

# LANDUSE/ LANDCOVER CHANGE DETECTION IN KARBI ANGLONG DISTRICT, ASSAM USING SPATIAL INFORMATION TECHNOLOGY

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**Abstract**—Landuse / Landcover is result of combine activities of physical and human activities. Land use and Land cover change detection is essential for understanding of physical environment, ecological process, soil erosion, deforestation and also helpful in planning purposes. In this paper, an attempt is made to study the changes in land use and land cover in Karbi Anglong district, Assam. The study has been done through remote sensing and GIS approach using LISS III 2001 and 2016. GIS software is used to prepare the thematic maps. Ground truth observations were also performed to check the accuracy of the classification. The present study, as brought to light, that forest area that occupied by about 71.71 per cent of the Karbi Anglong in 2001 has decreased to 61.17 percent in 2016. Agricultural lands and wasteland were considerably increased from 13.38 percent to 19.90 percent and 11.71 percent to 16.72 percent respectively during 2001-2016. Built up land area, grass land area and shifting cultivation land has also been increased during 2001-2016. The reasons for this increase have been discussed. It is necessary to closely monitor the land use and land cover changes for proper planning and to maintaining a sustainable environment.

**Index terms:** Land use, Land cover, Change detection, Remote Sensing, GIS and Karbi Anglong.