

Accelerating Transfers of Interim Finance for REDD+: Options for Early Market Involvement

A report for UK DFID

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Summary

1. **Absorptive capacity and interim finance:** The objective of interim finance for REDD+ is to reduce emissions and enhance removals of greenhouse gases in relation to forests in the shortest possible timeframe. Therefore, interim finance for REDD+¹ will only be useful if it can be used efficiently and effectively by Rainforest Nations to achieve this objective.
2. **REDD finance based solely on donor sources risks being unsustainable or insufficient** given concerns about the high levels of finance required and the possibly limited amount of resources likely to be made available to REDD activities by the donor community.
3. **Markets may be able to channel significant amounts of capital to complement public funding of REDD activities.** Early market involvement will differ depending on whether there is a link between REDD and the carbon market, and whether early action is recognised for compliance in a future compliance regime.
 - a. **In the absence of links to carbon markets,** private sector capital would likely only be available for investment in commercial REDD+ activities such as SFM, plantation forestry and intensification of agriculture. Public sector finance could be used to remove barriers to investment and improve the risk:reward ratio of these investments, leveraging higher levels of private sector capital. It is unlikely that there would be any other form of significant market involvement in the absence of links to carbon markets.
 - b. **If carbon markets are linked REDD,** early market involvement will require recognition of early action for future compliance purposes. In this case, it can be expected that markets for these emission reduction units could quickly develop and would attract significant levels of private capital. While some reports assume a modest growth rate of market participation in REDD, only reaching scale by 2015, there is evidence from the rapid growth of the CDM and the EU ETS in 2005 that clear early action recognition could trigger an immediate response from markets.
4. **Early market involvement could be in the form of buyers of REDD units from government-backed programmes and/or in the form of direct investment of risk capital** into REDD programmes and projects. The latter would result in significantly higher shift of financial burden from the public to the private sector. At the same time, private sector investment in REDD is more likely to happen on a significant scale if the investment vehicles and implementation agencies are privately run or, at least, not solely managed by government agencies.

In terms of market trading of REDD units, this could be significantly hindered if REDD unit prices were to be fixed.

¹ REDD+ is used to refer to the full suit of forest activities including not just reduced emissions from deforestation and degradation (REDD) but also conservation of existing stocks (SFM) and enhancement of removals (afforestation/reforestation).

5. **Individual donor countries could reward early action by awarding AAUs from their accounts to early investors in REDD.** In the absence of a multilateral agreement at the CoP level, donor countries may decide to unilaterally recognise the efforts of investors involved in certain activities. Among other options, this could be achieved if these countries provided Assigned Amount Units (AAUs) from their own accounts to investors that engage in early action, assisting donor countries with their funding efforts.
6. **Performance linked payments measured through simplified methodologies ('proxies') is a splendid first step towards recognition of carbon emission reductions as an economic activity.** It highlights the principle of shared responsibility and introduces the concept of a new economic activity that justifies investment and provides returns to the public and private sectors. The adoption of simplified and conservative quantification mechanisms ('proxies') is a pragmatic and appropriate solution for the interim, until final agreement on MRV procedures is reached.
7. **Performance linked payments should be negotiated on a case-by-case basis, as opposed to being standardised.** This is because:
 - a) **the variable opportunity costs of deforestation drivers** between and within countries and the adoption of a standard price could lead to a series of undesirable distortions. These include a differentiated level of engagement between countries or the neglect of engagement of certain drivers in some countries that, in turn, **could result in international leakage.**
 - b) **a fixed price associated with the stock-flow approach could create perverse incentives** to deforest while still receiving sufficient financial resources based on remaining stocks, **compromising permanence.** If the stock-flow approach was adopted, this should be based on recurring but low level payments.
 - c) **standard prices could create market discrepancies preventing optimal participation of parties:**
 - **high market prices in relation to the standard price could penalise rainforest countries.** If demand was high, prices could be higher than the standard price, allowing market agents to profit from this discrepancy but not host countries.
 - **low market prices in relation to the standard price would maintain finance burden in public sector donors,** as there will be **no private sector participation** in REDD.
 - **low market prices paid by the UNFCCC process could lead to shift of emission reductions to other markets,** that would benefit from the investment of certain countries in Phases 1 and 2 of the interim finance strategy enabling host nations to create and sell credits to more lucrative markets.
8. **There is the need to invest in the ability of certain countries to participate and benefit from market links.** Different countries have different levels of capacity to benefit from links to carbon markets and readiness funding should be provided to assist such countries in preparing to access carbon finance in a coordinated and planned

manner. Innovative solutions such as **auctioning of 'REDD investment concessions'** to **international bidders** may provide a solution to accelerate access to carbon finance for some countries.

Background

In March 2009, a report commissioned by the Government of Norway (referred here as the 'Meridian Report'²) was published to contribute to the policy development process related to the inclusion of a mechanism for reducing emissions from deforestation and forest degradation (REDD) in a post-2012 regime under the UNFCCC (UN Framework Convention on Climate Change).

Using this report as a starting point, a series of practical implementation points have been identified that requires further work. In particular, two of the areas requiring greater attention are the issues of the absorptive capacity of the Rainforest Nations to utilise any additional funding raised, and the issue of opportunities for early market involvement³. This is one of two reports commissioned by the UK's Department for International Development (DFID) to provide further input on these topics⁴.

