I. INTRODUCTION

The design and implementation of policy approaches and positive incentives to Reduce Emissions from Deforestation and Degradation in Developing Countries (REDD) will have major implications for the environmental integrity, equity, and efficiency of the next phase of the Kyoto (post-2012) agreement on climate change. Consistent with the Bali Action Plan, REDD should remain a focused global effort to halt global emissions from tropical deforestation quickly and equitably; and not be broadened to areas such as conservation, sustainable forest management, and the enhancement of forest carbon stocks.

II. A COMPARISON OF APPROACHES TO REDD

Below we discuss some concerns with market-offset mechanisms for REDD and their ability to attain certain environmental and equity goals in comparison to market-linked mechanisms, based on the auctioning of emission allowances or through the proposal included herein. We argue that market-offset mechanisms for REDD should not become part of the next phase of the Kyoto Protocol and that newer more innovative financing approaches should be pursued. We conclude by putting forth a proposal for a hybrid market-linked fund, which attempts to solve the problems associated with both market-offset mechanisms and voluntary funding mechanisms.

INTEGRITY

The single overriding principle Parties must consider in establishing a mechanism to Reduce Emissions from Deforestation and Degradation in Developing Countries (REDD) is to ensure its consistency with goal of keeping global temperature rise as far below 2°C as possible. Competing REDD proposals must be carefully examined with respect to their role in the overall climate regime and whether as part of this package they would bring the world closer to (or further away from) the UNFCCC objective of avoiding dangerous anthropogenic interference with the climate.

Consistency with UNFCCC and the 2°C goal

In order to avoid catastrophic climate change the world must keep global temperature rise as far below 2°C as possible. The Intergovernmental Panel on Climate Change (IPCC) and the International Energy Agency (IEA) have demonstrated that carbon prices will need to increase in a consistent and rapid manner to bring about the infrastructure changes needed to avoid a 2°C rise in global temperatures. The IPCC has shown that carbon prices in 2030 would need to be in the range of 80 to 200 dollars per tonne of CO2, with the International Energy Agency (IEA) arguing that even higher prices would be needed to deliver at least a 50% reduction in greenhouse gas emissions.
emissions by 2050. Yet, the most recent scientific data suggests that even these reductions would be insufficient for avoiding catastrophic climate change.

Recent studies have shown that including REDD offset credits in the carbon markets could crash the price of carbon by almost 50%. This is consistent with prior studies which have found that forest offset credits would have a similar impact on the price of carbon allowances. These studies also indicate that the inclusion of REDD offset credits would significantly reduce incentives to invest in clean and renewable technologies in both industrialised and developing countries.

While discussions have largely focused on the impacts of including REDD credits in the carbon markets on incentives in industrialised countries, scant attention has been paid to the impact of forest credits on energy and technology investments in developing countries, particularly in China and India. However, some recent models clearly show that REDD offset credits would “crowd out” the more expensive credits generated from energy and industrial emission reductions. The ability of forest credits to crowd out fossil credits would have significant implications for overall architecture of the next international agreement on climate, specifically the need for developing countries with significant energy and industrial emissions to take national mitigation actions to reduce such emissions.

**Leakage, permanence, additionality, baseline uncertainties**

Any approach to REDD will have to deal with the significant problems of leakage, permanence (and liability), additionality, and baseline-setting. However, these issues are especially problematic with market-offset mechanisms, which would allow industrialised countries to increase their energy and industrial emissions if “equivalent” reductions in developing country forest emissions are made. For example, if a country’s baseline is incorrectly established under a market-offset mechanism, it could end up generating non-additional reductions – i.e. “fake” emission reduction credits (or “hot air”) – with a corresponding increase in global greenhouse gas emissions. In order to provide real benefits for climate and biodiversity, a REDD mechanism must also meaningfully address the problems of national and international displacement (or “leakage”). Although international leakage may not be explicitly addressed in other sectors, the risk of leakage is likely greater in the area of deforestation than in other sectors.

**Gross versus Net Accounting**

It is important that the accounting system for deforestation emissions provides incentives to protect forest and to reduce emissions; hence the overall methodological approach should ensure that only the carbon losses from REDD are taken into account in the estimation of emissions, not any potential carbon gains resulting from subsequent land uses. In this context, a “gross” emissions accounting approach would deal directly with deforestation losses and is preferable to a “net” accounting approach. The latter has the potential to permit ongoing deforestation at a national level where for example, plantations on formerly deforested land are sequestering large amounts of carbon. At best the net approach would result in a weaker incentive to reduce and stop deforestation compared to a gross accounting approach focused on deforestation activity as a source of emissions only.

