

## **Remote Sensing and GIS for Urban Growth Assessment Case Study: Addis Ababa City (Ethiopia)**

Asfaw Tessema

Geography Department, Ball Sate University

asfawdt@yahoo.com

The study area is Addis Ababa City. It is the capital city of Ethiopia with a population of about 3 million. Addis Ababa is located between 38°34"E and 09°03"N. The city of Addis Ababa has been experiencing the development of unplanned settlement and unprecedented horizontal expansion more rapidly than ever before. At the different sectors of the city, these uncontrolled settlements have been encroaching on protected forests and reserve lands. Currently, according to some sources, about a quarter of all housing units have been constructed illegally. Planners and resource managers need a reliable mechanism to assess the existing changes, through surveillance and monitoring pertaining to the land-use/cover changes quickly and efficiently. Management and planning of urban areas requires current and accurate information about land use/cover. Multi-temporal analysis of satellite imagery is an effective method for land cover/use change detection. The Addis Ababa City administration is already loaded with a lot of socio-economic burdens. Such problems include deteriorated living environment, disordered land management, unplanned urban development, absence of effective promotional and regulatory frameworks, inadequacy of basic infrastructure and unbalanced population growth have become the biggest challenges of the city over the ages.