



A Business Model for Delivering REDD+ Objectives and Forest Management

A Submission to the Secretariat of the UNFCCC

in response to its invitation to accredited observer organizations to submit views on

Various approaches to enhance the cost-effectiveness of, and to promote, mitigation actions

from

Civic Exchange

an accredited observer organization

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EXECUTIVE SUMMARY

This submission is a response to an invitation from the UNFCCC to accredited observer organizations to submit views on the mechanisms for stimulating mitigation and adaptation measures, making use of the funding commitments made as part of the Cancun Agreements in December 2010, which are expected to realize US\$100 billion per annum by 2020.

In making this level of financial commitment, the international community acknowledges that swifter action on climate change requires, amongst other things, the transfer of funds and expertise from developed economies to developing economies. However, the international community has struggled to make this happen. Part of the problem relates to the different perspectives of donors and recipients in the transfer – donors want accountability and recipients want national sovereignty respected. The pace of action on forest management and implementation of REDD+ objectives typifies this stalemate.

This submission outlines a ‘business model’ for alleviating donors’ concerns about accountability, while avoiding infringements of sovereignty by utilizing a model already in existence in the commercial world that sees billions of dollars transferred from the developed to the developing world. The model could be described as a ‘non-market mechanism’ in that its core concern is not a payment for tonnes of carbon sequestered but a payment for the management of forests, wetlands and other areas of stored organic carbon based on an agreed plan. This avoids the complexity of accurately estimating carbon stores, the bulk of which in many ecosystems is hidden from view underground. The key components of the model are as follows:

A UN Agency – administers the programme funded by the moneys the UN receives under the Cancun Agreements’ commitments. The UN Agency establishes the protocol for payment of the funds for forest management.

The Forest Owner – divides its forest estate into manageable units (Forest Units) and prepares a Forest Management Plan for each unit.

A Forest Management Plan – must be reviewed by an Independent Auditor and approved by the UN Agency as meeting its protocols and REDD+ objectives (including objectives for the conservation of biodiversity and protecting the rights and wellbeing of indigenous people). The plan would include estimates of carbon stocks as well as provision for the preparation of forest inventories. The plan would be tailored to the specific nature of the area being managed and might include provisions on sustainable forestry (if relevant). The plan would set out the costs of implementation net of potential income and would specify the risks borne by the Forest Unit Manager. The Forest Owner could seek funds and expertise to prepare the plan in the event that it did not feel confident to prepare the plan itself.

The Forest Unit Manager – is appointed by the Forest Owner (or in some cases could be the Forest Owner). Where the Forest Owner is a government, this submission recommends that the government select the Forest Unit Manager through a tender process. In addition to transparency, such a selection process would ensure that the Forest Owner could dismiss the Forest Unit Manager in a relatively straightforward manner in the event of non-performance. Additionally, this process avoids the need for the government to raise start-up funds. Instead, the contractor would be responsible for raising funds through bank loans and other means.

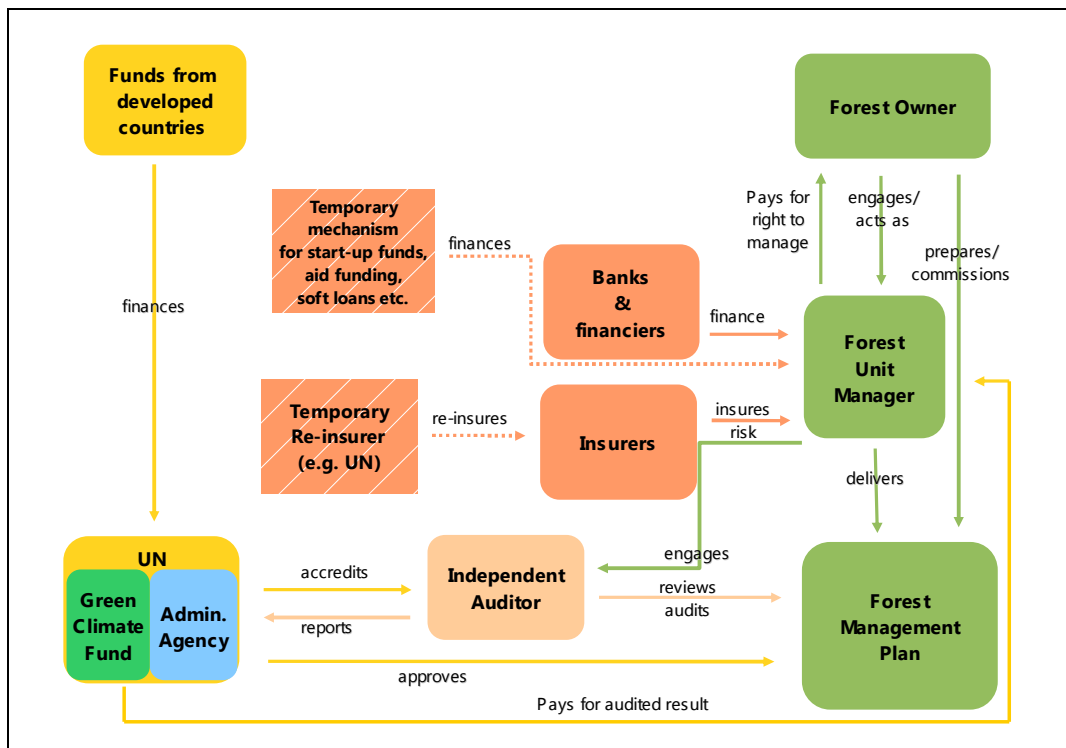
Payment – would only be made by the UN Agency upon performance (i.e. no pre-payment) and performance must be verified by an Independent Auditor. Payment would consist of the costs of implementation (or a percentage of costs) less any income, plus an incentive payment on an agreed time schedule (e.g. after 5 years, every five years, for 30 years).

