

FIRES IN SUMATRA AND KALIMANTAN 2015

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INDONESIA
2016

(Jakarta, Monday, 24 June 2013)



“For what is happening, as the president, I apologize to our brothers in Singapore and Malaysia”

INDONESIA



Transboundary haze pollution, June 2013



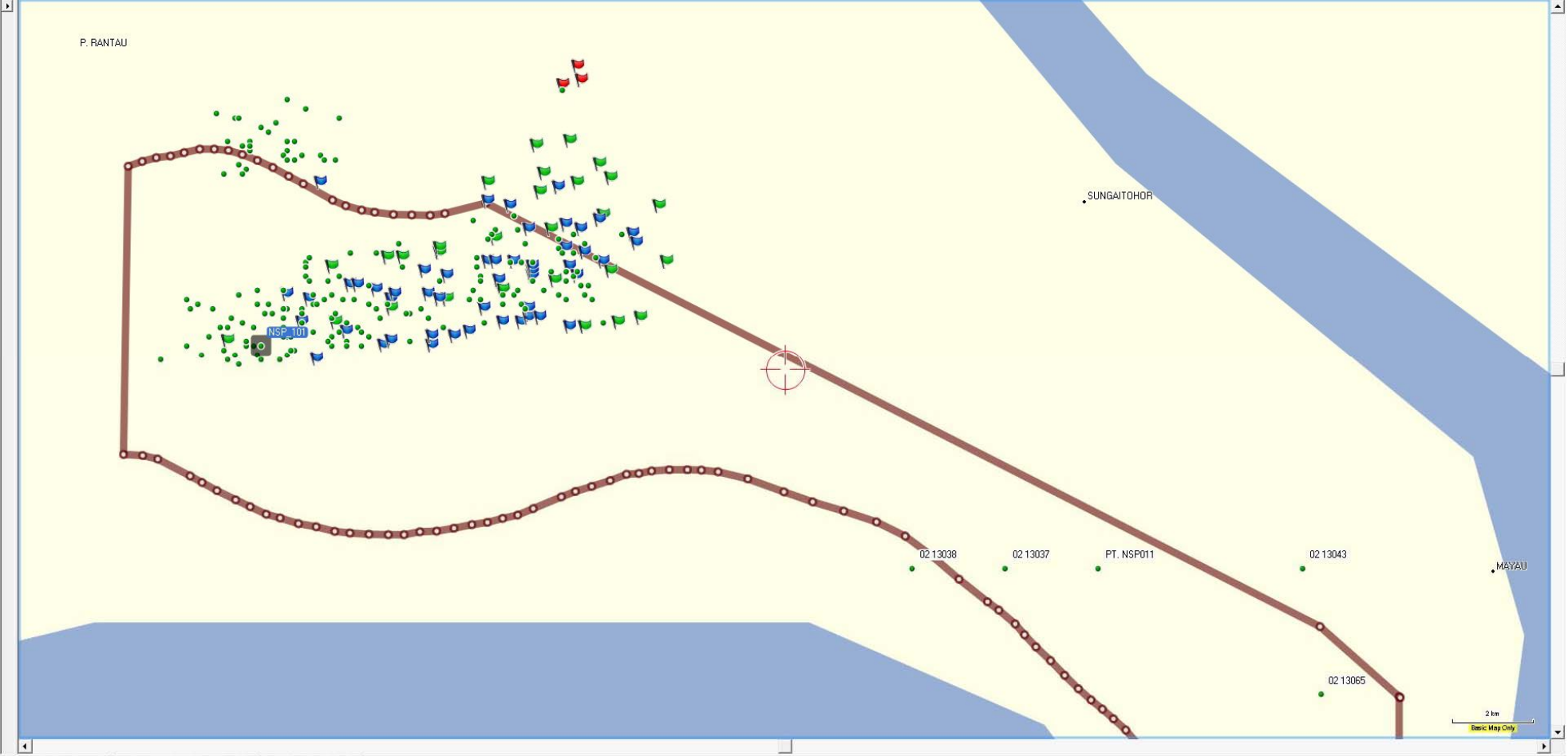
2014



CITY OF PALEMBANG, SOUTH SUMATRA (OCT. 2014)







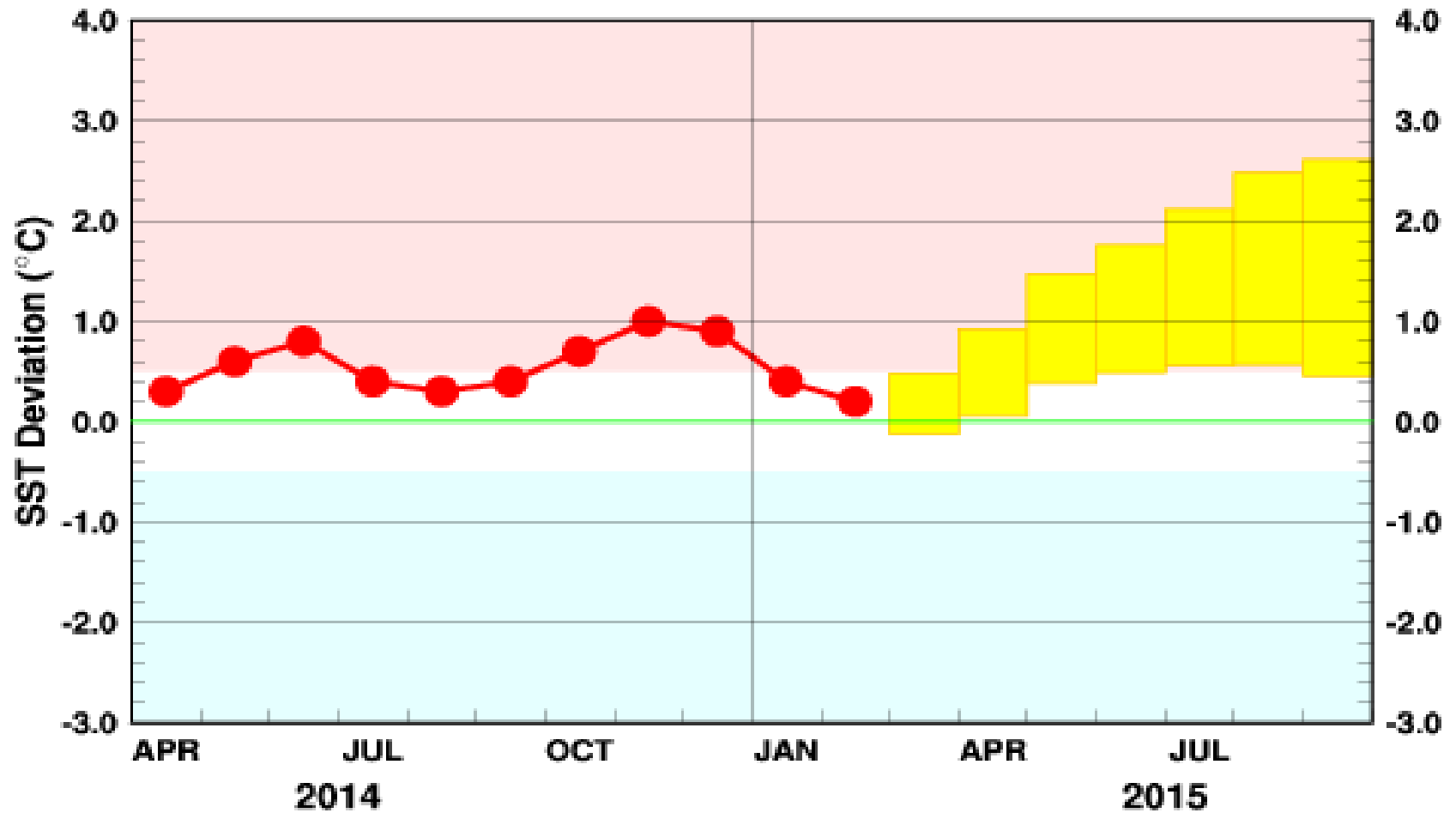
PELALAWAN (RIAU GREEN, JANUARY 2015)



