Forests, Carbon & Finance

Symposium on financial issues associated with Forestation and Avoided Deforestation as a means of tackling climate change.

Thursday, 29 January 2009
The Guildhall, London

Hosted By:

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1. Introduction

Forests cover in excess of 30% of the total land surface of the Earth. Deforestation causes serious social economic and environmental problems regionally and globally. Emissions from forestry activities (as defined by the IPCC) account for almost a fifth of global greenhouse emissions. To put this in context, this is larger than the combined emissions of the entire global transport fleet - annual emissions from deforestation are therefore equivalent to the national emissions of China.

Halting deforestation is complex problem, yet it is not intractable, and the issue of protecting rainforests through market mechanisms has recently become a topic which is receiving a great deal of interest from both the policy and the financial communities.

A key finding of the City of London's London Accord initiative (www.london-accord.co.uk) has been that Forestation and Avoided Deforestation are crucial themes for investors given society's increasing willingness to pay to avoid climate change. Uncertainties surrounding forestry abatement, costs and returns affect portfolio selection, even if a portfolio does not contain direct investment in forestation or avoided deforestation. Interaction with wider issues, such as pressures on land use, water, biodiversity, sustainable forestry management or indigenous peoples' rights, makes forestry a complex investment. More mundane financial issues such as yield, transaction cost and liquidity are hardly straightforward either.

Some work has already been done - several companies and organisations are currently offering Verified Emission Reductions (VERs) as forestry offsets. Some are either seeking to have these registered as Certified Emission Reductions (CERs), or are building capacity to do so.

The Kyoto Clean Development Mechanism (CDM) is, at first glance, a practical and promising mechanism for protecting forests. However, currently forest projects are only eligible under CDM if they deliver afforestation or reforestation. This is a perverse subsidy as existing forests are unprotected and there is even an incentive to clear cut, sell the wood and then claim CDM to replant.

The 2008 Eliasch Review, "Climate Change: Financing Global Forests", commissioned by the UK Prime Minister and conducted with the assistance of the Office of Climate Change (OCC) strongly recommends that Reducing Emissions from Deforestation and Degradation (REDD) credits, should be included in a post-2012 climate agreement with a view to encouraging their trade within the formal carbon markets.

While REDD holds promise as a means to ensure the long term protection of rainforests, a number of issues regarding verification, ownership and the scheme's overall impact on emissions trading would have to be managed carefully. One of the primary issues for consideration is the impact of REDDS lowering the price of carbon, and reducing the commercial attractiveness of related markets such as the eco-tech and renewables sectors.

2. Symposium

The City of London hosted a morning symposium on forestry finance bringing together investment managers, insurers, investment researchers, brokerages and forestry experts. The aim of the discussion was to highlight some of the issues, establish connections among the participants and explore what might, if anything, might be done by the City of London or the London Accord.

The morning centred on two discussion panels. The agenda was as follows:

08:00 to 08:30 Buffet Breakfast

08:45 to 09:00 Greetings from the Chair – Professor Michael Mainelli

09:00 to 10:15 Panel – **"Forests & Carbon"**
Mr Eric Bettelheim, Sustainable Forestry Management
Dr Paul Smith, Millennium Seed Bank Project Kew

- can an effective registry of forest assets be established?
- what are the wider issues of ownership and can they be resolved?
- if REDD is included within the EUETS, how can the price of carbon be protected?
- can an effective system of "intellectual property rights" for forest products be established?
- is bio-piracy a serious issue? if so, how can bio-piracy be prevented?
- how important are carbon credits?

10:15 to 10:30 Coffee

10:30 to 11:30 Panel – **"Forests & Finance"**
Mr Mark Campanale, Four Elements Capital
Ms Alice Chapple, Forum For The Future

- are forests an attractive investment? if not, why not? is forestry alone a good asset class?
- are insurance products are required?
- how important is sustainable management to investment?
- how important is easy entry/exit of investment?
- how might we consolidate risk to allow smaller landowners to access the marketplace?

