

NTS ALERT

A REDD Herring in the Post-Kyoto Scenario?

REDD refers to the reduction of emissions from deforestation and degradation, and refers to an incentives system by which industrialised countries pay tropical developing countries to reduce deforestation rates. Interest was first raised regarding the inclusion of REDD into the UNFCCC framework and Kyoto Protocol at the 11th UNFCCC Conference of the Parties (COP-11), held in Montreal in 2005, under the broader theme of Avoided Deforestation (AD). Papua New Guinea led the REDD proposal in 2005 and interest in this proposal was sustained in following UNFCCC meetings. It is now a hotly debated mechanism that needs to be included in the post-2012 scenario when the Kyoto Protocol expires. The question remains to what extent can such a mechanism be effectively implemented in developing countries? This edition of NTS Alert takes a closer look at debates surrounding REDD, and suggests that while the initiatives to control carbon emissions are noble, results can only be determined once long standing problems of corruption, mis-management and disregard for local population needs are dealt with effectively.

Considering REDD?

There are several reasons as to why REDD should be considered as a means of controlling global carbon emissions.

Need to Conserve the “Lungs of the Earth”

According to UNFCCC statistics, as of 2005, the global forest stored about 635 Gigaton (Gt) of carbon dioxide. The report says the world's forest vegetation holds about 283 Gt of carbon, dead wood with 38 Gt, while the soil and litter stocked up to 317 Gt of greenhouse gas emissions. It is therefore vital to protect these areas from deforestation and degradation as the failure to do so would only release these carbon emissions into the atmosphere, thereby exacerbate climate change. Such has been the case over the years – deforestation, mainly through the conversion of forest for agricultural activities had reached the alarming rate of 13 million hectares per year for the period of 1990 to 2005 and accounts for 20 percent of annual greenhouse gas emissions globally.

Unfortunately, the existing Kyoto Protocol does not account for the protection of these forests. While the Clean Development Mechanism (CDM) may be useful as a model in facilitating technological transfer, it would not be able to provide developing countries with the necessary funds for managing forest conservation. The REDD proposal, therefore, fills this void by recommending that developed countries fund forest-rich developing countries to preserve their forests, which play a vital role controlling carbon emission levels.

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According to a report by Hong Kong's *Atimes*, as the world's third largest emitter of carbon (primarily due to deforestation and degradation) and custodian of the world's third largest forest area (after Brazil and Congo), Indonesia has been pushing REDD as an alternative to other programs, such as Carbon Capture and Storage (CCS) and CDM at the UNFCCC meeting in Bali. Forests in South Kalimantan, South Sulawesi, Southeast Sulawesi and North Sumatra have been chosen to be included in the REDD initiative. The "Heart of Borneo" has also been targeted for the program including a 220,000 square meter tropical forest area along the equatorial encompassing Indonesia, Malaysia and Brunei.

In Latin America, Mexico, Honduras, Guatemala, Belize, El Salvador, Nicaragua, Costa Rica and Panama are doing their best to preserve forests in the Mesoamerican Biological Corridor, a protected forest chain along the Central American isthmus. The corridor is estimated to cut carbon emissions by 134m tonnes a year and absorb 32m tonnes. Costa Rica has been the most active and has attracted more than \$160m worth of investments in "clean development" projects.

There have, however, been concerns, as mentioned in the Stern Review (2006) for instance, that the large scale of possible reductions from AD, could act as a disincentive for developed countries to de-carbonise their societies. According to estimates by the Woods Hole Research Institute (WHRC) in the US, reducing deforestation in the Brazilian Amazon to nearly zero within a decade would cost \$100 million to \$600 million per year under REDD. However, these figures are lower than the opportunity cost of foregone profits from deforestation-dependent agriculture and ranching and Brazil would see many benefits such as increased income of indigenous and traditional forest people, greater security for the rainfall system of the Brazilian grain belt and hydroelectric network, and \$10 to 80 million per year of diminished fire-related damages to health, agriculture, and forestry. In short, avoided deforestation could offer the most cost-effective way to end deforestation while at the same time helping fight global warming.

What is the Heart of Borneo?

The Heart of Borneo straddles the transboundary highlands of Indonesia and Malaysia, and reaches out through the foothills into adjacent lowlands and to parts of Brunei.

