

Abstract.

Geo-informatics and in-situ technologies have made it possible to quickly assess, monitor and analyse vegetation biodiversity accurately in a non-destructive way. The goal of this study was to investigate the change trend based on the absorbance or reflectance of certain wavelengths of light by vegetation using spectral vegetation indices in Ogun state, South-West of Nigeria. Satellite images were obtained and ground hyperspectral data acquired with a ground-based integration system called Analytical Spectral Device (ASD) Handheld2 Spectrometer. Spectral indicators were calculated from both systems were analysed and compared. The information derived from the analyses had shown the potential to monitor the changes of affected vegetation.

Keywords: Indices, Wavelength, Geo-information, Spectrometer