

# Cadastre Spatial Information: A Dependable Tool for Flood Disaster Management in Delta State of Nigeria

Oluseye Thomas DABIRI

## KEYWORDS

- Cadastre Spatial Information (CSI), Dependable Tool (DT), Flood Disaster Management (FDM).

## ABSTRACT

- Cadastre Spatial Information is a Dependable Tool for all sorts of Disaster Management when and where it is available. Cadastre Spatial Information Management in Delta State is under the Ministry of Lands, Survey and Urban Development (MLSUD).
- This paper will present Cadastre Spatial Information tools that are easily accessible and readily available for Flood Disaster Management in Delta State of Nigeria.

## INTRODUCTION

- The Flood Disaster of 2012 in Nigeria was a National calamity. Delta State was one of the worst hit; belonging to CATEGORY A on the Federal Government's Impact Assessment Rating (IAR). A Technical Committee on Flood Impact Assessment in Delta State was inaugurated on October 24, 2012. From the report of the committee:

- 231 Communities in 12 Local Government Areas of the 25 Local Government Areas (LGA) were adversely affected. These include:
- 118 Community Markets.
- 743 Market Stalls.
- 220 Primary Schools.
- 84 Secondary Schools.
- 4357 Fish Farms.
- 526 Poultry Farms.
- 58 Piggeries.
- 5099 Houses.

FIG. 1: DELTA STATE LOCAL GOVERNMENT AREAS. (SOURCES: [www.deltalazio.org](http://www.deltalazio.org))

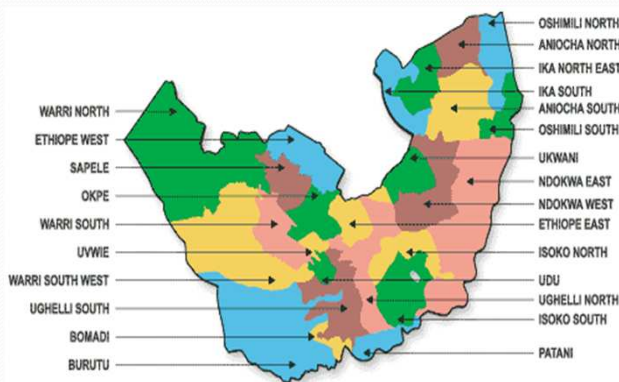




FIG.2: FISHING CAMP IN THE MANGROVE SWAMP OF DELTA STATE OFF ESCARVOS CREEK (SOURCES HYDROARK ARCHIVES 2011)



FIG.3: DISPLACED SCHOOL GIRLS IN HAND PULLING CANOE ON FLOODED AREA IN BOMADI LOCAL GOVERNMENT AREA OF DELTA STATE 2012 (SOURCES HYDROARK ARCHIVES 2012)



FIG 4: FLOODED RUBBER PLANTATION IN UGHELLI SOUTH LOCAL GOVERNMENT AREA OF DELTA STATE 2012 (SOURCES HYDROARK ARCHIVES 2012)



## COMMISSIONS & OMISSIONS

- The Committee put the cost of Crops destroyed at 3.1Billion Nigerian Naira (NGN) at exchange rate of 160NGN to 1USD. The committee ranked:
  - Ughelli North LGA.
  - Ughelli South LGA.
  - Ndokwa East LGA.
  - Burutu and other LGA in Delta State as worst hit.
- The Committee omitted:
  - Aniocha South and Warri South West LGAs in their presentations even when Refugees Centers for the flood victims were opened in these two areas.

## CSI RELEGATION

- The omissions and underestimations with agitations amongst the omitted communities are avoidable and can be minimized if dependable tools were used. Amongst the measures the committee recommended; Cadastre Spatial Information was conspicuously relegated. The committee submitted their report on December 12, 2012 to the Governor of Delta State (Dr. Emmanuel E. Uduaghan).

## PERSPECTIVES

- The Cadastre Data Development and its evolutionary trend in Delta State have not achieved the ultimate purpose of serving a readily available and accessible tool for good governance (Dabiri, 2012).
- The Data here in Delta State is not yet research design based upon exploratory case studies or factors like globalization, population, urbanization, good governance, climate change response, environmental management, 3D visualization/analysis technologies, wireless sensor networks, standardization and interoperability (Williamson et al., 2011).
- All Data are jointly developed and managed in general manual file system for the following activities:



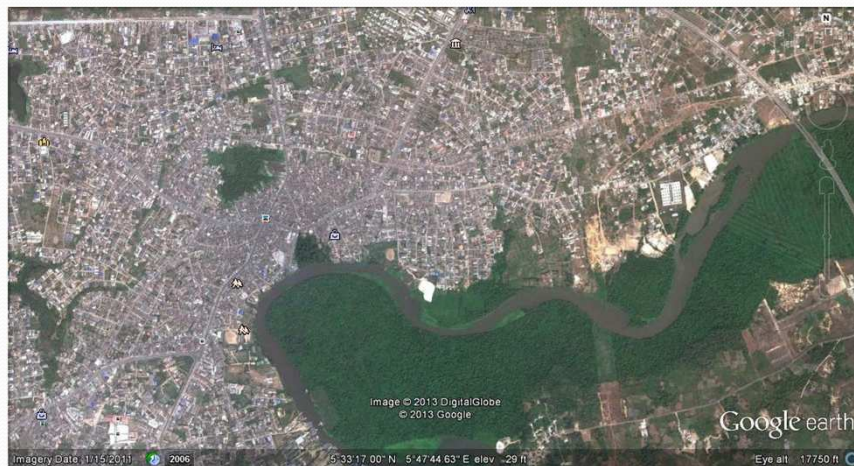
## IN DELTA STATE TODAY

- All Data are jointly developed and managed in general manual file system for the following activities:
- To verify data brought in for issuance of Certificate of Occupancy.
- To protect Government Acquired Land from encroachment.
- To Plan and Manage the Urban Centers.
- To control and approve building plans for the public.
- To Collect Revenue for government on approval fees and taxes.
- To carry out survey of the government lands and allocate same for the defined purposes.
- To give professional advice to the government.

## THE REALITY

- About 80% of daily decisions on national or local level, either in economy, finances, taxation, demography, spatial planning, environment, hazard areas, infrastructure, housing, cultural heritage, etc are spatially or geo - referenced.
- Cadastre Spatial Information tools that are easily accessible and readily available for Flood Disaster Management in Delta State of Nigeria is not Geo Information System (GIS) based.
- Geo Information Systems can help to support all phases of emergency management, like mitigations preparedness, response and even recovery. In the field of land information systems, surveyors possess a sound experience in maintaining huge spatial databases at a very high level of reliability since long ago. This knowledge can be used to support the implementation of other but, technically spoken, similar spatial information systems which provide an absolutely indispensable base for the effective disaster risk management.

FIG.7: WARRI ENVIRON WITH RIVER ON GOOGLE: A READILY AVAILABLE TOOL FOR FLOOD DISASTER MANAGEMENT (SOURCES 2013 GOOGLE EARTH)



## CONCLUSION

- Flood is a natural phenomenon; with climate change challenges and lack of structure on ground; Government will need to invest more on Cadastre Spatial Information and its Infrastructure. Delta State Government policy of “Looking beyond Oil” is possible with adequate budgetary provisions for the Spatial Information.