1. Introduction

Recognition of the high capital requirements for efficient, effective and meaningful engagement of rainforest nations with REDD (Reducing Emissions from Deforestation and Degradation) has led to concerns about the sustainability of funding strategies based solely on public finance. It is widely recognized that the private sector has the capacity to mobilize and transfer significant capital flows to REDD, diversifying and sharing the funding burden currently dependent on public sources. In addition, private sector expertise could also be drawn to complement the capacity of donors and host nations with relation to many of the tasks related to the implementation of REDD activities or disbursement of funds.

For all of these reasons, there is growing interest in finding ways to involve markets and private sector participants in the process of funding and implementing REDD activities even before a full international UNFCCC agreement is in place. At the same time, it is also important to recognize that any delays in involving markets in a future UNFCCC regime may result in markets channelling investment into activities recognized by the expected US climate change regime. Such differentiation could be in detriment of the UNFCCC regime, as 'lower hanging fruit' activities may end up with private sector-led initiatives aimed at supplying the American market (see box on US and UNFCCC systems).

² Angelsen A., Brown S., Loisel C., Peskett L., Streck C., and Zarin D., 2009. Reducing emissions from deforestation and forest degradation (REDD): An options assessment report. Prepared for The Government of Norway. Meridian Institute, March 2009.

³ It is important to note that there are a number of other implementation issues which are equally important in achieving the objectives of interim finance for REDD+ including environmental and social issues, equity and resource tenure rights. These are being considered in a number of fora and are not the focus of this paper.

⁴ The other report being: "Accelerating transfers of interim finance for REDD+: Building absorptive capacity, by Nussbaum R., Hoare A., McDermott C., Saunders J. and Moura Costa P., ProForest report to DFID, August 2009."

Box: Comparison of the UNFCCC and US regulatory proposals

The two main regulatory arenas which have the potential to shape an international REDD regime are the UN and the US-led policy initiatives. While there are other domestic climate change regimes and even markets (e.g. in the EU, UK, and Australia), none of these at present include major international forestry components.

Discussions are framed in different ways in the UN and the US contexts. The UN process is embraced by most countries that are currently Parties to the Kyoto Protocol of the UNFCCC. These include most developing countries, the EU, Japan and Canada. The process of negotiations is based on the timetable and structure set up by the UNFCCC for agreeing on a post-2012 climate change treaty. In early 2009, the US also declared its intention to engage pro-actively in this process, while developing its own climate change mitigation regime.

REDD negotiations under the UNFCCC are carried out by an Ad-hoc Working Group on Long-Term Cooperative Action established in the Bali Action Plan (2007), working in the arena of the Subsidiary Body for Scientific and Technological Advice (SBSTA) and reporting to the COP meetings where negotiations are held in parallel. The next meeting of the Conference of the Parties to the UNFCCC (COP-15) is tasked with agreeing on the terms of a next phase of the Kyoto Protocol, as its initial phase will expire at the end of 2012. Given the complexities of negotiating an international agreement that requires a consensus between a very large number of countries, the UNFCCC process tends to be slower and more convoluted than an unilateral (US) process.

The US process is dependent on the approval of Federal level legislation by both the House of Representatives (Congress) and Senate. Over the last 15 years, a series of climate change bills were proposed to Congress but previously failed to secure enough votes to become law. On 26 June 2009, the American Clean Energy and Security Act (ACESA, also called the Waxman-Markey bill after the Senators who introduced it) was approved by the US House of Representatives. This cap-and-trade legislation has yet to be approved by the Senate, which is not certain but could happen before the end of 2009.

The main elements of the bill related to international REDD are:

- Binding emission reduction targets of 17% compared to 2005 levels by 2020, 42% by 2030, and 83% by 2050, which can be partially met by domestic and international offsets. Up to 1 billion metric tonnes of CO₂, of a total of 2 billion, may originate from international offsets, and this level can be increased to 1.5 billion should not enough domestic offsets be available;
- REDD activities can generate such international offsets. REDD is the only international offset activity already specifically listed as eligible for participation in the scheme. In addition, proceeds may be available from quarterly strategic reserve auctions which will be used to purchase and retire REDD credits;
- National or sub-national activities, based on bi-lateral agreements with the US, and, within limits, project-level activities;
- Baselines must be national or provincial in scope, based on annual historical deforestation rates over a minimum of five years and establish a trajectory that would result in zero net deforestation within 20 years. State-, province- or project-level baselines will be phased out beginning in 2017;
- Project-level activities are eligible for international offsets in countries that do not yet

Box: Comparison of the UNFCCC and US regulatory proposals

have adequate national or provincial-level capacities (if the country does not account for more than 3% of global emissions from deforestation). Crediting for project or programme-level activities will be phased out beginning in 2017 but can be extended in least-developed countries;

- Besides direct funding through offset purchases, funding for REDD will become available from set-aside of 5% of the allowance revenues. This will include funding for policy reforms, capacity building and implementation of activities to preserve existing forest stocks. This funding line aims to achieve an additional 10% reduction of US emissions (a cumulative 6 billion tonnes to 2025);
- Early crediting of offset activities implemented since 2001, if they have been issued credits by an approved regulatory or voluntary offset programme;
- Offsets linked to a domestic compliance regime based on emission allowances supported by a floor price of US\$ 10/tCO₂e.

Sources: Waxman-Markey bill (2009).

