

UN ECLAC DRM Workshop #2:

"Technical Issues Towards Effective Applications of Geospatial Technology & Data in Support of DRM in the Caribbean"

> "UN Global Geospatial Information Management (UN-GGIM) **Working Group Disasters**"

> > Monday September 6, 2021 9:00 - 12:00 am (UTC-04)



Presenter Bio

- A certified geospatial professional from Jamaica who serves as the Senior GIS Manager & Trainer within the National Spatial Data Management Branch of Jamaica's Ministry of Housing, Urban Renewal, Environment and Climate Change (MHURECC). She coordinates Jamaica's National Emergency Response GIS Team (NERGIST).
- She also serves as Jamaica's Focal Point and Head of Delegation to the UN-GGIM Committee of Experts, with Jamaica co-chairmanship support and leadership of Task Groups A & C of the UN-GGIM Working Group on Geospatial Information and Services for Disasters;
- Additionally, Jamaica's Focal Point in UN-GGIM: Americas, serving on the CARIGEO Steering Committee and provides UN-GGIM: Americas' representation on the High Level Group (HLG) on Integrated Geospatial Information Management (IGIF).



Simone Michelle Lloyd, GISP MSc.

Senior GIS Manager/Trainer
Coordinator, Jamaica's National Emergency Response GIS Team
Task Groups Lead, UN-GGIM WG Disasters
National Spatial Data Management Branch
Ministry of Housing, Urban Renewal, Environment & Climate Change
Jamaica



Outline

UN-GGIM WG Disasters

Sendai Framework

Strategic Framework on Disasters

Strategic Framework Assessment Tool

• Americas' Region Perspective



"Supporting Geo-enabled DRM globally & within the Caribbean Region



Chart of the Sendai Framework for Disaster Risk Reduction

2015-2030

Scope and purpose

The present framework will apply to the risk of small-scale and large-scale, frequent and infrequent, sudden and slow-onset disasters, caused by natural or manmade hazards as well as related environmental, technological and biological hazards and risks.

It aims to guide the multi-hazard management of disaster risk in development at all levels as well as within and across all sectors

Expected outcome

The substantial reduction of disaster risk and losses in lives, livelihoods and health and in the economic, physical, social, cultural and environmental assets of persons, businesses, communities and countries

Goal

Prevent new and reduce existing disaster risk through the implementation of integrated and inclusive economic, structural, legal, social, health, cultural, educational, environmental, technological, political and institutional measures that prevent and reduce hazard exposure and vulnerability to disaster, increase preparedness for response and recovery, and thus strengthen resilience

Targets

Substantially reduce global disaster mortality by 2030, aiming to lower average per 100,000 global mortality between 2020-2030 compared to 2005-2015 Substantially reduce the number of affected people globally by 2030, aiming to lower the average global figure per 100,000 between 2020-2030 compared to 2005-2015 Reduce direct disaster economic loss in relation to global gross domestic product (GDP) by 2030 Substantially reduce disaster damage to critical infrastructure and disruption of basic services, among them health and educational facilities, including through developing their resilience by 2030

Substantially increase the number of countries with national and local disaster risk reduction strategies by Substantially enhance international cooperation to developing countries through adequate and sustainable support to complement their national actions for implementation of this framework by 2030

Substantially increase the availability of and access to multihazard early warning systems and disaster risk information and assessments to people by 2030

Chart of the Sendai Framework for Disaster Risk Reduction

2015-2030

Priorities for Action

There is a need for focused action within and across sectors by States at local, national, regional and global levels in the following four priority areas.

Priority 1

Understanding disaster risk

Disaster risk management needs to be based on an understanding of disaster risk in all its dimensions of vulnerability, capacity, exposure of persons and assets, hazard characteristics and the environment

Priority 2

Strengthening disaster risk governance to manage disaster risk

Disaster risk governance at the national, regional and global levels is vital to the management of disaster risk reduction in all sectors and ensuring the coherence of national and local frameworks of laws, regulations and public policies that, by defining roles and responsibilities, guide, encourage and incentivize the public and private sectors to take action and address disaster risk

Priority 3

Investing in disaster risk reduction for resilience

Public and private investment in disaster risk prevention and reduction through structural and non-structural measures are essential to enhance the economic, social, health and cultural resilience of persons, communities, countries and their assets, as well as the environment. These can be drivers of innovation, growth and job creation. Such measures are cost-effective and instrumental to save lives, prevent and reduce losses and ensure effective recovery and rehabilitation

Priority 4

Enhancing disaster preparedness for effective response, and to «Build Back Better» in recovery, rehabilitation and reconstruction

Experience indicates that disaster preparedness needs to be strengthened for more effective response and ensure capacities are in place for effective recovery. Disasters have also demonstrated that the recovery, rehabilitation and reconstruction phase, which needs to be prepared ahead of the disaster, is an opportunity to «Build Back Better» through integrating disaster risk reduction measures. Women and persons with disabilities should publicly lead and promote gender-equitable and universally accessible approaches during the response and reconstruction phases

Guiding Principles

Primary responsibility of States to prevent and reduce disaster risk, including through cooperation Shared responsibility between central Government and national authorities, sectors and stakeholders as appropriate to national discumstances Protection of persons and their assets while promoting and protecting all human rights including the right to development Engagement from all of society

Full engagement of all State institutions of an executive and legislative nature at national and local levels Empowerment of local authorities and communities through resources, incentives and decision-making responsibilities as appropriate Decision-making to be inclusive and riskinformed while using a multi-hazard approach

Coherence of disaster risk reduction and sustainable development policies, plans, practices and mechanisms, across different sectors Accounting of local and specific characteristics of disaster risks when determining measures to reduce risk Addressing underlying risk factors cost-effectively through investment versus relying primarly on postdisaster response and recovery «Build Back Better» for preventing the creation of, and reducing existing, disaster risk

The quality of global partnership and international cooperation to be effective, meaningful and strong Support from developed countries and partners to developing countries to be tailored according to needs and priorities as identified by them



UN-GGIM in August 2015, under decision 5/110 supported the proposal to establish a working group to further develop and implement a strategic framework that would be:

Focused in a practical manner;

Aligned with the outcome and follow-up to the Sendai Framework for Disaster Risk Reduction 2015-2030 and its implementation;

Able to take into consideration the special needs of developing countries, especially with respect to capacity building and knowledge sharing and;

Broadly representative of different regions of the world and taking into account regional experiences.

