

Fires in Kalimantan and Sumatra 2006

Andreas Langner and Florian Siegert

Remote Sensing Solutions GmbH, Wörthstr. 49, 81667 Munich, Germany & GeoBio Center at the Ludwig-Maximilians-University, Großhadenerstr. 2, 82152 Planegg-Martinsried

Satellite images illustrating Suwido's observations:

Since last week no fire fighting team still suppress the fire along the road as several years ago, because they said : "No water and fire already thousand meter from the road" (**Figure 1**). Hundred or thousand hydrants (deep well) was established by government along the road from Palangka Raya to Pulang Pisau, almost hundred percents not working. Wednesday night (October 11st, 2006), big fire occurred in front of the Fire Brigade Manggala Agni of the BKSDA in Kalampangan village (**Figure 3**). One house burnt, but the Fire Bridge BKSDA have just watching from their office without support, although they have excellent facilities : many cars, motor bike, machine and hose.

As explained by her in news paper, she has very sad, because the National Park Sabangau was burnt, especially along the Sabangau river from the Bakung river to the coastal (**Figure 2**). I hope she has known why the area between Bakung river to the upstream of Sabangau river no fire, except near the Jaini's canal that have stopped by the Patrol Team. I also hope she has known why the area between Kalampangan canal (Km 20) and Km 28 (near the Tumbang Nusa bridge) to the Sabangau river also no fire. For this area we must say thank you for EU through Henk Wosten, because the TSA KALTENG can do hard work for maintaining this areas, except areas involve of Kahayan river.

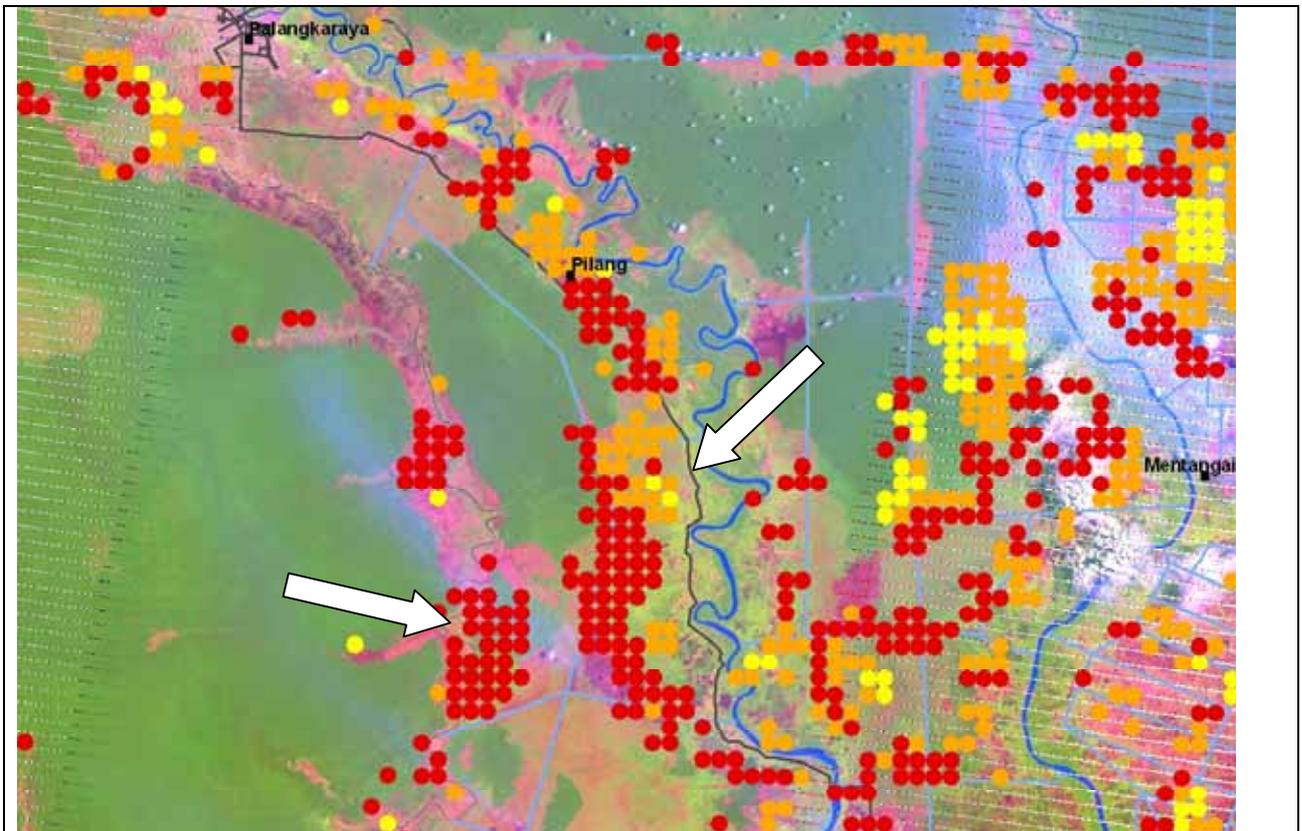


Figure 1: MODIS fire hotspots (August = yellow; September = orange; October = red) along Sebangau river and along the road (black) to Pulang Pisau. Hotspots are superimposed on Landsat 7 ETM+ image acquired in 02.10.2005.

