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SPECIAL BULLETIN

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TERRESTIAL LANDSCAPES, BIODIVERSITY AND CLIMATE CHANGE

KEY ELEMENTS OF A REDD MECHANISM

Introduction

The United Nations Framework Convention for Climate Change (UNFCCC) is negotiating a mechanism to include forest protection in the agreement for post 2012 commitments to be finalised in Copenhagen in December 2009. The proposed mechanism for Reduced Emissions from Deforestation and Forest Degradation (REDD) will necessarily be designed with efficient and effective carbon conservation as its foremost goal.

However, this is an important opportunity to also ensure the proposed mechanism is designed to maximise the co-benefits for both carbon and biodiversity conservation. Caution must also be taken to ensure that other non-forest carbon and biodiversity habitats are not overlooked and that perverse outcomes are avoided.

There are a range of universally accepted economic, social and moral reasons why we have to protect the world's biodiversity. Importantly for climate change mitigation, having a range of species that respond differently to different environmental perturbations can stabilize ecosystem processes in response to disturbances and variation in abiotic conditions (Hooper *et al*, 1995)[1]. Thus, biodiverse ecosystems are more resilient and provide more reliable carbon stores (Mackey *et al* 2008)[2].

In this paper we discuss key elements for an approach to terrestrial carbon conservation at the UNFCCC that would best maximise biodiversity co-benefits.

> The G-8 Leaders in their July 8 2008 Declaration on Environment and Climate Change in Hokkaido stated: *"We endorse the Kobe Call for Action for Biodiversity and reiterate our commitment to increase our efforts to reduce the rate of biodiversity loss significantly in order to achieve the globally agreed 2010 Biodiversity Target....* ***We will promote a co-benefits approach that will lead to reducing greenhouse gas emissions and conservation and sustainable use of biodiversity as well****"*.

1) A single AFOLU approach

We recommend the UNFCCC work towards a single strategic framework for dealing with terrestrial landscapes in relation to their role as carbon stores and sinks, bringing together the Kyoto Protocol Land Use, Land Use Change and Forestry (LULUCF) approach with the Bali Action Plan REDD approach. "AFOLU" is the term coined by the IPCC in its latest report to describe the whole range of land use issues — 'Agriculture, Forestry and Land Use Change'.

There are no sound reasons for having different strategic approaches for landscapes and climate change between developing countries through REDD and developed countries through LULUCF. Coherent and comprehensive reporting for the AFOLU sector is needed.

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As Australian experts Brendan Mackey *et al* (2008) have stated in their recent report on Green Carbon(2): *"While international attention is now focused on REDD in developing countries, the laws of nature that account for the global carbon cycle operate irrespective of political boundaries. Therefore, a unit of carbon emitted due to deforestation and forest degradation in Australia, the United States, Canada or Russia has exactly the same impact on atmospheric greenhouse gas levels as a unit of carbon emitted from deforestation and degradation of forests in Indonesia, Papua New Guinea, the Congo Basin or Brazil. From a scientific perspective, solving the climate change problem requires, among others things, that REDD be accounted for in all forest biomes, irrespective of the host nation's economic status".*

Other non forest landscape systems, such as wetlands and peatlands can also contain significant amounts of carbon. Hence, the AFOLU concept in relation to natural biological systems should be defined to encompass all relevant vegetation forms insofar as they have carbon sink importance. (Although, recognising that it is not yet possible to undertake full carbon accounting for all ecological communities or landscape types).

Summary: The current differential approach means that optimum efforts to mitigate climate change through sink activities and achieve collateral benefits such as conserving biodiversity are not being achieved.

2) Resolve definitional problems

Mature, tall, natural forests constitute the largest and most resilient terrestrial store of carbon on the planet and as Mackey *et al* (2008)(2) and other studies have indicated, natural undisturbed forests will always hold more carbon than forests subject to commercial logging. Not only that but undisturbed forests are also more resistant to disturbance and more able to effectively recover from disturbance and hence restore carbon stocks.

