

ANTIGUA & BARBUDA



Small Developing Island Perspective

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



UNITED NATIONS
WORLD GEOSPATIAL INFORMATION CONGRESS

19 – 21 November 2018
Deqing, Zhejiang Province
China

Where are



Population

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

Area

- 108 miles²
- 280 KM²

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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

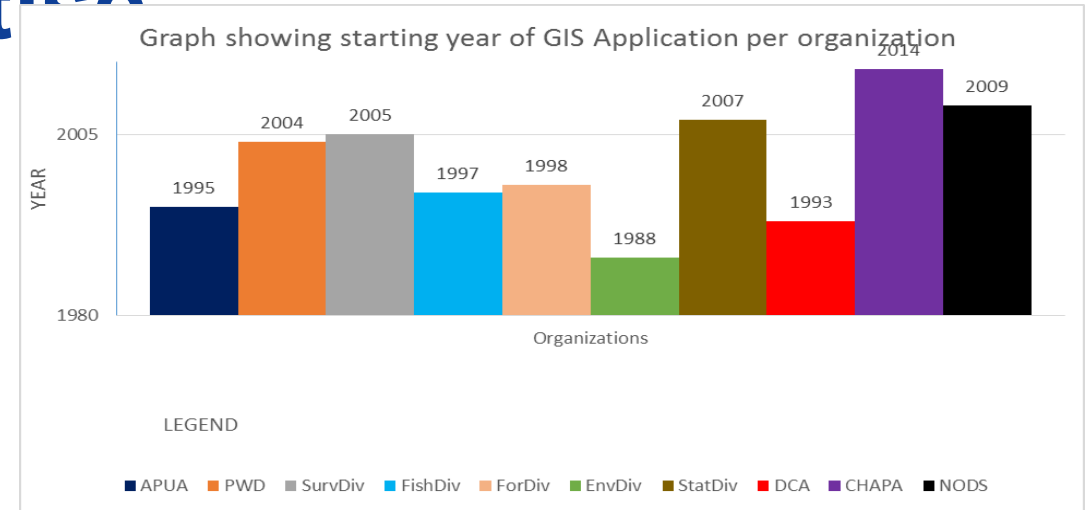
National Office of Disaster Services (2009)

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

d

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



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

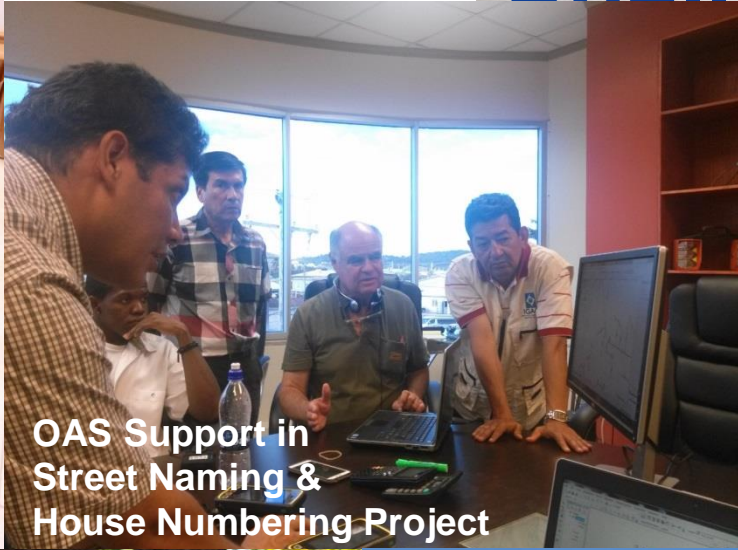
- Solution to the development of GIS Antigua:
 - Local Awareness & Capacity Building
 - Regional Capacity Building through UN-GGIM: Americas
 - Regional Capacity through OAS
 - Institutional Arrangements

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



Solution to Challenges

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



OAS Support in Street Naming & House Numbering 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)



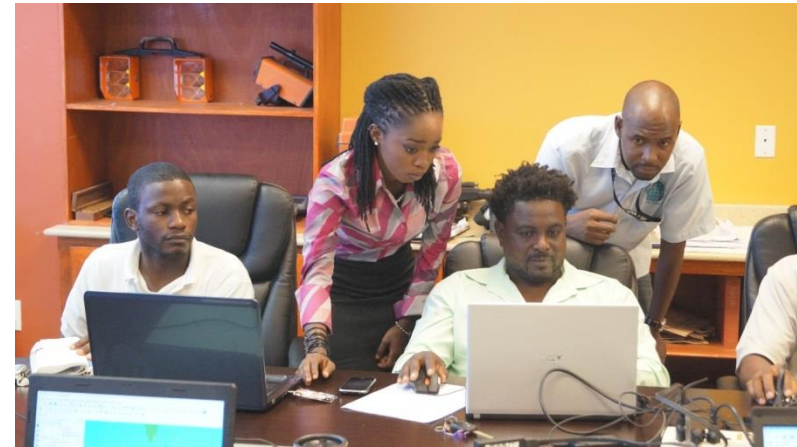
Multi agency GIS Training



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.

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THANK YOU