The Independent Auditor – must be accredited with the UN Agency and must be sufficiently independent of any of the major players (including the government of the country or region where the forest lies). Advances in satellite and radar remote sensing technologies will streamline the auditing process.

Finance and risk management – would be the responsibility of the Forest Unit Manager to source from financiers and insurers. Some initial assistance to kick-start the industry will be necessary in the form of soft loans and reinsurance. Once the scheme is mature, financiers should be willing to lend on the strength of the contract with the UN Agency and insurers should be willing to provide risk cover with minimal UN reinsurance.

‘Fast Start’ projects – could be initiated by the UN Agency in the early phase on an experimental basis to test the process and generate data to inform the ongoing operation of the model.

Once the model is understood, many organizations would be expected to support it, including governments with forests and other Forest Owners, companies with expertise to act as Forest Unit Managers, Independent Auditors and drafters of Forest Management Plans, as well as banks and insurers. The aim is to create a business dynamic where all these parties have an incentive to work towards the success of the model and a strong disincentive to see it fail, and thus have a strong interest in the protection of forests.



1. BACKGROUND

1.1 Barriers to action

One of the barriers to swifter global action on climate change has been the international community's inability to effectively transfer funds and technologies from developed countries to developing countries. Major stumbling blocks have included securing the funds and devising a sound mechanism or business model for putting the funds to good use.

This submission concentrates on the second of these obstacles as it relates to forest and wetland management.¹ The emphasis in this proposal is on paying for *management*, rather than paying per tonne of sequestered carbon, given the complexity of estimating carbon stores, especially underground reserves that in some ecosystems constitute the bulk of carbon stored.

1.2 Securing the funds

The first obstacle – securing the funds – is difficult enough to solve but is not the focus of this submission as it is being addressed elsewhere. Under the *Cancun Agreements* made at COP16 in December 2010, developed countries have committed 'in the context of meaningful mitigation actions and transparency on implementation' to mobilize US\$100 billion per annum by 2020 to address the needs of developing countries.²

1.3 Spending wisely

The Cancun Agreements also note the report of the *High-level Advisory Group on Climate Change Financing*. This report concluded that it was feasible to raise the nominated funds from a variety of sources. In the executive summary, under the title 'Spending wisely' it noted:

*'The credibility of both developed and developing countries in raising and using resources will be greatly increased if over the next decade there is confidence that these resources will be spent wisely, be quickly accessed and produce results.'*³

1.4 Looking forward to Durban

With this in mind and after deliberation at COP16, the parties to the convention charged the *Ad Hoc Working Group on Long-term Cooperative Action under the Convention* to elaborate on mechanisms for wise spending for consideration at COP17 in Durban at the end of this year.⁴

¹ In this submission 'management' means both better management of existing or degraded areas and maintaining good management of areas that currently deliver carbon and other benefits in the face of alternative uses that do not deliver these benefits. As the proposal addresses the UNFCCC's specific commitments on REDD+, 'forest management' is the nomenclature used in this submission, but 'wetlands management' could equally be substituted.

² UNFCCC (2010) *Outcome of the work of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention*, part IV, paragraph 98
http://unfccc.int/files/meetings/cop_16/application/pdf/cop16_lca.pdf

³ UN (2010) *Report of the Secretary-General's High-level Advisory Group on Climate Change Financing*
http://www.un.org/wcm/webdav/site/climatechange/shared/Documents/AGF_reports/AGF%20Report.pdf

⁴ UNFCCC (2010) cited above.

1.5 Invitation to comment

In addition, parties and accredited observer organizations are invited to comment on the same matters, with a view to assisting the Ad Hoc Working Group in its elaboration. Specifically, parties and accredited observers are asked to comment on:

1. Mechanisms for nationally appropriate mitigation actions to be implemented by developing and emerging economies;⁵
2. Establishment of one or more non-market-based mechanisms to enhance the cost-effectiveness of, and to promote, mitigation actions;⁶and
3. Evaluation of various approaches in enhancing the cost-effectiveness of, and promoting, mitigation actions, including activities implemented jointly to limit anthropogenic emissions of greenhouse gases and to protect and enhance greenhouse gas sinks and reservoirs.⁷

1.6 This submission

Civic Exchange (an accredited observer organization) makes this submission in response to the invitation and lays out a case for a mechanism for the transfer of funds and technologies to developing countries in the context of managing organic carbon stores in forest and wetlands, both above- and below-ground. The mechanism might be applicable to other areas of mitigation and adaptation.

1.7 Why forests and wetlands?

Forests and wetlands are net carbon sinks. They store enormous reserves of carbon above- and below-ground that, if released to the atmosphere as carbon dioxide or other greenhouse gases, would make a significant contribution to climate change.

