### Project for the strengthening of Spatial Data Infrastructures in the Caribbean

**Overview & Summary of Progress** December 2014

### Project for the strengthening of spatial data infrastructures in the Caribbean

This project is been realized on the frame of the Regional Committee of United Nations on Global Geospatial Information Management for the Americas (UN-GGIM:Américas)



FOR THE AMERICAS













### **Genesis of UN-GGIM**

- In 2009, the United Nations Statistics Division/DESA (UNSD) convened in New York, on the side of the 9th United Nations Regional Cartographic Conference for the Americas (UNRCC-A), an informal consultative meeting with geospatial information experts from different regions of the world, and discussed how to better coordinate the various regional and global activities on geospatial information and the related management issues.
- At its substantive session in July 2011, Economic and Social Council (ECOSOC) considered the report of the General Secretary and adopted a resolution to create the United Nations Committee of Experts on Global Geospatial Information Management (2011/24), asking to present a Report on 2016 to propose the creation of the Geospatial Information Commission of The United Nations.









### **UN-GGIM: Why a global mechanism?**

- Significant gap in the recognition and management of geospatial information globally
- Lack of a global consultative and decision-making mechanism among Member States in:
  - setting global standards on geospatial information;
  - developing common tools; and
  - bringing geospatial information to bear on global policy issues
- This gap is increasingly being filled by the private sector, reducing the role and influence of Governments
- Governments, not the private sector, have the mandate and accountability to maintain and deliver the national geospatial information base and related policy





FLACIONES EXTERIC

DE ESTRDÍSTICR Y GEOGRAFÍA

### **UN-GGIM: A global initiative**

Formal inter-governmental Committee of Experts to:

- Coordinate Global Geospatial Information Management activities by involving Member States at the highest level as key participants
- Make joint decisions and set directions on the use of geospatial information within national and global policy frameworks
- Address global issues and contribute collective knowledge as a community with shared interests and concerns
- Develop effective strategies to build geospatial capacity in developing countries















### **UN-GGIM: Global Agenda**

- 1. Global geodetic reference frame.
- 2. National institutional arrangements in GI management.
- 3. Global map for sustainable development and status of mapping in the world.
- 4. Legal and policy frameworks.
- 5. Establishment and implementation of standards.
- 6. Linking of geospatial information to statistics and other data.
- 7. Integration of land and marine GI.
- 8. Development of a knowledge base for GI.









### Creation of a Regional-Global architecture for UN-GGIM

- UN-GGIM Co-Chairs (2014-2015), Dr. Vanessa Lawrence, Ordnance Survey U.K; Dr. Eduardo Sojo, INEGI Mexico and Dr. Li Pengde, NASG, China.
- **UN-GGIM Regional Committees:**
- UN-GGIM for Asia-Pacific (formerly PCGIAP) November 2012
- UN-GGIM for the Americas (formerly PC-IDEA) August 2013
- UN-GGIM for Europe October 2014
- UN-GGIM for Arab States
- UN-GGIM Africa









Working Groups	Coordinator
1. WG on geospatial data collection and	Juan Antonio Nieto- Colombia
management	
2. WG on access and use of geospatial	Rigoberto Magaña- El Salvador
information in disaster risk reduction and	
climate change	
2 WG on Standards and tochnical	Carlos Guarrara, Máxica
5. WG on Standards and technical	Carlos Guerrero- Mexico
specifications.	
4. WG on regional coordination and	Rolando Ocampo- México
cooperation-	
5. WG on promotion and assessment of	Álvaro Monett - Chile
Spatial Data Infrastructure- Chile	













### **Cooperation for the Caribbean Region**

A Collaborative Agreement between the National Institute of Statistics and Geography (INEGI) and the Ministry of Foreign Affairs of Mexico was signed to make this Project possible. INEGI is contributing with the technical support and the Government of Mexico is providing the financial support for this project.

The project has the support of the Association of Caribbean States, who is committed with contributing to the development of the region.



