



Public buildings & hurricane shelters inventory database and management tool

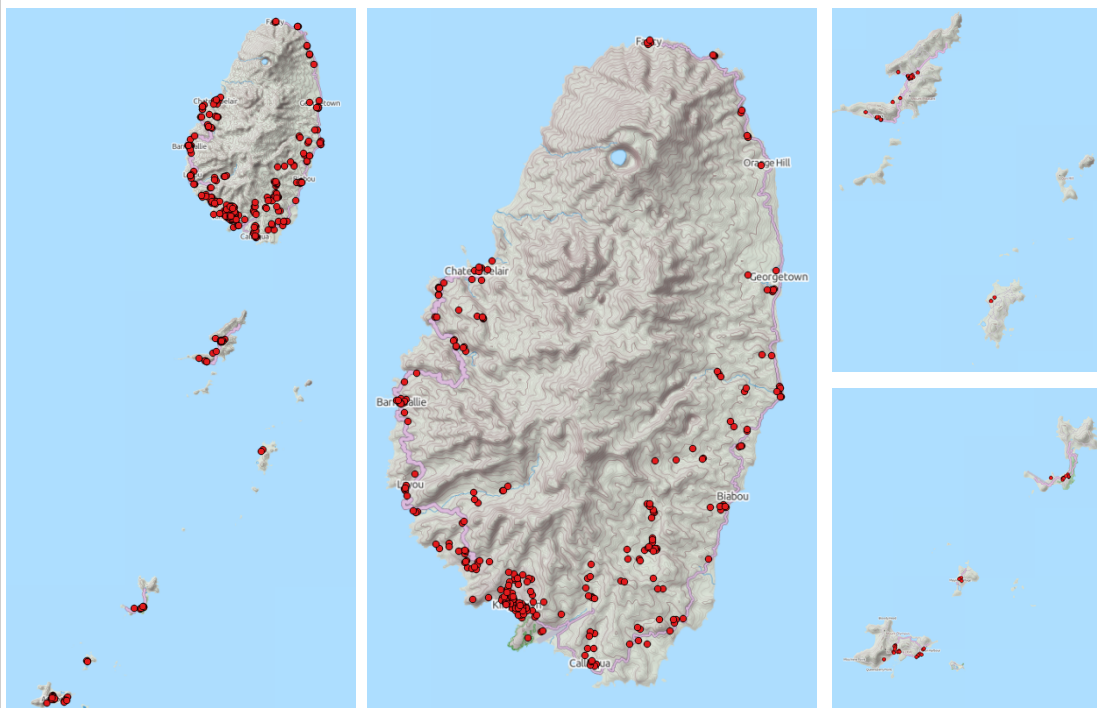
St. Vincent and the Grenadines

CLIENT	World Bank
PROJECT DATE	2013
LOCATION	St. Vincent & Grenadines
FIELD OF ACTION	Database and management tool

The objective of this consultancy, funded by the World Bank under the “Hurricane Tomas Emergency Recovery Project and Regional Disaster Vulnerability Reduction Project”, was to produce a comprehensive public buildings and hurricane shelters inventory database of Saint Vincent and the Grenadines.

The project comprehended the survey of 338 public buildings: schools, hospitals, police stations and government buildings, as well as some churches used as hurricane shelters, located in the six main islands of the country.

It sought to support BRAGSA (Roads, Building and General Services Authority) in the management of the transport network and increase the Government’s capacity for evaluation and response in case of natural hazards and climate change risks.



St. Vincent and the Grenadines. Satellite image and buildings GIS map view.

Local staff was trained and involved in the project to ensure they could manage, collect and update the database after the end of the contract.

DATABASE DESIGN

The database was designed in Excel format not to require advanced knowledge on database management to be consulted and updated.

The database meets the requirements of a Dbase format to ensure ease of use under a variety of programs, particularly with respect to conventions required of ArcGIS data files. Geographic coordinates were associated to the collected data allowing its management with a GIS tool.

SURVEYING AND DATABASE POPULATION

INES reviewed all existing data from among the various ministries and infrastructure agencies and collected and harmonized these data for its incorporation into the transport infrastructure inventory system. INES conducted a quality assurance/quality control review of data from various sources to eliminate errors and duplication prior to incorporation into the inventory.

