

Rainforest Roulette? Why creating a forest carbon offset market is a risky bet for REDD

"For all their power and vitality, markets are only tools. They make a good servant but a bad master."¹

Key Messages

This briefing argues that the creation of an international forest carbon market to finance REDD would be a sub-prime option for the climate, tropical forests and forest peoples. It is structured around five main points:

- 1 It is **highly questionable** whether a forest carbon market will reduce the cost of tackling climate change or generate billions for forest protection.
- 2 The proposed forest carbon market is **distorting 'readiness' preparations** for REDD so that they are more focused on creating a tradable asset than outcomes that are beneficial for forests, forest peoples and biodiversity.
- 3 The **ownership of forest carbon** – the underlying asset of the proposed market – is contested and unclear, and its trade is particularly susceptible to fraud.
- 4 Potential REDD emissions reductions credits **may not represent genuine reductions** in greenhouse gas emissions, due to inflated baselines and leakage. Trading them in an offset market could lead to increased total global carbon emissions, and prolong existing heavily polluting activities.
- 5 **Alternative financing options** and approaches exist and are viable.

This briefing is the first in a two-part series. The second will look in more depth at possible alternatives to the carbon market for financing forest protection.

Introduction

The concept of REDD – the aim of which is to reduce emissions from deforestation and forest degradation – was first discussed at the international level in 2005 (see Box 1 for more background). In 2007, it was included formally in the negotiating agenda of the UNFCCC (United Nations Framework Convention on Climate Change) in the Bali Action Plan; and then, in 2010 and 2011, agreements were made on some aspects of REDD in the Cancun Agreements and the Durban Platform respectively.

Of all the issues in REDD negotiations, the one that has most divided negotiators and observers has been how REDD should be funded, and whether this should be through a forest carbon market. The final text from Durban states that both "appropriate market-based approaches" and "non-market-based approaches" could be developed. The Durban text proposes a set of activities (consultation of governments and observers, a technical paper and workshop on the question) with a view to a decision on REDD finance at the UNFCCC meeting in Doha, Qatar at the end 2012.²

1. Claims of cost-effectiveness of forest carbon markets are highly questionable

Trading forest carbon credits in an offset market has been promoted as a cost-effective option for tackling climate change that would raise billions for protecting forests. The promise of a forest carbon market for REDD was summarised well by Mark Tercek, CEO of The Nature Conservancy in 2009: "Imagine a market that could provide billions of dollars for replanting trees, protecting standing forests, and improving the way timber

Box 1: REDD basics and background

Deforestation and forest degradation are estimated to contribute between 12% and 18% of greenhouse gas (GHG) emissions, which cause climate change. Parties to the UNFCCC agreed in Bali in December 2007 to explore policies and financial incentives that would reduce emissions from deforestation and forest degradation (REDD). More than 40 national governments are in the process of creating national REDD strategies, in collaboration with the World Bank-managed Forest Carbon Partnership Facility (FCPF), the Forest Investment Programme (FIP) and the UN-REDD programme, amongst others. Many other 'voluntary' sub-national REDD projects are already operational outside this framework and are currently distinct from the proposed 'compliance' forest carbon market that is the focus of this report. Supporters of REDD see it as a potential 'win-win' mechanism that would help reduce deforestation and degradation, improve livelihoods of forest communities, protect biodiversity, and reduce the cost of tackling climate change.

is harvested. That is what we are talking about when we talk about the potential of carbon markets, and the role forest carbon might play in them".³ However, there are three main problems with this analysis.

First, reducing emissions from deforestation and degradation is not as cheap as was thought. As argued in a previous briefing by Rainforest Foundation UK,⁴ many reports on the cost effectiveness of forest carbon trading through REDD, such as those by McKinsey and Company, were based on estimations that only took into account one type of cost ("opportunity costs," which are the projected financial benefits that a landowner would forego by not destroying or degrading forests) and excluded other unavoidable costs (such as "transaction and implementation costs"). Evidence from on-the-ground projects shows that these latter costs are likely to be over 40% of project budgets. Although McKinsey has stood by their reports, they stated last year that their figures "do not necessarily reflect the full costs of implementing these initiatives" and some policy options "could be significantly more expensive than [we] suggested".⁵

Second, it is estimated that carbon traders will capture 40% or more of REDD finance. *The Eliasch Review* produced in 2008 for the UK Government was one of the few early reports on REDD to take into account a broader range of costs. The Review commissioned runs of two prominent models which estimated that in one scenario \$9 billion per year would be captured in "rent" or profit for forest carbon traders out of a total cost of \$22 billion,

and in a second scenario \$18 billion out of a total cost of \$33 billion.⁶ Thus, between 41% and 55% of total costs are estimated to go to private sector profit if the forest carbon market is the chosen financing option.