### **General Objective**

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 the international geospatial information context, including the UN-GGIM: Americas initiative









COMITÉ REGIONAL DE LAS

AC

LA GEST

### **Participating Caribbean Countries**

1. Antigua & Barbuda	10. Haiti
2. Bahamas	11. Jamaica
3. Barbados 🕎	12. Martinique
4. Cuba	13. St Kitts & Nevis
5. Dominique	14. St. Lucia
6. Dominican Republic	15. St. Maarten
7. Grenada	16. St. Vincent & the Grenadines 😵
8. Guadeloupe	17. Suriname
9. Guyana	18. Trinidad & Tobago
UN-GGIM: Américas Association of Caribb	ean States

Asociación de Estados del Caribe

Association des Etats de la Caraïbe

SRE

SECRETARÍA DE

RELACIONES EXTERIORES

INSTITUTO NRCIONAL

DE ESTRDÍSTICA Y GEOGRAFÍA

### **Caribbean Project Technical Advisory Committee**







### INSTITUTO NACIONAL DE ESTRDÍSTICA Y GEOGRAFÍA

















### **Strengthening the Region**

### Regional Collaboration Project scheduled for execution within a three year timeframe (2014-2016) and a \$4.5 million USD budget



- <u>1. Diagnosis of National SDIs</u>
- 2. Capacity Building
- <u>3. Acquisition of Infrastructure</u>
- 4. Incorporation to UN-GGIM

Establishment of National SDIs

Aligned to key actions in UNGGIM- Americas

#### Promote

**Regional Interoperability** 









## **1. Diagnosis**











## 1. Diagnosis of the geospatial information management status















### Elements considered in the diagnosis





# 2. Capacity building











#### 

#### The capacity building strategy is according to the following training needs:

Ge	odesy
Са	rtography
Ph	otogrammetry
Са	dastre
Fie	eld Compilation
Re	mote Sensing
Ph	otointerpretation
Ge	ographic Databases
Ge	oportals and Geoservices
Ge	ographic Information Systems
Ge	ographic Metadata
An	alysis and Use of Geographic Information
Di	gital Elevation Models
Ge	ostatistics
Ge	ographic Information Standards
Pro	ogramming and Application Development









### 2. Capacity building

Exploring Collaborative projects with the following institutions:

- Pan American Institute of Geography and History (PAIGH)
- GeoSUR
- SIRGAS
- Open Geospatial Consortium (OGC)
- World Bank- GeoNode
- International Cartographic Association (ICA)
- MacDonald, Dettwiler and Associates Lld (MDA), Canada
- University of the West Indies
- University of Guyana
- URISA Caribbean Chapter









# 3. Infrastructure acquisition











### **3. Infrastructure acquisition**



GNSS continuous operating reference stations



Computer equipment



- Caribbean Geodetic Network
- Digital Map for the Caribbean
- Map of Vegetation Cover and Land Use



### Telecommunications











### **3.1 Strengthen the Geodetic Network**





### **Geodetic kit for the región**



**2** reception frequencies

### (2 per country)

UN-GGIM:Américas OMITÉ REGIONAL DE LAS



Association of Caribbean States Asociación de Estados del Caribe Association des Etats de la Caraïbe



(3 per country)



### **Informatics kit per country**



ACIONES UNIDAS SOBRE LA GESTIÓN GLOBAL NFORMACIÓN GEOESPACIAL PARA LAS AMÉRICAS



Asociación de Estados del Caribe Association des Etats de la Caraïbe







### **3.2 Geomatics Solution**



### **Goal: a Digital Map of the Caribbean**













### **3.3 Map of Vegetation Cover**











# 4. Incorporation to UN-GGIM

UN-GGIM:Américas contra Eregional de Las Naciones Unidas sobre La GESTIÓN GLOBAL DE INFORMACIÓN GEOESPACIAL DE NACIONES AMÉRICAS









### **UN-GGIM: Americas** First Regional Committee Meeting

Mexico City, September 22-25, 2014,



### **Specific Project results:**

- 1. Diagnostic assessment
- 2. Technology and infrastructure:
  - Strengthen the geodetic reference framework and the integration of the Caribbean Regional Network.
  - Geomatics solution to establish a query, analysis and dissemination of information geomatics.
  - Support the development of a system of classification and mapping of vegetation cover for the region.
- 3. Strengthen national and regional capacities
- 4. Enhance the ability to use geospatial information in decision making
- 5. Incorporation to UN-GGIM









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