Natural undisturbed forests may also contain much more carbon than has been generally recognised. The studies by Mackey *et al* (2008) found that south-east Australia's natural forests are among the most carbon dense in the world and store three times more carbon than experts had previously recognised.

The definition of forests in future climate change agreements and policies should therefore be revised to recognise the differences between the ecological characteristics of plantation forests and natural forests in relation to carbon residence times and include incentives and safe guards to preserve intact natural forests.

The current definition of a forest used for reporting and accounting purposes under the Kyoto Protocol is structurally based comprising: a minimum area of land of 0.05 hectares with tree crown cover (or equivalent stocking level) of more than 10 per cent with trees with the potential to reach a minimum height of 2 metres at maturity in situ.

It includes (i) young stands of natural regeneration; (ii) all plantations which have yet to reach a crown density of 10-30 per cent or tree height of 2-5 metres; (iii) areas normally forming part of the forest area which are temporarily unstocked as a result of human intervention such as harvesting or natural causes but which are expected to revert to forest.

This definition makes no distinction between, among other things, planted crops of monoculture perennial woody plants and complex biodiverse natural forests.

The Kyoto Protocol definition has already led to significant perverse accounting and reporting outcomes. For example, where primary natural forests are cleared and converted to short rotation fuel and fibre crops, but this land cover change is not classed as deforestation nor the emissions

from the land cover change accounted for. However, emissions result as if deforestation had technically occurred, and it will take hundreds of years to repay the carbon debt.

Under the Marrakesh Accords the intrinsic problems with a structurally based definition were identified and the Subsidiary Body for Science and Technical Advice (SBSTA) was asked to come up with a biome based definition, namely: *Decision 11/CP.7 Land use, land-use change and forestry 2 (b) To investigate the possible application of biome-specific forest definitions for the second and subsequent commitment periods with a view to the Conference of the Parties at its tenth session recommending a decision for adoption on the use of such biome-specific forest definitions for future commitment periods to the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol at its first session.*

As this decision has yet to be concluded it provides the basis for revision of the Kyoto Protocol definition of forest. We propose the following definitions be adopted. We acknowledge they do not go so far as establishing biome based definitions but will at least prevent perverse outcomes associated with plantation development under LULUCF rules persisting in the second commitment period and being repeated in the treatment of REDD.

Proposed definitions for forests:

The existing structural definition could be retained and two sub categories created for 1) natural forests and 2) plantations. Each would be separately accounted and reported with plantations treated under AFOLU as agriculture. This would avoid the current perverse outcomes because conversion would be treated the same as any other agriculture conversion and reported as deforestation and / or degradation.

1. Natural Forests — A natural forest is a terrestrial ecosystem generated and maintained primarily through natural ecological and evolutionary processes. Natural forests are an essential part of the global carbon cycle, and have played, and continue to play, a major role in modulating the strength of the greenhouse affect.

2. Plantations — A plantation is a crop of trees planted and regularly harvested by humans, and is best thought of as an agricultural land use.

Summary: Careful consideration needs to be given to the definitions of natural and plantation forests, deforestation and degradation so that perverse outcomes are avoided.


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In revising the definitions for forests the following issues need consideration:

Issue 1 Semi natural forests

Some 'forests' have been under intensive forest management for up to 7 rotations. This class of forest is often called 'semi-natural' where these forests are primarily used for wood production and are maintained by hand planting, fertilizer application and the use of herbicides. Parties could nominate them as plantations for accounting and reporting purposes.

Issue 2 Natural regrowth on previously cleared land

In some regions forests can regenerate on previously cleared land from adjacent un-cleared areas, ground stored and/or wind-blown seed. If these are allowed to grow without significant management interventions they should be regarded as natural forests regardless of tenure.

Issue 3 Silvicultural regeneration

These are forests which have been subjected to one or two intense logging cycles but allowed to regenerate with minimal intervention using natural seed fall and/or aerial seeding. This would be classed as natural forest as in the absence of further cutting they are capable of meeting the definition of natural forests.

