Earth Observation for Forestry Applications in Cyprus

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Presenting Author: Hadjimitsis, Diofantos G. d.hadjimitsis@cut.ac.cy Topics: Opportunities with Sentinel missions for forest fire research, Forest fire detection and monitoring on multiple scales

Keywords: remote sensing, field spectroscopy, Sentinel, Cyprus, fires

This paper presents an overview of how space-based and earth observation techniques can be used for forestry applications in Cyprus. Indeed, an example of how the Department of Forests in Cyprus can further promote the importance of using remote sensing techniques in Cyprus. Examples are shown of how mapping of burned areas is performed using remote sensing data (Landsat ETM, Sentinel) as well of how post-fire management is implemented. Examples of the Solea fire event occurred in Cyprus is presented. Finally, remote sensing is also used for risk assessment study for developing fire hazard index. Ground spectroradiometric measurements are also used in combination with remote sensing imagery and burned severity measures to develop a simple, fast, accurate and reliable methodology for the assessment of the burn severity levels on a forest fire scar in Cyprus forests. The need to develop a national observatory of forests using earth observation and GIS is highlighted.