Leadership & Membership





 Co-chairmanship: Jamaica and Japan (August 2019 – Present)





 Previous Co-Chairmanship: Jamaica and Philippines (2016 – 2019)







Vision:

 Accurate, timely and reliable geospatial information and services are available, in a coordinated way, to decision makers and operational leads prior to, during and post disasters.

Provide a forum for dialogue and coordination among member states, UN system, DRR organizations etc.

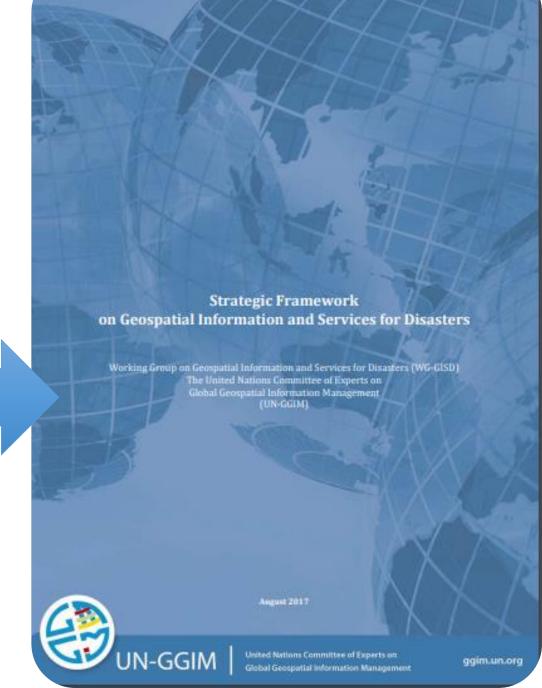
Improve the availability, accessibility and timeliness of good quality geospatial information for DRR

Encourage greater coordination and collaboration on geospatial information activities for DRM



The Sendai Framework for Disaster Risk Reduction articulates a very specific goal: to considerably diminish disaster risk and losses of lives, livelihoods and health and in the economic, physical, social, cultural and environmental assets of persons, businesses, communities and countries

Aligned



The Strategic Framework aims to guide Member States and other stakeholders in making available and accessible all quality geospatial information and services in operations within and across all sectors, before, during and after disaster events.

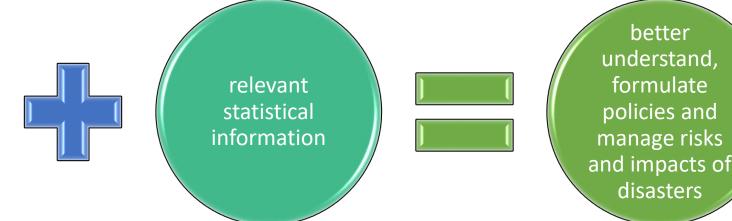


Use of:

geospatial

information &

services



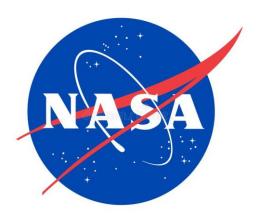
Member States







WG Disasters



National Aeronautics and Space Administration (USA)





Disaster Risk
Reduction (DRR) WG







Strategic Framework on Geospatial Information & Services for Disasters





Access the Strategic Framework here:

http://ggim.un.org/documents/UN-GGIM Strategic Framework Disasters final.pdf

The Strategic Framework on Geospatial Information and Services for Disasters was adopted by the UN Economic and Social Council in July 2018 under resolution 2018/14 (available in all 6 languages, see below, Documents then 2018)

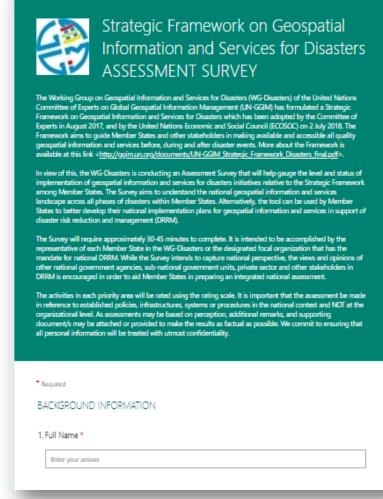
Arabic Chinese English French Russian Spanish

It was adopted by the Committee of Experts in August 2017, and by the United Nations Economic and Social Council (ECOSOC) on 2nd July 2018.



Global Survey Administration

 The survey was prepared as an online form and circulated to the UN-GGIM Member States, and observers in June 2020, with a completion deadline of 2nd October 2020.



UN-GGIM Strategic Framework on Geospatial Information and Services for Disasters
ASSESSMENT SURVEY

The Working Group on Geospatial Information and Services for Disasters (WG-Disasters) of the United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM) has formulated a Strategic Framework on Geospatial Information and Services for Disasters which has been adopted by the Committee of Experts in August 2017, and by the United Nations Economic and Social Council (ECOSOC) on 2 July 2018. The Framework aims to guide Member States and other stakeholders in making available and accessible all quality geospatial information and services before, during and after disaster events. More about the Framework is available at this link https://doi.org/10.1081/j.chm.ncmailsocial-parts/link-GGIM_Strategic_Framework_Disasters_final_add.

in view of this, the WG-Disasters is conducting an Assessment Survey that will help gauge the level and status of implementation of geospatial information and services for disasters initiatives relative to the Strategic Framework among Member States. The Survey aims to understand the national geospatial information and services kindscape across all phases of disasters within Member States. Alternatively, the tool can be used by Member States to better develop their national implementation plans for geospatial information and services in support of disaster risk reduction and management (DRSM).

