

# India's Policy towards REDD+: Dense Forest Ahead!

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## India's official attraction to REDD+

- REDD+ will be a **just reward** for India's forest conservation efforts that benefit the globe
- REDD+ will generate **large economic benefits** (3 billion USD over 3 decades)
- These benefits will be passed on to forest protecting communities, leading to **poverty alleviation**

# How should we evaluate REDD+?

- Climate effectiveness
- Fairness (*international*, internal)
- *Benefits* must exceed opportunity costs
- *Poverty alleviation*
- Impact on biodiversity & other environmental concerns
- Impact on democratic processes

# Two variants of REDD+ funding

- Funded by donor agencies:
  - no CERs given in return, so no loss of our 'low hanging fruit', "free" money
  - Similar to previous 'forestry sector' projects: can add other conditions (biodiv, poverty)
- Funded by carbon market:
  - CERs given in return, deducted from national cap, hence not "free"
  - Strictly market transaction, hard to impose other considerations
- Which one will prevail?
  - Free version only at pilot stage
  - Only carbon market can provide the big money

# Two variants of REDD+ structure

- Fully market-based: individual buyers contract with individual sellers (communities)
- Partially market-based: individual buyers contract with governments, who then pass on the returns to individual communities
- 2<sup>nd</sup> version will prevail because of leakage issue.
- For the community: **not** market-based (no competition amongst buyers)

# Climate effectiveness

- Potential of REDD = Contribution of Deforestation/Degradation to GHG emissions = 17% (assuming there is enough money to prevent all of this!)
- Potential of REDD+' = How much additional reforestation /growth is feasible, how much GHG reductions from that, and how much it will cost
  - Large uncertainties about growth rates of natural forests
  - Large uncertainties about area 'available':
    - 75 Mha of wastelands is myth
  - Cross-sectoral leakages cannot be stopped (e.g., LPG instead of firewood)
  - Opportunity cost is not zero, not even \$5/tC (see below)

# Poverty alleviation requirements

- Gross returns must be high
- Opportunity costs must be low
- Transaction costs must be low
- Returns must go to local communities
- Returns must go preferentially into the hands of the poor within local communities

# Gross returns: what are buyers willing to pay?

- 'Free' version:
  - Donors will continue to see this as 'additional', 'incentive', and not paying for 30 yrs: maybe Rs.15000/ha one time
- Carbon market:
  - DOES NOT EXIST
  - Will only exist if there is a global agreement
  - High prices only if global agreement is sufficiently onerous
  - Onerous agreement: implications for India?



# Gross returns & transaction costs

- Quantum of gross returns from carbon forestry:
  - \$50/tC amounts to only Rs 2000/ha/yr for the growing period (say 50 years)
  - Typical forest area available: 100 hhs has 100 ha (!), each hh gets Rs 2000/yr
- Transaction costs (Negotiating, Contracting, MONITORING!, implementing, paying)
  - Could be as much as 50% of final price (at low prices)

# Opportunity costs

- “Degraded” forests are often highly productive secondary forests
  - Forest-based incomes: Rs.2,000- Rs.12,000/hh/yr
    - JFMCs of WBengal: 1,100-5,500 Rs/ha/yr
  - large fraction: grazing & firewood collection
- ‘Regeneration’ is typically done through closure
- So “reforestation” or “forest regeneration” involves substantial opportunity costs for local users

## Conditions for "To the hands of the poor"

- Villagers must fully control forest carbon resource and its marketing
- Within village, marginalised groups must have strong say within village
- Poor must have capacity to make long-term investments, absorb opp.costs, engage with technicalities
- CDM on private lands must not swamp REDD+ on community lands

# To the hands of the poor: Indian situation

- Rights of village community not legally defined/granted (vis-à-vis state, vis-à-vis neighbouring community)
  - JFM does not provide for autonomous decision-making
  - CFR provisions of FRA not implemented
  - Full rights not clarified (e.g., timber, other services)
- Danger of elite capture, exacerbated by JFM
- Paternalistic state control => no local capacity (e.g., NTFP)
- Rich farmers will always out-compete through CDM (e.g., biofuels)

# International equity

- What is 'fair compensation' for India's contribution to mitigation?
  - Rights-based answer
  - Market economics answer
- We are not anywhere close to either

# Democratic governance

- Current state of forest governance highly undemocratic
- State-managed (non-market) REDD+ → only strengthens centralisation
- Market-based REDD+, in absence of community-level autonomy, does not work
- Either way: governance reform is strong pre-condition

# Impact of biodiversity conservation and other environmental benefits

- Carbon forestry is not intrinsically biodiversity friendly: fast growing tree plantations are best for carbon
- Carbon forestry can also have mixed effects on hydrological cycle
- If one adopts mixed forestry or native species, biodiv increases, but sequestration rates go down, \$\$ go down

# Summary

- REDD+ bound to be market-based
- Market does not exist, requires prior assignment of carbon rights
- Conditions for markets to work in a poverty-reducing manner do not exist:
  - No property rights to the poor
  - No sign of high returns that compensate for opportunity costs
  - No pro-poor institutional structures in place
- Tradeoffs with other ecosystem services also significant
- Democratic governance to make transparent trade-off decisions not in place



# Recommendations

- Enormous caution required
- Engagement in REDD+ itself is questionable
- Forest rights and governance reform should be absolute pre-condition (for non-market or market-based)
- Post-FRA, local capacities for democratic decision-making and market engagement need strengthening



# Shyamsunder & Reddy (IFS)

- Mean annual increment of India's forests is 0.5 t/ha/yr

# Mean Annual Increment under firewood & leaf harvest in W.Ghats

Sample betta plot [code]	Tree density [#/ha]	Tree basal area [sq.m/ha]	Standing woody AGB [t/ha]	Survivor increment [t/ha/yr]		Recruitment [t/ha/yr]		Twig regrowth [t/ha/yr]		Net live wood production [t/ha/yr]	
				Mean	SE	Mean	SE	Mean	SE	Low	High
SM-BETTA	359	12.6	37	0.9	0.0	0.1	0.0	0.2	0.1	1.0	1.4
BK-DVH	555	23.8	92	2.2	0.3	0.2	0.0	0.4	0.1	2.1	2.9
BK-LOP	371	13.3	48	1.3	0.1	0.1	0.0	0.2	0.1	1.3	1.7
AP-AVH	385	19.5	99	1.9	0.2	0.1	0.0	0.3	0.1	1.7	2.5
AP-GMH	444	29.1	156	2.2	0.3	0.1	0.0	0.4	0.1	1.9	2.8
GK-GBHAT	495	34.4	201	3.6	0.3	0.2	0.1	0.4	0.1	3.2	4.3
TK-GGH	257	11.7	47	1.1	0.1	0.1	0.0	0.2	0.0	1.0	1.4
TK-RTH	510	14.6	51	1.5	0.1	0.1	0.0	0.3	0.1	1.6	2.0