Indeed, deforestation accounts for about 18% of human-induced greenhouse gases – more than transport emissions (about 14%) or agricultural emissions (about 14% – see Figure 1 below). And of course, forests and wetlands provide a host of co-benefits, including biodiversity; habitat for people and other species; environmental services, such as soil and water conservation; livelihoods; foods; medicines; commercial products, such as timber; water regulation, storage and flood control; and cultural and spiritual sustenance.

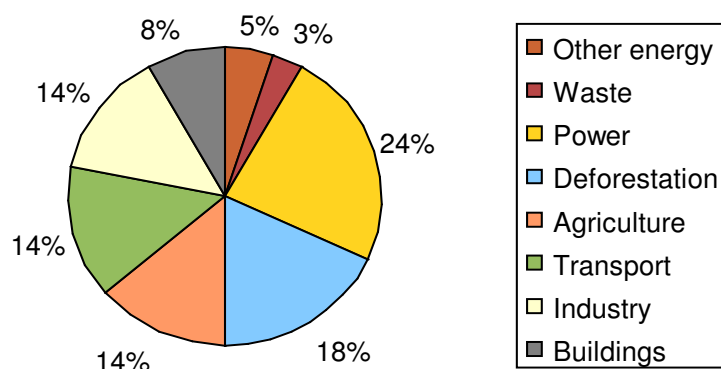
Therefore, funds for management could pay for a multitude of benefits including the very significant advantage of mitigating climate change by conserving net carbon stores.

⁵ Ibid, paragraph 82. See the appendix for relevant extracts.

⁶ Ibid, paragraph 85.

⁷ Ibid, paragraph 87.

Figure 1: GHG emissions by source⁸



1.8 REDD+

The role of forest management in mitigating emissions is encapsulated in the acronym 'REDD+': *reducing emissions from deforestation and forest degradation, plus conservation and enhancement of carbon stocks*. This concept is specifically mentioned in the Cancun Agreements,⁹ and the High-level Advisory Group on Climate Change Financing in the paragraph entitled 'Spending wisely' notes that 'arresting and reversing the destruction of rainforests is urgent, and a cost effective abatement solution'.¹⁰

Consequently, REDD+ is closely connected with the funding commitment in that it presupposes that developed countries pay large sums over many years for the purpose of stopping deforestation and of re-afforestation, as rapid, low cost ways of reducing the flux of CO₂ into the atmosphere.

⁸ Parker, C., Mitchell, A., Trivedi M., and Mardas, N. (2009) *The Little REDD+ Book* (3rd ed.), The Global Canopy Programme, adapted from Stern, N. (2006) *Stern Review on the Economics of Climate Change*, Cambridge University Press, Cambridge, UK.

⁹ Ibid, part II, section C.

¹⁰ UN (2010), Executive Summary, cited above.

Box 1:
Vulnerable
carbon pools

In this submission, ‘forest’ is construed widely to include carbon stored in peatlands, mangroves, and salt marshes. In fact the proposal is applicable to any bulk stores of organic carbon, including wetlands. The significant feature of all of these systems is the potentially huge stores of carbon that are difficult to accurately estimate because they are hidden from sight below the ground.

Figure 2:
A saltmarsh
buffer between
sea and pasture
in Minsin,
Germany¹¹



These ecosystems are extensive. Peatlands for example cover about 3% of the Earth’s land area and store as much as a third of global soil carbon. They remain an important terrestrial carbon pool, but are highly vulnerable and can potentially become a major source of carbon emissions that will subsequently require mitigation.¹²

Although it is well known that these systems store large underground reserves of carbon, their total carbon storage — the amount that may be emitted upon conversion — is complex to quantify,¹³ as is the flux of carbon between the various above- and below-ground stores. Hence this proposal concentrates on management rather than carbon.

¹¹Photo credit: Axel Hindemith, published in Wikipedia:
http://de.wikipedia.org/w/index.php?title=Datei:Salzwiesen_Minsin.jpg&filetimestamp=20050715185755

¹² Murdiyarso, D. & Kanninen, M. (2008) ‘An Outlook for Asian Forests in the New Climate Regime’, Ch. 4, in *Climate Change Negotiations: Can Asia Change the Game?*, Eds. Loh, C., Stevenson, A. & Tay, S., Civic Exchange and the Singapore Institute of International Affairs http://www.civic-exchange.org/wp/wp-content/uploads/2008/11/200810_ClimateBook.pdf

¹³ Murdiyarso, D., Hergoualc’h, K., & Verchot, L.V. (2010) ‘Opportunities for reducing greenhouse gas emissions in tropical peatlands’, *Proceedings of the National Academy of Sciences* (PNAS), 107 (no. 46), 19655–19660 www.pnas.org/cgi/doi/10.1073/pnas.0911966107

2. INTRODUCTION TO THE PROPOSAL

2.1 Business model

This submission proposes a business model for effective and efficient forest management meeting REDD+ objectives. The business model might be categorized as a non-market mechanism as it focuses on payment for achievement of a 'Forest Management Plan' rather than payment per tonne of carbon sequestered. It does, however, have market features as it arranges for potential forest managers to compete to win contracts and deliver good performance.

The business model could be applied to any other type of mechanism for mitigation and adaptation that can be categorized as a payment to incentivize achievement of an agreed plan, and could cover a wide range of ecosystems that may fall outside strict definitions of 'forest' (such as wetlands).¹⁴

2.2 Barriers to better forest & wetland management

Two major barriers to the flow of funds and expertise to facilitate forest and wetland management that this submission seeks to address arise from the different perspectives of donors and recipients. Donors demand accountability and recipients demand freedom from interference in matters of national sovereignty.

