

IMPROVING STREET GUIDE MAPPING OF ENUGU SOUTH URBAN AREA THROUGH COMPUTER AIDED CARTOGRAPHY

By

Victor C. NNAM, Bernard O. EKPETE and Obinna C. D. ANEJIONU, Nigeria

Presented at FIG Working Week 2012

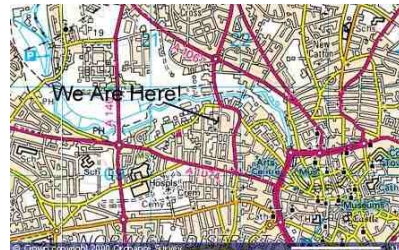
“Knowing to manage the territory, protect the environment, evaluate the cultural heritage”
TS 1081 – Low Cost Surveying and Mapping

Rome, Italy,
6-10 May 2012

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INTRODUCTION

- Maps, are spatial models of the Earth's surface
- Maps have played vital role in the world through
 - aiding decision making and policy formulation processes
 - aiding tourism and general navigation
- Street guide map focuses on the locations of streets in an urban area
- Advances in computer technology increased the speed and the capacity of various Geoinformation and map-making processes
- The improvements have revolutionised the map-making process – Computer Aided cartography (CAC).



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ADVANTAGES OF CAC

- Flexibility in the mapping process
- Reduced vulnerability of maps to dimensional distortion (expansion or shrinkage)
- Capacity to respond to the increasingly complex and diverse requirements of geo-information products
- Simplified and faster map revision process
- Quick and easy linkage to databases and GIS

- Despite the established merits
 - The use of maps in developing countries is relatively low compared to what is obtainable in developed countries.

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MAPPING IN NIGERIA

- Map making process in Nigeria has not necessary caught up with the new trend
- Many state and local government agencies still rely on traditional maps
- Thus, the need for a pilot project to strongly demonstrate the merits and effectiveness of adopting the new trend



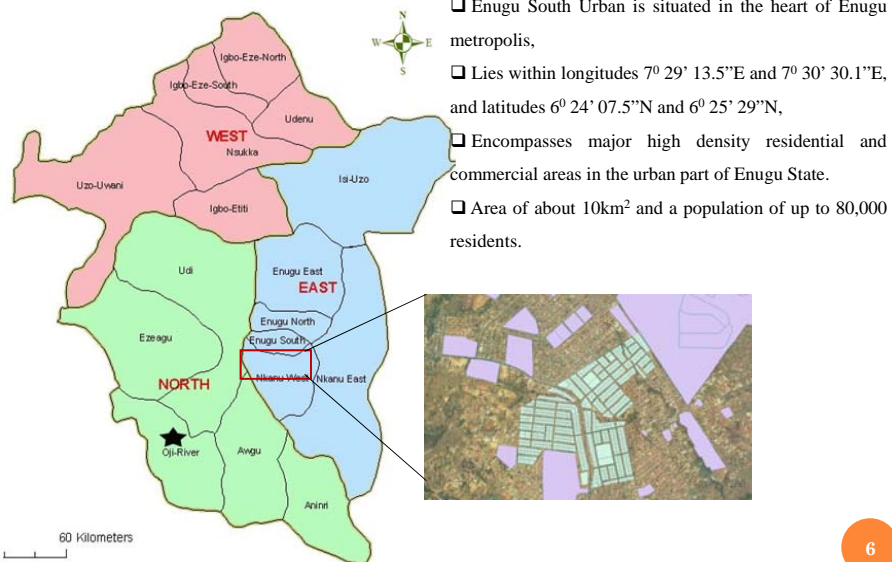
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AIMS

- The project aims at producing a revised map of Enugu Urban with detailed street information:
 - to stimulate interest in the adoption of Computer Aided Cartography in the state, as well as
 - boost the use of maps in the state, through the continuous updating and revision of the map.

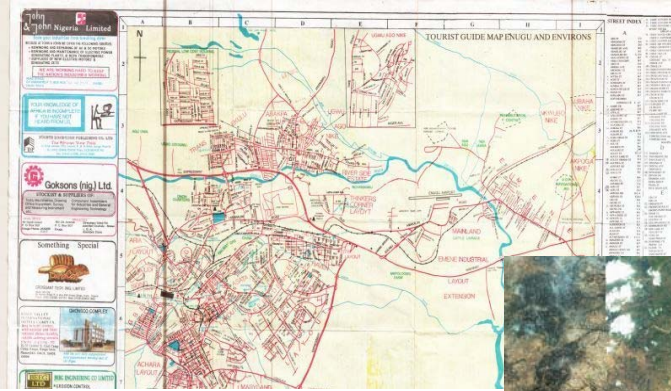
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STUDY AREA – ENUGU SOUTH URBAN

