



IMPLEMENTATION MASTERPLAN OF SUSTAINABLE PEAT ECOSYSTEM MANAGEMENT WEST KALIMANTAN PROVINCE

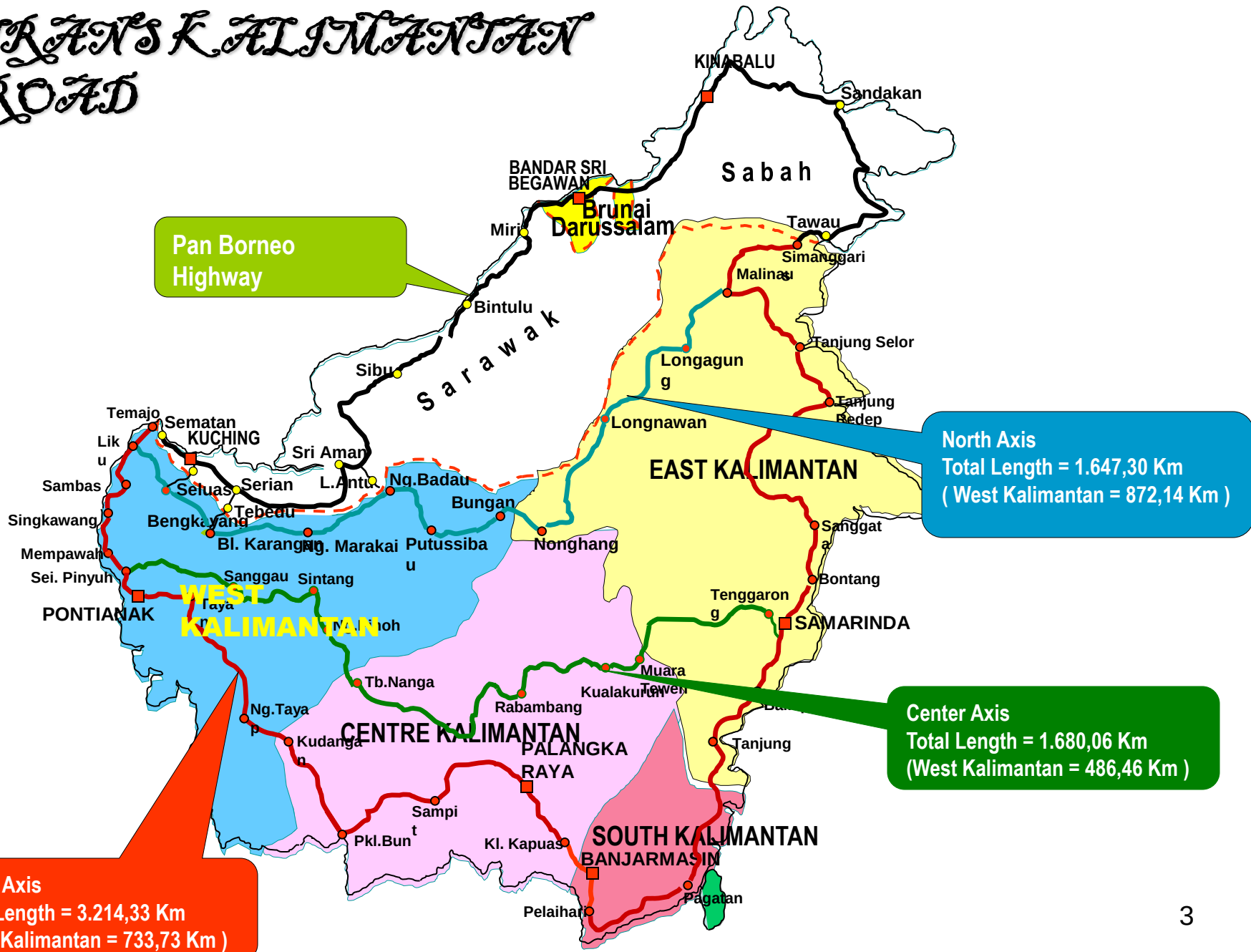
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PROVINCIAL
ENVIRONMENTAL BOARD
OF WEST KALIMANTAN,
INDONESIA



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<http://Pahang>, 9-10 July 2012

TRANS KALIMANTAN ROAD



WEST KALIMANTAN PROFILE



Area	: 146.807 Km2
Capital City	: Pontianak
Regencies	: 12
Municipalities	: 2
Districts	: 175
Villages	: 1.856
Islands	: 153
Population	: 4.60 millions
Density	: 28 Pers/Km2