The Survey will require approximately 30-45 minutes to complete, it is intended to be accomplished by the representative of each Member State in the WG-Disasters or the designated focal argonization that has the mandate for national DRRM. While the Survey intends to capture national perspective, the views and opinions of other national government agencies, sub-national government units, private sector and other stakeholders in DRRM is encouraged in order to add Member States in preparing an integrated national seasonsment.

The activities in each priority area will be rated using the rating scale shown in the table below. It is important that the assessment be made in reference to established policies, infrastructures, systems or procedures in the national context and NOT at the organizational level. As assessments may be based on perception, additional remarks, and supporting documently may be attached or provided to make the results as factual as possible. We commit to ensuring that all personal information will be treated with utmost confidentially.

Category	Description
4	The initiative is fully implemented in my country
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Your usual cooperation will be highly acknowledged. Thank youl

Co-Chairs, WG-Disasters

Complete Strategic Framework Assessment tool:

https://bit.ly/2TxLF0t



Assessment Survey Structure

Five Priorities for Action









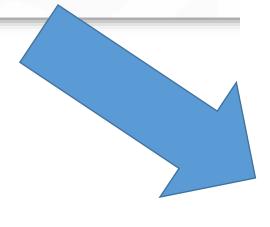




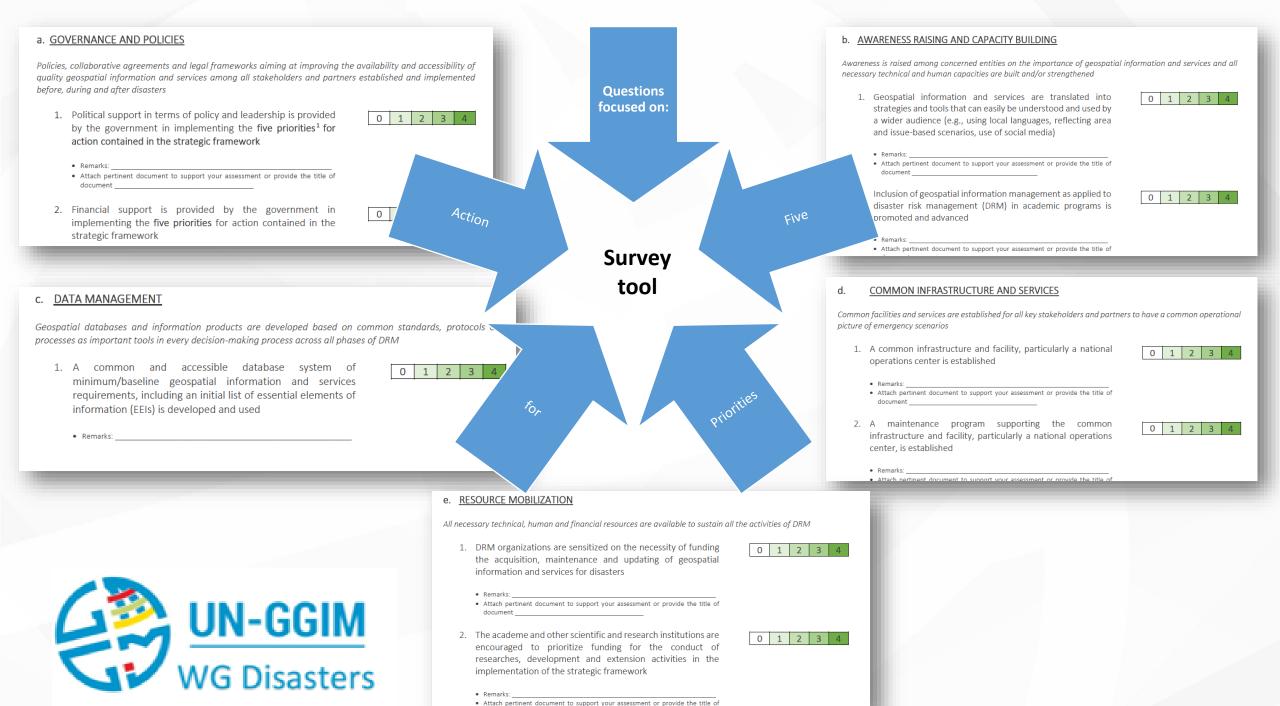
Resource Mobilization

Advance the use of Geographic information to support Disaster Risk Reduction in the Member States.

Assessment Survey Rating Scale



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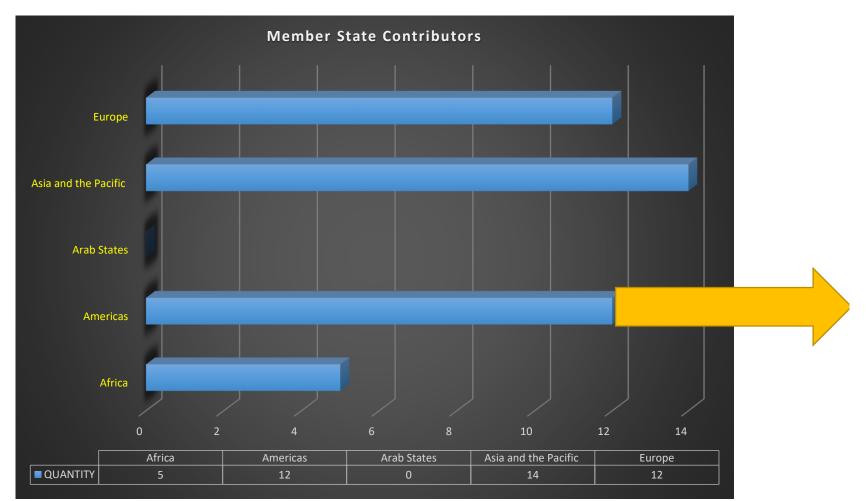


