Engaging sub-national political actors to reduce emissions from deforestation and forest degradation in Indonesia

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Money talks, but with regional accent

- Financial incentives preference forest clearing
  - Laws 25/1999 and 34/2000 and district licensing
  - Law 33/2004 and intergovernmental fiscal transfer
  - Village Law (6/2014) prioritizes village development plans

- Local institutions, networks, and standard operating procedures will (probably) abide

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### Indonesian Land Cover Change 2006 to 2014

<table>
<thead>
<tr>
<th>Year</th>
<th>Primary Forest</th>
<th>Secondary Forest</th>
<th>Production Forest (Timber + Kebun)</th>
<th>Agricultural Land</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>0.2598</td>
<td>0.2585</td>
<td>0.06604</td>
<td>0.2285</td>
</tr>
<tr>
<td>2009</td>
<td>0.2509</td>
<td>0.2515</td>
<td>0.07411</td>
<td>0.2327</td>
</tr>
<tr>
<td>2014</td>
<td>0.2343</td>
<td>0.24095</td>
<td>0.08566</td>
<td>0.2393</td>
</tr>
</tbody>
</table>
How to engage sub-national political actors in carbon investment?

• Four persistent hurdles:
  1. A history of financial incentives for extracting district resources (Barr et al. 2006, Nurfatriani et al. 2015)
  2. Emphasis on “carbon accounting” instead of land-use opportunity costs (Corbera 2012, Murray et al. 2015)
  3. Agency of sub-national political actors is often overlooked (McDermott et al. 2012, Mulyani and Jepson 2013)
  4. Minimal disbursement of carbon payments, to date, with none for carbon offsets (REDDX 2015)
How to engage sub-national political actors in carbon investment?

Source: Lemos et al 2012
How to harness sub-national political actors for carbon investment?

1. Provide information on resources ("Warehouse")
2. Provide information on markets ("Outlets")
3. Link actors with finances ("Transaction")

Source: Nurrochmat et al. 2010
Representing the forest landscape

<table>
<thead>
<tr>
<th>Data</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elevation (Slope)</td>
<td>SRTM-DEM</td>
</tr>
<tr>
<td>Population (Pop. Farming)</td>
<td>Central Statistics Agency</td>
</tr>
<tr>
<td>Forest Estate</td>
<td>Ministry of Environment and Forestry</td>
</tr>
<tr>
<td>Forest Management Unit</td>
<td>Ministry of Environment and Forestry</td>
</tr>
<tr>
<td>Land-Cover</td>
<td>Ministry of Environment and Forestry</td>
</tr>
<tr>
<td>Carbon (Above Ground, Below Ground, Total)</td>
<td>Ministry of Environment and Forestry</td>
</tr>
<tr>
<td>Roads (Area Nearby)</td>
<td>Ministry of Transportation</td>
</tr>
<tr>
<td>Travel Times (Nearest Sub-District/District/Province Capital, Forest Boundary)</td>
<td>SRTM-DEM/MOEF</td>
</tr>
<tr>
<td>Concession Areas (Mining, Plantation forests, Community forests, Transmigration)</td>
<td>Ministry of Environment and Forestry</td>
</tr>
</tbody>
</table>

- Additionality
  - Predicted probability of deforestation
  - Unprotected forest area
- Carbon Value
  - Tons of carbon per ha
- Cost
  - Nearest neighbor sampling land price
  - Opportunity cost model per village
Methodology

1. Generate a province-level map, with input from political actors, to catalogue potential carbon investments using three categories.

<table>
<thead>
<tr>
<th></th>
<th>Low Carbon Value</th>
<th>High Carbon Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Greater Additionality</strong></td>
<td>Low Emissions Land Use</td>
<td>Carbon Sink Areas (Kawasan Penyerap Karbon)</td>
</tr>
<tr>
<td></td>
<td>(Kawasan Pencegah Emisi Karbon)</td>
<td></td>
</tr>
<tr>
<td><strong>Little Additionality</strong></td>
<td>Other Use Area (Areal Penggunaan Lain)</td>
<td>Carbon Storage Areas (Kawasan Penyimpan Karbon)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Author’s Own
2. Provide information on potential carbon investments to sub-national political actors

Source: Nurrochmat et al. 2010
Discussion

1. Histories of sub-national resource extraction have strengthened sub-national networks and contributed to forest landscape change
   - Can these same networks and relationships be co-opted for conservation and/or sustainable production?

2. Through action research, we are seeking to empower sub-national actors to identify and develop diversified carbon investments
   - Is providing knowledge about “carbon assets” sufficient?

3. This is a small part of a larger project to align financial incentives to promote carbon investments and other “green economy” considerations
   - This work is nested within, and predicated upon, other socio-political challenges
Thank you

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Works Cited


