Seventh Session UN-GGIM: Americas

Séptima Sesión UN-GGIM: Americas

Thursday September 10, 2020

@ 9:50 - 10:20 am (UTC-4)

@ 8:50 – 9:20 am (UTC-5)

Simone Lloyd, GISP

Jamaica Co-chair support

UN-GGIM Working Group On Geospatial Information and
Services for Disasters &
Senior GIS Manager
National Spatial Data Management Branch,
Ministry Of Economic Growth & Job Creation, Jamaica



REGIONAL COMMITTEE OF UNITED NATIONS ON GLOBAL GEOSPATIAL INFORMATION MANAGEMENT FOR THE AMERICAS

Geospatial Information and Services for Disasters



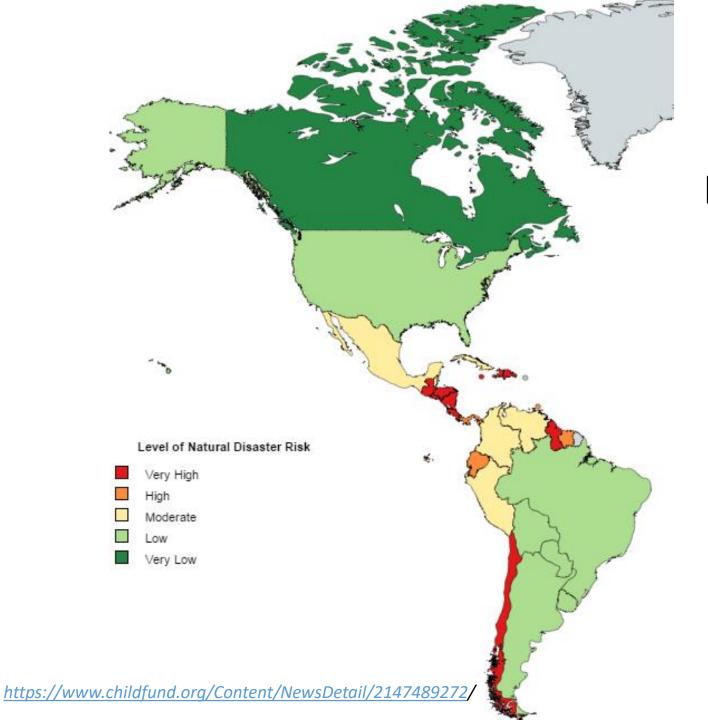
Outline

- Americas Disaster Vulnerability
- UN-GGIM WG Disasters Background
- Strategic Framework on Geospatial Information & Services for Disasters
- Status of Strategic Framework Implementation within the Americas
- Opportunities Presented by COVID-19
- COVID-19 Geospatial Response within the Americas



Americas' Disaster Vulnerability





Americas:

North, Central, South America & the Caribbean (multiple risk zone)

Natural Disaster Risks:

- Hurricanes
- Tropical Storms
- Tropical Depressions
- Troughs
- Earthquakes
- Volcanoes
- Floods etc.



UN-GGIM WG Disasters



United Nations Committee of Experts on Global Geospatial Information Management (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)





Strategic Framework on Geospatial Information & Services for Disasters

UN-GGIM WG Disasters:

Strategic Framework on Geospatial Information and Services for Disasters



Access the Strategic Framework here:

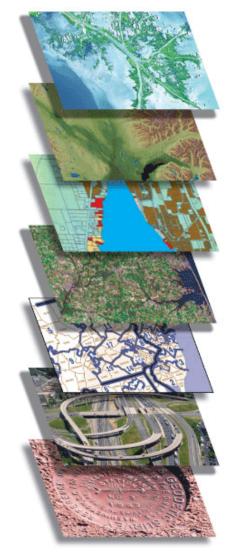
http://ggim.un.org/documents/UN-GGIM Strategic Framework Disasters final.pdf

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)

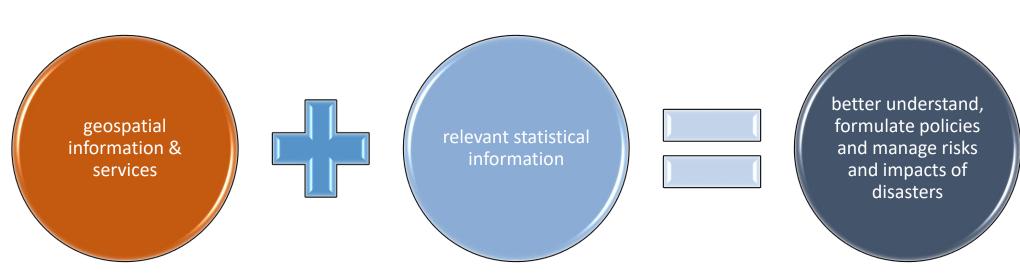
Arabic Chinese English French Russian Spanish



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.



Use of:



Member States



Five Priorities for Action











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



Strategic Framework Assessment Tool



Assessment Survey

UN-GGIM 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.
- aims to understand the national geospatial information and services landscape across all phases of disasters within Member States.
- 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 (DRRM).



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

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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 organization 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 aid Member States in preparing an integrated national assessment.

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 document/s 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 confidentiality.

