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Harnessing the Tourism Potentials of Abia State using Advanced Geospatial System Techniques-A Review

BY

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## PRESENTATION OUTLINE

- 1.0 INTRODUCTION
- 2.0 OBJECTIVES OF THIS REVIEW
- 3.0 BACK GROUND ISSUES ON ABIA STATE
- 4.0 METHODOLOGY
- 5.0 RESULTS (EXPECTED).
- 6.0 CONCLUSION AND RECOMMENDATION
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## INTRODUCTION

- Tourism is widely recognized as one of the World's largest industries that focuses primarily on leisure, business, travel activities and also centers around peoples' movement to a particular destination.



Source: Chigbu,2013

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- The success of tourism and hospitality industry in any country depends on the ability of that country to sufficiently develop, manage and market the tourism facilities and activities of that country .
- The Nigerian Tourism industry is a very huge business that offers a lot of possibilities in terms of finance generation, employment and re-positioning of the country's image internationally.
- with a population of over 120 million people made of about 300 ethnic groups, a vast landmass of about 1 million beautiful coastland (approximately about 835km), a rich diversity of cultural and ecological resources, Nigeria appears destined to be the "Giant" of Africa as far as tourism is concerned(Ayeni,2001).

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## NIGERIA



Population over 120million

36 states & FCT  
About 300 ethnic groups

About 1 million beautiful  
coastland (about 835km)

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### Tourism classification in ABIA State

- The following Tourism types will be considered:
  - (a) Cultural
    - i. Museum and Arts
    - ii. Arts and Craft
    - lii. Monuments
  - (b) Modern
    - (i) Travel
    - (ii) Art & Theatre
  - (iii) Resorts    (iv) Industry    (v) Amusement parks    (vi) Edifice    (vii) Industry.

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- Ecological Tourism:
  - Geological
  - Forest
  - Zoological Garden

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## Major Tourist Attraction in Nigeria

S/N	NAME OF TOURIST SITE	STATE LOCATED
1.	AROCHUKWU CAVE	ABIA
2.	OJUKWU BUNKER	ABIA
3.	ZUMA ROCK	ABUJA(FCT)
4.	MANDARA MOUNTAIN	ADAMAWA
5.	TINAPA RESORT	CROSS RIVER
6.	GURARA FALLS	BENUE
7.	WILD WARM SPRING	BAUCHI
8.	JOS WILD LIFE PARK	PLATEAU

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## Major Tourist Attraction in Nigeria

S/N	NAME OF TOURIST SITE	STATE LOCATED
9.	OBUDU CATTLE RANCH	CROSS RIVER
10.	BUKOLORI DAM	NIGER
11.	USHOGO HILLS	OSUN
12.	SAMORIKA HILLS	OSUN
13.	OKIRIKA AQUATIC STADIUM	RIVERS
14.	OLD OYO NATIONAL PARK	OYO
15.	OGBUNIKE CAVE	ENUGU
16.	AMINU KANO AIRPORT	KANO

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## Major Tourist Attraction in Nigeria

S/N	NAME OF TOURIST SITE	STATE LOCATED
17.	NNAMDÍ AZIKIWE INT. AIRPORT	ABUJA
18.	EGENEJA WARM SPRING	ABUJA
19.	YANKARI GAME	BAUCHI
20.	AKWETTE WEAVING CENTER	ABIA
SOURCE:	Modified from Ayeni,2001.	

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## TOURISM EVOLUTION IN NIGERIA

S/N	DATE	DEVELOPMENT
1.	1962	Formation of Nigeria Tourist Association.
2.	1976	Federal Government of Nigeria promulgated decree No. 54 of 1976 which Established the Nigeria Tourist Board.
3.	1976	States in turn Established States Tourist Committees.
4.	1990	New policy on Tourism was developed(National Tourism policy). Defined Role of Tourism sector in the Nigerian Economy as: (i) foreign exchange generation (ii)promoting tourism based rural enterprises. (iii) generating employment (iii) promoting cultural exchange.
5.	1992	National Tourism Development corporation(NTDC) & Establishment of National Institute for Hospitality and Tourism(NIHOTOUR) and National Travel Bureau.

