

# ANTIGUA & BARBUDA



## National Prospective

Session “Strengthening National Geospatial Information Management in the Americas”

Stream 6: Digital Silk Road and International Partnerships

Wednesday, 21 November 2018

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Organization: Survey & Mapping Division



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19 – 21 November 2018  
Deqing, Zhejiang Province  
China

# Where are We?



## Population

- 2011 Official: 83,933
- 2018 Projected: 95,211

## Area

- 108 miles<sup>2</sup>
- 280 KM<sup>2</sup>

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# Current Status of Data and Expertise

## ■ Overview of GIS in Antigua & Barbuda:

### • Ancient Participants;

Department of Environment (1988)

Antigua Public Utilities Authority (1995)

Fisheries Division (1997)

Forestry Division (1998)

Survey & Mapping Division (2005) & Land Registry

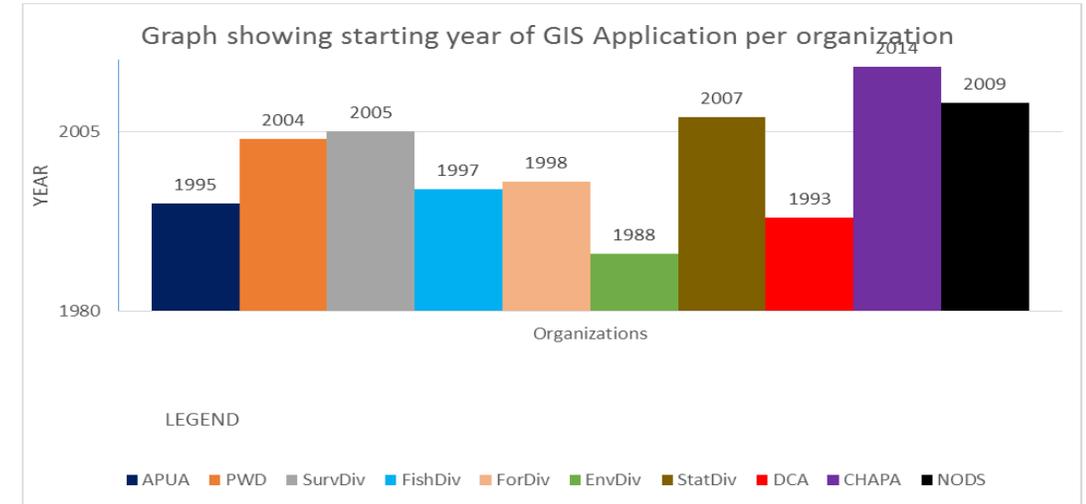
National Office of Disaster Services (2009)

### By Extension;

Development Control Authority (1993)

Public Works Division (2004)

Statistics Division (2007)



### Most Recent Participants;

Lands Division

Social Transformation

Central Board of Health

Solid Waste Management Authority

Coast Guard

Central Housing & Planning Authority

Inland Revenue Department

# Current Status of Data and Expertise

- Overview of GIS in Antigua & Barbuda:
  - Age and resolution of aerial imagery;  
2004 & 2010 at 10cm & 1m when compressed.
  - Main GIS software used;  
ArcGIS, QGIS, Landfolio Cadastre
  - Data formats used;  
Shapefile, File Geodatabase, csv, Tiff, etc.

# Current Status of Data and Expertise

## ■ Overview of GIS in Antigua & Barbuda:

### • Coordinate Reference System:

Antigua; 1943 British West Indies (BWI 43) | WGS 1984

Barbuda; North American Datum 1927 (NAD 27) | WGS 1984

### • Primary Datasets;

| Dataset                                 | Age  | Format    | Source                    |
|---|------|-----------|---------------------------|
| Parcel, Road, Building, Hydrogeology... | -    | shapefile | Survey & Mapping Division |
| DEM, DTM                                | 2018 | shapefile | Survey & Mapping Division |
| 1m Contour                              | 2018 | shapefile | Survey & Mapping Division |
| Parish Boundary (Revised)               | 2018 | shapefile | Statistics Division       |
| Enumeration District Boundary (Revised) | 2018 | shapefile | Statistics Division       |

*These data sets are available for use by both government and private agencies once approved by the Chief Surveyor and signing of a Data agreement.*

# Institutional Framework to support GIS

- Committees and Agencies coordinating GIS

Survey & Mapping Division  
coordinating agency

- Active areas of GIS use within the sector;

Statistics & Economics

Land Administration

Public Utilities

Disaster Management

Environment

Health

Social Services

Waste Management

Physical Planning



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# Needs and Challenges

- Challenges to the development of GIS Antigua:
  - Awareness
  - Capacity Building
  - Lack of Resources
  - Lack of available Funding
  - Availability of Data Sharing Between Departments

# Solution to Challenges

- Solution to the development of GIS Antigua:
  - Local Awareness & Capacity Building
  - Regional Capacity Building through UN-GGIM: Americas
  - Regional Capacity through OAS
  - Institutional Arrangements

