Minimizing Land Use Change Emissions In New Plantations
| the Case of PT. Karya Makmur Langgeng ("KML")

Outline

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

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.
Carbon Stock Assessment

- Consistent with the RSPO P&C C7.8
- In response to heighten 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

Scenario – Information on HCS

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

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

<table>
<thead>
<tr>
<th></th>
<th>PT Andalan Sukses Makmur</th>
<th>4 Other subsidiaries</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area</td>
<td>7,000</td>
<td>48,190</td>
<td>55,190</td>
</tr>
<tr>
<td>HCV</td>
<td>94*</td>
<td>4,595</td>
<td>4,689</td>
</tr>
<tr>
<td>HCS**</td>
<td>2,469</td>
<td>5,990</td>
<td>8,459</td>
</tr>
<tr>
<td>Peat ***</td>
<td>1,756</td>
<td>926</td>
<td>2,682</td>
</tr>
<tr>
<td>Agroforestry</td>
<td>-</td>
<td>16,567</td>
<td>16,567</td>
</tr>
<tr>
<td>Total developed &amp; potential development area ****</td>
<td>4,437</td>
<td>37,605</td>
<td>42,042</td>
</tr>
</tbody>
</table>
**Scenario – Case Study “KML”**

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”**

**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*)
Scenario – Case Study “KML”

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
Scenario 1
Potential development area: **12,500 ha**

Plan exclude Primary Forest and HCV Areas as published on RSPO website for NPP Notification.
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 LUC\textsuperscript{1} Emission

<table>
<thead>
<tr>
<th>Land Cover</th>
<th>Base (ha)</th>
<th>S 1 (ha)</th>
<th>S 2 (ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cat 1</td>
<td>12,002</td>
<td>10,025</td>
<td>6,581</td>
</tr>
<tr>
<td>Cat 2</td>
<td>4,698</td>
<td>2,475</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>16,700</td>
<td>12,500</td>
<td>6,581</td>
</tr>
</tbody>
</table>

Total Carbon (Land Clearing)

<table>
<thead>
<tr>
<th>Land Cover</th>
<th>Base Case 16,700 ha</th>
<th>Scenario 1 12,500 ha</th>
<th>Scenario 2 6,581 ha</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMT/PT/Others</td>
<td>1,190,412 Ton</td>
<td>99.2 Ton/ha</td>
<td>364.0 eCo2/ha</td>
</tr>
<tr>
<td>HCS/HCY/Peat</td>
<td>681,563 Ton</td>
<td>145.1 Ton/ha</td>
<td>532.4 eCo2/ha</td>
</tr>
<tr>
<td>Grand Total</td>
<td>1,871,974 Ton</td>
<td>112.1 eCo2/ha</td>
<td>411.4 eCo2/ha</td>
</tr>
</tbody>
</table>

Emission reduction by (%)

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

\textsuperscript{1} LUC – Land Use Change

Social, Economic & Legal Considerations
Participatory Mapping

• 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

<table>
<thead>
<tr>
<th>Village</th>
<th>Area (km²)</th>
<th>Total people</th>
<th>Density (people/km²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paoh Concong</td>
<td>259.1</td>
<td>1,336</td>
<td>5</td>
</tr>
<tr>
<td>Semandang Kanan</td>
<td>241.06</td>
<td>3,035</td>
<td>13</td>
</tr>
<tr>
<td>Kampar Sebomban</td>
<td>335.39</td>
<td>1,307</td>
<td>4</td>
</tr>
</tbody>
</table>

Source: BPS (2011)

Participatory Mapping

• Some of the main concerns of the communities:
  o Displacement of rubber forest (agroforest covers almost 6,000 ha of KML)
  o Income earned (hereditary agricultural & rubber) roughly Rp 100,000 to 200,000 per day/family
  o Adat and customary law may be ignored

• Some expectations of the communities:
  o Strong CSR activities on education, health and respect for local values and customs
  o Employment and engagement with local contractors
  o Improve infrastructure and clean water
  o Respect customary law and customary institution
Challenges – Social, Economic, Legal

- 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

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*
If you need further information, please contact:

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Thank you!