2.3 An existing model: Supply chain services

The business model in this submission aims to overcome these barriers by adapting a model for funds and technology transfers from developed to developing countries that already exists in the commercial world. In the commercial version of this model, consumers in developed countries direct funds for the purchase of consumables produced in developing countries, through retailers (such as Walmart, to use but one example) and supply chain agents (such as Li & Fung). Billions of dollars are transferred in this way. The arrangements are such that the consumer and retailer are confident that the supply of products offers value for money (i.e. accountability) and the national governments of the producing country (including Bangladesh, China, Vietnam) do not feel that national sovereignty is threatened in the transaction.

2.4 Creating an imperative to succeed

A significant feature of the model in the commercial context is that the various players have a strong stake in making it work and a strong disincentive to let it fail. The retailer profits from the supply of products that consumers believe are value for money and would conversely lose business if it could not offer this value. The supply-chain agents likewise have the necessary incentive to ensure suppliers meet minimum specifications. The national government of the producer sees benefits in attracting the funds and expertise within its jurisdiction and is willing to implement necessary policy measures to create the right environment for the business to succeed. Producers and manufacturers are able to use the arrangement as a security for finance. Banks, especially banks in the

¹⁴ Mitigation examples are implementing planned actions for rural electrification, decarbonising electricity generation and improving energy efficiency in buildings. An adaptation example is setting up a service organization which facilitates insurance of coastal property.

producing nation, have a financial interest in the success of the producer performance.

2.5 Payment for management, not for tonnes of carbon

When designing REDD+ mechanisms, the aim should be to effect the maximum improvement in carbon storage for a given expenditure while meeting objectives for the protection of indigenous peoples' rights and biodiversity conservation.

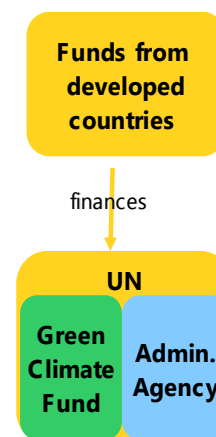
However, this proposal recommends that the international community should *not* pay for tonnes of carbon sequestered in forests. Instead it should pay for the implementation of 'Forestry Management Plans' with a multiplicity of co-benefits. There are already schemes for the transfer of funds from developed to developing countries for the purpose of purchasing tonnes of carbon. Funds from these schemes tend to gravitate to options that are relatively cheap and simple to quantify (e.g. industrial gas abatement).

As referred to above, quantification of carbon in forests and other carbon-storing ecosystems such as wetlands is complex, especially where much of that carbon is stored underground, as in, for example, peatbogs and saltmarshes. The management of different areas will incur very different costs for the carbon they capture and store. For virgin forest, all that may be required is monitoring to verify that the status quo is being maintained. For a deforested area or a damaged peat swamp forest, there may be high costs to re-afforest and restore the land.

3. COMPONENTS AND PLAYERS IN THIS PROPOSAL

3.1 UN Agency

The UN receives the promised moneys from developed countries through the Green Climate Fund. Some of these funds would be earmarked for forest management under the proposal outlined in this submission. An administrative agency within the UN (the 'UN Agency') establishes a protocol for paying for forest management from the fund. The UN Agency is likely to receive more proposals than it can fund and will select those that have the greatest benefit for money committed.¹⁵



¹⁵ In this case, the UN Agency should assess the cost effectiveness of projects to determine which to shortlist. If there are more shortlisted projects than currently estimated future funding could fund, then it should approve the projects which are most worthwhile. Furthermore, the UN Agency need not agree to pay 100% of costs; if costs appear high, then it could offer to pay less than 100% of costs. If a project does not meet the UN Agency's benefit ratio criteria, it could offer to support a portion of the costs and the proponent would need to secure the balance from elsewhere.

3.2 Forest Owner

The ‘Forest Owner’ is the person, group, or organization that has the authority to manage or commission another organization to manage an area of forest. In some cases, the Forest Owner will be a national or provincial government. In others, it may be an indigenous people, a company or a private individual.

3.3 Forest Unit

Some Forest Owners (e.g. national governments) have responsibility for millions of hectares of forest with widely differing characteristics. The Forest Owner should divide the forest estate into manageable units – ‘Forest Units’ – perhaps based on ecotype, biome, watershed, or socio-political characteristics.

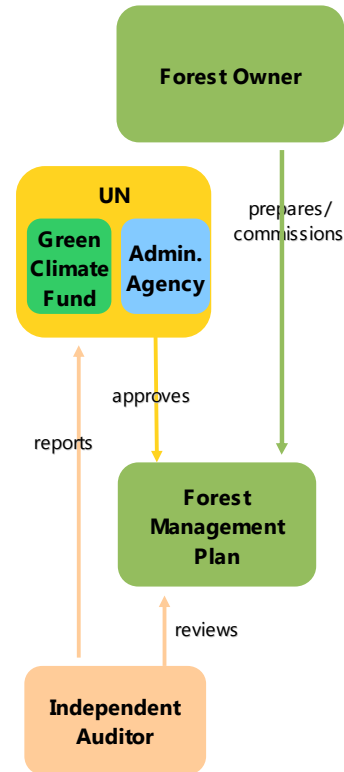
3.4 Forest Management Plan

For each Forest Unit, the Forest Owner prepares a ‘Forest Management Plan’ that becomes the basis for the management payment. The Forest Management Plan must meet the UN Agency’s protocols and objectives for REDD+. The Forest Management Plan must be approved by the UN Agency. It would cover all pertinent issues for the forest management, including an estimate of current carbon stocks, an estimate of expected growth in carbon stocks, and provision for sustainable logging (if relevant), as well as provisions for achieving REDD+ objectives for biodiversity and indigenous peoples.