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- The above tourism policy initiative of Nigeria was aimed at encouraging both domestic and foreign investments in that sector of the economy.
- These measures were put in place to enable Nigeria become the ultimate tourism destination in Africa and also to improve the revenue generation base by diversifying the economy from mono to multi-sources of revenue generation.

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## AIM & OBJECTIVES OF THE REVIEW

- Development in Geoinformation (GI) Technology like Cartography, Photogrammetry, Satellite Remote Sensing, GIS, Land Surveying (including GPS) and other earth related technologies have actually reshaped the way and manner business is handled in recent times.
- With the avalanche of geospatial data readily available through mostly satellite Remote Sensing, GPS and other in-situ Survey techniques and the possibility of integrating different spatio-temporal data in GIS ENVIRONMENT, these same capability offered by the use of Advanced Geospatial technologies can be employed in harnessing the rich tourism potential of Abia State for sustainability.

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- The above aim can be realized through the following key objectives:
- (i) To explore in details the practicability of employing integrated geospatial techniques in developing a tourism map of Abia State.
- (ii) Gathering necessary primary and ancillary data for the above exercise
- (iii) Scanning and Digitizing existing analogue to create a digital equivalent in GIS environment.
- (iv) Carryout field editing/ground truthing/ field completion exercise.
- (v) Develop a digital Multi-media database for harnessing tourism in Abia State.
- (v) Report research work and advocate its use by stakeholders through appropriate media.

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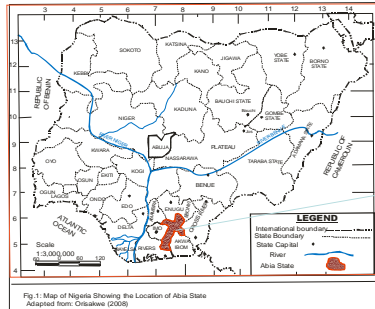
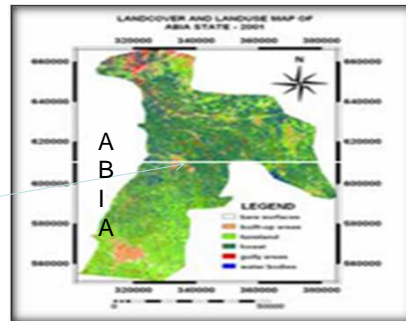


Fig. 1. Map of Nigeria Showing the Location of Abia State  
Adapted from: Orlakwe (2008)



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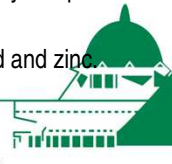


- Abia State is a state is located in the South East Geo-Political Zone of Nigeria.
- The capital is Umuahia, although the major commercial city is Aba.
- Abia State lies within approximately latitudes 4° 40' and 6° 14' north and longitudes 7° 10' and 8° east.
- The state shares common boundaries to the north with Ebonyi State; to the south and southwest with Rivers State; and to the east and southeast with Cross River and Akwa-Ibom States respectively. To the west is Imo State, and to the northwest is Anambra State
- 
- The Population is estimated to be about 3,000,000 (NPC, 2009).
- The state covers an area of about 5,243.7 sq. km which is approximately 5.8 per cent of the total land area of Nigeria.
- Mineral resources found in the state include petroleum, natural gas, lead and zinc.

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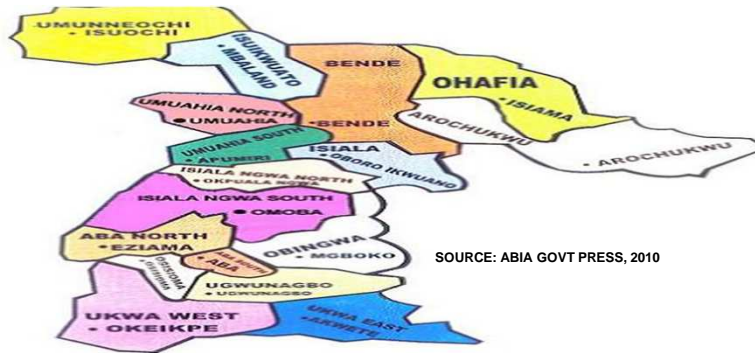
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- 17 LOCAL GOVERNMENT AREAS OF ABIA STATE .



