# Seventh Session
# UN-GGIM: Americas

## Séptima Sesión
## UN-GGIM: Americas

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

# THE CARIGEO INITIATIVE

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# Background:
# Project for Strengthening Spatial Data Infrastructures in the Caribbean

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# Project Overview

Initiated through the UN-GGIM Americas

Funded by the Government of Mexico with support from Government of Chile

Collaborators: ACS, UWI, CDEMA, URISA Caribbean

**Details:**

- **Funding Amounts – US $ 4.5 m**
- **Start Date: 2014**
- **End Date: 2018**
- **Countries:** Antigua and Barbuda, Bahamas, Barbados, Belize, Cuba, Grenada, Guadeloupe, Guyana, Haiti, Jamaica, Martinique, Dominican Republic, Saint Kitts and Nevis, Saint Lucia, Saint Martin, Saint Vincent and the Grenadines, Suriname, and Trinidad and Tobago

# General Objective of Project

To promote the development of **Spatial Data Infrastructure (SDI)** in the Caribbean, in order to strengthen the generation, use and sharing of geospatial information, including for policy making

**Specific Objectives:**

- Reduce Geospatial Data Infrastructure gaps within the Caribbean region, and with respect to the rest of the Continent.
- Support the integration and participation of Caribbean countries in both; the United Nations Experts Committee on Global Geospatial Information Management and the regional committee UN-GGIM: Americas

# Outcomes of Strategic Objectives

| Business Unit: Caribbean Project | | Strategic option: | | STRENGTHEN | | | | |
|---|---|---|---|---|---|---|---|---|
| Strategic Objective | | Strategies | | Indicators Tracing | GOALS / Specific objectives | | | |
| | | | | | minimum | medium | optimum | Actual |
| 1 | Strengthen the geodetic network | Increase stations | Increase number of stations<br>Increase data availability<br>Increase security location | 5% further in the region | 3% | 5% | 10% | More than 10% |
| 2 | Broadcast Geographic Information | Create Digital Map of the Caribbean | Increase number of geoportals<br>Increase dissemination of G.I.<br>Increase the number of users | 10% further in the region | 5% | 10% | 15% | 5% |
| 3 | Promote the use of G. I. | Construct Land Cover Map | Consider Project countries<br>Ensure the quality of the project<br>Disseminate results by geoportal | 90% of the coverage for the region | 80% | 90% | 100% | 100% |
| 4 | Capacity Building | Training in geographic skills | Increase basic skills<br>Increase intermediate skills<br>Increase transversal competences | 90% of participations for the countries in the project | 80% | 90% | 100% | 80% |
| 5 | Using geographical standards | Apply standards in processes | Increase in production processes<br>Increase in integration processes<br>Increase in dissemination processes | 20% of processes | 10% | 20% | 30% | 20% |
| 6 | Update computer technology | Renew computers | Update servers<br>Update computers<br>Update network equipment | 2% of equipment available | 1% | 2% | 3% | More than 3% |
| 7 | Geographic Metadata | Promote the Application | Define a profile for the Region<br>Train them on application<br>Implement use | 20% of the countries in the project | 10% | 20% | 30% | Less than10% |

# Past Activities


# Outstanding Activities

1

Complete the configuration and transfer of files from the geodetic network to the server located at UWI;

2

Upload Spatial Data for Countries that are yet to contribute data sets (only 4 countries have contributed data so far);

3

Complete the portal to make available the data from the Caribbean Digital Map

# Caribbean Geospatial Development Initiative: CARIGEO

PURPOSE:

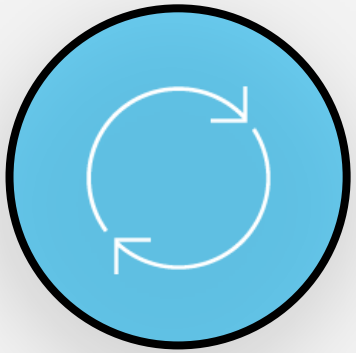
- The Caribbean Geospatial Development Initiative is intended to improve Geospatial Data Infrastructures at the national and regional levels in the Caribbean, building on recent and on-going developments, leveraging indigenous skills and resources, and utilising external resources and technical expertise.

- The overall aim is to ensure that this initiative is sustainable in the long-term.

