

East Kalimantan's Green Growth Journey

GCF TASKFORCE MEETING, PALANGKA RAYA, CENTRAL KALIMANTAN, INDONESIA
20-22nd 2011



- **The journey so far**

Over the past year East Kalimantan has taken a number of important steps toward implementing green growth

- 1 Developing a Green Growth Strategy for East Kalimantan
- 2 Syndicate Green Growth Strategy with districts
- 3 Kick start high priority analyses on main abatement opportunities
- 4 Establish a Provincial Council for Climate Change (DDPI)

1 East Kalimantan is the third largest CO₂e emitting province in Indonesia

Facts about East Kalimantan

Land area:
19.7M ha

Natural Forest:
12.8 M ha

Peat: 80,000¹ ha in
Nunukan, Kukar,
and Malinau

Population:
3,550,586

GDP per capita
ranked 2nd out
of 33 provinces²

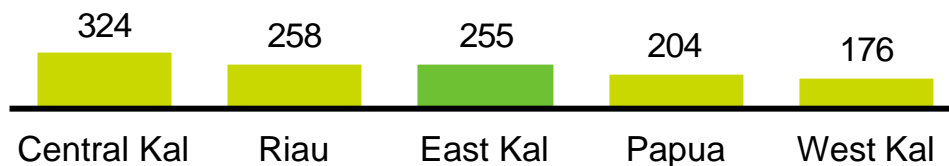


Emissions from East Kalimantan

1 Third largest carbon emitting province in Indonesia

Top five emitting provinces

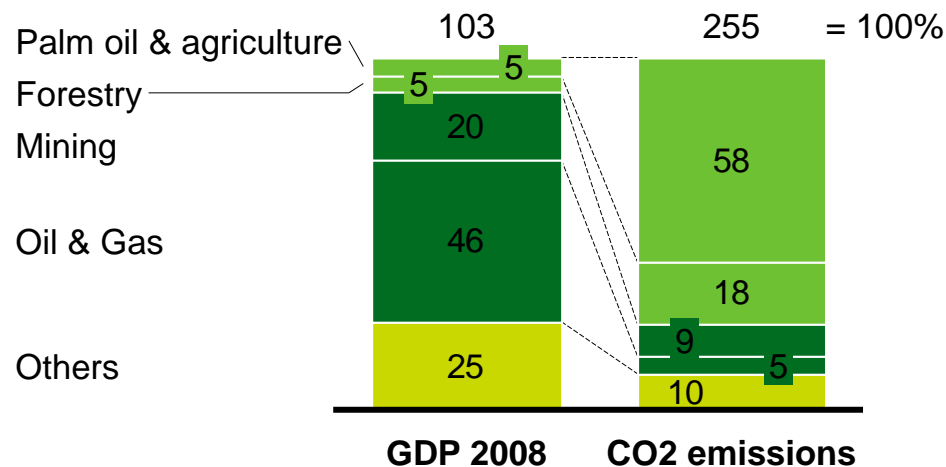
MtCO₂e annually



2 Economy dominated by extraction of natural resources

GDP breakdown of East Kalimantan