Issue 4 Forest restoration plantings

In many regions trees are being planted in complex multi-species plantings or have been established as complex agro-forests with high structural and species diversity, in some cases the core species are native to the region. These systems may combine planted vegetation, providing both useful products and environmental services, with naturally occurring succession, stewarded by landowners over the long term. The sequestration of carbon is an additional service in those systems that include mature trees. In these circumstances, if the plantings are designated as permanent they could be nominated as natural forests for reporting and accounting purposes.

3) Accounting for Degradation

Deforestation is the extreme end of a continuum of degradation. The structural definition of a forest at 10% canopy cover will present a problem in a REDD mechanism if degradation is not accounted for. If deforestation is not deemed to have occurred until a forest canopy cover reaches 10%, depletion of forest say from 90 percent to 12 percent canopy cover will be considered forest degradation. Logging most often falls under the category of forest degradation. For this reason, forest degradation rates are considerably higher than generally accepted deforestation rates. Failure to account for degradation and create a disincentive against it in the REDD mechanism risks a perverse outcome whereby logging operations are eligible for REDD credits providing 10% canopy cover is retained, irrespective of carbon (and biodiversity) lost from the system which, as Mackey *et al* 2008 demonstrate, can be significant. Noting also that intact tropical rainforests can have dense canopy covers of 90+%, so much carbon will be lost (not to mention biodiversity) before the 10% canopy cover threshold is reached.

Mackey *et al* (2008) explain there is a difference, sometimes significant, between the current carbon stock of a forest and the natural carbon carrying capacity. Most carbon accounting schemes just focus on the current stocks. Logging, even in sustainable forest management (SFM), can significantly lower the carbon stock of a forest. The difference between the natural carbon carrying potential and current carbon stock of a forest is the carbon sequestration potential and herein lies significant potential for carbon mitigation. Therefore, while forest degradation either through logging or natural disturbance is difficult to measure, it is extremely important that emissions from degradation are accounted for and a definition of forest degradation should be agreed.

Mackey *et al* (2008) suggest 'forest degradation' should be defined to include the impacts of any land–use activity that reduces the carbon stock of a forest relative to its natural carrying capacity'.

Summary: Not accounting for degradation in the REDD mechanism risks perverse outcomes.

4) Variety and flexibility

An important current issue with REDD is how to accommodate the differences between developing countries with different patterns of deforestation.

The original development of the REDD idea was undertaken by countries with very high current rates of deforestation where benefits could come from reducing future rates of deforestation (based on the assumption that past rates would continue if nothing happened, the basis for the 'baseline' approach to calculating reduced emissions, for both reaching reduction targets and participating in trading systems).

The same REDD ideas for these countries could be rearranged to allow two other classes of developing countries to benefit fully from REDD:

a) those with low rates of past deforestation but facing immediate futures with high rates of degradation (e.g. Congo Basin countries — which could benefit by deciding to maintain past rates of deforestation and so forego plans to increase rates of deforestation); and,

b) those with past records of conservation and protection which have already succeeded in reducing rates of deforestation (e.g. Costa Rica — which could benefit by identifying recent past (since 1990) rates of deforestation that are lower that earlier (pre 1990) rates and committing to maintaining current low rates of deforestation).

This flexibility will be essential to avoid inevitable leakage of deforestation pressures from countries with high historical deforestation rates to those with low rates of past deforestation.

In the paragraphs below we set out a suite of strategies for developing countries to estimate their emissions reductions as a basis for accessing available funding sources including eligibility for carbon credits and participation in emissions trading schemes and other market mechanisms.