One of the options identified in the Meridian Report is, after an initial preparatory phase (Phase 1 and 2a), to make payments to rainforest nations based on greenhouse gas (GHG) emission reduction performance quantified through simplified and conservative procedures ('proxies' – see box on Proxy-based and compliance grade carbon). This system of *ex post* payment for emission reductions is an excellent initial step for engaging the international community with the concept of valuing carbon (i.e., environmental services provided by forests)⁵. Furthermore, it highlights the principle of shared responsibility, as payments should be based on performance only. These, in turn, provide the basic tenets for rainforest nations to treat carbon storage and sequestration as a new economic activity; one that justifies investment, provides returns and relates to the wider economy, not only the public sector.

Ultimately, however, the engagement of non-government sectors in a funding and implementation strategy for REDD is likely to be very different depending on whether or not carbon markets are linked to the international REDD regime of the UNFCCC. Furthermore, even if REDD is linked to markets, early market involvement will depend on whether there is acceptance of early efforts for the purpose of compliance to future GHG mitigation regimes (i.e., 'early action recognition'). These different scenarios are discussed in the next section.

Other aspects related to the interim finance strategy could also affect the participation of markets. In particular the current the proposal on fixing prices paid for emission reductions during the interim finance phase deserves special attention. The report also discusses options for recognising early action, as well as the capacity of different countries to benefit from market links.

Box: Proxy-based and compliance-grade carbon

⁵ Likewise, the adoption of simplified estimation procedures to determine performance (i.e., 'proxies') is a helpful, pragmatic approach to avoid technical barriers preventing urgent action.

For early action activities to be recognized by future regulatory regimes, it is important that these are able to withstand any future scrutiny related to their environmental and social effectiveness. One approach that has been proposed is to measure the impacts of early actions using simplified and conservative quantification measures (i.e., the 'proxy' measurements referred to in the Meridian Report).

Another option is to require that early action credits are developed following 'best available practice' at the time of its creation. To increase the chances of retroactive acceptance, such activities must be based on the best practices and knowledge at the time of project design. In practical terms, activities should be designed incorporating the main elements required by existing compliance and voluntary regimes.

Irrespective of the approach chosen, even if these activities end up not fully conforming to the specificities of a future regulatory regime, they must still be environmentally sound (especially in regard to their GHG emission reduction effect) and socially desirable. In other words, they must aim to generate 'compliance-grade carbon' credits even if these are not yet 'compliance carbon'.

2. Early market opportunities under different scenarios

2.1 Scenario A - Market and private sector engagement in the absence of links between REDD and carbon markets

In the absence of carbon market links, there are limited ways to attract private sector capital into REDD. This is particularly true in the case of activities that generate no direct financial returns such as forest protection and reduction of forest degradation. Indeed, the explicit exclusion of a variety of land use activities from the CDM⁶, has led to the discontinuation of a series of private sector investments in projects based on these activities since the early 1990s (see Table 1 in the Appendix).

In the absence of links to the carbon market, therefore, private sector involvement can only be expected to focus on REDD+ activities⁷ that provide financial returns other than carbon revenues. But, even in the case of commercial activities such as sustainable forest management (SFM⁸) and plantation forestry, their business case still needs to be improved so that investment flows can be increased. It is clear that these still do not occur at a sufficiently large scale to counter deforestation and forest loss trends.

⁶ The CDM explicitly disallowed the inclusion of a series of land use activities that result in emission reductions or sequestration, such as avoided deforestation, reduced impact logging, enrichment planting, agroforestry, and low tillage agriculture.

⁷ REDD+ is used to refer to the full suit of forest activities including not just reduced emissions from deforestation and degradation (REDD) but also conservation of existing stocks (SFM) and enhancement of removals (afforestation/reforestation).

⁸ SFM is described here as the management of forest resources for the commercial production of timber and non-timber forest products on a sustainable basis.

In order to scale up investment in REDD+ activities in relation to previous trends, the current risk:reward ratio related to these sectors would have to be improved and other barriers to investment removed. In addition, other supporting activities may be needed to promote REDD+, including capacity building, training, extension, investment promotion activities, etc.⁹

National or international public funding targeted at creating enabling conditions for investment could play a very important role in removing barriers and increasing the attractiveness of investment in REDD+ activities¹⁰. In this way, a relatively modest investment of public resources could leverage larger investment flows from markets and private sector.

In relation to risks, public funding could be used to create an enabling environment for investment in REDD+ activities. This includes policy, market and institutional adjustments and harmonization of policies, funding of pre-operational activities related to market or technology knowledge, provision of guarantees and credit lines, etc. (see Table 2 in the Appendix).

In relation to increasing the profitability of sustainable land use practices, past efforts have focused on capturing value for the various environmental services provided by forests, specifically biodiversity, water quality and quantity, and carbon sequestration and storage¹¹. To date, the most promising of these environmental services is still carbon sequestration and storage, given that these can already be measured using a standard unit (tCO₂e, unlike biodiversity) and the benefit of the environmental service is relevant to 'users' located far away from where the service is performed (unlike water catchment protection). Indeed, markets for non-carbon environmental services are negligible in relation even to the still nascent carbon markets¹².

If none of these environmental commodities can be valued to increase REDD+ returns, there would need to be other ways to increase the attractiveness of these activities in relation to unsustainable practices. These could include direct subsidies, fiscal incentives, trade promotion and access to better markets, among others. Fiscal incentives, for instance, have proven extremely successful in promoting investment in forestry activities in some countries (see Box on Brazilian Fiset programme). Ultimately, though, any public sector incentive still needs to be funded from public finances, instead of capturing rent from other, non governmental, sources.

