REDD+ and the Green Economy in the Asia-Pacific Region

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Outline

1. Forests and the green economy
2. Global forest cover change
3. Threats to forests
4. Need to better manage forests for climate change mitigation
5. Enter the concept of REDD
6. National REDD+ readiness and phases
7. World Bank and UN approaches to support REDD+ readiness
8. Financial support for REDD+ readiness and implementation
9. REDD+ in existing markets
10. REDD+ demonstration activities
11. IGES research on REDD+
   1. Community carbon accounting
   2. Quality governance standard: Nepal
12. Key issues for REDD+
1. Forests and the green economy

- Natural forests provide a range of ecosystem services that are vital to the green economy:
  - *Supporting services* – soil production and nutrient cycling;
  - *Provisioning services* – timber and non-timber products;
  - *Regulating services* – climate and hydrological regulation;
  - *Cultural services* – cultural, religious, recreational and scientific values.

- But, most forest services are never monetized, thus forests are overharvested or converted to other land uses that provide greater monetary values.

Source: UNFF, 2009 (http://www.slideshare.net/CIFOR/the-un-forum-on-forests-facilitating-and-catalyzing-sfm-financing)
2. Global forest cover change

- Almost half of Earth's original forest cover gone, much of it destroyed within past three decades (WRI 1997)
- Globally, on average 13 million hectares of forest were converted to other uses – mostly agriculture – or lost through natural events each year from 2000 to 2010 (FRA 2010).

Ten countries with largest annual net loss of forest area 2000-2010 (FRA 2010)

<table>
<thead>
<tr>
<th>Country</th>
<th>Annual Change (1,000 ha/yr)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>-2,642</td>
<td>-0.49</td>
</tr>
<tr>
<td>Australia</td>
<td>-562</td>
<td>-0.37</td>
</tr>
<tr>
<td>Indonesia</td>
<td>-498</td>
<td>-0.51</td>
</tr>
<tr>
<td>Nigeria</td>
<td>-410</td>
<td>-3.67</td>
</tr>
<tr>
<td>United Rep. of Tanzania</td>
<td>-403</td>
<td>-1.13</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>-327</td>
<td>-1.88</td>
</tr>
<tr>
<td>Dem. Rep. of the Congo</td>
<td>-311</td>
<td>-0.20</td>
</tr>
<tr>
<td>Myanmar</td>
<td>-310</td>
<td>-0.93</td>
</tr>
<tr>
<td>Bolivia</td>
<td>-290</td>
<td>-0.49</td>
</tr>
<tr>
<td>Venezuela</td>
<td>-288</td>
<td>-0.60</td>
</tr>
</tbody>
</table>

Source: Forest Resources Assessment 2010
3. Threats to forests

In Asia Pacific, only 15% of production forest and 7.2% of protection forests sustainably managed (ITTO 2006)

Regional variations in deforestation drivers

Source: Project Catalyst data analyzed by Rhett Butler; mongabay.com, 2009
4. The need to better manage forests for climate change mitigation

- The World’s forests cover 31% of land area & store more than 650 billion tonnes of carbon (FRA 2010).
- Forestry, as defined by the IPCC, is the third largest source of greenhouse gas emissions – larger than the entire global transport sector (Eliasch 2008).
- Deforestation produces an estimated 5.8 GtCO2 annually from deforestation. About 96 per cent of this is estimated to come from developing countries in the tropics (Eliasch 2008).

Source: IPCC, 2007
5. Enter the concept of REDD+

- **REDD+**: 
  - Puts a value on forests for the services they provide as carbon sinks and stores.
  - Provides financial incentives for measurable / verifiable reductions in GHG emission from deforestation & forest degradation and/or increases in GHG removals by standing forests.
  - Aims to make standing forests more valuable than alternative forms of land use, such as agriculture.
  - Measurement unit is tCO2e
- **REDD** = reduced emissions from **deforestation** and **degradation**
- “+” = **conservation** of forest carbon stocks, 4. **enhancement** of forest carbon stocks, **sustainable management** of forests
- Has a set of safeguards
- Can be policies and measures, e.g. regulating best practices for timber harvesting, or projects in a specific geographic area
- Should ultimately be implemented through a national framework, but can be developed in phases

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**Safeguards**

- Consistent with national forest programs, relevant international conventions / agreements
- Transparent & effective governance
- Respect knowledge & rights of indigenous peoples & local communities
- Full & effective participation
- Support conservation of natural forests & biological diversity
- Reduce reversals (non-permanence)
- Reduce emissions displacement (leakage)
6. National REDD+ Readiness – Elements and phases

- National REDD+ systems – common elements
- Reference emissions level
- National forest carbon accounting system
- Forest monitoring systems – remote sensing and ground based
- Strategies to reduce emissions / enhance carbon stocks
- Organisational framework
- Credit registry
- Regulatory framework
- System to monitor safeguards