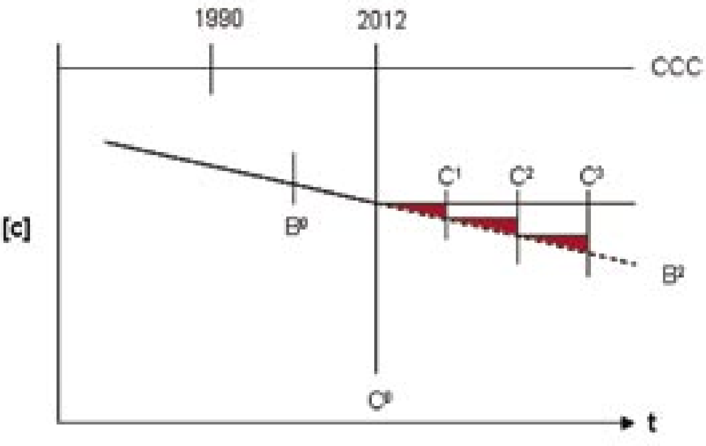
Note that in these paragraphs, ‘degradation’ is used to describe both deforestation and forest degradation — deforestation being but one extreme of the continuum of types of forest degradation (and includes clearing for agriculture and logging for wood supply).

Note also that the chosen unit of ‘degradation’ is [C] or carbon density with the diagram illustrating reductions in carbon density compared to CCC (natural carbon carrying capacity — the expected carbon density of intact forest in the relevant area). A range of other units could be chosen but [C] most realistically illustrates what is actually happening to a forest. Note that countries would be free to apply the approach at the national or sub-national level as the agreed rules may allow. A fourth diagram is included which illustrates how eligibility for a biodiversity co-benefit ‘bonus’ and ‘supplement’ could be established were a complementary financial mechanism to be developed through the Convention on Biological Diversity or other forum.

It is proposed that developing countries, in deciding whether or not to participate in REDD activities, should choose which approach best suits their circumstances and interests. Note that approach 3 may supplement approaches 1 or 2 while approaches 1 and 2 are direct alternatives:

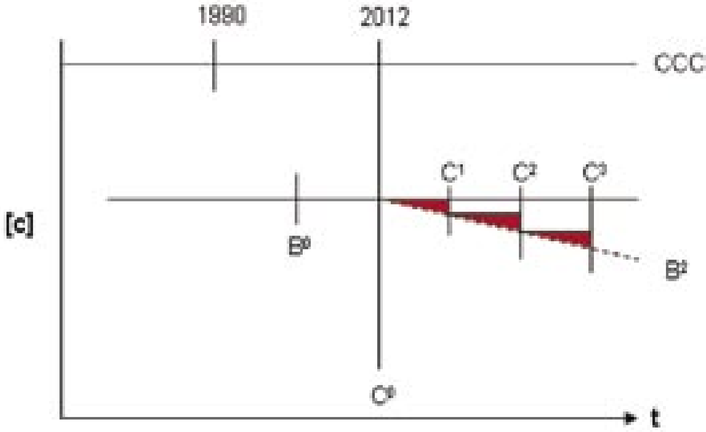
> Approach 1 — REDD based on reductions in future emissions from choosing to reduce rates of degradation compared to rates of degradation in the recent past (suitable for countries/regions with relatively high rates of degradation in the recent past, such as Brazil and Indonesia) — see diagram 1;
>
> Approach 2 — REDD based on reductions in future emissions from choosing a reduced rate of degradation compared to that previously planned, intended or anticipated (suitable for countries/regions with relatively low rates of degradation in the recent past, such as the Congo Basin countries) — see diagram 2;
>
> Approach 3 — REDD based on reductions in past emissions since 1990 from having chosen to protect areas from degradation and consequently reduce rates of degradation (suitable for countries/regions with high levels of reservation or which have otherwise already acted to reduce emissions from degradation since 1990, such as Costa Rica) — see diagram 3.
>
> Approach 4 — REDD plus a biodiversity ‘supplement’ or ‘bonus’, for example if the Convention on Biological Diversity were to develop a complementary financial mechanism.

Diagram 1 — REDD based on reductions in future emissions from choosing to reduce rates of degradation compared to rates of degradation in the recent past.