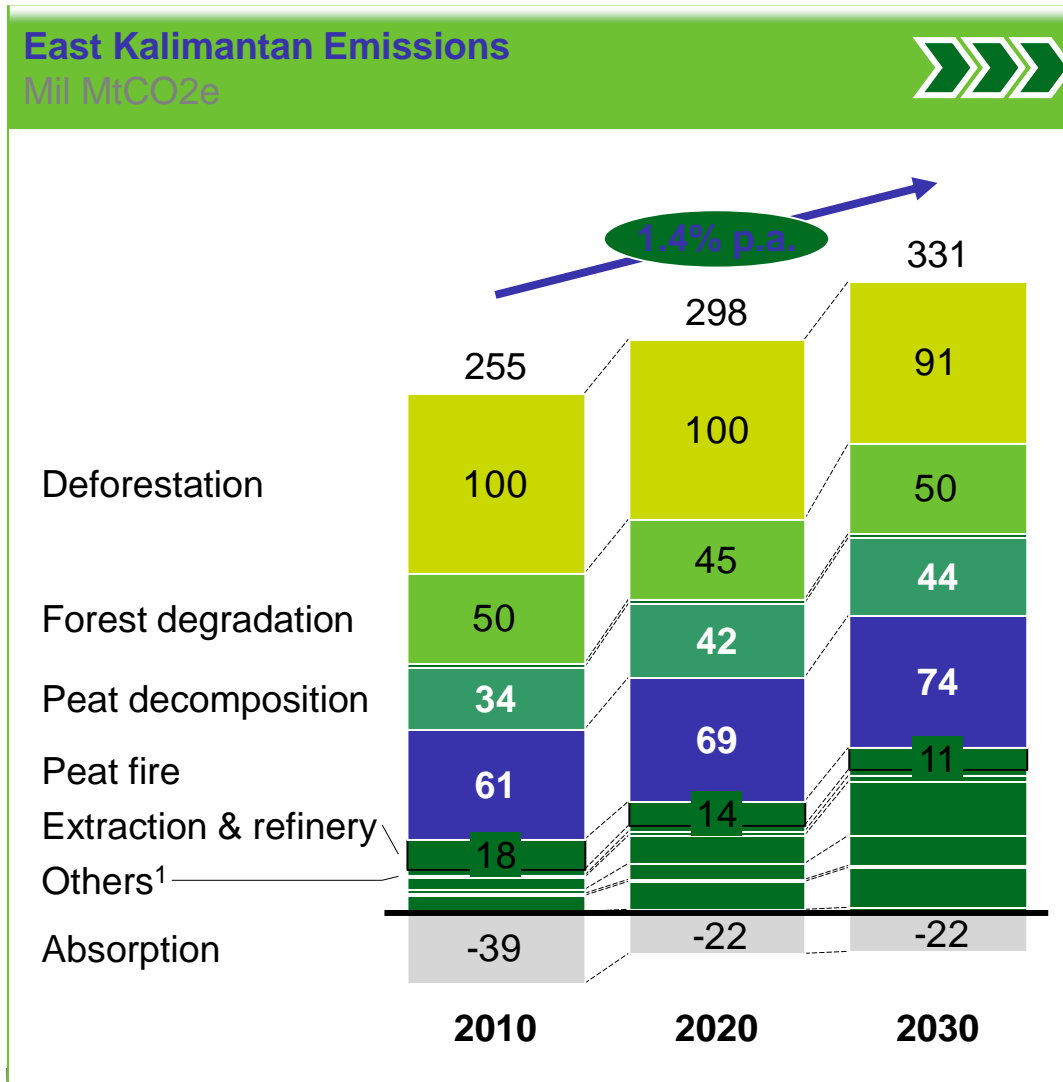
Percentage (2008)



1 Peat land with depth more than 4 meters

2 As of 2007

1 Business-as-usual emissions in East Kalimantan will grow to 331 MtCO₂e by 2030, driven by land use activities



Key takeaways:

- Land use is the key driver of emissions
- Emissions will increase by 30% by the end of 2030



¹ Includes power, transportation, building, mining, cement

1 East Kalimantan's Green Growth Strategy provides a guide towards lower emissions while increasing economic growth

East Kalimantan has developed a Green Growth Strategy



Key elements of Green Growth Strategy

Emission abatement opportunities

- Estimation of current and future CO₂e emissions
- Identification of emission abatement opportunities
- Assessment of abatement potential, cost, & feasibility

Green growth strategy

- New sources of economic growth in key sectors
- District strategy on environmental-friendly growth plan

REDD readiness framework

- Building institutional capabilities
- Regulatory climate and policy required
- Stakeholder communication and engagement plan

