Utilizing Landsat 8 OLI for land cover classification in plantations area

ABSTRACT

Identifying the land cover in plantations is crucial to assist the management of an area. Today, land cover classification can be achieved using free satellite data. The objective of this study is to perform a supervised classification using LANDSAT 8 OLI to differentiate the land cover in Brumas Camp which consists of non-vegetation, oil palm, forest, and forest plantations. The overall accuracy and Kappa's coefficients were 71.64% and 0.62, respectively. We found out that the accuracy of classification for non-vegetation is relatively higher compared to vegetation land cover types. The non-vegetation land cover has distinct spectral reflectance which is useful to differentiate between non-vegetation and vegetation land covers.