

**Fifth High Level Forum on United Nations Global
Geospatial Information Management in Mexico City
from 28 - 30 November 2017**

Strategic Framework on Geospatial Information and Services for Disasters

Co-chairs of the Working Group on Geospatial
Information and Services for Disasters –
Philippines & Jamaica

Presenter : Mark Codling, Principal Director (Actg.)
Ministry of Economic Growth and Job Creation



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About the WG and its Task Teams

- Formally established during UN-GGIM5 thru **Decision 5/110**
- Composed of:
23 UN Member States; 1 non-UN Member State; 9 UN agencies/offices; UN-GGIM Secretariat; 4 international organizations; 7 professional organizations; 3 non-government organizations; and 3 academic and research institutions
- Co-chaired by the **Philippines** (Task Team 1) and **Jamaica** (Task Team 2)
- Tasked to formulate a **strategic framework** on geospatial information and services for disasters



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Strategic Framework on Geospatial Information and Services for Disasters

It is “UN-GGIM’s* **guiding policy document** that brings together all stakeholders and partners involved in DRM to ensure that the necessary **quality geospatial information and services** are **available** and **accessible** in a timely and coordinated way to decision-making and operations before, during and after disasters”

* UN Committee of Experts on Global Geospatial Information Management



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**Sendai Framework
for Disaster Risk Reduction
2015 - 2030**



**United Nations Expert Group on the
Integration of Statistical and Geospatial
Information**

Background Document on

Proposal for a Global Statistical Geospatial Framework

(Advanced Draft as of 28/07/2016)

Open Data

**Strategic Framework
on Geospatial Information and Services for Disasters**

Working Group on Geospatial Information and Services for Disasters (WG-GISD)
The United Nations Committee of Experts on
Global Geospatial Information Management
(UN-GGIM)

**Spatial Data
Infrastructure**



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**Governance
and Policies**



**Awareness Raising
and Capacity Building**



**Data
Management**

LOCAL
NATIONAL

Priorities for Action

REGIONAL
GLOBAL



**Common Infrastructure
and Services**



**Resource
Mobilization**



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Governance and Policies

- refers to the **framing, implementing and monitoring decisions** to make available and accessible all quality geospatial information and services across all phases of DRM
- specific activities:
 - Assessment and Planning;
 - Institutional Arrangements, Collaboration and Coordination; *and*
 - Monitoring and Evaluation



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Awareness Raising and Capacity Building

- refers to the improved **understanding and appreciation of geospatial data and information** as a vital element of DRM and all necessary technical and human capacities are built and/or strengthened especially in the pre-disaster phase of DRM



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Data Management

- refers to the comprehensive methods of **collecting and managing geospatial data and information**
- specific activities:
 - Data Development;
 - Data Standards and Protocols; *and*
 - Data Use Guidelines.



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Common Infrastructure and Services

- refers to the **hardware, software, network** and **manpower capacities** needed to process and further improve geospatial information and services, as well as the **common operations center** to be established by national governments
- focused on **interoperability of systems and processes** to allow geospatial data and information sharing among all actors



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Resource Mobilization

- refers to **human resources**, as well as **technical, financial and other forms of logistical and administrative support** required for the creation, improvement and maintenance of all geospatial information and services in order to sustain all DRM activities.



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1) Presentations in various conferences and fora

Following UN-GGIM6, the latest draft of the strategic framework was presented by the Co-chairs in the following conferences and fora:

- UN-GGIM International Forum on Geospatial Information and Services for Disasters (Barbados, September 2016)
- 2016 Latin America Geospatial Forum, alongside the 3rd Session of UN-GGIM: Americas Regional Committee (Mexico, October 2016)
- UN-GGIM International Forum on Policy and Legal Frameworks for Geospatial Information, alongside the 5th Session of UN-GGIM: Asia and the Pacific Regional Committee (Malaysia, October 2016)

(cont...)



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1) Presentations in various conferences and fora

(cont...)