Approach 1 — Assuming countries can acceptably estimate an historical baseline of emissions attributable to degradation in the recent past (the slope of the line between B^0 and C^0 — the year 2012), that line can be extrapolated into the foreseeable future (the line between B^0 and B^2). Actual emissions can then be measured today and at the end of each, say, five year commitment period. Eligible emissions for each commitment period can then be calculated from the increase, for each commitment period, in the vertical difference between the line based on extrapolation of the historical baseline and the line drawn between reported emissions at the end of each commitment period.

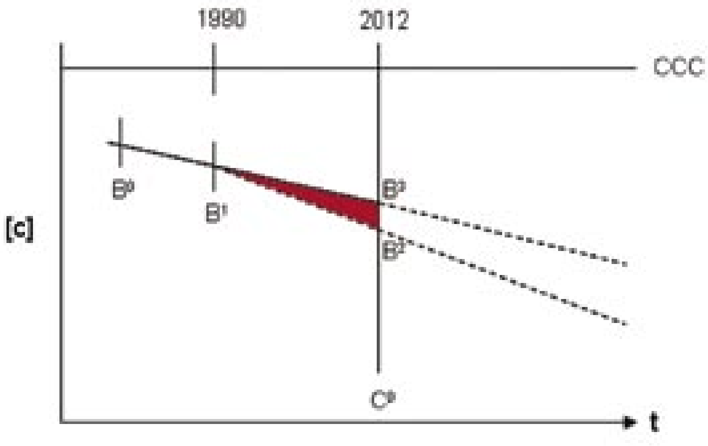
Diagram 2 — REDD based on reductions in future emissions from choosing a reduced rate of degradation compared to that previously planned, intended or anticipated.



Approach 2 — Assuming countries can credibly identify an expected rate of future degradation, based on a realistic and independently verifiable scenario, an appropriate line can be drawn (the line with the steeper slope between C^0 and B^2). Actual emissions can then be measured today and at the end of each, say, five year commitment period. Eligible emissions for each commitment period can then be calculated from the increase, for each commitment period, in the vertical difference between the line based on the agreed scenario and the line, of lesser slope, drawn between reported emissions at the end of each commitment period.

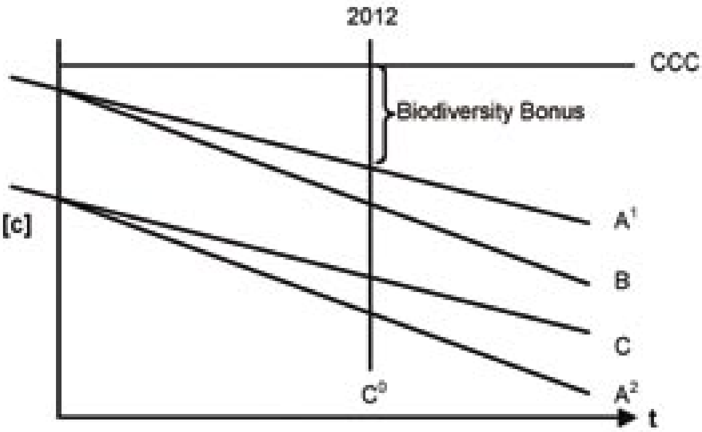
The scenario for estimating likely degradation rates if no change is made to allow participation in REDD would need to be verified by a UNFCCC independent expert panel. It would be based on some integration of current understandings of: development aspirations, land use planning, forest management plans, forest practices codes, norms and standards, reservation commitments, market trends (supply, demand, substitution), etc.

Diagram 3 — REDD based on reductions in past emissions since 1990 from having chosen to protect areas from degradation and consequently reduce rates of degradation.



Approach 3 — Assuming countries can acceptably estimate an historical baseline of emissions attributable to degradation from at least, say, five years before any decisions to protect forest from degradation at any time since 1990, an appropriate line can be drawn (B^0 to B^1 and B^2). A second historical baseline can then be drawn based on estimated actual levels of emissions in years following any post-1990 protection decisions (B^1 to B^3). Eligible emissions for each commitment period can then be calculated as the vertical difference between the two baselines at the start of the post-2012 commitment period (line based on extrapolation of the historical baseline and the line drawn between reported emissions at the end of each commitment period ($B^3 - B^2$).