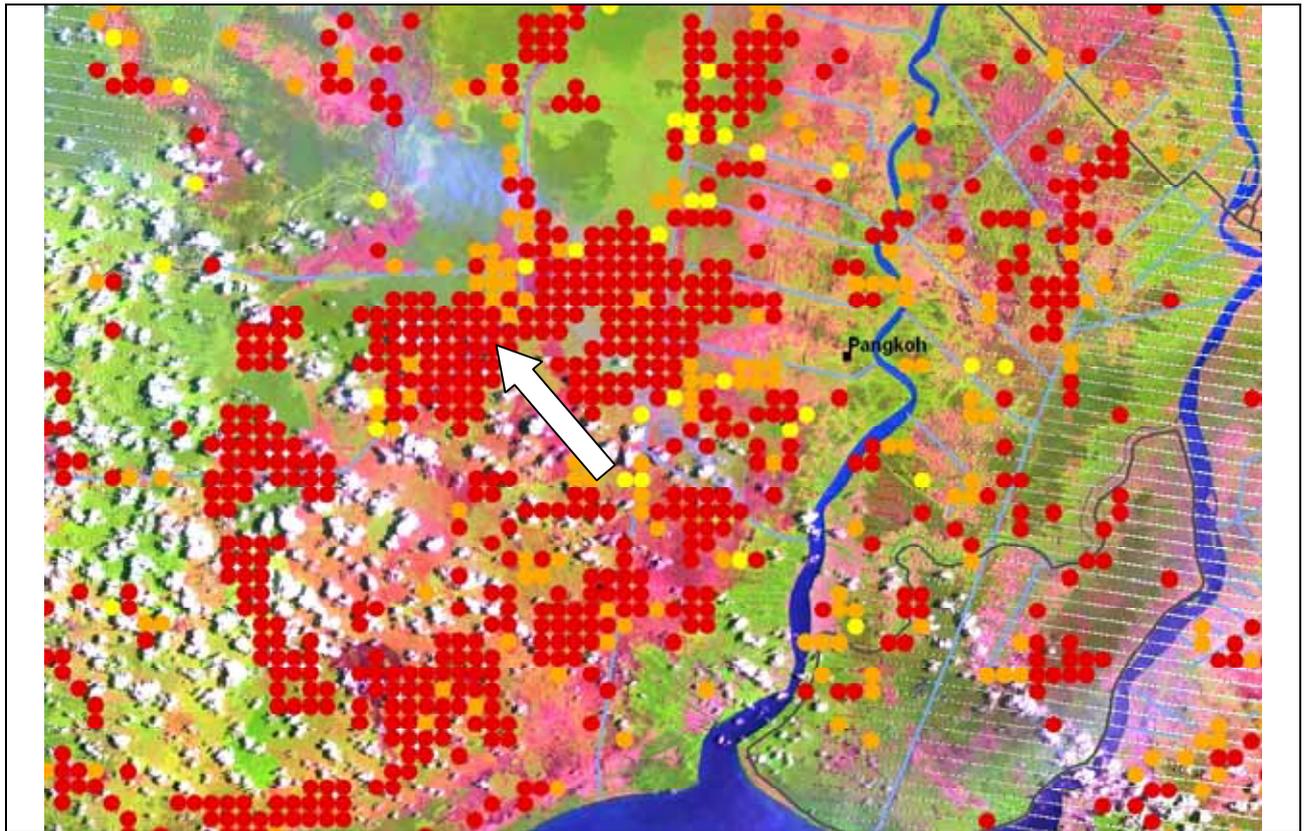


Figure 2: MODIS fire hotspots (August = yellow; September = orange; October = red) to the coast (in the former Mega Rice Project). Peat swamp forests were severely affected. Hotspots superimposed on Landsat 7 ETM+ image (02.10.2005).