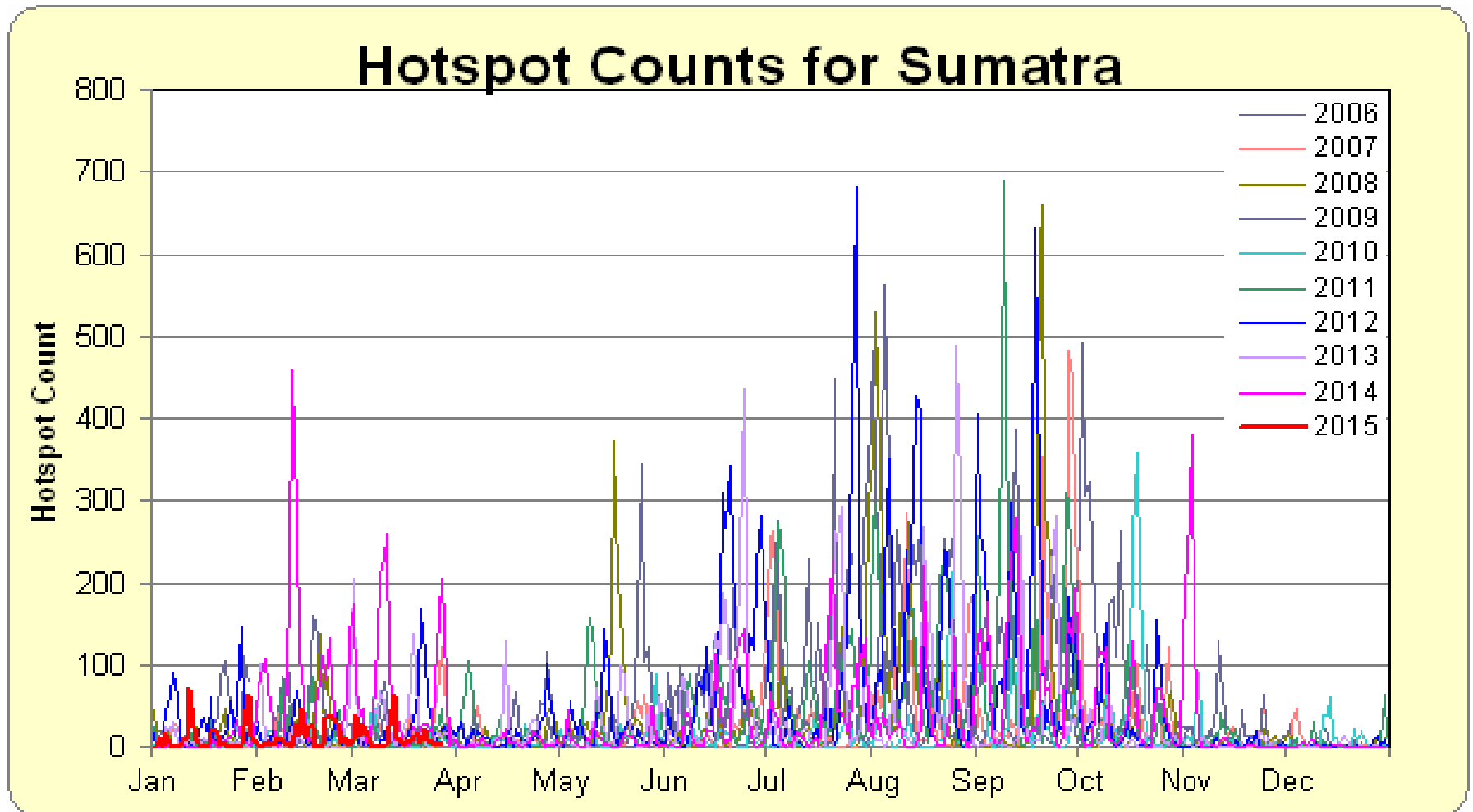
(Riau terkini, 12 Feb. 2015)



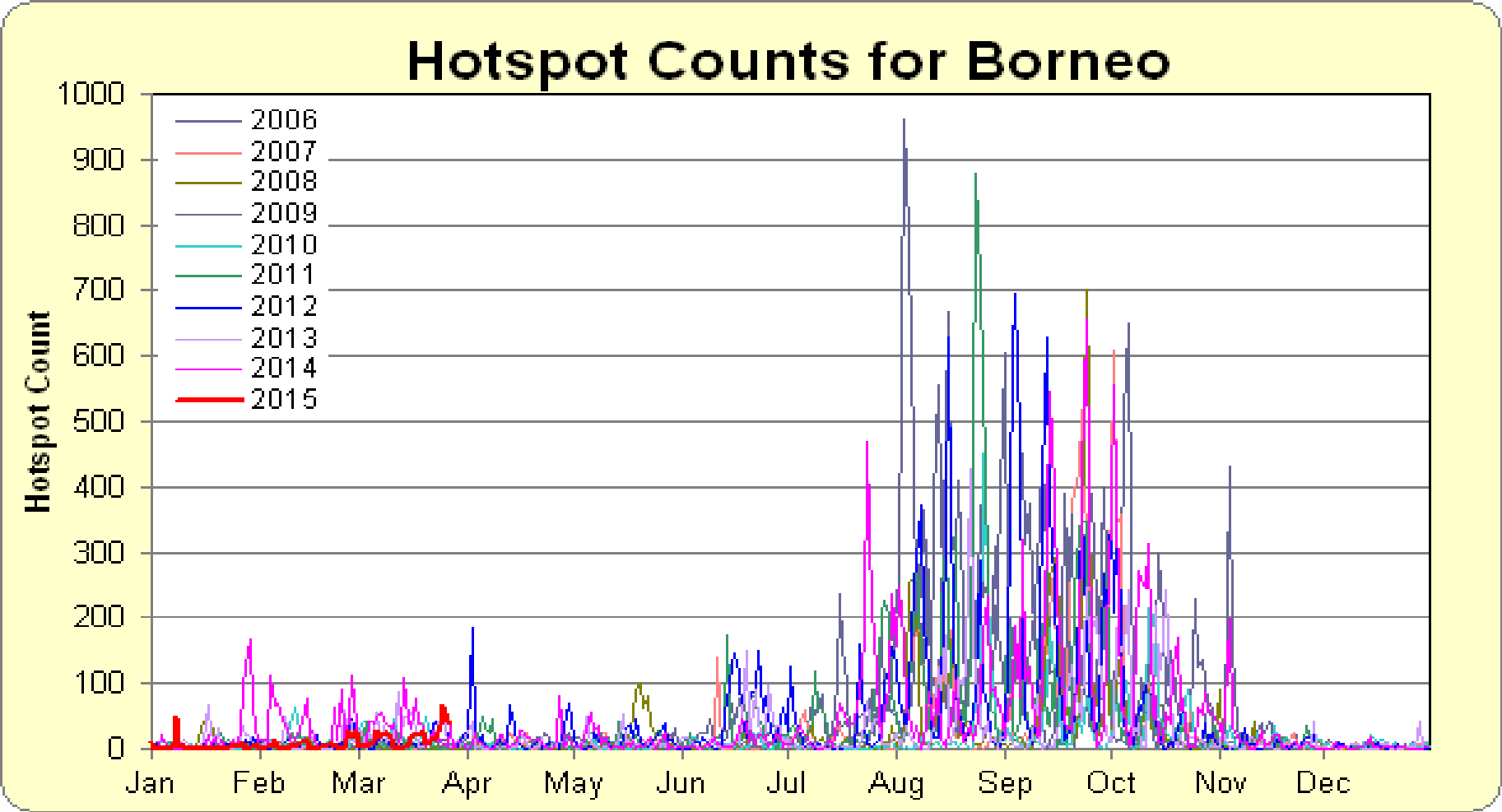
El-Nino Prediction (JMA, 2015)