Diagram 4 — Biodiversity co-benefit 'bonus' and 'supplement' payments.



Approach 4 (using the same [C] unit to allow ready comparison with REDD) identifies how a 'biodiversity bonus' could be calculated based on the accumulated level of degradation in a particular area (equivalent to the biophysical naturalness of the area). The higher the proportion of CCC remaining (the vertical distance between CCC and the intersection of the various degradation paths (A^1, A^2, B & C) with C^0), the higher the 'bonus'. In effect, those states with relatively intact native vegetation could generate an 'ecosystems services' income stream that recognises the benefits to the wider community of their decision to forego those developmental opportunities that would have resulted in significant additional degradation.

Note that the degradation paths of the same slope, (e.g. A^1 and A^2) while having the same eligibility under REDD, would be eligible for different biodiversity bonus payments based on their different accumulated levels of degradation.

Note that an additional biodiversity 'supplement' could be paid based on the relative biodiversity value of different areas. Such relativities have been developed through various approaches to identification of biodiversity 'hotspots' over the years. It could be left to the Convention on Biological Diversity to develop agreed rules for relative ranking of areas that appropriately reflect national priorities and circumstances and different vegetation types and landscapes.

Afforestation and Reforestation

Note that the same approach to REDD, and to biodiversity bonuses and supplements, described above can be adapted readily to include changes attributable to afforestation and reforestation. Obviously, there could be synergistic opportunities to maximise co-benefit gains by choosing the type and location of afforestation and reforestation.

Sub-national reporting

Countries should be free to allow reporting by their regions, states or any other sub-national level of government that has the constitutional power and responsibility to control land use — and thence have the power to enforce and targets that might be set.

It is important that the term 'sub-national reporting ' is used and interpreted to allow sub-national entities to set appropriate target-driven emissions reduction strategies without having to wait for the whole country to catch up.

Summary: HSI suggests UNFCCC should not be seeking to devise and negotiate a single REDD approach that must be used to address every situation but to develop a suite of approaches that countries can choose from to suit their own particular circumstances to maximise the opportunities for carbon conservation and avoid leakage into the future. All such approaches have to be fair and reasonable but, beyond that, innovation should be rewarded.

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5) Comprehensiveness

All stores, sinks and sources should be identified and all components realistically estimated annually. The deficiencies embedded in the Kyoto Protocol should not be further entrenched. We recognise that measuring different ecosystem components have vastly different levels of difficulty and methodological complexity, so research and development is required to progressively expand the range of components that can be covered by realistic methodologies.

However, the absence of such methodologies for some components should not be used as a reason to delay reporting for those components for which realistic methodologies do exist (e.g. recoverable wood volumes can be accurately reported for national reporting and carbon trading purposes for forests immediately, using customary methodologies used by the forest industry, while methane from ruminants can already be readily estimated for reporting purposes but perhaps not yet for emissions trading purposes). Note the importance of being flexible enough to use different reporting standards for national reporting and emissions trading purposes.

Summary: All stores, sinks and sources should be identified and all components realistically estimated annually.

6) Mandatory Reporting

States (or sub-national governments where appropriate) should be obliged to report all stores and emissions regardless of the uncertainties involved in the various estimation methodologies used and quality and/or volume of data available. All such uncertainties can realistically and fairly be expressed as an estimate with confidence limits.

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Estimates for some stores may be too uncertain to support emissions trading or to be used as the basis for setting reduction targets — it does not matter — it should all be reported. If this is done, there will be an important driver to get methodological and data issues resolved. If overall reduction targets are set for countries based on comprehensive reporting (estimates of changes for all stores, sinks and sources) but only imposed on those sectors/elements for which estimation is sufficiently precise, those highly uncertain sectors/elements will have an incentive get their issues sorted out quickly.