11:30 to 11:45 Open discussion – what might/should be done?
Next steps?
Close

The symposium was held under the Chatham House rule, i.e., participants are free to use the information received, but neither the identity nor the affiliation of the speaker(s), nor that of any other participant, may be revealed without their express permission.

A summary of the discussion points is set out below. This summary records the key points of the discussion, but in no way implies that any of the participants agreed with all, or any, of the specific comments. The purpose of the record is to help inform others who may wish to understand City (Financial Services) thinking about forests, carbon & finance or take some of the observations forward.

3. Forests & Carbon

The London Accord identified forestry as a key area of portfolios designed to tackle climate change. However three principle questions remained:

1. Is afforestation an effective method of carbon sequestration?

2. Is forestry an expensive mitigation option?

3. How can the complex issues associate with forestry- leakage, insurance, indigenous people etc., be resolved?

The principal obstacle in getting forests into carbon markets is uncertainty - this chills investment. This uncertainty derives from the regulatory regime (will REDD be included in any post-Kyoto agreement) as well as real and perceived risk associated with investment in and doing business with developing economies.

The regulatory regime is adversely affected by ideological stance of NGOs. Constant attacks on carbon markets by this influential sector are reported in the media and affect attitudes of regulators and decision makers.

Attitudes of some NGOs are starting to change, and some are taking a positive stance, but company directors want an easy life and may be unwilling to risk reputational damage by engaging with carbon or forestry products. This stifles innovation and it was stated by one participant that NGOs should lead in finding solutions or should not hinder the efforts of those who are seeking to do so.

One commentator suggested that the perception of forestry being too complex an issue to tackle was inaccurate. Any activities need to be integrated with responsible land management to protect local rights and enhance local livelihoods. If this is delivered, stable and sustainable low risk investments can be achieved.

Forestry is the next 'low hanging fruit' that can offer relatively cheap credits, making the compliance markets more affordable.

Carbon may not be the universal panacea to rainforest protection. Forests are not just carbon sinks, but provide ecosystem services. If these services can be commoditised and carbon is considered added value, the risk associated with investment may be ameliorated.

Biodiversity is one important service provided by rainforests. Currently humans depend on just 12 major food crops. In a warming world some of these may become non-viable, so biodiversity is an insurance package.

The Millennium Seed Bank run by Kew seeks to maintain genetic resource. Seed remains the property of sovereign Governments. They can be commercially exploited, with Kew acting as a broker and advisor on appropriate species, however, to date there has been little uptake of this service. Information on this resource needs to be more widely disseminated in order to engage investors and find ways of exploiting local knowledge and expertise.

One commentator has had significant success working on local levels, giving rise to effective partnerships and good working relations and indicated that by putting the right mechanisms in place, local governance 'bogeymen' could be overcome.

Investors are finding it difficult to unravel the complexity of issues such as biodiversity and other eco-system services and how they relate to carbon. How can biodiversity be valued? Should it be viewed as collateral benefit rather than a main investment driver? Liquidity is difficult to achieve as the value of biodiversity in one location cannot be compared to another. One possible way forward is the establishment of indices for biodiversity, which would give investors an appreciation of the situation. It was argued that indices are a distraction, taking the focus off the major investment that is still taking place in clear felling and palm oil plantations. These activities are responsible for massive deforestation and should be prioritised as an issue to be addressed.

The main problem appears to be that rainforests are currently worth more cut down than standing (as much as 1000 times more according to one contributor). In order to combat deforestation standing forests must be given a value. To this end carbon offsetting is one possible value enhancer. But carbon could only account for 10-20% of the value of a standing forest, the rest of its value lies in eco-system services.

Only a handful of tree species are of value in legally commercial timber production. If a forest is managed sustainably these can be harvested with minimal damage. The main drivers of deforestation are alternative land use- primarily agriculture for crops such as soya and palm oil, which are approximately 1000 times more profitable. Carbon could give commercial forestry a competitive advantage over these other uses. Other rewards for sustainable forestry were also suggested, including increasing demand by promoting the importance of timber in the construction industry.

