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**THEME: EMBRACING OUR SMART WORLD WHERE THE CONTINENTS  
CONNECT: ENHANCING THE GEOSPATIAL MATURITY OF SOCIETIES.**

**TOPIC: - GEOSPATIAL INFORMATION FOR SUSTAINABLE FOREST  
MANAGEMENT IN EKITI STATE(9398).**

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## ABSTRACT

*Environmental resources management is becoming a burning issue in local, regional and global discourse. Similarly, the power and influence of the masses in attitudinal change are appreciated especially in this era of globalization. It then follows logically that Geospatial Information technique is a powerful tool for addressing the issue of forest management sustainability in Ekiti State. Both primary and secondary sources of data were adopted for carrying out this research using random sampling techniques. This paper evaluates the environmental and management problems associated with natural resources use in developing countries. It identifies greed and ignorance as mutually reinforcing factors that have exacerbated resources degradation, and contends for the forest resources to be effectively managed for sustainable economic development and environmentally friendly. The proposed attitudinal change must be in place; and mixture of both traditional and modern Geospatial information technique be utilized. The credibility of information dissemination through Science and Technology must be boosted, research-based, legally backed and logically presented. These would facilitate effective management through preservation and conservation of forest reserves, eliminate sharp practices that cart away the resources, degrade the environment and thus allow promotion of sustainable forest management and development in Ekiti State in this twenty first century.*

**KEYWORDS:** Sustainability, globalization, forest management and geospatial.

## INTRODUCTION

- Forest - a natural resources dominated by trees, and plant community, occupying an extensive area of land.
- Forest resources support life by absorbing carbon dioxide, serves as sources of food, medicine, timber and play protective roles
- Man as '*homovandalus*' species subject forest to a greater risk: agriculture, overgrazing, wildlife charcoal production and wood resources for timber because of over and illegal exploitation due to greed and ignorance, in most part of the study area called for sustainable management because of the ripple effect on man and his environment .

## AIM AND OBJECTIVES

- The paper evaluates the environmental impacts and management problems associated with forest resources in Ekiti State for the purpose of sustainability.
- The specific objectives are to:
  - identify the reasons why forest resources are being depleted, degraded and evaluate the impacts of forest resources exploitation in Ekiti State
  - contend for forest resources sustainability in Ekiti State
  - proffer solutions to forest depletion through forest management system.

## METHODOLOGY

### THE STUDY AREA

- Ekiti State is located in the south western part of Nigeria. It lies between latitudes  $07^{\circ}15'$  and  $08^{\circ} 5'$  north of the Equator and between longitudes  $04^{\circ} 45'$  and  $05^{\circ} 45'$  east of the Greenwich Meridian.
- The state is bounded in the north by Kwara State, in the north east by Kogi State, in the west by Osun State and in the south and south east by Ondo State ( Fig 1). Ekiti State has sixteen Local Government Areas ( Fig 2).
- The vegetation of Ekiti State is classified into two viz: the north described as the Guinea savannah woodland and the south vegetation. Tropical rain forest (Olorode, 2002; Adebayo, 2004).