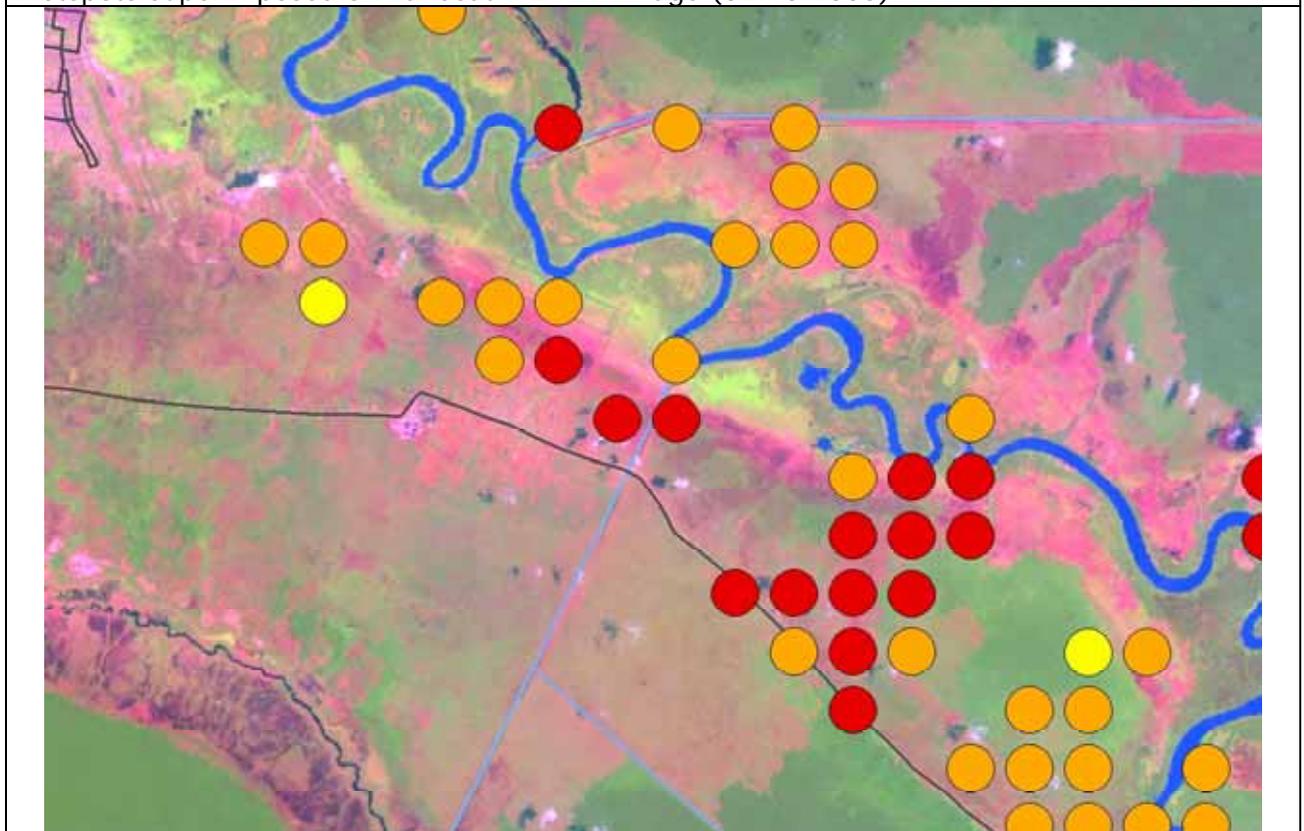
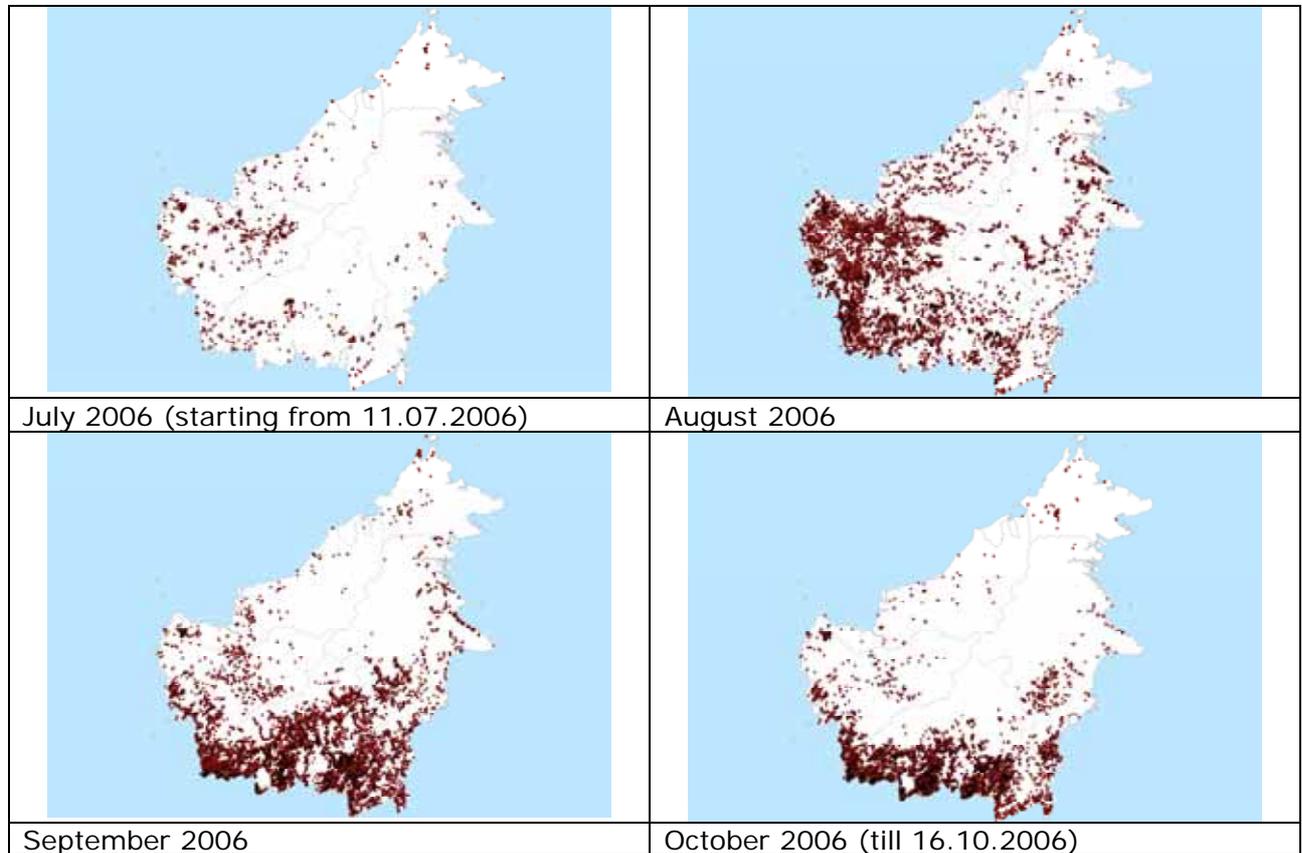