However, some participants felt that the outlook for a post Kyoto agreement was not looking good. The current price of carbon is as low as €10 per tonne. The rules on REDD are currently unclear, however, as the EUETS is currently trading around 5 billion units (demand is down due to recession) the voluntary market may offer a more viable vehicle for REDD.

Other participants felt that political pressure would ensure that some form of agreement was inevitable post Kyoto, however it was believed to be unlikely that an international trading scheme would be established. A more likely model (and one that seems to be emerging already) was for regional or sub-regional trading which would create arbitrage opportunities for cross scheme trading, this could be moderated by a UN body. It was also stated that a low price of carbon was not necessarily a bad thing for these new schemes, as it would give business an opportunity to adapt and innovate. However, one contributor felt that the time it will take before forestry credits hit the markets will mean that a sudden 'flood' of cheap credits which will cause a drastic drop in prices is unlikely to happen.

The issue of governance was also raised. Illegal logging is currently removing millions of dollars from governments who could use this for sustainable forestry management. Bribery and corruption are endemic in some nations with major forest assets and efforts should be made to assist them with this problem. The EU should also enhance legislation and address demand issues to prevent illegal logging.

Governance issues also impact on the risks associated with investment. One possible way forward is for public private bonds to underwrite investment, thus sharing the risk.

The issue of stewardship by indigenous peoples was also raised, this led to a discussion of the importance on land rights and raised the question of ownership, particularly related to carbon. There are also issues surrounding local demands and use of forests, for example, around 80% of Africans use wood for fuel and shelter. It would take massive investment to encourage lifestyle changes. However, attendees were directed towards examples in New Zealand, Australia and America for how indigenous communities have benefitted from new market opportunities and vice versa.

The cost of preventing deforestation was discussed. It was estimated that to halt deforestation an annual investment of approximately $150 billion was required. This could only come from private sector investment.

Summary of issues raised:

- Valuation of forests is creating challenges. Carbon is an important part of the jigsaw in finding a solution to deforestation, but other factors, such as eco-system services, biodiversity and local capacity building projects should also be considered.

- The voluntary market may play an important role but is currently a very small contributor.

- NGOs have a right to lead debate, but they also have a responsibility to assist in finding practical solutions. Some NGOs are already engaged in this.

- Property rights are crucial to forest protection - both in terms of land rights and rights to carbon.

- Governance and risk issues must be addressed if private sector capital is to be part of the solution.

- Land use/management issues are also key if deforestation is to be slowed.

4. Forests & Finance

The opening panel presentation suggested:

1. Strong evidence of capital markets activity around sustainable land use.
2. Global policy makers innovating to encourage private sector investors to enter.
3. New alliances between Banks and NGOs and Eco-financiers.
4. Forestry and sustainable land use funds being marketed.
5. Certified sustainable forestry now seen as normal.
6. Increasing discussion of carbon and ecosystems as part of investment proposition.

It was suggested that one possible way of protecting existing forests is by seeking a compensation mechanism that would reward governments for protecting them. One model is afforestation or forestry protection for the energy market, as well as the encouragement of sustainable forestry.

Pension funds are currently interested in forests as an asset class as they may provide secure returns over long periods. As the market is developing some NGOs are working with banks to explore best practice (especially with regards to indigenous peoples' rights). Some problems do remain, especially with regards to land rights and massive transaction costs.

Practitioners reported that there is currently some appetite for open ended forestry funds, where liquidity is available. Quadris was singled out as a successful fund in this field.

To this end it was suggested that funds and bonds were the key to protecting forests and carbon, despite its links and topicality may prove to be a less practical route, due to the issues raised in the previous session.

However it was recognised that different approaches were needed for different types of forest, and that the approaches used with commercial forestry were not necessarily appropriate for standing forest.

