


Lagos State Geoinformation Infrastructure Policy (LAGIS)
As a Tool for Mega City Development: Opportunities and Challenges

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1.0 INTRODUCTION


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PRESENTATION OUTLINE

- 1.0 INTRODUCTION**
- 2.0 LAGOS STATE MEGA CITY PROJECT – THE MISSING LINK**
- 3.0 APPROACH ADOPTED FOR THE ESTABLISHMENT OF THE LAGIS POLICY**
- 4.0 OPPORTUNITIES AND CHALLENGES FACING THE CHALLENGES**
- 5.0 RECOMMENDATIONS**
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Introduction

Lagos Mega City is one of the largest city in the world, projected to become the third biggest urban conurbation on the planet by the year 2015.

With a population density second only to Bombay in India, Lagos faces enormous challenges of Infrastructure due to its population.

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Lagos is an established transport hub, with our International Airport and Seaports accounting for large percentages of the travel and trade of the Federal Republic of Nigeria.

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Map showing the 16 **LGAs** making up Metropolitan Lagos. Lagos State is made up of these 16 LGAs and 4 other larger LGAs not shown on the map.

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Lagos State Map showing the 20 Local Government Areas

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LAGOS STATE MEGA CITY DYNAMICS

Megacity is defined as a metropolitan area with a total population in excess of ten million people.

Megacities allow convenience and good opportunities to find work, but they are fraught with complicated problems.

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Such as:

- difficult to get an accurate count of city dwellers, as population censuses are somewhat inaccurate in their estimation
- dispute arises among experts as to what outlying city areas, such as suburbs, are meant to be included in the population count.

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Consequently, Lagos State embarked on various development programmes such as

- ✓ tourism promotion,
- ✓ industrial development,
- ✓ boundary resolution (inter and intra state),
- ✓ property valuation and revaluation for effective taxation and revenue collection, population and housing census operation,

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Recently, Lagos city joined the megacity with the population of about 18 million people. In Lagos most of the Nigerian's Corporations choose to have their Headquarters in Lagos City.

The location of Lagos State is highly favourable capitalizing on the vast resources of Nigeria and West Africa

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- ✓ planning of urban and rural settlements and transportation,
- ✓ flood and erosion control,
- ✓ mineral development including bitumen and petroleum and agricultural, and communication planning to support the megacity status.

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Beautification of Lagos

Lagos State Government embarked on various beautification and landscaping projects across the state.

The projects include the loops and medians along highways, setbacks and development of recreational parks in some identified locations within the metropolis.

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Lagos Safe City Project

Currently, about 18 million people of Lagos State are being protected and policed by 33,000 police men and women.

Under the Lagos Safe City Project , 10,000 solar-powered closed circuit cameras were introduced and installed all over the metropolis.

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2.0 LAGOS STATE MEGA CITY PROJECT – THE MISSING LINK

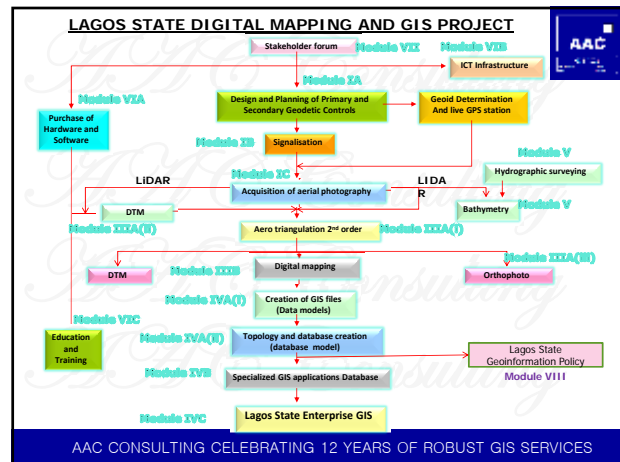
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The Missing Link

The need to acquire up-to-date base maps for the various Mega City Projects was identified as a missing link for the mega city development programmes.

Therefore the State Government decided to carry out a comprehensive digital Mapping of the whole state, which will result in the creation of a GIS Database for the state.

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Digital Mapping Infrastructure Development

The increasing awareness for the use of Geoinformation for decision making has culminated in the establishment of the "Lagos State Digital Mapping and GIS Project" by the Executive Governor of Lagos State.

