REDD+ IN INDONESIA: LESSON LEARNED FROM REDD+ DEMONSTRATION ACTIVITY IN MERU BETIRI NATIONAL PARK

ITTO PD 519/08 Rev. 1 (F)

Ari Wibowo (Project Coordinator)
Email: ariwibowo61@yahoo.com

CENTER FOR CLIMATE CHANGE AND POLICY RESEARCH AND DEVELOPMENT
FORESTRY RESEARCH AND DEVELOPMENT AGENCY (FORDA)
MINISTRY OF ENVIRONMENT AND FORESTRY

Workshop on REDD+ AFOCO SITE VISIT
JEMBER, 25 FEBRUARY 2015
1. Country land area: app. 187 millions ha, population: app. 230 millions
2. 7 major islands (from total of > 16 thousands islands), > 300 tribes,
3. 33 provinces, > 300 districts, autonomous governance system
4. ± 60% of the country area are forest land/state forest (± 37% of them are degraded at various levels)
5. Forest transition from the east (Papua: low historical DD) to the west (Sumatera: high historical DD, Java: forest cover increases)
## Forestry Sector

<table>
<thead>
<tr>
<th></th>
<th>Conservation Forest</th>
<th>Protection Forest</th>
<th>Production Forest</th>
<th>Convertible Forest</th>
<th>Non Forest Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forested land</td>
<td>14,365</td>
<td>22,102</td>
<td>38,805</td>
<td>10,693</td>
<td>7,960</td>
</tr>
<tr>
<td>Non-forested land</td>
<td>4,009</td>
<td>5,622</td>
<td>18,404</td>
<td>11,057</td>
<td>44,163</td>
</tr>
<tr>
<td>Unidentified</td>
<td>1,502</td>
<td>2,328</td>
<td>3,706</td>
<td>981</td>
<td>2,216</td>
</tr>
<tr>
<td>Total</td>
<td>19,876</td>
<td>30,052</td>
<td>60,915</td>
<td>22,732</td>
<td>54,339</td>
</tr>
</tbody>
</table>
Forest transition in Indonesia

Forest cover

- Papua
- Sulawesi
- Kalimantan
- Sumatra
- Java

Undisturbed forests • Forest frontiers • Forest/agric. mosaics • Forest/plantations/ agric. mosaics

Time
TINGKAT DEFORESTASI INDONESIA

Dipakai untuk:
- Statistik Kehutanan
- RAN GRK Bappenas
- National Summit PI 2011
- National Summit PI 2012
- UNFCCC-COP 18, 2012
- UN Climate Summit 2014

<table>
<thead>
<tr>
<th>TAHUN</th>
<th>INDONESIA</th>
<th>KAWASAN HUTAN</th>
<th>NON KAWASAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990-1996</td>
<td>1,87</td>
<td>1,37</td>
<td>0,50</td>
</tr>
<tr>
<td>1996-2000</td>
<td>3,51</td>
<td>2,83</td>
<td>0,68</td>
</tr>
<tr>
<td>2000-2003</td>
<td>1,08</td>
<td>0,78</td>
<td>0,30</td>
</tr>
<tr>
<td>2003-2006</td>
<td>1,17</td>
<td>0,76</td>
<td>0,41</td>
</tr>
<tr>
<td>2006-2009</td>
<td>0,83</td>
<td>0,61</td>
<td>0,22</td>
</tr>
<tr>
<td>2009-2011</td>
<td>0,45</td>
<td>0,33</td>
<td>0,12</td>
</tr>
<tr>
<td>2011-2012</td>
<td>0,61</td>
<td>0,35</td>
<td>0,26</td>
</tr>
<tr>
<td>2012-2013</td>
<td>0,73</td>
<td>0,34</td>
<td>0,39</td>
</tr>
</tbody>
</table>
## Emission in Indonesia (SNC)

<table>
<thead>
<tr>
<th>Sektor</th>
<th>CO2 emission</th>
<th>CO2 removal</th>
<th>CH4</th>
<th>N2O</th>
<th>PFC</th>
<th>CO2e</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy</td>
<td>247,522</td>
<td></td>
<td>1,437</td>
<td>10</td>
<td></td>
<td>280,938</td>
</tr>
<tr>
<td>Industry</td>
<td>40,342</td>
<td></td>
<td>104</td>
<td>0.43</td>
<td>0.02</td>
<td>42,815</td>
</tr>
<tr>
<td>Agriculture</td>
<td>2,178</td>
<td></td>
<td>2,419</td>
<td>72</td>
<td></td>
<td>75,420</td>
</tr>
<tr>
<td>LUCF</td>
<td>1,060,766</td>
<td>411,593</td>
<td>3</td>
<td>0.08</td>
<td></td>
<td>649,254</td>
</tr>
<tr>
<td>Peat Fire*</td>
<td>172,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>172,000</td>
</tr>
<tr>
<td>Waste</td>
<td>1,662</td>
<td></td>
<td>7,294</td>
<td>8</td>
<td></td>
<td>157,328</td>
</tr>
<tr>
<td>TOTAL</td>
<td>1,524,472</td>
<td>411,593</td>
<td>236,388</td>
<td>28,341</td>
<td></td>
<td>1,377,754</td>
</tr>
</tbody>
</table>