⁹ Moura-Costa, P., Salmi, J., Simula, M., Wilson, C., 1999. Financial mechanisms for sustainable forestry. Report for the UNDP/SEED Program, for the IFF. 200 pp.

¹⁰ Moura-Costa P and Kohn G. Feasibility Analysis for an International Investment Promotion Entity for Sustainable Forest Management. CIFOR, January 2001

¹¹ See, for instance, Richards M and Moura-Costa P. Can tropical forestry be made profitable by 'internalising the externalities'? ODI, 1999.

¹² See, for instance, Pagiola, S., Bishop, J. and Landell-Mills, N., 2001: Selling forest environmental services. Earthscan, 320 pp.

Box: Fiscal incentives: *The Brazilian plantation sector the Fiset programme*

In order to support the development of its pulp & paper and iron & steel sectors, and reduce dependence on natural forests, in 1967 the Brazilian Government introduced the Fiset fiscal incentive programme to encourage investment in afforestation to supply raw materials to these industries. By 1990, over 6 million hectares of forest plantations had been established in Brazil under this program. Associated investments in breeding and cloning helped to establish the Brazilian plantation forestry sector as one of the most advanced and productive worldwide.

In 1989, however, the Fiset program was discontinued. Following the end of the fiscal incentives, plantation establishment decreased while harvesting of existing plantations continued at the existing rate, leading to a reduction in the Brazilian plantation forest base from a total of 6.5 millions hectares in 1990 to 4.8 million in 1998. Replanting is a costly activity and investment did not take place for a series of reasons, namely, lack of access to long term finance for investment in forestry, inherent low profitability of the forestry activity, and the risks related to investments of long gestation in the Brazilian macro-economic context. A general feeling among experts in this industry is that unless incentives are put in place to support either the forestry sector or the use of charcoal, the trend of reduction of plantation forest area will persist.

Within this context, expectation about the possible additional resources coming from the carbon markets to the forestry sector has led a series of companies in these sectors to develop candidate projects for the CDM. The extra income derived from the sale of carbon credits would increase the profitability of the plantation sector substituting the previous system of fiscal incentives. These included the Plantar project developed by the World Bank PCF for the planting of over 23,000 ha with sustainably managed (certified to the Forest Stewardship Council standards) forests for charcoal production, a similar project developed by V&M Tubes do Brazil (a joint venture between the French group Vallourec and the German company Mannesmannrohren-Werke), and the Cosipar project in the state of Pará, in Northern Brazil.

The slow pace and convoluted methodologies of the CDM, however, have prevented these projects from getting registered and participating in carbon markets.

Source: Moura-Costa P and Chen L, The Brazilian steel and iron sector and the CDM: examples of EcoSecurities' activities in this field, Global greenhouse Emissions Trader Newsletter, UNCTAD and the Earth Council Institute (Geneva), Issue 11, June 2002

2.2 Scenario B – Private sector engagement in the context of links of REDD with carbon markets

If an international REDD regime was to authorize the trading of REDD credits through carbon markets, this could attract significant market interest and private sector capital even at this early stage¹³. The explicit recognition of the value of carbon emission reduction from avoided forest loss would create the means to attract investment into activities that do not currently remunerate capital, e.g., forest conservation and reducing the impact of logging through SFM¹⁴. In addition, carbon revenues also increase the returns of activities that do

¹³ See, for instance, the New Carbon Finance's analyst report "The impact of forestry on the global carbon market, 25th February 2009".

¹⁴ For a discussion on carbon finance and reduced impact logging, see for instance, Moura Costa, P. and Tay, J. Proceeds of the FAO Conference on Sustainable Forestry Practices, Kochi, Japan, Nov 1996.

generate other revenue streams, such as forest plantations and sustainable agriculture (see Box on Australian forestry companies).

Box: Australia Plantations Timber and prospectus-based forest investment funds

Australian Plantations Timber (APT) is a forestry company specialised in commercial plantations of eucalyptus trees in Western Australia, South Australia and Victoria. Every year, between 1992 and 1998, APT raised capital from investors for the establishment of new forest plantations, based on investment prospectus offering a pre-tax rate of return of about 7-8 %, derived from the sale of the eucalyptus trees harvested at the end of an 11-year rotation.

In 1999, in the back of a rise in interest in carbon trading in Australia, APT included provisions in its prospectus to enable the sale of the carbon sequestration credits which may arise from its forestry operations, becoming the first private company world-wide to do so. In practice, the prospectus alerted investors that the rates of return of this fund could potentially be increased through the sale of this new commodity (carbon credits). It was estimated that the internal rates of return could rise by 1-3 % depending on the value accrued through carbon sales.

The prospect of higher returns led to an increased amount of investment into APT: the 1999 prospectus was oversubscribed and the company had to limit its capital uptake to Aus\$ 136 million, because of constraints related to land availability and operational capacity. Through this, APT raised enough capital to plant 25,000 ha of new forests in 2000, as opposed to the previous rates of 2-3,000 ha per year.

In April 2000 APT floated in the Australian Stock Exchange, with initial market capitalisation of Aus\$ 340 million and shares valued at Aus\$ 3.20 each on the first day of trading. Stock analysts from Macquarie Equities in Australia have valued the company at A\$4.50 per share and have attributed Aus\$ 0.50 of the share price to the value of carbon credits to be produced by APT's plantations.