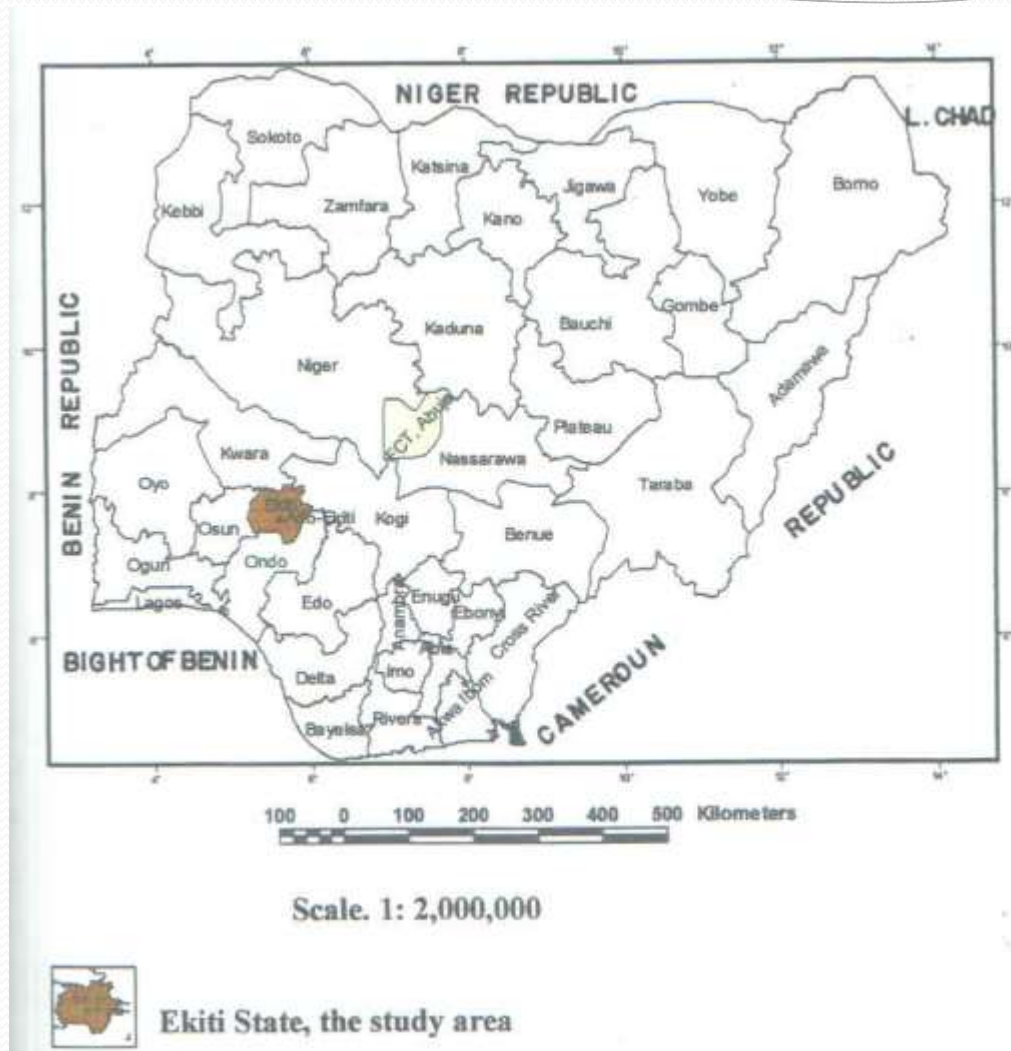
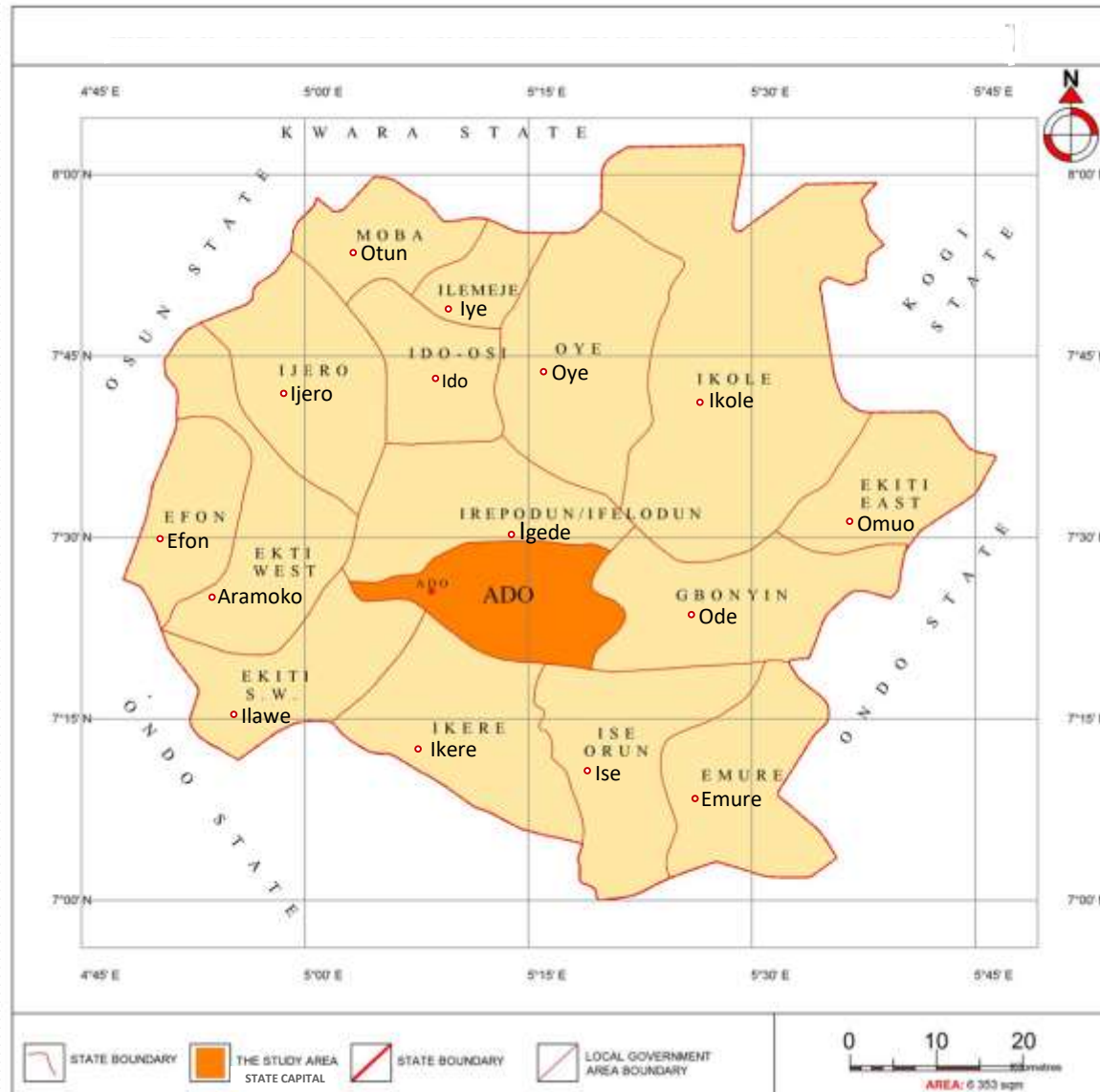


