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Implications Of Payments For Ecosystem Services Based On The Redd Programme

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Deforestation and forest degradation, through agricultural expansion, conversion to pastureland, infrastructure development, destructive logging, fires etc., account for nearly 20% of global greenhouse gas emissions, more than the entire global transportation sector and second only to the energy sector. It is now clear that in order to constrain the impacts of climate change within limits that society will reasonably be able to tolerate, the global average temperatures must be stabilized within two degrees Celsius. This will be practically impossible to achieve without reducing emissions from the forest sector, in addition to other mitigation actions. Reducing Emissions from Deforestation and Forest Degradation (REDD) is an effort to create a financial value for the carbon stored in forests, offering incentives for developing countries to reduce emissions from forested lands and invest in low-carbon paths to sustainable development. "REDD" goes beyond deforestation and forest degradation, and includes the role of conservation, sustainable management of forests and enhancement of forest carbon stocks.

Keywords: *deforestation, Reducing Emissions from Deforestation and Forest Degradation (REDD), payments for ecosystem services, implications*

INTRODUCTION

It is predicted that financial flows for greenhouse gas emission reductions from REDD could reach up to US$30 billion a year. This significant North-South flow of funds could reward a meaningful reduction of carbon emissions and could also support new, pro-poor development, help conserve biodiversity and secure vital ecosystem services. Further, maintaining forest ecosystems can contribute to increased resilience to climate change. To achieve these multiple benefits, REDD will require the full engagement and respect for the rights of Indigenous Peoples and other forest-dependent communities. To "seal the deal" on climate change, REDD activities in developing countries must complement, not be a substitute for, deep cuts in developed countries' emissions.

1. FORESTS, PEOPLE AND CLIMATE CHANGE: THE REDD SOLUTION – QUANTIFYING AND INTERPRETATING PROGRAMME'S RESULTS

Major reductions in global greenhouse gas emissions are necessary if we are to avoid disastrous climate change. Given that deforestation and forest degradation account for up to 17% of man-made global greenhouse gas emissions, conservation and sustainable management of forests is a good place to start. The relatively new approach of Reducing Emissions from Deforestation and forest Degradation (REDD) can help achieve this goal if it is based on good social and environmental principles and fully integrated into broader strategies aimed at achieving deep cuts in carbon emissions from fossil fuels.

With the impacts of climate change more serious than previously thought, REDD can offer a 'bridging strategy,' reducing short-term emissions and buying time while the world adapts to a low carbon path.

To maximize its effectiveness, REDD needs to be broadened to include the restoration of degraded forests and enhancement of carbon stocks, alongside conservation and sustainable forest management. This is known as 'REDD-plus' and offers multiple environmental and social benefits.

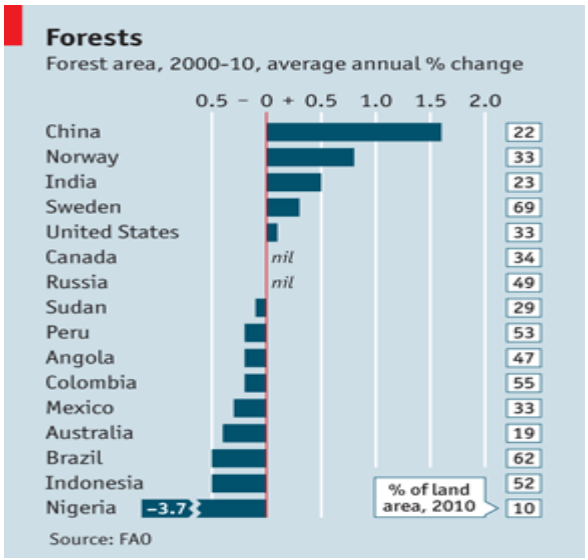

Fig. 1. The evolution of forests around the world between 2000 and 2010
Source: http://www.globalpost.com/dispatch/mexico/101210/redd-deforestation-climate-change-conference-cancun

A commitment to launch REDD, with "substantial finance", was the only obvious success of last year's Copenhagen summit on climate change. It led to the inaugural meeting in Oslo in May of a 58-nation group, the REDD Partnership, which will hammer out the details for a global REDD deal. To get things moving, half a dozen rich countries, including Norway and Britain, have pledged to provide $4.5 billion by 2012.

