

# Progress on the Development of the Strategic Framework on Geospatial Information and Services for Disasters

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Conference Room 12, UN Headquarters  
31 July 2017



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# Strategic Framework on GISD



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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**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





## 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





## 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.





## 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





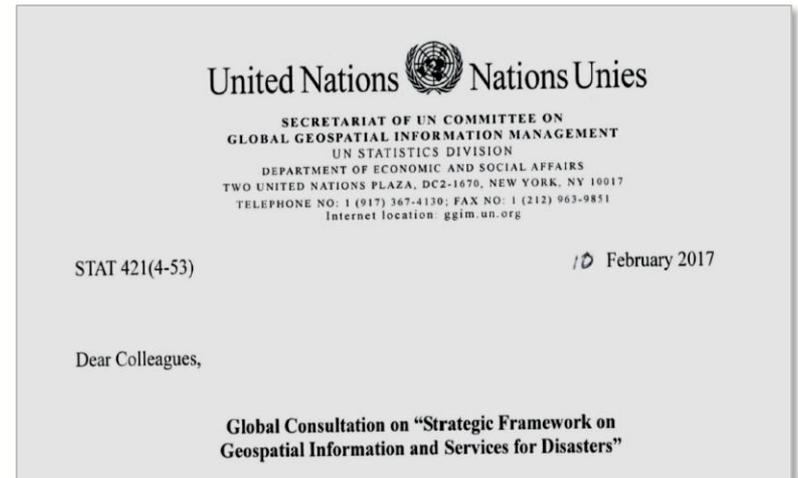
## Resource Mobilization

- 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.



# Developments on the Strategic Framework

## Final Version of the Strategic Framework



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# 1) Presentations in various conferences and fora

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Following UN-GGIM6, the draft 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 3<sup>rd</sup> Session of UN-GGIM: Americas Regional Committee (Mexico, October 2016)
- UN-GGIM International Forum on Policy and Legal Frameworks for Geospatial Information, alongside the 5<sup>th</sup> 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

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(cont...)

- 2017 Latin America Geospatial Forum, alongside the 4<sup>th</sup> 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

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- 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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## 2) Global Consultations

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- The consultation resulted in revisions to the strategic framework to include the following:
  - There is a need to rephrase the **outcome statement** to emphasize the **social dimension of disasters**
  - **Aligning certain terminologies** with internationally-agreed definitions (i.e. emergency and disaster, DRRM and DRM), and rephrasing/styling selected statements and paragraphs
  - The **guiding principles** shall be revised to reflect the intention for the implementation of the strategic framework to encourage **transboundary data sharing for cross-border disasters**
  - Inclusion of **promoting GIM as applied to DRM in academic programs** at the national and local levels



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# Developments on the Strategic Framework

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- All inputs and recommendations from the presentations and the global consultation were considered in the latest version of the strategic framework.
- Some comments are beyond the framework's scope and are best handled through **establishing linkages with other WGs/bodies within the UN-GGIM.**
- The final version of the strategic framework will be posted on the **UN-GGIM official website (ggim.un.org)** and the **WG-Disaster's Google Drive** after UN-GGIM7.