HOTSPOT CONDITION IN SUMATRA, 2006-MARET 2015 (ASMC, 2015)



HOTSPOT CONDITION IN KALIMANTAN, 2006-MARET 2015 (ASMC, 2015)



NOAA- Hotspot data for ASEAN (ASMC, 2015)

ASEAN COUNTRY	2006	2007	2008	2009	2010	2011	2012	2013	2014
Cambodia	6650	10526	13885	12911	14701	14270	14992	19033	17349
Laos	8566	16580	14139	15327	22819	12707	17679	15770	11540
Indonesia	29059	15141	14982	25792	8180	22386	27667	15613	24898
Sumatera	12014	7017	8349	10297	4147	10320	14032	8398	9728
Kalimantan	17045	8124	6633	15495	4033	12066	13635	7215	15170
Malaysia									
Peninsular	299	587	632	858	939	862	1236	1418	2608
Sabah& Serawak	1147	1798	1523	2467	1577	1468	2401	1549	1719
Filippines	1606	2322	1311	1357	2894	952	1167	1462	1946
Myanmar	18751	33468	27740	34871	38359	27976	52033	44397	37926
Vietnam	5193	8394	8947	9897	12537	9448	13981	12442	13225
Thailand	8578	14696	13654	14314	18503	13920	27033	22817	19120







Palangkaraya 26 September 2015, 04.00 PM



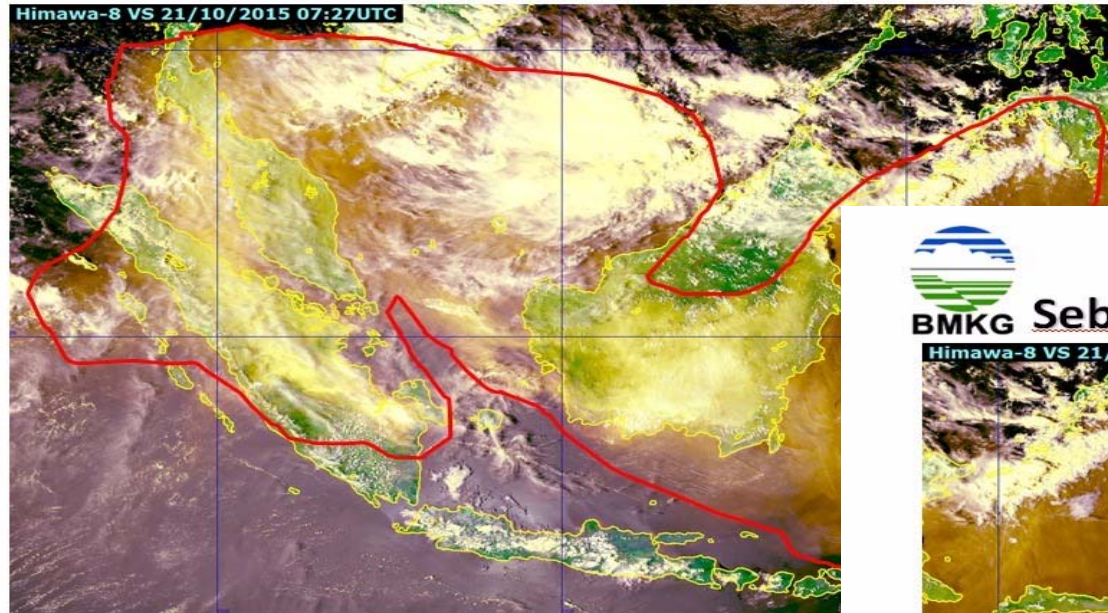
Palangkaraya, 27 September 2015, 04.34 AM