REGIONAL DEVELOPMENT CONCEPT

STATE BORDER AREA

- BORDER DEVELOPMENT CENTER
- PLANTATION
- INDUSTRIAL FOREST
- POWER PLANT

PROVINCE BORDER AREA

- PLANTATION
- INDUSTRIAL FOREST
- POWER PLANT

COASTAL & ISLAND AREA

- INTERNATIONAL HUB
- INDUSTRIAL ZONE
- FISHERY
- AGROBIZ

CENTER AREA

- WATER TREATMENT
- BAUXITE
- AGROBIZ CENTER
- CENTER OF DEVELOPMENT
- PLANTATION
- INDUSTRIAL FOREST



VISION & MISION OF Middle-Term Development Plan 2008-2013

VISION :

“Realizing West Kalimantan Society Characterized by Religious, Health, Smart, Peaceful, Secure, Cultured and Prosperous

MISION:

- 1. To improve basic service system**
- 2. To improve quality and quantity of human resources**
- 3. To improve capacity and accountability governmental officer**
- 4. To enforce the law, improve social justice, and protect of human right.**
- 5. To improvement basic infrastructure development**
- 6. To improve controlling and exploiting of Plano logy and region utilize arrange.**
- 7. To improve balance and generalization of development.**
- 8. To dig and develop Values and multifarious of culture.**
- 9. To develop local resource.**
- 10. To develop cooperation network between local government with private sector.**
- 11. To extend work-field and business by being based on nationality economics.**

Background of Establishing Peat Management Masterplan

- Peat has a high water holding power
- Peat is a hydrological buffer
- Peat as a carbon store
- Decrease in the surface faster when peat land is opened
- Damage of peat land ecosystems cause a great impact (in situ and ex situ)



- issued no longer permit the use of peat
- moratorium on exploitation of peat

- population increase → the demand for land increases → peat is an alternative to expansion of agricultural land
- Peat lands are able to cultivate and it contribute to improving the welfare of the people for agriculture / crops and often burned
- potential to provide employment opportunities



- Take advantage of peat land for public welfare



**Sustainable Peat Management
Master plan**

Basic Policy

- **Law No.32/2009 on the Protection and Environmental Management**
- **The Presidential Instruction No.10/2011 on Moratorium New Permit and Improvement of Management of Primary Natural Forests and Peat lands**
- **Presidential decree no. 61/2011 on the National Action Plan for Greenhouse Gas Emission reduction**
- **Presidential decree no. 71/2011 on the Implementation of the Greenhouse Gas Inventory**
- **Reduction in Greenhouse Gas emissions by 26%**
- **Provincial Spatial Planning based on KLHS, physical and environmental carrying capacity**
- **Shared commitment among Cities and Districts Government on the effort to control forest fires and land, dated May 21, 2010.**

PROBLEMS

- Peat ecosystem management is not based on the peat hydrological unit
- Peat land ecosystem management pays little attention to the nature and characteristics of the peat
- Spatial planning policy not to consider the nature and characteristics of the peat ecosystem
- Lack of data and information about the ecosystem of peat
- There is no law that expressly regulate the management of peat land ecosystems

