatial Technologies and Data in DRM, ECLAC, in cooperation with the CCRIF SPC (formerly the Caribbean Catastrophe Risk Insurance Facility), are organizing two (2) workshops as follows:

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[2] Under the umbrella of the United Nations initiative on Global Geospatial Information Management (UN-GGIM) a Strategic Framework on Geospatial Information and Services for Disasters deliver references regarding governance, capacity building, data management, common infrastructures, and resource mobilization in these matters

Workshop I: Policy Issues towards effective Applications of Geospatial Technologies and Data in DRM. To be held online via WebEx on August 30, 2021 at 9am-12noon (3 hours)

Target Audience: Workshop I is designed for senior technical officers having responsibilities in selecting and using technologies to support DRM.

Objectives of Workshop 1: The objectives of this high-level policy workshop are:
1. Provide on the applications of geospatial technologies and data to support decision making in DRM .
2. Identify capacity development issues needed to enhance mainstreaming of geospatial technologies and data in DRM.
3. Examine global guidelines to improve the support to risk management through the use of geospatial technologies and data.
4. Identify policies and governance requirements for geospatial technologies and data management.
5. Identify financial mechanisms and regional technical cooperation required to harness the full benefit of geospatial technology and data.

Workshop II: Technical Issues towards effective Applications of Geospatial Technologies and Data in DRM. This workshop will be held via WebEx on September 6-8, 2021, from 9:00am-12:00pm each day (9 hours).

Target Audience: Workshop II is designed for technical officers responsible for GIS and application developers supporting DRM**.**

Objectives of Workshop II:
1. Applications of Geospatial Technologies and data in DRM.
2. Identify and address data and data management requirements in DRM.
3. Examine the current state of geospatial technologies available to support DRM.
4. Identify human capacity needs to enhance mainstreaming of geospatial technologies and data in DRM.
5. Identify areas of regional technical cooperation supporting geospatial technologies and data with applications in DRM.

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