It was noted that a huge range of different types of investment in forests and this will dictate who gets involved. The UK Government wants to know what they can do to support activity and there are nine focus areas which need to be understood and managed in order to attract private sector investors:

1. How these proposals link into carbon markets

2. Role of insurance - making risk more manageable

3. Governance, financial institutions who will take a treasury role

4. Opportunity costs - costs of establishment and transactional costs

5. Front loading streams of cash e.g. EC global financing facility

6. What measures are being proposed in sustainably managed forests?

7. Measures being proposed for influencing demand for sustainably managed products?

8. How any of the proposals allow rainforest communities to benefit and take advantage of funds.

9. Learning from existing relevant financing structures that are working in practice (whether related to forests or not) - such as the International Finance Facility for Immunisation.

A number of key issues were then discussed, including:

- The opportunity inherent in linking carbon to forestry bonds

- The governance of bonds, and the potential role of the World Bank

- The issue of how opportunity costs to developing economies could be dealt with.

- The management of income streams designed to protect forests

- The management of demand for timber and how to direct this demand to sustainably managed forests.

- The management of risk, especially with respect to insurance issues and the front loading of bonds.

The issue of insurance was discussed further, and Forest Re was held up as an example. The insurance of carbon yields was discussed, and the possibility of using carbon in lieu of premiums was raised, as this would enable a like-for-like swap.

The perception of risk and reward with respect to forestry investment was then discussed.

For standard commercial forestry and the pulp and paper industry, risk is well understood. With respect to carbon however, issues are more uncertain due to regulatory uncertainty.

One way of ameliorating perceived risk could be the underwriting of credit by government. Another was the development of risk management products- similar to yield insurance or weather derivatives. It was suggested that further research, both technical and actuarial was required top bottom this out. To this end Kew, who hold 250 years worth of data on plant species, is a key resource.

However ultimately it was agreed that long term climate change represented a risk to the insurance industry, and thus insurers should be encouraged to engage in forestry investment.

An interesting comparison was made between forestry and other commodities- in particular the difference between forestry and the oil and gas industry was examined.

On the surface oil and gas appears to face many similar issues to forestry- namely its location in developing economies, governance issues, land rights and the rights of indigenous peoples. However the primary differences between oil and gas and forestry are that land used for forestry can be used for alternative (profitable) uses, and timber is easy to steal.

It was suggested that a useful model for comparison would be intellectual property rights. To this end carbon is a good proxy currency and thus essential to the protection of forests.

However one of the problems with this comparison is that (unlike IPR) there is no shortage of carbon (though there is a shortage of carbon sinks). Thus the importance of creating legal liabilities through emissions capping was highlighted.

Investors may see climate change as a long term risk but the need to persuade investors that NOT investing in forests is a greater risk was underlined.

Voluntary markets are too small to make a large impact on deforestation, however they have created innovation. The regulated Carbon Markets are politically created, and this can create ideological and infrastructural difficulties if they are to be applied to forests.

One of the key problems that must be overcome with respect to REDD is the issue of the non-permanence of sequestration. This must be addressed if REDD is to work.

One possible way of by-passing these problems is through the securitisation of cashflows, to create a permanent endowment for governments who are seeking to protect forests, this could be backed by pension fund investment. However for this to be effective appropriate certification is essential.

Summary of issues raised:

- Forests hold potential as long term investment vehicles for pension funds and insurers. It is important to show investors that not investing in forests presents a greater risk than doing so.

- Government money could be used to underwrite credit used in forest investment.

- Further research is required in appropriate risk management vehicles (such as yield insurance and weather derivatives) in order to underwrite forest carbon.

5. Next Steps?

Participants were asked to give a final opinion on priorities for action:

1. Insurance: increasing opportunities for bespoke products.

2. Directly address NGO concerns that are impeding progress.

3. Don't give up on a post-Kyoto agreement.

4. Carbon Markets have a role but are not the only way. Governments need to work together.

5. Amount of finance already being provided needs to be highlighted. Need guidance principles for investments.

6. Try to bring more investors to the table, i.e. to subsequent discussions.

7. Financial crisis means risk is being revisited.

8. Long term yield products - there needs to be a way of monetising the value of forests.

9. Need innovation – the City should lead and buy forests.

10. Forest bonds – bring in investors and privatise the Forestry Commission.

11. Intellectual Property Rights analogy is interesting. Also believe the market is in sequestered carbon as that is in short supply.