IMPACT OF PEAT MANAGEMENT THAT IS NOT PAYING ATTENTION ON PEAT CHARACTERISTICS

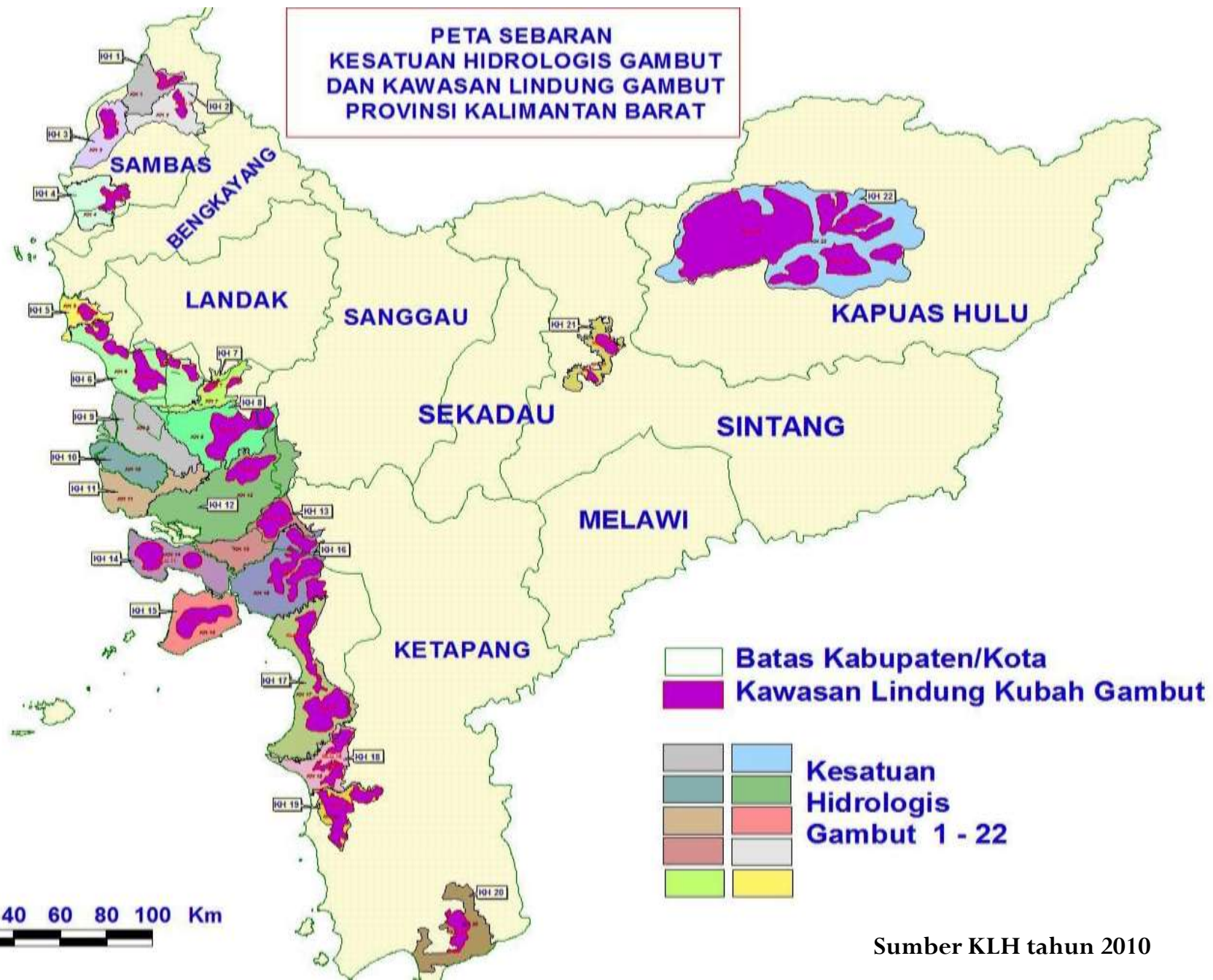
- **When it rains the floods occur easily**
- **The dry season flammable peat land, and cause damage to the environment, health, and economy**
- **Deforestation and land use mismanagement can lead to deterioration of biodiversity in the area of peat**
- **Etc.**

Policy Principles

- The control from damage of Peat land ecosystem based on peat unit area management (based on peat hydrological unit)
- Cooperation between the province, district / city in accordance with existing authority (inter-provincial / district / city)
- Active role of the community and avoid flammable plants

Maps Of Peat Hydrological unit West Kalimantan

Maps Of Peat Hydrological unit West Kalimantan



AREA (Ha)
PEAT HYDROLOGICAL UNIT (PHU)
WEST KALIMANTAN

DISTRICT / CITY	PEAT PROTECTED AREAS (PPA)	PEAT CULTIVATION AREA (PCA)	PHU
BENGKAYANG	8,339	25,922	34,261
KAPUAS HULU	228,754	486,053	714,807
KETAPANG	265,035	654,959	919,994
KOTA PONTIANAK	7,323	24,007	31,331
KOTA SINGKAWANG	9,507	18,440	27,947
LANDAK	24,610	42,251	66,861
PONTIANAK	260,108	613,859	873,967
SAMBAS	98,587	234,487	333,075
SANGGAU	8,106	7,910	16,016
SINTANG	12,088	74,576	86,664
Total	922,458	2,182,464	3,104,922

