

## Urban land use/land cover changes in the Tema metropolitan area (1990 - 2010)

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Land use and land cover changes are local and place specific, occurring incrementally in ways that often escape our attention. This study sought to detect changes in land cover in the Tema Metropolis of Ghana from 1990 to 2010. Multispectral Landsat Thematic Mapper data sets of 1990, 2000 and 2007 were acquired, pre-processed and enhanced. Unsupervised classification of the images was performed and six land cover classes (water, wetlands, closed vegetation, open vegetation, cropped lands, and built-up) were derived. The post-classification change detection technique was performed to derive the changes in land cover and their corresponding change matrices. Between 1990 and 2010, built-up areas expanded steadily to become the most prevalent land cover type in the metropolis, reducing vegetation cover dramatically. High population growth with its attendant rise in the demand for housing, and increasing commercial activities, were found to have influenced land cover changes over the period.

### Biography

Simon Mariwah has completed his Ph.D. at the age of 29 years from the University of Cape Coast, Ghana. He is a Lecturer at the Department of Geography and Regional Planning, University of Cape Coast. He is an editorial board member of the Journal of Environmental Research and Management (JERM). He has extensive research experience as a Senior Research Assistant, Principal Research Assistant and now a Lecturer at the Department of Geography and Regional Planning. He has published 10 papers in reputed journals, and has attended several international and national conferences and workshops.