ASSESSMENT OF CHANGE IN GREEN AREA FROM GOOGLE EARTH DATA IN GIS ENVIRONMENT

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Abstract

Green areas are important component of ecosystems. However, rapid urbanization in recent years has led to fragmentation of green areas. The increase in built up area in a country has affected numerous parameters associated with it. Sustainable development of a region is one of these parameters. Developing countries like India have increased concern about retaining the green areas for sustainable development of the country so as to maintain ecological balance. Therefore, accurate and up-to-date knowledge of green area in a region would be required for efficient management and planning of activities in a region. In recent years, Google Earth data has become an important data source to the mankind, particularly for navigation purposes. This data can also be utilised for extraction of information about a few key parameters such as green areas in an efficient way. The main aim of this paper is to demonstrate an approach for identifying the change in green areas from this readily available dataset in GIS environment. As a case study, the change in the green area from 2002 to 2011 in a sample area covering a portion of IIT Roorkee campus has been assessed in ArcGIS 9.3. The study shows that due to large scale constructional activities in the area during last decade, the green area has decreased. Keywords: Change in green area, sustainable development, ArcGIS.