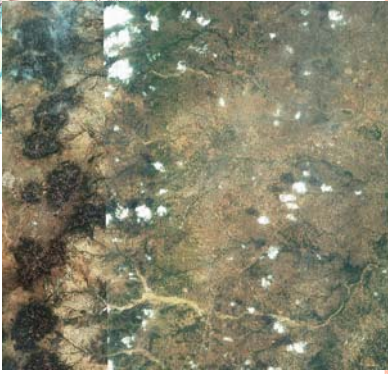


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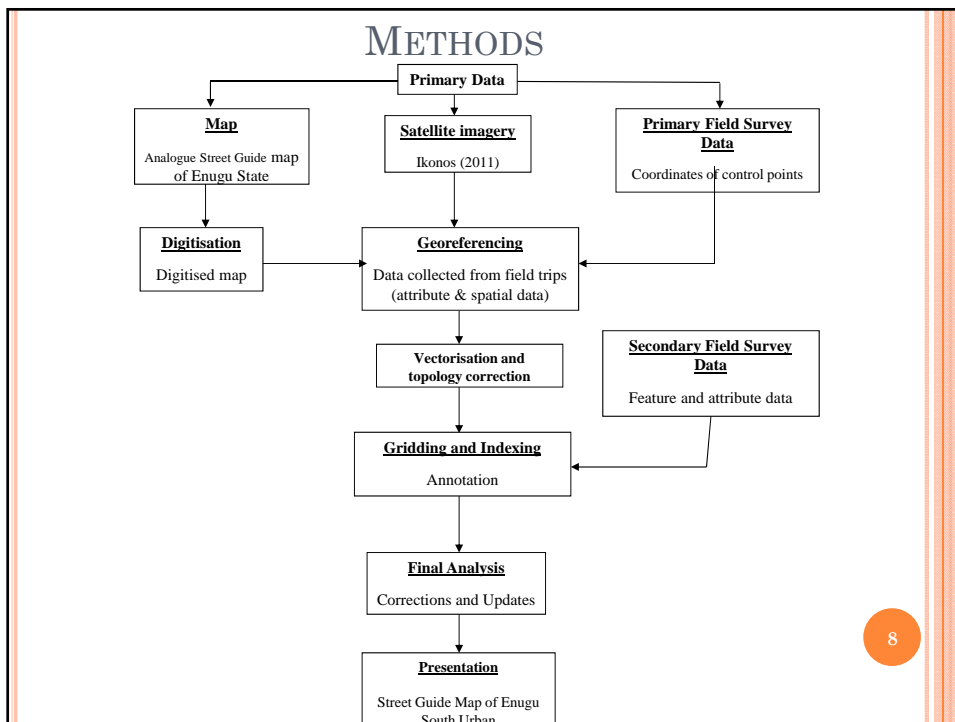
DATA



Tourist Guide Map ENUGU AND ENVIRONS



- ❑ Analogue street guide map of Enugu Urban
- ❑ Ikonos Satellite Imagery covering the study area



RESULTS



- ❑ Up-to-date digital street guide map of Enugu South Urban area
- ❑ Comprehensive list of all the streets and relevant attributes of features
- ❑ Expected to serve as an important database for future related projects in the state

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DISCUSSIONS

- ❑ Result obtained from this study satisfies the aim and objectives of the project.
- ❑ A high quality and updated street guide map of Enugu State was produced through Computer Aided Cartographic processes.
- ❑ The map compared to existing analogue map of the area clearly demonstrates the merits of adopting CAC methods in the state.
- ❑ Results obtained expected to play essential role in the following areas:
 - ❑ **Tourism Industry**
 - ❑ **Transport Services**
 - ❑ **Revenue Collection Services**
 - ❑ **Refuse Collection Services**
 - ❑ **Policing**
 - ❑ **Mail Services**
 - ❑ **Engineering and construction**

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RECOMMENDATIONS

- ❑ Strongly recommended
 - ❑ Implementation of Computer Aided cartography (CAC)
 - ❑ Revision of all existing maps in Nigeria using Computer Aided cartography (CAC)
 - ❑ Reconciliation of the local coordinate systems in all the countries in Africa with the same grid for improved mapping
 - ❑ Enhanced training of Nigerian surveyors on Computer Aided cartography (CAC) as well in:
 - Advanced Spatial Analysis
 - Remote Sensing and image processing techniques

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CONCLUSION

- ❑ This pilot study has highlighted the benefits of adopting Computer Aided Cartography in street mapping in Enugu State
- ❑ The map is expected to boost tourism in the state, as well as play vital role in transportation, hospitality, policing, mail delivery, revenue collection, refuse collection and engineering works.
- ❑ The map was produced in a quick and cost effective way that underscores the advantages of CAC over the traditional methods currently being employed in the state
- ❑ The digitally based map will also grant map makers the flexibility of quick updates and revisions, and could be used for the generation of application specific maps in a cost effective and quick way.

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