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Your usual cooperation will be highly acknowledged. Thank youl

Co-Chairs, WG-Disasters

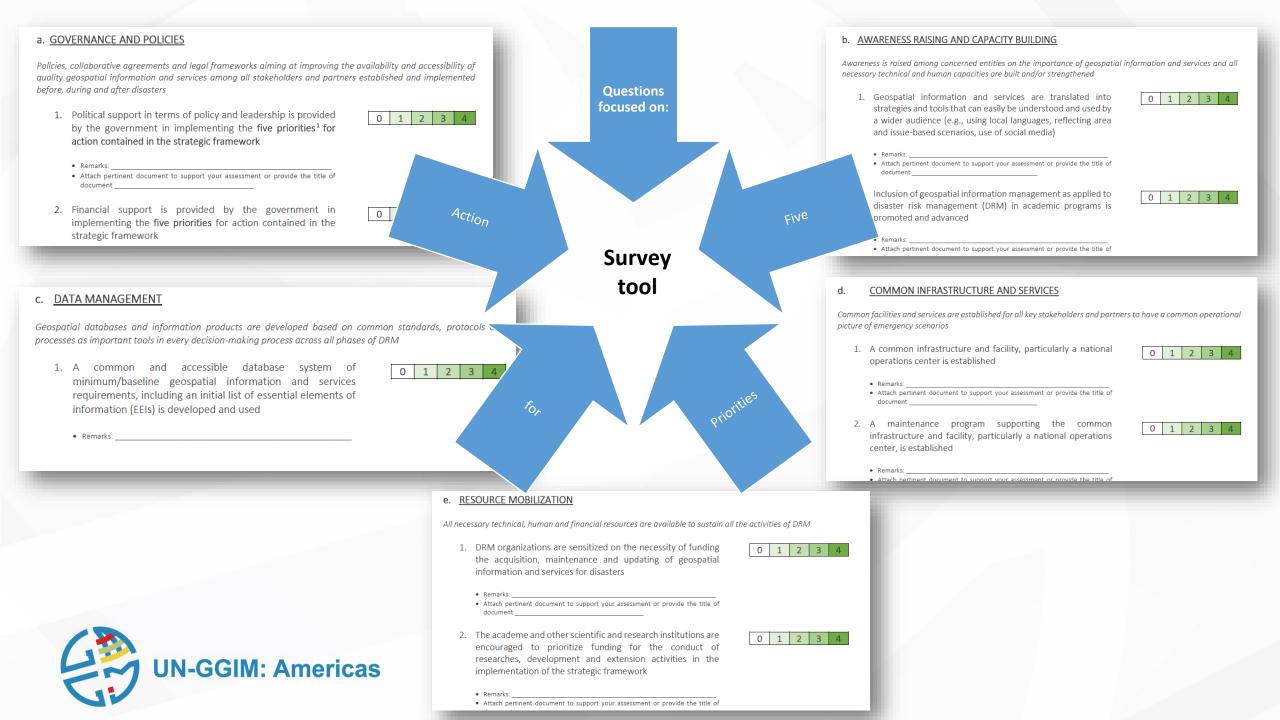
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Complete Strategic Framework Assessment tool:

https://bit.ly/2TxLF0t

Americas Region deadline: August 31, 2020 Global deadline: extended to Oct 2, 2020







Strategic Framework on Geospatial Information and Services for Disasters ASSESSMENT SURVEY

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BACKGROUND INFORMATION

1. Full Name *

Enter your answer



Strategic Framework on Geospatial Information and Services for Disasters ASSESSMENT SURVEY

RATING SCALE AND PRIORITIES

Category Description

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The five priorities of the Strategic Framework on Geospatial Information and Services for Disasters are:

- Priority 1: Governance and policies,
- Priority 2: Awareness-raising and capacity-building,
- Priority 3: Data management,
- Priority 4: Common infrastructure and services, and
- Priority 5: Resource mobilization. (para 12 of the Annex of E/2018/L.15).



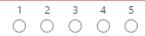
Strategic Framework on Geospatial Information and Services for Disasters ASSESSMENT SURVEY

a. GOVERNANCE AND POLICIES

Policies, collaborative agreements and legal frameworks aiming at improving the availability and accessibility of quality geospatial information and services among all stakeholders and partners established and implemented before, during and after disasters.

7. 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 (a.1)

Select the category (1, 2, 3, 4, 5) that best corresponds to your assessment.





Results of Strategic Framework Assessment Tool within the Americas

Strategic Framework - Survey Results

 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 aid Member States in preparing an integrated national assessment.

• Respondents:

- 42/198 UN-GGIM Member States
- 12/36 UN-GGIM: Americas Member States
- 16 respondents within UN-GGIM: Americas





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

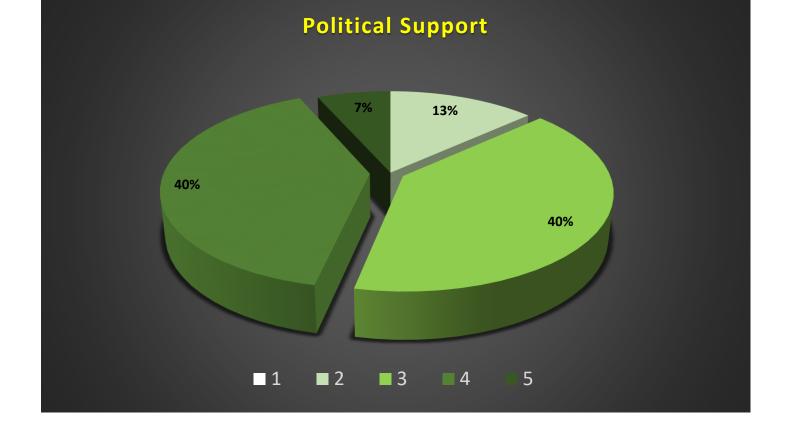
Specific activities:

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





Governance and Policies



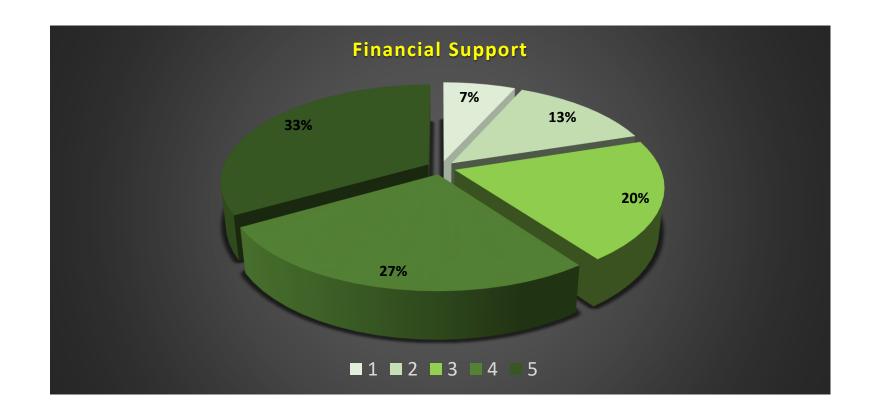
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Political support in terms of **policy** and leadership is provided by the government in implementing the five priorities for action contained in the strategic framework









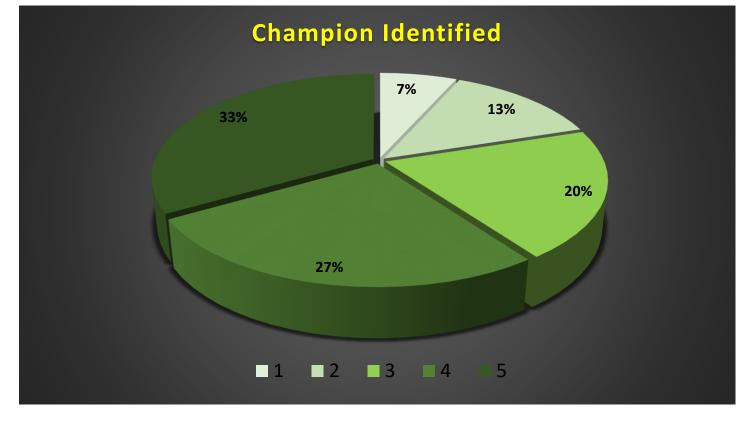
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Financial support is provided by the government in implementing the five priorities for action contained in the strategic framework.





and Policies



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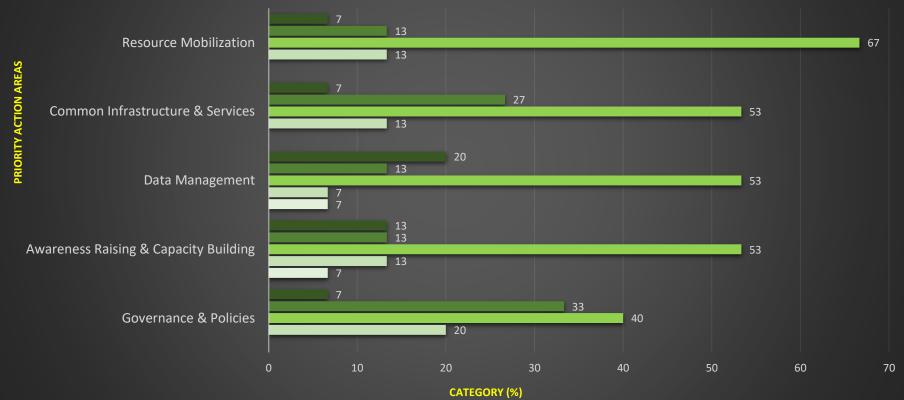
A champion, i.e., individual or organization that oversees the implementation of the five priorities for action and ensures an inclusive participation of all stakeholders and key.





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

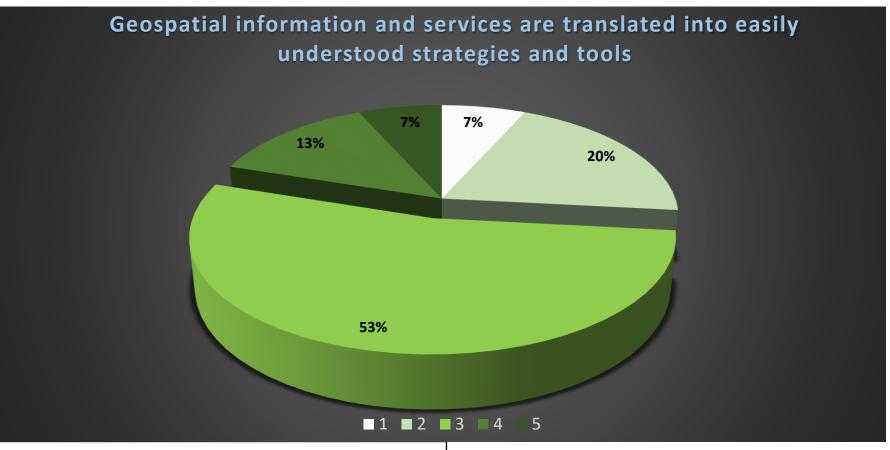
Inclusion of geospatial information management as applied to DRM in academic programs

Geospatial information management training programs



Priority 2:



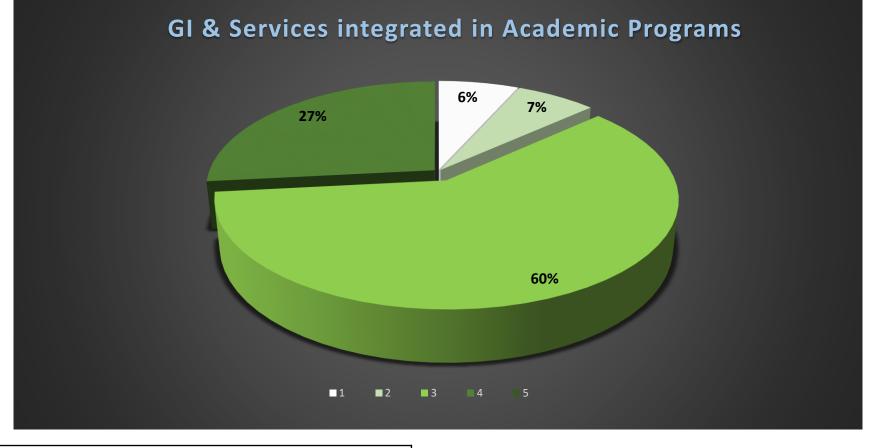


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Priority 2:



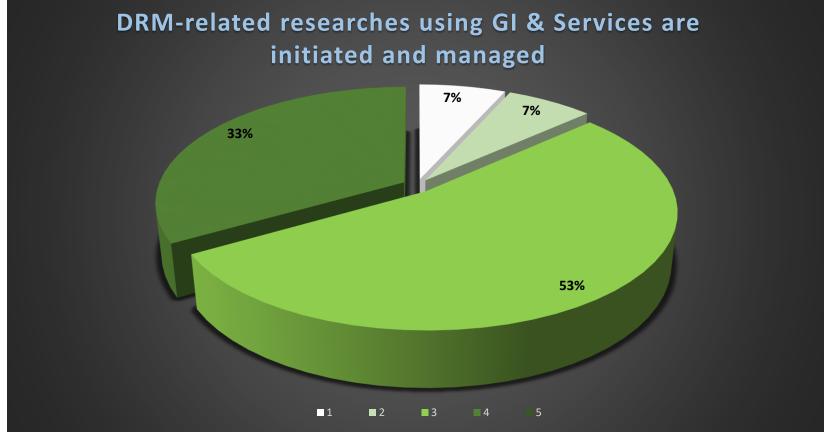


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Inclusion of geospatial information management as applied to disaster risk management (DRM) in academic programs is promoted and advanced







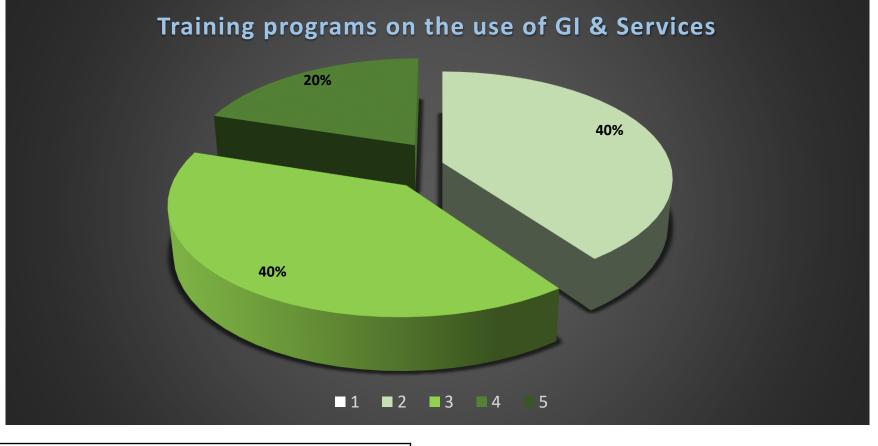
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Data Management

Comprehensive methods of collecting and managing geospatial data and information:

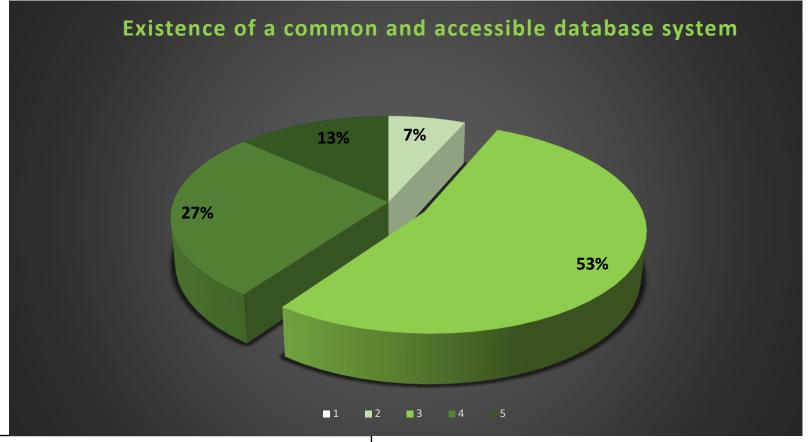
o Data Development

o Data Standards and Protocols

o Data Use Guidelines





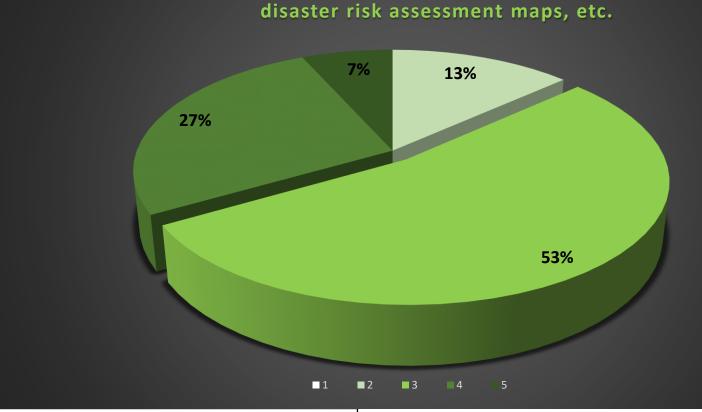


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A common and accessible database system of minimum/baseline geospatial information and services requirements, including an initial list of essential elements of information (EEIs) is developed and...