Again, comprehensive reporting will help detect and guard against leakage.

Summary: All changes in stores and sinks should be publicly reported on an annual basis.

7) Measuring changes in carbon stores

HSI believes a carbon stores approach to the AFOLU sector would yield greatest carbon and biodiversity benefits and have operational benefits. The key climate change mitigation question becomes: "Has this part of the landscape got more or less carbon in it than it did before?" The importance of this approach is that it is very closely aligned with the key question for biodiversity conservation: "Is this part of the landscape more or less intact?", because intact natural landscapes generally achieve their natural carbon carrying capacity.

It is highly regrettable that his approach was specifically excluded from future intergovernmental deliberations by the Marrakesh Accords. This was because of the concern that 'emitters' would direct their attention to offsetting to reduce deforestation rather than cutting their own emissions.

The carbon stores approach is in recognition of the fact that it is good for the planet to seek to achieve co-benefits for both biodiversity conservation and climate change mitigation, by conserving terrestrial carbon.

One of the real operational benefits of taking the 'change in carbon stores' approach rather than 'change in rates of emissions' approach is that one does not have to estimate past rates of emissions. One simply estimates changes in carbon stores by measuring carbon content at the start of the process and then re-measuring it at the end of each reporting period. This has significant methodological advantages over estimating emissions, not least of which being that it can be done cheaply on the ground by local carbon custodians rather than expensively from satellites by outsiders. Remote satellites are still good for auditing but the primary estimation and reporting is based on real field measurements.

Hence those landholders and communities actually responsible for conserving carbon are also responsible for actually measuring and reporting it, which is critical for carbon trading purposes. The responsibilities and accountabilities rest with the beneficiaries (while the contributors have an interest in remote auditing).

The carbon stores approach to management of terrestrial carbon is essential if incentives are to be created for landholders to maintain carbon stores (in that particular situation where there is no change in carbon store that can be readily transposed into emissions released (sources) or atmospheric carbon sequestered (sinks)). This special circumstance is at the heart of the problem and opportunity, as much of the current thinking cannot accept that it is acceptable to reward someone when there has been no change.

HSI suggests that:

a) incentives to protect terrestrial carbon stores are important even if no emissions are involved, if the result is that less emissions resulted than would otherwise have been the case (issues of additionality, leakage, permanence and measurability issues can be solved, and in any case CDM projects also have the same problems); and,

b) it is an appropriate use of the resources of the international community, governments and research establishments to develop policy options on how to convert the benefits accruing from protecting a terrestrial store of carbon from degradation into eligibility for carbon credits/permits.

The following are possible formulae for converting store protection into credit eligibility:

- rates of clearing/degradation relevant to the area protected (based on the rates of clearing of the forest type being protected and in the bioregion where it was located — incentives are maximized in exactly those situations where the emissions problem is greatest). Note, an organisation doing voluntary trades in Amazonas uses a formula that multiplies the standing volume by the district clearing conversion rate for soyabean farming — the greater the conversion rate, the more they pay;

- the length of time deemed important to address the climate change issue — the more urgent the problem, the shorter the time available to act, the deeper the emissions cuts needed to fix things, the more important it is to have a ‘forests first’ element to the emissions reduction strategy. A discount rate is chosen that converts the opportunity cost of the forest into a stream credit eligibility reducing to nil that mimics the emissions reduction target (e.g. reduce by 60% by 2050);

- or, by default, simply discount that opportunity cost at a rate that reduces value to zero over 100 years (the period by which we will have either won or lost the battle against dangerous climate change); and,

- use an opportunity to create a market whereby shares are issued in protected carbon and those ‘preference shares’ are convertible to carbon permits tradeable on emissions trading markets at some rate to be determined by policy initially and eventually by the market.

