A Case Study of Using Remote Sensing Data and GIS for Land Management; Catalca Region

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ABSTRACT

In this study Catalca region has been selected as study area. This region is one of the most developing and changing area around the Istanbul. This region is changing not only industrial but also planned residences. Main reasons of increasing in the residential area of this region are go away from the city life and threat of earthquakes. People whom live around the Istanbul, also like to improve their standard of living and live in small houses in garden instead of apartments. But this change causes decrease of productive agricultural land and increase of residential areas. There are many places in Turkey and Marmara Region has the same features likes Catalca.

IRS1C and LISS remotely sensed images in the years of 1996, 1998 and 2000 of the study area have been used together with ground measurements, digital terrain model and demographic data for analyse of change detection in the land use and impacts of this change on the environment. For the planning and direct of this kind change for future, satellite images have been referenced to the UTM coordinate system boundary of study area were determined on the images and classification algorithms have been applied to these data. Result data have been produced as polygon and transformed to GIS software. Benefits of these kinds of data in the planning phase have been analyzed.

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