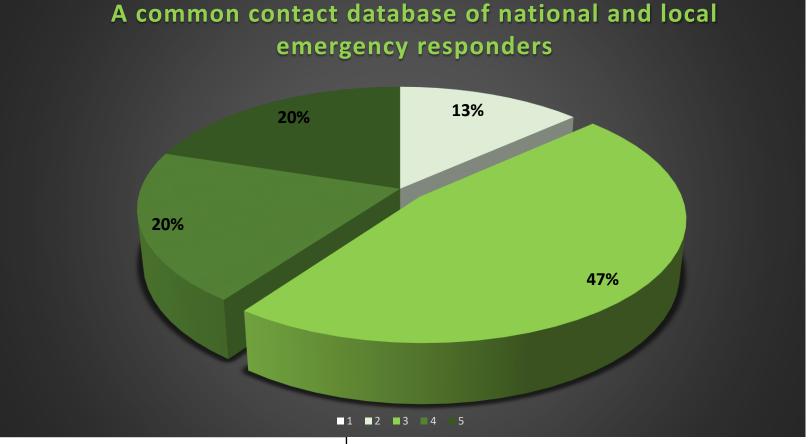
National and local DRM plans include hazard, vulnerability and

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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





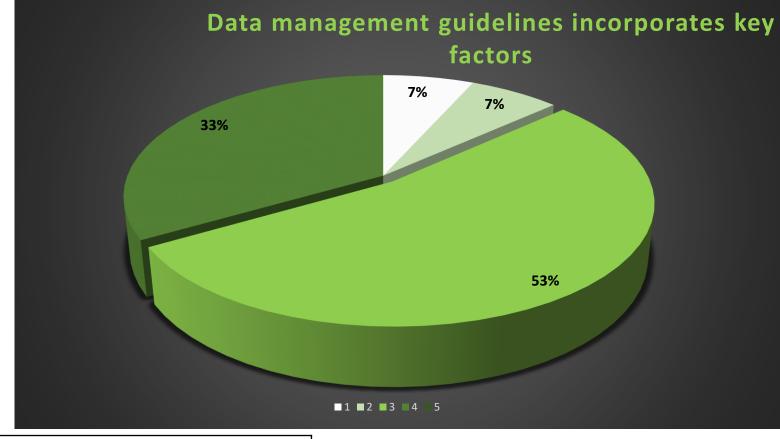


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A common contact database of national and local emergency responders, as well as a registry of all humanitarian response/assistance organizations are established, maintained and updated







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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

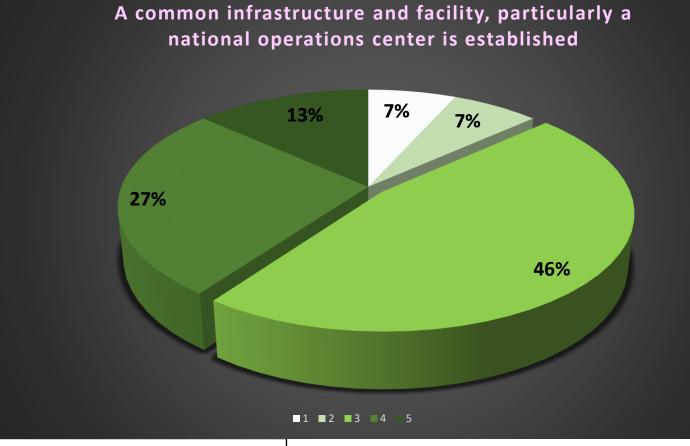
Infrastructure support is essential towards institutionalizing geospatial information and services

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





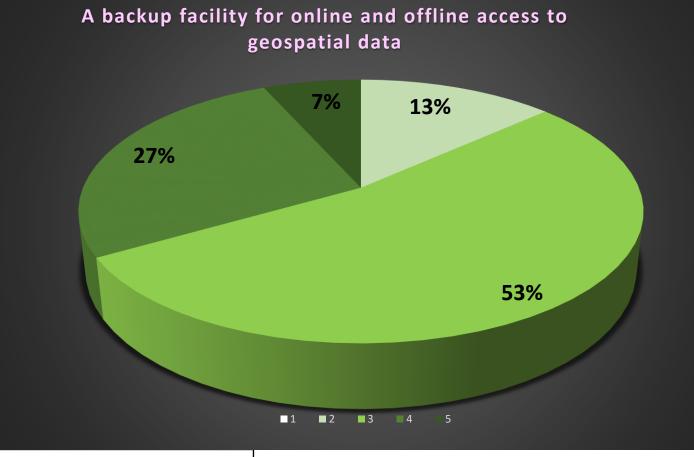


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A common infrastructure and facility, particularly a national operations center is established.