Figure 3: MODIS fire hotspots (August = yellow; September = orange; October = red) at the Fire Brigade (Kalamancangan village) but no fires along Kalamancangan canal. Hotspots superimposed on Landsat 7 ETM+ image (02.10.2005).

Number of hotspots in Borneo:

July (starting from 11.07.2006)	: 2.047
August	: 11.957
September	: 15.674
October (till 16.10.2006)	: 14.350



Burnt area in Borneo (results were derived from MODIS hotspots 2006, a MODIS based land cover map of the year 2005 and Landsat ETM images):

July (starting from 11.07.2006):

Wetlands	1.659	ha
Lowland Forest	12.140	ha
Peat Swamp Forest	33.692	ha
Mangrove Forest	47	ha
Degraded Forest and Regrowth	38.301	ha
Cultivation Forest Mosaics	40.595	ha
Dry/Wet bare Soil; Grasslands; Agriculture	10.329	ha
Mountain Forest	0	ha
Upper Dipterocarp Forest	82	ha
Freshwater Swamp Forest	431	ha
Total area affected by fire	137.350	ha

August:

Wetlands	11.730	ha
Lowland Forest	100.756	ha
Peat Swamp Forest	139.800	ha
Mangrove Forest	377	ha
Degraded Forest and Regrowth	257.694	ha
Cultivation Forest Mosaics	358.622	ha
Dry/Wet bare Soil; Grasslands; Agriculture	43.466	ha

Mountain Forest	0	ha
Upper Dipterocarp Forest	422	ha
Freshwater Swamp Forest	1.873	ha
Total area affected by fire	914.763	ha

September:

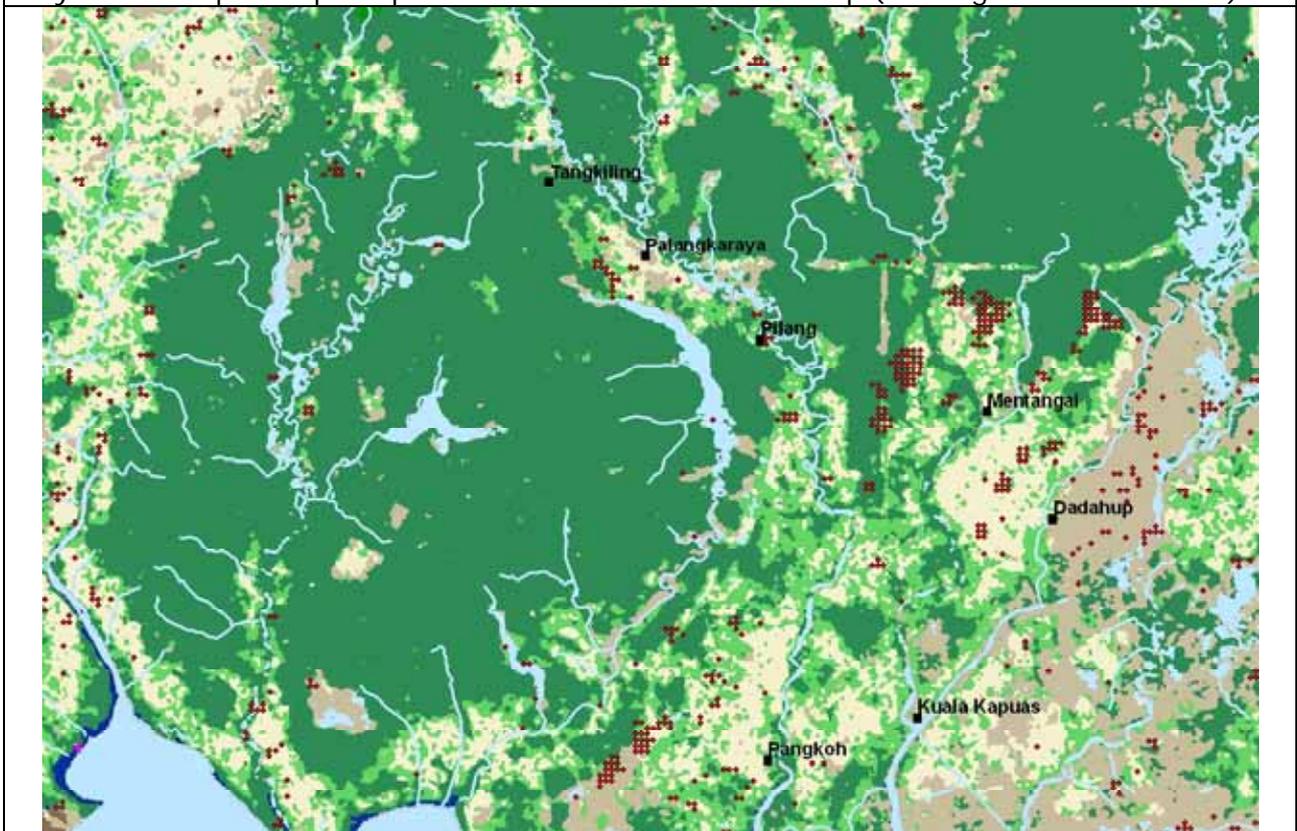
Wetlands	20.296	ha
Lowland Forest	79.084	ha
Peat Swamp Forest	210.001	ha
Mangrove Forest	717	ha
Degraded Forest and Regrowth	354.527	ha
Cultivation Forest Mosaics	341.058	ha
Dry/Wet bare Soil; Grasslands; Agriculture	111.023	ha
Mountain Forest	49	ha
Upper Dipterocarp Forest	248	ha
Freshwater Swamp Forest	7.410	ha
Total area affected by fire	1.124.811	ha