**National versus Sub-national Approaches**

Emission reductions from REDD should be achieved at the national level, and national baselines, accounting, monitoring and reporting is necessary. Such actions will not only help ensure that benefits for the climate and biodiversity are real, but also provide economies of scale. The focus on emissions from forests at the national level would also provide incentives to reduce activities that degrade forests. Direct financing of activities and actions at the sub-national level (be they governmental, non-governmental, private) could come from either a market or a fund. Such financing becomes justifiable when the mechanism is not based on offsets. Arguments that significant efficiencies would be gained by allowing the private sector to provide direct financing for
REDD may be overstated, as the world’s remaining tropical forests are largely contained within a small number of developing countries.

EQUITY

Deep cuts in industrialised countries’ domestic greenhouse gas emissions

In Bali, industrialised countries committed to making deep cuts in greenhouse gas emissions and to providing financing and other incentives for significant emission reductions in developing countries including REDD-related actions. However, there appears to be movement among some industrialised countries to do less domestically in exchange for cheaper reductions in developing countries. Not only does this represent a back-tracking from commitments made in Bali, but it also takes the focus off of the need for countries historically responsible for the climate crisis to reduce emissions at home.

In contrast, a market-linked mechanism could properly align the incentives for industrialized countries and companies by requiring them to pay for a portion of carbon permits they currently receive for free. Such payments may prompt these countries to begin to address their own carbon footprint on tropical forests such as their unsustainable consumption for timber and certain agricultural commodities.

Significant and reliable financing for developing countries with tropical forests

Parties must commit to providing funding for REDD in a predictable manner at the scale needed to end deforestation quickly and equitably. Tens of billions of dollars per year will likely be needed for this cause. As shown below, auctioning even a small percentage of the overall emission allowances would raise financing in this range.

Recent analyses indicate that the inclusion of REDD credits in the carbon markets would not provide financing at the scale or timeframe needed to end tropical deforestation. Actual finance would be highly unpredictable and subject to the decisions of a large number of independent actors, and no specific amount of financing would be guaranteed. Developing countries facing difficult development decisions may find it difficult to significantly change their current land use practices when there is no guarantee their actions will be rewarded. The promise of future payments based on an estimated demand that may never materialise will likely not be a sufficient incentive for developing countries faced with many short-term needs.

Furthermore, it appears unlikely that many countries with significant tropical forests would be able to meet the entry standards required for participation in the carbon markets within the next commitment period. Attempts to weaken these standards for greater participation would call into question the integrity of the markets and the overall climate regime.

Equity among countries: an approach open to the greatest number of countries with tropical forests

A REDD mechanism must have the flexibility to address the very different circumstances and capacities of countries as diverse as Brazil, Indonesia, and the Democratic Republic of the Congo. A system solely dependent upon the creation and trade of fully fungible forest credits seems ill suited for addressing REDD in a comprehensive manner.

Experiences with carbon markets to date raise concerns about whether a market offset mechanism for REDD could provide for the participation of a large number of countries with tropical forests. The most relevant example is the Clean Development Mechanism (CDM), where approximately 90% of all credits have been issued from four countries (China, India, South Korea, and Brazil) and about 1% spread among the least developed countries (LDCs).
Both market-offset and market-linked mechanisms could provide ex post payments for verified emission reductions. However, a market-linked fund could go beyond this to provide payment for performance which perhaps could not be easily quantified as an offset credit, such as the prevention of deforestation in countries with forests at risk (e.g. stabilisation) and capacity building efforts (if needed). While incentives should be performance-based, a system that would only define performance as ex post financing for verified emission reductions would be skewed towards a very small number of countries with high tropical deforestation rates and biased against countries with low deforestation rates and limited capacities. This would have major implications for international emissions displacement and certain developing countries, such as those located in the Congo Basin.

**Equity within countries: an approach that promotes climate and biodiversity objectives while respecting the rights of local and indigenous peoples**

There is little reason to believe that a market offset mechanism for REDD would encourage reductions that meet goals unrelated to carbon and compliance, such as biodiversity and respect for local and indigenous rights. For instance, the Clean Development Mechanism (CDM) was established with dual objectives of promoting sustainable development and assisting Annex I parties with their compliance efforts. However, experience with this market mechanism shows that investments have flocked to the least expensive offset credit providers based on costs, without little to no regard for the goal of promoting sustainable development. Half of all the offset credits issued through March 2008 were from trifluoromethane (HFC-23) emission reduction projects, yielding significant profits for chemical companies and carbon traders but no benefit for sustainable development.