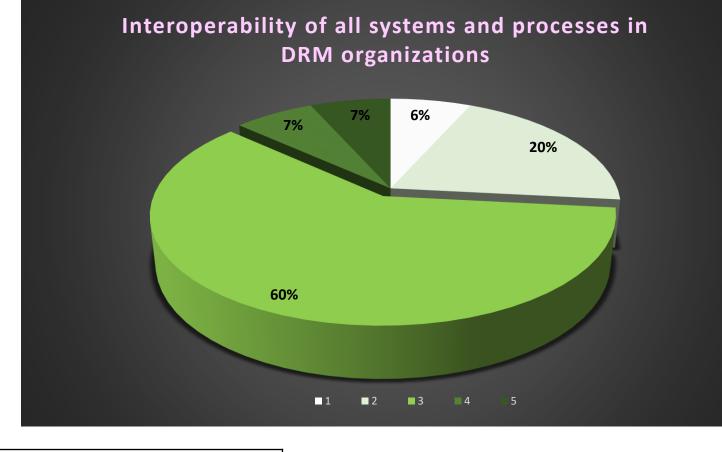


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A backup facility for online and offline access to geospatial data to sustain operations during disasters is established.







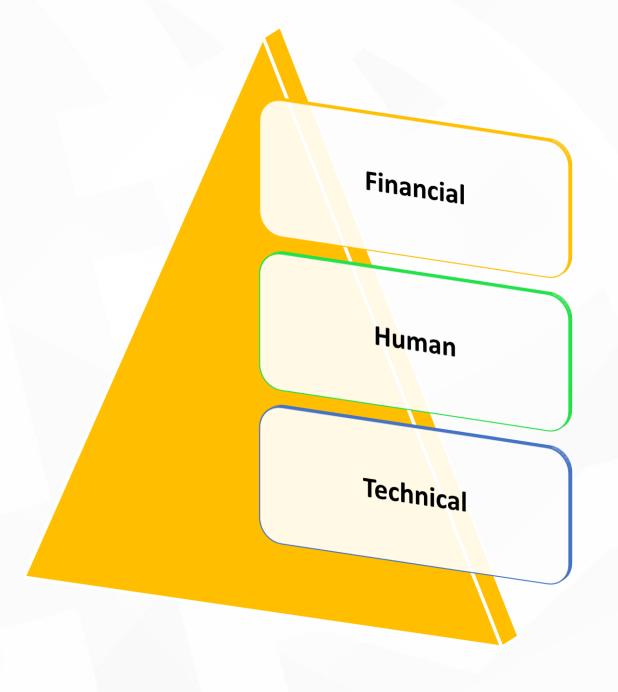
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Interoperability of all systems and processes in DRM organizations is ensured.





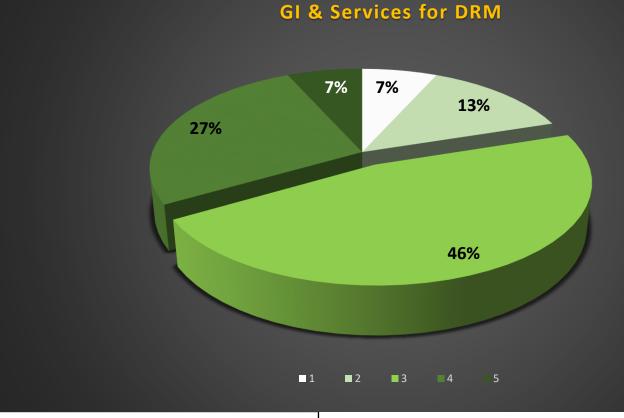
Resource Mobilization



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







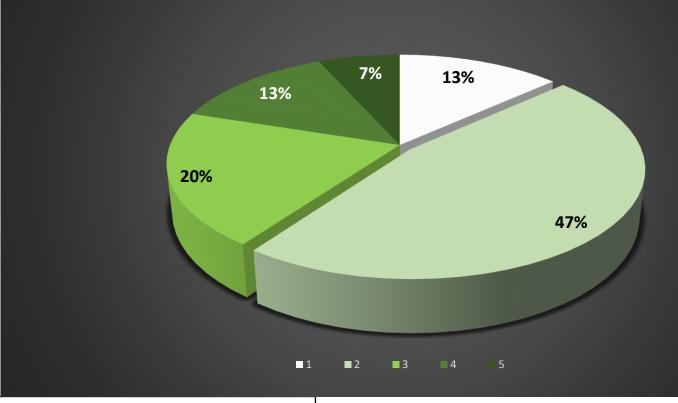
DRM organizations are sensitized on the necessity of funding

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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.







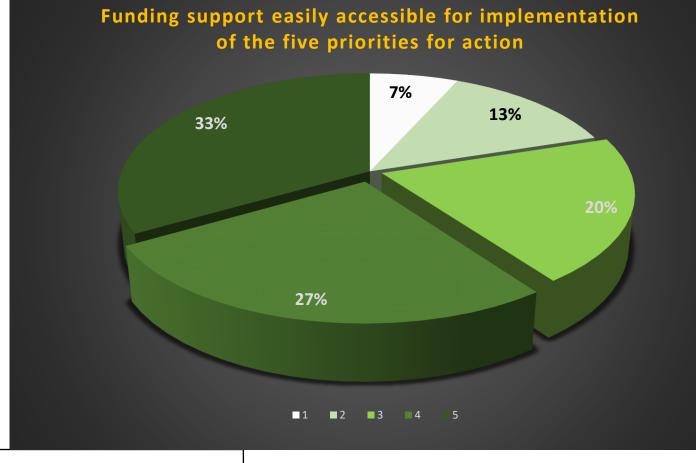
The private sector encouraged to invest in GI & Services for DRM

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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.