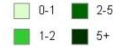


2 The Green Growth Strategy spans key sectors and involves all 14 districts of East Kalimantan

All districts and sectors were analyzed in detail

Potential CO2e reductions disaggregated to all districts

Abatement by source, MtCO2e 2030



	Palm oil					Agriculture					Forestry			Oil & Gas		Coal mining			Total
	Zero burning	De-graded land	Yield increase	Con-cession buyouts mgmt	Water mgmt	POME	Zero burn policy	Peat rehab	RL1	Avoid de-forest	Peat rehab	Zero burn policy	Re-forest	Zero Flaring	Stop Illegal Processing	Recla-mation	Process efficiency	Reduce methane release	
Balikpapan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.3	-	-	-	-	0.5
Berar	1.5	1.0	0.3	0.0	0.3	0.2	0.6	0.2	4.7	3.9	0.3	0.8	0.9	-	0.9	0.1	0.2	0.3	16.2
Bontang	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.3	0.0	0.0	0.5	0.1	0.0	0.8	-	-	-	-	2.6
Buayan	1.2	0.2	0.2	0.5	0.6	0.2	1.5	0.4	2.5	2.4	0.8	0.4	0.6	0.1	0.4	0.1	0.0	0.1	12.2
Kotal Barat	4.7	1.2	0.4	1.9	0.7	0.4	1.9	0.5	8.7	4.0	1.0	2.3	2.0	-	2.4	0.5	0.2	0.4	33.2
Kotal Kertanegara	3.4	1.9	0.8	2.6	1.8	0.7	4.6	1.3	1.8	2.7	2.5	1.7	2.8	1.4	3.0	0.6	0.3	0.6	34.5
Kotal Timur	2.7	3.4	0.8	0.0	0.3	0.7	1.0	0.3	6.3	3.1	0.5	1.4	3.2	0.2	2.9	0.4	1.5	2.8	31.5
Malinau	0.0	0.2	0.1	0.3	0.0	0.2	0.0	0.0	4.7	0.6	0.0	0.0	0.6	-	0.1	0.0	0.0	0.0	6.8
Nunukan	0.8	1.5	0.2	0.0	2.8	0.2	7.2	2.1	1.5	2.8	4.0	0.4	0.5	-	0.7	0.1	0.1	0.1	25.0
Panajam Paser Utara	0.2	0.1	0.1	0.4	0.0	0.1	0.0	0.0	2.6	0.8	0.0	0.1	0.4	-	0.6	0.1	0.3	0.5	6.3
Pasir	1.0	1.8	0.3	0.0	0.1	0.3	0.4	0.1	1.2	2.4	0.2	0.5	1.1	-	0.3	0.1	0.0	0.0	9.8
Samarinda	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.1	0.0	0.0	0.2	0.0	0.1	-	0.1	0.0	0.0	0.1	1.0
Tana Tidung	0.0	0.0	0.1	0.2	0.0	0.1	0.0	0.0	0.0	0.9	0.0	0.0	0.2	-	0.0	0.0	0.0	0.0	1.5
Tarakan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	-	-	-	-	0.1
East Kalimantan	15.6	11.4	3.3	6.0	6.8	3.1	18.5	5.4	34.0	23.8	10.0	7.7	12.5	2.7	11.3	2.0	2.6	4.8	184

Inputs from various stakeholders have been captured



Abatement opportunities are identified for all 14 districts

- Emission reduction plans are identified in key sectors covering palm oil, agriculture, forestry, oil & gas, and coal mining

Roadshows conducted at all 14 districts

- Socialization of Green Growth Strategy to capture feedback
- Refinement of strategy before publication



2 We have identified 20 priority initiatives in 5 sectors to reduce emissions and foster economic growth – many of them related to land use

	Oil & Gas	Coal	Palm oil	Forestry	Agriculture
Reduce carbon emissions	1 Reduce venting and flaring emissions	5 Revoke concessions in protected areas	9 Concessions to degraded lands	13 Implement reduced impact logging	17 Zero burning policy
		6 Enforce good mining practices e.g. rehabilitation	10 Zero burning land clearance	14 Use degraded land for plantations	18 Rehabilitate opened peat land
		7 Flare/use methane leakage			
Grow low carbon and high value-add sectors	2 Accelerate exploration	8 Use methane leakage	11 Raise land productivity	15 REDD readiness	19 Raising yields
	3 Develop CBM potential		12 Build crude palm oil refinery in East Kalimantan	16 Develop 2.6m ton capacity pulp & paper and forest products mills/plant	20 New crops and aquaculture
	4 Develop new LNG/petro-chemical complex				

