

Geospatial Land Information Management : Addressing the Data and Information Needs



**Fourth High Level Forum
on UN-GGIM
'Good Land Governance
for the 2030 Agenda'
UNECA Conference Center
Addis Ababa, Ethiopia
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**Presenter: Rohan Richards, Principal Director, Ministry of
Economic Growth and Job Creation, Jamaica, and Co-Chair
of the UN-GGIM Working Group on Geospatial Information and
Services for Disasters.**

'Good Land Governance for the 2030 Agenda'



EFFECTIVE LAND ADMINISTRATION AND MANAGEMENT

APPLICATION OF GEOSPATIAL INFORMATION



SUSTAINABLE DEVELOPMENT

ADDRESSING THE ISSUES OF:

Land Rights and Tenure



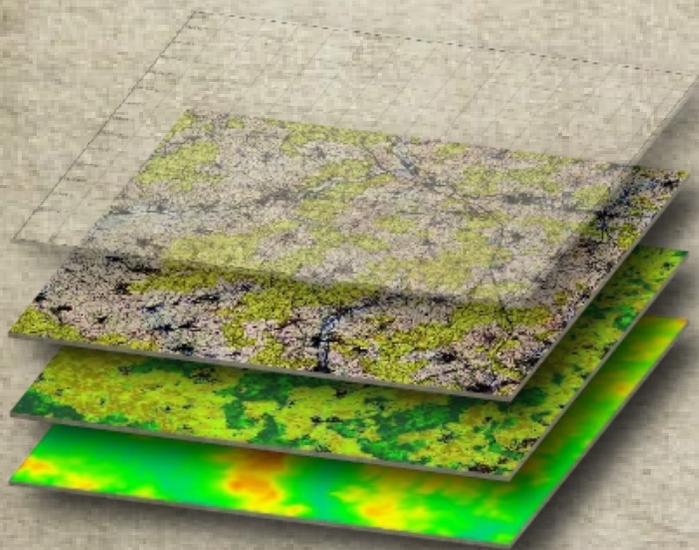
Increasing Urban Populations



Food Security



Legal Regulatory and Operational Processes: Land Registration, Cadastral Surveying and Mapping



RELIABLE DATA ON LAND, TENURE AND DIMENSIONS ARE FUNDAMENTAL TO LAND ADMINISTRATION

Change in Land Administration Management in Jamaica

LAND MANAGEMENT MECHANISM OF THE PAST IN JAMAICA

- **Land Titles Office**



Manual map production (scribing)

- **Surveys Department**



Manual parcel maintenance (draughting)

- **Land Valuation**



Antiquated non spatial database systems

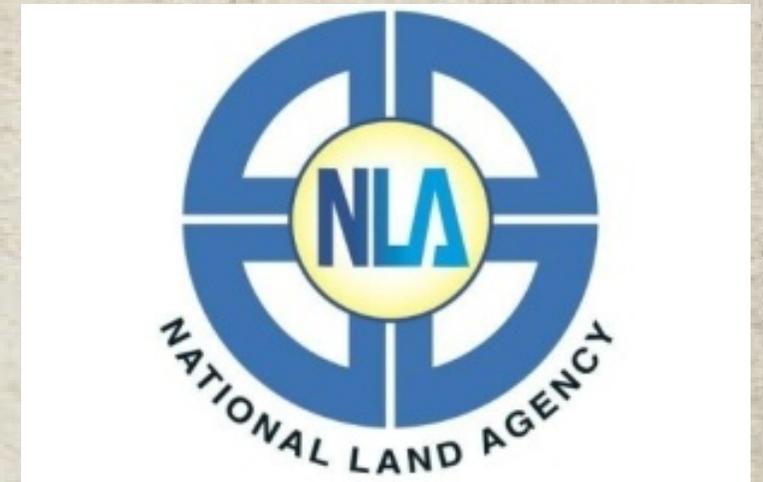
- **Lands Office**



Emergence of GIS

Introduction of the early GIS: Opened up a new profession segment in Jamaica. Facilitated efficiency in the creation and storage of parcel related land information.