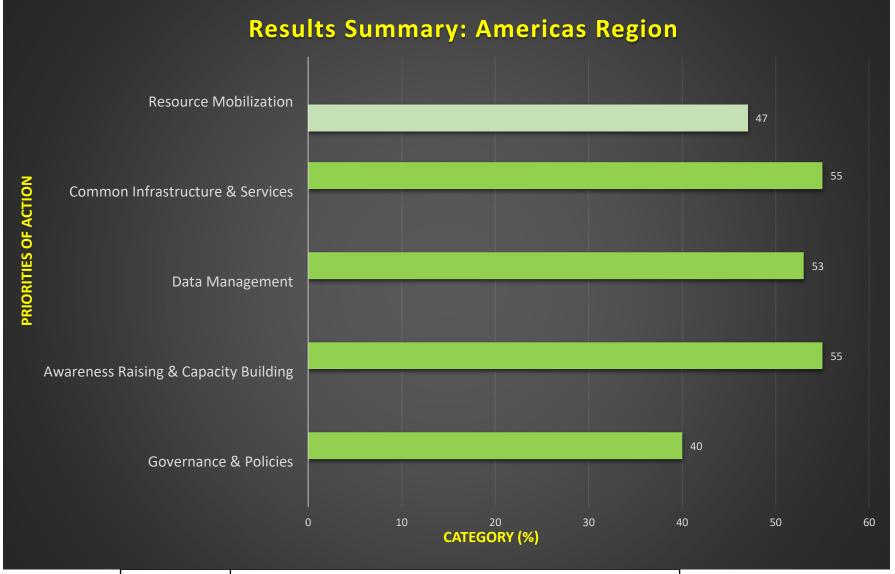




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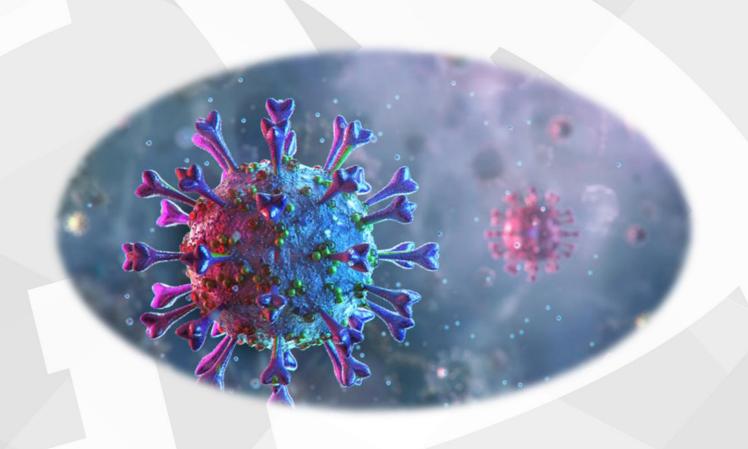
Funding support for the activities in the implementation of the five priorities for action, including **grants**, **loans** and other forms of financial support are easily accessible.





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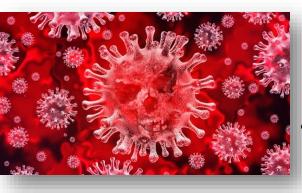




Opportunity presented by COVID-19

Opportunity Presented by COVID-19

• **COVID-19 pandemic** is the largest global disaster challenge recorded. As horrific as it has been, it has created an ideal opportunity to **test and apply the Strategic Framework.**



 COVID-19 pandemic has demonstrated the critical importance of access to available and trusted geospatial information to support decision-making during all phases of disaster risk management.

UN-GGIM WG Disasters encourages Member States to consider implementing the Strategic Framework, particularly given that the COVID-19 pandemic provides a unique opportunity for monitoring and tracking each country's progress across the Framework's five priorities for action. *Outlined in Decision 10/108 proposal, as per UN-GGIM 10th session (Sept. 2020).*

UN-GGIM: Americas

 Reliable, accurate, available and timely Geospatial information are key towards facilitating better decision making

ECLAC and UN-GGIM Americas: "Questionnaire on geospatial support to COVID-19"

(April to May 2020)



Organizational agreements for geospatial support to COVID-19

- **Technical groups/committees** to define data needs and facilitate provision eg. Brazil, Mexico
- Activation of National Emergency Operation Centers (NEOCS) and provision of geospatial support eg. Sint Maarteen, Antigua y Barbuda, Ecuador, Jamaica - National Emergency Response GIS Team (NERGIST)
- Establishment of **National Taskforce** eg. Guyana
- High Level Commission for the Prevention and control of Coronavirus eg. Dominican Republic

Geospatial Support provided for COVID-19

- Products: Static GIS maps, dynamic web maps and applications, ArcGIS Survey 123 forms
- Incident maps were generated as well as case count per district/neighborhood webmaps
- Mapping of **COVID19 cases** (confirmed, recovered, deaths, quarantined, contact tracing, etc.)
- Hot spots analysis for COVID-19 cases
- Vulnerable groups mapping and analysis (elderly etc.)





Geospatial Support provided for COVID-19

Quarantine area mapping

Isolation centres mapping

Hospital beds occupancy and availability

 Mapping and monitoring of travel patterns and health status of public health workers





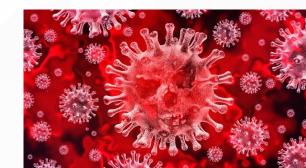
Platforms or dashboards for the integration and publication of geospatial data

 ArcGIS Operational Dashboards were primarily used for visualization, monitoring and management.