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The project, the first of its kind in Nigeria, which is over 80% complete is expected to produce the following deliverables:

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(A)
First/second order Controls, their signalisation and densification

(B)
Aerial photos at 1:4000 for the whole state

(C)
Digital maps at 1/500 for Lagos Metropolis and 1/1000 for rural areas, orthophoto for the whole state at 1/2000 and DTM

(D)
GIS Database creation, GIS Applications and GIS Enterprise

(E)
Geoid and an active GPS reference Station

(F)
Hardware, Software, ICT Infrastructure and Staff training development

(G)
Bathymetric Chart of the Major Waterways

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Geodetic Control Coverage and Network

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PICTURE GALLERY

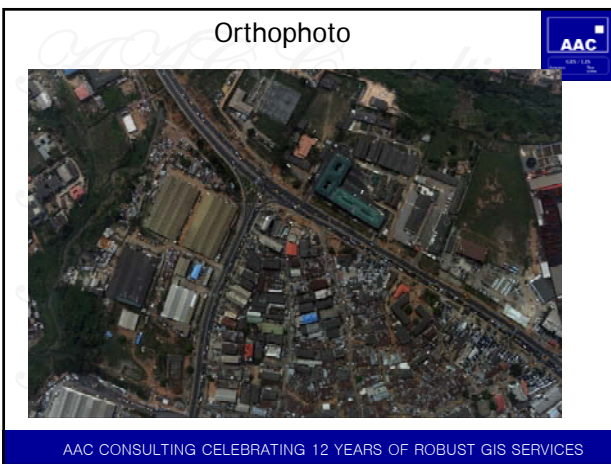
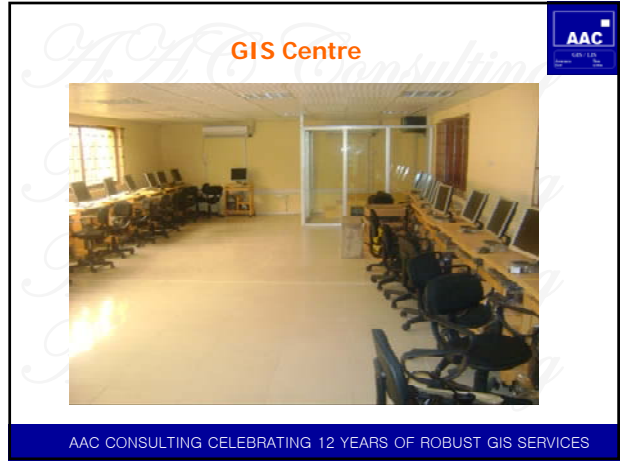
The Digital Mapping/GIS Project for Lagos State produced the following:

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Sample Monument

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OVERSEAS TRAINING

OVERSEAS TRAINING (ESRI UK) ORGANISED BY AAC CONSULTING FOR THE STAFF OF LAGOS STATE GOVERNMENT



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As a result to this, the State Government saw the need to establish a state-wide Geoinformation policy.

As well as a state Geospatial Data Infrastructure for promoting applications of Geoinformation for development programmes.

To create greater public awareness for a standard and coordinated Geospatial data production, management and dissemination by all sectorial institutions at Local and State levels.

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3.0
APPROACH ADOPTED FOR THE ESTABLISHMENT OF THE LAGIS POLICY

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3.1 The Purpose of the Policy

To produce a State Geoinformation Policy which will address the collective interest of the Geoinformation Community in the state and achieve the following objectives without being in conflict with the National Geoinformation Policy:

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- Establish a vision, mission, goals and standards for Geoinformation in the State
- Provide strategies for achieving (i) above and for promoting awareness for Geospatial Data Production and access, applications of Geoinformation for development, Data integrity and security, Human Capacity Building, commercial and Legal Aspect of Geospatial Data in the State

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3.2 Vision Statement

To promote optimal use of Geospatial Information for sustainable development and for the alleviation of Poverty and improvement of the quality of life of the people of Lagos State by establishing and maintaining Lagos State Geospatial Data Infrastructure (LAGDI)

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- Provide guidelines for the establishment and arrangement of Lagos State Geospatial Data Infrastructure (LSGDI) and its components such as Lagos State Geographical Information Systems (LAGIS), Lagos State Enterprise GIS and Lagos State spatial Solutions Infrastructure (LASSI)

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3.3 Mission Statement

The mission of Lagos State Geospatial Data Infrastructure consists of the following:

- To establish a Geospatial Infrastructure that harmonizes the mechanism for data acquisition and distribution in the State

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- To create a Lagos State Enterprise GIS (LAGIS) that connects Government citizens and businesses in providing Geospatial Data and Web-based GIS services on 24/7 basis.
- To promote research, training and education and capacity building in Geogeo data production management and usage

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3.4 Goals and Strategies of the Policy

- Goal 1: Achieve State Focus for GeoInformation Initiatives
- Goal 2: Create Strategic Organisational Framework
- Goal 3: Promote GeoInformation Data Infrastructure for State
- Goal 4: Encourage the Use of Geo Information to Support Better Decision Making

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- To establish Institutional, legal, technical commercial and administrative frameworks for the operation of LAGIS that will empower Lagos State Government to make informed decisions and to provide enhanced services to its Stakeholders and Constituents.

