

Assessment of Flowering Pattern using Climatic Remote Sensing Data in Peninsular Malaysia

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Abstract: The phenological pattern in South-East Asian dipterocarp forests usually is associated with clear seasonality of climatic season. General flowering (GF) of the Peninsular Malaysia also irregular interval. However, seasonality in GF not well defined with prologue drought and land surface temperature (LST). We suggest to include the wind speed to increase the GF score with bits of the help of digital elevation model (DEM) from SRTM satellite because the wind speed is one of the triggering factors for trees pollination and spread along the area with a bigger area. It will show the affected area caused by wind speed. Here, we aim to improve the GF pattern of Peninsular Malaysia using climatic data and wind speed to identify the affected area which indirectly involves in GF in 2001 until 2010. We observe the precipitation value and Land surface temperature (LST) as the climatic data from Moderate-resolution Imaging Spectroradiometer (MODIS) and Tropical Rainfall Measuring Mission (TRMM) satellite as climatic data and wind speed near surface from Global Land Data Assimilation System (GLDAS) NOAA Land Surface Model using the statistical model to verify the result we get from wind speed parameter with ground data.

Keywords: General flowering, climatic data, Digital Elevation Model (DEM) , Peninsular Malaysia , Wind speed