 Some were public facing and others private for internal government use.

Many benefitted from the ESRI Disaster Response Programme.







ArcGIS

Dashboards



得

US Census Bureau COVID-19 Site







New Covid-19 Surveys and Estimates

These Census Bureau experimental data products are innovative statistical products created using new data sources or methodologies that benefit data users in the absence of other relevant products.



Weekly Business Formation Statistics

The BFS provide timely and high frequency information on new business applications and formations in the United States.

Dashboard (>)



Weekly Small Business Pulse Survey

This experimental survey measures the changes in business conditions on our nation's small businesses during the coronavirus (COVID-19) pandemic.

Dashboard (>)



Weekly Household Pulse Survey

This is a 20-minute online survey studying how the COVID-19 pandemic is impacting households across the country from a social and economic perspective.

Go to (>)

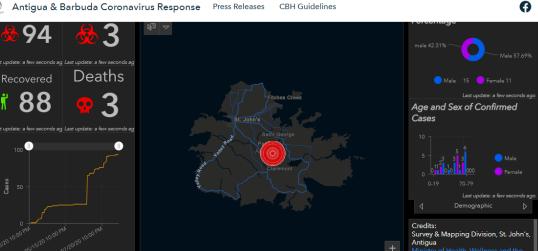


Estimates (CRE)

The capacity of individuals and households within a community to absorb, endure, and recover from the health, social, and economic impacts of a disaster.

Go to (>)





Antigua & Barbuda

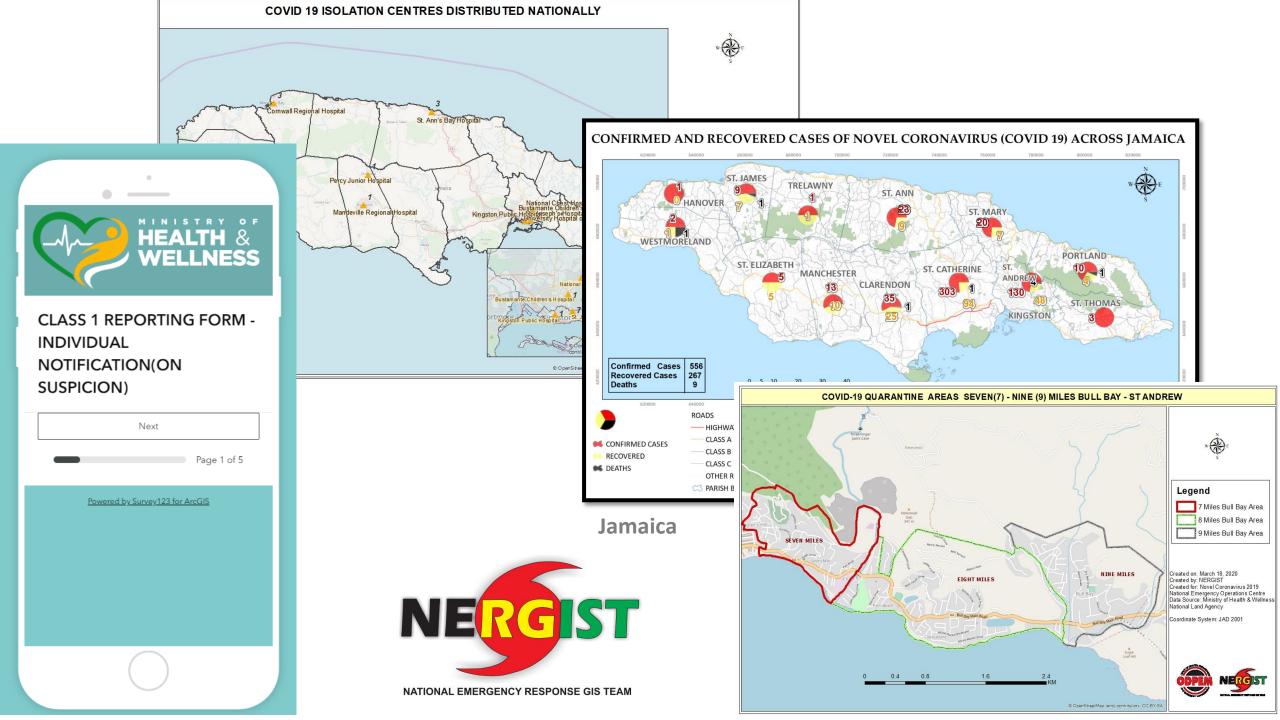
USA











Use of satellite images for obtaining georeferenced information or statistical data

• 38% indicated use of satellite imagery eg. optical images, radar images, living atlas and ArcGIS online satellite tiles. Eg. Argentina, Brasil, Jamaica, Dominican Republic, Panama

• 62% did not use satellite imagery. This is a potential area to examine access and capacity building in the use of raster datasets.



Geospatial Gaps Observed While Responding to COVID-19

Lack of or limited data interoperability

• High levels of data disaggregation between various entities, with little communication among them (silos).

• Lack of **human resource with geospatial skills** eg. One GIS Officer in some smaller Caribbean countries

Need for a national address system



Geospatial Gaps Observed While Responding to COVID-19

 Difficulties in data availability at the local level, especially in rural areas

Need for continuous upgrading of the geospatial skills level

 Need for effective coordination for the exchange and analysis of inter-institutional geospatial information



covides a unique opportunity for monitoring and tracking each country's progress

Strategic Framework's Five Priorities of Action

Utilize the gaps identified as areas for opportunity and growth



Thank you!



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