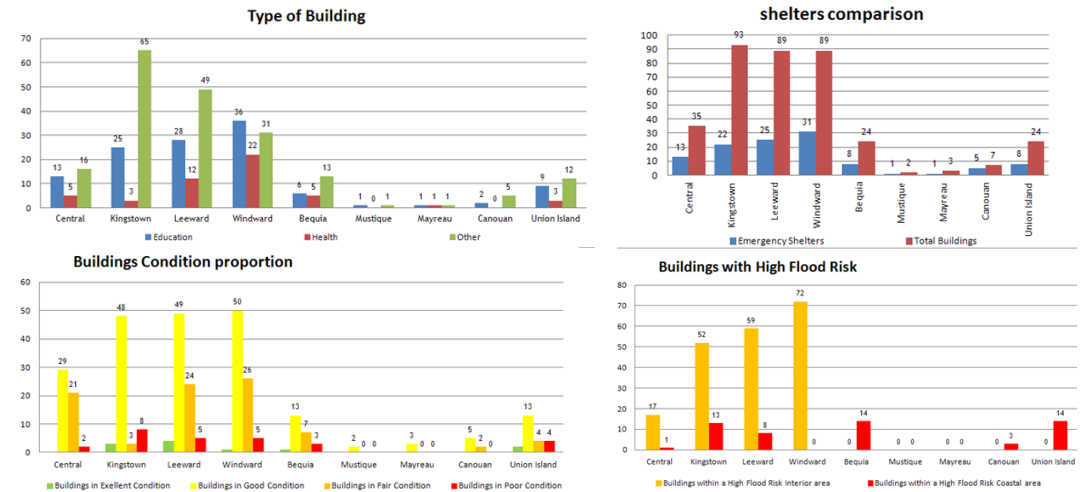


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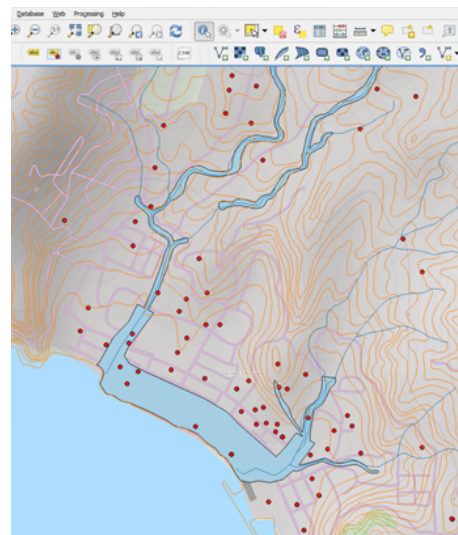


Some graphics obtained from the data collected in the database.



Workshop on the database management for local staff.

