

## The REDD Market Should Not End Up a Subprime House of Cards: Introducing a New REDD Architecture for Environmental Integrity

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At Cancun it was decided that “Reducing Emissions from Deforestation and Forest Degradation and the Role of Conservation, Sustainable Management of Forests and Enhancement of Forests Carbon Stocks in Developing Countries”, commonly called REDD+ or REDD, will have access to both public funding and market finance depending primarily upon the state of preparedness of the participating countries. While there remains a divergence of views between the developed and developing countries, their aggregated expectations are that the process should ensure environmental integrity of the carbon credits generated, enhance equity, ensure that the benefits reach the primary stakeholders including indigenous people, and promote efficient use of resources in reaching the mitigation objectives.<sup>1</sup>

It has been suggested that REDD would work only if the focus is on restoration of degraded forests, producing bioenergy and generating employment.<sup>2</sup> While important in themselves, for the REDD market bioenergy and jobs are mere byproduct with the only commodity on sale being the carbon credit as a measure of extent of mitigation of climate change achieved that is additional to what would have happened anyway, adjusted for carbon leakages and expressed in terms of

carbon dioxide sequestered from the atmosphere and stored in forests.

There is delay in the emergence of REDD carbon market on account of serious doubts about the true mitigation value, or the environmental integrity, of the REDD credits due to high uncertainties arising out of undetected leakages particularly those across country borders, and doubtful additionality due to inaccurate and imprecise baselines. The uncertainties in baselines owe their origin to rapidly changing business environment, heterogeneity of factors influencing baselines in different regions of a country with significantly different levels of development, and economic and political instability among many REDD candidate countries.

Carbon leakages can wipe away mitigation benefits under REDD achieved in a country. While those occurring within a country would be captured under the national monitoring and accounted for, the leakages across international borders could escape detection and affect the environmental integrity of the credits issued. So far no REDD mechanism has been proposed that can separate good credits of true mitigation value from those that could possibly be stained by leakages. The greatest concern of investors in such a market would be the fear of buying goods whose real worth is far less than that paid for, much like the subprime housing crisis of 2008 when good financial products of low risks were bundled with those with high risks and sold as composite products for leveraging, a financial innovation that brought doom to the participating banks.

A critical feature of international leakages is that it occurs only for commodities that can be accessed economically from alternate forest areas in some other country. Thus the deforestation and degradation caused by sustenance agriculture by local people, shifting cultivation, habitat expansion, forest fires, grazing, firewood collection, small timber and most of nontimber forest produce (NTFP) is rarely a cause of leakages across national boundaries. On the contrary, that caused by *large scale* production of timber, pulp, oil palm, rubber, beef, soya, bamboo, and a few nontimber produce could easily translocate to new custom territories and escape detection.

**Received:** August 15, 2011

**Accepted:** August 18, 2011

**Revised:** August 18, 2011

This feature suggests a possible REDD architecture involving zoning that can help ensure the environmental integrity of REDD market through physical isolation of areas with possibilities of international leakage and bundling similar emission causes together

for greater homogeneity and lower errors in baseline estimations, while also permitting publicly funded nonmarket REDD activities to function alongside the market based activities. For this purpose seven sectors are proposed for REDD+ as in the Table below:

**Table 1. Country Wide Zoning of REDD+ Activities by Sector**

sector	scope	identifying features
1	reducing deforestation from causes that have no international leakages	caused by sustenance agriculture, shifting cultivation, habitat expansion
2	reducing deforestation from causes that may have international leakages	caused by oil palm, beef production, agricultural exports
3	reducing forest degradation from causes that have no international leakages	caused by fires, grazing, firewood collection, small timber and locally used ntfp
4	reducing forest degradation from causes that may have international leakages	caused by timber extraction, paper and pulp, and few identified NTFP
5	enhancement of carbon stocks	undertaken through reforestation and afforestation. Excludes enhancement through forest management which would be a part of Sector 7. Will help integrate CDM in REDD
6	conservation of carbon stocks	undertaken through appropriate forest management and conservation practices. eligible only for public funding
7	sustainable forest management	undertaken through appropriate forest management. includes enhancement of carbon stocks through forest management. eligible only for public funding

Countries could opt for any or all of these seven sectors and the opted sectors should cover the entire country between them and be geographically exclusive which would thus also result in physical zoning of countries. The baselines for these sectors would be separate and could be aggregates of discrete sub-national sector baselines. With national baselines the credits generated by components that do not have any possibility of leakages across the national boundaries would be assured of environmental integrity. Sectors 2 and 4 would include all forest lands with possibilities of international leakages and will be subject to specially designed monitoring methodologies and deferred award of credits by two years to permit surveillance of delayed leakages across the country borders.

The Sectors 6 and 7 related to conservation of carbon stocks and sustainable forest management (SFM) should be eligible only for Public Funding. This is because these activities can not be measured in terms of output which for SFM is the total capital and productivity remaining intact across generations and, in the case of conservation, it is the carbon stock and biodiversity remaining constant over a long period. These practices are best rewarded at appropriate interim points in the process rather than waiting for the final product. Hence markets would not be able to address the needs of these sectors.

This procedure would ensure that instead of every REDD credit becoming suspect only the credits generated under specific sectors that have the possibility of such leakages would require special monitoring. And the market would discount those credits that have a higher probability of leakages unless the monitoring system is considered robust enough to allay the fears and would thus be able to ensure environmental integrity by punishing lapses in specific cases rather than discounting the entire range of credits produced under REDD market mechanism. This will also permit simultaneous operation of Fund based mechanism within same national boundaries in distinct geographical areas and enable incorporation of forestry projects under the CDM within the REDD framework.

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