

CLIMATE CHANGE AND DISASTER MITIGATION

DETERMINING THE INFORMATION NEEDS

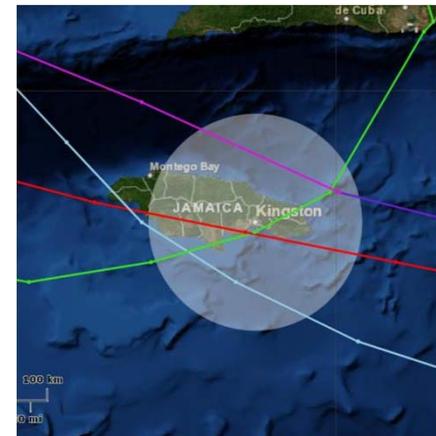


Rohan A. Richards
National Spatial Data Management Division

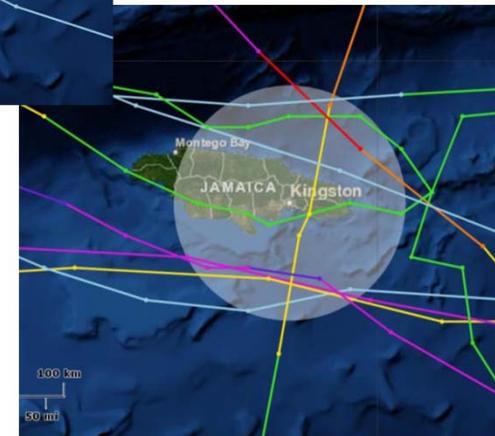
3rd High Level Forum on Global Geospatial
Information Management
22-24 October 2014

CONTEXT...

EVENT	Year	Category	Cost (J\$B)	Impact (% GDP)
Hurricane Michelle	2001	4	2.52	0.8%
May /June floods	2002	-	2.47	0.7%
Hurricane Charley	2004	4	0.44	0.02
Hurricane Ivan	2004	3	36.9	8.0
Hurricanes Emily & Dennis	2005	4	5.98	1.2
Hurricane Wilma	2005	5	3.6	0.7
Hurricane Dean	2007	4	23.8	3.4
TS Gustav	2008		15.5	2.0
TS Nicole	2010		20.6	1.9
Hurricane Sandy	2012		9.4	0.8



1980-1999

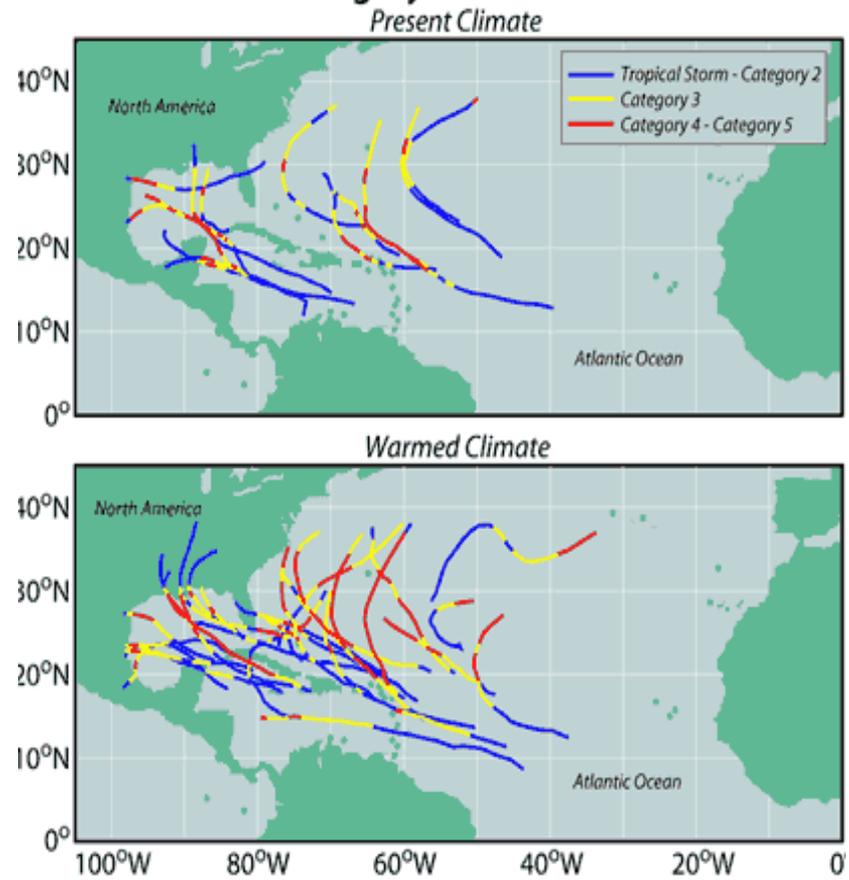


2000-2012



CONTEXT...