# Future Plan and Next Steps for the Working Group on Geospatial Information and Services for Disasters

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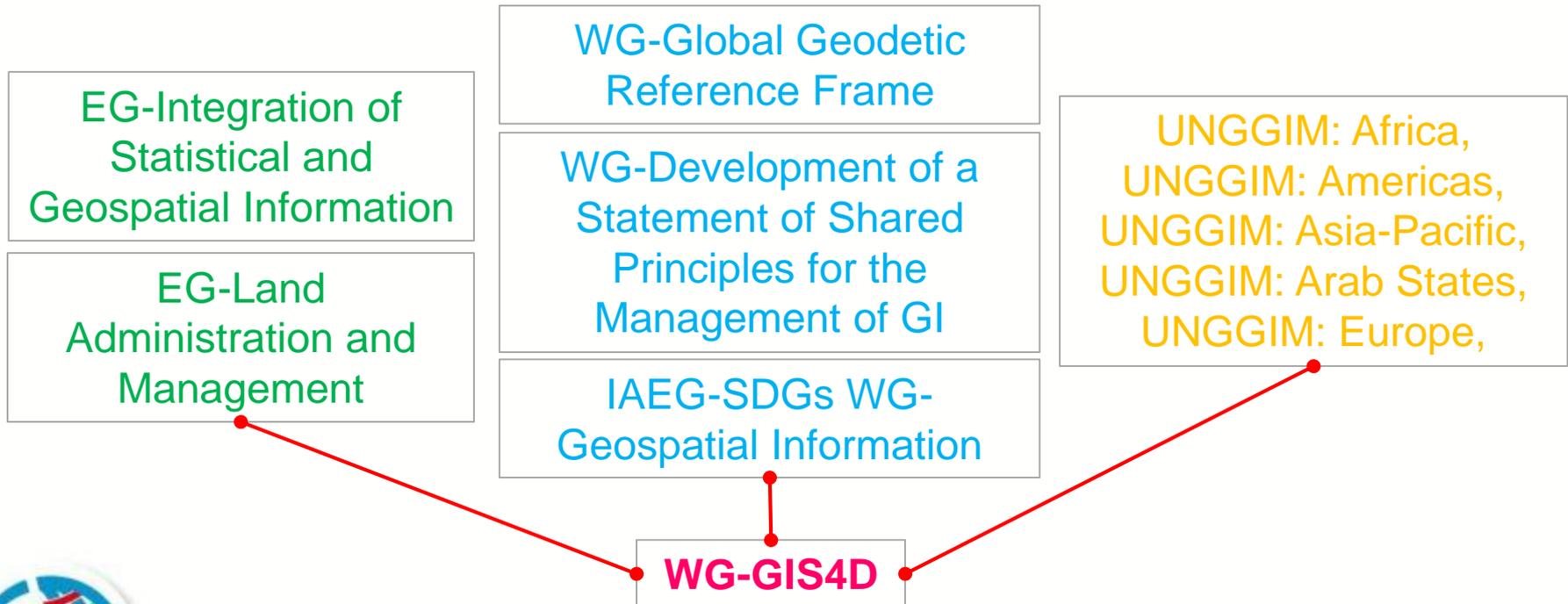
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# Future Plans and Next Steps

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

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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

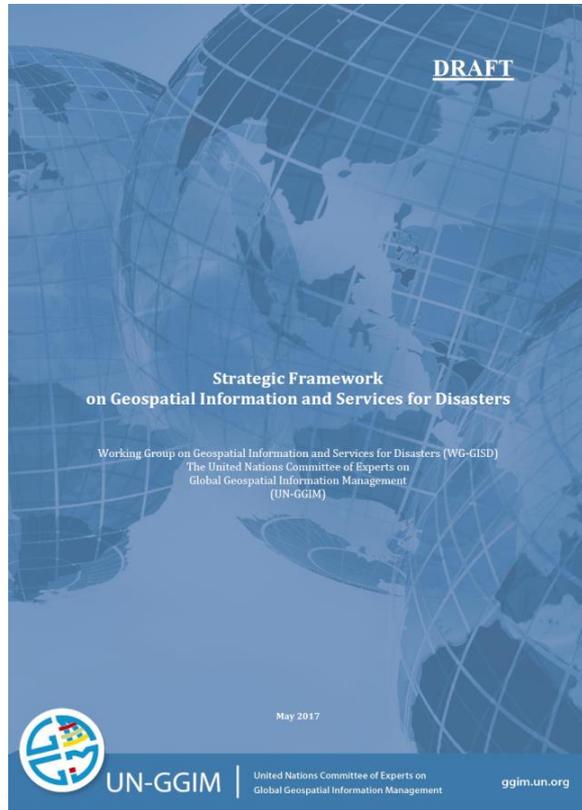
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3. The Working Group will also develop a **database of best practices and practical experiences** from Member States and other key stakeholders in implementing the strategic framework, for possible sharing to the UN-GGIM Knowledge Base.