# Bridging the Geospatial Divide Across the Region

# National Agencies Need to Modernize

People



Process

Data

Technology

# Current state of IT and GIS infrastructure

| General topics/questions | Additional related questions |
|---|---|
| What type of HW is being used today at your agency? (E.g., server, desktop, mobil) | * Is the HW dated? Is this an issue? |
| What HW acquision is planned for next projects and initiatives? | * Is there a gap?<br>* Is funding for HW acquisition available? |
| What GIS SW is currently being leveraged at your organization? | * Does it cover the basic agency needs?<br>* What future GIS SW does agency plan to acquire? Is funding available? |
| Do you host GIS data and services in the Cloud? | *If you don't, are there plan to do so in the future?<br>* Can you leverage services such as ArcGIS Online to consume base maps or to help with peak loads?<br>* Are there any institutional or legal restrictions for hosting information in the Cloud? |
| Internet bandwidth | * Is your current bandwidth sufficient for day to day operations?<br>* Or to manage volume of transactions at peak loads? |
| Describe overall mobile connectivity in country | * Does it meet the needs of the organization?<br>* What percentage of the population can access 3G or 4G? |
| Describe capacity building needs and gaps for IT and GIS | * List three high priority training topics for your agency |
| Describe your GIS development platform | * Degree of configuration vs customization for your agency<br>* What APIs and SDKs are being leveraged for GIS customization |

# Data needs and gaps

| | |
|---|---|
| Describe data used for common workflows | * What data needs to be used in support of field work<br>* What data needs to be used for analysis?<br>* What data need to be used for reporting?<br>*What data needs to be used to support policy making? |
| Describe the most pressing data needs for your agency | * Is the authoritative agency data out-of-date?<br>* Do you have difficulties obtaining the source data? |
| Discuss data storage conditions and needs | * Is the geodata stored in tables, databases, geodatabases?<br>* Do you need to improve data storage (e.g., upgrade SW, upgrade HW, move to Cloud)? |
| Discuss data Sharing - policy, limitations | * Does the agency have guidelines for data sharing? (e.g., Open Data Policy, agreements with other government agencies)<br>* Do you have difficulties sharing data with others, or obtaining data from others?<br>* Is there good communication with the key community stakeholders? |
| Who are the main users of your data? | * Are they government agencies?<br>* Is data shared predominantly with the public? |
| Discuss information products | * What are the main information products created by your agency?<br>* What are the new information product you envision developing in the next 5 years? |
| Describe capacity building needs for data production, maintenance and sharing | * List three high priority training topics for your agency |

# How to impact change

| | |
|---|---|
| What governance issues or challenges does your agency face? | * Do you have governance policies and guidelines in place today? |
| Discuss your legal framework | * Are there areas that cause restriction in how you do business? (E.g, US Census had to change law on need to knock on every door each census)<br>* Is the legal framework appropriate to support the work of your agency? |
| Discuss senior management's role | * Is senior management informed and supportive of role of GIS and geoinformation for the business?<br>* What can be done to elevate the visibility of GIS in your agency? |
| Discuss funding: availability, restrictions | * Are there financial or budget concerns?<br>* What are the main budgetary gaps? |

# Major Issues Identified:

- Improve data sharing
  - Tools
  - Protocols
  - MoUs and agreements

## Capacity building

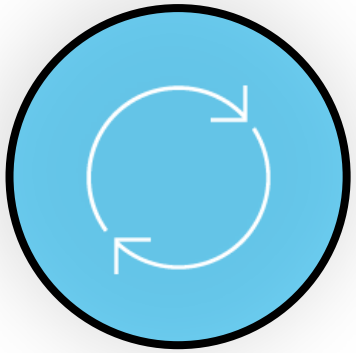
- Server
- Geodatabases
- Cloud solutions
- Analysis (including statistical)
- APIs and SDKs
- Data curation
- QA/QC
- Metadata

- Infrastructural investment
  - Improved bandwidth
  - Broaden access to the internet
  - Support of mobile GIS solutions (e.g., mobile devices)
  - Pool of HW resources (phones, tablets, GPS) for disaster response
- HW upgrade
  - better machines to support complex analysis
  - Upgrade GPS units
  - Improve storage capacity

- Funding
  - Gain access to sustainable funding
  - Put in place multi agency agreements
  - Funding to improve use of GIS at NGOs
- Fundamental data
  - Improve and facilitate data capture
  - Need to create a complete set of national core datasets (lacking or out-of-date)
- Data management
  - Improve data management practices
  - Data standardization
  - Improve data accessibility
  - Implement data management guidelines
- Governance
  - Need to review and create/update GIS and data guidelines
  - Need to recognize common practices in formal agreements
  - Improve legal framework to keep pace with tech advances
  - Increase participation of senior managers