**LAND COVER
PEAT HYDROLOGICAL UNIT (PHU)
WEST KALIMANTAN**

PETA TUTUPAN LAHAN KESATUAN HIDROLOGI GAMBUT PROVINSI KALIMANTAN BARAT TAHUN 2009



Skala 1:2.000.000



Proyeksi: Transverse Mercator
Datum: GRS 80
Datum horizontal: WGS 1984
Datum vertikal: WGS 1984

Legenda

Batas Administrasi

- Batas Negara
- - - Batas Provinsi
- - - Batas Kabupaten/Kota
- Garis Pantai
- Batas Izon Kebun

Tutupan Lahan

- | | |
|----------------|----------------|
| Hutan Primer | Sawah |
| Hutan Sekunder | Semak/Bakau |
| Kebun Campuran | Timbak/Empan |
| Mangrove | Tanah Terbuka |
| Pemukiman | Tegalan, atang |
| Pemukiman | Tubuh Air |
| Rawa | |



KEMENTERIAN NEGARA LINGKUNGAN HIDUP



Sumber: 1. Interpretasi Citra Landsat TM-4 dan TM-5 (Tahun 2000/2001)

2. Survei Lapangan, 2009

3. Petak RBL, skala 1:25.000, Tahun 2002

Catatan: Peta ini dibuat berdasarkan informasi garis-garis batas administrasi nasional dan internasional.

AREA OF LAND COVER ON PHU OF BENGKAYANG DISTRICT

DISTRICT	TYPE OF LAND COVER	AREA (Ha)		
		PPA	PCA	PHU
BENGKAYANG	Mixed Plantation	484	120	604
	Plantation	874	5,733	6,607
	Settlement	95	263	358
	Swamps	3,901	9,402	13,303
	Rice fields	665	5,578	6,243
	Bush / shrub	391	1,323	1,714
	Ponds		500	500
	Bare land	1,715	2,961	4,676
	Moor / field	203		203
	Water body	10	41	51
Total		8,339	25,922	34,261

TABEL LUASAN TUTUPAN LAHAN PADA KHG KABUPATEN KAPUAS HULU

KABUPATEN	TUTUPAN LAHAN	LUAS (Ha)		
		KLG	KBG	KHG
KAPUAS HULU	Hutan Primer	408	23,020	23,428
	Hutan Sekunder	15,047	159,621	174,667
	Kebun Campuran	12,149	115,461	127,610
	Perkebunan	803	936	1,739
	Permukiman	319	3,182	3,501
	Rawa	188,808	156,398	345,206
	Semak/Belukar	1,269	4,302	5,572
	Tanah Terbuka	7,738	12,488	20,226
	Tegalan/Ladang	13	28	41
	Tubuh Air	2,199	10,617	12,816
KAPUAS HULU Total		228,754	486,053	714,807

TABEL LUASAN TUTUPAN LAHAN PADA KHG KABUPATEN KETAPANG

KABUPATEN	TUTUPAN LAHAN	LUAS (Ha)		
		KLG	KBG	KHG
KETAPANG	Hutan Sekunder	2,087	6,735	8,823
	Kebun Campuran	6,645	60,220	66,865
	Mangrove	109	24,428	24,537
	Perkebunan	9,688	22,504	32,192
	Permukiman	46	10,151	10,196
	Rawa	177,968	312,612	490,580
	Sawah	132	61,449	61,581
	Semak/Belukar	40,611	96,873	137,484
	Tambak/Empang		3,055	3,055
	Tanah Terbuka	27,714	39,012	66,726
	Tegalan/Ladang		3,156	3,156
	Tubuh Air	36	14,764	14,800
KETAPANG Total		265,035	654,959	919,994

Sumber: Program MIH 2009, KLH

TABEL LUASAN TUTUPAN LAHAN PADA KHG KOTA PONTIANAK

KABUPATEN	TUTUPAN LAHAN	LUAS (Ha)		
		KLG	KBG	KHG
KOTA PONTIANAK	Kebun Campuran		4,399	4,399
	Perkebunan	1,021	5,221	6,242
	Permukiman		7,173	7,173
	Rawa	1,257	76	1,332
	Sawah	5,000	6,200	11,200
	Tanah Terbuka	45	72	117
	Tubuh Air		868	868
KOTA PONTIANAK Total		7,323	24,007	31,331