- 2017 Latin America Geospatial Forum, alongside the 4th Session of UN-GGIM: Americas Regional Committee (Chile, April 2017)
- Kunming Forum on United Nations Global Geospatial Information Management (China, May 2017)
- 2017 Global Platform for Disaster Risk Reduction (Mexico, May 2017)

Other platforms (i.e. video conferences, Google Drive) provided further inputs to the draft



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2) Global Consultations

- A global consultation was conducted by the UN-GGIM Bureau from February to April 2017
- A total of **37 submissions** from Member States and other key stakeholders were received by the Working Group



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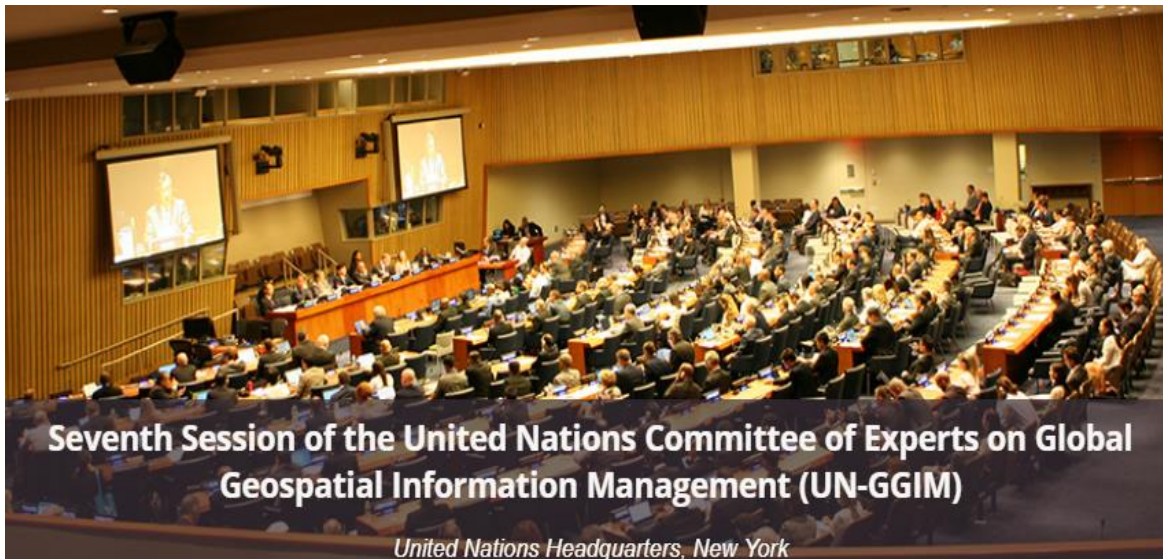
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Adoption of Strategic Framework

Strategic Framework was adopted at the Seventh session
Committee of Experts on Global Geospatial
Information Management in New York, August 2017



Seventh Session of the United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM)

United Nations Headquarters, New York



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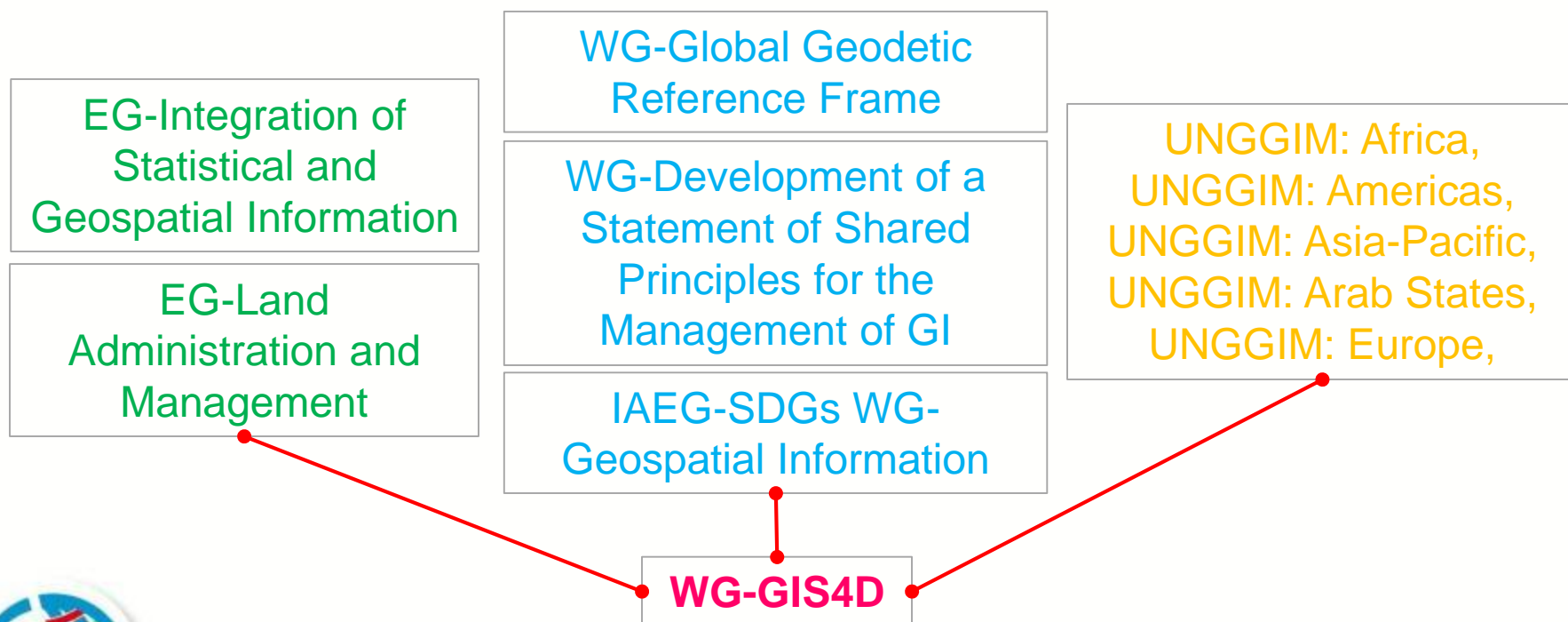
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Future Plans and Next Steps