The forests of the Heart of Borneo host some of the most biologically diverse habitats on Earth, possessing staggeringly high numbers of unique plant and animal species.

The Heart of Borneo's forest area is 1 of the only 2 places on Earth where orang-utans, elephants and rhinoceros still co-exist and where forests are currently large enough to maintain viable populations.

Today, only half of Borneo's forest cover remains, down from 75 per cent in the mid-1980s. But the three Bornean governments – Brunei Darussalam, Indonesia and Malaysia – have recently launched the Heart of Borneo initiative, which aims to preserve approximately 220,000 sq km of equatorial forests and numerous wildlife species.

Source
World Wide Fund (WWF)

Assisting in Alleviating Poverty

Studies have shown the link between environmental degradation and economic insecurity is two-way. Poverty poses a threat to the environment if poor people exploit fragile ecosystems and natural resources to meet their daily needs. Conversely, environmental degradation poses a threat to poor people since most poor people depend on their surrounding natural resources for livelihood. According to a Climate Change brief by the World Conservation Union, while tropical forests are expected to be lost at a rate of 5% per decade for the next 30 to 50 years, over 1 billion people who live in extreme poverty depend on forests for their livelihoods. This is particularly so in tropical countries, where rural communities rely heavily on the extraction of natural resources from forests, and often on the conversion of forests. In

addition to this, the third ASEAN State of the Environment Report notes that the poor are the most vulnerable to environmental hazards and natural disasters. Wetlands International's report, Peatland Degradation Fuels Climate Change, substantiates this by noting that poverty is up to 4 times more severe in Indonesian peatlands than in other lowland areas.

Killing two birds with one stone

In Southeast Asia, REDD also has the potential to address other environmental (and socio-economic) issues in the region, in particular, the annual transboundary haze, which is also a result of environmental degradation (primarily the clearing of land via the "slash and burn" method). The damage done by the haze in Southeast Asia has been well documented over the years and has caused a great blow to the economies of ASEAN. Poor health reduces the productivity of many individuals and poor visibility due to the haze retards transport systems and tourism. According to the Second ASEAN State of the Environment Report, the 1997/1998 Haze crisis caused ASEAN states an estimate of 9 billion US dollars in damages and 70 million people were adversely affected. Such economic downturn was due to health issues that impeded many to be less productive. Increased respiratory problems, and greater occurrence of people falling sick, poor visibility, which disrupts modes of transport Indonesians living near these forest fires. In 2006, economists estimated that Singapore alone had a loss of 50 million dollars due to the haze. REDD therefore provides an added mechanism to substantiate and complement current ASEAN initiatives and commitments in mitigating deforestation and environmental degradation.

Beefing up Biodiversity

Deforestation and degradation also destroys the precious biodiversity of forests, which contain much of the natural resources needed for further scientific research and development. In the past 10 years, scientific discoveries have contributed significantly to the development of non-timber forest products (NTFP) such as medicinal and herbal products, and an emerging ecotourism industry in Borneo. Indigenous peoples such as

the Kenyah can also potentially benefit from the development of drugs based on their traditional knowledge. The Convention on Biological Diversity, to which Indonesia and Malaysia are both parties, stipulates that indigenous communities should approve of the use of their traditional knowledge and that any benefits from its use should be shared equitably with them. The Convention also recognizes the sovereign rights of states over their genetic resources so that the development of drugs or other uses are subject to the laws of the country of origin. This demonstrates the forests potential in supporting activities that sustain the economic livelihoods of local communities and in turn contributing to the economic growth of the nation as a whole, without harming the forest environment in which do not give a negative impact to the forest environment.

While REDD does provide much to be desired by forest-rich nations, several conditions need to be ensured for the initiative to succeed. Primarily the need for national REDD programs to be consistent with UNFCCC and other UN principles, to ensure transparency and have the active involvement of indigenous peoples and forest communities. In light of this, issues primarily focussed on the national government's ability in managing REDD need to be fine tuned to meet these conditions.

Difficulties in establishing accurate baselines

Accurate baselines are needed in determining the capacity of forests in storing carbon. This however is tedious as gathering carbon storage measurements of vast land areas is a daunting task. Moreover, the estimated measurements of forest carbon storage may vary amongst various sources, such as government sources, environmental groups and other non-governmental organizations. Contradicting data may be a source for future conflict. As such, data must be streamlined and made transparent for the benefit of all involved.

