

**Using Remote Sensing and Geographical Information System for
Analyzing Urban Information System: A Case Study of Belgaum City,
Karnataka, India.**

Rita Basanna¹ and A. K. Wodeyar²
Department of Geography, Bangalore University, Bangalore
basanna.rita188@gmail.com

Remote sensing and *geographical information systems (GIS)* are the best tools which can be applied in the analysis of *Urban Information System (UIS)*. The geospatial technology that combines the technology of *Remote Sensing* and GIS holds potential for timely and cost-effective assessment of natural resources. Land use/Land cover generally refers to the categorization or classification of human activities and natural elements on the landscape. The present study evaluates the effectiveness of Satellite data and computer aided GIS techniques in generating land use map and database for the study area. The main objectives of the research are to demarcate the study unit, to study the growth of city and to study the changes in Land use and land cover (Phase wise). Primary and secondary data is collected to carry out the research work. Primary data is collected through questioners and personal observation. Secondary data is collected through Belgaum district Censes Book, Town Directory Gazettes, Journals and Government offices. The methodology adopted categorizes the present study broadly in five stages –Literature and discussion, data collection of the study area by field survey, data processing, preparation of maps and presentation. ArcGIS 9.2 and ERDAS imagine 9.0 software have been used as tools to map the land use of the study unit.

A statistical approach can solve any problem technically and can provide accurate results. The surrounding boundary of the study unit is demarcated by applying statistical techniques which covers 231.51 Sq.Kms of area. A perfect positive correlation between the population growth and physical expansion of the city can be seen. The research shows the amount of changes that have taken place in Thirty four years (1970-2004) and which is taking place just within six years (2004-2010) which means the acceleration of changes is faster every year.

Key words: *Geographical Information System, Remote sensing, Urban information system, Land use and land cover*