Assessment Survey Structure

Priority Area	Focus Areas
Α	1. Political Support
	2. Financial Support
	3. Champion Identified
	 Monitoring & Evaluation Program Implemented to track Country's Progress
	 Geospatial information and services are translated into easily understood strategies and tools
	2. GI & Services integrated in Academic Programs
В	DRM-related researches using GI & Services are initiated and managed
	4. Training programs on the use of GI & Services
	 Existence of a common and accessible database system
	National and local DRM plans include hazard, vulnerability and disaster risk assessment maps, etc.
С	A common contact database of national and local emergency responders
	4. Data management guidelines incorporates key factors
	 A common infrastructure and facility, particularly a national operations center is established
D	A backup facility for online and offline access to geospatial data
	Interoperability of all systems and processes in DRM organizations
	 DRM organizations are sensitized on the necessity of funding GI & Services for DRM
E	The private sector encouraged to invest in GI & Services for DRM
	Funding support easily accessible for implementation of the five priorities for action



Assessment Survey Respondents



Americas:

- Argentina
- Brazil
- Chile
- Colombia (*)
- Guyana
- Honduras
- Jamaica
- Mexico
- Peru
- Sint Maarten (Kingdom of Netherlands)
- United States of America
- Uruguay



Collaboration Essential for Survey Completion



National Geospatial Agency

National Disaster Agency

Ministries, Departments & Agencies

Universities & Colleges and others......



Caribbean Respondents



Guyana



• Jamaica



• Sint Maarten



NB. Goal: partner with ECLAC to commence re-administration of the survey during ECLAC DRM workshop #2 (Sept 6-8, 2021) and facilitate follow-ups.



The Americas' Perspective



Governance and Policies

Good governance and science-based policies are essential

Outlines strategies at the National and Local Levels & Global and Regional Levels

To make available and accessible all quality geospatial information and services across all phases of the DRRM

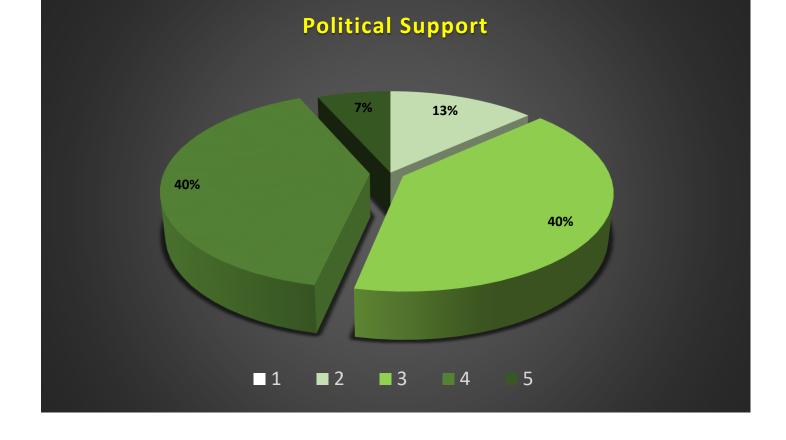
Specific activities:

- Assessment and Planning
- Institutional Arrangements
- Collaboration and Coordination
- Monitoring and Evaluation





Governance and Policies



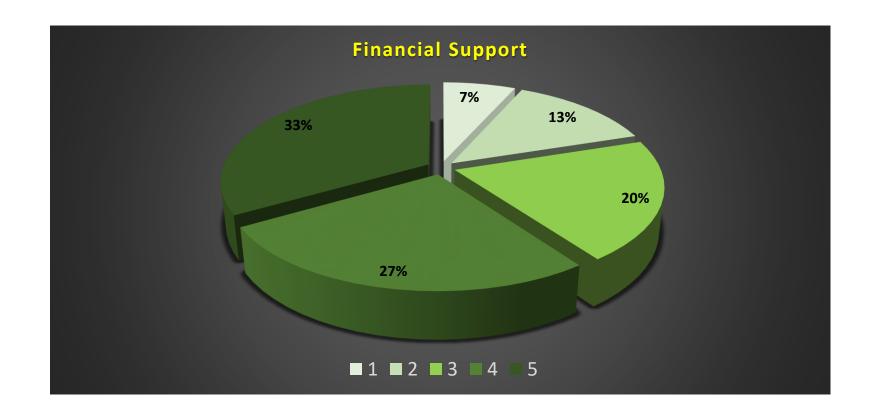
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Political support in terms of **policy** and leadership is provided by the government in implementing the five priorities for action contained in the strategic framework









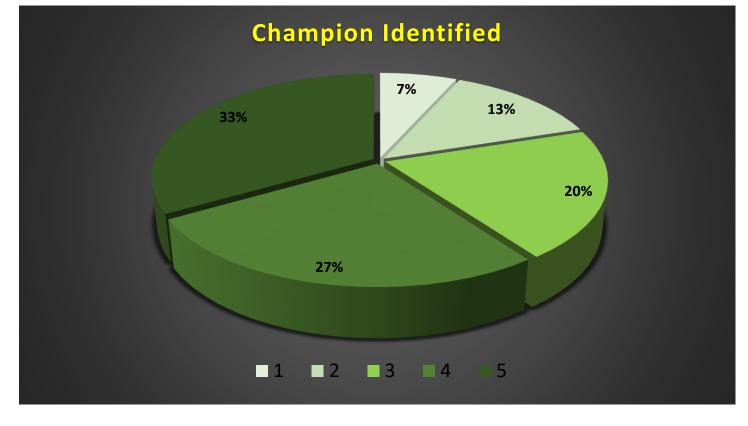
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Financial support is provided by the government in implementing the five priorities for action contained in the strategic framework.