This case study provides an example of how the carbon credits could increase profitability and investment for forestry activities. Increasingly, carbon was being incorporated into project finance structures, in addition to other debt and equity sources of finance, leveraging the amount of capital available for forest finance.

Source: Moura-Costa P and Aukland. L. Plantations and Greenhouse Gas Mitigation: a short review. FAO Year Book 2000.

If carbon credits from early action could be used for compliance against future GHG regulatory requirements, it is likely that a market for such early credits would immediately arise. The rapid response of private sector capital to climate change policy signals can be observed analysing carbon forestry investment trends since the early 1990s (see box on Early action responses to policy signals). This is particularly evident in the case of the speed at which CDM and EU ETS trading activity increased following the ratification of the Kyoto Protocol and entry into force of the ETS in early 2005¹⁵.

¹⁵ In January 2005, the EU ETS entered into force. From an initial start of less than 1 million EU Allowances (EUAs) traded daily, it rapidly grew to a € 60 billion market in 2007. And, in the process it accelerated trading in carbon credits (CERs) from the CDM, that entered into force in February 2005. See, for instance, www.ecx.com for facts and figures.

Box: Early action responses to policy signals

Expectation of future recognition of early action following positive policy signals has triggered the development of GHG mitigation projects since the early 1990s. The first flurry of activity occurred after the establishment of the UNFCCC at the Rio Summit (Figure). As soon as the UNFCCC established the AIJ Pilot Phase, in which there would be no transfer of carbon credits to buyers (only 'experience'), the level of investor interest decreased. This was only revived in anticipation of a positive outcome of the Kyoto Protocol.

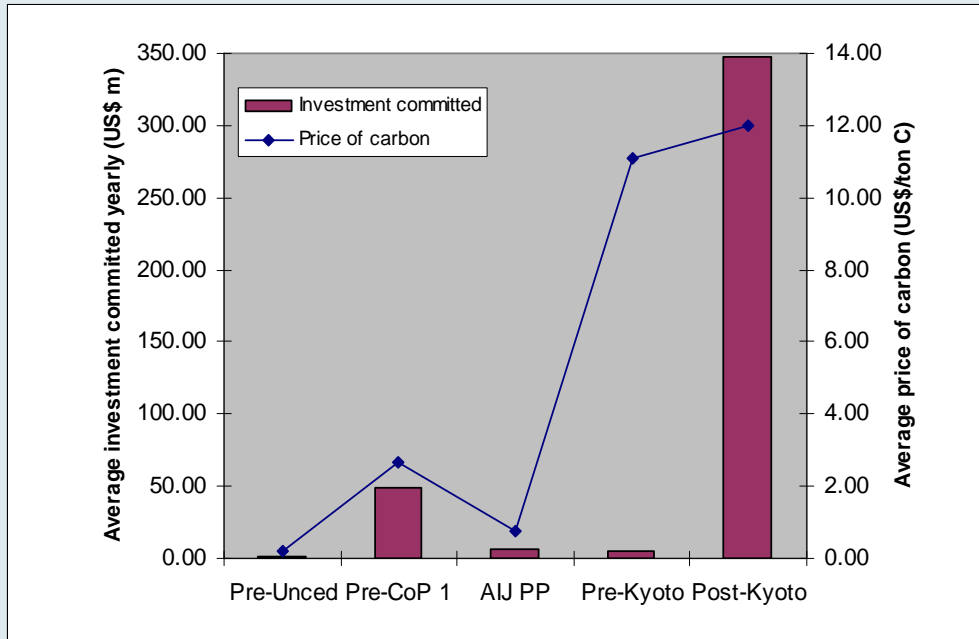


Figure: Average investment committed yearly (US\$ millions, based on value of contracts signed) and price paid for carbon sequestration (US\$/ton C) during different periods since 1989. Pre-UNCED = before 1992; Pre-CoP 1 = phase between UNCED and the 1st Conference of Parties to the FCCC, 1992 to 1995, when there was the expectation of using credits for a future compliance regime; AIJ PP = Activities Implemented Jointly Pilot Phase, from 1995 to 1996, when the UN dictated that credits during this phase could not be used for compliance; Pre-Kyoto = 1997; Post-Kyoto = January to June 1998. Figures for the Post-Kyoto phase were based on non-official data, and were adjusted to give a proportional idea of a one-year contribution. Some figures were based on press announcements and bound to contain inaccuracies. Prices on US\$/tC, not US\$/tCO₂; to convert to US\$/tCO₂, divide prices by 3.67.

Source: Moura Costa and Stuart, Commonwealth Forestry Review 77: 191-202, September 1998

The level of activity in this market and the prices commanded for such early credits, however, would vary depending on the possible restrictions and conditionalities on the use of such credits. The wider the market segments that recognize early action, the higher the liquidity for such credits, the investor appetite, and credit prices. For instance, if REDD credits could not be used in some markets (for instance, as is currently the case for land use credits in the EU ETS), or if they would need to be replaced after a certain period of time (for

instance, as in the case of the T-CERs from afforestation and reforestation in the CDM), the level of market interest could be significantly reduced¹⁶.

The involvement of the market could be in different ways forms, as discussed in the next sections.

2.2.1 Purchase of carbon credits generated by early actions implemented by host countries

In this case, the private sector would be restricted to the purchase of REDD credits created by public sector programmes, but with no direct involvement in the process of investment, project development and creation of carbon credits itself. In other words, markets would purchase the final product of REDD activities (i.e., carbon credits from emission reductions) but not deploy risk capital to create these emission reductions. It is unlikely that markets would deploy significant capital to investment vehicles that rely solely on public sector management and implementation agencies.