Preventing leakage

Related to the need to establish accurate baselines, national governments must ensure that





they account for all possible sources of carbon emissions. Not thoroughly accounting for carbon emission would result in the problem of “leakage”, which refers to changes in anthropogenic emissions by Green House Gas (GHG) sources, which occur outside the project boundary, but are attributable to its activities.

☒ Problem on ensuring permanence in emission levels

There is also the difficulty in ensuring AD and related carbon dioxide emissions are permanent. Non-permanence occurs if trees are cut down, die or are affected by fires. This problem could be likely with the lack of proper legal implementation. In Indonesia, for instance, the lack of effective legal implementation in penalizing “slash and burn” culprits would contribute to this problem. Moreover, thanks to the impact of Climate Change, prolonged dry seasons only serve to exacerbate this problem. Governments would also be at a further disadvantage if they are not equipped to respond to these fires immediately.

☒ High administration costs

High administrative costs managing REDD would result in a very slow trickle down effect to the communities that need it most. According to Indoensian Environment Minister Rachmat Witoelar, at least 30 percent of the compensation funds would have to be spent on hiring foreign consultants to manage certificates of emission reduction (CER) and other administrative matters, as seen in instances with some CDM projects. Citing an example, he said Costa Rica which received incentives under the CDM spent nearly 90 percent of the funds on hiring consultants and other managerial services.

☒ Government's track record and credibility?

Some countries, such as Indonesia, have thus suggested that further consideration should be given in providing knowledge transfer so that the local governments would be trained in effectively

managing administrative matters themselves. While such an assertion is commendable, it remains to be seen as to whether Indonesia has sufficient ability to see through the administrative matters on its own and more importantly, whether these efforts benefit local forest communities, given the high likelihood of corruption. In an interview with Indonesia’s Antara News, Executive director of the Indonesian Forum for the Environment (Walhi) Chalid Muhammad expressed a pessimistic view. He argued that the REDD scheme in Indonesia would benefit only a handful of people, such as carbon traders, consultants, companies and brokers rather than customary communities.

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How Feasible are Carbon Finance Mechanisms for Forests?

At the UNFCCC Meeting in Bali, Executive Director, Yvo De Boer announced that the UNFCCC had issued its 100 millionth Certified Emission Reduction (CER) Credit as part of its Clean Development Mechanism (CDM) since its official launch in 2005. Such an achievement, without a doubt, is a milestone in achieving a low-carbon future. However, the question remains as to whether forests can effectively be included into CDM. The World Bank seems to think that this is possible with two of its initiatives – the BioCarbon Fund and the Forest Carbon Partnership Facility.

The **BioCarbon Fund** commenced operations in May 2004 to foster the role of Land-Use, Land Use Change and Forestry (LULUCF) in the carbon market and the CDM and therefore extend benefits of the carbon market to the poorest rural areas and to the local environment. It targets projects that sequester or conserve greenhouse gases in forests and agro-ecosystems to mitigate climate change. These projects also represent an opportunity for the BioCarbon Fund to develop clear and robust methodologies for carbon sequestration calculations and to address outstanding issues regarding permanence of the project providing the carbon emission reductions and the crediting of biological carbon. It focuses on learning-by-doing, to build up substantial experience as the rules regarding eligibility of land-use activities are further developed. Such practices can also be utilized as groundwork in REDD initiatives. For example, the 2003 IPCC Good Practice Guidance for Land Use, Land Use Change and Forestry (2003 IPCC GPGs) has been approved by the UNFCCC and provides methodological standards to deal with forestry, including deforestation, under a national accounting system.

In addition to this, the World Bank's newly launched **Forest Carbon Partnership Facility (FCPF)** aims to assist developing countries in their efforts to reduce emissions from deforestation and land degradation (REDD). The FCPF has dual objectives of building capacity for REDD in developing countries, and testing a program of performance-based incentive

payments in some pilot countries, on a relatively small scale, in order to set the stage for a much larger system of positive incentives and financing flows in the future.