and Policies



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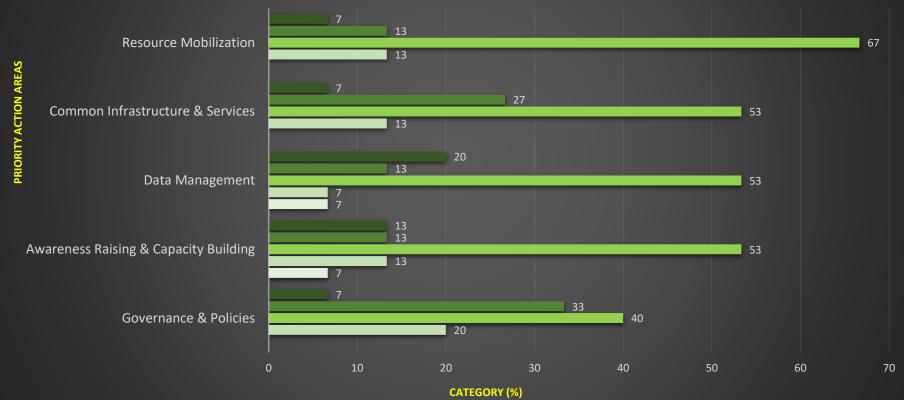
A champion, i.e., individual or organization that oversees the implementation of the five priorities for action and ensures an inclusive participation of all stakeholders and key.





Governance and Policies

Monitoring & Evaluation Program Implemented to track the Country's Progress



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Awareness Raising and Capacity
Building

Involves pursuing awareness raising and capacity building initiatives leading to better understanding and appreciation of the relevance of geospatial data and information to DRRM

Awareness of geospatial data and information holdings and gaps

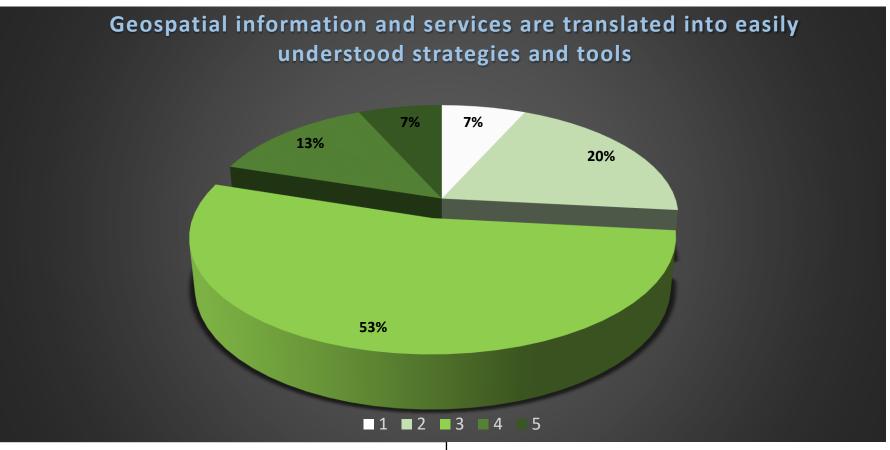
Inclusion of geospatial information management as applied to DRM in academic programs

Geospatial information management training programs



Priority 2:



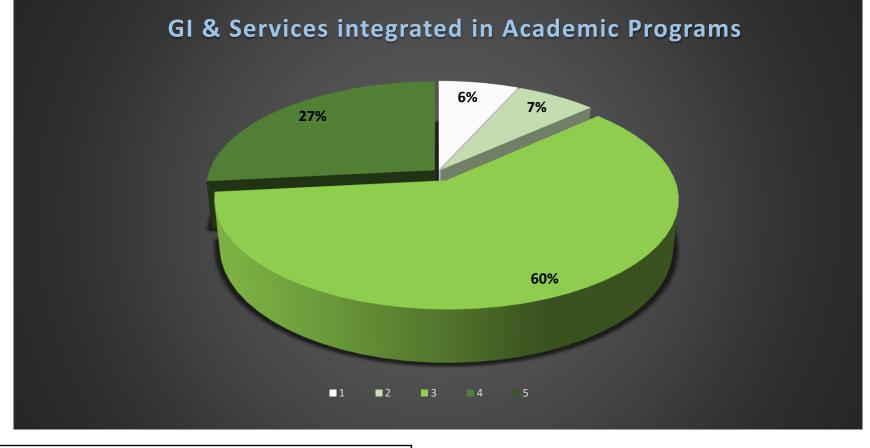


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Priority 2:



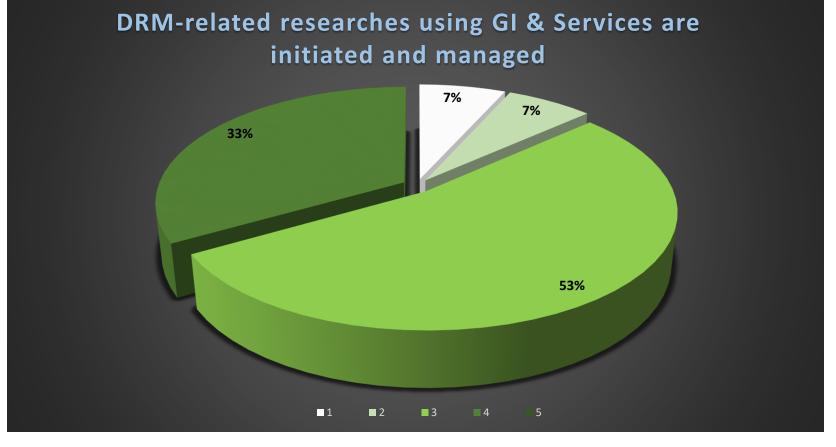


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Inclusion of geospatial information management as applied to disaster risk management (DRM) in academic programs is promoted and advanced