In this scenario, therefore, while markets could provide a way to recover the capital deployed by the public sector, there would be no transfer of risk to the private sector.

2.2.2 Investment and project development to generate early credits

If host nations allowed the private sector to participate in the development of REDD activities, complementing or integrated with their own national initiatives, markets would have more choice and visibility on the granularity of investments, as well as management and implementation capacity. This would enable domestic and international investors to participate in these activities, deploying risk capital and assuming risk¹⁷. The increased flows of private risk capital expected from this modality would greatly reduce capital needs and risk taking from the domestic public sector and international donors. In addition, the involvement of a wider variety of participants may have positive effects in terms of creating a variety of approaches and the diversification of risk of a single track strategy.

For this to work, however, it is important that registry systems are adopted to prevent double counting of benefits or leakage between national and project-based activities. Furthermore, efforts have to be directed to ensure that such activities contribute to and integrate with national efforts.

¹⁶ Indeed, this is the case of afforestation and reforestation carbon credits created by the CDM, that do suffer from exclusions to participate in many market segments and are subject to a different (and less attractive) treatment that requires their replacement after a period of time. The result is that land use projects represent less than 0.1% of the CDM market size (Clean Development Mechanism: 2008 in brief. UNFCCC publication, cdm-info@unfccc.int)

¹⁷ The engagement of domestic capital in the creation of carbon emission reduction credits is well illustrated by the CDM, where the vast majority of projects were funded by domestic investors.

3. Options available for recognising early action

Recognition of early action could be achieved in different ways. One possibility is to pursue an agreement among parties at the COP level to allow the use of emission reductions generated by early actions for compliance with the future UNFCCC regime. Given that it is proposed that the effect of these early actions would be measured using simplified and conservative assessments of carbon gains ('proxies'), it is unlikely that the inclusion of these early credits would dilute any future efforts that would be measured to higher levels of accuracy and less reliant on conservatism.

Alternatively, individual Annex 1 parties could elect to convert early action 'credits' into AAUs (Assigned Amount Units). Given that AAUs belong to countries, their distribution to market investors do not depend on international agreement or negotiation. So, if UK investors were to invest in REDD activities, complementing UK government funding, there is no reason why these investors could not be awarded with AAUs from the UK account in recognition for their early actions. An additional advantage of AAU conversion is that these are sovereign compliance instruments and recognized as having similar value to the highest quality carbon credits in the market, and not subject to any limitations of use or requirements such as replacement. With the exception of the EU ETS, AAUs are universally accepted for compliance by most trading parties in the international carbon market.

Box: Granting of AAUs for recognition of early action

A possible way for an individual Annex 1 country to recognise early action is for it to grant AAUs from its own account for investments and emission reductions that it recognises. AAUs are sovereign compliance instruments and, once granted to a country, their allocation to other parties (be it governments or individuals) do not depend on international negotiations.

4. Fixed price payments and early market involvement

One of the options identified in the Meridian Report is to start a process of ex-post payments for emission reductions based on simplified measurements (proxies). This is seen as a transitional phase to be used prior to a possible full engagement of markets at a later stage (Phase 3 of the strategy). It has also been proposed elsewhere that such payments are based on a standard price for carbon, with the value revolving around US\$5/tCO₂e reduced.

There are a series of implications of adopting a universal price for carbon and those have to be considered particularly in the context of the intention to evolve to a full market mechanism in the future.

In an interim phase, where payments are made with no link between the emission reductions created and a compliance regime, a standard price could result in some undesirable outcomes related to the behaviour of rainforest nations:

1. A standard price does not necessarily reflect the average opportunity cost of all rainforest nations. While there is the recognition that payments should not be entirely

based on compensating for opportunity costs (so to involve a certain degree of burden sharing among donors and rainforest nations), the level of payments should be sufficient to create a business case for these countries to protect their forests. Such business case varies depending on the circumstances of different countries. Consequently, this could result in an unequal level of enthusiasm and engagement among countries (the same can be said about regions within countries);

2. Within specific countries, the various drivers operating in any given country are likely to have different opportunity costs. If standard prices were adopted, this could lead some countries to selectively engage some drivers in a process of change but not others. Provided that the country still demonstrates a reduction of forest loss, it will be able to receive payments for these more modest results while at the same time neglecting to engage some of its drivers. Furthermore, this could result in international leakage related to these 'neglected drivers';
3. The same selectiveness could occur on a time scale. Some countries may elect to wait to see whether prices would be higher in Phase 3. This 'wait and see' behaviour was observed in many cases during the initial phase of the CDM;
4. If payments were to recognise forest stocks as well as flows (as per the stock flow approach), there could be a result in which countries with very low deforestation would receive significant amounts of REDD payments, with no guarantee over the long term permanence of carbon stocks. Assuming the proposed stock-flow approach for quantification of payments, the reductions in REDD payments associated with increased deforestation could in many cases not compensate for the revenues derived from forest exploitation and alternative land uses. To ensure permanence, carbon stock payments should be made on a recurring, but low value, basis¹⁸;
5. In the event that the Waxman-Markey enters into force, there are provisions in the bill that ensures a floor price of US\$ 10/tCO₂e for US allowances. Consequently, it is likely that this would create an American market for international offsets (including those from REDD) at prices higher than US\$ 5/tCO₂e and a possible shift of these early credits to the more lucrative American market.