**Indigenous peoples and local communities**

In order to be successful in the long term, Greenpeace believes that REDD must fully respect the land, resource use and ownership rights of indigenous peoples and directly engage such communities in the development and implementation of a REDD mechanism. REDD policies must provide for the free, prior, and informed consent of these communities and ensure that benefits are equitably shared. Parties should establish a REDD mechanism consistent with the UN Declaration on the Rights of Indigenous Peoples.

A properly designed REDD mechanism could strengthen and advance the rights of indigenous and other forest dependent peoples while a poorly designed policy could potentially place their rights at risk. In this context, placing forests (particularly projects) directly into the carbon markets could have the added risk of pitting forest peoples whose land tenure rights have either not been acknowledged or not enforced against a model seeking to provide offset credits at lowest possible costs. Alternatively, a mechanism with a stronger governance structure, such as a fund, has a much better chance to be designed and implemented with outreach, participation, and transparency and other criteria that will help ensure that the rights of local and indigenous peoples are fully respected.

**Biodiversity**

The world is in the midst of the world’s sixth mass extinction, but unlike all the others, this one is completely man-made. Climate change threatens to worsen the impact on species and tropical forests, and the IPCC has demonstrated that 20-30% of the world’s remaining species would be at increased risk of extinction if global temperature rise exceeds 2°C. The United Nations has acknowledged the extinction crisis and adopted a target to significantly reduce global biodiversity loss by 2010.

It would be perverse to develop a system to protect the Earth’s climate which would not be designed to protect its inhabitants. Yet market-offset mechanisms would render the protection of vulnerable species to mere chance. Drivers of deforestation (such as logging and agriculture)
could shift from high-carbon low biodiversity areas to low-carbon high biodiversity areas, resulting in net gains in terms of climate but losses in terms of biodiversity. Biodiversity and social considerations could be viewed as an added “cost” by project developers, carbon traders and companies engaged in a “race to the bottom” to provide offset credits for compliance purposes at lowest possible costs. Thus, a REDD mechanism should be designed and implemented in a manner that promotes both climate and biodiversity objectives, consistent with the rights of local and indigenous peoples.

EFFICIENCY

Efficiency in the context of REDD means the ability to provide permanent emission reductions in forest emissions at lowest costs. However, in the REDD debate, efficiency is often discussed in terms of how to lower the short term compliance costs for large industries in developed countries. These two interests do not necessarily coalesce.

A major efficiency issue is the extent to which the market price paid for forest offset credits would bear a relation to the forgone opportunity costs of not deforesting. Specifically, the price paid for REDD offset credits could significantly exceed the costs of the reductions, resulting in windfall profits for offset credit providers at the expense of greater mitigation efforts. In contrast, a fund for forests could be designed to compensate countries only for forgone costs of not deforesting. That is the experience of the Montreal Protocol Multilateral Fund (MPMF) which only compensates countries and projects for the incremental (i.e. “additional”) costs to conversion to non-ozone depleting technologies. The result is the more efficient expenditure of limited mitigation resources and lower overall compliance costs for industrialised countries.

Summary: Rejection of Market-Offset Mechanisms for REDD

Proposals to allow REDD offset credits to enter the carbon markets are therefore problematic for a number of reasons. First, limits on REDD credits would do nothing to change the quality of such reductions and their equivalency and comparability to fossil fuel emissions. Such credits still suffer from the problems of leakage, permanence, baseline-setting, etc. and the argument for focusing the markets on the more easily quantified and comparable trade in fossil fuel emissions would not be changed. Second, the payments obtained for REDD credits would likely bear little to no relation to the cost exerted to reduce forest emissions, resulting in windfall profits for countries and the inefficient expenditure of resources for mitigation. Third, the risk of market monopolisation would be increased since offset purchasers seeking low-cost low-risk opportunities would likely cluster around the one or two countries with traditionally high rates of deforestation who could deliver reductions on a continuous basis. This in turn would increase the risks of international emissions displacement (i.e. “leakage”) and provide little or no benefit to climate or biodiversity. Fourth, because of their anticipated low costs, studies have shown that such credits would likely “crowd out” investments in clean and renewable energy technologies in developing countries. Finally, while limiting the amount of forest offset credits allowed might minimise the direct impacts on the price of carbon, they would not decrease the less quantifiable indirect effects on investment strategies in the energy and industrial sectors. As long as the potential for future cheap forest offset credits exists, private and government actors may act in a manner consistent with their expanded availability.

III. PROPOSAL FOR A HYBRID MARKET-LINKED FUND

The Greenpeace Forests for Climate proposal for a new Tropical Deforestation Emission Reduction Mechanism (TDERM) under the UNFCCC and Kyoto Protocol, attempts to address many of the issues discussed above. The mechanism would finance REDD in participating countries in a manner that meets both climate and biodiversity objectives, while fully respecting the rights of indigenous and forest peoples.

