

FIG WORKING WEEK 2023

SMALL ISLAND DEVELOPING STATES (SIDS) WORKSHOP



CARIGEO

Caribbean Geospatial
Development Initiative

GEO-EMPOWERING THE CARIBBEAN



Monday May 29, 2023

11:30 - 13:00 am (GMT-4)

Nassau, Hilton/Waldorf,

Signia by Hilton Bonnet Creek, Orlando - Florida

CARIGEO Initiative



Simone M. Lloyd, GISP

Jamaica Focal Point & Caribbean Vocal: UN-GGIM & UNGGIM Americas
Principal Director (Acting), National Spatial Data Management Branch
Ministry of Economic Growth & Job Creation



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SMALL ISLAND DEVELOPING STATES(SIDS) WORKSHOP

Serving Society for the benefit of people and planet;

***Facing the global challenges in Small Island Developing States: The Role of
Land Professionals***



Outline

- Caribbean Context
- CARIGEO Background & Achievements
- Scope of Work
- Workplan 2023

Caribbean Region



Caribbean Region

Diverse given historical setting, geographical location, geological setting, etc.

Caribbean is a diverse region comprised of over 700 islands, islets, reefs and cays that surround the Caribbean Sea and lie on the Caribbean Tectonic plate

Issues:
socio-economic, climate change, hydrometeorological, geomorphological and health hazards etc.



Disaster Risk Levels in Caribbean



<https://www.childfund.org/Content/NewsDetail/2147489272/>

Natural Disaster Risks:

- Hurricanes
- Tropical Storms
- Tropical Depressions
- Troughs
- Earthquakes
- Volcanoes
- Landslides & Floods
- Forest Fires & Wildfires
- Droughts etc.

Other Disasters:

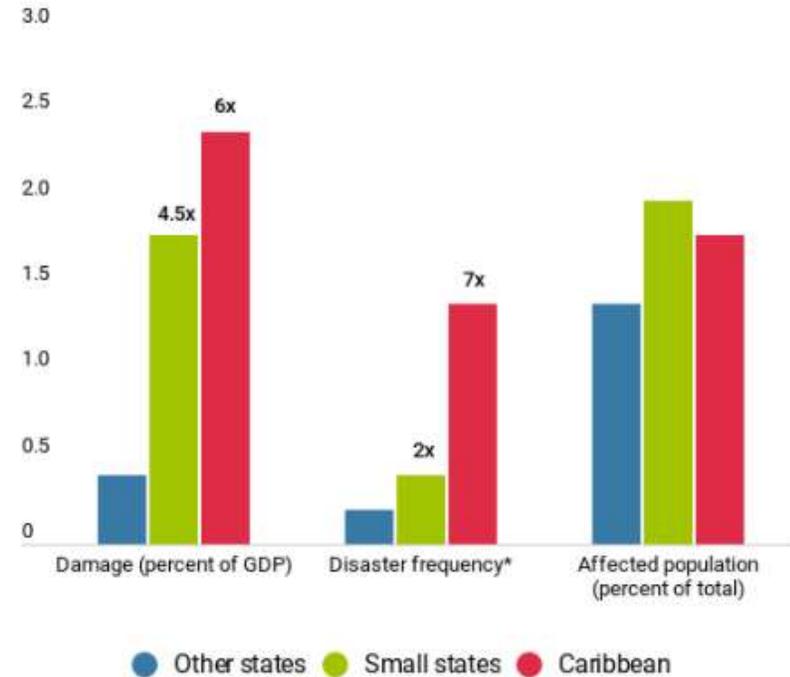
- Epidemic & Pandemics eg. COVID-19
- Chik V, Zik V etc



Highly vulnerable

Caribbean countries experience frequent natural disasters with high human and economic costs.

(frequency and effects of natural disasters, 1990-2014)



Source: IMF staff calculations.



Caribbean is primarily made up of Less Developed Countries (LDCs) and Small Island Developing States (SIDS) that are highly vulnerable to the impacts of disasters.