12. Using technology to track individual trees could remove uncertainty and corruption.

13. Biomass for power – would like to know the impact on biodiversity.

14. Financial returns – sell more wood and at a better price through giving timber market advantage over plastic and steel (for example).

15. Need to identify asset class and define clearly for investors.

16. Design policies and politics.

17. See carbon finance alongside other traditional systems, not as a revolutionary approach.

18. a) follow Guyana's lead b) reassurance c) afforestation where you have desert creep

19. Consider UK investment as a lead in. Plenty to invest in in the UK before going abroad.

20. Funding from mainstream as well as specialists but this market is currently sceptical.

21. Interesting challenge to work as a collective.

22. Titles and contract certainty are key.

23. Hope for post-Kyoto framework.

24. Promote regulatory certainty and security and mainstream finance will follow.

6. Closing Remarks From The Chair

The symposium was extremely helpful in identifying the many issues that affect investment in forestry. It is difficult to summarise three hours of discussion among bright, committed and articulate people, but a few points did stand out:

- private sector investment of significant scale, $50 billion to $150 billion annually was discussed, is probably the only way that forests will be preserved or extended;
- long-term investment means that forests must generate income for both investors and indigenous people – standing forests must have value;
- forestry is currently an attractive investment when conditions are right, but this is very local, not yet at scale;
- investors need 'clean' rights - uncertain land rights, forestry rights and contract enforcement impede investment - sometimes exacerbated and sometimes ameliorated by NGO activities;
- sustainable forestry management, and the associated certification schemes, may have a major role to play in encouraging investment;
- an active carbon credit market for forestry would be an added fillip, but is not essential;
- an active credit market for biodiversity would be an added fillip, but is not essential and definitely a complex area;
- insurance may play a larger future role in helping to structure long-term investment;
- more research could usefully inform investors, particularly on the long-term risk/reward of managing forests, and on the science behind carbon sequestration in forests both globally and locally.

One thing did stand out though – complexity. Investors favour simple investments. A lot of thought has gone into structures such as eco-securitisation, Timber Investment Management Organisations (TIMOs), REDDs, biodiversity, certification, reinsurance, etc. Perhaps too much thought. Investors find an area that requires too much expertise off-putting. Simplification of structures will be as essential as creating momentum for investment at scale.

Professor Michael Mainelli, Z/Yen Group

Attendees

Alice Chapple	Forum for the Future
Amanda Rooney	
Andrew Mitchell	Canopy Capital
Arne Morteani	ETF Manager LLP
Barbara Woodthorpe Browne	Royal Forestry Society
Birte Berlemann	City of London Corporation
Brendan May	Rainforest Alliance & Weber Shandwick
Chris Knight	PWC
Christopher Norton	Lovells LLP
Emily Brickell	WWF
Emma Bara	City of London Corporation
Eric Bettelheim	Sustainable Forestry Management (UK) Limited
Fran Dowling	FCO
Georgina Langdale	Kew Foundation
Graham Cooper	
Hilary Khawam	PEFC UK
Ian Harris	Z/Yen Group
Johannes Ebeling	Eco-Securties
John Grayson	enviromarket
John White	Timber Trade Federation
Jonathan Marren	KBC Peel Hunt Ltd
Liz Bosley	CEAG
Mark Campanale	Four Elements Capital
Michael Mainelli	Z/Yen Group
Michael Woods	Eversheds
Mr and Mrs Norman Weiss	UK foresters
Nick Marshall	ICECAP
Nicola Steen	CO2e
Oliver Sinclair	Department of Energy and Climate Change
Patrick Lamb	IFSL
Paul Smith	Millennium Seed Bank Project Kew
Phil Cottle	Forest Re
Robert Woodthorpe Browne	Royal Forestry Society
Simon Mills	City of London Corporation
Simon Petley	Enviromarket
Steve McNab	Leapfrog