Current Preparation of Nusantara Carbon Scheme (NCS):
Indonesia case on completing the building blocks
1. Mitigation policy framework and CDM status
2. Toward the new market mechanism(s)
3. Nusantara Carbon Scheme (NCS) development
4. Remarks
Policy framework on CC mitigation

Indonesia is committed to reduce its GHG emissions by 26% under BAU level in 2020 (up to 41% with international support).

Emission reduction is not compromising growth (26/7 vision).

Indicative list of emissions reduction activities are now available (RAN-GRK).

<table>
<thead>
<tr>
<th>Sector</th>
<th>Unilateral</th>
<th>Supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forestry and Peat</td>
<td>0.672</td>
<td>1.039</td>
</tr>
<tr>
<td>Waste</td>
<td>0.048</td>
<td>0.078</td>
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<tr>
<td>Energy and Transport</td>
<td>0.038</td>
<td>0.056</td>
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<tr>
<td>Agriculture</td>
<td>0.008</td>
<td>0.011</td>
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<tr>
<td>Industry</td>
<td>0.001</td>
<td>0.005</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>0.767</strong></td>
<td><strong>1.189</strong></td>
</tr>
</tbody>
</table>

(in GtCO2e) Source: PD#61/2011
Indonesian CDM status (as per Feb. 2013)

- 2004 - Indonesia ratifies Kyoto Protocol
- 2005 - Establishment of Indonesian DNA, NC-CDM, hosted in Ministry of Environment
- 2008 - Establishment of National Council on Climate Change (NCCC)
- 2009 - NC-CDM is hosted in NCCC
- 2012 - total 212 projects received DNA approval, 123 registered + 6 PoAs, 27 projects had CERs issuance of total 7.5 MtCO₂e

<table>
<thead>
<tr>
<th>Year</th>
<th>Biomass energy</th>
<th>Cement</th>
<th>EE Industry</th>
<th>EE supply side</th>
<th>Fossil fuel switch</th>
<th>Fugitive</th>
<th>Geothermal</th>
<th>Hydro</th>
<th>Landfill gas</th>
<th>Methane avoidance</th>
<th>N₂O</th>
<th>PFCs and SF₆</th>
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<tbody>
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<td>2005</td>
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<td>2008</td>
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<td>2009</td>
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<td>2010</td>
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<td>2011</td>
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<td>2012</td>
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</table>
Barriers/issues related to CDM

- Awareness and knowledge about CDM is not distributed equally among stakeholders
- High transaction cost associated with PDD development, validation/verification, additional processes during monitoring, etc. hampers small/micro projects to enter CDM
- Low CER price nowadays may not justify the extra efforts that must be done by the project developers
- Restriction from EU is back paddling CDM penetration in Indonesia
- Post-KP1 development cut the demand even further since non-KP2 participant is not allowed to transfer and/or acquire CERs

**Investment interest in emissions reduction/CDM projects is decreased significantly!**
### Expectations for future carbon market

- Market mechanism should be significant enough to support national low carbon growth
- Different mechanisms should be able to complement each other, e.g. mandatory – voluntary, domestic – international

<table>
<thead>
<tr>
<th>Voluntary Offset</th>
<th>Cap and Trade</th>
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</thead>
<tbody>
<tr>
<td>Politically easier to established</td>
<td>Need strong political decision</td>
</tr>
<tr>
<td>Doesn’t need a comprehensive technical preparation</td>
<td>Simpler operation but need a comprehensive preparation</td>
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<tr>
<td>Encourage people’s awareness</td>
<td>Can cover large emission reduction potential</td>
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<tr>
<td>Complex operation due its nature as project based</td>
<td>Encourage large scale green-investment</td>
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<tr>
<td>Relatively small coverage</td>
<td>Apprehension of ‘leakage’</td>
</tr>
</tbody>
</table>

*Domestic and/or regional market-initiatives should be encouraged to scale up mitigation actions whilst accommodating local conditions!*
Nusantara Carbon Scheme (NCS)

- A voluntary-based emissions reduction project’s certification and registration scheme
- Based on SNI ISO 14064 series
- Integrates emissions reduction and sustainable development
- Sectoral Scope:
  1. Renewable energy;
  2. Energy efficiency;
  3. Enhancement of industrial process;
  4. Sustainable waste management;
  5. Aforestation/reforestation;
  6. REDD+; and
  7. Sustainable agriculture.
Project’s Co-benefit

- Project must be able to proof its contribution to SD within these 3 categories and indicators as follow:

<table>
<thead>
<tr>
<th>Category / Indicator</th>
<th>Environment</th>
<th>Economic</th>
<th>Social</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Local ecological function</td>
<td>Community’s income</td>
<td>Access to public goods/facilities and services</td>
</tr>
<tr>
<td></td>
<td>Quantity and quality of natural resources</td>
<td>Jobs provision</td>
<td>Social integrity</td>
</tr>
<tr>
<td></td>
<td>Biodiversity</td>
<td></td>
<td>Relocation impact</td>
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<tr>
<td></td>
<td>Health and safety</td>
<td></td>
<td>Culture respect</td>
</tr>
</tbody>
</table>

- Project proponent can add more indicator according to its project characteristic

- Performance of SD contribution will give differentiation to NCS projects
Referring the indicator set, PP assesses the project potential impacts and risks

Is the project can give positive impact to SD?

Yes

Project not eligible to enter NCS

No

Is the project can give negative impact to SD?

Yes

Is the potential negative impact can be mitigated?

Yes

PP develop the negative impact mitigation plan

No

Tidak

PP develop the SD monitoring plan

In NCS, contribution to sustainable development must be monitored and verified!
NCS development status

- 2\textsuperscript{nd} draft of Requirements and Sustainable Development Guidelines are available (open for public comments)
- Development of accreditation scheme for validation/verification body (cooperation with the National Accreditation Board)
- Registry database under development
- Several methodologies and guidelines are under development with support from IGES

Methodologies under development:
- Boiler efficiency improvement
- Fuel switch to biomass residues
- Mangrove rehabilitation
- Hydropower
- Composting
- Cook stove efficiency improvement

Guidelines under development:
- Monitoring guideline
- Guideline to assess non-permanence for forestry projects
Potential pilot project:
Mangrove Reforestation and Coastal Green-belt Protection in Aceh and North Sumatra Province
Developer: Yagasu Foundation
Potential ER: 30 tCO2/ha/y (conservative estimation)
IGES Capacity Building FY 2012

- Development of methodologies and guidelines for Nusantara Carbon Scheme (on going)
- Training/Workshop on:
  - Accreditation/Validation/Verification according to SNI ISO 14064/5
  - Doha outcome related to market mechanisms
- Research on REDD+ and Future Market Mechanism (on going)
• NCS preparation is regarded as building blocks development of market mechanism

• There should be an international guideline to enable simultaneous development of different mechanisms in a convergent way

• Procedures and standard for market mechanism should be robust yet allows broad participation

• Indonesia will start from voluntary-based instrument (i.e. with NCS) whilst seeking the opportunities to scale up