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GI can target development priorities

- The effective management and utilization of geospatial information is very important in support of development priorities:

Economic

Social

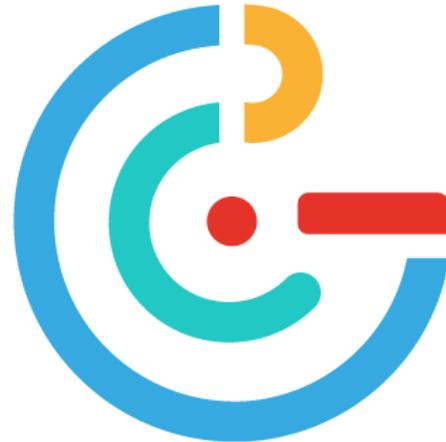
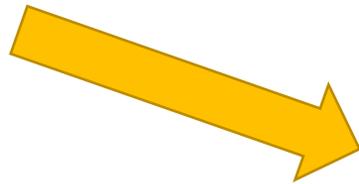
Environmental





UN-GGIM AMERICAS

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



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an Initiative implemented by the Americas Regional Committee of United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM: Americas)



To improve Spatial Data Infrastructures at the national and regional levels in the CARIBBEAN

- building on recent and on-going developments*
- leveraging indigenous skills and resources*
- utilising external resources and technical expertise*

Partners



an Initiative implemented by the Americas Regional Committee of United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM: Americas)



THE UNIVERSITY OF THE WEST INDIES



Participants



**National Mapping
Agencies**

&



**National Statistical
Offices**

The Future We Want



- 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 datasets**
- 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



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Past Initiative



Project for the Strengthening of Spatial Data Infrastructures in Member States and Territories of the Association of Caribbean States (Caribbean Project)

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

Successes of Past Initiative



Progress



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**Establish the
Project
Steering
Committee**



**Develop the Terms
of Reference &
Program Proposal
Documents**



**Engage Partners
& Donors**



**Formulate &
Execute Projects
and Activities**

Terms of Reference



Guiding Principles



Collaboration and coordination



Use of and adherence to geospatial standards



Ownership and accountability



Transparency



Respect and confident



Standards of service



Adherence to law

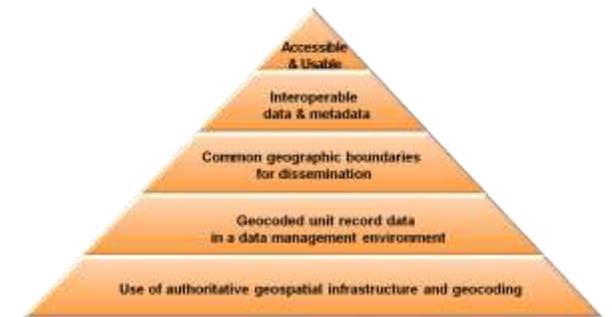
Alignment to International Frameworks



Integrated Geospatial Information Framework



Global Geodetic Reference Frame



Global Statistical Geospatial Framework



Strategic Framework for Disasters



GeoPortal

Data

Tools

Learn

Community

About Us



The Caribbean GeoPortal

Inspiring communities through geography

Developed and sponsored by ESRI as a CARIGEO collaboration.



“

We are deeply committed to supporting innovation in the Caribbean, helping users discover, explore, and understand the vast information available to them through the power of maps.

”

Caribbean Geoportal Webinar series

(April - August 2021)



Webinar #1:
**Learn How You Can Use
the Caribbean GeoPortal**
(April 21, 2021)

Webinar #2:
**Leveraging the Caribbean
GeoPortal for Disaster
Planning and Management**
(June 22, 2021)

Webinar #3:
**Metadata, Maintenance &
Best Practices on Data
Sharing**
(August 26, 2021)

What is the Caribbean GeoPortal?

- An open mapping community for the Caribbean
 - Data by Esri, Partners, Governments, other authoritative producers and the Community e.g., NOAA, NASA
 - Analytical tools for spatial data
 - Hands on software training
 - Publish your own data online
 - Field data collection tools
 - Configurable web applications



A portal built for the community – by the community

The Caribbean GeoPortal: Tools and Content

The Caribbean GeoPortal provides full access to ArcGIS Online, providing access to tools for mapping, analytics, sharing and collaboration, and a suite of templates and field applications



Content available includes:



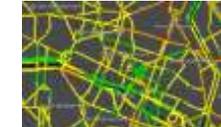
Admin boundaries



Land cover



Imagery



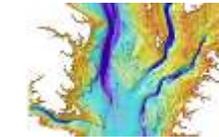
Real-time traffic



Wind & weather conditions



Demographics

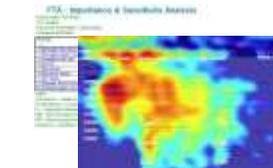


Bathymetry



Oceans

Open Data Sources



Community Data (Govs-NGOs-AID Orgs.)