Under the mechanism the core funding for forest protection would come from a mandatory
minimum contribution from Annex I Parties to meet a fixed part of their emissions obligations (X%) through the purchase of a new compliance unit: Tropical Deforestation Emission Reduction Units (TDERUs). In addition to the mandatory level of contributions (X%), Annex B Parties could elect to purchase and hold up to a maximum of Y% of their base year emissions by purchasing TDERUs from the Mechanism.

The unit prices paid by Annex I Parties for TDERUs could be set by auction or through a sale linked to the world market price for Kyoto units. Using a simple calculation, assuming a carbon price of €20/tonne CO2, a 2% level could generate on the order of €9 billion/year. The proceeds of the sale of TDERUs would be used by the TDERM to fund and reward reductions in emissions from participating developing countries. An important property of the TDERUs proposed here is that they would in effect be a hard currency for compliance purposes, irrespective of the performance of the mechanism in actually reducing emissions from deforestation.

<table>
<thead>
<tr>
<th>% of 1990 base year Annex I industrial gas emissions (22.8 GtCO2e/yr)</th>
<th>Value of TDERUs € Bn/yr at 20€/tCO2e</th>
<th>TDERUs allowed MtCO2e/yr</th>
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<tr>
<td>1%</td>
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**Portfolio Performance Approach**

The Mechanism would be required to achieve an overall emission reduction objective, as part of a larger portfolio performance approach. This approach would allow the fund to expend resources on countries with varying capacities as well as those with high and low deforestation rates. Global reductions in deforestation emissions will be needed for the mechanism to achieve its climate and biodiversity objectives.

The overall emission reduction objective would be decided upon by the COP/CMP, and could be expressed as a multiple of the total TDERUs issued. Assuming a TDERU price of €20/tCO2e, a discount factor of at least three could reasonably provide for reductions of the order of those found in the literature (approx. €6-7/tCO2e). A higher rate would be achieved due to the compliance unit being guaranteed and linked to quality compliance units traded at high rates on markets focused on fossil fuel emissions.

The mechanism could establish several tracks for countries with different capacity levels and abilities to accurately monitor, report, and verify emission reductions. This would allow for the broad participation of countries with tropical forests at risk. Developing countries who accurately monitor and report on their mitigation actions and take on certain liabilities would receive a higher return for their services, providing a strong incentive for countries to continually improve their forest protection programmes.

**Governance Structure**

The TDERM could be established with a similar governance structure to the Montreal Protocol’s Multilateral Fund, which assists developing countries to phase out the use of ozone depleting substances. The fund should include a supervisory board with equal representation from developing and industrialised countries, as well as other stakeholders including indigenous peoples, civil society members, and representatives of the other Rio Conventions. This could include representatives from the UN Permanent Forum on Indigenous Issues (UNPFII), providing greater participation and transparency to the decision-making and implementation processes. The result would be the increased likelihood of long term sustainable reductions which provide a cost-effective
means of reducing global greenhouse gas emissions.

The governance and administration of the REDD mechanism will be critical to ensuring the equitable distribution of benefits among and within countries with tropical forests. The overall architecture of this mechanism will have a profound impact on how it will work in practice. These concerns seem especially poignant when dealing with systems seeking to generate offset credits for compliance purposes, i.e. market offset mechanisms. Below we provide some initial thoughts on how the governance of TDERM.

**Pre 2013 incentives**

If significant progress is made during the negotiations over the next year, parties could allow for the issuance and sale of a limited number of TDERUs prior to the start of the second commitment period in 2013. For example, a forward issue TDERUs equivalent to 0.5% of Annex I base year emissions each year between 2009 and 2012 could raise €2.3 bn/year if sold at a price of €20/tCO2e. This financing could provide countries with an immediate and significant incentive to initiate forest protection programmes.

**IV. CONCLUSION**

Given the limited time in adopting a REDD mechanism prior to Copenhagen, parties should allow the carbon markets to remain focused on the more easily quantifiable and comparable fossil fuel emissions rather than introducing the complexity and uncertainty associated with forest emissions. Perhaps solutions to the aforementioned problems can ultimately be found, but this will not occur in the timeframe needed to adopt and implement a REDD mechanism for the next (post-2012) phase of the Kyoto Protocol. Thus, the ongoing negotiations on REDD would best be served through the development of an innovative REDD mechanism, such as TDERM, based on new and additional financing by industrialised countries for performance to REDD which achieves both climate and biodiversity objectives consistent with the rights of local and indigenous peoples.

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