

EARTH OBSERVATION SYMPOSIUM (B1)
Earth Observation Applications and Economic Benefits (5)

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THE APPLICATION OF REMOTE SENSING AND GIS TO STUDY THE EFFECT OF URBAN
ENCHROACHMENT ON THE JOS CURLY CREEK

Abstract

Urban sprawling and the conversion of marginal lands such as hilly rock outcrops and river flood plains for housing development in Jos metropolis have been increasing gradually over the years. This development has resulted from unprecedented population growth, rapid urbanization coupled with uncontrolled housing development. In order to effectively checkmate further development, this study was carried out using RS and GIS to estimate the nature and pattern of growth along and within the river course between 1992 and 2010. Very high resolution images of 2005 and 2010 coupled with the greater Jos map of 1992 at 1:2000 scale were used in a GIS environment to assess the spatial growth of the city along the Curly creek. The study revealed that on a temporal scale there has been more growth between 2005 to 2010 compared to 1992 and 2005 while on the spatial scale, the pattern of growth has been within flood plains or the dissected channels within close proximity to the river course.