RGB Citra Satelit Himawari

BMKG Sebaran Asap 21 Oktober 2015 14.30 WIB

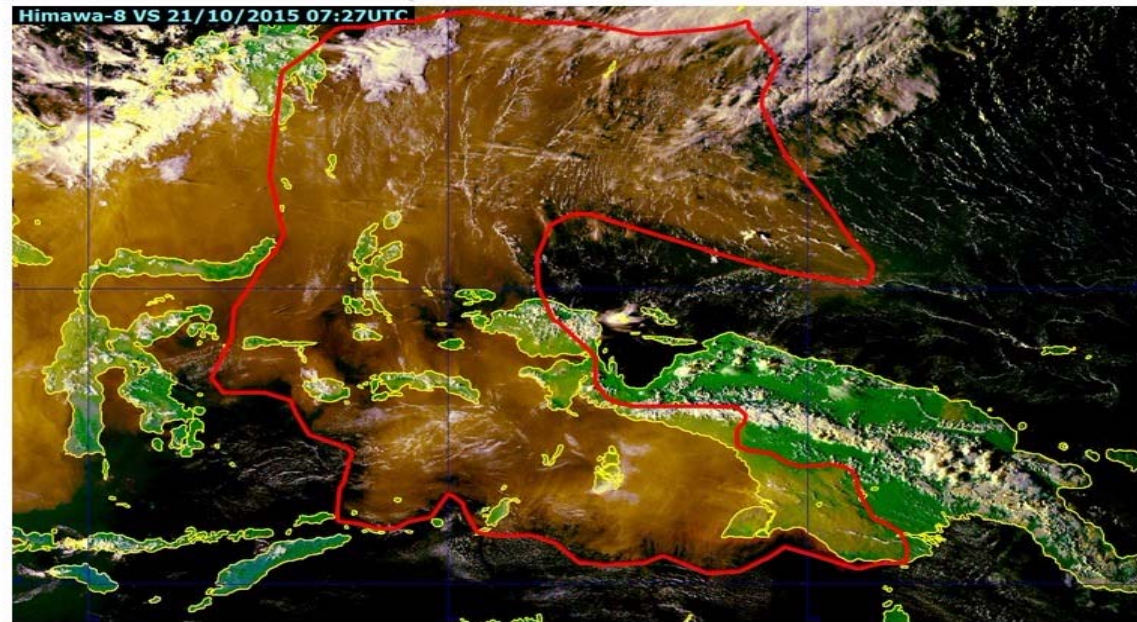


Sebaran asap berwarna kecokelatan bersumber d



RGB Citra Satelit Himawari

BMKG Sebaran Asap 21 Oktober 2015 14.30 WIB

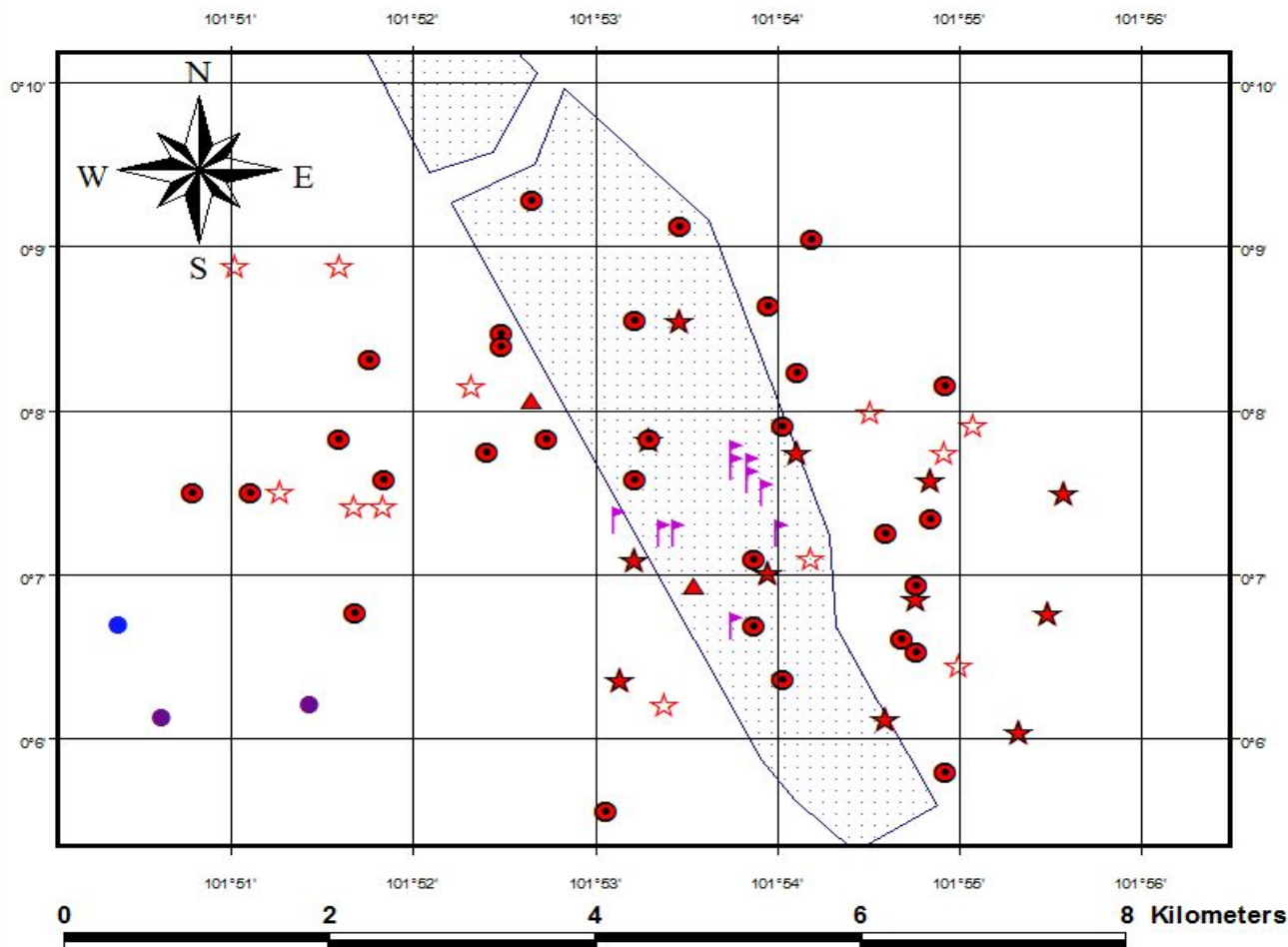


Sebaran asap berwarna kecokelatan bersumber dari titik api

PICTURES TAKEN FROM DRONE



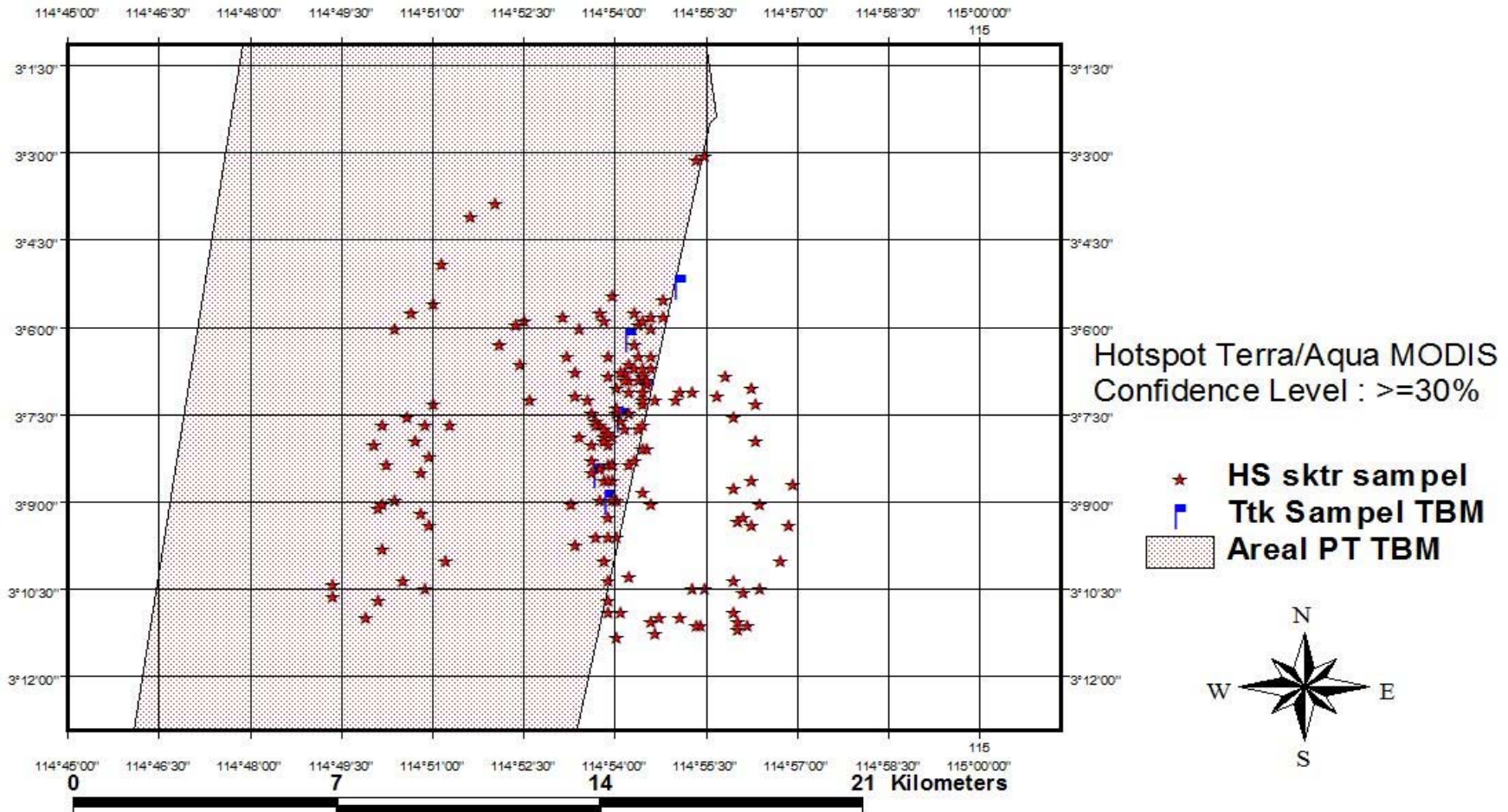
Sebaran hotspot Terra/Aqua MODIS PT LIH & sekitar 20-31 Juli 2015