Third, existing carbon and other markets indicate that only a small percentage of total funding would be likely to trickle down to the actual projects. Taking the example of the EU milk market, as highlighted by The Munden Project report on REDD and forest carbon markets in 2011, only an estimated 3% of the final sale value reaches the producers, with intermediaries and traders capturing most of the value.⁷ The Climate Markets and Investors Association (CMIA) criticised the Munden Project for ignoring "existing carbon markets" in their report and cited the example of the UN's Clean Development Mechanism (CDM).⁸ However, experience of carbon trading in the CDM shows that the poorest countries are largely sidelined, the bulk of the market is in secondary not primary trading and less than 30% of the final sale price of carbon offsets goes back to the project (see Box 2). If this situation is repeated in a REDD forest carbon market, little of the money would go to where it is most needed.

This section has briefly highlighted three reasons why claims made for the cost-effectiveness of forest carbon trading through REDD are highly questionable. It suggests that many costs involved in forest carbon trading have been ignored, that intermediaries and carbon traders are likely to capture the most value from the market leaving little for actual implementation of projects, and experience from the CDM supports this analysis. More research would be needed to compare the costs of directly reducing emissions from industrial sources against generating and selling credits through a forest carbon market.

2. The prospect of a forest carbon market is distorting REDD preparation

Most stakeholders now agree that REDD will only be a success if it has positive impacts on biodiversity and forest peoples, not only on reducing carbon emissions. In the Cancun Agreements governments agreed to "promote and support" the "respect for the knowledge and rights of indigenous peoples and members of local communities" and actions that are "consistent with the conservation of natural forests and biological diversity".¹³ Similarly, many major donors' funding for REDD is linked to poverty alleviation and/or biodiversity protection.

However, this section argues that the prospect of a global forest carbon market, as the anticipated expression of the final 'phase' of REDD development, is distorting publicly-funded REDD preparation activities. It is slanting 'REDD-readiness' efforts towards the creation of the infrastructure, institutions and technology to turn forest carbon into a tradable asset, rather than promoting outcomes that are beneficial for

Box 2: How is carbon finance shared through the Clean Development Mechanism (CDM)?

The experience of the main existing carbon market operating in the developing world, the CDM, suggests that carbon markets are, in fact, a relatively inefficient way of channelling funding to mitigation actions.

Intermediaries gain more benefit than project developers: Figures from *Carbon Retirement* show that only 28% of the final price paid for CDM carbon credits goes to “setting up and running the project”, and that primary buyers have “the largest cut in the process”. The price mark-up from primary buyer to final buyer is, on average, 40%.⁹ Further, figures included in *The Eliasch Review* state that transaction costs in the CDM may be up to 53% of total project costs.¹⁰

Least developed countries are sidelined: Of the near 3,000 projects registered in the CDM up to April 2011, 44% are in China, the world’s second largest economy, and 21% in India; these two countries alone account for 65% of projects. No least developed country has even 2% of projects.¹¹

More trade in derivatives than primary market: According to World Bank estimates, between 2005 and 2010 only 28% of the trading in credits derived from the CDM was in the primary market, with direct relevance to project finance, and 72% was in the secondary markets, used to hedge exposure to the market and to speculate on fluctuations in the carbon price. In 2010, 92% of CDM credit trade occurred in the secondary market.¹² Trading in the secondary market has negligible direct benefit for emissions reductions from industrial sources or for protecting forests, but is often counted as part of the total market value.

biodiversity and forest peoples. The development of the ‘infrastructure of forest carbon trading’ comes at considerable cost (even though the likely benefits of doing so are fast diminishing as carbon markets collapse) and it is limiting both the scope for necessary forest sector governance reform, as well as exploration and experimentation with other possible options.

2.1 Counting the costs of forest carbon trading

Reliable information and monitoring of forests is essential for policy responses to deforestation and degradation, no

matter what financing method is chosen. However, trading forest carbon necessitates much more information on the carbon content of trees and its flux with atmospheric carbon. This level of accuracy can be technically difficult to calculate (especially in heterogeneous natural tropical forests) and brings with it higher costs not least because carbon content varies between tree species and forest ecosystem types with, typically, half of tropical forest carbon stored below ground.

Evidence for this can be seen at the national and project level. At the national level, a large proportion of funding for REDD preparation is being allocated to the creation of a carbon monitoring, reporting and verification (MRV) system. The FCPF Readiness Fund, which provides initial funding for countries engaged in REDD, produced a study that looked at eleven REDD countries, showed that “REDD MRV system” accounted for 39% of initial national budgets; by contrast spending on “environmental and social impacts” accounts for 2.5% of budgets, or approximately fifteen times less.¹⁴ For example, the Central African Republic, which was not part of the above study, has budgeted \$43,000 for work on environmental and social impacts in its REDD Readiness Preparation Proposal (R-PP) which is approximately 0.6% of a total budget of \$6.7 million¹⁵ in comparison to approximately 20% budgeted for MRV of carbon. This demonstrates the publicly-funded costs incurred now in the creation of mechanisms to support a future forest carbon market.

At the project level, the Munden Project report states that carbon measurement, because of its frequent reliance on costly international consultants, is often the most expensive activity in a REDD project.¹⁶ Even examples put forward of the cost-effectiveness of forest carbon offsets show that 40% of the final price goes on monitoring, verification, certification and admin.¹⁷ If there were less focus on the forest carbon market, financial resources that are diverted into carbon measurement could be used for actions to tackle deforestation and degradation directly.