SOURCE: ABIA GOVT PRESS, 2010

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## MAJOR TOURISTS ATTRACTION IN ABIA

S/N	TOURIST ATTRACTION	LOCATION
1.	ISIKWUATO WATER FALL	UMUOGWUGO ISIKWUATO
2.	AZUMINI BLUE RIVER	AZUMINI UKWA EAST
3.	LONG JUJU	AROCHUKWU, AROCHUKWU
4.	WAR MUSEUM	NDUME, UMUAHIA NORTH.
5.	AMAKAMA CAVE	AMAKAMA , UMUAHIA SOUTH
6.	THE OHAFIA WAR DANCE	ISIAMA , OHAFIA
7.	AKWETTE TEXTILE WEAVERS	AKWETTE, UKWA EAST
8.	NGODO CAVE	NGODO ISUOCHI

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## MAJOR TOURISTS ATTRACTION IN ABIA

S/N	TOURIST ATTRACTION	LOCATION
9.	ULUCHUKWU CAVE	AHABA IMENYI, ISIKWUATO
10.	CHUKWU ABIAMA	AMANKALU ALAYI, BENDE
12.	EZE OFIA CAVE	ISIAMA OHAFIA
13.	ONU IBINA	OHAFIA
	NOTE It is believed that the Uluchukwu cave, Abiama cave and long juju cave (ibini ukpabi) were once residence of Chukwu Abiama/obioha the kind hearted deity that once wielded great powers of arbitration	



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Ayeni (2006) observed that the use of pictures, sounds, and graphical data would aid the development of the tourism sector (Igboanugo, 2009).

The Final production of the tourist map of Abia state would involve the adoption of following steps:

- Compilation and addition of textual information to features location
- Development and editing of pictures and images to text labels
- Hot linking of images to their respective features using Arc GIS software.



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## USE OF ADVANCED GEO-SPATIAL TECHNIQUES IN HARNESSING TOURISM

### METHODOLOGY

#### (1)Hardware/Data Needs

- Sources of the tourism data for the data base design include:
  - Existing map of Abia State
  - Abia State street Guide Maps from OSGOF
  - GPS Data
  - Other Ancillary Data(demographic information)
  - Photographs of Tourist Sites in the State, etc.

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- DATA TYPES:
  - (A) Sound
    - voice/music
  - (B) Text
    - Tables
    - Descriptive Texts and place Names
  - (c) Pictures
    - still/Motion

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- Pentium (iv) Computer with 500G memory used for graphics and Data processing
- Promark 3 Differential GPS for field data capture
- Garmin 76 XL Handheld GPS
- Leica Total Station Equipment for field completion exercise.

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## Software Needs

The following software would be required:

(i) AutoCAD 2010, (ii) ArcView 3.2/ Arc GIS 9.3 for creation of a relational GIS database (iii) MS office 2010 for tabular data and for word processing, (iv) Microsoft windows media player to be used for converting recorded sound to wave files, (v) Windows video Maker necessary for hyperlinking all data in the relational data-base in ArcGIS environment using script files for creating the multimedia GIS.

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## GEODATA BASE DESIGN

- To effectively implement a tourist Geo-database of Abia State, a solid database design must be put in place
- Tourist Geo-data base design involved a six step process(Igbokwe ,2010):
  - - Reality
  - - View of reality
  - - Conceptual Modeling
  - - Logical Modeling
  - - Physical Design
  - - Spatial Database

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- The following procedure for developing a GIS Database may be adopted
- Analogue to digital map conversion by scanning and digitization and creating required shape files.
- Creation of relational tabular database with their attributes and hot-linking with shape files in Arc View GIS environment.
- Creation of GIS database for Tourism with capabilities for queries.
- Conversion of recorded digital photographs and sound to wave files and to AVI format.
- Linking multimedia files to files in GIS database( Ayeni,2001).