In addition to the effects listed above, a standard price could pose significant challenges to the possible link of early action to markets. These include:

1. A standard price does not reflect supply and demand. If demand for REDD emission reductions units was high, buyers would purchase these at the standard price aiming to re-sell them at a profit in the markets. This, in turn, would lead rainforest nations to stop selling or attempting to achieve higher prices;
2. If demand for REDD units was low, there would be no market interest in paying the standard price and the burden of, effectively, guaranteeing a floor price would remain with public sector donors.

¹⁸ Moura Costa, P.: Compensation for carbon stock maintenance in forests as an alternative to avoiding carbon flows. Climate Policy, submitted for publication.

Given the difficulties of adopting a universal standard price of carbon, it may be more effective that such payments are negotiated on a country-by-country basis. The price paid should reflect the various drivers and opportunity costs in each country, and donors should adopt an ‘honest broker’ approach to avoid discrepancies between values paid to countries with similar ‘costs of production’. In addition, this approach would enable an easier transition to a carbon market.

5. The capacity of different countries to benefit from market links

Irrespective of what approaches are adopted to link markets to REDD, it is important to recognise that the varying circumstances of different countries (see report on “Building absorptive capacity”¹⁹) would make them more or less conducive to attract and utilise markets. Indeed, capacity and structural barriers have prevented many African countries to participate in the CDM to the same extent as Latin American or Asian countries²⁰. Furthermore, within countries it is also important that any such links with markets happen in a coordinated manner, introducing safeguards to ensure an equitable participation of indigenous peoples and local communities²¹.

The interim financing strategy should focus on enhancing the capacity of different countries to deal with not only donor financing but also a future transition to Phase 3 markets (or any earlier market links). In some cases, there would be the need to devise innovative approaches to circumvent countries’ shortfalls, in order to enable them to participate in carbon markets (see, for instance, box on Increasing investment and absorptive capacity).

This would be important in ensuring that this new source of finance is utilised effectively by the widest possible range of rainforest nations, maximising the output of REDD financing efforts.

Box: Increasing investment and absorptive capacity: auctions of ‘REDD investment concessions’

A possible way to integrate private sector investment with national level efforts could be to use international public funding to create ‘investment packages’ that fit into national development

¹⁹ “Accelerating transfers of interim finance for REDD+: Building absorptive capacity, by Nussbaum R., Hoare A., McDermott C., Saunders J. and Moura Costa P., ProForest report to DFID, August 2009.”

²⁰ Clean Development Mechanism: 2008 in brief. UNFCCC publication, cdm-info@unfccc.int

²¹ See for instance, “Bass S., Dubois D., Ford J., Moura-Costa P., Pinard M., Tipper R., Wilson C, Rural Livelihoods and Carbon Management: An Issues Paper. October 1999”, or “Aukland L, Moura-Costa P, Bass S, Huq S, Landell-Mills N, Tipper R and Carr R, Laying the Foundations for Clean Development: Preparing the Land Use Sector. A quick guide to the Clean Development Mechanism, prepared for the UK Department for International Development (DFID)”.

Box: Increasing investment and absorptive capacity: auctions of 'REDD investment concessions'

priorities and land use planning of host countries. Such investment packages should take into account the various production and protection options available to the country, the baselines of deforestation and forest loss of each activity, the conditions required for implementation, the support (if any) that may be provided by the host country (e.g., in terms of national monitoring, leakage control, etc.), assurances to foreign investment, guarantees expected from both host country and investors, and all other terms, conditions and specifications necessary to attract the right level of investment and investors. Furthermore, they should incorporate all safeguards for transparent allocation of these packages to investors and subsequent outputs of these activities in relation to emission reductions generated and payments made to the host nation.

These packages could be promoted among international investors or project developers/ agencies who would assume the role of implementing these activities as per the terms of reference created by the host countries. In order to maximise the outcome of this process to host countries, competitive tension could be created by auctioning these 'REDD development concessions' in the international (and domestic) markets. Successful bidders should be the ones with best proven implementation capacity and offering host countries the highest payment for carbon credits generated from these 'concessions' (i.e., in the same way that is done with mineral resources or that forestry departments charge timber royalties).

Approaches like this could also be used to enhancing the absorptive capacity of any forest country, treating REDD as a commercial activity that can be conducted by external parties (e.g., similar to the way that mineral resource prospecting and exploration is conducted in many countries). In particular, this approach would be beneficial to countries where the governance and institutional capacity required for the development and implementation capacity are lacking (i.e., those with low levels of preparedness, see paper on Building absorptive capacity, as per footnote 17). While REDD readiness and ODA funding should continue to be provide to gradually enhance their internal capacity, this could accelerate the access of these countries to carbon markets and finance while providing a clear alternative to deforestation pressures.

Appendix

Table 1: Carbon forestry projects initiated from early 1990s to the Kyoto Protocol (1997).