2.2. Is REDD legal reform for the benefit of communities or carbon traders?

For many years, commentators have called for land tenure reform to be the starting point for REDD and not an afterthought.¹⁸ However, the prospect of a forest carbon market in the final phase of REDD appears to be having a negative impact on efforts to secure land and resource rights that could provide this basis for reducing deforestation and degradation in the future.

The experience from the FCPF is illuminating. The template of the R-PP – a document that is drafted by countries to access World Bank funding for REDD-readiness – includes a section on the existing legal and institutional framework and reforms needed in the context of REDD. However, an NGO review of eight countries’

plans showed that forested countries invariably propose no genuine land tenure reform in this REDD plan, but instead focus on the legal nature of forest carbon and how it might be traded. It concluded that: “Where legal reforms are envisaged in R-PPs they are largely confined to plans to enact new legislation to finance national REDD programmes through future carbon trading.”¹⁹ The authors also noted, “a worrying trend [in all eight countries] towards REDD-related legal reforms that would enable increased state control over forest resources”.²⁰ Even in cases where studies into broader legal reform have been proposed, they have not yet been carried out. For example, the DR Congo R-PP, approved in March 2010, included a “Study on ‘transversal’ legal reform to support the implementation of REDD” to focus on “land tenure, land use planning and law enforcement” scheduled to be completed in 2010. However, at the time of writing, over two years later the study has yet to be commissioned.²¹

3. Unclear legal ownership of forest carbon and susceptibility to fraudulent trading

Clarity of ownership of forest carbon is a necessary foundation for a secure trading system. However, this section highlights that:

- The ownership and rights to land and resources (including forest carbon) in tropical forests are widely contested and unclear;
- The attempt to solve this through the separating of ‘carbon rights’ from rights to land and resources is deeply problematic and most likely unworkable;
- Due to the fact that the trading of forest carbon is virtual rather than physical, it is particularly susceptible to fraud.

3.1 Tropical forests’ land and resources: Ownership unclear

Although there has been some genuine progress towards the recognition of the rights of indigenous peoples and local communities to forests over the past two decades, lack of secure ownership and resource rights remains the norm for most forest peoples.²² Although the situation varies between countries and regions, some common themes are:

- Land not formally registered falls to state ownership, which leads to an overlap with customary rights systems that reflect communities’ occupation or use of lands. An estimated 75% of global forests are owned by states, this figure rising to 98% for the Congo Basin.²³
- National legalisation relating to one area of economic activity or sector often contradicts that of other

sectors and local populations’ use of the land is poorly documented, for example: the same area may be given over to a logging concession, a mining concession and a natural park and be used by the local population (see www.mappingforrights.org).

- Legislation often includes ‘productive land use clauses’ which mean that rights to land are only recognised when forested land is cleared and not when land is maintained as intact forest, for the purposes of hunting and gathering for example, by a family or village.²⁴

The consequence of the above is that the tenure – and thus forest carbon ownership – rights of many hundreds of millions of people in tropical forests are at best unclear, possibly formally non-existent, but likely overlapping with the designated rights and claims of other claimants, such as logging and mining companies. This presents a highly challenging situation for private sector investors who through normal due diligence procedures would seek to ensure clear ownership and rights to the traded asset. It also means that those with formal and legally recognised forest concessions may be able to capture the lion’s share of benefits that do trickle down to projects. In Indonesia, for example, the dominant approach is a ‘concession model’ of carbon rights, so a REDD licence is only given to those with an existing licence (for example, for logging, environmental services or social forestry), which would require indigenous peoples and local communities, who wished to set up a project, “to follow the complex procedures for obtaining a standard forest licence, and then have to apply for an additional REDD licence”.²⁵

3.2 Carbon rights and wrongs

Due to this incoherence of tenure or ownership, which is ill-suited for a trading mechanism, there has been a trend in official documents to separate out ‘carbon rights’ from other land and resource rights, although this has itself introduced a new layer of complexity. This would mean that although the carbon would still physically remain part of the trees and land the ownership of the tree, the land and the carbon may be legally separate. The R-PPs of Ghana, Peru and Panama have suggested separating, or ‘disembedding’, carbon rights from rights to land, territories and resources.²⁶ In countries that have attributed some forest land to communities, this could be an effective ‘nationalisation’ of carbon rights where the government assumes the right to ‘trade’ that carbon through REDD arrangements and would, “likely be negative for both forest protection and for any non-state actors affected by REDD+ activities”.²⁷ Those who have use or ownership rights for the land make local resource use decisions that would impact carbon emissions and therefore this proposed legal separation of carbon from trees may well be unworkable. More research and analysis is needed on whether this would

Box 3: A brief overview of carbon scams

Many instances of allegedly fraudulent activity related to forest carbon trading have already been reported. Interpol warned in 2009 that “organised crime syndicates are eyeing the nascent forest carbon market”,²⁸ and in 2011, it set up a programme to train police in REDD countries to “prevent land grabs motivated by carbon trading”.²⁹ The UK’s financial regulator, the Financial Services Authority (FSA), issued a warning in 2011 about carbon trading scams in response to a spike in complaints, and blacklisted five companies.³⁰ Several other high-profile alleged scams have been uncovered in recent years.