- ⊙ Riau_310715
- ▲ Riau_300715
- Riau_290715
- ☆ Riau_280715
- ★ Riau_270715
- Riau_260715
- Riau_250715
- Riau_240715
- Riau_230715
- Riau_220715
- Riau_210715
- Riau_200715
- ⚡ Sampling
- ▨ PT. LIH

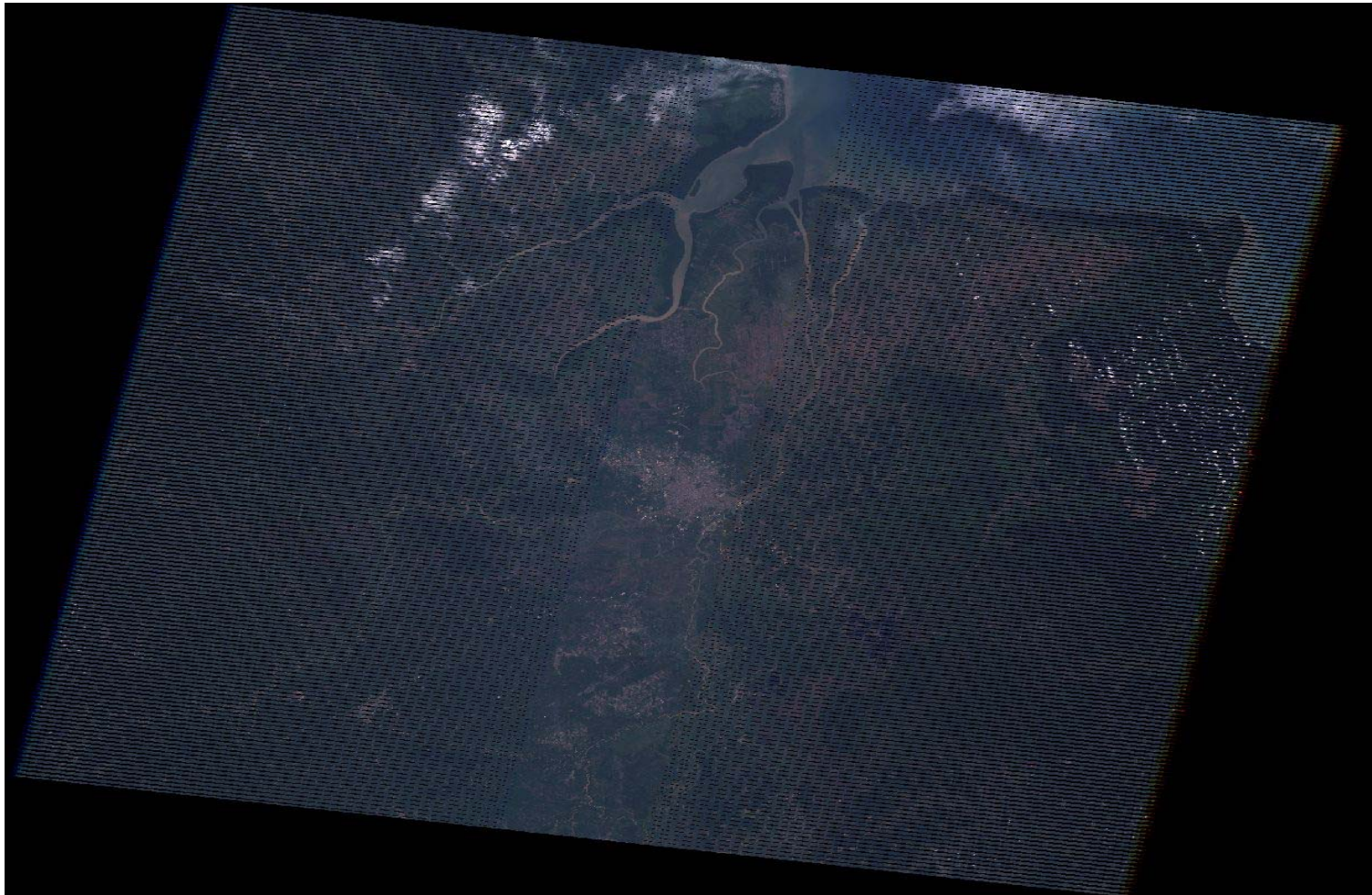


Sebaran Hotspot di PT. TBM, 6/7 - 21/9/2015

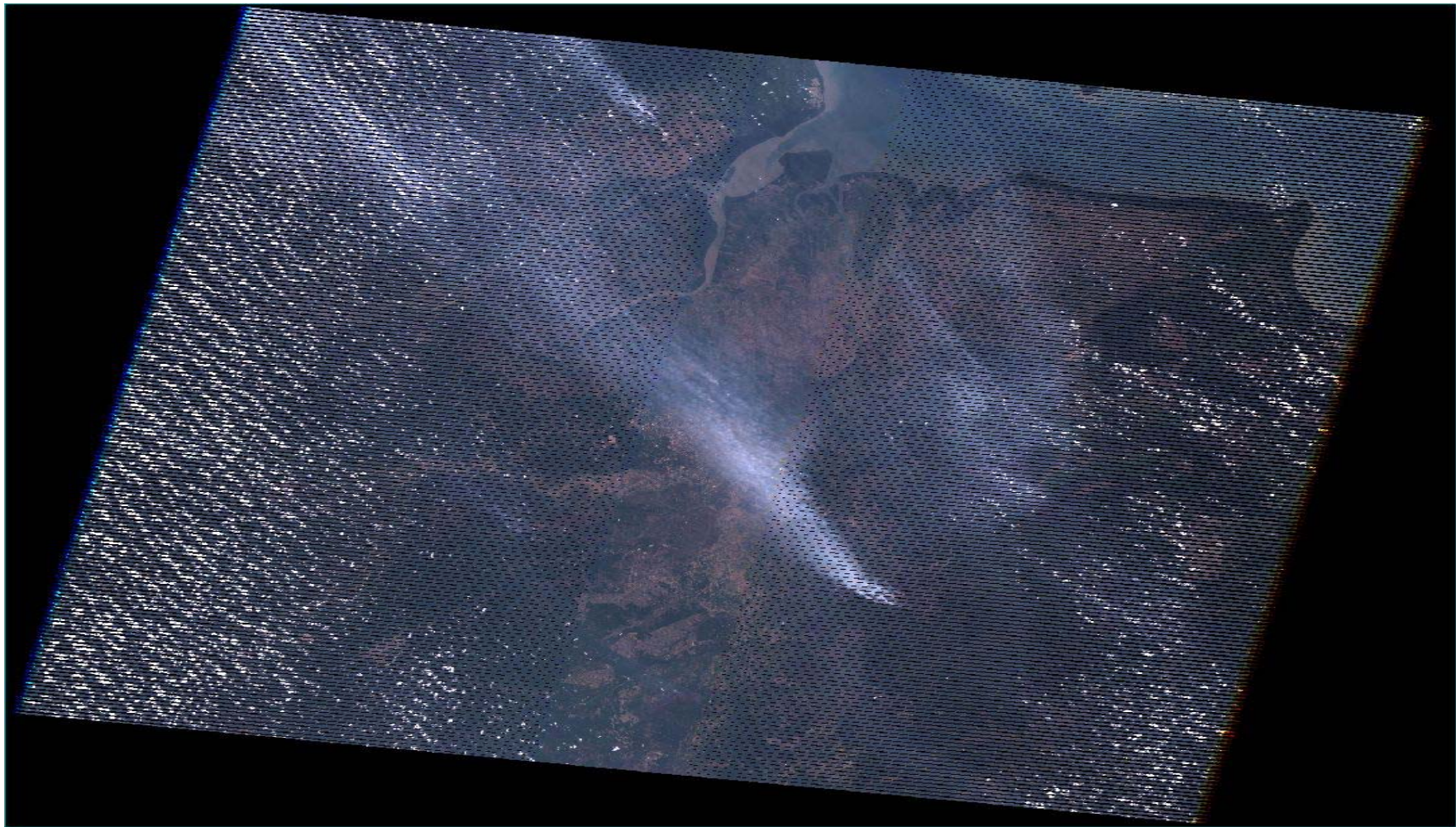


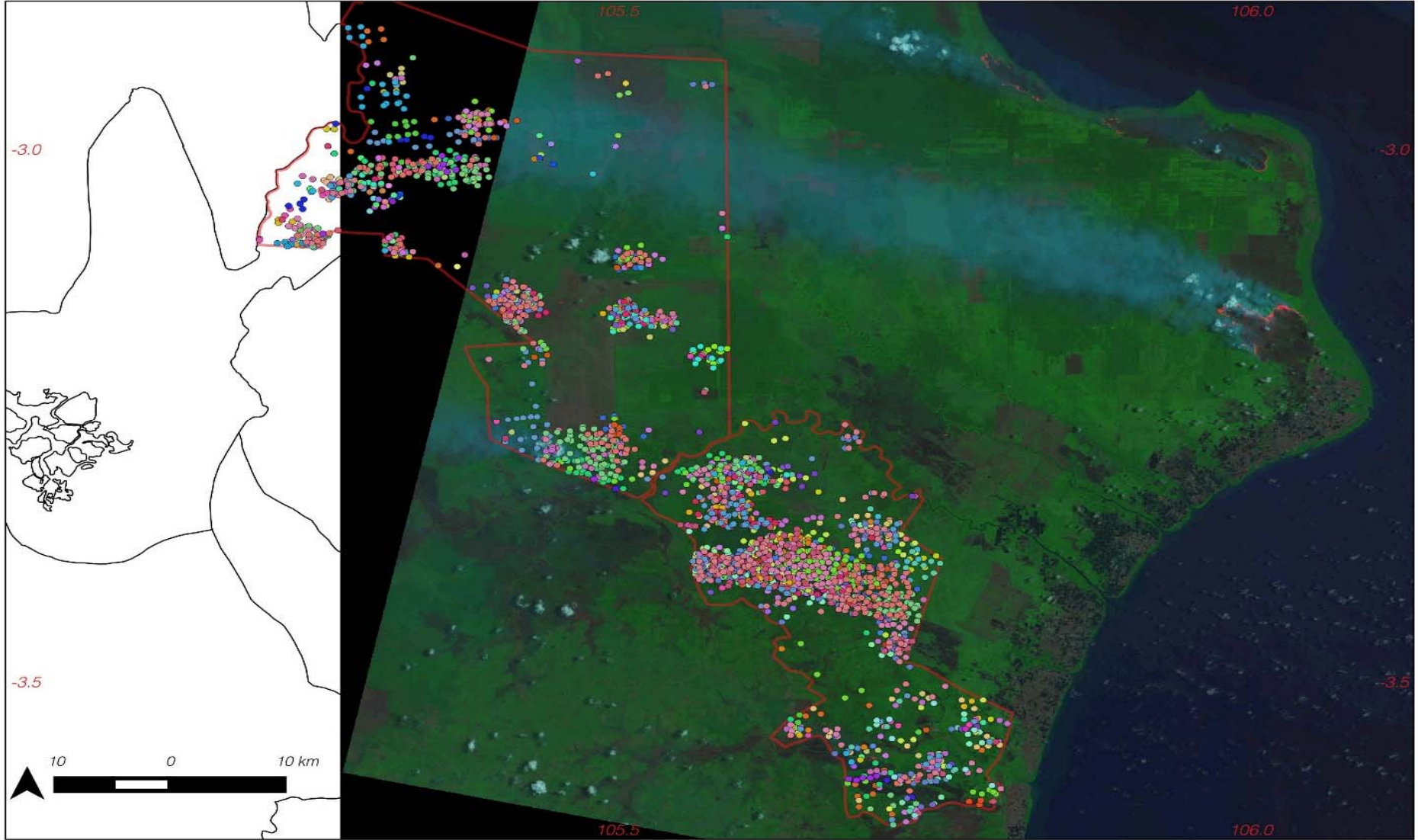


Landsat TM-7, 2 August 2014

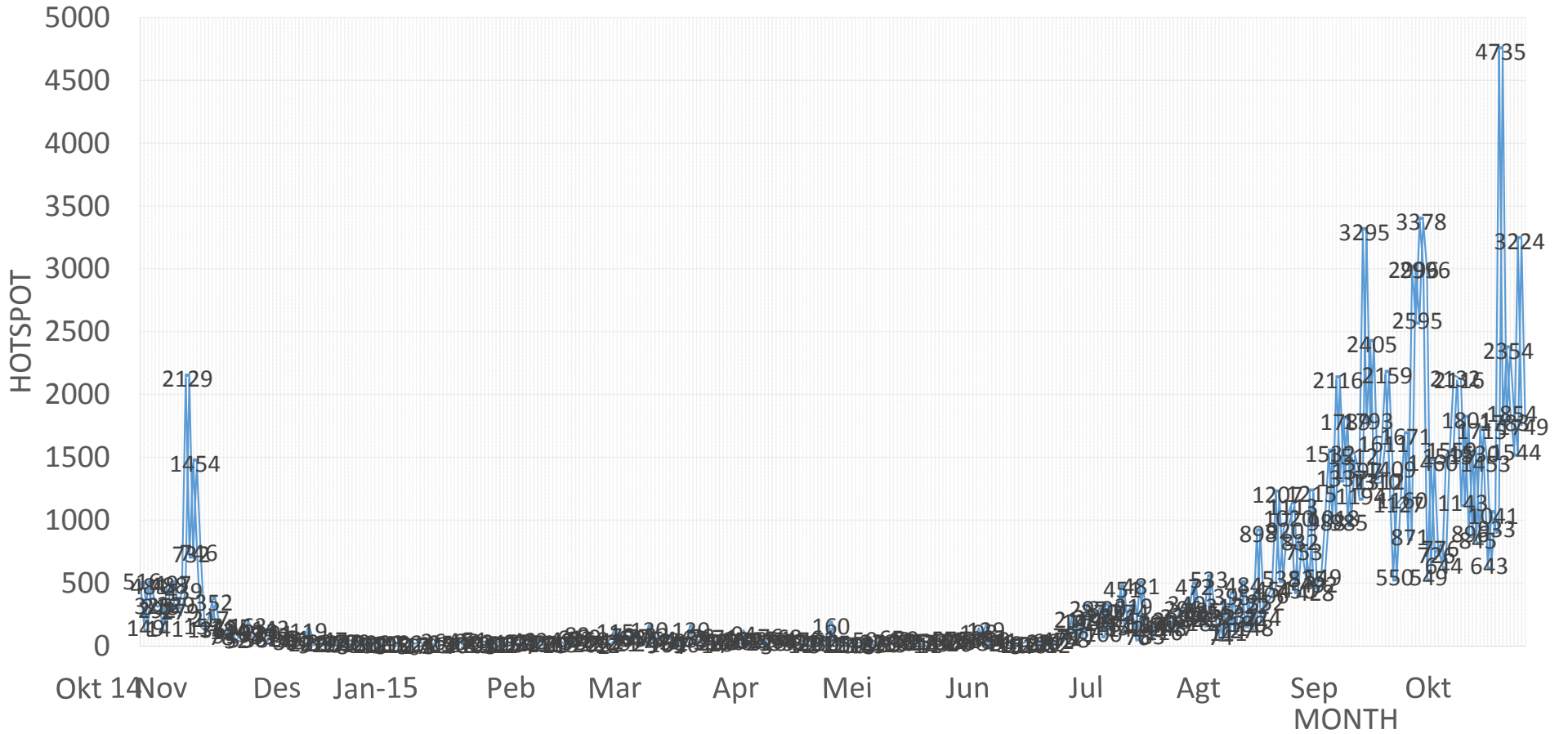


Landsat TM-7, 6 September 2015

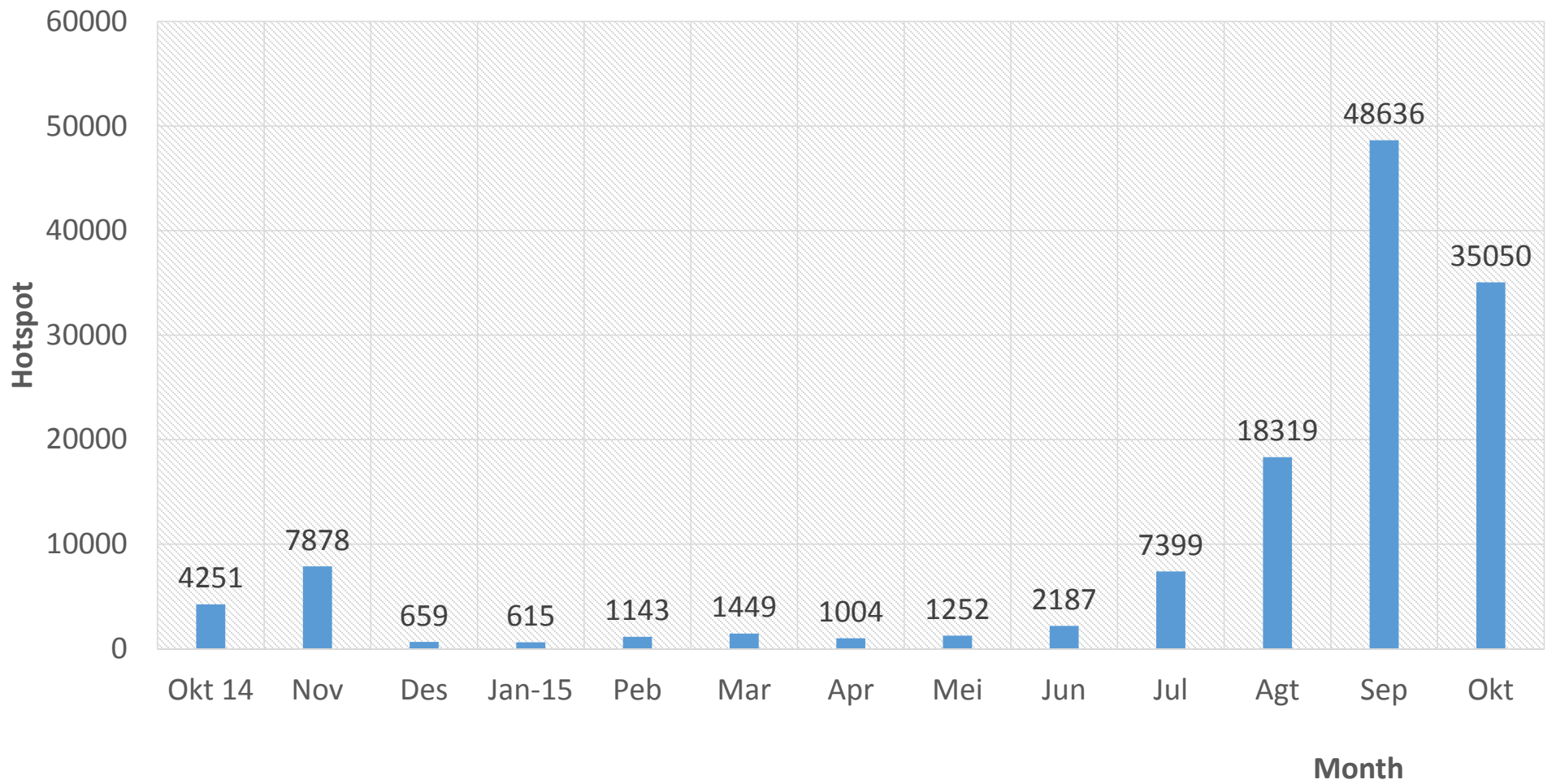




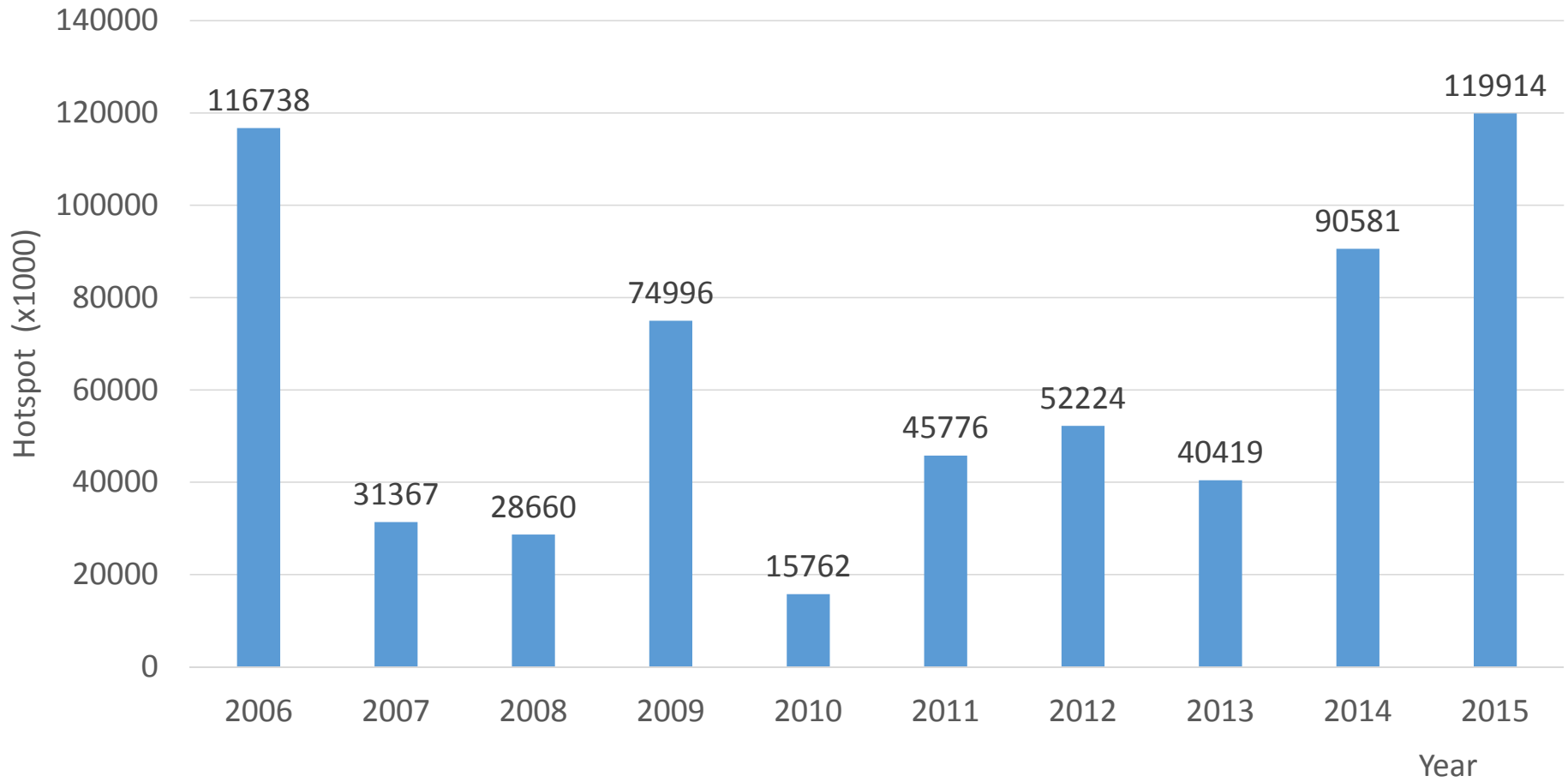
DAILY HOTSPOT IN INDONESIA 20 OCT 2014 - 20 OCT 2015



Monthly hotspot in Indonesia
20 Oct 2014 - 20 Oct 2015



Hotspot accumulation
(2006-2015)



2015 FIRES (21 June-20 October):

➤ Burnt area (LAPAN, 2015):

>> Sumatra	: 832,999 ha
>> Kalimantan	: 806,817 ha