1. The Working Group will **establish and strengthen linkages** with the other UNGGIM expert/working groups and regional entities



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Future Plans and Next Steps

2. The Working Group will develop an **assessment tool** to assist Member States and UN-GGIM regional entities to evaluate and develop their respective implementation plans. This tool will monitor and report the progress of implementation of the Strategic Framework.

Once all inputs are integrated, a **UN resolution** will be prepared for the framework's endorsement to the UN Economic and Social Council (ECOSOC)



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Future Plans and Next Steps

3. The Working Group will also develop a **database of best practices and practical experiences** from Member States and other key stakeholders in implementing the strategic framework, for possible sharing to the UN-GGIM Knowledge Base.

The succeeding slides provide a concrete example of case studies in selected Caribbean Island Nations, namely **Jamaica, Dominica and Haiti**.



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Applicability and Usefulness of the Draft Strategic Framework on Geospatial Information and Services for Disasters



Dominica



Haiti



Jamaica



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Case Study: JAMAICA

National and Sub-National Levels

a) What is NERGIST?

- National Emergency Response Geographic Information Systems Team
- Approved by Cabinet in 2010
- Dedicated to undertaking damage assessment and analysis prior to and post meteorological and geological events
- Provide existing geospatial data if available and required to support planning and recovery analysis exercises



Case Study: JAMAICA

National and Sub-National Levels

- Group consists of 20 volunteer agencies across public and private sector
- The team has been trained in the use of the USAID/IDA methodology for performing initial damage assessment
- Coordinate secondary data collection and analysis
- Post maps and data generated pre and post events on the LICJ geospatial portal or other relevant websites

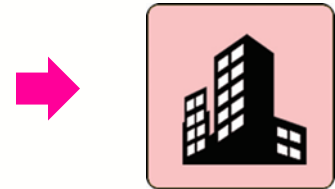


Case Study: JAMAICA

National and Sub-National Levels

In 2012, NERGIST activities were centred primarily on Government's response to the effects of Hurricane Sandy by providing technical assistance in conducting damage assessment. **The data captured during the exercise is available in the NSDMD central data repository.** The following tasks were undertaken:

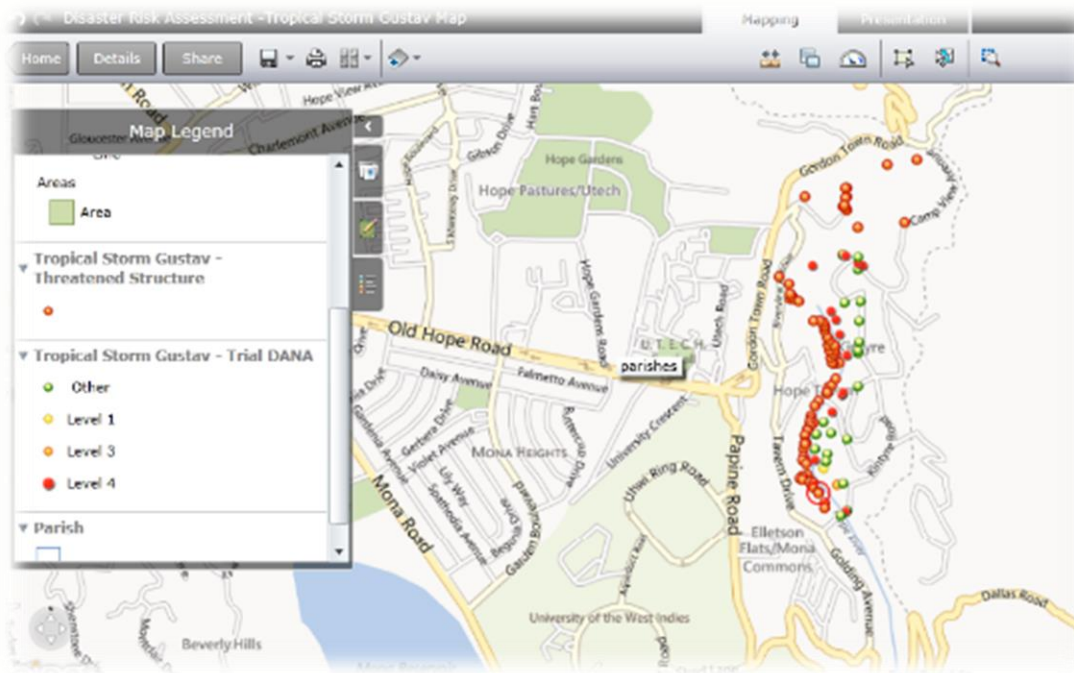
- Risks were identified, evaluated and prioritized
- The path of the hurricane was mapped in relation to critical assets
- A Risk Assessment Map was developed and shared with the ODPEM.