Carbon Harvesting Corporation – Liberia

In 2010, Global Witness investigated and reported to the police a deal engineered by the UK-based company Carbon Harvesting Corporation, which would have given it the rights to sell carbon credits related to 400,000 hectares, or over 10% of Liberia’s forests. The deal could have exposed the Liberian Government to financial losses of over \$2 billion, a sum greater than the country’s annual GDP.³¹ In the immediate fallout from the deal, at least one government employee was dismissed and Liberia requested the extradition of the head of Carbon Harvesting Corporation under the country’s bribery laws.³² However, over a year after its conclusion, efforts to bring to account additional individuals named in the Liberian Government’s initial investigation report appear to have stalled.

Shift2Neutral – Philippines and DR Congo

According to REDD-Monitor.org, Shift2Neutral – a small Australian-based carbon trading company which reportedly helped to offset emissions from high profile events such as the Australian PGA golf championship³³ – signed a deal with Mindanao indigenous peoples in the Philippines in 2009 that would “allow the tribes to receive funds from the sale of carbon credits” and

falsely claimed that this was linked to the World Bank’s Carbon Finance Unit. Despite repeated promises of money, schools, and clinics, the tribes received no payment or benefits and the Tribal Coalition of Mindanao cancelled the deal in November 2010³⁴. Also in 2010, Reuters reported that Shift2Neutral had signed an ambitious deal to protect tropical forests in the Democratic Republic of Congo (DRC) with national and state governments and “local tribal chiefs” that would eventually cover the entire country.³⁵ However, the deal had been agreed with a Senator, who lacked the necessary authority to sign the agreement. DRC’s Minister of Environment subsequently stated that the deal was “illegal” and declared it “null and void”.³⁶ Shift2Neutral has also been involved in a now-defunct agreement to save 850,000 hectares in the Brazilian Amazon, and smaller deals in Malaysia and Indonesia.³⁷

European Union Emissions Trading Scheme (EU-ETS) fraud

In 2010, more than \$40 million worth of emissions allowances were stolen from the EU-ETS by computer hackers. This forced the European Commission to suspend trading on the EU-ETS for two weeks. It is estimated by the European Law Enforcement Agency that a previous VAT fraud on the ETS cost European taxpayers \$5 billion.³⁸ Although this did not involve forest carbon, this large fraud in the relatively advanced and well-regulated market system in Europe is a warning of the risks involved in intangible carbon trading.

Clearly, forest carbon fraud has negative potential consequences for local communities and for efforts to reduce greenhouse gas emissions. Frequent fraud in a new forest carbon market would also damage the long-term viability and public acceptability of any associated scheme to reduce deforestation and degradation.

be in compliance with existing international agreements, such as the UN Declaration on the Rights of Indigenous Peoples, and decisions on REDD safeguards made by parties to the UNFCCC in Cancun.

3.3 Virtual trading and fraud

The idea that trade is based on the exchange of physical goods or representations of them is deeply rooted in society. However, forest carbon trading is virtual: “regular commodities are tangible things that exist independent of any law, regulation or contract. Carbon credits, on the

other hand, are intangible rights”.³⁹ The fact that forest carbon is a virtual commodity is one of the main reasons that REDD is so complicated, and susceptible to fraud (see Box 3 for examples). Proof of ownership does not lie in physical possession, but in a mesh of baselines and monitoring and reporting systems, embedded in complex computer models and normative standards, which only constitute a tradable good for those with access to and full understanding of them: this potentially excludes almost all of the hundreds of millions of people who live in or near tropical forests. The integrity of the whole system is reliant on these, as shown in Section 4. Unfortunately, the highly structured, intangible products are not too dissimilar to those at the root of the financial crisis (see Box 4).

Box 4: Are there parallels between the financial crisis and the proposed forest carbon market?

This box outlines a few parallels between the financial arrangements for the proposed forest carbon market and the sub-prime mortgage market, which lay at the heart of the financial crisis.

Forest carbon credits and sub-prime mortgages: same players, different game?

It has been reported, in *Private Eye* magazine, that Richard Sandor who – as an architect of the sulphur emissions trading scheme in the US in the 1990s and founder of the now defunct Chicago Carbon Exchange – has been called the “father of carbon trading”, also helped pioneer the creation of the first “collateral mortgage obligations” in the 1980s whilst working for a major Wall Street investment banking firm.⁴⁰ Sub-prime mortgages were one type of loan supported by collateral mortgage obligations, which imploded spectacularly during the financial crisis.

‘Regulatory gap’ in derivative trading and lack of truly independent certifiers

Subprime Carbon, a report by Friends of the Earth, argues that the failure to introduce meaningful reforms after the financial crisis leaves a large “regulatory gap” regarding the derivative trading of forest carbon⁴¹. Put simply, the structures do not exist to adequately regulate a forest carbon market, and continued opposition to broader financial reforms suggests that these are unlikely to be created any time soon.