LAND MANAGEMENT AT PRESENT IN JAMAICA



One National Mapping Agency
By 2001 GIS:

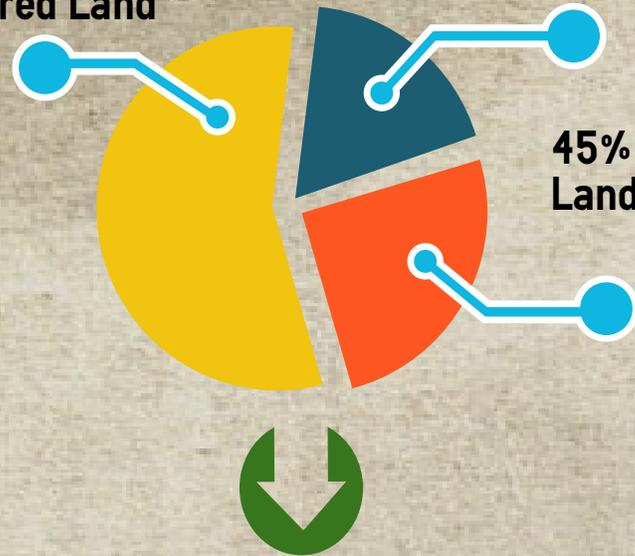
Played the lead role in integrating parcel data management and once separate government entities.

Different aspects carried out in different Govt. Departments

Addressing Data and information needs and appropriate GIS technologies for effective Land Administration and Management

