



**TOWARDS CREATING A STANDARD
FORMAT FOR GEOSPATIAL DATA
COLLECTION, ANALYSIS, AND
DISSEMINATION FOR IMPROVED HEALTH
AND SOCIOECONOMIC POLICY**

BY
Alfa Mohammed,
Director, Cartography
National Population Commission

Objectives of the Summit

Having made these preliminary remarks, the objectives of the summit is line with the topic of this paper:

- “Towards Creating a Standard Format for Geospatial Data Collection, Analysis and Dissemination for Improved Health and Socioeconomic Policy”.

This paper will discuss:

- The constitutional mandate of the Commission and the progress made over the years by National Population Commission (NPopC) in the area of data collection, analyses and dissemination.
- Available geospatial resources of the Commission relevant to the health sector needs.
- Finally, the paper will elaborate on areas of collaboration and conclude with major challenges to the development of the National Geospatial Data Infrastructure (NGDI).

Mandate of the NPopC

- NpopC is one statutory body established by law.
- under section 153 of the 1999 Constitution
- In addition, it derives its mandate and powers from the following statutes and instrument:
 - (a) NPopC Act, Cap. N67 Laws of 2004
 - (b) Births, Deaths, etc (Compulsory Registration) Act, Cap. B9 of 2004; and
 - (c) Letter from the President of the FRN on Co-ordination of Population Activities, Ref. No. PRES/81 dated 19th September, 2000.

Mandate continues

- NPopC statutory duties and powers:
 - (a) Undertake National censuses, sample surveys etc.
 - (b) Registration of births and deaths
 - (c) Prepare and maintain a national framework for censuses and surveys
 - (d) Collect, collate and publish data on migration statistics;
 - (e) Formulates the National population policy
 - (f) Manages the Nation's Population information data bank
 - (i) Co-ordinate all population related activities
 - (j) Advise Mr President on population matters.

Implication of the mandate for Geospatial data Generation and dissemination

- The Commission has over the years collaborated with:
 - OSGOF for the acquisition of administrative and topographic maps at different scales
 - NASRDA for high resolution Imagery
 - National Boundaries Commission for resolution of boundary issues.

Focus of the Workshop

The focus therefore is for me to indicate the thoughts of the Commission as I understand them, in terms of:

- Geospatial resources available to assist the health sector (data, software, hardware, technical expertise, training, etc.)
- Current or upcoming projects and geospatial resources that will be developed and/or needed by the organization, including opportunities for collaboration.
- Top National Spatial Data Infrastructure (NSDI) Challenges affecting the organization's ability to work effectively with the health sector.

Available Geospatial resources to assist the health

- About 600,000 EA and 120,000 SA Maps covering the entire Country
- Population Data for all States, LGAs and Localities in the Country.
- Shapefiles of Nigeria with roads, settlements, vegetation, water bodies and socio-economic facilities layers.
- Vital Registration (Birth, Death & Migration) Data since year 2000.
- Education, Health and other Socio-economic data.
- Comprehensive List of all Localities in the Country

Geospatial resources Continues

NPopC has a well established GIS laboratory in Cartography Department.

- Available resources in GIS Division
- Hardware: Servers, desktop Computers, Lap Tops, Printers, Plotters, Scanners, Photocopiers, and many modern handheld GPS
- Software: ArcGIS, Corel Draw, Macromedia Freehand, ERDAS Imagine and Microsoft office.
- Spatial Data: (i) Landsat Imagery (100% coverage of Nigeria),
(ii) Spot 5 (90% with 60% almost cloud free),
(iii) Ikonos, Quick Bird (1.0 & 0.6m Res. covering 534 Settlements in Nigeria),
- Methodologies that enhances spatial Mapping.
- Crop of Professionals in spatial data acquisition and management