**Phase 1**
- Development of national strategies or action plans, policies & measures, & capacity-building

**Phase 2**
- Implementation of national policies & measures & national strategies or action plans; that could include further capacity-building, technology development & transfer & results-based demonstration activities

**Phase 3**
- Fully measured, reported and verified results-based actions
7. World Bank & UN support for REDD+ readiness

**World Bank Forest Carbon Partnership Facility – 37 countries**

- **Step 1: Readiness Plan Idea Note**
  - Submit a “Readiness Plan Idea Note” (37 countries selected)

- **Step 2: Preparation of Readiness Plan**
  - Provides a framework for a country to set a clear plan, budget & schedule to achieve "REDD Readiness" 
  - Readiness plan developed from common vision of the role of REDD in national development, shared by high levels of national/sub-national government, civil society, land users, etc.

- **Step 3: Carbon Finance Mechanism**
  - ~5 countries to be selected for piloting incentive payments for REDD

**National Outputs:**
1. REDD strategy
2. National reference level
3. National MRV system

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**UN-REDD (FAO, UNDP & UNEP) – 14 countries**

- Promotes consultations, including with indigenous peoples & local communities
- Establishes linkages with other national programs – poverty, food security, etc.
- Provides Technical Advice - deforestation & forest degradation strategies; methods & tools for measurement
- Promotes REDD+ financing

supports processes for REDD+ readiness & contributes to the development of national REDD+ strategies, guided by principles of country ownership & leadership
8. Financial support for REDD+ readiness and implementation

<table>
<thead>
<tr>
<th>Indicative Interim Financing from Bilateral Sources</th>
<th>Source: FCPF brochure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia 120,000,000</td>
<td>Forest Carbon Partnership</td>
</tr>
<tr>
<td>Denmark 16,500,000</td>
<td>Facility</td>
</tr>
<tr>
<td>France 330,000,000</td>
<td>Readiness Mechanism</td>
</tr>
<tr>
<td>Germany 503,000,000</td>
<td>UN-REDD Programme</td>
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<tr>
<td>Japan 503,000,000</td>
<td></td>
</tr>
<tr>
<td>Norway 1,000,000,000</td>
<td></td>
</tr>
<tr>
<td>Spain 27,100,000</td>
<td></td>
</tr>
<tr>
<td>UK 450,000,000</td>
<td></td>
</tr>
<tr>
<td>US 1,000,000,000</td>
<td></td>
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<tr>
<td>Chad 4,500,000</td>
<td></td>
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<tr>
<td>Equador 6,000,000</td>
<td></td>
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<tr>
<td>Gabon 1,000,000</td>
<td></td>
</tr>
<tr>
<td>Indonesia 1,140,000,000</td>
<td></td>
</tr>
<tr>
<td>Lao PDR 1,200,000</td>
<td></td>
</tr>
<tr>
<td>Mexico 920,000,000</td>
<td></td>
</tr>
<tr>
<td>Nigeria 2,000,000</td>
<td></td>
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<tr>
<td>PNG 4,290,000</td>
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</tbody>
</table>

Received by developing countries

- Chad 4,500,000
- Equador 6,000,000
- Gabon 1,000,000
- Indonesia 1,140,000,000
- Lao PDR 1,200,000
- Mexico 920,000,000
- Nigeria 2,000,000
- PNG 4,290,000

Multilateral initiatives

- Forest Carbon Partnership
- Facility
- Readiness Mechanism 12,955,000
- UN-REDD Programme 55,904,673

Source: Intergovernmental taskforce survey, REDD+ Partnership 2010
## 9. REDD+ in existing markets

<table>
<thead>
<tr>
<th>Market</th>
<th>Reforestation</th>
<th>Avoided deforestation</th>
<th>Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joint Implementation</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Clean Development Mechanism</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>EU Emissions Trading Scheme</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>New South Wales GHG Abatement Scheme</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Regional GHG Initiative</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>New Zealand Emissions Trading Scheme</td>
<td>Yes</td>
<td>No (liability for exotic forest pre-1990)</td>
<td>No</td>
</tr>
<tr>
<td>California Climate Action Registry</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Chicago Climate Exchange</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Over-The-Counter</td>
<td>No</td>
<td>No common activities eligibility standard</td>
<td>Yes</td>
</tr>
</tbody>
</table>

### Compliance Markets 6,692

- **REDD/Avoided conversion**: 28%
- **Landfill methane**: 15%
- **Wind**: 11%
- **Afforestation / Reforestation**: 6%
- **Run-of-river hydro**: 6%
- **ODS (US based)**: 6%
- **Improved forest management**: 5%
- **Agricultural soil**: 3%
- **Biomass**: 3%
- **Livestock methane**: 3%
- **Forestry general**: 2%