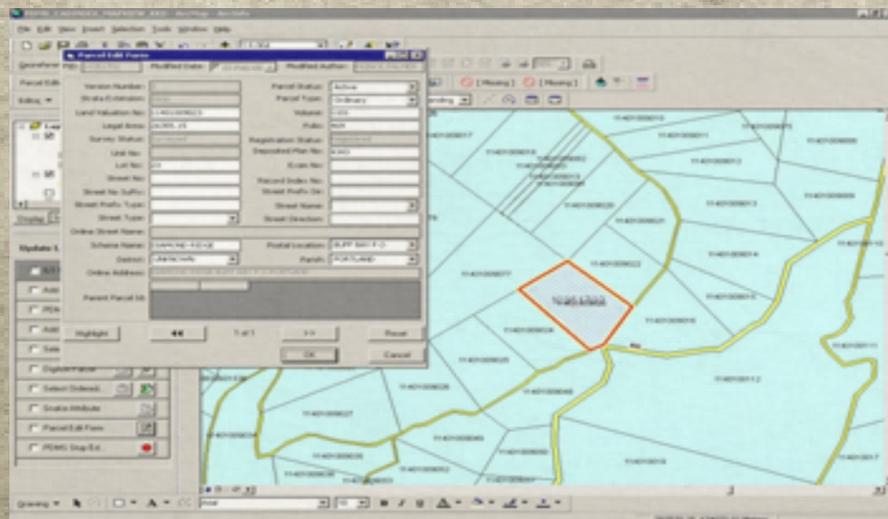
Addressing Data and information needs

55% Registered Land Parcels



45% Unregistered Land Parcels

Impact of Geospatial Information on Land Registration and Management



Digital update of cadastral fabric in the spatial database

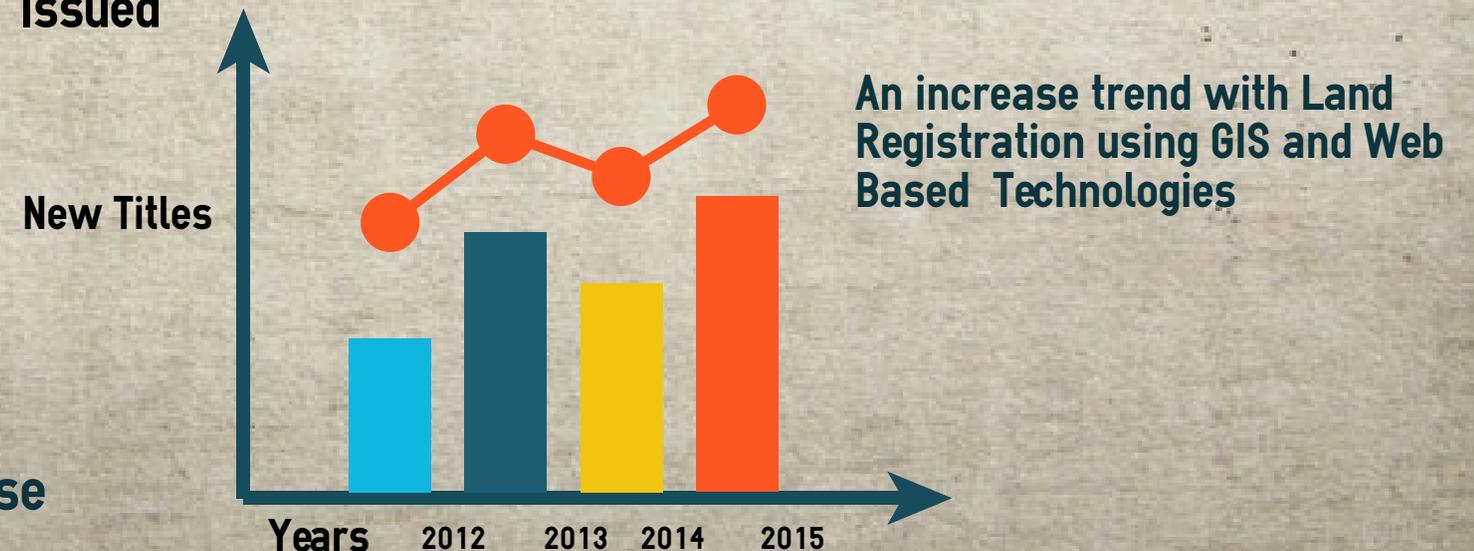
GIS and Web Based Technologies

- 1 eLandjamaica - The establishment of a web based application that allows users to purchase land related information online.
- 2 Establishment and commissioning of GPS/ Virtual Referencing System (VRS) network to aid real time surveying and additionally to enhance the capacity to geo-reference ad-hoc surveys for importing into cadastral map.
- 3 iMapjamaica- Interactive Map of Jamaica, established in July 2010. It provides a satellite imagery of the entire island (2001 IKONOS imagery) Offers parcel information on properties island wide.



