

Minimizing Land Use Change Emissions In New Plantations



| the Case of PT. Karya Makmur Langgeng
("KML")



SUSTAINABILITY
WHAT'S NEXT?

Outline



SUSTAINABILITY
WHAT'S NEXT?

- RSPO Principle & Criteria (C7.8) for New plantings
- Carbon Stock Assessment
- LUC Emission
- Social, Economic and Legal Considerations



| Carbon Stock Assessment

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RSPO P&C for New Plantings


RT12
2014 Kuala Lumpur
MALAYSIA
AN EVENT BY RSPO

SUSTAINABILITY
WHAT'S NEXT?

Criteria

New plantation developments are designed to minimise net greenhouse gas emissions.

Indicators

7.8.1: The carbon stock of the proposed development area and major potential sources of emissions that may result directly from the development shall be identified and estimated. 

7.8.2: There shall be a plan to minimise net GHG emissions which takes into account avoidance of land areas with high carbon stocks and/or sequestration options.

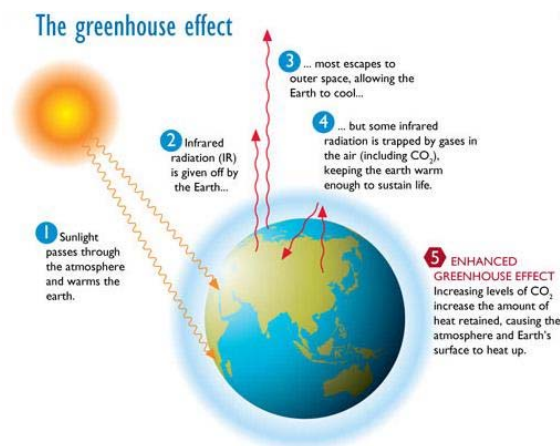
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Carbon Stock Assessment

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WHAT'S NEXT?

- Consistent with the RSPO P&C C7.8
- In response to heightened global awareness on sustainability & buyers' policies
- Carried out pilot Rapid HCS Assessment for *5 subsidiary companies* with Ata Marie & Aidenvironment
- *Committed for this 5 subsidiaries to:*
 - *No deforestation*
 - *No planting on peat*



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Scenario – Information on HCS

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SUSTAINABILITY
WHAT'S NEXT?

News Release 12 September 2014 - Bumitama Pilots High Carbon Stock Assessment - Extract

Summary of the HCS Assessment Report (the "Report") is as follows :

	PT Andalan Sukses Makmur	4 Other subsidiaries	Total
Area	7,000	48,190	55,190
HCV	94*	4,595	4,689
HCS**	2,469	5,990	8,459
Peat ***	1,756	926	2,682
Agroforestry	-	16,567	16,567
Total developed & potential development area ****	4,437	37,605	42,042

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Scenario – Case Study “KML”



SUSTAINABILITY
WHAT'S NEXT?

Location	: Sub-district of Simpang Dua, Ketapang, West Kalimantan
Plantation Business Permit	: 16,700 ha
NPP Notification	: 16 Nov 2013 - 17 Dec 2013
Rapid HCS Assessment	: May – Aug 2014 (stop planting)
Peat Soil Delineation Survey	: May – Aug 2014

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Scenario – Case Study “KML”



SUSTAINABILITY
WHAT'S NEXT?

Base Case:

KML started land clearing and planting after NPP

- Receipt of query from NGO – adopted *communicative & engaging approach*
- Buyers shared on *“no deforestation and no peat”* policy
- Conducted Rapid HCS Assessment and Peat Soil Delineation Survey from May to August 2014 for 55,000 ha, one of which in KML (*HCS Approach*)

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Scenario – Case Study “KML”



SUSTAINABILITY
WHAT'S NEXT?

Scenario 1:


- Planned development area : *potential 12,500 ha (including +300 ha of shallow peat)*
- Permitted Area and plans for planting, *excluding HCV areas*

Scenario 2:

- Planned development area : *potential 6.581 ha*
- Permitted Area and plans for planting
 - *excluding HCV areas*
 - *avoiding high carbon stock (HCS) and peat areas*



| LUC Emission



**SUSTAINABILITY
WHAT'S NEXT?**


Scenario 1

Potential development area
: **12,500 ha**

Plan exclude Primary Forest and HCV Areas as published on RSPO website for NPP Notification

