

DETECTING CLEAR-CUT AREAS USING REMOTELY SENSED DATA IN ISTANBUL - SILE REGION

Saziye Özge Dönmez¹, Hasan Tonbul^{2,*}, Semih Sami Akay³

¹ ISTANBUL TECHNICAL UNIVERSITY

² GEBZE TECHNICAL UNIVERSITY

³ ITU-CSCRS

* Corresponding Author htonbul@gyte.edu.tr

As is know to all, the world's natural sources are limited. For this reason, land management strategies are getting more important day by day. Remote sensing is one of the main solution for geographic information systems issues such as producing land cover-land use maps for presenting total forest areas, urban fabric and cadastral areas especially for cosmopolite cities. In Turkey, Istanbul is the first city come to mind for correct city planning in order to monitor the boundaries especially forest cadastres. Nowadays, remote sensing technologies are commonly used for detecting cut-clear areas in worldwide forests. In Anatolian side of Istanbul, north-east part of city, pits areas are observed in forest boundaries with using change detection methods. For this aim, remotely sensed images of Istanbul's are used with ten year period. Medium resolution images: LANDSAT TM and high altitude aerial orthophotos are used as data source. The process was carried out with three different two-dimensional change detection methods. In the end of the study, classified raster images converted to vector format for determining clear-cut areas.

Keywords forest cadastre, cut-clear, change detection