Regulation through ratings or certifying agencies is unlikely to be more robust. The financial crisis exposed the failure of ratings agencies to accurately assess the risk or value of complex financial assets, as they gave the highest possible rating (‘AAA’) to what were later shown to be largely worthless assets.⁴² It also raised questions about ‘regulatory capture’ and their independence given that they derive a large percentage of their income from the banks whose products they rate.⁴³ A similar dynamic can be expected in a forest carbon market, especially if there are a limited number of companies who can assess forest carbon projects.⁴⁴ Indeed, ‘capture’ of accredited certifiers by logging companies has been alleged in regards to the Forest Stewardship Council (FSC).⁴⁵ Some of these certifiers, are already involved in forest carbon certification, and are competing for business from those being certified, which can lead to a race to the bottom of certification standards.⁴⁶

4. A REDD forest carbon market might not deliver real greenhouse gas reductions

Clearly, fraudulent REDD projects do not represent real emissions reductions, but even well-run projects may fail to deliver genuine emissions reductions for a number of methodological reasons. This sections looks at ‘cap and trade’ systems, leakage, and northern countries’ transition to low-carbon economies in the context of a forest carbon market linked to REDD.

4.1 No cap means no guaranteed reduction in emissions

In a ‘cap and trade’ market, distinct roles are played by the cap (a regulatory mechanism which limits the amount of emissions), and the trade (the transfer of credits between actors). According to the theory, trading allows for the most efficient and cost-effective reductions to be prioritised by the magic of the market. However, the trade without a cap has minimal benefits. It is only the regulatory ‘cap’ that actually reduces the amount of emissions and provides demand for credits, which effectively creates the market.

In the UN climate negotiations, the prospects for an international, legally binding cap on greenhouse gas emissions are extremely remote. The outcomes of the Copenhagen and Cancun conferences suggest a move towards a non-obligatory ‘pledge and review’ system, which would not include a binding international cap. Agreements made in Durban in 2011 set the deadline for agreement on a legal instrument by 2015 that will come into effect from 2020. However, the history of missed deadlines and strong opposition from some countries to a legally-binding international cap does not inspire confidence that such a cap will emerge even in eight years time. Likewise, in the REDD agreements to date, there is no numbered target or timetable for reducing emissions or forest loss: the Cancun Agreements include an objective without numbered targets or a timetable.⁴⁷ Without a cap, there is no guarantee that trading forest carbon credits would actually reduce emissions; it is likely to just shift them from one place to another. Indeed, as shown below, trading forest carbon could actually increase total emissions, if false credits are allowed to enter the system.

4.2 Leaky projects and inflated baselines

‘Leakage’ is when emissions (or, in the case of REDD, deforestation and/or degradation) move from one area to another as a result of a mitigation measure, and are

thus not actually reduced overall. When the concept of REDD was introduced into the UNFCCC, it was proposed that it would be based on national carbon accounting systems in order to minimise problems with national leakage. However, under pressure from various interests, the agreed texts from Cancun and Durban allowed for “subnational forest reference emission levels” for an undefined “interim” period.⁴⁸ This creates the possibility that leakage *within* countries could be a problem, if REDD is mainly implemented at a project level. In this scenario, small, localised REDD projects could generate forest carbon credits, but potentially only shift destructive activities to areas not covered by projects (see Figure 1). Typically, in the REDD project verification systems now in use, only a very limited ‘leakage zone’ is defined and monitored, although in principle, some forms of leakage could occur anywhere in the country, and even internationally. These credits, if traded in a compliance market, would allow polluters elsewhere to emit more, and would run counter to the text that parties agreed in Cancun to promote and support “actions to reduce displacement of emissions”.⁴⁹ If these credits only represent imaginary emissions reductions (referred to as ‘hot air’), this would burst any cap put in place and could allow overall level of emissions to increase rather than decrease.

The second methodological issue is inflated baselines or reference levels of deforestation. Baselines would be a critical element of REDD, because they would show whether any particular intervention or project had actually served to bring about a reduction in deforestation, and would therefore be worthy of being credited with causing an ‘additional’ reduction in emissions. Many countries with high forest cover and historically low deforestation