The UN Agency will also require an independent auditor to review the Forest Management Plan and report directly to the UN Agency (see below for more on the roles of the Independent Auditor).

3.5 Forest income & inventories

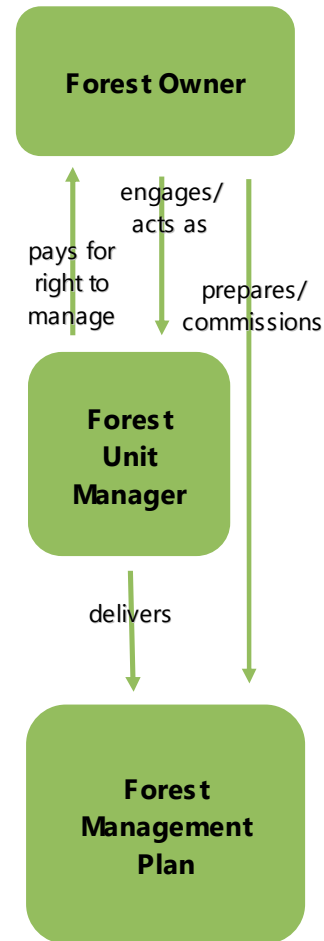
The Forest Management Plan is a costed plan. It should estimate the implementation cost net of any income from, for example, sustainable forestry and should include the cost of preparing forest inventories. The plan should propose an incentive payment which takes into account factors such as opportunity cost and risks which the implementer will carry. If the Forest Owner does not feel competent in the preparation of



the plan it can commission experts for this purpose.¹⁶

3.6 Forest Unit Manager

Once a Forest Owner receives the UN Agency's approval for the Forest Management Plan, it will (by tender or otherwise) appoint a person or organization to implement the plan – the 'Forest Unit Manager'. It is possible for the Forest Owner and Forest Unit Manager to be one and the same, although it may be advantageous for two to be separate.



3.7 Relationship between Forest Owner & Forest Unit Manager

In some cases, the Forest Owner will be a government (e.g. a national or provincial government). As the Forest Owner in this case, the government engages the Forest Unit Manager. A government may appoint one of its own agencies to act as Forest Unit Manager, but there are good reasons to take a more arms-length approach, perhaps through a tender process. Companies or other organizations could then submit bids which state the amount the bidder will pay the government for the right to manage the forest for payment from the UN fund. The process is similar to letting areas for oil or mineral exploration and production.

This arms-length approach has advantages. For example:

- A tender process would add transparency in the selection of the Forest Unit Manager; and
- A contracted Forest Unit Manager could ordinarily be dismissed without compensation if it does not perform its contractual obligations. Conversely, the incentive of being able to secure new work elsewhere will motivate a contractor to perform. If a government agency is the Forest Unit Manager and fails to perform, it is more difficult to change.

3.8 Indigenous people

While this proposal is predicated on the assumption that carbon stores in forests and wetlands are indirectly vital for all people anywhere in the world – and indeed all species and the living systems that sustain them – forests and wetlands have a more direct and immediate importance for

¹⁶ If the Forest Owner feels it needs help to create the plan, that could be sourced from international aid, philanthropic sources, or private firms preparing the plan on a contingency basis for a 'success fee' (i.e. the private firm is paid only if the plan is approved by the UN Agency).

the people who live in them and whose way of life is directly dependent on them. Indigenous people should be on the list of people and organizations that earn money from the scheme outlined in this proposal. Wherever a Forest Management Plan proposes to deal with land to which indigenous people have a connection, the UN Agency can oversee the protection of their rights and wellbeing through appropriate protocols in the approval process of the Forest Management Plans and the verification process for delivery.

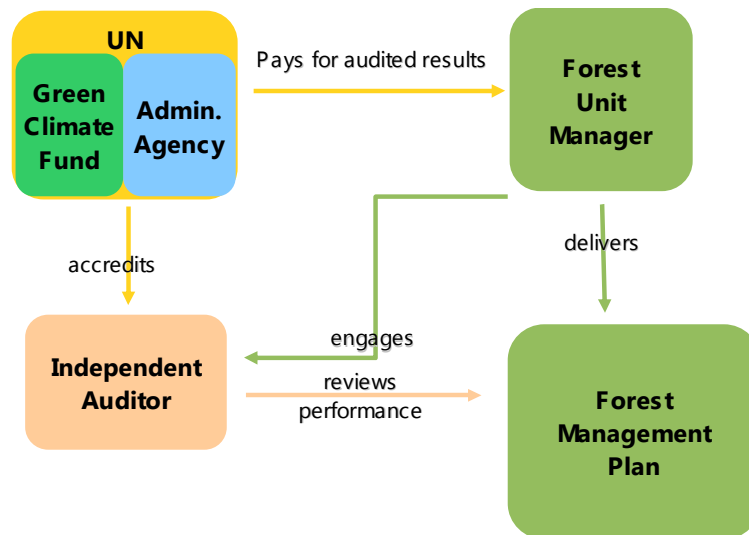
Indigenous people may be the Forest Owner, in which case they would prepare the Forest Management Plan and appoint the Forest Unit Manager. If they need help in this task, it could be provided through international aid processes or contingency fees as mentioned above. In some cases they may own (or part-own) the Forest Unit Manager. In other cases, they may provide the Forest Unit Manager with services in return for wages. The arrangements under this proposal are flexible so that any idea can be proposed and considered on its merits.

