LANDSAT TM DATA AND INFORMATION TECHNOLOGY TO POTENTIAL WATER POLLUTION DETECTION IN VEGORITIS-PETRON LAKES (GREECE)

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ABSTRACT

The major objective of this study was to monitor, detect and assess of the pollution in Vegoritida-Petron lakes, using Landsat TM data as well as DEM (Digital Elevation Model) and spatial derived models. Thematic Mapper bands 1, 2, 3, (visible wavelengths), 4(near-infrared), and 6 (thermal data were highly correlated with surface water temperature), band ratio 3/1 (useful indicator of water transparency and total suspended solids) and principal component analysis of TM bands 1-4 were used for the assessing of the relation between water quality parameters and remote sensing data. This methodology can be applied to provide useful data on general water quality.