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



# 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

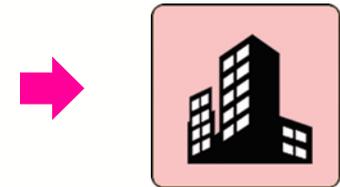


# Case Study: JAMAICA

## 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:

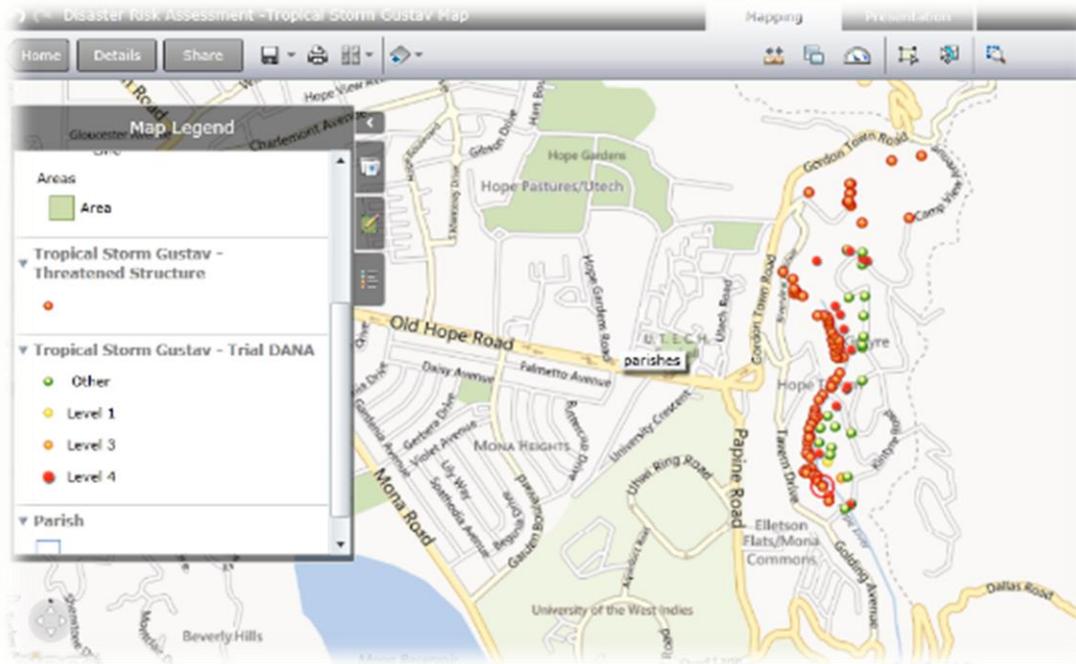
- Risks were identified, evaluated and prioritized
- The path of the hurricane was mapped in relation to critical assets
- A Risk Assessment Map was developed and shared with the ODPEM.



# Case Study: JAMAICA

## National and Sub-National Levels

- NERGIST – Damage Assessment Web Map in ArcGIS



# 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.



The screenshot displays the DRIP website interface. At the top, there is a dark blue header with the 'DRIP' logo on the left and navigation links for 'Webmap', 'Datasets', 'Organizations', 'Groups', and 'About' in the center. On the right side of the header, there are links for 'Log in' and 'Register', and a search bar labeled 'Search datasets...'. Below the header, the main content area is divided into several sections. On the left, there is a 'Search Your Data' section with a search input field containing 'eg. Gold Prices' and a magnifying glass icon. Below this, there are 'Popular Tags' for 'disaster', 'community', and 'school'. Further down, a 'DRIP statistics' section shows four metrics: 30 datasets, 18 organizations, 0 groups, and 0 related items. On the right side of the main content area, there is a map titled 'DRIP - Disaster Risk Information Platform' showing a geographical area with various colored regions. The text 'St. Catherine' is visible at the bottom of the map.