How REDD will be funded after that is unclear. It had been assumed that carbon markets would provide, with "forest-carbon credits", equivalent to a tonne of avoided emissions, being bought to offset industrial countries' emissions. For the moment the main compulsory market, Europe's emissions-trading scheme, does not accept forest-carbon credits. But assuming the ETS survives, that is likely to change, and if America ever adopted an equivalent cap-and-trade arrangement, forest carbon would be part of it.

How much is required? No one knows, because no one has ever done anything like this before. Countries generally do not stop deforesting until they industrialise and urbanise, reducing their rural population, or they cut down their forests to such an extent that timber scarcity or environmental disasters lead to urgent protection, as in China. Known as the forest transition, this can be visualised as a curve in the shape of a ski-jump, first sloping down steeply and then turning up gently as the forest creeps back. REDD is an attempt to bridge that dip. Estimates based on the opportunity costs of not felling, which will often make up the bulk of the total, suggest it can be done relatively cheaply. According to the most recent one, by the Informal Working Group on Interim Financing for REDD, an international quango, an investment of $17 billion-30 billion between now and 2015 could cut deforestation by a quarter. That would save 3m hectares of forest, or 7 gigatonnes-worth of carbon emissions a year.

That is why REDD has to be done on a large scale, even if the payments will vary. Brazil, which has been developing REDD for two years, with $1 billion from Norway, has a payment formula that favours Amazon states with high deforestation rates over those with low ones.

But, to reward the virtuous, it also takes into account the states' record on meeting REDD commitments [1].

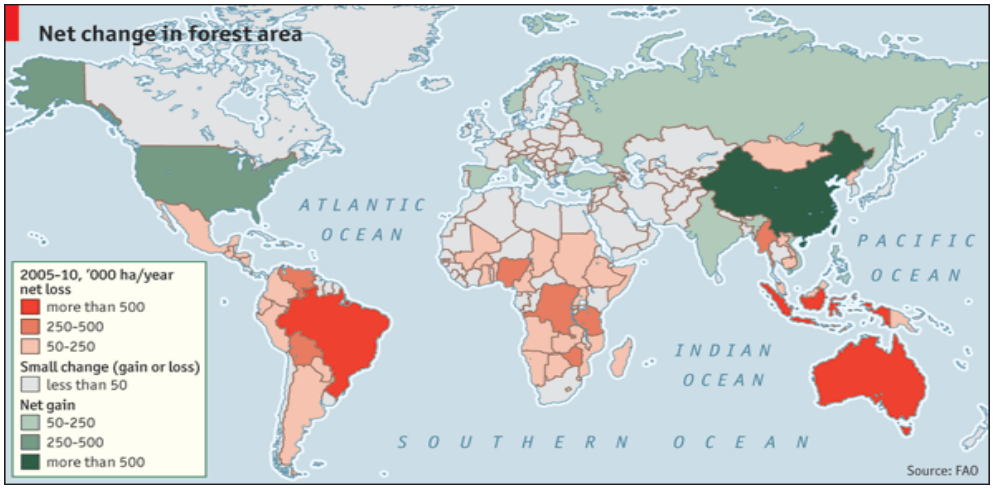

Figure 2: The changes in forested areas around the world between 2005 and 2010
Source: http://proenvironment.ro/promediu/article/view/5576/5195

For now, most REDD projects are small-scale and based on traditional conservation. Given better access to markets for their timber, for example, forest folk are encouraged to harvest less of it. Or they might be supplied with fertiliser and asked to clear less forest for planting maize. These are good ideas. Such projects also slightly mitigate the likelihood that REDD will centralise power. So REDD needs to encourage both national and local conservation efforts. That might mean letting local governments choose from a range of nationally approved conservation measures.

2. REDD'S IMPACT

The Forest Carbon Partnership Facility (FCPF) has strengthened its partnership of countries and stakeholders working together to reduce emissions from deforestation and forest degradation, and foster conservation, sustainable management of forests, and enhancement of forest carbon stocks (REDD+). Significant progress has been made in moving from a planning stage to preparations for REDD+ "Readiness" in forested developing countries.