Figure 1:
Diagram to illustrate the potential of ‘leakage’ from REDD projects

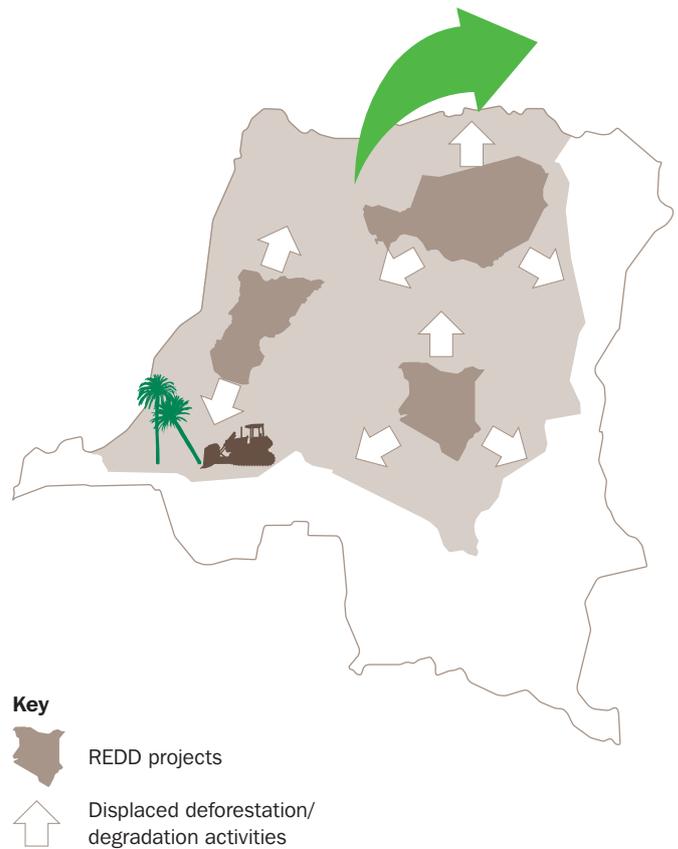
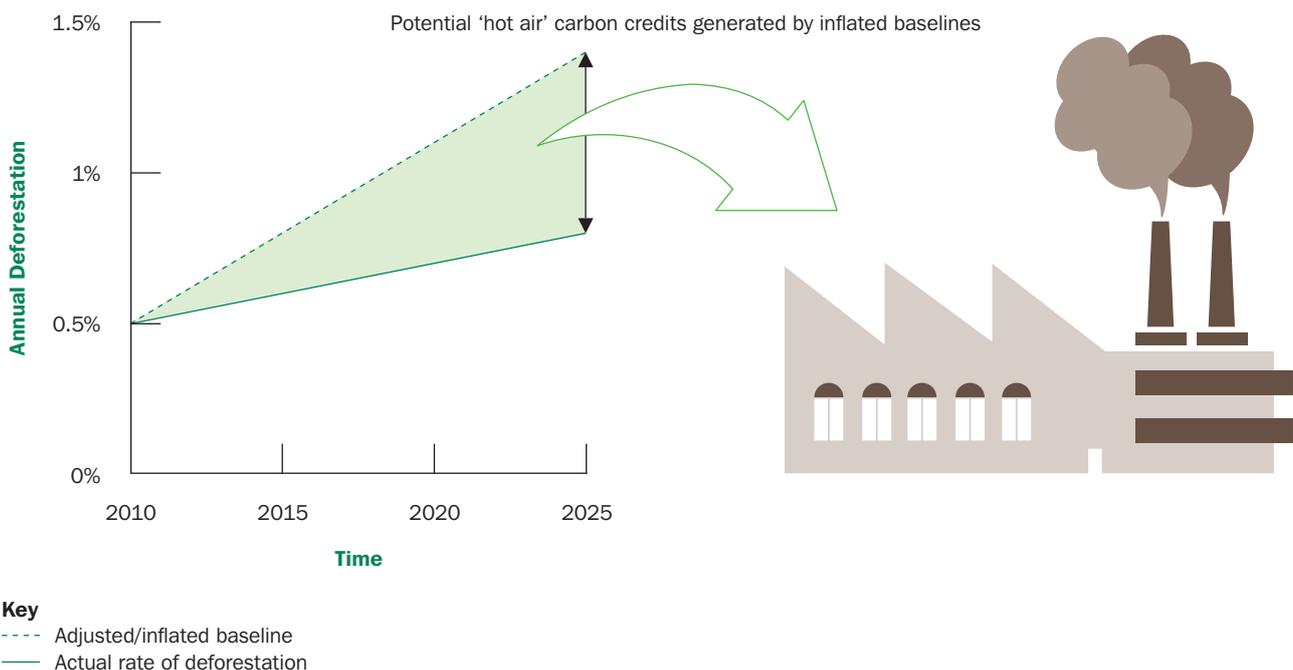


Figure 2:
Potential ‘hot air’ carbon credits generated by an inflated baseline



rates, such as Guyana and Congo Basin countries, argue for artificially increased baselines, to account for national circumstances and to ensure broad country participation in REDD by allowing them to benefit more from a forest carbon market. This would, in effect, allow for deforestation to increase, but for the country to still benefit from REDD payments.

The methodology of baselines has yet to be finalised by SBSTA, the technical body of the UNFCCC, but the Durban text allows for reference levels to be “adjusted” according to “national circumstances”.⁵⁰ An inflated baseline assumes that higher rates of deforestation and degradation would occur in the future than historical data or present circumstances would suggest. For example, in the Memorandum of Understanding (MoU) signed between the governments of Norway and Guyana, for transfer of up to \$250 million in performance-based REDD payment, the reference level is set by taking the average of the average deforestation rates of Guyana and for developing countries in general. This means that even after being downwardly revised the reference level is set at 0.275% of annual deforestation, when average deforestation in Guyana in the period 2000-2009 was 0.03%, almost ten times smaller. The terms of agreement allow for Guyana to receive payments should the deforestation rate increase to 0.1%, more than three times higher than the actual average for the last ten years.⁵¹

Inflated baselines are particularly problematic when coupled with a forest carbon market, as a percentage of credits generated by countries with such baselines would not be genuine emissions reductions, but could potentially be used through an offset market to permit real emissions increases elsewhere (see Figure 2). Thus, the result of trade in forest carbon from countries with inflated baselines, may be reductions on paper and could represent real-world increases in both deforestation and emissions.

