

## Recent Active Peat Fire Situation in Kalimantan, Indonesia

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Fires in peatland in Kalimantan have become more severe in recent years. This may suggest peatland in Kalimantan is now toward destruction. This situation is made due to rapid deforestation and irreparable destruction of nature, such as Mega Rice Project (MRP) in central Kalimantan.

In this study, analysis of the most recent 10-year period (2002 to 2011) of MODIS hotspots data (fires) and precipitation in Palangkaraya and Pontianak was carried out to identify seasonal and spatial fire occurrence in Kalimantan under El Nino conditions. Most data was tallied every 10-days to analyze seasonal and spatial fire occurrence. Seasonal and spatial analysis results for severe fire years, namely 2002, 2004, 2006 and 2009, under El Nino conditions were as follows: the severest fire incidents occurred in mid October in 2006 under the driest conditions in both Palangkaraya and Pontianak. The second severest fires in occurred in 2002, under the second driest conditions. The severest fires for the MRP area and its vicinity occurred in late September in 2009 under the driest conditions only for Palangkaraya. The fourth severest fires occurred in 2004, when heavy rainfall in July delayed the onset of drought conditions. Fire activity in the last four-years in Central Kalimantan was more severe than that in West Kalimantan. This may be explained by different dry conditions of peat in both places, namely the peat in East Kalimantan could become dryer under the relatively long dry season (about 3-month) compared with peat under a shorter dry season (2/3-month) in West Kalimantan. Spatial analysis of the fire distribution of the severest fires that occurred in mid October in 2006 clearly showed a so-called a fire belt shape arising from severe fires that occurred mainly on the southern coastal peatland from West to Central Kalimantan. The typical West Kalimantan fires that occurred in early August 2009 coincided with the dry season period of West Kalimantan. Typical pre-dry season (caution) fires occurred in late June in 2009. Most of these fires occurred on peatland in West and Central Kalimantan. These results lead us to infer that the MRP was carried out in the worst part of Kalimantan from a climate perspective.

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