The 37 tropical and sub-tropical developing countries thus far selected by the Participants Committee of the Forest Carbon Partnership Facility to be assisted in their efforts to reduce emissions from deforestation and Degradation called REDD — by providing value to standing forests.

Many of the FCPF countries began to engage indigenous peoples, ensuring that their needs and realities are taken into consideration in REDD+ Readiness processes [2].

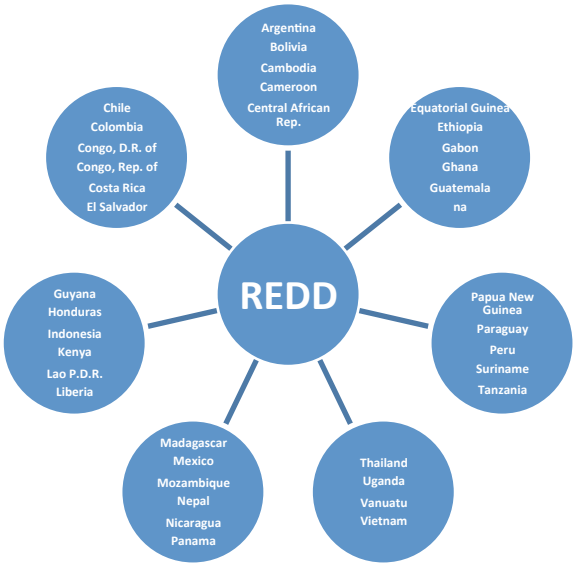

Fig.3. REDD Participant Countries
Source: http://www.un-redd.org/ Last accessed April 1st 2011

Deforestation drivers can be divided into so-called "immediate" and "underpinning" drivers. Demographic factors are population growth and density, urbanization and migration. Economic factors will be the changes in relative prices, economic structures, shifts in demand for commodities, infrastructure development. Technological factors are represented by technological progress to increase agricultural production, while policy and institutional factors are macro-economic policies, tenure rights, corruption, access to loans, education.
Actual cutting of trees is due to "immediate" deforestation drivers and agricultural expansion is one of the most important immediate deforestation drivers. This can be observed by looking at the correlation between the expansion of the agricultural sector in a country and the country's loss in forested area [3]. Estimate that during the '80s and '90s, more than 80 per cent of new agricultural land in the tropics came from intact, natural forests. However, official figures often miss the additions to forest land through fallow land becoming managed, as well as many trees outside forests [4]. Often, a sequence can be observed of first infrastructure development, followed by wood extraction, and finally agricultural expansion occurring. Nevertheless, strong regional differences exist, making general conclusions difficult.

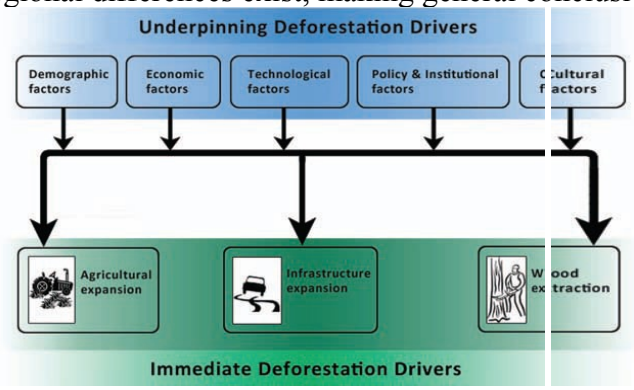

Fig.4. Interaction between two levels of deforestation drivers
Source: http://www.un-redd.org/AboutREDD/tabid/582/Default.aspx Last accessed April 4th 2011

Successful REDD+ policies require tackling different deforestation drivers, both at the forestry as well as the agricultural sector level.

The diagram below presents a new framework for understanding REDD proposals. The framework comprises four basic building blocks as follows:

- ❖ Scope: What is being delivered?
- ❖ Reference Level: How is it being measured?
- ❖ Distribution: Where/to whom does the money go?
- ❖ Financing: Where does the money come from?