TABEL LUASAN TUTUPAN LAHAN PADA KHG KOTA SINGKAWANG

KABUPATEN	TUTUPAN LAHAN	LUAS (Ha)		
		KLG	KBG	KHG
SINGKAWANG	Hutan Sekunder		10	10
	Kebun Campuran	7,068	5,997	13,066
	Mangrove		90	90
	Perkebunan		132	132
	Permukiman	1,623	2,740	4,363
	Rawa	227	1,232	1,459
	Sawah		4,632	4,632
	Semak/Belukar	325	2,166	2,491
	Tambak/Empang		61	61
	Tanah Terbuka	264	1,343	1,607
	Tubuh Air		37	37
KOTA SINGKAWANG Total		9,507	18,440	27,947

Sumber: Program MIH 2009, KLH

TABEL LUASAN TUTUPAN LAHAN PADA KHG KABUPATEN LANDAK

KABUPATEN	TUTUPAN LAHAN	LUAS (Ha)		
		KLG	KBG	KHG
LANDAK	Hutan Sekunder	3		3
	Kebun Campuran	3,706	6,913	10,619
	Perkebunan	4,180	22,521	26,701
	Rawa	16,092	11,561	27,653
	Semak/Belukar	185	5	190
	Tanah Terbuka	22	524	546
	Tubuh Air	422	727	1,149
LANDAK Total		24,610	42,251	66,861

TABEL LUASAN TUTUPAN LAHAN PADA KHG KABUPATEN PONTIANAK

KABUPATEN	TUTUPAN LAHAN	LUAS (Ha)		
		KLK	KBG	KHG
PONTIANAK	Hutan Sekunder	289	117	406
	Kebun Campuran	16,147	80,057	96,204
	Mangrove	227	101,482	101,709
	Perkebunan	6,108	84,969	91,077
	Permukiman	225	6,880	7,106
	Rawa	204,699	194,985	399,684
	Sawah	23,128	109,619	132,747
	Semak/Belukar	447	5,965	6,412
	Tambak/Empang		2,607	2,607
	Tanah Terbuka	4,880	10,866	15,745
	Tegalan/Ladang	388	2,910	3,298
	Tubuh Air	3,569	13,403	16,973
PONTIANAK Total		260,108	613,859	873,967

Sumber: Program MIH 2009, KLH

TABEL LUASAN TUTUPAN LAHAN PADA KHG KABUPATEN SAMBAS

KABUPATEN	TUTUPAN LAHAN	LUAS (Ha)		
		KLG	KBG	KHG
SAMBAS	Hutan Sekunder	30,733	17,357	48,090
	Kebun Campuran	16,732	34,479	51,211
	Mangrove	620	7,871	8,492
	Perkebunan	22,056	78,278	100,334
	Permukiman	517	725	1,242
	Rawa	19,396	16,030	35,426
	Sawah	901	47,660	48,561
	Semak/Belukar	6,338	18,916	25,253
	Tambak/Empang		1,620	1,620
	Tanah Terbuka	903	2,155	3,059
	Tubuh Air	391	9,397	9,788
SAMBAS Total		98,587	234,487	333,075

TABEL LUASAN TUTUPAN LAHAN PADA KHG KABUPATEN SANGGAU

KABUPATEN	TUTUPAN LAHAN	LUAS (Ha)		
		KLG	KBG	KHG
SANGGAU	Hutan Sekunder	6		6
	Kebun Campuran	103	2,129	2,232
	Perkebunan	194	1,625	1,819
	Rawa	7,680	3,215	10,895
	Semak/Belukar		63	63
	Tanah Terbuka	120		120
	Tubuh Air	3	878	881
SANGGAU Total		8,106	7,910	16,016