### Voluntary Markets 131

- **Over-The-Counter**: 6%

**Source:** Peters-Stanley et. al, 2011

*Developed from Cortez & Stephen 2009; Peters-Stanley et. al, 2011*
10. REDD+ demonstration activities

- 2/CP.13 (2007) – encouraged demonstration activities, & provided indicative guidance
- 40 REDD+ demonstration activities in Asia Pacific as of Oct. 2009 (Cerbu et al. 2009)

Case study: Oddar Meanchey REDD+ Project – Cambodia

- Forest area: 67,783 Ha, 13 community forests
- Local participants: 10,036 families, 58 villages
- Fund support: Danida, CCI, Pact, UNDP, Oxfam-GB
- Deforestation rate: 2%, 2002-2006
- Deforestation drivers: Clearing for land sales & economic concessions, conversion to cropland/settlements, illegal logging, & clearance for large economic land concessions
  - Project strategies:
    - Forest fire protection
      Crackdown on encroachment and illegal logging activities
    - Forest enrichment through replanting and silviculture techniques
    - Woodfuel savings through improved cookstoves
    - Agricultural intensification and improvement of water supplies
- Expected carbon credit over 30 years: 7.1 mtCO₂
11. IGES Research on REDD+

The Institute for Global Environmental Strategies (IGES), established under an initiative of the Japanese government in 1998, is an international research institute conducting practical and innovative research for realising sustainable development in the Asia-Pacific region.

(www.iges.or.jp)

IGES research on REDD+

- Analysing international negotiations
- Database on REDD+
- Survey of national REDD+ readiness - PNG, Indonesia, Cambodia, Vietnam Laos
- Action research on community carbon accounting – PNG, Indonesia, Cambodia, Laos
- Quality-of-governance standard - Nepal
- Training manual on free prior informed consent
11.1 Community Carbon Accounting (CCA) Project

- **Project synopsis:** Together with local partners, IGES is developing & testing approaches in **Papua New Guinea, Indonesia, Laos** and **Cambodia** to engage local communities in monitoring their forest carbon stocks.
- **Aim:** Develop more participatory & sustainable approaches to REDD+ in which local communities play important roles & are rewarded for their roles.
- **Assumption:** Community involvement in carbon accounting will increase local understanding & ownership of REDD+, & will provide more sustainable local benefits.

**Methodology – Action Research**

- **Establish research team**
- **Consult with stakeholders (local govt, communities, others)**
- **Determine research site**
- **Raise awareness of community on Climate Change and REDD+ and the purpose of CCA**
- **Train community members who will participate in CCA**
- **Map and stratify the forests**
- **Estimate forest carbon stocks and efficiency of method**
- **Work with community to set up, measure and record the sample plots**
- **Feed back results to community**
- **Develop monitoring plan and decide next steps**
CCA Action Research in PNG
CCA Action Research in Cambodia
11.2 Quality of governance standard: Nepal

- **Objective:** Create a quality of governance standard that provides a comprehensive framework of principles, criteria, indicators, and verifiers that can be used to guide governance reform in the forest sector, including for design, implementation and reporting on REDD+

- **Methodology:**
  - Preliminary online questionnaire survey
  - Key informant interviews
  - National stakeholder forum

<table>
<thead>
<tr>
<th>Principle</th>
<th>Criterion</th>
<th>Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Meaningful participation”</td>
<td>Interest representation</td>
<td>Inclusiveness</td>
</tr>
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<td></td>
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<td>Equality</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Resources</td>
</tr>
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<td></td>
<td>Organisational responsibility</td>
<td>Accountability</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Transparency</td>
</tr>
<tr>
<td>“Productive deliberation”</td>
<td>Decision making</td>
<td>Democracy</td>
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<td>Agreement</td>
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<td>Dispute settlement</td>
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<td>Implementation</td>
<td>Behavioural change</td>
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<td>Problem solving</td>
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<td></td>
<td>Durability</td>
</tr>
</tbody>
</table>

*Source: Cadman, 2011*
13. Key issues for REDD+

- **International negotiations**
  - Agreement on whether REDD+ under UNFCCC can be financed through markets
  - International guidance to ensure comprehensive, systematic, and consistent implementation of safeguards

- **National and sub-national REDD+ preparations**
  - Institution building in countries preparing for REDD+:
    - High level political support
    - Multi-sectoral, multilevel (national and sub-national) and multi-stakeholder organisational frameworks for REDD+
  - Local level awareness campaigns: Climate change, REDD+, carbon trade
  - Capacity building in countries preparing for REDD+: Remote sensing, geographic information systems, land use modelling, land use & forest type classification, forest inventory, information systems management, interpreting international guidance, managing financial flows, reporting, safeguards
Thank you for your attention

For more information:
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