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GEOSCIENCE APPLICATION OF REMOTE SENSING IN THE EVALUATION OF LONG -TERM LAND COVER ATTRIBUTES IN PART OF WESTERN NIGER DELTA, NIGERIA

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ABSTRACT

Detection of land use/cover change play a crucial role in land use planning and formulation of sustainable land use policies. In this study, remote sensing data were used to map and predict land use/cover change in Oben Area. The output maps were analyzed and cross-tabulated to quantify land use/cover change for the different timelines. The main drivers that altered the character of land use/cover in the area were oil and gas exploration and production (E&P) activities, demographic factors, infrastructural development, agricultural practices and economic factors. Markov model was used in projecting land use/cover change for 10, 20 and 30 year periods. Results of the land use/cover projection in Area field show an increase trend in built up and woodland/rangeland areas at the expense of forests and water cover.

Key Words: Oben, Landsat TM, ETM+ and OLI