Modeled Category 4 & 5 Hurricane Tracks

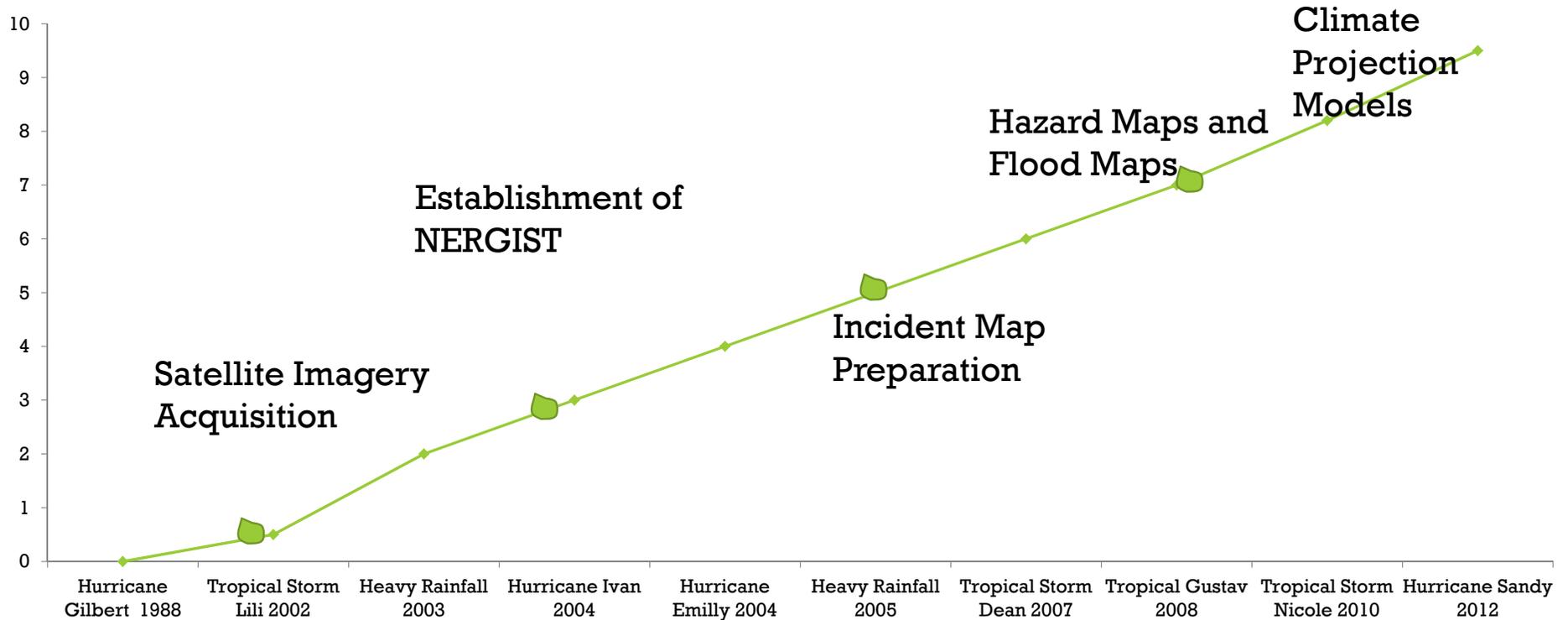


Bender et al. (2010)



INFORMATION NEEDS...

Actual Use of Geospatial Information for Hazard and Risk Assessment



INFORMATION NEEDS...

Categories	Geospatial Data
Physical Infrastructure	Roads, Telecommunication, Electricity, Building Foot Prints
Socio economic	Distribution of settlements, demographic and socio-economic data (population distribution by age, sex, income, education)
Administrative Boundaries	Communities, Parishes, County
Cadastral	Parcel, Property Information, Tax Map
Social Facilities	School, emergency shelters, evacuation locations and critical facilities)
Land use	Forestry Reserves, Protected Areas
Geology	Faults, Stratigraphy, Soils
Base Map	Satellite Imagery, DEM, Topographic Map



Hazard Related Datasets		
Geospatial Collected on Events	Data Hazard	Hazard Models created for events
Flood		Storm Surge
Landslides		Wind
Earthquake Events		Flood
Landslides		Landslide
Wind		Earthquake



CHALLENGES . . .