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## coordinates of some Tourists sites(UTM zone 32)

s/n	Name of site	E(m)	(Nm)
1.	NGODO CAVE	321671.902	662670.980
2.	OJUKWU BUNKER	344361.206	611472.893
3.	ULUCHUKWU AHABA	336094.232	632108.751
4.	ULUCHUKWU ABIAMA	343997.116	631763.892
5.	EZIOFIA CAVE	364001.590	628091.320
6.	ONUIBINE CAVE	331302.097	604719.986
7.	OHAFA WAR DANCE	366901.301	623273.503
8.	LONG JUJU	366998.696	602836.753
9.	AZUMINI BLUE RIVER	331482.342	547073.565



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S/N	NAME OF TOURIST SITE	E(M)	N(M)
10.	ISIKWUATO WATER FALL	333493.569	633132.632
11.	WAR MUSEUM UMUAHIA	332509.321	615887.943
12.	AKWETE TEXITE WEAVERS	317544.394	541131.743

Source: Author's field work,2013

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## RESULTS

- The aim of every GIS project is to aid in decision making process. This review is to show how tourism can be supported by the technical production of digital maps using GIS techniques. The project when it is finally accomplished, would deliver the following:
  - Maps, graphics, pictures and tourism guides of Abia State in different formats (Analogue and Digital formats).
  - It will also deliver textual information, descriptions of routes and locations of tourist sites and other interest areas in Abia State, etc.
  - If appropriately funded, we do hope to develop a model or pilot tourism web site for the state.

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## CONCLUSION

There is need for the development of a master plan for the development of tourism in Abia State. The master plan will provide:

- A guide for the holistic development of the sector in view of the multiple linkages to other sectors of the economy.
- The plan will provide a clue to the right type of tourist facilities to be developed at different local areas of the state.
- The plan will provide a blue print for private sector participation in the tourism industry.

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- The plan will help to provide the background infrastructural facilities that will enhance the development the identified tourist sites in the state.
- It should also outline strategies to effectively integrate the host communities in the development and the enjoyment of benefits of such investment.
- Finally, the agency of the state concerned with tourism should liaise with the National Tourism Development Commission to fully develop the tourism blueprint to attract foreign and local investors to the sector.

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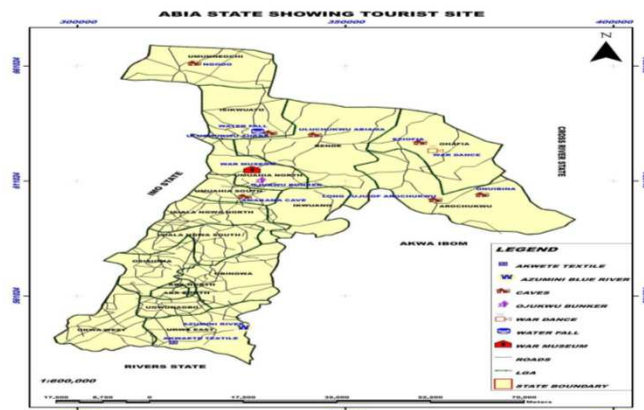
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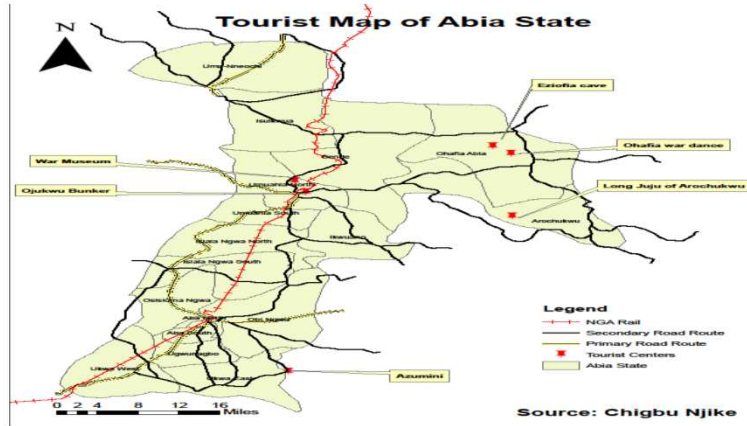




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