Commercial Data



The Caribbean GeoPortal: Tools and Content

The Caribbean GeoPortal provides full access to ArcGIS Online, providing access to tools for mapping, analytics, sharing and collaboration, and a suite of templates and field applications



Tools available provide ability to:

- Create web maps
- Apply spatial analytics
 - Aggregate, join, summarize, enrich
 - Find, Search, Geocode
 - Analyze patterns, calculate density
 - Manage data – dissolve, extract, merge and overlay
- Do work in the field

Who will use the GeoPortal?





Caribbean Living Atlas

The Caribbean GeoPortal is home to hundreds of ready-to-use datasets. Some provided by you, others by users of the Caribbean GeoPortal. Explore the data and use it to make better decisions. Find answers and make better decisions.

Explore the Data

Using the search bar and filtering options you can explore the dynamic content of the Living Atlas. If you are signed in you can also download data and share it with others. You can also use the map to explore the data and use it to make better decisions.

Access learning resources

The Caribbean GeoPortal provides users with additional resources for professional training and skills, including those to get the most from the tools and data available. Content ranges from beginning to advanced.

Available Online Training

Build capacity and learn the skills required for the jobs of tomorrow. Focus on your learning objectives in a planned learning program with experiential tasks and scenarios all included. Take part of your on-the-job training on your own terms.

The Caribbean GeoPortal contains a number of power for tools, maps and data that you can use. Learn how to maximize each capability to help you get the most from your tools. Taking them from their online version which is included with your GeoPortal account.

Check out the training resources and take part of your learning today.

New to geospatial or GIS?

Geospatial Tools

The Caribbean GeoPortal gives users access to the leading geospatial tools to create, map, analyze, and share geospatial information. Use the tools to create maps, analyze data, and create reports and maps. These tools can be used for all Caribbean GeoPortal users.

Create a web map

Quickly create web maps using the online tools in the Living Atlas. You can also create maps using the tools in the Living Atlas. You can also create maps using the tools in the Living Atlas. You can also create maps using the tools in the Living Atlas.

Apply spatial analytics

Apply spatial analytics to your data to understand the spatial relationships between different features. You can also use the tools in the Living Atlas to create maps and reports. You can also use the tools in the Living Atlas to create maps and reports.

Take your work into the field

Take your work into the field using the mobile apps available on the Caribbean GeoPortal. You can also use the tools in the Living Atlas to create maps and reports. You can also use the tools in the Living Atlas to create maps and reports.

Disaster Response

Use the tools in the Living Atlas to create maps and reports. You can also use the tools in the Living Atlas to create maps and reports. You can also use the tools in the Living Atlas to create maps and reports.

COVID-19

Use the tools in the Living Atlas to create maps and reports. You can also use the tools in the Living Atlas to create maps and reports. You can also use the tools in the Living Atlas to create maps and reports.

Hurricane and Cyclones

Use the tools in the Living Atlas to create maps and reports. You can also use the tools in the Living Atlas to create maps and reports. You can also use the tools in the Living Atlas to create maps and reports.

Recent Earthquakes Layer

Use the tools in the Living Atlas to create maps and reports. You can also use the tools in the Living Atlas to create maps and reports. You can also use the tools in the Living Atlas to create maps and reports.

Damage Assessment

Use the tools in the Living Atlas to create maps and reports. You can also use the tools in the Living Atlas to create maps and reports. You can also use the tools in the Living Atlas to create maps and reports.

COVID-19 Response

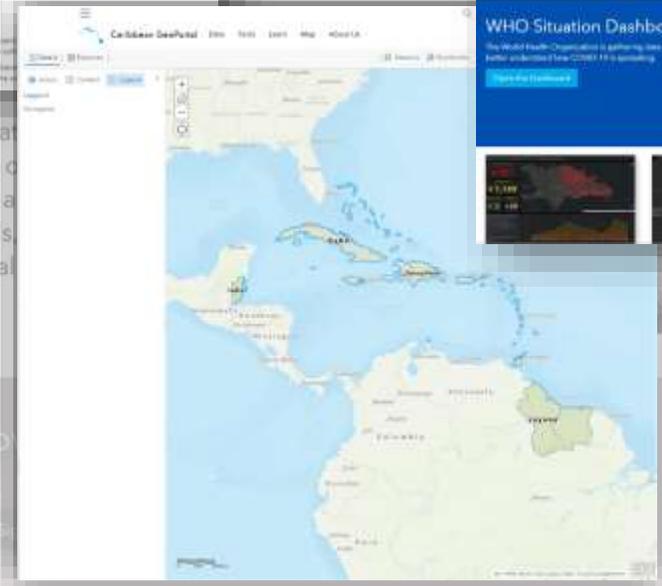
Monitoring Coronavirus in the Caribbean

Confirmed Cases	Recovered	Deaths
8,129	1,388	396



WHO Situation Dashboard

The World Health Organization is gathering, analyzing and providing the critical information in a global dashboard for all to better understand how COVID-19 is spreading.