SOURCE: “East Kalimantan Environmentally Sustainable Development Strategy” by National Council for Climate Change and Government of East Kalimantan

3 5 initiatives that would significantly reduce East Kalimantan's emissions

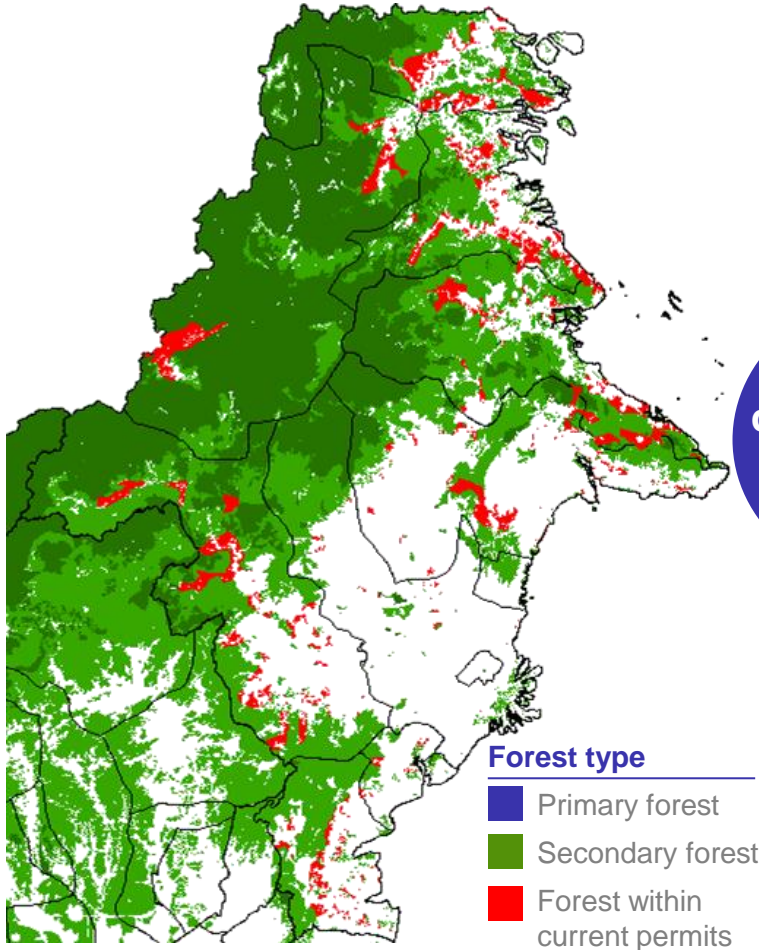
East Kalimantan emissions and abatement potential in 2030

	<u>Top 5 abatement initiatives</u>	<u>Abatement potential, 2030</u>
Use of degraded land	Use degraded land for Palm oil expansion	25 Mil MtCO ₂ e
Reduced impact logging	Includes tracks, winches, harvest planning	34 Mil MtCO ₂ e
Zero burning policy	Prohibit fire as land preparation method	47 Mil MtCO ₂ e
Reduce peat decomposition	Maintain water table at a sustainable level	18 Mil MtCO ₂ e
Reforestation	Rehabilitate partially degraded land	12 Mil MtCO ₂ e