The carbon stores approach provides the opportunity to ensure that future IPCC (Intergovernmental Panel on Climate Change) and national vegetation accounting work uses real carbon store data for old growth/intact natural ecosystems rather than relying on data derived from commercial management of plantations and regrowth, as shown in the work of Mackey *et al* (2008).

Conversion to carbon store measurement is thus likely to result in very substantial increases in estimates of emissions from degradation of terrestrial ecosystems than those currently used by the IPCC, making it appear even more important to act to reduce the loss of carbon stores from human induced degradation.

Summary: A carbon stores approach to the AFOLU sector would yield greatest carbon, biodiversity and operational benefits.

8) Tools to maximise biodiversity co-benefits

It is important that the intrinsic design of the REDD mechanism does not disadvantage biodiversity protection and the attention we pay to definitional issues and full carbon accounting seeks to achieve that. Once the mechanism is in place, decision making to implement REDD will likely be at the national level so it will be the responsibility of sovereign governments to consider biodiversity and social co-benefits in their decision making.

HSI strongly recommends the text of the REDD mechanism places obligations on countries to do no harm to biodiversity and to actively seek out biodiversity and other social co-benefits in implementing their REDD strategies. To assist in this regard, we recommend the carbon and biodiversity conservation community start developing tools to help guide decision making to maximise biodiversity co-benefits. For example, many countries may find it useful to have maps identifying areas where high carbon density ecosystems overlap with high biodiversity ecosystems, to know where REDD investments will yield multiple benefits.

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HSI recommends capacity building efforts to prepare for REDD include the development of tools to maximise biodiversity co-benefits.

Summary: The intrinsic design of the REDD mechanism must minimise risks and increase benefits to biodiversity conservation. Capacity building efforts to prepare for REDD should include development of tools to identify where biodiversity benefits can be maximised.

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9) Additional funding

The majority of our comments are assuming a market mechanism for REDD/AFOLU which we fully support. However, we also support the continuation and expansion of dedicated funds for REDD initiatives outside of a market mechanism and do not see the two as mutually exclusive. We appreciate the funds committed to REDD initiatives from governments including Australia, Germany and Norway and the program established by the World Bank. Such direct funds must continue and be expanded.

Current carbon concentrations in the atmosphere mean that a reliance on offsetting through carbon markets will be insufficient to avoid dangerous climate change. Substantial funding streams for biodiversity and carbon conservation independent of markets are also required. Such funding streams will also be important to address market failures as they can be more targeted towards biodiversity conservation priorities than the carbon market would dictate. For example it could be used to guard against the intensification of land-use pressures in ecosystems of lesser carbon value as a result of a REDD market mechanism, that may still be important repositories for biodiversity.

Summary: While strongly supporting the inclusion of REDD in the carbon market, we also strongly encourage governments to substantially increase funding independent to markets for the protection of carbon stores and biodiversity.

Conclusion

HSI strongly supports the inclusion of a REDD market mechanism in the UNFCCC post 2012 agreement. We recommend the UNFCCC commit to developing a single framework for terrestrial carbon stores and an AFOLU sector be developed that merges the current LULUCF approach with the proposed REDD approach, being careful not to entrench the perverse outcomes currently experienced in the treatment of the LULUCF sector under the Kyoto Protocol and to ensure new perversities are not created through the adoption of an inappropriate definition of forests. We strongly support the inclusion of forest degradation in the REDD mechanism and warn that failure to do so risks undermining the success of the mechanism.

We also recommend that a flexible approach is taken so that developing countries with both high and low historical deforestation rates are rewarded for maintaining and maximising their carbon stores and that this should include a carbon stores approach. Further, the REDD mechanism needs to include obligations to do no harm to biodiversity and to seek to maximise biodiversity and other social co-benefits. If the global effort to conserve biodiversity is to be enhanced through the REDD mechanism, the biodiversity conservation community needs to start developing tools that will assist countries identifying sites where biodiversity co-benefits can be maximised.

We also strongly encourage governments and other agencies to maintain and substantially increase funding independent to markets for the protection of carbon stores and biodiversity.

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