The Emerging Nested REDD+ Architecture

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Carbon emissions from tropical deforestation

- Long term: 50% Tropics, 50% Non-tropics
- 1990s: 100% Tropics, 0% Non-tropics

Houghton et al. 2005 in Moutinho and Schwartzman, Eds.
**REDD+**

**Reductions in Emissions from Deforestation and [forest] Degradation (+ Enhancement)**

- **UNFCCC**: Nation-wide with provisions for sub-national
- **US cap-and-trade**: Nation-wide with period of sub-national (Waxman-Markey, Kerry-Lieberman)
- **California cap-and-trade (AB32)**: State-wide, projects
The Advantages of Forest Carbon Projects

• Clear boundaries
• Manageable risk
• Independence of government
The Disadvantages of Forest Carbon Projects

• Baseline, leakage
• Do not address underlying causes through policy reform
• Difficult to achieve scale
• “Measles” syndrome
**Nesting REDD+ Architecture**

**Goals**
1. Scale neutral
2. Incentives on the ground
3. Full system participation

**Advantages:**
1. Policy-project integration at different jurisdictional levels
2. Potential for large-scale emissions reductions

**Challenges:**
1. Baseline error propagation
2. Top down? Bottom up?
3. Scale inter-dependencies
Challenge 1. Estimation errors.

- BAU error
- Reductions not credited
- Implementation error
Challenge 2: Top-down, bottom-up, hybrid?
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Challenge 3: Scale inter-dependency. If the nation fails to perform, are all states and projects disqualified?
The way forward.

• Systematic review of baseline and implementation estimation
• Broad participation
• Buffer against national non-performance
• *Ex ante* benefits to forest stakeholders
In the long run, project-level baselines used primarily to inform REDD program design at state level?
Today’s REDD+ investors... not enough

Interim REDD+ Finance ($4 billion through 2012); Norway (Amazon Fund)

Project-Level Voluntary Investments
REDD+ investors needed in 2015

National REDD Program

State REDD Program

Projects and Programs

ODA REDD+ Finance
($1B/year?)

Regulated Market (e.g. electric utilities within Cap-and-Trade)

Agricultural/Forestry Investors

Pension Funds

Carbon values bundled in commodities

Project-Level Voluntary Investments

credits, offsets
Brazil REDD: Deforestation reduction target has been exceeded, and could continue to decline through National Policy on Climate Change
The Governors’ Climate & Forest task force, launched by California, has united Governors to pressure federal governments in Brazil and Indonesia.
Mato Grosso: REDD Architecture under development

C-REDDs Allocated to Amazon States

Mato Grosso C-REDD Allocation

- Private Land Program
- Indigenous Land Program
- Protected Area Program
- Farm Settlement Program
- State Institutions/Governance
- C-REDD Buffer

100 MtCO2e

Indigenous Land Fund

Mato Grosso Indigenous Land Systemic Program
Indigenous Land Projects (Xingu, NW, etc.)

C-REDD Allocation to Other States

$ Regulated Entities, Other Investors

“C-REDDs”
Conclusions:

• Era of isolated, stand-alone projects is ending; credits will flow to nested projects and programs
• Special attention needed: baselines, implementation, broad participation, *ex ante* benefits,
• Public funding could cover costs of achieving crediting baseline; lower risk to private investors
• Brazil has achieved 1.4 GtCO2e reductions; effect of NAMA on provision of credits unclear