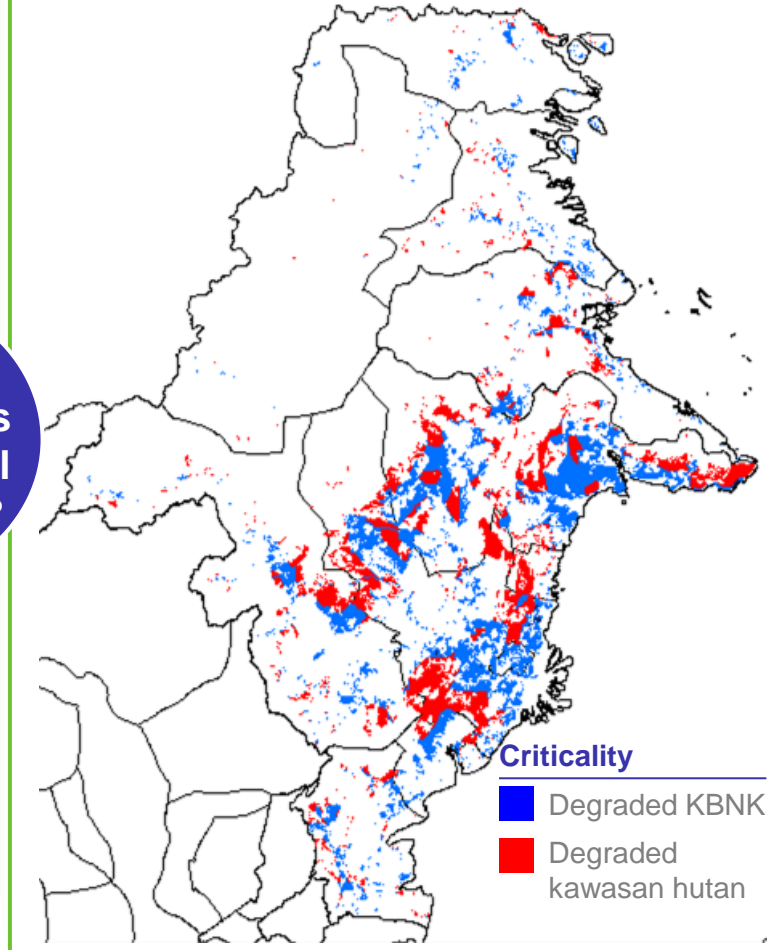
3 Using degraded land to substitute forest under threat could avoid emissions from deforestation

1.1 mill ha of forest are under threat by current licenses ...



Can we use degraded lands for agricultural development?

... while 2.6 mill ha of degraded land are available



SOURCE: RTRW 2008-2027 (initial draft); Min of Forestry land cover data 2009; Kawasan hutan map (MoF)

4 The Provincial Council on Climate Change (DDPI) has been founded to coordinate climate change initiatives in East Kalimantan

DDPI was established in January 2011

- DDPI was **established under Governor decree 02/2011**
 - 18 members are selected
 - APBD funding is allocated
- Initial **structure & membership** of DDPI is similar to the National Council on Climate Change's (DNPI) concept



... and armed with five mandates

1. Formulate province-level strategy related to **emissions reduction and climate change mitigation**
2. Coordinate activities in the area of **adaptation, mitigation, and technology adoption**
3. Design East Kalimantan's strategy to tap into the **carbon trading market**
4. **Measuring, Reporting, and Verifying** climate related projects and regulations
5. Ensure all Kabupaten adopt **low-carbon growth strategies**

DDPI will play central role in East Kalimantan on climate change activities coordination between central and local government (vertical coordination) and across region (horizontal coordination)



The journey to green growth continues...activities for 2011/12

Working group

Programmatic focus



REDD/ LULUCF

- **Enable use of degraded land** (develop degraded land data-base, identify site and private sector partner for **pilot project**)
- Create **REDD/LULUCF initiatives database** in the province



MRV and mapping

- Develop an approach for the **measurement of carbon stock** in East Kalimantan
- **Develop a mapping database** including land cover and concessions



Green Growth

- Identify and create business case for **climate-compatible economic development potential in rural area** (e.g. coal bed methane, biomass for bioenergy)
- Develop **rural growth strategy** Create **partnership with relevant stakeholders** to implement



Coordina- tion

- Refine, syndicate, and align **provincial green growth strategy to existing government agency programs**
- **Syndicate Green Growth strategy with districts**, identify ongoing district activities and provide capacity building
- Catalogue ongoing NGO and civil society (e.g., pokjas, CSOs) activities; **identify successes and syndicate**
- Support **development of Green Growth perda**