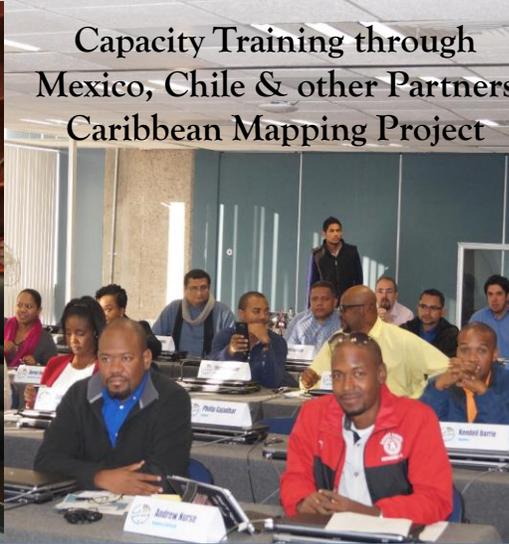
GPS Equipment through Mexico, Chile & other Partners Caribbean Mapping Project



# Solution to Challenges



OAS Support in Street Naming & House Numbering Project



Capacity Training through Mexico, Chile & other Partners Caribbean Mapping Project



GGIM Committee of Experts Presence at UN

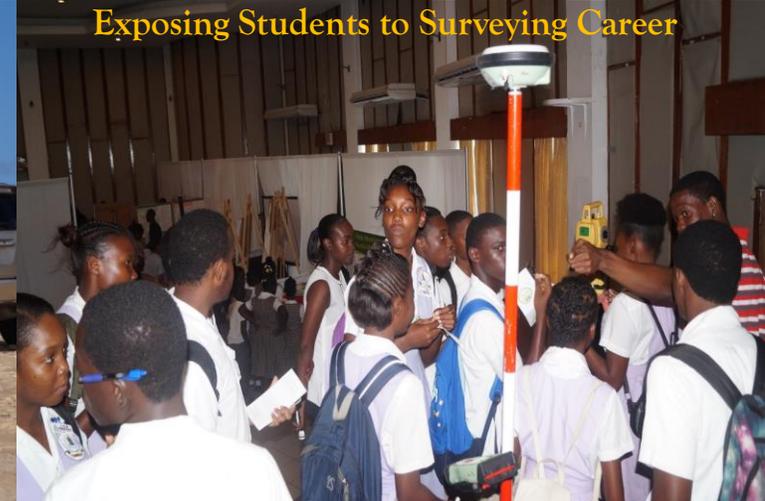
Exposing Students to Surveying Career



Field Data Collection Training Exercises



Multi-Agency Drone Safety Operation Training



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# GIS Initiatives

- **National Spatial Data Infrastructure:**

Founded in 2014 the NSDI project was initiated based on a "Status on GIS" report. This initiative will Coordinate Geographic Data Acquisition and Access within the island. As the technology, policies, standards, and human resources necessary to acquire, process, store, distribute, and improve utilization of geospatial data, the NSDI will be a critical vehicle for facilitating seamless data development, information sharing, and collaborative decision making across multiple sectors of the economy.

- **GIS Implementation within Government offices;** To date over seventy- five (75) persons have been trained to include 15 Government agencies and one none Government agency.

# GIS Initiatives

- **Post Hurricane Irma rapid damage assessment** was conducted on Barbuda (first of its kind) by SMD in 2017. The housing stock in Codrington was collected in a total of 12 hours, to provide a baseline for all relief workers.
- **Inter-agency Training within Government and Private agencies.** The department aims to have the public Sector fully equipped to handle GIS assessments for informed planning. Therefore every government office will be brought to the required standard to produce and manage geospatial data. Training is expanded to non-government organizations and private sector.

# GIS Initiatives

## Multi Agency Trainings ( Capacity Building)



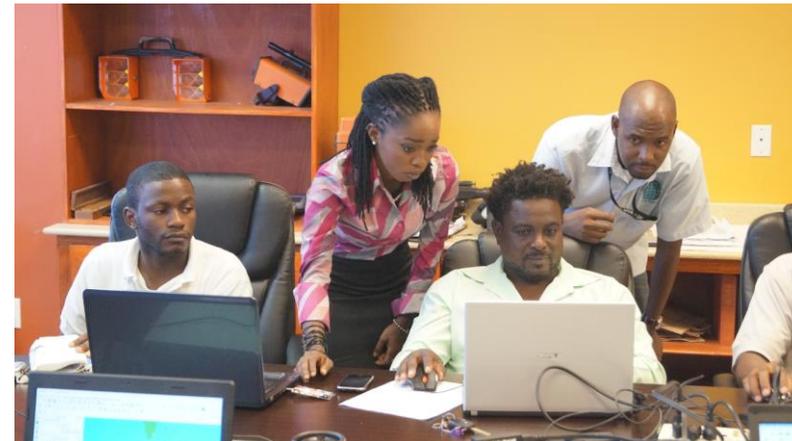
Multi agency GIS Training



NSO & Analytical Services reviewing maps during Cartography Session



Central Board of Health: Disaster Response Training using GIS



Providing Technical Guidance at training session

# GIS Initiatives



Post Hurricane Irma rapid assessment

Survey & Mapping Division Team





## Geospatial Media & Communications World Excellence Award Geospatial Applications



# Next Step

- **Memorandum of Understanding** between the Antigua & Barbuda Department of Marine Services and my Department to merge spatial activities across both offices.
  
- Rebirth of a **National GIS Committee** to coordinate efforts in solidifying the existence of a NSDI.

# 谢谢你们



# THANK YOU



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