3.9 Independent Auditor

Independent assessment is required at two key points of the model. Firstly, to streamline the UN approvals process, a Forest Management Plan must be assessed by an accredited expert (the 'Independent Auditor') and the expert's assessment report should accompany the plan when it is first submitted to the UN Agency for approval. Secondly, to ensure accountability and transparency, the Forest Unit Manager's performance of the plan must be assessed by an Independent Auditor (it is not necessary for the same person or organization to act as auditor for both the initial assessment of the plan and the assessment of the Forest Unit Manager's work).

The auditor must be accredited with the UN Agency and must be costed in the Forest Management Plan. To maintain independence and avoid conflicts of interest, it should be one of the criteria of the UN Agency in accrediting a prospective auditor that it be sufficiently independent of the government of the country or region in which the project is based. The UN Agency would devise a system for reviewing accreditation every couple of years based on performance.

The review function of the Independent Auditor should become a profitable business that will attract expert organizations which value their reputations. These reputations will influence the quantity of business they secure in future. Conversely, if they perform poorly, they may lose their UN accreditation.



The UN Agency will pay the REDD+ proceeds only when there is independent confirmation that the plan has been adequately implemented. This is likely to entail, amongst other things, (a) assessments of the extent to which carbon stocks have been increased; and (b) confirmation that the rights and welfare of indigenous people and have been appropriately looked after and biodiversity protected.

3.10 Contractual arrangement

The UN Agency contracts with the Forest Unit Manager for the implementation of the plan. Depending on the circumstances, there may be conditions for payments to the Forest Owner or indigenous stakeholders directly by the UN Agency.

3.11 Performance

The Forest Unit Manager manages the forest and, at the end of each contract period agreed in the plan, prepares a report on the state of the forest and costs incurred, and arranges for these to be independently audited. Advances in satellite, radar and other remote sensing should allow a significant part of the preparation of the report to be automated.

The Forest Unit Manger is paid once the UN Agency receives confirmation from an Independent Auditor that it has achieved the deliverables agreed to in the Forest Management Plan. The deliverables will depend on the circumstances. In some cases, it may be simply monitoring virgin forest. In other cases, it may be extensive reforestation work. In other cases again, it may be to prevent substitution of the land use to a 'carbon leaky' alternative.

3.12 Payment

Payment comprises an agreed percentage of costs plus an incentive payment on agreed time schedule (e.g. every 5 years over an initial 30 year period). The important point here is that the UN Agency should only pay for *results achieved*. Funding for work up to that point must be secured from other sources, e.g. from private capital and bank borrowing.

3.13 No pre-payment

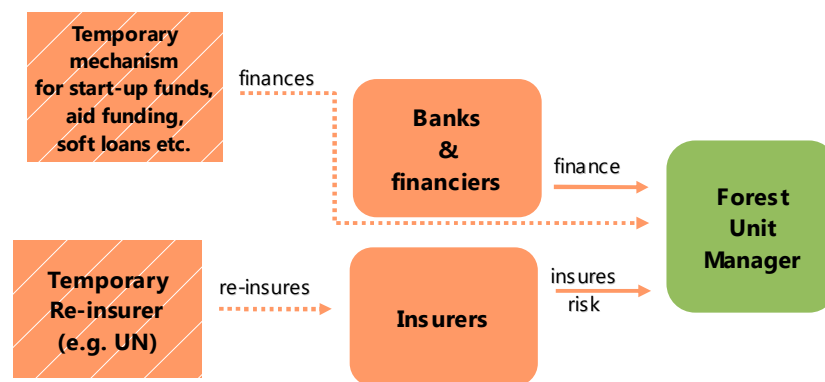
The principle that the UN Agency only pays for results achieved and should not make pre-payments is another reason in favour of governments letting management plots by tender. In this case, the government does not need to outlay any initial management funds. Rather, the organization that wins the tender must provide the funding for managing the forest, including any concession payment to the Forest Owner for the right to manage a forest plot (similar to letting areas for oil exploration or other mining work).

3.14 Risk management

Risks such fire or storm that may inadvertently prevent the Forest Unit Manager from fulfilling its obligations under the Forest Management Plan (and hence becoming ineligible to receive the UN payment) should be insured against.¹⁷

3.15 Bankability of a proposal

Once a plan has been approved by the UN Agency and appropriate insurance secured, banks should be willing to lend against it. This obviates the need for the UN Agency to provide pre-payments.



4. Q&A

4.1 If not carbon, then what goods or services are being purchased and how can certainty be assured for the players?

The model is analogous to the purchase of goods and sufficient certainty can be built into the scheme:

- The model proposes to pay costs plus an incentive amount for achievement of a forest or wetland management plan;
- Payment is made against reports delivered at specified times and covering specified items; and
- The amount to be paid may be fixed upfront or it may be varied based on audited costs incurred.