Supporters of the forest carbon market, aware of these loopholes, have offered a number of theoretical ways in which to avoid these problems. Models for estimating leakage at the project level exist, and other ideas have been floated such as: ‘discounting’ (where, for example, you would need 1.5 tonnes of emission reductions in forest carbon to offset 1 tonne of emissions in the industrial sector); or the creation of a separate ‘crediting baseline’ (against which payments would be calculated) which is lower than the real rate of deforestation: which would, in effect, be a deflated baseline. However, in the negotiations, the push is for inflated baselines, above the real rate of deforestation, not the reverse. Indeed, all parties involved in the transaction of forest carbon credits have a vested interest to overstate the number of credits produced because in this scenario project developers and/or countries receive more funding, final buyers obtain a greater quantity of cheaper offsets, and project certifiers maintain client satisfaction. Therefore, these models do not appear to take into account the real world incentives and political realities.

4.3 A forest carbon market may delay necessary changes in northern economies

Proponents of forest carbon trading sometimes say that it would allow northern countries to take on deep emissions reductions targets, but the likelihood is that the promise of ‘cheap’ forest carbon offsets could play a counter-productive role in policy-making in developed countries and heavily polluting industries. A Carbon Neutral Company report states that fossil fuel companies, for example, which are concerned that “changes in legislation will make them liable for a much larger percentage of the carbon emissions from their products” would “have a distinct comparative advantage” if they are able to “source inexpensive carbon credits” from REDD.⁵² It should be noted that major oil and gas companies are already investing in REDD (see Box 5). This trend is confirmed by a long-term study into the CDM, by the University of East Anglia and University of Sussex, which concluded that the mechanism is “prolonging the life of the very industries that most need to transition to a lower carbon economy”.⁵³ Decision-makers considering major infrastructure projects, such as new generation power stations, for example, might be less inclined to adopt greener technologies if cheap forest carbon credits are on the market.

One of the primary aims of REDD, as part of the climate negotiations, is to contribute to the ultimate objective of the UNFCCC, being the “stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system”.⁵⁷ This section has argued that, bearing in mind this goal:

- The trade of forest carbon credits makes no sense without a cap, which is unlikely at the international level;
- That leakage and inflated baselines might inject imaginary emissions offset credits into the market and, hence, increase real emissions into the atmosphere;
- And that the existence of plentiful forest carbon credits could dissuade heavily polluting countries or industries from taking the necessary steps to directly reduce emissions.

The counter argument, which has been made by some parties such as the EU, is that the forest carbon market would be subject to strict ‘quantitative limitations’, meaning that forest carbon credits could only be used to offset a small percentage of industrialised countries’ reduction commitments (assuming these exist in the future). However, this would consequently limit the potential revenue that could be created by a forest carbon market and, therefore, further calls into question whether it is wise to invest in creating the infrastructure necessary to facilitate the trade of what might be an expensive – and inefficient – way to reduce emissions, if the potential benefits are minimal.

Box 5: Big Oil's interest in the forest carbon market

A number of large oil and gas companies are reported to be among the first to invest in a possible future forest carbon market:

- BP, the oil and gas company, contributed \$5 million to become one of the first private sector participants of the World Bank-managed Forest Carbon Partnership Facility's Carbon Fund in 2011.⁵⁴
- Petrobras, the Brazilian oil giant, became the first national organisation to contribute to the Amazon Fund (a national REDD-funding mechanism), giving \$4.2 million in 2011.⁵⁵
- Shell and Gazprom, the Russian gas giant, have invested in a forest carbon project in Central Kalimantan, Indonesia; and Chevron Texaco is linked to a forest carbon project in Brazil.⁵⁶

5. There are alternatives to the forest carbon market and to narrow economic levers

Current funding for REDD comes almost exclusively from public funds. A recent report from the REDD+ Partnership estimates that \$7.2 billion of international REDD+ funding is available, much of which is yet to be disbursed.⁵⁸ This section briefly looks at alternatives to a forest carbon market and alternative approaches to reducing deforestation and degradation that do not rely primarily on economic incentives.

Firstly, a fund-based approach for REDD should not be ruled out, especially given the billions already pledged and that the Green Climate Fund (GCF) is being set up as part of the international climate regime. The GCF has the potential to channel climate financing to developing countries in other ways than through carbon markets, potentially at a large scale. It is also hoped that it would be a 'legitimate' institution to provide scaled-up climate financing.