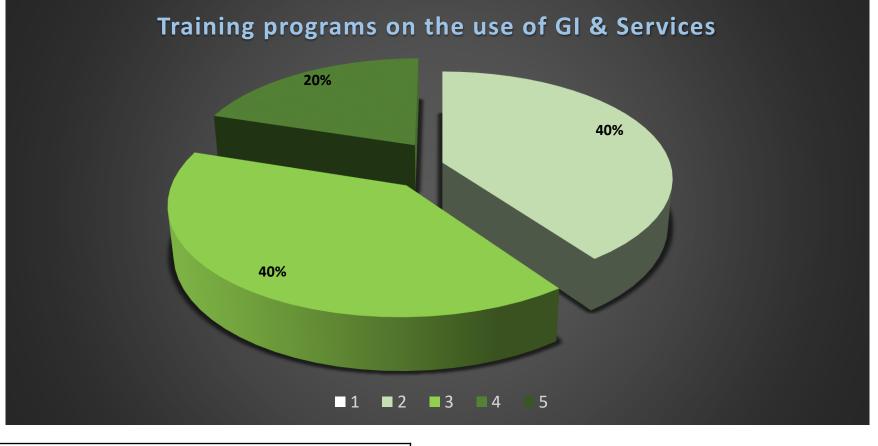
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Data Management

Comprehensive methods of collecting and managing geospatial data and information:

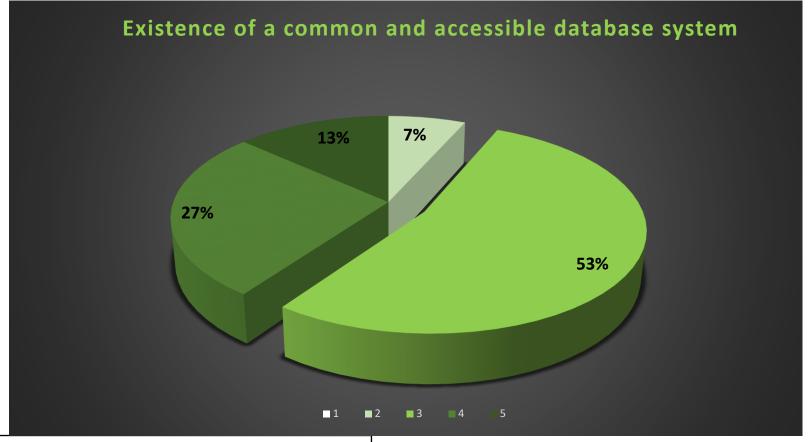
o Data Development

o Data Standards and Protocols

o Data Use Guidelines





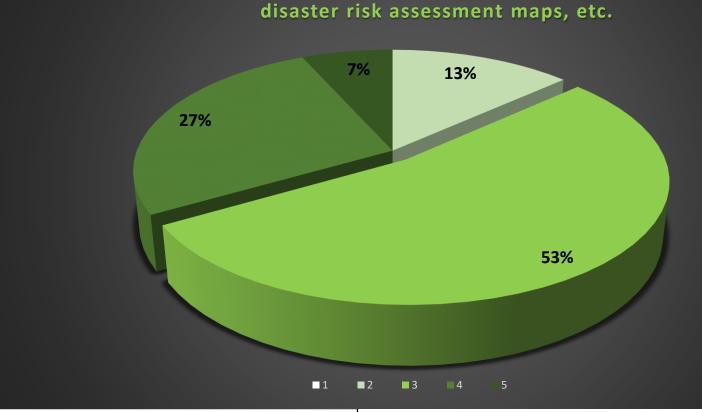


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A common and accessible database system of minimum/baseline geospatial information and services requirements, including an initial list of essential elements of information (EEIs) is developed and...







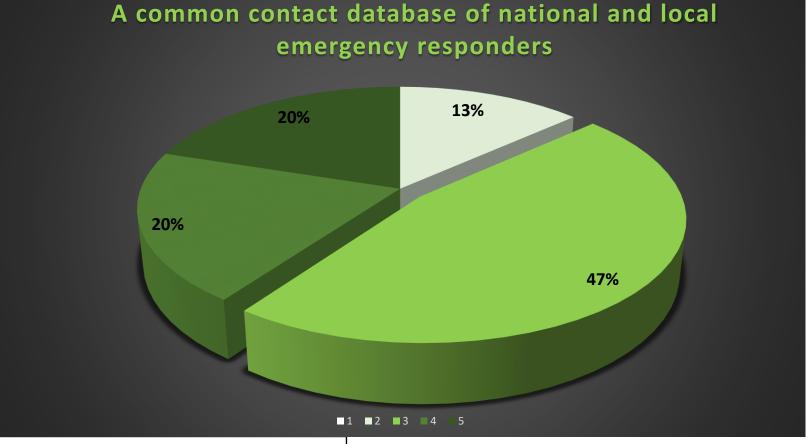
National and local DRM plans include hazard, vulnerability and

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Hazard, vulnerability and disaster risk assessment maps, and other information products as crucial inputs to national and local DRM plans are developed and used





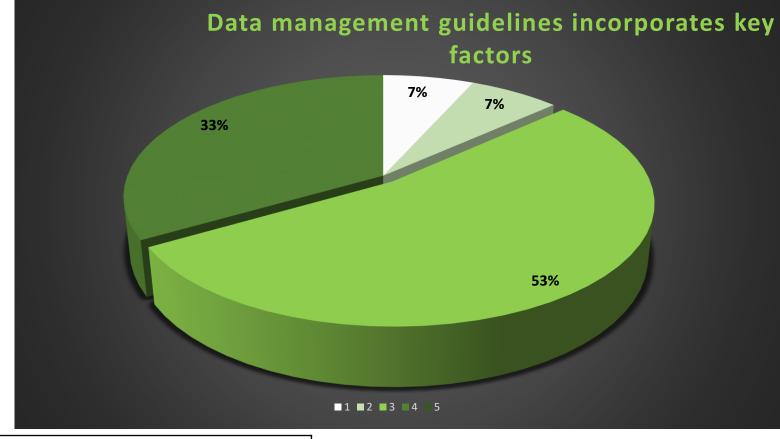


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A common contact database of national and local emergency responders, as well as a registry of all humanitarian response/assistance organizations are established, maintained and updated







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Data management guidelines including, but not limited to data sharing; data classification; data custodianship; data stewardship; metadata; data security and control; and data backup and recovery ...