October (till 16.10.2006):

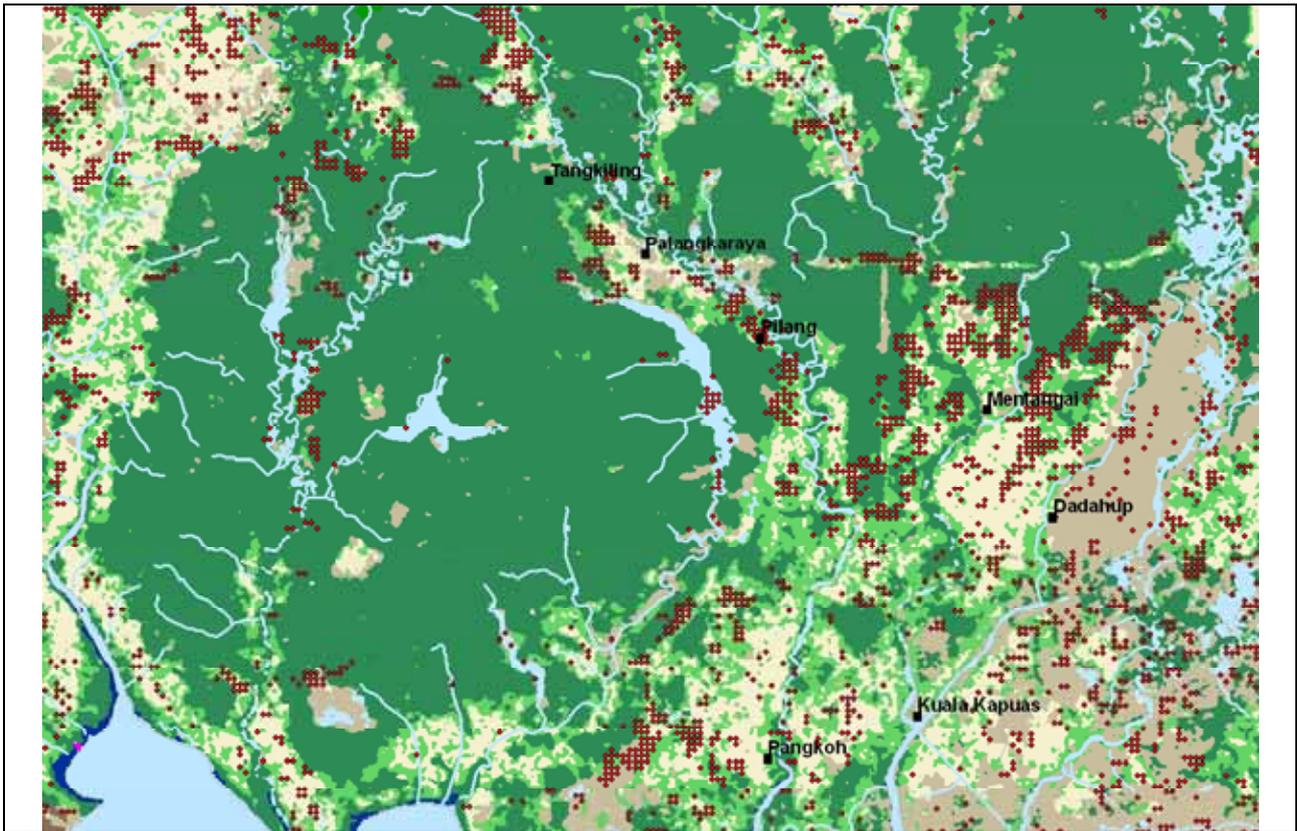
Wetlands	21.276	ha
Lowland Forest	27.779	ha
Peat Swamp Forest	262.132	ha
Mangrove Forest	953	ha
Degraded Forest and Regrowth	269.348	ha
Cultivation Forest Mosaics	221.619	ha
Dry/Wet bare Soil; Grasslands; Agriculture	114.750	ha
Mountain Forest	0	ha
Upper Dipterocarp Forest	88	ha
Freshwater Swamp Forest	12.873	ha
Total area affected by fire	931.194	ha