Information on Disasters



Earth Observation
NASA's fleet of Earth satellites can provide a wealth of information before, during and after a disaster.

Disaster Response
When disasters occur, our team provides users access to critical imagery, data and damage assessments. This information flow enables decision-makers to make real-time decisions that save lives and mitigate disaster impacts. We work with a network of partners and volunteers to provide guidance for action when communities face a crisis.

DISASTERS PROGRAM
NASA Earth Science



COVID-19 Response
Monitoring Coronavirus in the Caribbean

Confirmed Cases	Recovered	Deaths
649,027	420,570	8,854

Source: Coronavirus COVID-19 Caribbean Cases



CARICOM is launching the second round of the Caribbean COVID-19 Food Security and Livelihoods Survey. Following the April 2020 survey that highlighted disruption to livelihoods and impacts on food security in the initial stages of the COVID-19 response, this round aims to capture the current state of affairs and analyse how livelihoods, food security and markets have shifted over the past few months. The survey is open to all CARICOM Member States and Associate Members, as well as Antigua, Curaçao and Sint Maarten between 22 June – 8 July 2020.

Hurricane and Cyclones

This map describes the current & recent location of tropical storms, as well as forecast positions and probable track of tropical storms. The areas currently covered by the live feeds are the Atlantic and Eastern Pacific, the Central Pacific (Hawaii, etc.), and the Western Pacific and Indian Oceans. The data sources are the National Hurricane Center, Central Pacific Hurricane Center and Joint Typhoon Warning Center.

[Open the App](#)

Hurricane and Cyclones App




Recent Earthquakes Layer

This service presents recent earthquake information from the USGS Prompt Assessment of Global Earthquakes for Response (PAGER) program. In addition to displaying earthquakes by magnitude, this service also provides earthquake impact details. Impact is measured by population as well as models for economic and fatality loss. For more details, see: PAGER Alerts. Events are updated as frequently as every 5 minutes.

[View the Layer](#)

Recent Earthquakes



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UN IGIF

INTEGRATED GEOSPATIAL
INFORMATION FRAMEWORK



United Nations Integrated Geospatial Information Framework (UN-IGIF)



The Integrated Geospatial Information Framework provides a basis and guide for developing, integrating and strengthening geospatial information management.

