Abstract

Rampant urbanization brings opportunities for new infrastructural developments, however, it also has brought serious losses of vegetation land, forest land and water resources. The modelling and projecting of land use pattern is essential to document the urban profile of the city and assessment of consequent environmental impacts. Current study aims to highlight the impact of rapidly urbanizing Haridwar city not only inside the boundaries of the city but also its neighboring rural and semi urban areas. In the first part of the paper, one of the most popular supervised classification algorithm (maximum likelihood) is implemented to quantify the human inference in the city. In the second part the impact is calculated by executing an Urban Landscape Dynamics tool. In order to temporally access the impact of urbanizing, openly available land sat satellite images are used for the year 2008 and 2016.


**Index Terms**

Computer Science | Information Sciences

**Keywords**

Remote Sensing, GIS, Land Use Land Cover, Urban Growth Modeling, Urban Landscape Dynamics