- **Sharing available and reliable Data**
- **Lack of Access to Current High Resolution Satellite Imagery**
- **Lack of Common Operating Platform**
- **Ability to have Real time upload of damage assessment geospatial data into server based multiuser geodatabase environment due to broadband capacity limitation.**



SOLUTIONS...GIS WEB SERVICES

www.licj.org.jm/ArcGIS/rest/services/Images/IKONOS/MapServer

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Images/IKONOS (MapServer)

View In: [ArcMap](#) [ArcGIS Explorer](#) [ArcGIS JavaScript](#) [Google Earth](#)

View Footprint In: [Google Earth](#)

Service Description:

Map Name: Layers

Layers:

- [nationalgisimagery.DBO.IKONOS](#) (0)

Description:

Copyright Text:

Spatial Reference: PROJCS["Lambert Conformal Conic",GEOGCS["GCS_WGS_1984",DATUM["D_WGS_1984",PARAMETER["Standard_Parallel_1",18.0],PARAMETER["Standard_Parallel_2",18.0],PARAMETER["Longitude_of_Center_Meridian",-77.0],PARAMETER["False_Easting",500000.0],PARAMETER["False_Northing",500000.0],PARAMETER["Semi_Major_Axis",6378137.0],PARAMETER["Inverse_Flatness",0.004414412541855826]],UNIT["Meter",1.0]]

Single Fused Map Cache: true

Tile Info:

- Height: 512
- Width: 512
- DPI: 96
- Levels of Detail: (# Levels: 10)
 - Level ID: 0 [[Start Tile](#), [End Tile](#)]
Resolution: 264.583862501058
Scale: 1000000

www.licj.org.jm/ArcGIS/rest/services/Images/IKONOS/MapServer/?f=jsapi

ArcGIS JavaScript API: Images/IKONOS Built using the [ArcGIS JavaScript API](#)



SOLUTIONS...RISK INFORMATION PLATFORMS

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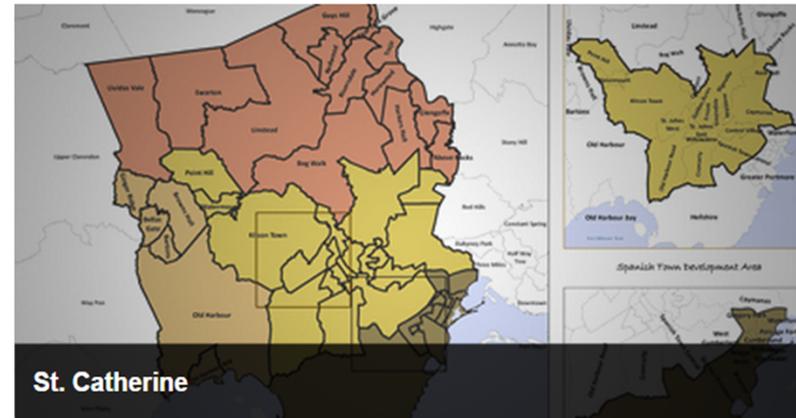
0

groups

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related items

DRIP - Disaster Risk Information Platform



DISASTER RISK INFORMATION PLATFORM

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Urban Development C... (1)

St. Catherine Paris... (1)

Social Development ... (1)

Office of Disaster ... (1)

National Land Agency (1)

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30 datasets found

Order by: Relevance



flood and rainfall map

landuse data

shapefile

30yr annual rainfall

30 YR ANNUAL RAINFALL RASTER DATA



DISASTER RISK INFORMATION PLATFORM

ArcGIS | Disaster Risk Information Platform

MODIFY MAP

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Contents

- Hurricane Dennis
- Hurricane Emily
- Hurricane Dennis
- School
- Police Station
- Hospital
- Health Centre
- Fire Station
- NOAA Storm Tracks
- stcatherinebananafarm
- Parish Boundary
- Light Gray Canvas

Hurricane Dennis

EVENT	Landslide
COMMUNITY	Camberwell
NUMBER_REP	1.00
DATE_	9/7/05
PARISH	St Mary
COMMENTS	Landslide caused a tree to be uprooted and has disrupted electricity

Zoom to

0 10 20km

POWERED BY