>> Papua	: 353,191 ha
>> Sulawesi	: 30,912 ha
>> Bali and N.Tenggara	: 30,162 ha
>> Maluku	: 17,063 ha
>> Java	: 18,763 ha
➤ Peatland	: 615,574 ha
➤ Non peatland	: 1,471,337 ha

➤ BIGGEST AREA BURNT:

>> SOUTH SUMATRA	: 359,100 ha
>> PAPUA	: 344,980 ha
>> CENTRAL KALIMANTAN	: 330,863 ha

2015 Fires results:

- 70-80 % of countries blanketed with the smokes(31 provinces from 34 provinces blanketed)
- 60 Million peoples in Indonesia affected
- More than 600,000 peoples have heaths affected
- Around 24 persons dead (including baby)
- Economic lost (WB, 2015) US\$ 16.3 Billion dollars

- CARBON STOCK IN TROPICAL PEAT : 83.3 Gt.
 - INDONESIA : 44.5 Gt. (53.1 %)
 - Other Tropical area : 25.7 Gt. (30.2 %)
 - Other Southeast Asia : 13.6 Gt. (16.2%)

- **INDONESIA:**

- West Papua : 10.3 Gt. (23%)
- Kalimantan : 15.1 Gt. (33.8 %)
- Sumatra : 18.3 Gt. (41.1 %)









Indonesia Emission Reduction Target

Sector	Emission Reduction Plan (Giga ton CO ₂ e)		Action Plan	Agency
	26%	41%		
Forestry and Peatland	0.672	1.039	Controlling forest fire and peat fire, Water resource management, Forest and land rehabilitation, HTI, HR. Reducing Illegal Logging, Avoiding deforestation, community engagement.	Ministry of Forestry, Ministry of Environment, Ministry of Public Work, Ministry of Agriculture
Waste	0.048	0.078	Building Landfill, wasting management based on 3R and integrated water waste management in urban area	Ministry of Public Work, Ministry of Environment
Agriculture	0.008	0.011	Introduction low emission rice, water irrigation efficiency, applying organic fertilizer	Ministry of Agriculture, Ministry of Environment
Industry	0.001	0.005	Energy efficiency, applying renewable energy	Ministry of Industry
Energy and transportation	0.038	0.056	Applying bio fuel, engine efficiency	Ministry of Transportation, Ministry of Energy, ministry of Public Work
	0.767	1.189		

BLOCKING CANAL INSPECTION BY PRESIDENT IN CENTRAL KALIMANTAN, 2015



CONCLUSION

- Land use changes follows with fire become the most productive actors behind of the greenhouse gases release
- Land preparation using fire and no actions to fight the fires occurs in their own land companies is still big issues
- More accurate data needed for better understanding of the hotspot or fire spot detected in the field
- More research on peat fires emission in order to get better understanding on GHG released during burning especially for better peat management