Case Study: JAMAICA

National and Sub-National Levels

- NERGIST – Damage Assessment Web Map in ArcGIS



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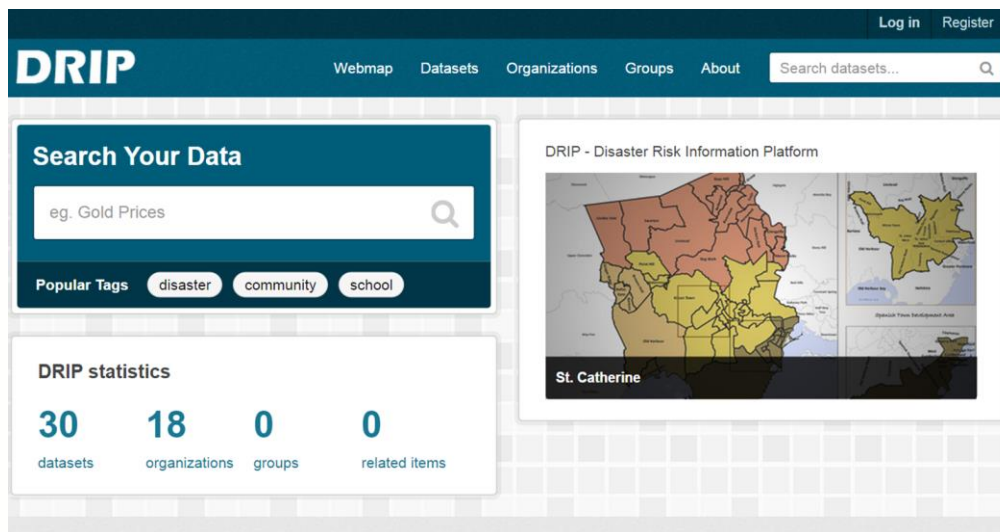
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Case Study: JAMAICA

National and Sub-National Levels

The Disaster Risk Information Platform (DRIP) was created as an information hub where users are able to access relevant documents, studies, maps, research related to hazard, risk and vulnerability information specific to St. Catherine.



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Case Study: JAMAICA

Annotto Bay Urban Area Hazard Assessment

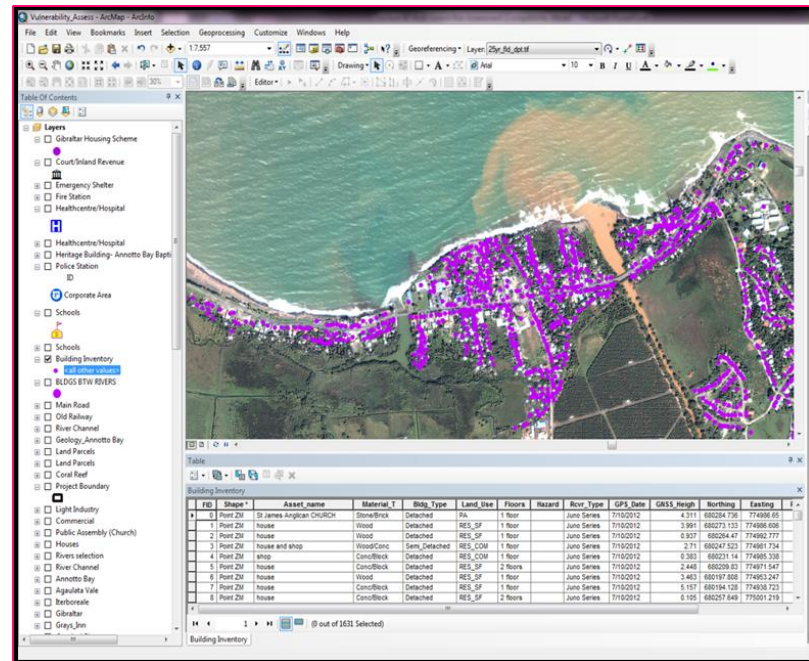
Coastal town located on Jamaica's NE coast