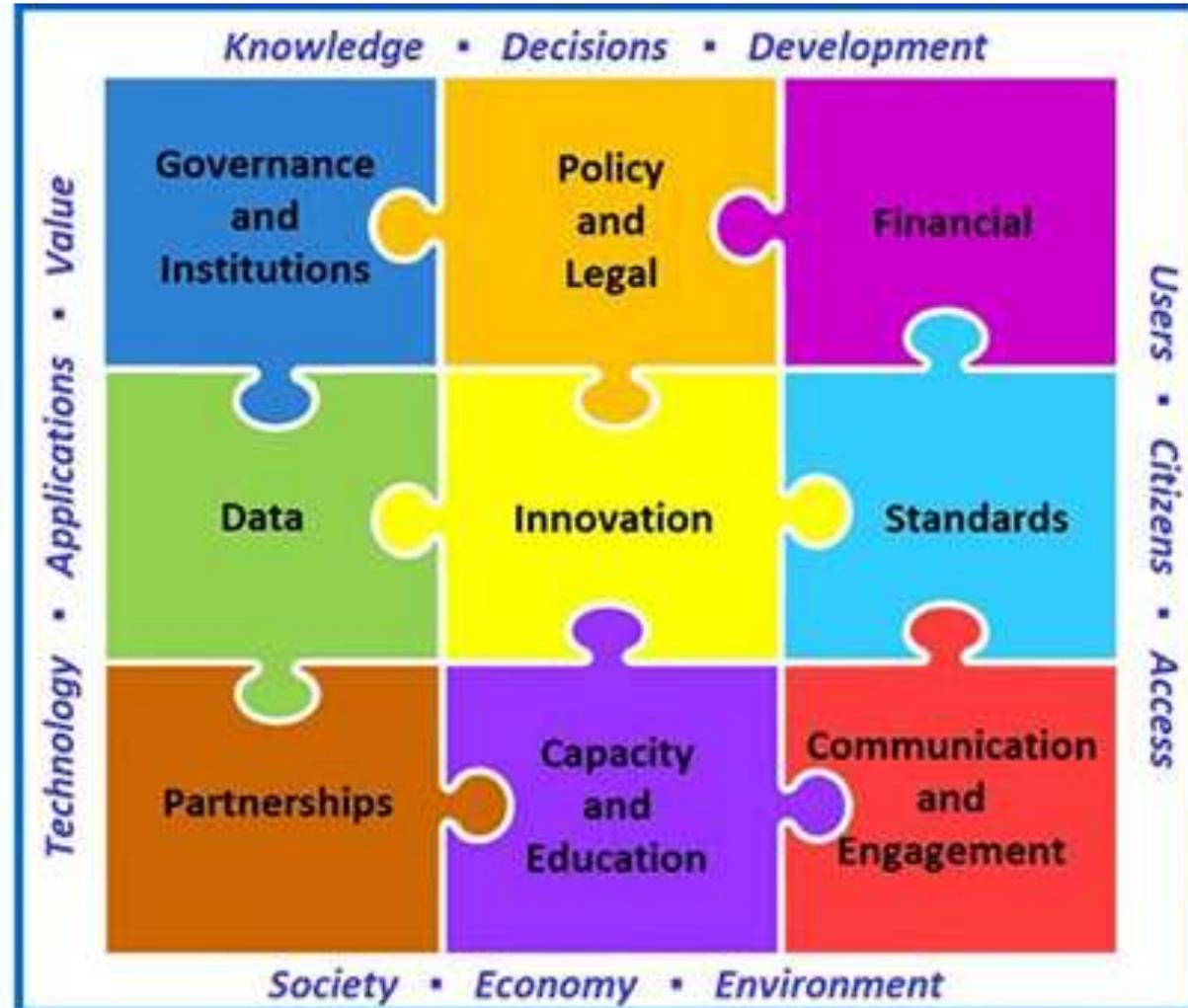
Governance



Technology



People



Anchored by 9 Strategic Pathways, the Framework is a mechanism for articulating and demonstrating national leadership in geospatial information, and the capacity to take positive steps.



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Scope of Work

Scope of Work

Track 1: Assessment of Current Situation in the Caribbean

Track 2: Governance and Policies

Track 3: Collaboration and Partnerships

Track 4: Datasets and Tools

Track 5: Capacity Development

Track 6: Communications



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Work Plan 2023

Work Plan 2023

GOALS	ACTIVITIES	SUB ACTIVITIES	SUPPLIES	EXPECTED RESULTS	EXECUTION PERIOD	OBSERVATIONS
1. Strengthen geospatial information management in the Caribbean based on the implementation of global frameworks and guidelines	IGIF Pre-Workshop Briefing Session			This Web Event was designed to help participants prepare for the in person IGIF Workshop in St. Lucia	March 24, 2023	Successfully held
	IGIF Workshop for the Caribbean			The central purpose of this workshop is to disseminate the guidelines that the United Nations Committee of Experts made available to countries to strengthen national geospatial initiatives and raise awareness about the importance of geospatial information as a tool for territorial analysis to address the problems identified.	April 19 -21, 2023	Successfully held in St. Lucia

Work Plan 2023

GOALS	ACTIVITIES	SUB ACTIVITIES	SUPPLIES	EXPECTED RESULTS	EXECUTION PERIOD	OBSERVATIONS
1. Strengthen geospatial information management in the Caribbean based on the implementation of global frameworks and guidelines	IGIF Post Workshop Webinar			This webinar will be held to analyze the results of the April Workshop based on the outcomes of the breakout sessions and the capstone exercise, to define the next steps in the implementation of the UN-IGIF at the country level.	June 2023	
	IGIF national workshops in the Caribbean Countries			National workshops will be convened based on the demand of some countries of the Caribbean, with the support of ECLAC (travel and DSA of the Regional Technical Adviser) and other possible resources	July to December 2023	