Common Infrastructure and Services

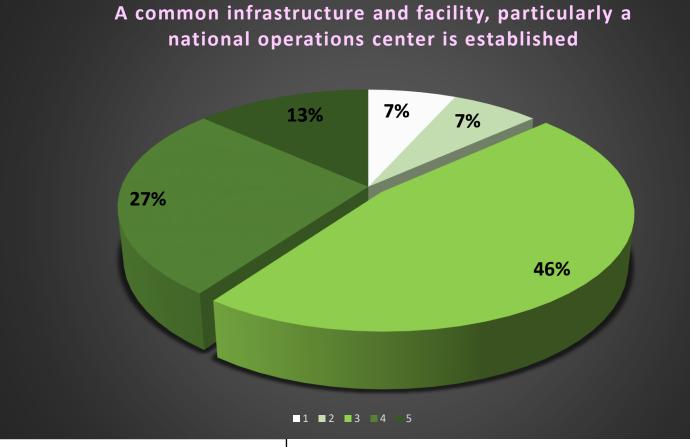
Infrastructure support is essential towards institutionalizing geospatial information and services

Infrastructure such as hardware, software, network and manpower capacities needed to process and further improve geospatial information and services

Possible establishment of a **Common Operations Center** by national governments, focused on the interoperability of systems and processes to allow geospatial data and information sharing among all DRM actors





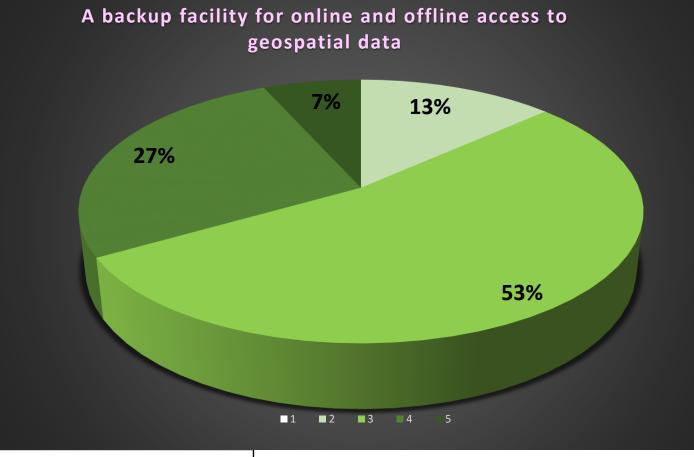


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A common infrastructure and facility, particularly a national operations center is established.





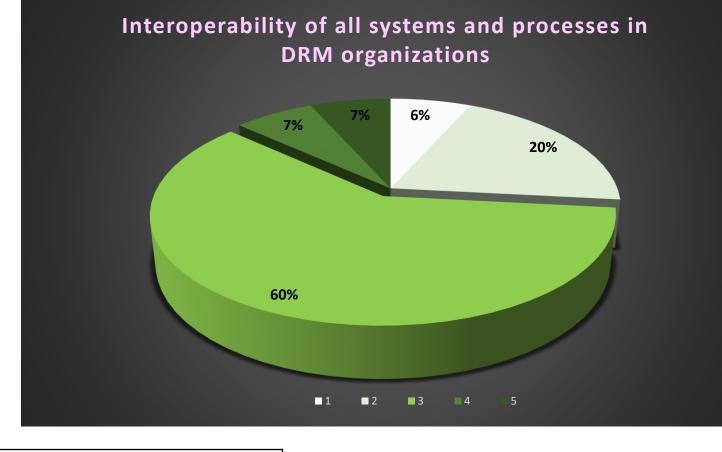


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A backup facility for online and offline access to geospatial data to sustain operations during disasters is established.







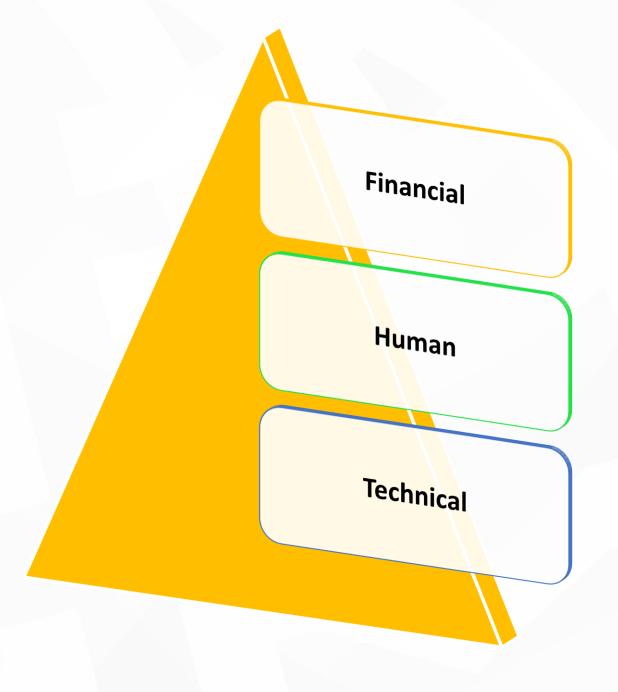
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Interoperability of all systems and processes in DRM organizations is ensured.