# Case Study: JAMAICA

## Annotto Bay Urban Area Hazard Assessment

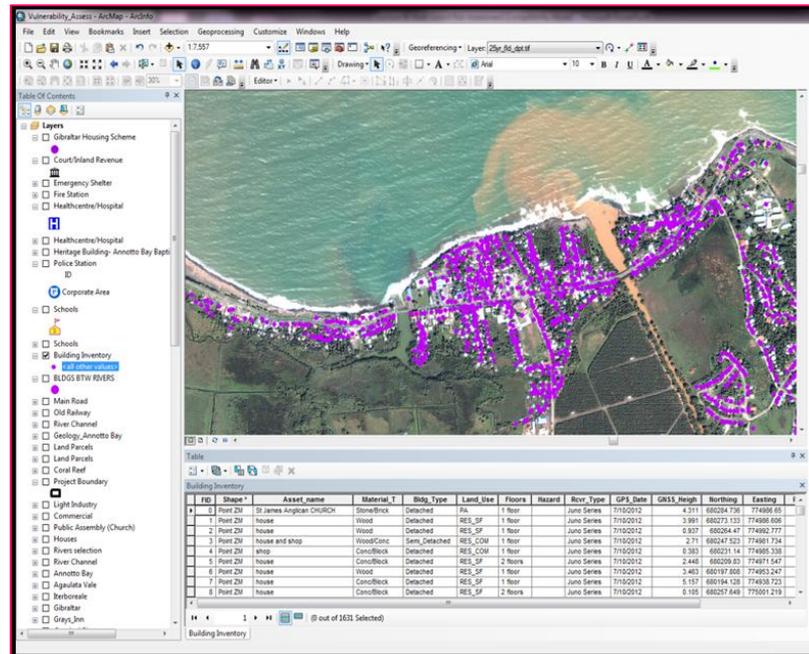
Coastal town located on Jamaica's NE coast

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



# 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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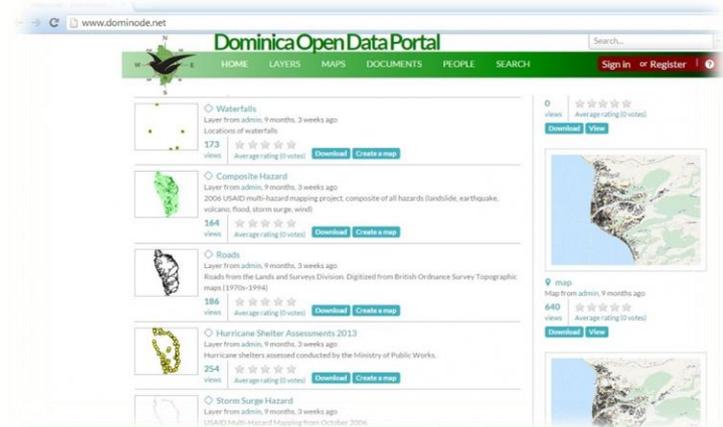
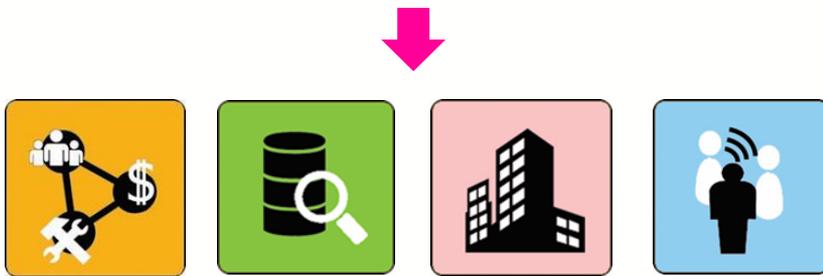
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# Case Study: DOMINICA

## 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

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## 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

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## 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





## 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

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The UN-GGIM Working Group on Geospatial Information and Services for Disasters is calling all governments and DRRM organizations to support the adoption of 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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