Lahan Gambut Kalimantan Barat



Planting in Peat land without fire





Traditional farming practices in West Kalimantan





Traditional farming practices in West Kalimantan





Traditional farming practices in West Kalimantan



Sentarum Lake in West Kalimantan









05.08.2006







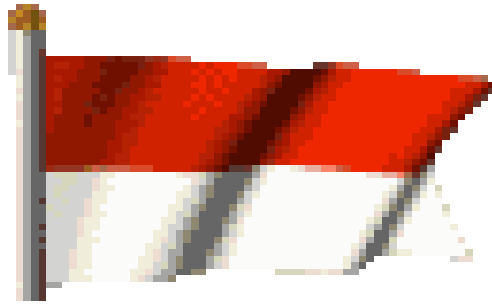




**I take care this earth for you
grand children...**



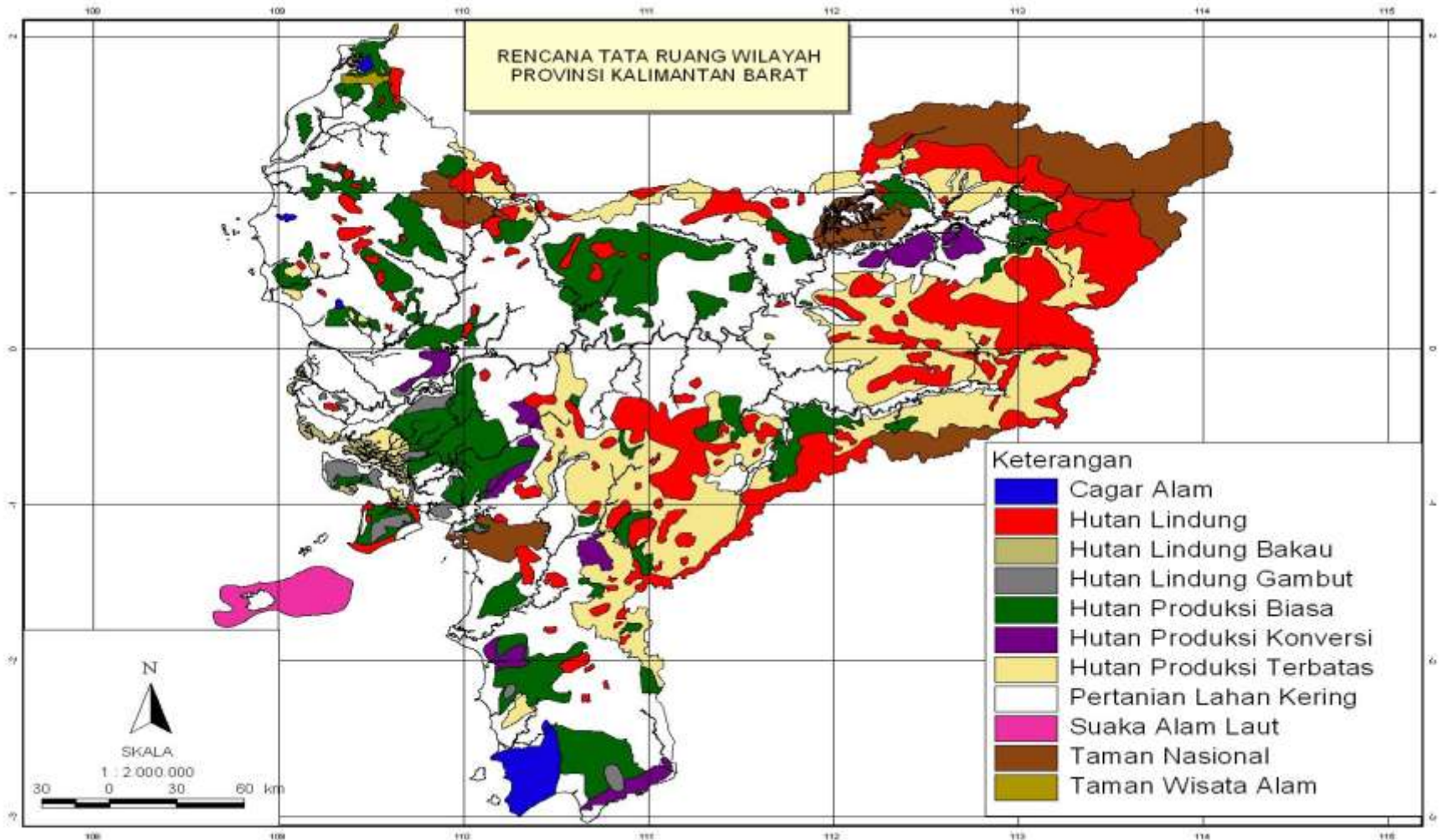
Thank you...



