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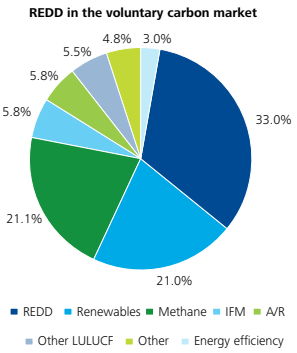
REDD+y or not: Forest carbon mitigation and the coming market-based mechanism

As an area for greenhouse gas (GHG) emission reduction, forestry has tremendous promise—yet programmatic responses have struggled to materialize to date. The challenge is largely methodological—can the ecosystem service of carbon sequestration provided by forests be accurately measured, managed, and monetized? The GHG emissions associated with trees are very different from those that come out of smokestacks so the degree of accuracy must be considered. Observers are hoping progress can be made on issues related to forest-carbon especially in regards to accounting and financing in Durban, South Africa at the Seventeenth Conference of the Parties (COP17) to the United Nations Framework Convention on Climate Change (UNFCCC).

State of REDD+ in the global carbon market



According to Bloomberg New Energy Finance, the global carbon market in 2010 was valued at approximately USD 120 Billion (EUR 94 B) with transaction volumes of 6,750 Million tonnes of carbon dioxide equivalent (MtCO2e). In relation to these figures, the latest State of the Forest Carbon Markets calculates that offset credits from forestry projects contracted for both compliance and voluntary purposes amounted to merely 30.1 MtCO2e with a total value of $178 million in 2010. Despite the limited role of forestry in the global carbon market, "REDD clearly surpassed the volume supplied by any other project type, supplying 19.5 MtCO2e" out of the total 59.7 MtCO2e in the voluntary marketplace. This is a sure sign that the attention that REDD+ is getting at the international climate negotiations is spurring new investment in pre-compliance projects.

While there is no sign of the EU ETS allowing REDD+ credits in the near term, California's carbon market is set to become the first compliance regime for these offsets. With the New Zealand (NZ) ETS already accepting forestry credits and the newly emerging Australian ETS poised to do the same, these markets have the potential to become significant sources of demand for future REDD+ crediting.

Sources: http://bnef.com/Download/pressreleases/133/pdffile/, http://www.forest-trends.org/documents/files/doc_2963.pdf

The conversion of forests through burning practices and decay of biomass that remains after logging is responsible for approximately 17 percent of anthropogenic GHG emissions.[1] In order to prevent human activity in relation to forests from becoming a net contributor to climate change, experts say that a minimum of a 50% reduction in global deforestation is needed by 2020.[2] This will reportedly require between USD 17–33 billion of investment per year. Despite the magnitude of the required investment, the long term benefits of doing so far outweigh the costs. It has been estimated that "costs of deforestation-related impacts of climate change on the world economy could reach USD 1 trillion per year by 2100.[3]" To put the role that forests play in reducing carbon in the atmosphere in perspective, taking action to address their destruction "could represent the equivalent of doubling current global nuclear energy capacity, or the construction of two million new wind turbines.[4]"

Forest carbon markets have had limited impact on emission reductions to date, as compliance regimes such as the European Union Emissions Trading Scheme (EU ETS) have restricted these types of carbon offsets due primarily to the issue of 'permanence' when it comes to carbon sequestration in standing timber. Afforestation/reforestation (A/R) projects eligible under the Clean Development Mechanism (CDM) attempted to resolve this concern by introducing a second-tier class of 'temporary' carbon credits, but these types of forestry offset projects have amounted to less than 1% of the CDM pipeline and none have actually issued certified emission reductions. In contrast, the voluntary carbon market where "story," about how offsets are generated and the impact of carbon finance on local communities, matters (sometimes at the expense of perfect GHG accounting) has seen the forestry sector secure a more substantial foothold at least in terms of the price for the associated credits. Furthermore, voluntary forest-carbon projects have utilized an effective system of buffer accounts to resolve the issue of permanence.

Of all forestry-related project types, the greatest carbon reduction potential comes from reduced emissions from deforestation and forest degradation also known as REDD. Developing countries responsible for the largest percentage of emissions attributed to land use change are Indonesia (33.6%), Brazil (18%), Malaysia (9.2%), Myanmar (5.6%) and the Democratic Republic of Congo (4.2%).[5] Recognizing the need for forest-based climate change mitigation, the UNFCCC has been working to develop a REDD+ mechanism to finance actions in developing countries especially those listed above. The "+"denotes that these projects can include activities beyond the standard REDD project interventions. With the concept's introduction in the Bali Action Plan, REDD+ gained significant momentum at COP15 in Copenhagen when developed countries such as Japan, Norway, U.K. and U.S. committed to providing USD 4.2 billion in fast-start financing dedicated to building REDD+ readiness.