# Challenge or Opportunity?

People

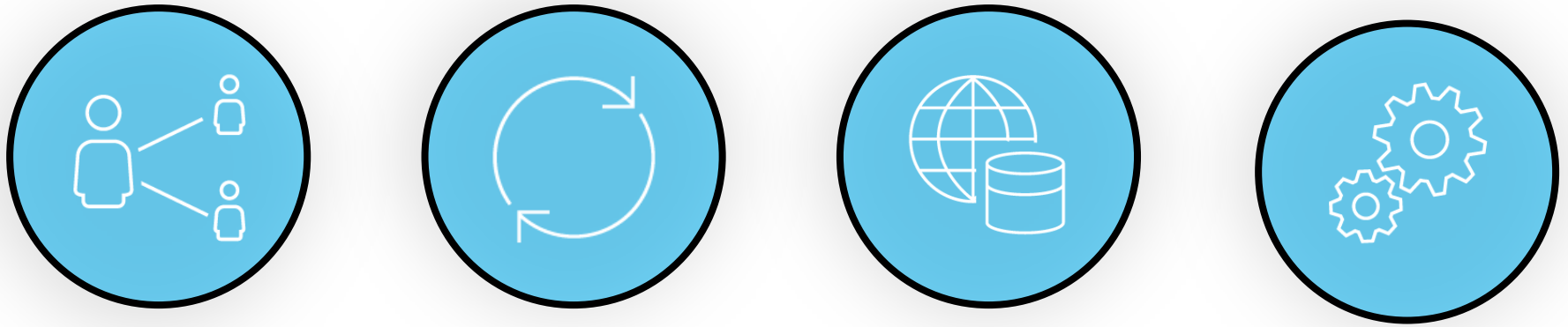


Process

Data

Technology

# National Agencies need to re-orient themselves



Relevant

Contributing to National Objectives

Responsive

Actively engaging other agencies & citizens

Authoritative

quality, safe, trusted, timely information

Efficient

Aligning people, processes & technology

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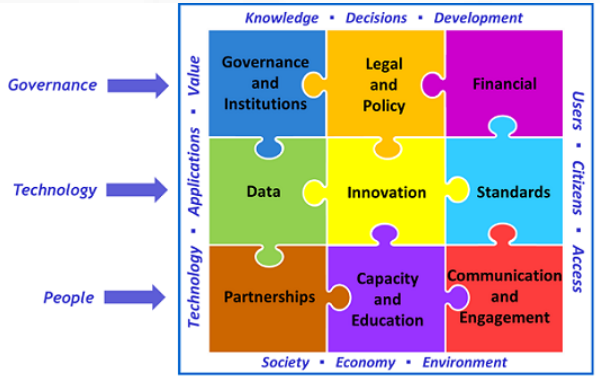
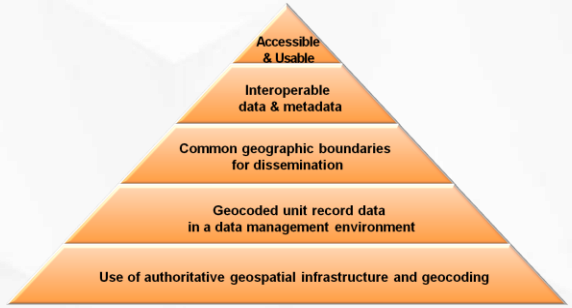
# Carigeo – alignment to frameworks

## Integrated Geospatial Information Framework




## Global Statistical Geospatial Framework




## Global Geodetic Reference Frame

## Strategic Framework for Disasters

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# Objectives

- Implement strategies, in collaboration with funding agencies, regional partners, and national governments in the region, to build sufficient human capacity to develop and maintain the fundamental datasets for each member country;
- Provide short term support in the interim to develop regional and nationwide coverage of fundamental datasets to meet national and regional quality standards and specifications.
- Promote the formulation and implementation of a sustainable mechanism for discovering, accessing, maintaining, and using these fundamental datasets.
- Develop an organizational framework for collaboration that empowers stakeholders to use the fundamental datasets to address the challenges in their areas of interest

# Focus Areas

1 **Assessment of Current Situation in the Caribbean**

**Governance & Policies** 2

3 **Collaboration & Partnerships**

**Datasets & Tools** 4

5 **Capacity Development**

**Communications** 6

# Guiding Principles

Collaboration and coordination

Use of and adherence to geospatial standards

Ownership and accountability

Transparency

Respect and confidence

Standards of service

Adherence to law

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# Expected Results

- A community of spatial data producers and users is formed and remains active
- GIS and data management capacities are improved across the region
- Increased funding is available for the creation and updating of fundamental spatial dataset
- Spatial data is shared more broadly and more openly in the Caribbean
- Development decisions and policy-formulation take more advantage of geoinformation
- National Legislation to regulate and promote the use of geoinformation is enacted
- Agreements are instituted for collaboration and corporation on the use of geoinformation regionally.

# Partners


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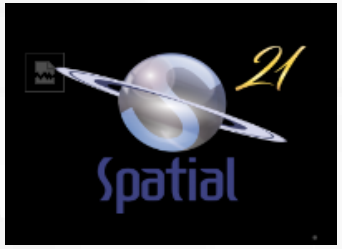
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Spatial


URISA
Caribbean
Chapter


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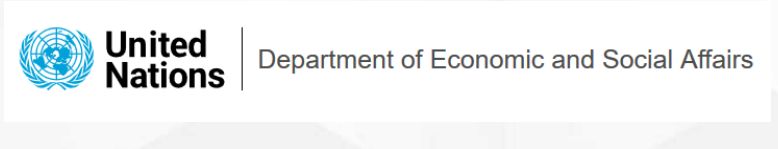
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# Thank you!

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