Getting REDDy

Mike Toman World Bank Research Department, Environment and Energy Team Helsinki, 20 May 2010

Unavoidable Acronyms

- GHG = greenhouse gas
- REDD = Reduced Deforestation and Degradation
- PES = "payment for environmental services"

How Does REDD Mechanism Fit Into Greenhouse Gas Policy Portfolio?

- Emphasis in earlier discussions of GHG abatement measures has been on <u>market-</u> <u>based</u> approaches to <u>curtail emissions</u>
 - Options for creating tradeable emissions allowances or credits (European Trading System)
 - Credits also for Afforestation/Reforestation (increasing net CO2 stored in biomass over time)

How does REDD Mechanism Fit Into GHG Mitigation Policy Portfolio?

- Focus of REDD is to <u>avoid potential emissions</u>
 - Strong direct role for national governments in designing and implementing REDD agreements with individual land users/managers
- Represents a form of <u>payment for</u> <u>environmental services</u> (PES)
 - A number of previous TFESSD grants have funded projects in this area

How Does PES Generally Work?

- System typically implemented <u>by government</u> and/or international bodies, pays individuals for:
 - Direct costs of protecting and environmental resource; and/or
 - Foregone income or consumption benefits if use of the environmental resource is reduced
- Examples: watershed protection, forest and park area maintenance, biodiversity protection
- Revenues come from budget or earmarked taxes

 unlike emissions trading
- Recipients have to demonstrate that the contractually agreed maintenance of the environmental resource is being done

Overview of REDD Approach

- Payments would be made to reduce existing deforestation, or to forestall future deforestation
 - Two different types of baselines
- Payments would be made ultimately <u>by</u> <u>developed countries</u> as a way to meet their agreed GHG mitigation obligations
 - Also motivated by broader sustainable development objectives
 - UN climate body likely would be involved also

Overview of REDD Approach

- Payments would be made <u>to developing</u> <u>countries</u> who would be responsible for carrying out national REDD programs
 - Nationwide plan seen as needed to "scale up" successfully, and prevent "leakage" (reduced deforestation in one place causing more elsewhere in the country
 - Payment would be made only on demonstration of agreed REDD achievements by receiving government

Overview of REDD Approach

- Receiving government in turn would take measures to require or induce REDD actions by individuals in charge of forest lands
 - REDD <u>process</u> is required to be inclusive and participatory (e.g. indigenous peoples)
 - How landholders would be led to reduce deforestation, and how the economic benefits might be distributed, remain unsettled

Key REDD "Mechanism Design" Questions

- 1. How would different payment mechanisms affect national-level cost and deforestation?
- 2. What are the pros and cons of different approaches by national governments to change landholder choices?
- 3. How should national baselines be defined given REDD objectives and differences among countries in patterns of deforestation?
- 4. What are the distributional impacts of different REDD designs?

Experience With PES Suggests Questions

- Defining services to be maintained
 - REDD: How will payments for maintaining carbon storage affect the composition of forest cover?
- Defining a baseline and measuring accomplishments over time
 - REDD: How might deforestation rates decline anyway? What about "leakage?"
- Setting payments high enough to get result
 - REDD: How much needs to be paid to reduce deforestation and is it cost-effective?

Project Overview (1)

- Point of departure is branch of economics concerned with ongoing contractual relationships ("repeat agency")
- Conceptual framework for judging effective REDD mechanism performance being built
 - Tied to a well-established simulation model for international timber markets

Project Overview (2)

- Qualitative predictions of the framework to be "experimentally tested in the lab"
 - Connect groups of students via the Internet to simulate the basics of different REDD mechanisms
 - Participants play the role of different governments under different REDD rules
 - Motivation is financial reward for success
 - Variation of rules and rewards gives insight on how different designs might work in real world
- Will use the same general approach to explore different intra-national mechanisms between government and landholders

Project Overview (3)

- Second part of the project involves "field tests" of findings from first part
 - Identify specific forest areas in several countries that could become part of REDD (with Bank Ops staff and country stakeholders)
 - Do a mock-up of different REDD approaches that seem promising to learn more about how they might work in practice
 - Several possible locations for mock-ups (still TBD)
 - Lessons learned to be captured in a variety of reports, written briefs, and workshop activities

Broader Significance of REDD for Sustainable Development

- Under what circumstances would REDD provide tangible and sustainable benefits to local forest-based communities?
 - How does REDD dovetail with other forest-based development efforts, including Community Based Forest Management?
- How much impact can REDD have for limiting GHGs?
 - Compare to other options that can combat climate change and help reduce poverty