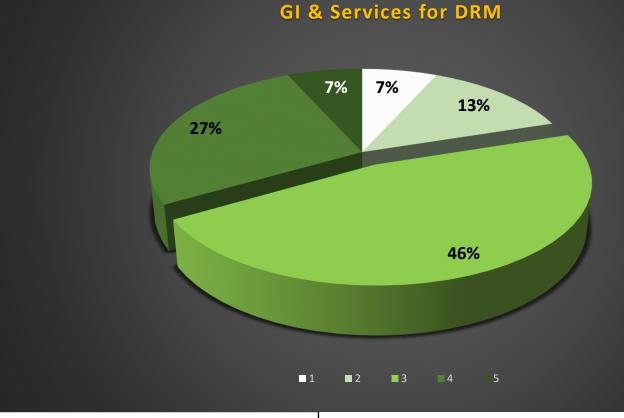
Resource Mobilization



Extensive resources needed for the creation, improvement and maintenance of all geospatial information and services in order to sustain all DRRM activities:







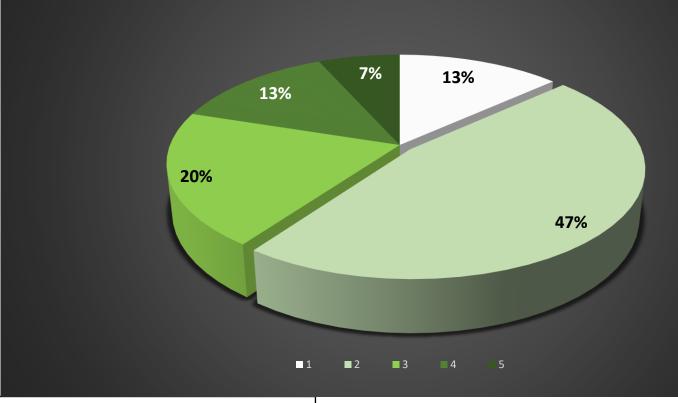
DRM organizations are sensitized on the necessity of funding

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DRM organizations are sensitized on the necessity of funding the acquisition, maintenance and updating of geospatial information and services for disasters.







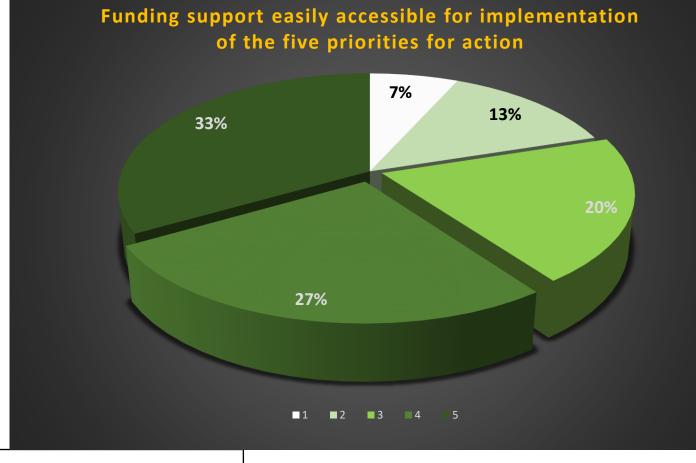
The private sector encouraged to invest in GI & Services for DRM

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The private sector, including financial institutions are encouraged to invest in the provision of geospatial information and related services for DRM.



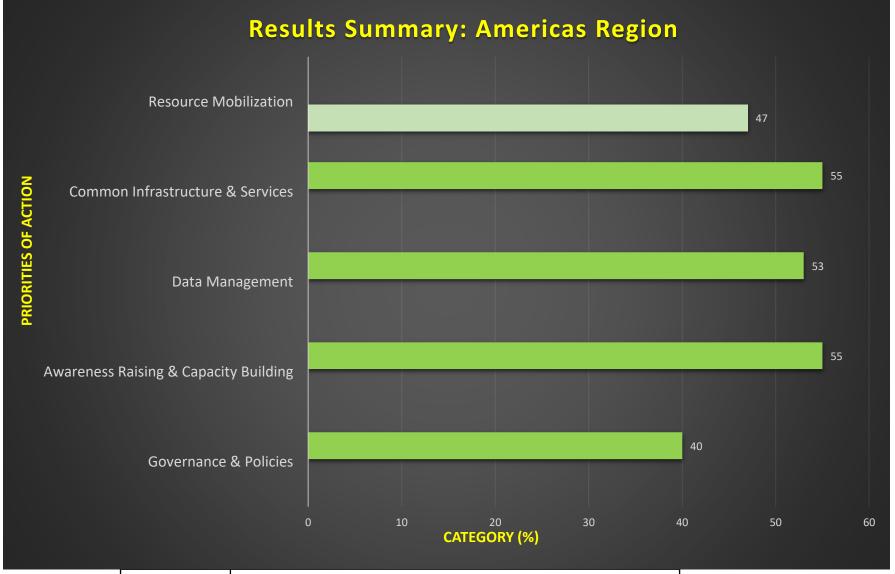




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Funding support for the activities in the implementation of the five priorities for action, including **grants**, **loans** and other forms of financial support are easily accessible.





Category	Description	
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Importance of Survey Completion within the Caribbean

- Caribbean region is highly susceptible to impact from multiple hazards and have been significantly impacted recently – earthquakes, hurricanes, storms, COVID-19 etc.
- In order for Caribbean countries to **understand their current status** (5 priority areas) **and plan** accordingly.
- For Caribbean countries to monitor and track their progress.
- Assist the UN System and UN-GGIM to understand the current status of geospatial information and services for DRRM implementation in the Caribbean and provide support.
- Recommend that Caribbean countries take the time to complete the Strategic Framework Assessment Tool
- UN-GGIM partnering with UN-ECLAC to re-administer the survey within the Caribbean, commencing September 6 8, 2021



Collaboration Essential for Survey Completion



National Geospatial Agency

National Disaster Agency

Ministries, Departments & Agencies

Universities & Colleges and others......