**IPCC GL 2006**

- Peat Fire: 11%
- Waste: 12%
- Energy: 21%
- Industry: 3%
- Agriculture: 5%
- LUCF: 48%
Some Initiatives by donors

- IAFCP → KFCP, INCAS (Australia)
- Forest Carbon Partnership Facilities (FCPF by World Bank) → Carbon Fund (Province/Districts approach for Emission Reduction)
- LOI Indonesia-Norway
- Joint Crediting Mechanism (Japan)
- AFOCO (Korea)
- Germany (GIZ – Forclime)
- FIP
- JICA, IJ-REDD
- U.S.-Indonesia Partnership On Climate Change and Clean Energy
- UN-REDD
- Some DA’s
National Guidance for DA

► Equal distribution among regions and represent all biogeographical conditions,
► Commitment from local government,
► Pressure to the forests,
► Participation of Indigenous people and local communities,
► Potential Co-benefits (e.g. social, biodiversity).
Potential REDD+ projects

Murdiyarso (2010)
Learning DA: 5 years,
Results Based DA: 20-100 years
Learning DA can be improved to results based DA.
Project Summary

Name of DA:
Tropical Forest Conservation For Reducing Emissions from Deforestation and Forest Degradation and Enhancing Carbon Stocks in Meru Betiri National Park, Indonesia

Location: MBNP, East Java
Implementing Agency: FORDA
Proponents: MBNP, Puspijak, LATIN
Pilot Period: 2010-2014
Source of fund / budget: ITTO (Seven and i Holdings Company)/ US$ 814.590
Scope: MRV in Carbon Accounting, Community
Description of MBNP

- MBNP in two Districts: Jember (37.626 ha) and Banyuwangi (20.354 ha). Geography: 113°38’48” – 113°58’30” East dan 8°20’48” – 8°33’48” South
- Area: 58.000 ha. 2 enclave crop estates within the Park, PT Sukamade Baru 1098 ha and PT Bandealit 1057 ha.
- Represents ecosystem of low land tropical forest with high diversity. 499 species of flora (15 protected, 239 medicinal herbs). 217 species of wildlife (25 mammal, 8 reptil, 184 birds).
- Endemic Flora: Padmosari \((Rafflesia zollingeriana)\), Panthera pardus), Bos javanicus, Muntiacus muntjak, Pavo muticus and primates.
- The last habitat of Java Tiger \((Panthera tigris sondaicus)\).
Objective of DA REDD in MBNP

**General**
To contribute to REDD+ and to enhancing forest carbon stocks through enhanced community participation in conservation and management of the Meru Betiri National Park.

**Specific**
- To improve the livelihoods of local communities through participation in avoiding deforestation, degradation and biodiversity loss
- To develop a credible MRV for monitoring emission reductions from REDD+
Activities Related to Community

To increase participation and livelihood of community for REDD+

- Socialization
- Extension
- Training on MRV (climate change, mitigation, carbon accounting, resource based inventory etc)
- Institutional development
- Support of equipment, seedlings etc.
- Increase skill
- Facilitate cooperation and establish partnership
- Facilitate REDD+ scheme
Activities related to Carbon Accounting

Development of MRV system for carbon accounting
- Establishment of PSP for carbon accounting
- Land cover analysis
- Prepare baseline
- Preparing SOP for carbon, biodiversity and implementation of DA in conservation area
- Prepare database for carbon
- Assessment of methodology
- Prepare Project (Design) Document for VCS standard and pre-validation
- Registration by Ministry of Forestry
- Assessment for REDD+ financing including possibility for Plan Vivo Scheme
MAP OF PSP
ANALYSIS OF LANDCOVER CHANGE

Land cover 1997

Land cover 2001

Land cover 2005

Land cover 2010

Land cover 2007
Dissemination

1. Networking
   - Pamphlets
   - Website: new web site in 2013: http://www.puspijak.org/
   - Video:

2. Publication
   - General User
     - Brief Info No. 1 - 54
     - Photo Report
     - Report to Donor (Seven and i Holdings)
   - Scientific User
     - 29 Technical Reports
     - Bi-annual Reports
   - Decision Maker
     - Policy Brief
MINISTRY OF FORESTRY
OF THE REPUBLIC OF INDONESIA

CERTIFICATE OF APPRECIATION
AWARDED TO
SEVEN AND I HOLDINGS COMPANY

For the Contribution in Sustainability of Tropical Forest Through the Demonstration Activity of Tropical Forest Conservation for Reducing Emissions from Deforestation and Forest Degradation and Enhancing Carbon Stocks in Meru Betiri National Park, Indonesia.

