

ANALYSIS OF LAND USE CHANGE USING THE SATELLITE IMAGES AND GIS

Hossein Nazmfar

Associate Professor, Department of Geography and Urban Planning, Faculty of Humanities,
University of Mohaghegh Ardabil, Ardabil, Iran

Abstract

The movement of residential and commercial land use to rural areas at the periphery of metropolitan areas has long been considered as sign of regional economic vitality. But its benefits are increasingly balanced against ecosystem impacts, including degradation of air and water quality loss of farmland and forests, and socioeconomic effects of economic disparities, social fragmentation and infrastructure costs. In this paper, we used Multitemporal Landsat Thematic Mapper (TM) and Spot data for analyzing land use changes in Bonab County for 1989 and 2005. The comparison of data maps showed that between 1989 and 2005 the urban land and built areas increased. So, if this process is continued at these trends, we will be faced with an environmental crisis in this area and will be destroyed its beautiful natural landscape. The results quantify the land use change patterns in this area and demonstrate the potential of satellite images to provide an accurate, economical means to map and analyze changes in land use cover time that can be used as inputs to land management and policy decisions.

Keywords: Land Use; Urban Growth; Remote Sensing; Bonab County.