At COP16, the Cancun Agreements laid down the foundations for the current state of REDD+ in regards to eligible activities, country requirements, and a phased approach to implementation. Per the Agreements, REDD+ includes the following five activities:

- Reducing emissions from deforestation;
- Reducing emissions from forest degradation;
- Conservation of forest carbon stocks;
- Sustainable management of forests; and
- Enhancement of forest carbon stocks

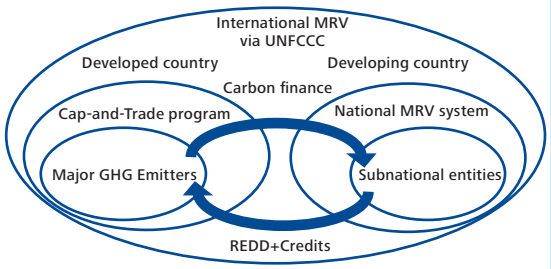
In order to partake in REDD+ transactions, developing countries have agreed to put together a national action plan, establish reference levels for deforestation, and create a monitoring, reporting and verification (MRV) system. With regards to the implementation schedule for REDD+ initiatives,

1. http://www.ipcc.ch/pdf/assessment-report/ar4/wg3/ar4-wg3-ts.pdf
2. http://www.unepfi.org/fileadmin/documents/reddysetgrow.pdf
3. http://www.official-documents.gov.uk/document/other/9780108507632/9780108507632.pdf
4. http://www.princeton.edu/mae/people/faculty/socolow/Science-2004-SW-1100103-PAPER-AND-SOM.pdf
5. http://www.cifor.org/publications/pdf_files/Papers/PVerchot0901.pdf

capacity building will occur in Phase 1, policy implementation in Phase 2, and a 'performance-based payment' system will come online in Phase 3. Despite not explicitly mentioned in the text, there is an implied expectation that some form of a market-based crediting mechanism will be devised for the third phase. However, some observers doubt whether carbon markets will be able to deliver the results that REDD+ promises.[6]

Two primary vehicles and sources can be used to pay for REDD+ activities. First, bilateral/multilateral funding vehicles can raise climate finance via taxpayers in developed countries. Second, REDD+ crediting mechanisms can be established to raise finance via the global carbon market with funding coming from polluters in economies with emission reduction obligations. In light of an investment gap of approximately USD 30 billion per year required to half global deforestation, many observers of the UNFCCC process are calling for greater private sector engagement through market-based REDD+ crediting.

Nested approach to REDD+catalyzes direct private sector engagement and finance



Source: http://www.unepfi.org/fileadmin/documents/reddysetgrowII.pdf

To make REDD+ crediting work, the appropriate reference levels must be established and GHG accounting methods settled. Only then can the crucial issue of whether credits for emission reductions will be awarded to national governments or subnational implementing entities including private sector actors be decided. As a compromise to these programmatic issues, a "nested approach" that involves subnational crediting with review on a national scale is increasingly becoming the preferred way forward for standards organizations, policymakers, and project developers. Most importantly, a nested crediting approach at the activity level would enable the proper levels of private capital to flow into REDD+ activities.

At the climate negotiations in Durban, numerous challenges surrounding REDD+ will confront the UNFCCC:

- Reaching a common definition of what constitutes a forest
- Establishing national vs. subnational reference levels for deforestation
- Determining GHG measurement and accounting methods for forestry activities
- Addressing 'permanence' of forest-carbon reductions
- Overcoming concern around 'commodification' of forests
- Accepting critical role markets play in mobilizing private-sector finance

Key questions to keep in mind during COP17 regarding REDD+ include: Will a crediting mechanism in fact be established? If so, will crediting occur at the national or subnational level? Also, how will REDD+ interact with the proposed system of Nationally Appropriate Mitigation Actions (NAMAs)?

Implications for business

- **Understand—and leverage—your "forest profile."** It will be increasingly important for companies to showcase what they are doing to combat climate change specifically when it comes to deforestation. Corporate leaders should make an effort to understand whether their business currently has forest holdings. If it does, leadership should know whether they are eligible for REDD+ activities. Understanding how a company currently values its ecosystem assets such as forests will become increasingly prevalent in the future.

- **Develop partnerships to promote climate-friendly business.** Organizations such as the UN-REDD Programme[7] and the Forest Carbon Partnership Facility[8] (FCPF) of the World Bank will be actively looking to develop partnerships with the private sector to promote a business environment that takes into account multiple stakeholders. These sorts of alliances will be important vehicles for businesses to pursue climate action that is in their enlightened self-interest.

- **Pursue opportunities to invest in global forests.** What are the main reasons for doing so? Profit, portfolio diversification, compliance, corporate social responsibility, and broader sustainability.[9] For those companies looking to hedge risk of future carbon regulations, companies can make strategic investments in funding vehicles expected to generate 'compliance-grade' REDD+ credits such as the FCPF Carbon Fund. Examples of companies making direct investments in REDD+ projects are also starting to emerge. Alternatively, forest bonds are gaining traction as an attractive instrument for scaling up capital flows from the private sector.[10] Businesses will need to have a good understanding of the sources and types of risk inherent in these instruments.

6. http://bit.ly/fMzpJ4
7. http://www.un-redd.org/
8. http://www.forestcarbonpartnership.org/fcp/
9. http://www.unepfi.org/fileadmin/documents/reddysetgrow.pdf
10. http://bit.ly/pZrMe8

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