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Overlaying Maps

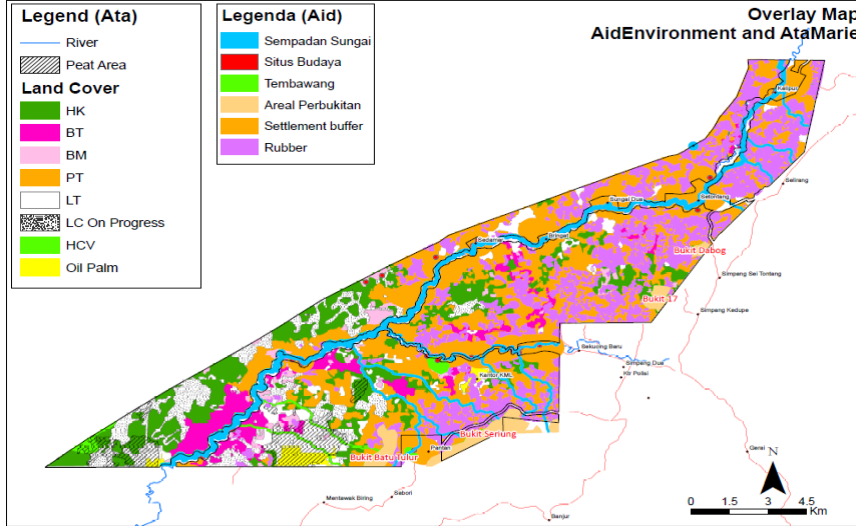


**SUSTAINABILITY
WHAT'S NEXT?**

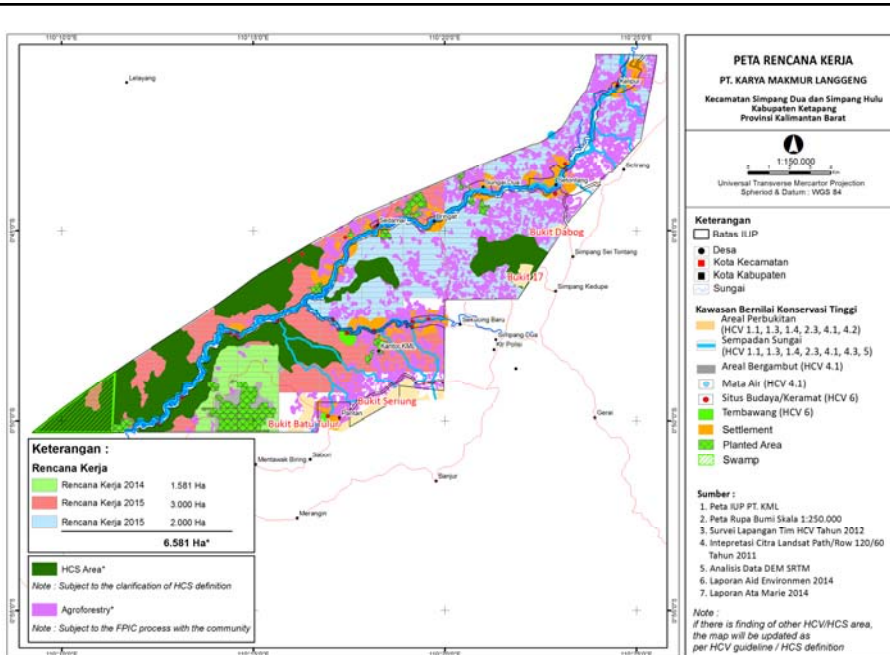
Participatory mapping updating HCV, villages & rubber areas using drones and other methods.

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Overlaying Maps



Participatory map overlay with HCS stratification map



Scenario 2
Potential development area : **6.581 ha**

Plan to minimise net GHG emissions - avoidance of HCS and Peat Areas (Agroforest)

Minimising LUC¹ Emission



SUSTAINABILITY
WHAT'S NEXT?

Land Cover	Base (ha)	S 1 (ha)	S 2 (ha)
Cat 1	12,002	10,025	6,581
Cat 2	4,698	2,475	0
Total	16,700	12,500	6,581

Total Carbon (Land Clearing)									
	Base Case 16,700 ha			Scenario 1 12,500 ha			Scenario 2 6,581 ha		
Land Cover	Ton	Ton/ha	eCo2/ha	Ton	Ton/ha	eCo2/ha	Ton	Ton/ha	eCo2/ha
BM/LT/PT/Others	1,190,412	99.2	364.0	578,888	57.7	211.9	384,476	58.4	214.4
HCV/HCS/Peat	681,563	145.1	532.4	278,192	112.4	412.5	-	-	-
Grand Total	1,871,974	112.1	411.4	857,080	68.6	251.6	384,476	58.4	214.4
Emission reduction by (%)						39%	48%		

Note : Calculated emission has not taken into consideration of Conservation Sequestration.

¹ LUC – Land Use Change



| Social, Economic & Legal Considerations

Participatory Mapping



SUSTAINABILITY
WHAT'S NEXT?

- Information on the main villages in KML. (Many sub villages like Sekucing Baru, Sungai Tontang, Paoh Concong, Kelipor, Pantan and Semandang Kanan)

Table 6. Population density in the surrounding villages PT KML

Village	Area (km ²)	Total people	Density (people/km ²)
Paoh Concong	259.1	1,336	5
Semandang Kanan	241.06	3,035	13
Kampar Sebomban	335.39	1,307	4

Source: BPS (2011)

Participatory Mapping



SUSTAINABILITY
WHAT'S NEXT?

- Some of the main concerns of the communities:**
 - Displacement of rubber forest ([agroforest covers almost 6,000 ha of KML](#))
 - Income earned (hereditary agricultural & rubber) roughly Rp 100,000 to 200,000 per day/family
 - Adat and customary law may be ignored
- Some expectations of the communities:**
 - Strong CSR activities on education, health and respect for local values and customs
 - Employment and engagement with local contractors
 - Improve infrastructure and clean water
 - Respect customary law and customary institution

Challenges – Social, Economic, Legal



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WHAT'S NEXT?

- The communities unhappy with lack of progress
- Illegal land clearing activities started by third parties.
- Government concern
- Plasma
- Legality
- Cost and Benefit
- Sustainability of initiative

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Challenges – Social, Economic, Legal



SUSTAINABILITY
WHAT'S NEXT?

Programmes:

- CSR programmes during or even prior to planting
- Reforestation programme - added income to the community
- Income generating projects from conservation (honey, fish rubber project and etc)

*What is key - functional landscapes, communication,
stakeholders involvement*

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If you need further information, please contact:


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Thank you!