JAKARTA, 30 DECEMBER 2014
DIRECTOR GENERAL
FORESTRY RESEARCH AND DEVELOPMENT AGENCY (FORDA)

PROF. DR. IR. SAN AFRI AWANG, M.Sc
Challenges related to DA REDD+ in MBNP towards result based REDD:

• Low deforestation rate from historical remote sensing data
• Possible enhancement of carbon stock through planting in rehabilitation zone
• Future activities considering the REDD project cycle of 20-100 years
• How to integrate MRV from site level to national;
• Readiness of institutions, implementation of activities and monitoring towards result based DA.
• Assignment of special zone for long term activity of community

Current Development

• Newly established Ministry of Environment and Forestry
Some outputs

- Registered by Minister of Forestry and produce guidance for REDD implementation in conservation area and National Standard for DA REDD+
- Implementation of C stock estimation involving community and students, for application to other areas
- Improvement of community awareness regarding climate change and conservation, as well as resource based inventory for better option in land management
- The increase of community’s income though cultivation of oyster mushroom andf others that results in their dependency to forest areas
- Learning for carbon trade following the VCS and Plan Vivo
- Some published materials including technical reports, technical guidance, brief info, video and others.
- Research/studies : UI, IPB, Birmingham University, Wageningen University, Korea, FRIM, Tokyo University, FORDA, UGM, UNS etc.
Lesson Learned About DA REDD in Indonesia

- DA REDD+ have been established representing various geographical/forest conditions, with scope of FMU, District, Province
- A need for clear guidance for the future of DA, such as on Registry, Monitoring, Reporting, Verification, contribution to national emission reduction, Incentive/Results Based Payment
- They have been running by themselves, some have completed
- End up as learning DA, how to continue as result based DA (SNI: DA REDD+)
- A need for more role of Govt, to register, to provide media for communication, finance scheme (carbon right and benefit sharing), and future direction.
Lesson Learned About DA REDD in MBNP

- DA REDD+ in MBNP representing DA in FMU of Conservation Area (National Park)
- DA in Conservation Areas have been facilitated through DG PHKA regulation/guidance, and some registered.
- After project completion some activities are still required for forest SFM
- Particular zone is needed to accommodate community activities and to increase C-stock
Lesson Learned:
Activities of DA REDD in MBNP related to Carbon

- Conservation forest in MBNP is relatively in good condition, high in carbon stock and has important biodiversity value
- Provide information on carbon stock of national park as conservation area, MRV system for monitoring carbon stock and low rate of deforestation
- Emission Reduction in MBNP: Avoiding Deforestation and degradation, enhancement of C-stock: in rehabilitation zone
- PSP’s are required to monitor carbon stock in forest areas (increase/decrease)
- Additionallity in REDD+: Current mechanism of REDD+ gives advantage for areas with high deforestation rate, meanwhile conservation area has small deforestation rate and high conservation value (biodiversity).
- A need of reward / incentive mechanism for areas with good conservation effort
- Availability of some voluntary standards, no mechanism yet for compliance scheme
Lesson Learned:
Activities of DA REDD in MBNP related to Community

► Community in and surrounding the MBNP is important stakeholder for REDD+ program.
► So far they have proven their willingness to participate in the program.
► The success of the program depends on community awareness and participation, therefore mechanism of REDD+ should consider community as main stakeholder, and the program should provide short and long term benefits to the community.
► Community needs long term assurance for their activity in MBNP areas under particular agreement with MBNP.
► Community involvement as important inputs for development of MRV system for the national level or other REDD program.
Potential Market/Incentives for REDD+:

- Compliance Market: UNFCCC → COP, under negotiation
- Voluntary Market: small and difficult (VCS, Plan Vivo).
- Regional/Bilateral Market: eg, JCM (Japan) and Korea ??
- National:
  - REDD+ Agency (FREDDI),
  - National Carbon Market (PKN)
  - National Fiscal/incentive mechanism,
  - CSR of private companies,
- Supported NAMAs: REDD+ as a part of NAMA/INDC
Closure

REDD is still in readiness phase and DA’s provide lesson learned for REDD+ before full implementation.

The DA is an example of a public-private partnership, can be Learning DA or Result based DA.

MBNP represents conservation area (national park) with small deforestation rate. it is a need for incentive/reward for areas with high conservation value (not only carbon benefit, but also considers biodiversity and community). Still a challenge for methodological issue for REDD+ (conservation, SFM). Possible incentive/market and voluntary standard to follow

Important involvement of community in DA REDD+, community needs long term assurance for land access
THANK YOU