By giving real cash value to REDD, payments through this mechanism can compensate opportunity costs from short-term and unsustainable gains (e.g. uncontrolled fires, illegal logging, or conversion to cropland or pasture). Payments through this mechanism will also help to offset the political and institutional costs deriving from the implementation of new policies and increased overheads (e.g. increased public spending on policy reforms, communication campaigns, etc.), thus counterbalancing the forces of forest destruction. This will allow countries with a high deforestation rate and a commitment to reduce it, such as Indonesia, to translate forest protection and sustainable forest management into tangible monetary payments. Two separate mechanisms would be set up to support FCPF objectives: -

(I) Readiness Mechanism

The Facility will help about 20 interested developing countries to arrive at a credible estimate of their national forest carbon stocks and sources of forest emissions, as well as assist the country in defining their reference scenario based on past emission rates for future emissions estimates. The Readiness Mechanism would offer these countries technical assistance in calculating opportunity costs of possible REDD interventions, and designing an adapted REDD strategy that takes into account country priorities and constraints.

(II) Carbon Finance Mechanism

Selected countries participating in this mechanism must (a.) demonstrate ownership on REDD and adequate monitoring capacity; and (b.) establish a credible reference scenario and options for reducing emissions; would receive payments for reducing emissions below the reference scenario. The structure of these incentive payments would build on the options





BioCarbon Fund's Success

An example of the Land-Use, Land Use Change and Forestry (LULUCF) initiative under the BioCarbon Fund is China's Pearl River Watershed Management Project. China is a very large consumer of natural resources, including wood. Deforestation has been particularly evident in the vast areas of northwestern and northern China as well as at the sources of many large rivers where the ecological environment is very fragile. The reforestation being carried out by the project along the middle and upper reaches of the Pearl River aim to reduce soil erosion locally and improve the regulation of hydrological flows. The additional income from the carbon sales and the sustainable management and exploitation of the regenerated forest will further provide benefits to local farmers and communities. These improved natural and social conditions will in turn provide incentives for local communities for a more sustainable and stable use of the land on which the project will be developed.

As the first full scale LULUCF project in China, it will test how reforestation activities can generate high-quality emission reductions in greenhouse gases that can be measured, monitored and certified. The project also sets an example for the entire CDM since it developed, with the support of the BioCarbon Fund, the first approved baseline and monitoring methodology (for reforestation of degraded land with no leakage risk). The project also became the very first LULUCF project to be registered by the CDM Executive Board in November 2006. The purchase agreement was signed in June 2006. The BioCarbon Fund will purchase emission reductions of 462,000 tCO₂e from the project.

Source

BioCarbon Fund Brochure, World Bank, http://carbonfinance.org/docs/BioCF_Brochure_high_res.pdf

for REDD that are currently being discussed within the United Nations Framework Convention on Climate Change (UNFCCC) process, with payments made to help address the causes of deforestation and degradation. Within the Carbon Finance Mechanism, payments would only be made to countries that achieve measurable and verifiable emission reductions.

Together, these two mechanisms would seek to develop a realistic and cost-effective means of tackling deforestation, to help safeguard the Earth's climate, reduce poverty, manage freshwater resources, and protect biodiversity. The World Bank sees these mechanisms as catalysts garnering a body of knowledge and experiences that can facilitate development of a much larger global program of incentives for REDD over the medium term (5-10 years).

The targeted volume of the facility would be approximately US\$ 300 million. So far, this emission-financing scheme is worth US \$160 million, thanks to the generous contributions of several developing countries, namely Germany (US\$59 million), United Kingdom (US\$30 million), Netherlands (US\$22 million), Australia and Japan (US\$10 million each), France and Switzerland (US\$7 million each) and Denmark and Finland (US\$5 million each). In addition, the U.S.-based The Nature Conservancy (TNC) has committed US\$5 million to the scheme.

However, the FCPF, like many other initiatives, has been criticized by environmental groups - such as Friends of the Earth, the Indonesian Forum for the Environment and Global Forest Coalition – who noted that the inclusion of forests in the carbon market would not help improve the climate and instead would only deprive forest dwellers of their rights. According to World Rainforest Movement spokesperson Ana Filipini, more often than not, "carbon finance mechanisms in developing countries result in forests being transferred or sold to large corporations which hope to acquire profitable 'carbon credits' associated with those forests at some point in the future".

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