5.1 Alternative sources: other options for raising finance

Other options for raising finance for reducing deforestation and degradation and resulting greenhouse gas emissions include: carbon taxes, levies on international aviation or maritime fuels (sometimes called

'bunker fuels'), and financial transaction taxes (FTT). A broad range of distinguished commentators support a carbon tax as a more direct, less costly and less complex alternative to the forest carbon market: the Australian Government introduced a national carbon tax in 2011 with a carbon price almost double that of the EU-ETS.⁵⁹ International bunker fuels are currently under negotiations on sectoral approaches at UNFCCC. It is estimated that small taxes on shipping and aviation fuel could raise \$37 billion and \$27 billion per annum respectively.⁶⁰

A financial transactions tax is supported by France, Germany, Spain, the European Commission, the African Union, African Francophone governments, South Africa, Brazil and Argentina, and major private sector figures such as Bill Gates. FTTs are technically feasible and already exist in many countries, generating significant revenue. An FTT could take the form of a small tax on large financial transactions – for example, around 0.01% – that could generate between \$50 billion to \$250 billion per year.⁶¹ All these options would rely on political will in order to be implemented, as does the forest carbon market or greater public funding. Although these options are not directly tied to REDD funding, they are viable options for climate financing.⁶² There is much analysis of these different financial options available.⁶³

5.2 Financial incentives are not the only lever to reduce deforestation and degradation

As stated elsewhere, financial incentives are not the only lever that can be used for reducing deforestation and degradation. A good policy mix will also include regulatory developments and increasing capacity of forested countries to implement new schemes.⁶⁴ The EU has introduced a timber trading regulation that will come into force in March 2013 and works alongside the EU FLEGT licensing system, which identifies legal timber and related products in producer countries and licenses them for import to the EU. Similarly, the United States amended the Lacey Act in 2008 to include illegally produced timber products.⁶⁵ A major study of twelve countries by Chatham House estimated that efforts to combat illegal logging and related trade in the past decade have protected 17 million hectares of forest from degradation and prevented at least 1.2 billion tonnes of CO₂ emissions.⁶⁶

At a national level, the recognition of the rights of indigenous peoples and local communities to traditional forest lands and resources can be an effective instrument for protecting forests. Brazil has a large network of indigenous territories representing 20% of the legal Amazon. Only 1.3% of total deforestation in the Amazon occurs inside these territories, which are 98.4% preserved.⁶⁷ Industrialised countries should also focus on reducing substantial incentives that currently operate to promote deforestation and degradation, through the reducing unsustainable consumption of forest-derived

products, cleaning up supply chains and eliminating subsidies to destructive and polluting industries.

Conclusion

It is to be warmly welcomed that, in recent years, governments and high-level decision-makers have increasingly recognised the multiple benefits and value of tropical forestry ecosystems and that they have begun, albeit patchily, to take action to reduce the level of forest destruction. Funding for activities to tackle climate change, deforestation and degradation and the marginalisation of forest peoples is essential. However, this briefing has argued that sourcing this financing from a forest carbon offset market is likely to be costly, inefficient and may be counter-productive.

This briefing has highlighted a number of reasons why the proposed trading of forest carbon is a sub-optimal solution. It has shown how the promise of the market is slanting REDD programmes towards securing forest carbon as a tradable asset, often at great cost, to the detriment of other social and environmental aspects. It has drawn on examples from existing markets to show that only a small percentage of total market value will go to on-the-ground projects or the 'producers' of the traded commodity. It has also highlighted the implications of trading carbon without a cap, and methodological problems which could mean that trading has a net negative impact on the atmosphere, and may lock in existing heavily polluting activities. Although not easy, alternative financing options, and practical approaches that are currently delivering results, are available or are being negotiated.

6.1 REDD or black?

A system that combines the weak governance of forest areas with that of financial markets could be a highly risky gamble. It could lead to a vast bureaucracy for trading paper certificates, which results in little reduction of deforestation and degradation; a system that may be as transparent as a plank of wood and as tangible as smoke. If governments opt for REDD financing that includes forest carbon markets, it would be like placing a bet in a new multi-billion dollar game of rainforest roulette, where the outcome could just as easily be 'black' instead of REDD.

In the final analysis REDD with a forest carbon market is only, at best, a partial solution to the 'market failure' leading to catastrophic climate change identified in the Stern Report, and one that brings with it a host of new problems. The alternative is to turn to the source of the problems by: reducing greenhouse gases in industrialised countries; tackling unsustainable consumption and the drivers of deforestation in the global north and south; and focusing on enablers like equitable land tenure,

good governance, full and effective participation and the respect of forest peoples' rights.

Acronyms

CDM – Clean Development Mechanism

DRC – Democratic Republic of Congo

EU-ETS – European Union Emissions Trading Scheme

FCPF – Forest Carbon Partnership Facility

FIP – Forest Investment Programme

FLEGT – Forest Law Enforcement, Governance and Trade

FTT – Financial transaction taxes

GHGs – Greenhouse gas emissions

MoU – Memorandum of Understanding

MRV – Monitoring, reporting and verification

REDD – Reducing emissions from deforestation and forest degradation

R-PP – REDD Readiness Preparation Proposal

SBSTA – Subsidiary Body for Scientific and Technological Advice of the UNFCCC

UNFCCC – United Nations Framework Convention on Climate Change

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