Fig.5. The REDD PROGRAMME
Source: www.forestcarbonpartnership.org/fcp Last accessed March 31st 2011

The overall effectiveness, efficiency and equity of a proposal is determined by its scope, reference level, and financing and distribution mechanisms, as shown in Figure 5. It is helpful to view REDD proposals in this way because it allows us to understand the elements of individual proposals. It also shows us the distribution and evolution of ideas of the combined proposals and enables us to see areas where there are high levels of convergence or divergence.

Some options potentially impose constraints on others. When viewing the proposals as a group, however, there are a number of different 'mix and match' options; for example, the decision to include deforestation and degradation (REDD) or just deforestation (RED) can, broadly speaking, be addressed separately from the question of whether to use a fund or a market.

These quadrants are important within the context of the REDD debate as not all countries will benefit equally under any proposed REDD mechanism depending on the choice of options within the basic building blocks of the framework.

Table 1. A matrix to split countries by their forest cover and historical rate of deforestation

	LOW FOREST COVER (< 50%)	**HIGH FOREST COVER (> 50%)**
HIGH DEFORESTATION RATE (> 0.22%/yr)	**Quadrant I** **e.g. Guatemala, Thailand, Madagascar** **No. of Countries: 44** **Forest area: 28%** **Forest carbon total: 22%** **Deforestation annual 48%**	**Quadrant III** e.g. Papua New Guinea, Brazil, Congo (DR) No. of Countries: 10 Forest area: 39% Forest carbon total: 48% Deforestation annual 47%
LOW	**Quadrant II**	**Quadrant IV**

	LOW FOREST COVER (< 50%)	HIGH FOREST COVER (> 50%)
DEFORESTATION RATE (< 0.22%/yr)	Dominican Republic, Angola, Vietnam No. of Countries:15 Forest area: 20% Forest carbon total: 12% Deforestation annual 1%	e.g. Suriname, Belize, Gabon, No. of Countries: 11 Forest area: 13% Forest carbon total: 18% Deforestation annual 3%

Source: http://www.iucn.org/knowledge/news/focus/2009_redd/

There is overwhelming consensus that a future mechanism for REDD should include both deforestation and forest degradation. A minority of proposals explicitly emphasise that carbon enhancement activities should be considered of equal importance as reduced emissions. Although deforestation and degradation are the immediate priorities, there is widespread recognition that a future REDD mechanism could have a staggered approach, that phases in degradation and/or enhancement activities at later stages. The rationale behind this approach is mainly practical for reasons including: the political feasibility of negotiations under the UNFCCC with a simpler scope; and the need for developing countries to build capacity in carbon accounting practices.

Conclusions

Developing forest monitoring systems for REDD+ also faces unique challenges and opportunities. Early lessons reveal that capacity in many REDD+ countries are weak and will require considerable investments to meet the requirements of a future REDD+ mechanism. Moving forward, the challenge will be to enhance capacity for effective monitoring of forests, leading to policies and forest management approaches that take into account the multiple objectives of REDD+.

Finally, cutting across the issues raised in this publication is the need to manage the expectations of REDD+. What national or local governments hope to gain from REDD+ efforts does not always align with what community groups, farmers, foresters or Indigenous Peoples expect from the scheme. All of these stakeholder groups may share a level of impatience to see the tangible benefits of REDD+, but they often expect different, sometimes unrealistic things from REDD+, at times fuelled by a lack of understanding of the current process and the REDD+ mechanism currently being designed.

REDD+ strategies are also being called upon to solve deep-seated institutional and governance issues. But do governments have the political commitment to deliver on this? REDD+ could act as a catalyst to address larger institutional problems, but it will not alone be able to solve all of the wider development issues facing a country.

Moving forward, REDD+ strategies should be designed within the context of national policies and economic development. Countries will need to strike a balance between ensuring REDD+ reaches out and engages the right sectors, while avoiding putting the full weight of a country's development issues on the shoulders of REDD+ strategies.

If we can address these challenges and expectations, REDD+ holds the promise of conserving forests, providing a model for the engagement of Indigenous Peoples, conserving critical biodiversity and ecosystem services and being an effective part of the climate change solution.

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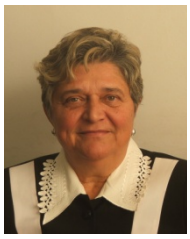

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