The proposed system will provide a reliable income stream and implementers can be confident of payment if they achieve the plan and submit the verification report.

¹⁷ Initially it may be difficult to insure some risks in some countries. The UN Agency may therefore have to initiate the market by offering re-insurance at non-commercial rates. Once the insurance market has grown in size and experience, this support can be reduced and may eventually become unnecessary.

-
- 4.2 What will be the measure of successful implementation of the plan and how will a price be set at the right level?**
- The measure of successful implementation is an independently audited report confirming achievement of the Forest Management Plan. Part of the report will cover the inventory of carbon stored in the forests. The payment will not, however, be a function of the amount of carbon stored. The payment level is set at cost plus an incentive. Initially the system will need to 'over pay' to expedite pilot projects. As experience is gained, the payment amounts offered will be reduced to a level which is just sufficient to make organizations willing to commit to plans.
- 4.3 Would contractors participate if there are no upfront funds?**
- While there will be no pre-payments from the UN Agency, there will be money available upfront inasmuch as the structure creates bankable plans which the Forest Unit Manager can use to raise both equity and bank funding.
- 4.4 What prevents the parties abandoning the plan and cutting down trees for cash or converting to cash crops?**
- If the Forest Owner is also the Forest Unit Manager then it could abandon the plan with its only loss being relinquishing the costs plus incentive that it would have received if it had completed it. If the owner has appointed a Forest Unit Manager then it is likely to be in breach of its contract with that manager if it abandons the plan. If the owner or Forest Unit Manager has borrowed money for implementing the plan then they are likely to be in breach of the loan agreement if they abandon the plan.
- The opportunity cost of not clear-cutting the forest remains a threat to better forest management under this model, and the system must reliably pay more than this opportunity cost. But another component of the overall solution is for developed countries to substantially outlaw the purchase of non-sustainably harvested forest products. That is a topic beyond the scope of this submission.
- 4.5 How will the model prevent costs from blowing out?**
- Technology, scale, and competition will bring down costs to acceptable levels. Satellite technology is close to automating much of the mapping requirement. The large areas of forests and wetlands that need to be covered will provide the scale for efficient processes. Competition between service providers will drive costs down and mergers and acquisitions would allow efficient providers to take over inefficient ones.
- The UN administrative process should be kept to a minimum, by issuing protocols on the documentation the UN must receive from independent reviews before it makes a payment and then encouraging competition between these reviewers to drive down costs.
- 4.6 Who owns the carbon in the forest or wetland and could it be sold?**
- The paper doesn't consider the potential overlap between schemes for paying for carbon storage and paying for achieving management plans. Options for tackling this area include:
- Prohibiting claiming UN money for tonnes of carbon in an area which is subject to a Forest Management Plan to avoid double-payment;
 - Allowing Forest Owners to sell the carbon separately in private markets and adjusting down the amounts paid under the Forest Management Plans to account for carbon credit income. This second

option adds a layer of complexity and risk compared with the first.

5. CONCLUSION AND NEXT STEPS

5.1 'Fast Start' pilot projects

To kick-start the process outlined in this proposal, it would be appropriate for the UN to instigate some pilot projects on specific forest plots for the purpose of trialling the process and gathering information on the feasibility and efficacy of the model. This would entail an initial 'fast start' phase:

- The UN Agency rapidly approves a number of pilot projects using a more relaxed set of criteria than would be applied once the scheme is more mature. This would expedite the experimental phase and avoid delay.
- Similarly, for accrediting the Independent Auditors of pilot projects, the UN Agency would specify a modest level of diligence but would make the requirements more stringent as experience is gained.
- As the pilot projects carry more risk for the Forest Owner and Forest Unit Manager because of their experimental nature, they will require more generous funding than later projects in the mature phase. However, the principle that the UN Agency pays only on performance should remain. If soft loans or aid funding are required to kick-start the pilot project, then they should be administered by a different organization (i.e. not the UN Agency) to emphasize that the start-up support is temporary.
- Monitoring of these pilot projects would then provide data against which further projects can be assessed.

5.2 Creating a virtuous cycle

Once they understand the model, many organizations will support it and will have an incentive to actively ensure its success. In particular:

- Governments of countries with forests or wetlands will see it providing a revenue stream for managing those areas in accordance with globally beneficial objectives, in a manner which need not require a lot of work by their staff or infringe their sovereignty;
- Companies acting as Forest Unit Managers and their banks will have a strong incentive for the Forestry Management Plan to succeed. They will therefore become protectors of the forests in which they have invested;
- Companies will offer to pay Forest Owners (who are often governments) more money for contracts to manage forest areas in countries or regions where governance is relatively better and risks relatively lower. Thus governments have a financial incentive to enforce good governance including anti-corruption measures in both public and private bodies; and
- Report assurers will be incentivized to provide sound assessments through concern to protect their reputation and hence win future assurance tasks.

**5.3 Green
economy
business
opportunities**

The scheme can provide valuable business opportunities in the green economy, and organizations that can take advantage of these opportunities can be expected to campaign for the model's implementation and success, including:

- Organizations capable of forest management;
- Consultants who can prepare Forest Management Plans;
- Assurance providers who can independently audit both the Forest Management Plans and the performance of Forest Unit Managers against these plans;
- Banks who can lend money to Forest Unit Managers;
- Insurance companies who can provide fire and storm damage insurance to Forest Unit Managers; and
- Rating agencies who rate the credit worthiness and performance of companies which manage forests.