THANK YOU



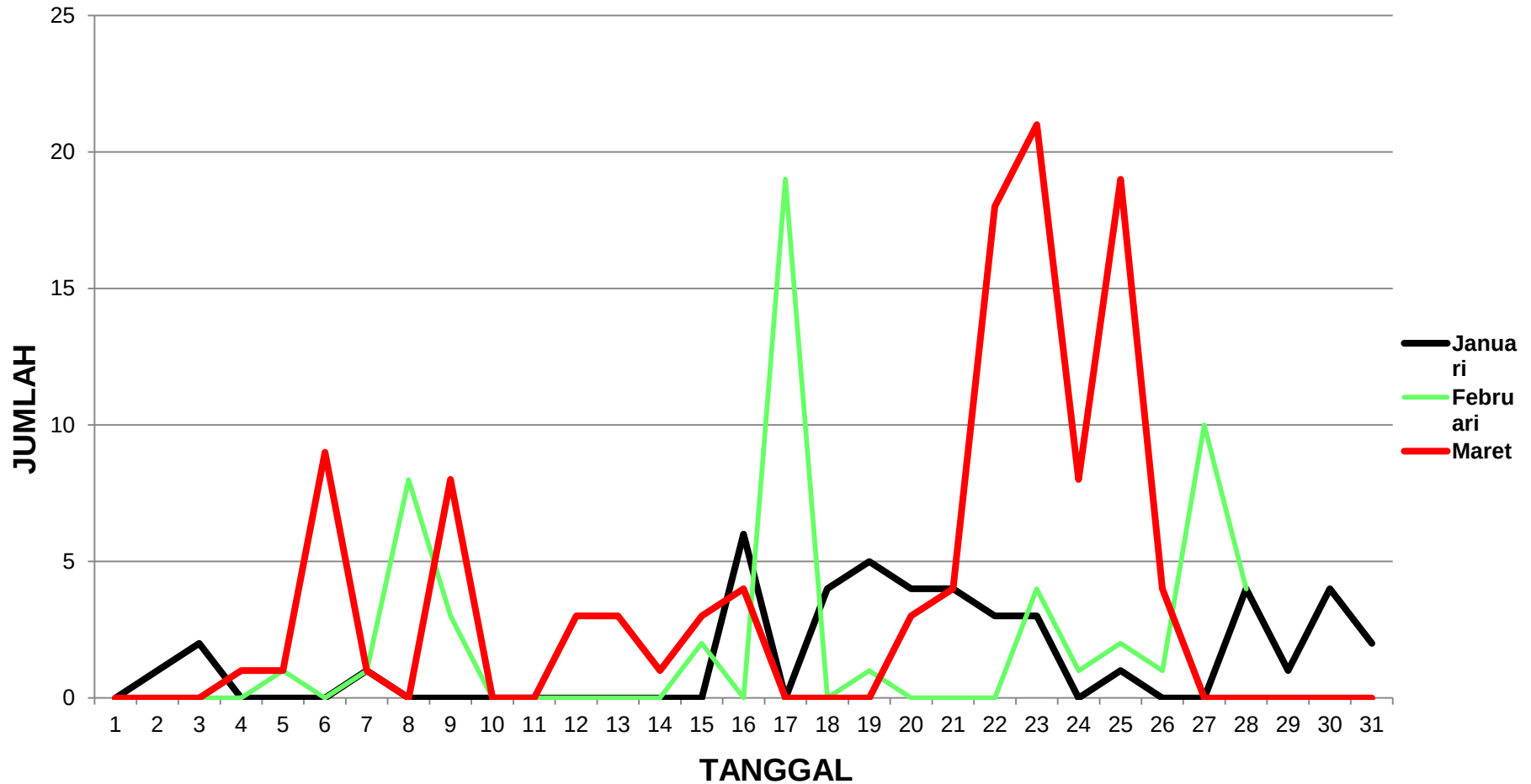
RENCANA TATA RUANG



Arahan pemanfaatan lahan :