Work Plan 2023

GOALS	ACTIVITIES	SUB ACTIVITIES	SUPPLIES	EXPECTED RESULTS	EXECUTION PERIOD	OBSERVATIONS
2. Strengthen capacities in the collection and use of Earth Observations in the Caribbean	Digital Earth Observation Project for the Caribbean	Training of personnel who will provide technical support to manage the GOC		This project entails setting up the Geospatial Observation Center (GOC) at the University of the West Indies as part of the Latin America and Caribbean Space Agency in support of countries in the region to access geospatial data sets derived from Earth Observation Data Sources	July 2022 to June 2027	Training of RS and GIS Specialists will begin on April 13, 2023, and end in November 2023.
		Training of Remote Sensing specialists who will provide expert image processing and analysis support				
		Training of Remote Sensing and GIS specialists from the region who will use the products provided by the GOC				

Work Plan 2023

GOALS	ACTIVITIES	SUB ACTIVITIES	SUPPLIES	EXPECTED RESULTS	EXECUTION PERIOD	OBSERVATIONS
3. Strengthen links and collaboration between the geospatial and Surveying communities in the Caribbean	Participation in the FIG Working Meeting 2023 - SIDS Pre-Event for Caribbean Region				April – May 2023	<p>FIGs has interest in sponsoring a Small Island Developing States (SIDS) meeting as a pre-event for their 2023 Working Week. The WW will be held in Orlando, Florida from 28 May through 01 June.</p> <p>A CARIGEO representative would be participating in this activity.</p>

Work Plan 2023

<p>4. Raise awareness within the Caribbean youth on geospatial information management and benefits.</p>	<p>2023 CARIGEO Student Competition</p>	<p>Planning Committee needs to be formed in May/June 2023, laying out milestones:</p> <ul style="list-style-type: none"> -Agree on target audience -Design web landing page -Recruit sponsors -Prize packages agreed -Recruit Judges -Agree to judging Rubric -Design webinars to support competition -Design communications plan -Launch landing page -Announce opening -Host Webinars to support students -Promotion plan launch -Student submissions -Judging -Awards Post -Communication plan 			<p>May – November 2023</p>	
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Work Plan 2023

GOALS	ACTIVITIES	SUB ACTIVITIES	SUPPLIES	EXPECTED RESULTS	EXECUTION PERIOD	OBSERVATIONS
<p>5. Promote the use of geospatial information to address priority challenges in the Caribbean region</p>	<p>Sargassum project</p>	<p>The solution is now in a beta pilot phase. Other activities include:</p> <ul style="list-style-type: none"> • Review and feedback from Compete Caribbean • Discussion with the Geospatial Observation Centre to negotiate storage space for the solution • Testing of solution by member states and other key stakeholders • Seeking funding to further build out solution 		<p>The project entails the creation of a Sargassum Early Warning System for the Caribbean member countries to support the monitoring and management of Sargassum's impact through the use of satellite data and drone imagery. The solution will identify and estimate the volume of Sargassum strains using the aerial images, automatically gather other environmental factors into a georeferenced database in order to calculate the trajectory, and enable customers to access real-time information on potential Sargassum events through a geoportal that disseminates information. The solution is now in a beta pilot phase.</p>	<p>April -Dec 2023</p>	

Work Plan 2023

GOALS	ACTIVITIES	SUB ACTIVITIES	SUPPLIES	EXPECTED RESULTS	EXECUTION PERIOD	OBSERVATIONS
6. Raise awareness on the UN System (composition, dynamics, geospatial works?)	Webinar on understanding the UN System for newcomers.	<ul style="list-style-type: none"> - Programme development - Confirmation of presenters - Invitation to Caribbean representatives 		Increase awareness of the UN System, highlight the importance of country interventions and foster and promote the development of country level interventions for UN Sessions eg. UN-GGIM	July 2023	

FIG 2023-26 Workplan

Vision:

The Council's vision is *“Serving society, benefitting people and the planet: Tackling the Global Challenges”*

Objectives:

The aim of FIG is to be the premier international non-governmental organization that **represents the interests of surveyors and users of surveying services in all countries** in the world. A United Nations and World Bank recognized non-governmental organization of **national member associations, cadastral and mapping agencies and ministries, universities and corporates** from all over the world. It is a federation of member associations all of whom seek excellence in the services that they deliver.

CARIGEO welcomes the opportunity to examine potential areas for collaboration given our workplans.



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Thank you!

May 29, 2023