**5.4 Business
dynamic**

In summary, the arrangements proposed above create a *business dynamic* that incentivizes many players to strive towards good forest and wetland management. The system will become self-correcting and self-improving. It will be similar to the supply chain services model by which US\$ billions from, for example, US consumers are transferred to countries such as Bangladesh and China in return for specific performance (in the commercial case, shoes, clothes, other textiles, etc.) In the commercial context, this arrangement facilitates the flow of funds directly to factories in developing countries without their national governments feeling their sovereignty is threatened. The model above can do the same.

APPENDIX - EXTRACTS FROM UN DOCUMENTS

Outcome of the work of the Ad Hoc Working Group on long-term Cooperative Action under the Convention¹⁸

UNFCCC,
December 2010

Part III: ENHANCED ACTION ON MITIGATION

D. Various approaches, including opportunities for using markets, to enhance the cost-effectiveness of, and to promote, mitigation actions, bearing in mind different circumstances of developed and developing countries

[The Conference of the Parties:]

Acknowledging the need to maintain consistency with the principles of the Convention,
Emphasizing the importance of contributing to sustainable development, including through technology transfer and other co-benefits,
Recognizing the importance of enhancing sustainable lifestyles and patterns of production and consumption,
Aware of the need to provide incentives in support of low-emission development strategies,

80. *Decides* to consider the establishment, at its seventeenth session, of one or more market-based mechanisms to enhance the cost-effectiveness of, and to promote, mitigation actions, taking into account the following:
- (a) Ensuring voluntary participation of Parties, supported by the promotion of fair and equitable access for all Parties;
 - (b) Complementing other means of support for nationally appropriate mitigation actions by developing country Parties;
 - (c) Stimulating mitigation across broad segments of the economy;
 - (d) Safeguarding environmental integrity;
 - (e) Ensuring a net decrease and/or avoidance of global greenhouse gas emissions;
 - (f) Assisting developed country Parties to meet part of their mitigation targets, while ensuring that the use of such mechanism or mechanisms is supplemental to domestic mitigation efforts;
 - (g) Ensuring good governance and robust market functioning and regulation;
81. *Requests* the Ad Hoc Working Group on Long-term Cooperative Action under the Convention to elaborate the mechanism or mechanisms referred to in paragraph 49 above¹⁹, with a view to recommending a draft decision or decisions to the Conference of the Parties for consideration at its seventeenth session;
82. *Invites* Parties and accredited observer organizations to submit to the secretariat, by 21 February 2011, their views on matters referred to in paragraph 81 above;
83. *Undertakes*, in developing and implementing the mechanism or

¹⁸ http://unfccc.int/files/meetings/cop_16/application/pdf/cop16_lca.pdf

¹⁹ Paragraph 49: 'Takes note of nationally appropriate mitigation actions to be implemented by non-Annex I Parties ...'

mechanisms referred to in paragraph 80 above, to maintain and build upon existing mechanisms, including those established under the Kyoto Protocol;

84. *Decides* to consider the establishment, at its seventeenth session, of one or more non-market-based mechanisms to enhance the cost-effectiveness of, and to promote, mitigation actions;
85. *Requests* the Ad Hoc Working Group on Long-term Cooperative Action under the Convention to elaborate the mechanism or mechanisms referred to in paragraph 84 above, with a view to recommending a draft decision or decisions to the Conference of the Parties for consideration at its seventeenth session;
86. *Invites* Parties and accredited observer organizations to submit to the secretariat, by 21 February 2011, their views on matters referred to in paragraph 85 above;
87. *Also invites* Parties and accredited observer organizations to submit to the secretariat, by 21 February 2011, information on the evaluation of various approaches in enhancing the cost-effectiveness of, and promoting, mitigation actions, including activities implemented jointly under Article 4, paragraph 2 (a), of the Convention and any other relevant activities, for synthesis by the secretariat.

**United Nations
Framework
Convention on
Climate Change
(UNFCCC)²⁰**

Came into force 21
March 1994

ARTICLE 4: COMMITMENTS

2. The developed country Parties and other Parties included in Annex I commit themselves specifically as provided for in the following:
 - (a) Each of these Parties shall adopt national policies and take corresponding measures on the mitigation of climate change, by limiting its anthropogenic emissions of greenhouse gases and protecting and enhancing its greenhouse gas sinks and reservoirs. These policies and measures will demonstrate that developed countries are taking the lead in modifying longer-term trends in anthropogenic emissions consistent with the objective of the Convention, recognizing that the return by the end of the present decade to earlier levels of anthropogenic emissions of carbon dioxide and other greenhouse gases not controlled by the Montreal Protocol would contribute to such modification, and taking into account the differences in these Parties' starting points and approaches, economic structures and resource bases, the need to maintain strong and sustainable economic growth, available technologies and other individual circumstances, as well as the need for equitable and appropriate contributions by each of these Parties to the global effort regarding that objective. These Parties may implement such policies and measures jointly with other Parties and may assist other Parties in contributing to the achievement of the objective of the Convention and, in particular, that of this subparagraph.

²⁰ http://unfccc.int/essential_background/convention/background/items/1362.php