Project name	Date proposed/ Initiated	Carbon offset (1000 t C)	Area (ha)	Host Country	Investor country	Project description
AES – Care	1990	10,500	186,000	Guatemala	USA	Agroforestry
Face Malaysia	1992	4,250	25,000	Malaysia	Netherlands	Enrichment planting
Face-Kroknose	1992	3,080	16,000	Czeck R.	Netherlands	Park rehabilitation
Face Netherlands	1992	885	5,000	Netherlands	Netherlands	Urban forestry
ICSB-NEP 1	1992	56	1,400	Malaysia	USA	Reduced Impact Logging
AES – Oxfam – Coica	1992	15,000	1,500,000	S. America	USA	Forest protection
AES – Nature Conservancy	1992	15,380	58,000	Paraguay	USA	Forest protection
Face-Profafor	1993	9,660	75,000	Ecuador	Netherlands	Small farmers plantation forestry
RUSAFOR-SAP	1993	79	450	Russia	USA	Plantation forestry
Face Uganda	1994	6,750	27,000	Uganda	Netherlands	Forest rehabilitation
Rio Bravo	1994	1,300	87,000	Belize	USA	Forest protection and management
Carfix	1994	2,000	91,000	Costa Rica	USA	Forest protection, and management
Ecoland/Tenaska	1995	350	2,500	Costa Rica	USA	Forest conservation
ICSB-NEP 2	1996	360	9,000	Malaysia	USA	Reduced Impact Logging
Noel Kempff M.	1996	14,000	1,000,000	Bolivia	UK/USA	Forest protection and management
Klinki forestry	1997	1,600	6,000	Costa Rica	USA	Reforestation with klinki
Burkina Faso	1997	67	300,000	Burkina Faso	Denmark	Fire wood community forestry
Scoel Te	1997	15	13,000	Mexico	UK/France	Community forestry
PAP OCIC	1997	18,000	570,000	Costa Rica	Norway, USA	Forest conservation
Norway-Costa Rica	1997	230	4,000	Costa Rica	Norway	Forest rehabilitation and conservation
Tesco "green petrol"	1998	n.a.	n.a.	Undefined	UK	Forestry
Green fleet initiative	1997	n.a.	n.a.	Australia	Australia	Reforestation
Totals/average	-	103,562	3,977,350	-	-	-

n.a. = not available

Source: Moura Costa and Stuart, Commonwealth Forestry Review 77: 191-202, September 1998

Table 2: Examples of Activities to be Funded (in normal font) and Types of Investments (in italics) According to Sources of Finance.

Category of activity funded		Sources of funding		
		Public sector	Private sector commercial	Private sector non-commercial
Structural	Policy	consultation process and policy reform to secure land tenure arrangements – <i>general government budget deployed through appropriate Ministry (im)</i>	proposal / consultation / lobbying on public-private interface, e.g., SFM investment criteria and rules – <i>human resources (im)</i>	facilitation of and engagement with consultation process on land tenure – <i>technical assistance and human resources (im)</i>
		implementation of international law (e.g., Kyoto Protocol) through structuring and development of new markets (e.g., C offsets) – <i>policy development using general budget (im)</i>	development of trading systems and bodies for emerging forest commodities – <i>e.g., administrative costs of pilot phase self-financed through transaction charges (im/ex)</i>	dissemination of information on policy and investment opportunities to small-scale operators – <i>human and administrative resources (im)</i>
	Institutional	establishing autonomous agency to promote forest investment – <i>securitized earmarked revenue from state forest operations / concessions (ex/im)</i>	operating costs of forest investment agency – <i>project facilitation charge / success fees (ex), secondment of personnel (im)</i>	decentralized institutional structures / affiliate organizations to mediate commercial investment – <i>human and administrative resources (im)</i>
	Market	mechanisms to compensate operators for incremental costs of SFM from provision of national/global benefits – <i>e.g., broker financial contracts between beneficiaries and operators (im)</i>	market development, e.g., modernization of processing, distribution, and storage infrastructure for NTFPs – <i>debt (ex)</i>	project development and presentation for investment sourcing – <i>technical assistance including marketing and grant funding (ex/im)</i>
		reform tax/subsidy regime – <i>administrative costs financed by Treasury or from improved rent capture (im)</i>	business organizations / information networks to facilitate identification of potential buyers of forest services – <i>informational resources (im)</i>	project-financing windows for small-scale operators – <i>concessionary micro-credit facility capitalized by bond issue (ex)</i>
	Operational	Pre-	research on impacts of different management strategies on different forest values (see Box 2, Section 3.2.3) – <i>technical and human resources (im)</i>	scoping for / identification of business opportunities in emerging markets – <i>informational resources (im)</i>
incremental cost support for transition to SFM (e.g., training) – <i>environmental funding facility (ex)</i>			development of emerging commodity markets – <i>private-public partnership investments in SFM demonstration projects for experience-building (ex)</i>	SFM knowledge / experience sharing network or centralized body (e.g., RIL academy) with extension services – <i>human resources / capital investment (ex/im)</i>
During		infrastructural SFM investments in the context of economic development plans, e.g., roads / access points – <i>debt-financed capital investments (im)</i>	marketing / sales / transaction brokerage for non-timber forest commodities – <i>from operating budget (ex)</i>	market organizations / collectives to mediate sales of national / global benefits – <i>human resources (ex)</i>
Post-		information clearing-house and experience-gathering from SFM activities – <i>informational and human resources (im)</i>	site preparation / replanting for second rotation – <i>debt, profit-financed (ex)</i>	monitoring / protection of resource / land tenure enforcement – <i>human resources (ex)</i>

N.B. (ex) and (im) indicate whether the capital investments meet explicit (financial) or implicit (natural, social, human) costs.

Source: Moura-Costa, P., Salmi, J., Simula, M., Wilson, C., 1999. Financial mechanisms for sustainable forestry. Report for the UNDP/SEED Program, for the IFF. 200 pp.