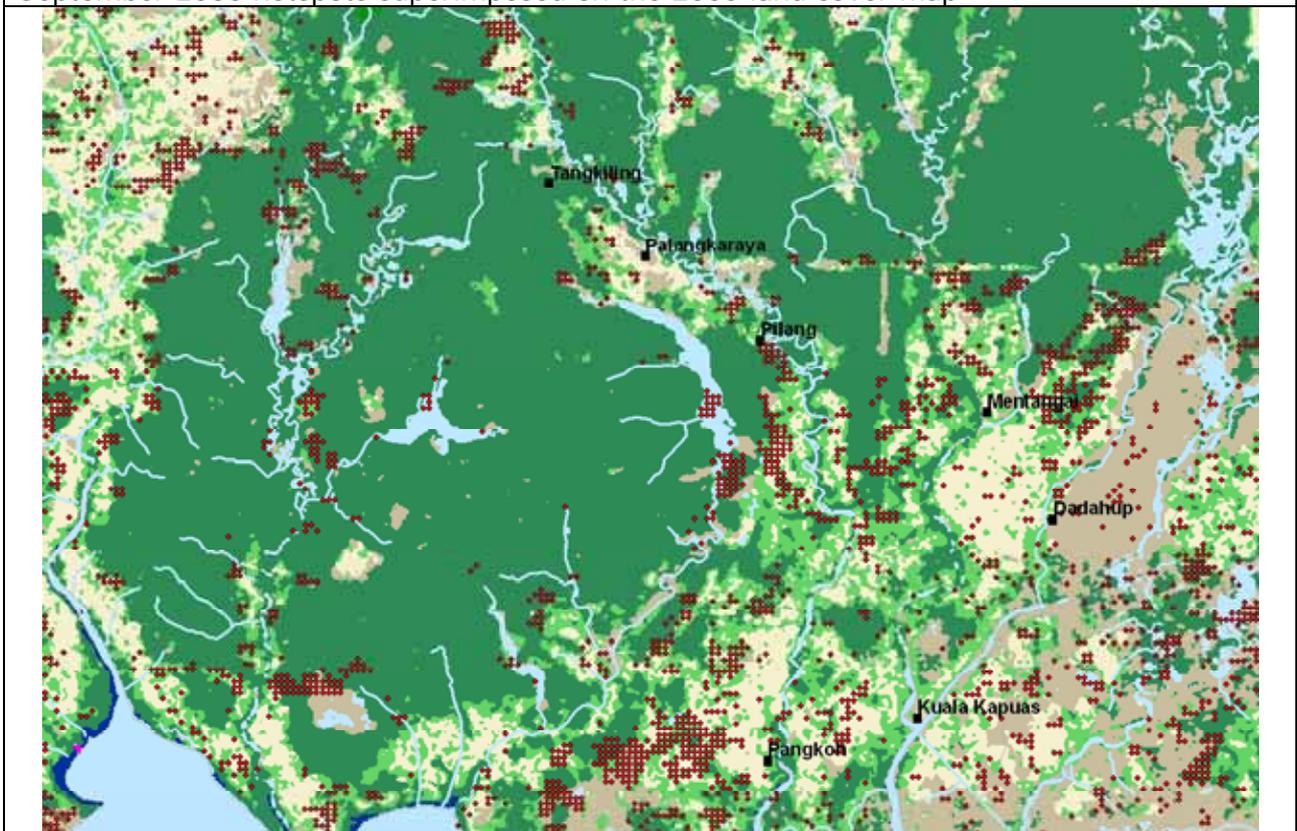
July 2006 hotspots superimposed on the 2005 land cover map (starting from 11.07.2006)