Fig 1: Ekiti State within Nigeria (Office of Surveyor General, Ekiti State, 2016)



**Fig. 2: Map of Ekiti State and its Local Government Areas (Office of Surveyor-General, Ekiti State, 2016)**



## METHOD OF DATA COLLECTION

### DATA COLLECTION

- Data collected was through both primary and secondary sources.
- The primary data includes relevant data on forest management in the study area
- A total of 578 copies of questionnaire were administered within the state using random and purposive sampling techniques.
- The secondary source of data used spot5 satellite imagery of 2008 with 5m resolution imported into the Arc GIS 10.3 environment to map out the locations of the forest reserves in the state.



**Table 1: Renown Forest Reserves in Ekiti State**

S/No	Town	Senatorial District	Frequency	Percentage	Remarks
1	Ado-Ekiti	Ekiti Central	1	9.09	18.18%
2	Aramoko	Ekiti Central	1	9.09	
3	Eda oniyo	Ekiti North	1	9.09	18.18%
4	Ayede/ Isan	Ekiti North	1	9.09	
5	Emure (Little Ose)	Ekiti South	1	9.09	63.64%
6	Eporo-Ekiti	Ekiti South	1	9.09	
7	Ogbese Ise-Ekiti	Ekiti South	1	9.09	
8	Ise-Ekiti	Ekiti South	1	9.09	
9	Ikere-Ekiti	Ekiti South	1	9.09	
10	Ogotun-Ekiti	Ekiti South	1	9.09	
11	Egbe-Ekiti	Ekiti South	1	9.09	
	Total		11	100	100

Source: Federal Ministry of Environment, Afforestation Division, Abuja 2010 and field survey, 2014.