Geospatial resources Continues

- Sample surveys conducted nationwide in the last 30 yrs
 - Nigeria fertility survey. 1981/82
 - NDHS (Nigeria Demographic and Health survey). 1990, 1999, 2003 & 2008
 - NEDS (Nigeria Educational Data survey). 2004 & 2010
 - Sentinel Survey. 2007
 - HIV/AIDS Surveillance Survey 2010
 - Malaria survey 2010
 - NURHI (Nigeria Urban Reproductive Health Initiative survey). 2011,
- Support many MDAs, NGOs, and International Organisations in planning for field data collection and analyses of field returns.
- Ministry of Health and other stakeholders are all aware of the relevance of the surveys in national planning.

Current or upcoming projects and geospatial resources that will be developed and/or needed by the organization, including opportunities for collaboration.

On going /proposed activities:

- Collaborating with OSGOF for acquisition of relevant digital maps
- With NASRDA for the acquisition of 2.5 m res and imagery for the review and update our EA database for future censuses and surveys.
- Harmonization of boundary issues with National boundaries Commission.
- World Bank grant, for Capacity building, specifically on DBMS and GIS software, and expansion of GIS hardware
- Providing mini GIS Laboratories in all the states of the country.

Action plan for future activities of the Commission

The Action plan for future activities of the Commission starting from 3rd quarter of 2011 to 2016 is itemized below.

- Finalization and publishing of Compendium of localities in Nigeria;
- Geo-referencing of all EA maps.
- Acquisition 0.5m or 0.61 and 2.5 m res. Imagery (NASRDA)
- Acquisition of relevant GIS software and hardware
- Procurement of digital topographical maps of 1:25000 – 1:50000;
- Workshops and seminars on review of EAD training and reference manual;
- Capacity building;
- Procurement of Consumables
- Establishment of mini GIS lab in all state offices and FCT
- Sensitization workshops and seminars.
- Conduct of fieldwork for EAD review
- Production of updated and new EA maps for the Census 2016.

Major challenges to development of the NGDI and creation of an action plan to help address the challenges.

There is abundant spatially referenced data or 'reference-able' data produced by

- OSGOF,
- National Planning Commission,
- NPopC,
- National Bureau of Statistics,
- FMOH,
- Water Resources,
- Min of Works, Housing and Urban Development,
- National Boundaries Commission, all other MDAs, NNPC, SPDC and other Upstream oil and Gas industry,
- The Military, All State Governments, NGOs, many other private organizations, etc. The list is endless.

There is already a Committee handling NGDI. The Committee only needs to sit up and have discussions with all the stakeholders to resolve the following challenges.

Major challenges Continue

The major problems include:

- Inability to break down the rigid walls created by stakeholder-organizations towards data sharing.
- Inability to provide a common platform geo-data acquisition.
- Lack of uniform data definition for metadata standardization
- Delay in defining data layers for NGDI
- Inability to agree on key agencies to be responsible for different data layers
- Inadequate government support for NDGI
- Poor wages paid spatial data acquisition and management professionals.

What should be done

- NGDI Committee to be more proactive
- All stakeholders be identified.
- NGDI committee to liaise with the stakeholders on a roadmap towards eliminating duplication of efforts,
- There should be standardization of spatial data content
- And also a standardised format for distributable outputs like vector and raster formats, to aid data compatibility and comparability.

Conclusion

Finally, this paper has attempted to present:

- The purpose for which NPopC was established.
- The Achievement of the Commission in areas of data provision for Health/public/private sector policy planning
- The capacity of the Commission through the Cartography Department in generating spatially referenced data.
- The action plan of the Cartography Department towards providing spatially referenced work assignment units (Enumeration areas/clusters) for collection of population, health and socioeconomic data;
- Areas of possible collaboration with other stakeholders.
- Areas of assistance by development partners
- And the need for streamlining geospatial data collation to eliminate duplication of efforts, and
- Providing common referencing system as a platform for geospatial data production.

**Thank you for
listening.**

