

# The Dynamics of Land Use Change and Its Impacts on Agriculture in Itu Local Government Area of Akwa Ibom State

by

<sup>1</sup>Emem O. Aniekan, <sup>2</sup>Rogers I. Wilcox and <sup>3</sup>Uwem J. Ituen

Department of Geography and Natural Resources Management

University of Uyo

## **Abstract**

*The study assessed the dynamics of land use change and its impacts on agriculture in Itu Local Government Area. The objectives of the study were to: map the land use/cover class inventory of the study area, assess the trend, rate, nature and magnitude of land use change over the periods 1986 and 2013, assess the extent to which land use has affected agriculture, as well as to examine the impact of land use in agricultural lands in the study area. In order to achieve the above objectives, remotely sensed data of Landsat TM 1986 and NigeriaSat-1 2013 of the study area were used. The image was processed using unsupervised classification algorithm and post classification change detection technique in GIS. This was further augmented by personal interviews and an on-site-assessment. The findings of the study revealed that, five dominant land use categories of open water, swamp forest, bush fallow, compound farmland and built up exist in the study area. The study revealed that, these land use categories have experienced various form of transformations with the built up pertaining to infrastructure and residential buildings having the highest form of change. It was also found that population growth over the study period changed by 17.18% resulting in a significant increase in agricultural lands 22.14 sq. km. The study identified the loss of swamp forest, decrease crop yields and loss of mean of livelihood as negative impacts on agricultural land use in the study area. Based on these findings, it was recommended that development control laws should be enforced in order to avert negative implications on the increased rate of urbanization.*

**Keywords:** Land use change, Driving force, Agricultural impacts, Change detection, Development.