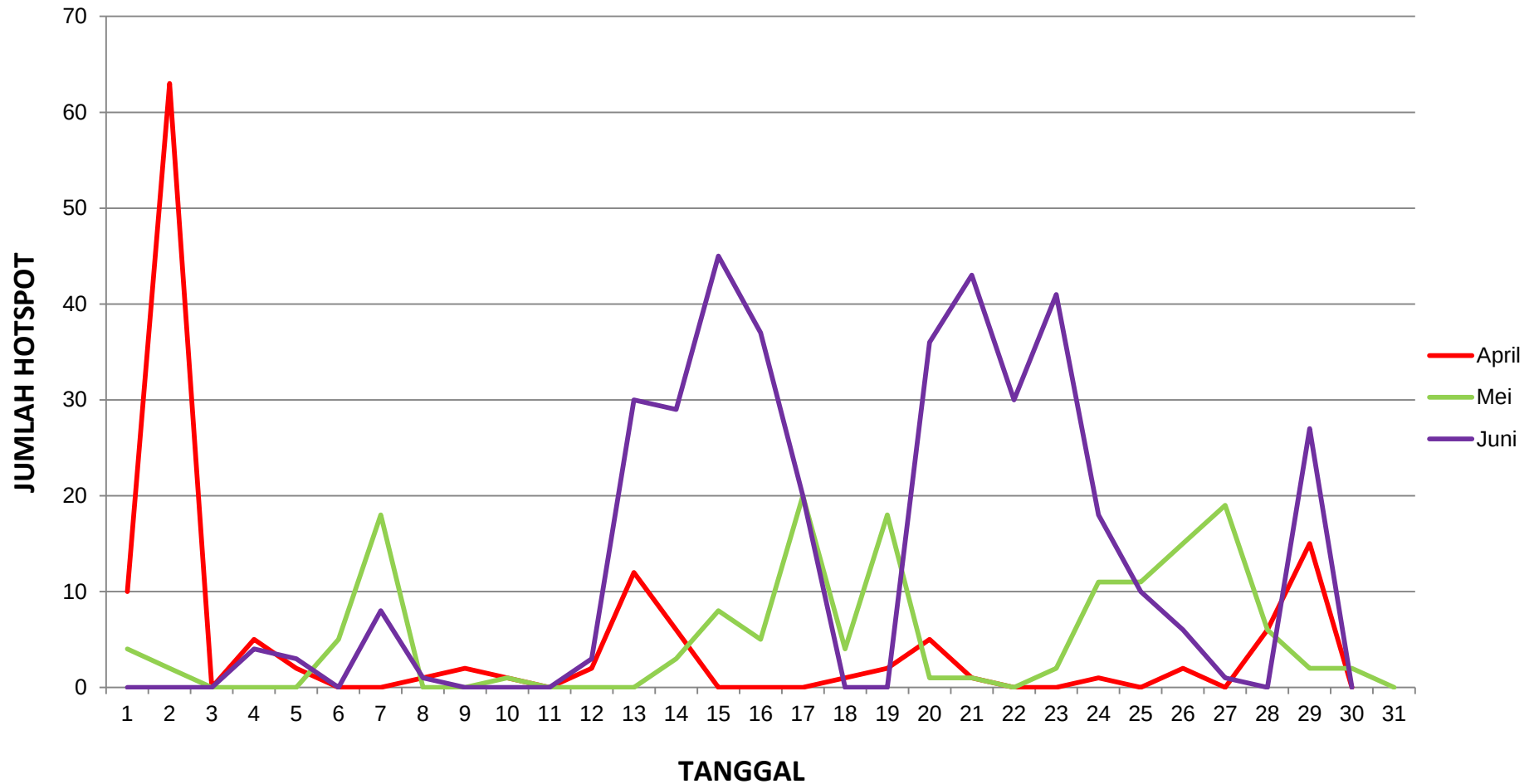
- Kawasan Budidaya : 10.717.002 Ha (73 %)
- Kawasan Lindung : 3.963.698 Ha (23 %)
- Kawasan hutan : 8.390.660 Ha (57,15 %)

GRAFIK HOTSPOT BULAN JANUARI - MARET TAHUN 2012 PROVINSI KALIMANTAN BARAT



No	Bulan	Tanggal																														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
1	Januari	0	1	2	0	0	0	1	0	0	0	0	0	0	0	0	6	0	4	5	4	4	3	3	0	1	0	0	4	1	4	2
2	Februari	0	0	0	0	1	0	1	8	3	0	0	0	0	0	2	0	19	0	1	0	0	0	4	1	2	1	10	4	0		
3	Maret	0	0	0	1	1	9	1	0	8	0	0	3	3	1	3	4	0	0	0	3	4	18	21	8	19	4					

GRAFIK HOTSPOT BULAN APRIL - JUNI TAHUN 2012 PROVINSI KALIMANTAN BARAT



No	Bulan	Tanggal																														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
4	April	10	63	0	5	2	0	0	1	2	1	0	2	12	6	0	0	0	1	2	5	1	0	0	1	0	2	0	6	15	0	
5	Mei	4	2	0	0	0	5	18	0	0	1	0	0	0	3	8	5	20	4	18	1	1	0	2	11	11	15	19	6	2	2	0
6	Juni	0	0	0	4	3	0	8	1	0	0	0	3	30	29	45	37	20	0	0	36	43	30	41	18	10	6	1	0	27	0	

Foto lahan gambut yang terbakar

