**APPLICATION OF REMOTE SENSING IN THE STUDY OF THE RATE OF FOREST DEGRADATION FAGBOUN, IKERE, EKITI STATE**

**INTRODUCTION**

The forest has being under great pressure especially in the tropical world to provide economic resources have been increasing rapidly as a consequence of increasing population in the region. This has led to uncontrolled deforestation, which has been recognized as one of the major drivers of biodiversity loss as well as a threat to the existence of the global ecological lung and if this is allowed to continue unabated, there is the danger of desertification and extinction of plants and animals which is gradually becoming a phenomenon today. In Nigeria, the eco-climatic zones range from the very humid fresh water mangrove swamps, in the south to the semi-arid Sahelian zone in the north (Salami and Balogun 2004). These varied zones support a variety of vegetation, among which the most extensive vegetation zones are Savannas in the north and forest in the south.

The federal department of forestry argues that deforestation in Nigeria is now progressing at the rate of 3.5% per annum. Forest and forest plantation are very important natural resources relied upon by man for food, furniture, fuel wood, timbers, animal and plants to mention a few.

In both developed and developing countries, exploitation of these forest resources take place consistently for various purposes which varies from commercial to non-commercial, need for space in road construction, Agriculture, firewood harvesting, construction of residential building, sand excavation etc.

**STATEMENT OF PROBLEM**

Indiscriminate falling of trees and destruction of forests for commercial and other activities has become a phenomenon in our country today with little or no effort to plant new ones. The project therefore, seeks to examine how much the forest has been degraded using GIS as a tool to assess changes over a 30 years period (1980 – 2010) of time in the study area and proffer possible solutions.

**AIM**

The aim of this thesis is to examine how much the forest has been degraded using GIS as a tool to assess changes over a 30 years period (1980 – 2010) of time in the study area and proffer possible solutions.

**OBJECTIVES**

* To identity, quantify and map out the forest plantation change in the study area between 1980 to 2010 using LANDSAT images.
* Examine the specific factors responsible for the changes.
* To demonstrate the capabilities of GIS in the area of classification and overlay in the study of
* Deforestation

**RESEARCH QUESTIONS**

* Is there any change in the forest plantation?
* To what extent is this change?
* What are the factors responsible for this?
* How useful is GIS in the monitoring of deforestation?

**DATA REQUIRED**

* Satellite image of the study area.
* Map of the study area.
* One on one interview of the locals and residents of the study area.

**METHOD(S)**

A field study will be embarked on to carry out the one on one interview, collect GPS points and observe the study area. The research questions above will be asked and conclusions will be drawn. Also the satellite images will be analyzed to see the rate of forest degradation in the study area.

REFERENCE(S)

Ayeni Bola (1982):

*The Spatial Growth of a City and its Impact on the rural Hinterland Aboriculture Journal vol. 125*

Ayoola Akinola AKINGBOGUN, Oloyede S.O.A KOSOKO and D.K ABORISAD:

*remote sensing and gis application for forest reserve degradation prediction and monitoring*

Kokolwin, Ryosuke, Shibasaki (1998):

*Monitoring and Analysis of Deforestation Process; using Satellite Imagery and GIS (a case study of Myanmar)*

Salami A.T. & Balogun E.E. (2004):

*Validation of Nigeria Sat-1 for Forest Monitoring in South-west Nigeria NARSDA Abuja*