

Trends in Global Forest Carbon Risk Management Approaches

“When it comes to climate change, we can pay now or pay later. But we’re going to pay.” Journalist Marc Gunther¹

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Combatting climate change requires urgent action to address deforestation threats to forests worldwide. This is because deforestation and degradation of forests account for approximately 20% of annual CO₂ emissions². Private capital is an essential component for funding reversals of this trend by achieving emissions reductions and mobilizing investment from financial institutions towards these activities through market-based tradable assets, such as carbon credits and other green commodities. In fact, estimates from the Stern Review on the Economics of Climate Change indicate that up to \$33 billion per year is needed to half deforestation up to 2030.

The key to mobilizing this required private capital is effectively applying existing financial risk management tools. Each of the following approaches demonstrates the private sector’s growing appetite for unlocking investment in forest carbon projects. Let us explain.

Demand exists for forest carbon credits. On the return side, over the past few years, the forest carbon market has seen significant growth for three main project types: Afforestation/Reforestation (A/R), Reducing Emissions from Deforestation and Degradation (REDD) and Improved Forest Management (IFM). Within the voluntary carbon market, these forest project types all trade above the market average price of \$6.60/metric ton CO₂ equivalent. REDD and IFM averaging \$12/metric ton and A/R projects commanding \$9/metric ton.³ Buyer demand comes from global companies seeking to offset emissions and promote sustainable development for corporate social responsibility (CSR) purposes. Also, bilateral structures are being developed in California, South Korea, and Australia and elsewhere to enable forest carbon credits to be used for compliance emissions trading schemes emerging in these jurisdictions. Additionally, there has been recent progress at the United Nations level to produce a mechanism for generating credits for activities such as Reduced Emissions from Deforestation and Degradation (REDD) in developing countries.

On the other hand, on the risk side, techniques are available to mitigate risks that are just now being explored and applied.⁴ Forest carbon projects are perceived

¹ <http://www.marcgunther.com/2012/07/15/corn-catastrophes-and-climate/>

² Source: UN-REDD Programme www.un-redd.org

³ Molly Peters Stanley, State of the Voluntary Carbon Market 2012, Ecosystems Marketplace pp.21

⁴ For a precise technical analysis, please review Thoumi, Prell, and Kent’s [Global Forest Carbon Financial Risk Management Best Practices: Discussion Workshop Paper](#).

as risky yet most risks can be easily covered, mitigating investor liability. Risks categories include financial, business, political, and permanence risks. These risk management techniques are growing rapidly as institutions borrow tools available from other sectors.

Financial Risk Management Trends

Functioning markets require a level of trust in fulfillment of obligations by transacting parties. The use of sales registries is an important mitigation tool for transaction non-fulfillment risk as it provides access to critical information to potential buyers and tracking credit ownership. Tracking and monitoring services are available for environmental commodities, such as the Markit Environmental Registry. This increased transparency lubricates market activity providing a level of assurance and confidence for institutional investors to know what they have purchased and so that they can manage counterparty credit and clearing risks.

Institutions are also entering multiple-party escrow agreements, offered by Bank of America and others, adding conditions to a potential purchase prior to a transaction taking place resulting in providing clarity for clearing and settlement.

Business Risk Management Trends

Business risks management tools to covering errors and omissions (E&O) and directors and officers (D&O) business liability are now available from specialized firms such as C.D. Rigdon & Associates and others.

The errors and omissions (E&O) policy covers injury and property damage for a third party under general business liability insurance, on-site operational claims related to pollution, and professional liability during operations. In addition, firms have the option to purchase Directors and Officers (D&O) insurance that protects against legal risks to directors.

For US-based projects and projects within California's emerging emissions trading program, conservation easements serve as a legal tool for ensuring that land-use does not change in the future while retaining current ownership of the property.

Political Risk Management Trends

Project financing carries politically driven risks, particularly when financing occurs internationally. In order to reverse deforestation effectively, large investment flows will be required between the developed nations and developing countries. Therefore, project developers need products to cover political, expropriation, and currency convertibility risks, typically offered by government and multilateral channels.

The Overseas Private Investment Corporation (OPIC) has developed political risk

http://www.theredddesk.org/sites/default/files/doc-attachments/Global_Forest_Carbon_Financial_Risk_Management_Best_Practices_Final_Dec_2010.pdf

insurance available to US investors investing in international forest-based projects overseas. The package includes coverage against nonpayment risks, policy change risks on taxation or critical regulation, legal and licensing risks, and political violence risks, and others. Importantly, local currency risks can reduce appetite to undertake international projects of these types, and in addition to using financial instruments to secure exchange rates (e.g., options or swaps), OPIC also protects against the inability to convert earnings in times of political strife.

There are possibilities of utilizing other political insurance channels such as the World Bank's Multilateral Investment Guarantee Agency (MIGA) for foreign forest-based investments.

Permanence Risk Management Trends

Forests are terrestrial sinks for carbon, and therefore projects rely on increasing carbon stored above a defined Business As Usual (BAU) scenario. However, disturbances caused by human intervention or nature can re-emit the carbon dioxide stored. Therefore forest-based emissions exhibit permanence risk. There are a number of methods that can be used to protect against the financial implications of non-permanence.

First, a number of global accepted standards, such as the American Carbon Registry (ACR), the Verified Carbon Standard (VCS) and the Climate Action Reserve (CAR), require that projects incorporate buffers to address permanence. A buffer pool sets aside a percentage of credits issued for use to compensate against events that re-emit stored carbon unexpectedly. For example, VCS uses a commingled pooled buffer of all globally registered projects that is withheld and deployed in the event of reversals in carbon stocks. The withholding percentage for each project is determined based on the risk of natural disaster or human intervention within the project boundary based on the host-country's credit risk. In the event of reversals, credits regardless of credit risk and host-country origination are issued to replace reversed credits. While these commingled buffer pools "act as insurance" they do not yet apply risk management best practices given the newness of the market structures.

Second, as an alternative to requiring buffers for these projects from the standards who register projects, commercial insurance products have emerged to assume the risk of force majeure. Companies such as Forest Re offer protection against reversals caused by fire and natural disaster occurring within the project boundary, including financial reimbursement of value of lost carbon credits.

Third, under the United Nations' Clean Development Mechanism (CDM), Afforestation/Reforestation projects are able to be credited using an alternative asset class to other approved methodologies for emissions reductions. Two credit types are available, temporary CERs (also known as tCERs), which expire

at the end of each commitment period of the Kyoto Protocol and must be replaced for accounting national emissions. The other type is long-term CERs (ICERs), which expire at the end of the project's lifespan. The purpose behind this approach is to recognize the potential for reversals in the emission reductions credited in Afforestation/Reforestation projects through the CDM.

All of the risks identified require diligence and prudent oversight to find the appropriate risk management tools to deploy. Utilizing a well-considered and diligent management approach to handling the risks of forest-based project financing and project implementation improve the robustness of investments to handle the risks identified. In conjunction with strong policy signals to drive institutional investment over the long-term in forest conservation and improved land-use practices, forest carbon can realize its long-term potential as an established alternate asset class deploying capital towards global sustainable development while mitigating climate change.