Low lying – elevations of 1-3m above sea level

Community is traversed by 4 rivers- Annotto, Pencar, Mother Ford Drain, Crooked Rivers



- 1632 assets mapped
- The following attributes were described:
 - Land use
 - # of floors
 - Material of construction
 - Replacement cost for buildings
 - Finished floor level



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Case Study: DOMINICA

National and Sub-National Levels



In August 2015, total damages and losses from Tropical Storm Erika were estimated to be \$483 million, equivalent to **90 percent of Dominica's GDP** with a majority of damages in the transport sector. Dominica also experienced significant flooding and landslides in 2011 and 2013 that had a substantial economic impact.



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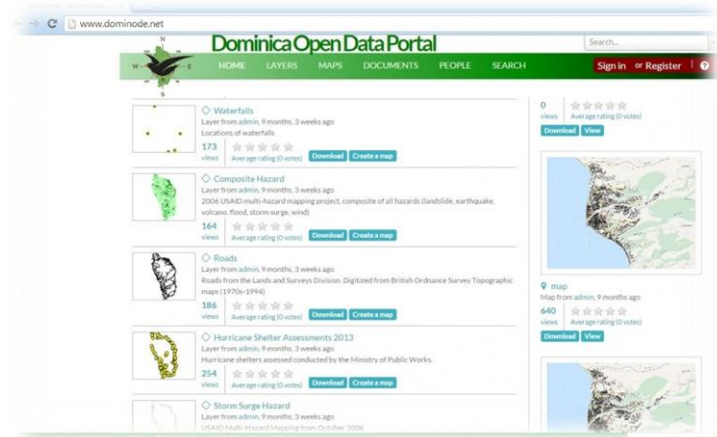
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Case Study: DOMINICA

National and Sub-National Levels

The Commonwealth of Dominica is vulnerable to numerous natural hazards arising from meteorological and geophysical events, including excess rainfall and hurricanes that result in landslides, floods and storm surges, earthquakes, and volcanic eruptions. In Dominica, GFDRR has helped improve the government's ability to collect, harmonize, store, and share geospatial data through the development in 2012 of a **risk data management platform, DomiNode**



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Case Study: HAITI

National and Sub-National Levels



Haiti lies in the middle of the Caribbean basin and according to the World Bank's Natural Disaster Hotspot study, Haiti is one of the most at risk countries in the world. **With 96% of its population living at risk**, Haiti has the highest vulnerability rating in terms of cyclones among the region's small developing island states (12.9/13)



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Case Study: HAITI

National and Sub-National Levels

Haiti's National Disaster Risk Management System (NDRMS) was signed into effect in 2001 by 10 key line ministers and the President of the Haitian Red Cross. The National Disaster Risk Management Plan (NDRMP) provides the operational framework for the NDRMS and identifies the specific roles and responsibilities of the participating institutions.

Over the last 8 years, the NDRMS has **improved its data collection** for risk assessments. Although there is currently no updated national, departmental or sectoral comprehensive risk assessment, there exists a number of significant initiatives



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Some Caribbean Islands lack the following:

- National level policy on the use of geospatial information, which would specify its usage, sharing, dissemination and accessibility.
- Formally established National Spatial Data Infrastructure policy or legislation which would dictate data sharing requirements use etc.
- The use of space-based data to allow for effective analysis and understanding of hazards and risk
- Advance technical expertise in hazard mapping technology and its related fields.





Benefits of the Strategic Framework for the Caribbean Nations include:

- Coordinated, comprehensive and efficient disaster assessment exercises
- Accurate data provided to decision makers in a timely manner
- Duplication of effort to collect impact data is reduced
- A scientific framework to properly cost reconstruction and recovery exercises is provided
- Fair distribution of benefits to affected persons. This will enhance the credibility of the recovery exercise and will satisfy the donor organisations.



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CALL FOR ACTION



The UN-GGIM Working Group on Geospatial Information and Services for Disasters is calling all governments and DRRM organizations to support the **Strategic Framework on Geospatial Information and Services for Disasters.**

Let us collaborate to make available and accessible all quality geospatial information and services across all phases of the DRRM.



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