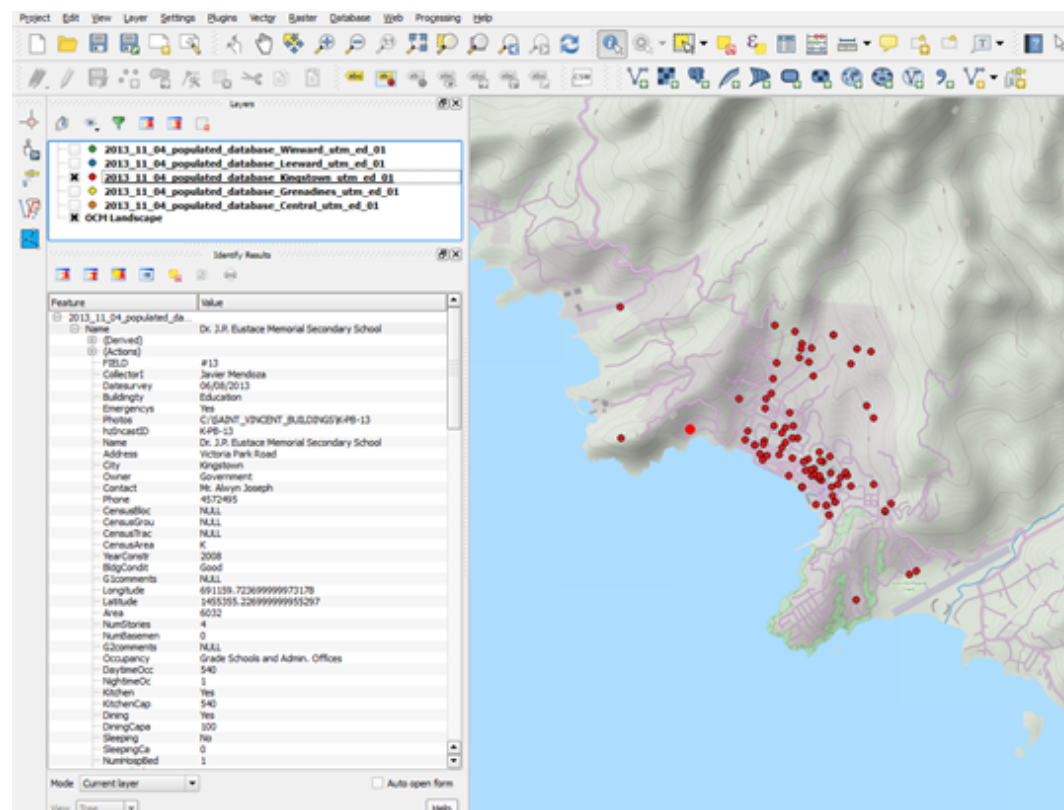
Field	Subtype	Field Name	Field	Model	Unit
CollectorID	Text	Name of data collector	Text	Text	Text
DateSurvey	Date	Date of survey	Text	Text	Text
BuildingType	Text	Type of building	Text	Text	Text
EmergencyShelter	Text	Emergency shelter	Text	Text	Text
Phone	Text	Phone	Text	Text	Text
AddressID	Text	ID Number	Text	Text	Text
Name	Text	Name of the Building	Text	Text	Text
Address	Text	Address of the Building	Text	Text	Text
City	Text	City	Text	Text	Text
Owner	Text	Owner's name	Text	Text	Text
Contact	Text	Contact Person's name	Text	Text	Text
Phone	Text	Phone Number	Text	Text	Text
CensusBlock	Text	Census Block Number	Text	Text	Text
CensusGroup	Text	Census Block Group Number	Text	Text	Text
CensusTract	Text	Census Tract Number	Text	Text	Text
CensusArea	Text	Census Area	Text	Text	Text
YearConstruction	Text	Year of Construction	Text	Text	Text
BuildingCondition	Text	Building Condition	Text	Text	Text
Comments	Text	Comments for general data	Text	Text	Text
GPS Coordinate	Text	Longitude	Text	Text	Text



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All 338 buildings were surveyed in the field by INES staff in collaboration with BRAGSA staff. The structural condition of the buildings was assessed. Some general information of the buildings, as well as some information related to their uses and maintenance activities was collected.



Diferentes vistas de la información del sistema de gestión.

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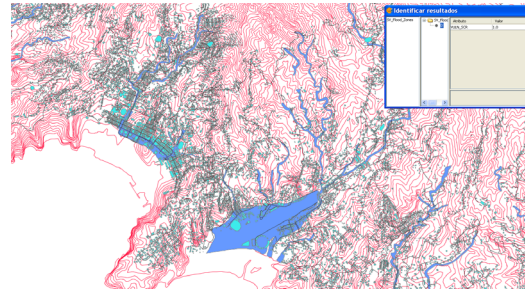
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Electronic survey forms were used and delivered to BRAGSA for use in future data collection efforts. During the data collection phase, INES staff worked closely with BRAGSA and provided field training in the collection of data as it relates to the inventory system.

Data collected for every building comprises some general data (name of the building, code, year of construction, use, contact information, etc.), geographical data, structure typology of the building and structural assessment, building facilities and natural hazards information.

Finally, geographic location was crossed with existing hazard maps due to floods, landslides, earthquakes and volcanic activity. Hazard risk was assigned to every building.



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Images of some buildings, the survey app for portable devices and hazard maps.



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