August 2006 hotspots superimposed on the 2005 land cover map



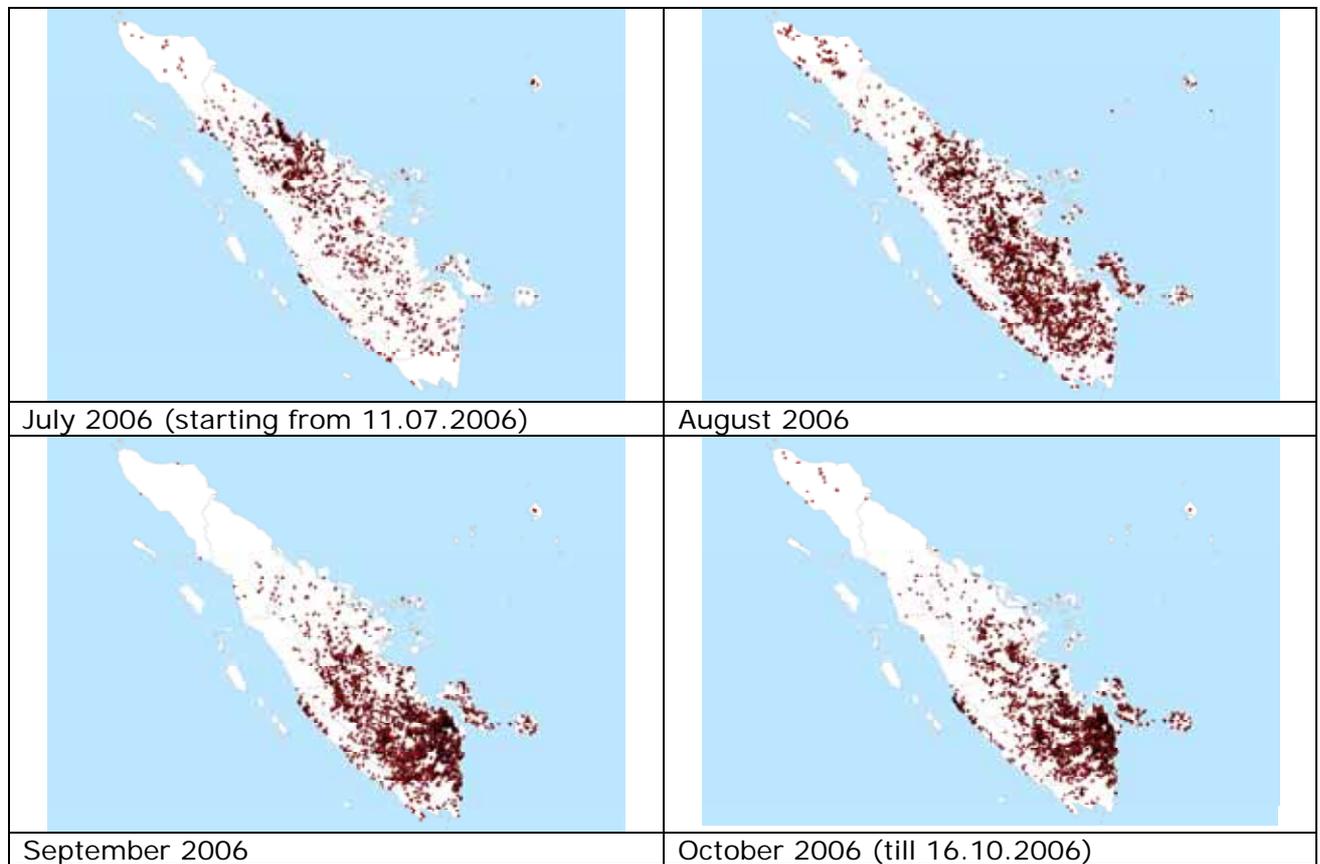
September 2006 hotspots superimposed on the 2005 land cover map



October 2006 hotspots superimposed on on the 2005 land cover map (till 16.10.2006)

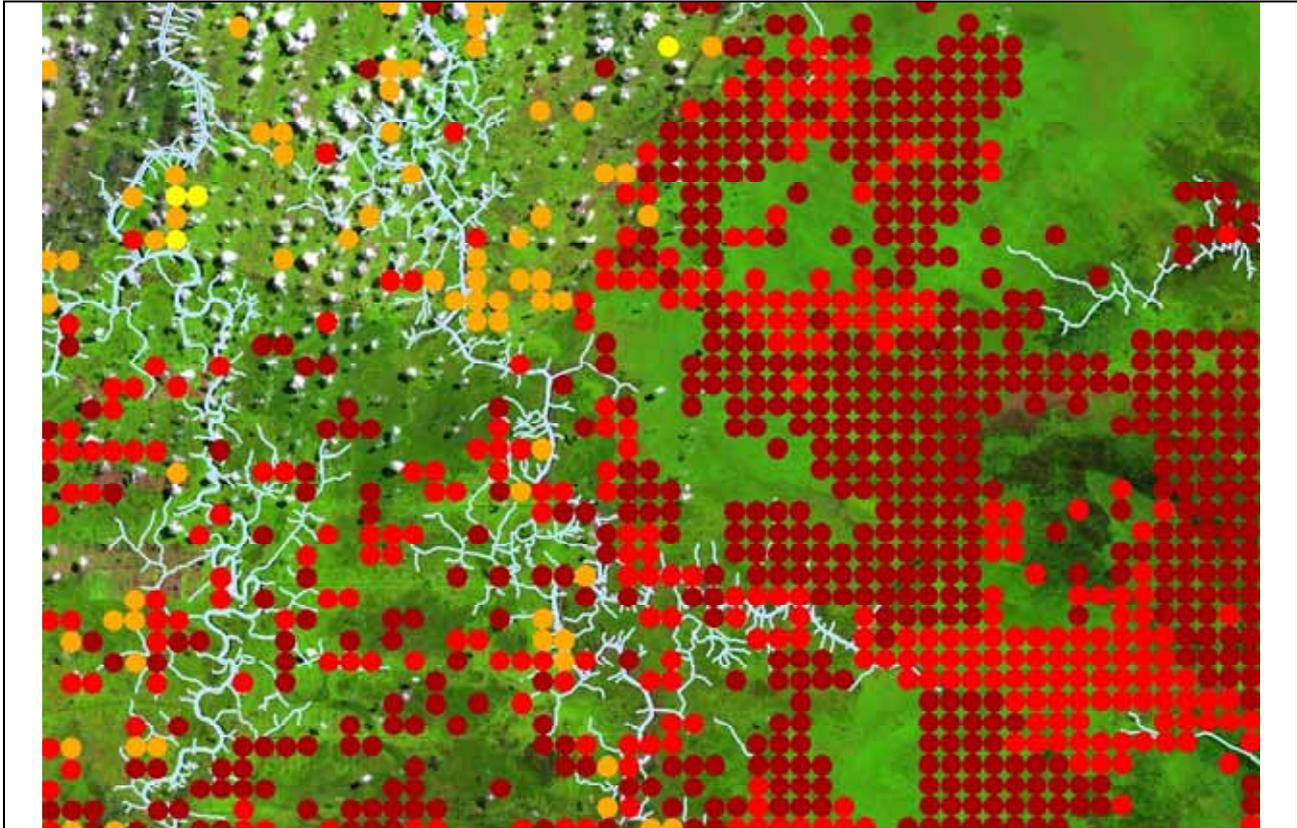
Number of hotspots in Sumatra:

July (starting from 11.07.2006) : 3.388
August : 8.402
September : 9.321
October (till 16.10.2006) : 9.566

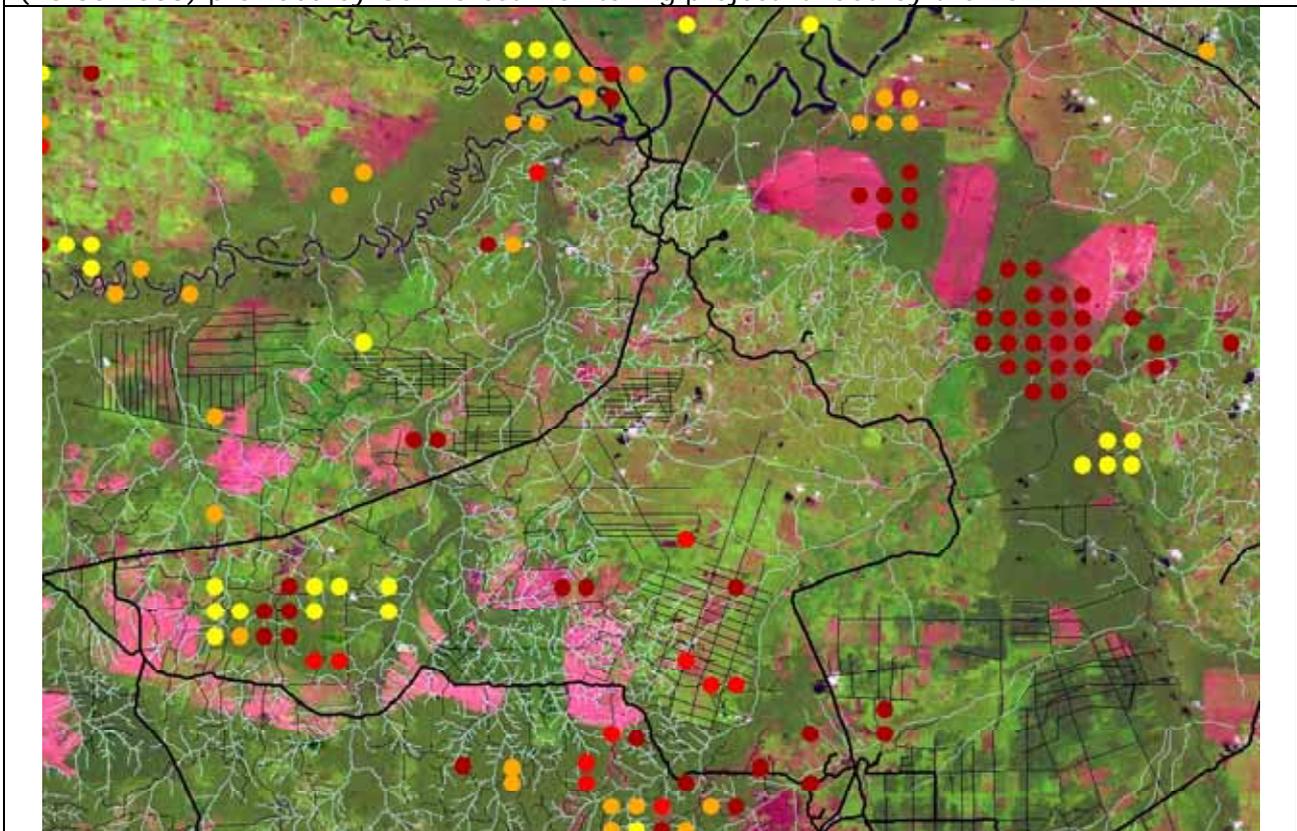


Total burnt area in Sumatra:

July (starting from 11.07.2006) : 241.455 ha
August : 628.869 ha
September : 672.586 ha
October (till 16.10.2006) : 625.360 ha



MODIS fire hotspots (July = yellow; August = orange; September = red; October = dark red) on peat land in South Sumatra. Hotspots superimposed on Landsat 7 ETM+ image (16.05.2003) provided by GSE forest monitoring project funded by the ESA.



MODIS fire hotspots (July = yellow; August = orange; September = red; October = dark red) peat land in Riau. Hotspots superimposed on Landsat 7 ETM+ image (07.08.2005) provided by GSE forest monitoring project funded by the ESA.