HISAS 4
The 4th Hokkaido Indonesian Student Association Scientific Meeting

SIMILARITIES IN GROUND AND SATELLITE-BASED NDVI TIME SERIES TO DETECT VEGETATION RECOVERY OF PEAT SWAMP FOREST IN CENTRAL KALIMANTAN, INDONESIA

Hendrik Segah[1,2]

[1] Graduate School of Agriculture, Hokkaido University, Sapporo 060-8589, JAPAN
[2] Dept. of Forestry, Faculty of Agriculture, University of Palangka Raya, Central Kalimantan, INDONESIA

ABSTRACT: Remote sensed Normalized Difference Vegetation Index (NDVI) is a good measure of photosynthetic activity at landscape scales, and can be used to estimate productivity and vegetation growth. Our research demonstrates the relationship between ground-based NDVI from a micrometeorogical tower above the peat swamp forest and the SPOT-Vegetation 10-days Maximum Value Composites (MVC) in Central Kalimantan, Indonesia. Ground-based NDVI values were obtained daily since July 2001 for vegetation monitoring of the tropical peat swamp forest in Central Kalimantan. Using these values, we obtained a more detailed description of seasonal changes in NDVI for specific locations. The increasing of average NDVI value from SPOT-Vegetation 10-days MVC from 1998 (0.67) to 2003 (0.80) indicates the vegetation recovery after the forest fire event in 1997 and 2002.

KEYWORDS: Ground-based NDVI, peat swamp forest, SPOT-Vegetation 10-days MVC.