

Biomass Extraction Using Eo-1 Hyperion Imaging Spectrometer And ALI Multi-Spectral Data For Pasoh Forest Reserve

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Abstracts

The advancement in sensor technology has enabled more biophysical parameters related to forest to be extracted from remotely sensed data at better accuracy than ever before. In the passive sensing system operating in visible to mid-IR regions, both the hyper-spectral and spatial capabilities has been the key development factors contributing to the recent applications of remote sensing in forestry. Amongst others, the biophysical parameters of forest that can be derived from remotely sensed data is the total above ground biomass (TAGB), which previously can only be determined through costly and laborious destructive in-situ samplings. Studies are now undertaken in UTM on the extraction of TAGB from Hyperion imaging spectrometer and Advance Land Imager (ALI) multispectral data of Earth Observation 1 (EO-1) satellite. In this study TAGB derivation were carried out at Pasoh Forest Reserve, Negeri Sembilan, Malaysia. The Hyperion sensor permits great detailed land cover classifications or identifications to be performed very comprehensive spectral resolution and ALI sensor was designed to demonstrate improved Landsat spatial and spectral resolution with substantial mass, volume, and cost savings. The results indicate a high correlation between field data collection of biomass estimation and EO-1 Hyperion also EO-1 ALI data.