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3.5 Policy Issues

The policy issues examined in the LAGIS includes and not limited to the following:

- Geospatial Datasets
- Standards
- Metadata
- Legal Issues
- Data Access and Data Security
- Organisational Aspects

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- Funding
- Commerce Aspects
- Capacity Building
- Related National Policies and Legislation
- International Treaties, Protocols and cooperation

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3.7 Approach for Policy Implementation

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3.7.1 Establishment of Geoinformation Data Infrastructure

In deriving a LAGIS policy direction, the Lagos Geoinformation Data Infrastructure is needed to support the collection, maintenance and utilisation of geographic information in the state. This encompasses **human resources, technology, standards, policies, institutional arrangements and funding** as well as **geospatial data management**.

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3.6 Work Plan

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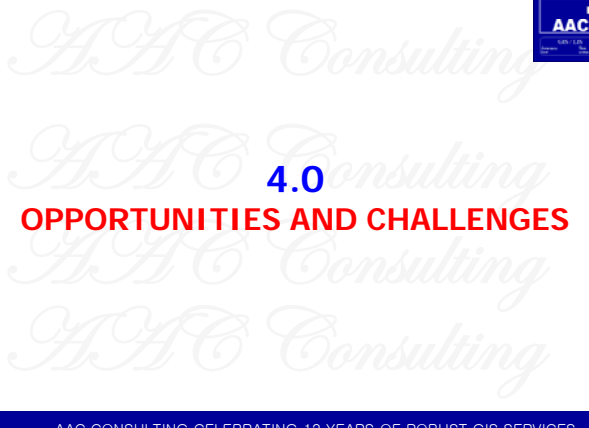

- Formation of LAGIS Committee
- Zero Draft Policy – March 2009
- Refined Draft Policy – April 2009
- Draft Policy (Revision. 1) – April 2009
- Draft Policy (Rev. 2) – May 2009
- Final Draft Policy
- Lagos State Laws Governing Geoinformation Technology

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3.7.2 Components of Geoinformation Data Infrastructure

The geoinformation data infrastructure model comprises of four core components namely: **Institutional Framework, Technical Standards, Fundamental Datasets and Clearing House Network**.

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4.0
OPPORTUNITIES AND CHALLENGES

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5.0
FACING THE CHALLENGES

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- ❖ Capacity Building
- ❖ Costing of Sales of Digital Maps and Mapping Information
- ❖ Data Access
- ❖ Data Quality
- ❖ Technology Challenges
- ❖ Institutional Development
- ❖ Sustainability challenges
- ❖ Increase Revenue Generation

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5.1 Transforming the Face of Lagos

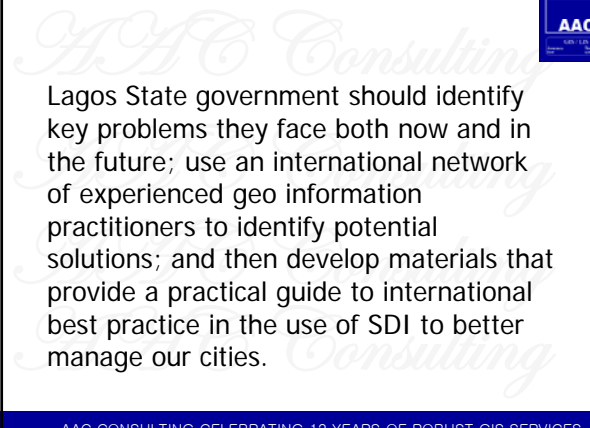

5.2 Creating an Enterprise Decision Support Systems

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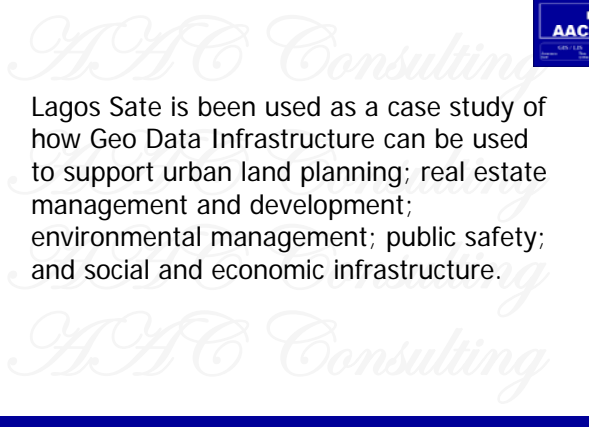


6.0
RECOMMENDATIONS

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Lagos State government should identify key problems they face both now and in the future; use an international network of experienced geo information practitioners to identify potential solutions; and then develop materials that provide a practical guide to international best practice in the use of SDI to better manage our cities.

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Lagos Sate is been used as a case study of how Geo Data Infrastructure can be used to support urban land planning; real estate management and development; environmental management; public safety; and social and economic infrastructure.

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7.0
CONCLUSION

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Lagos has no doubt become a model for change in Nigeria. The city is transforming, attracting to itself much domestic/international goodwill and exciting opportunities.

As Lagos is growing in this way, effort should be made to stem the tide of growth in this direction so that our megacity will actually live up to its being a Centre of Excellence for generations yet unborn.

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THANK YOU FOR YOUR ATTENTION



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