**Table 2: Significance of Forest Resources in Ekiti State.**

S/N	Options	Frequency	Percentage
1	Sources of food/ farming	81	14
2	Sources of fuel wood	23	4
3	Sources of herbal medicine	64	11
4	Sources of bush meat	15	2.6
5	Fresh water protection	28	4.8
6	Others	1	0.2
7	All of the above	366	63.4
	Total	578	100

Source: field survey, 2014

**Table 3: Reasons for Wanton Destruction of Forest in Ekiti State.**

S/N	Options	Frequency	Percentage
1	Infrastructural development	15	2.6
2	Urban & rural exploitation	40	6.9
3	Timber exploitation	44	7.6
4	Agricultural activities	184	31.8
5	Wood collection	53	9.2
6	Others	34	5.9
7	All of the above	208	36
	Total	578	100

Source: field survey, 2014.

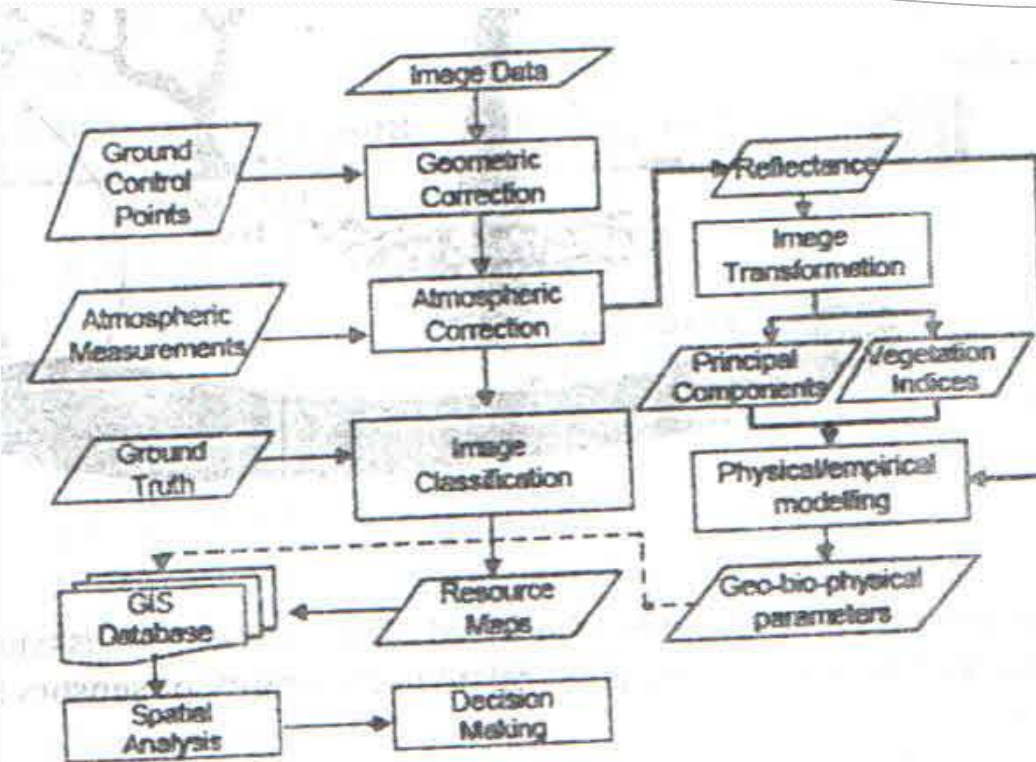


Fig 4: Schematic diagram of general image processing procedures

➤ Source: Adapted from Navalguld et al, 1991. The result shows that Geospatial Information technique used for forest resources management made it to be a very concomitant tool for forest management assessment, planning, monitoring and conservation of the forest resources in the study area.

➤ The benefits of the Geospatial technique information for global sustainable development as applicable to Eritri State are:

## **CONCLUSION**

- The geo-information technique used helps in quantitative appraisal to prevent environmental degradation and changes.
- Ignorance and lack of skill brought to handle resources management in the time past have resulted to the menace such as habitat fragmentation, increasing risk of fire and decrease resilience in the face of climate change.

Adequate funding should be given for the acquisition and integration of remote sensed tools to GIS environment for adequate environmental assessment and forest degradation control

## **.RECOMMENDATIONS**

- Extensive education and information to discourage over-exploitation
- Secondly, enforcement of legislation that ban illegal felling of timbers and trees in our forests in a quest for survival

Thirdly, the Government at all levels, (FSL) should enforce tree planting for reforestation and afforestation to combat environmental problems in Nigeria.

**THANK YOU FOR LISTENING**