Cost Benefits Dervied

eLandjamaica Views Compared to New Titles Issued

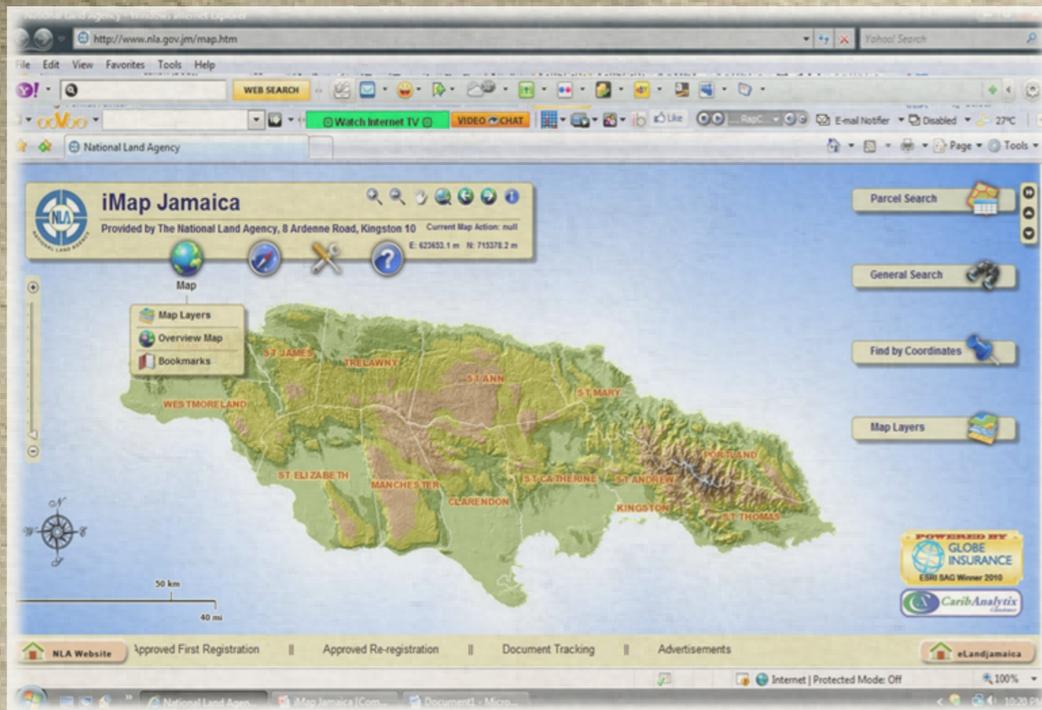


An increase trend with Land Registration using GIS and Web Based Technologies

Addressing Data and Information for effective Land Administration and Management

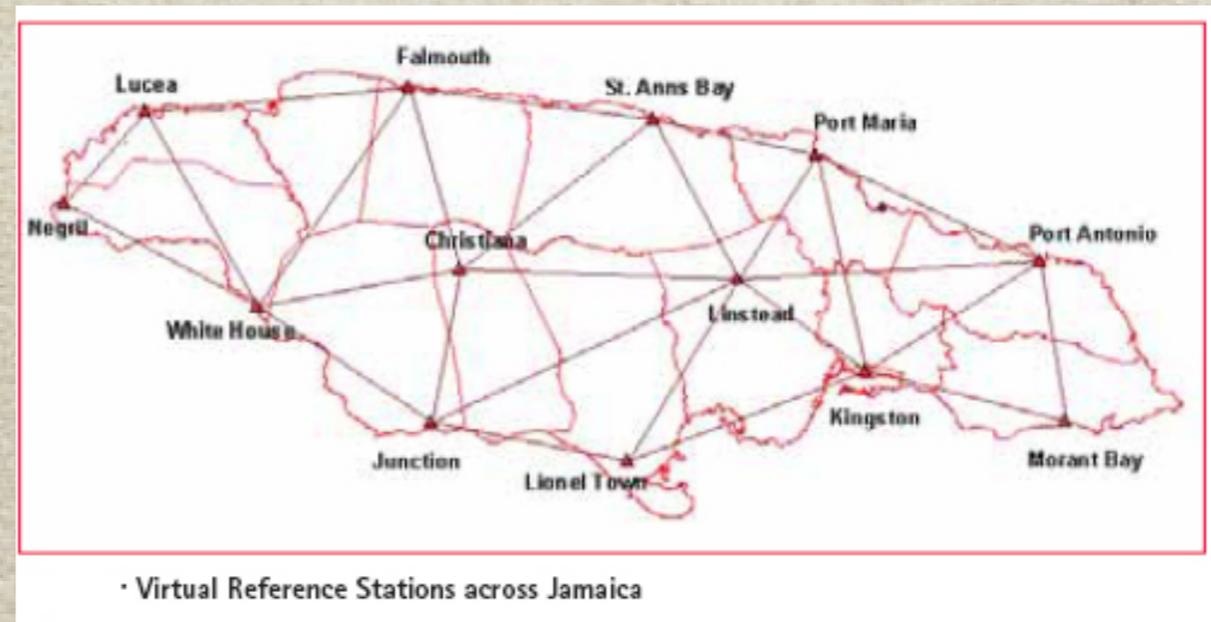
MAJOR GAINS IN LAND ADMINISTRATION AND MANAGEMENT

1. Efficiency gains. Faster turnaround times in Land Registration



Interactive Map of Jamaica

2. Greater access to information for the public
3. Integrated management of databases (spatial and textual).
4. Greater usage of land information in decision making
5. Increased data accuracy and security



In 2003, three (3) GPS base stations were established in Jamaica. These base stations facilitated cadastral surveys of over 29,000 parcels under the land registration in the parish of St. Catherine. The benefits of the VRS network supported the expansion to thirteen (13) GPS base stations islandwide.

The Future of Land Administration and Management in Jamaica

Data and Information Needs alongside appropriate acquisition processes and technologies

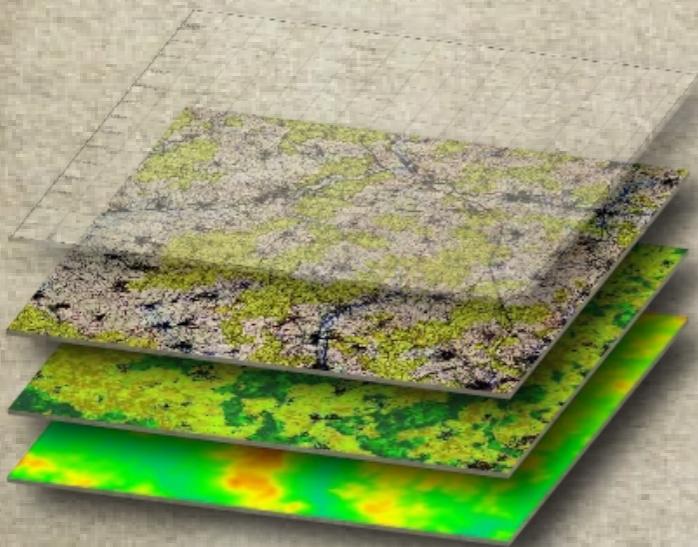
Key components of Land Administration functions in delivering economic, social and environmental sustainability

High Resolution Imagery

A National SDI

Mobile GIS and Cloud Based Storage and Processing

APPLICATION OF GEOSPATIAL INFORMATION



A futuristic goal, the integration of GIS web services to make land administration more effective

Land Tenure -Titles & Survey
Land Value- Assessment of land
Land Use- Spatial Planning
Building Footprints
Land Development

SUSTAINABLE DEVELOPMENT (Social,Economic &Environmental)

EFFECTIVE LAND ADMINISTRATION AND MANAGEMENT

Legal Regulatory and Operational Processes: Land Registration, Electronic Titling, Cadastral Surveying and Mapping



GOJ One Map Service : Geo-Information Hub on Sustainable Development