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**'REDD' AT THE CONVERGENCE OF THE ENVIRONMENT AND DEVELOPMENT DEBATES
– INTERNATIONAL INCENTIVES FOR NATIONAL ACTION ON AVOIDED DEFORESTATION**

Philippa Venning

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Climate change, initially viewed as primarily an environmental concern, has become an extremely important and complex political, economic and development issue.¹ There is growing political impetus to agree to a new and more rigorous international legal framework for climate change mitigation to replace, or at least extend, the current arrangements under the Kyoto Protocol. The participation of developing countries, only indirectly included in the mitigation provisions of the Kyoto Protocol yet growing contributors to global greenhouse gas emissions, will be integral to the ability of any new international arrangement to mitigate the risk of dangerous climate change. While it is not helpful to consider developing countries as a single block, several developing countries with high rates of deforestation² would be more likely to participate if they could earn credits from avoided deforestation which were tradeable in the international carbon market. Accordingly the inclusion in any new international regime of 'reducing emissions from deforestation and forest degradation' in developing countries, or REDD,³

must, and is, being seriously considered in the post-Copenhagen Accord negotiations.

There is a divergence of views about how REDD should be implemented and included in any international agreement, particularly in relation to its scale - the level at which emissions⁴ should be accounted for. Despite agreement in the Copenhagen Accord that incentives need to be given for REDD, the lack of consensus on how REDD should be implemented may jeopardise its inclusion in any new international agreement. This paper argues in favour of an approach to REDD that is national in scale. Although it is widely accepted that in theory a *national-based* approach would be more environmentally effective as it would reduce risks such as leakage and permanence, some opponents continue to argue for a *project-based* approach to REDD. Their preference for a project-based approach reflects perceptions of poor governance in many developing countries and the difficulties in translating international incentives to target the local drivers of deforestation.⁵ However, experience with the Kyoto Protocol and development assistance over many decades shows that to have effective and sustainable environmental and development benefits, a national-based approach to REDD would be needed to promote the transmission of REDD incentives into national development planning. Indonesia is used as an example to show how a national-based approach could be effectively implemented in the country with the highest deforestation rate in the world.⁶

After a brief discussion of REDD and its current status in the international climate change regime in Part I, Part II examines the different approaches to the scale of REDD being mooted in the negotiations for a new international climate change agreement.

1 With demand mounting through publicity such as Al Gore's *An Inconvenient Truth* documentary and authoritative reports including from Sir Nicholas Stern and Ross Garnaut, governments are under increasing pressure to take action to mitigate climate change.

2 'Deforestation' is defined as the 'direct human-induced conversion of forested land to non-forested land'; UNFCCC, Report of the Conference of the Parties on its Seventh Session, Marrakesh, 29 October - 10 November 2001, FCCC/CP/2001/13/Add.1, 21 January 2002, Decision CMP.1 (Marrakesh Accords on Land use, land-use change and forestry). The definition of 'forest' is technical and is the subject of much debate but will not be canvassed here. For details, see Nophea Sasaki and Francis Putz, *Do Definitions of Forest and Forest Degradation Matter in the REDD Agreement?* (Harvard Working Paper, 2008).

3 A more detailed understanding of REDD is provided in Part II. This paper will not consider the final 'D', degradation, as distinct from deforestation, even though there are different considerations involved, such as greater challenges in measuring saved emissions. It is worth noting Indonesia's position that forest degradation be included in any new international agreement. See Meine Noordwijk et al, *Reducing emissions from deforestation and forest degradation (REDD) in Indonesia: options and challenges for fair and efficient payment distribution mechanisms 11* (Sindang Barang: World Agroforestry Centre, Working Paper No 81, 2008).

4 'Emissions' is used to refer to greenhouse gas emissions.

5 Governance means political and policy institutions and processes and includes the processes by which citizens' voices are heard and mediated by the government's institutions. See Carmenza Robledo et al, *Climate Change and Governance in the Forest Sector: An Overview of the Issues on Forests and Climate Change with Specific Consideration of Sector Governance, Tenure and Access for Local Stakeholders 25* (Washington DC: Rights and Resources Initiative, 2008).

6 See Noordwijk et al., note 3 above at 9.

Part III canvasses arguments against including REDD in a post-2012 agreement but shows that many of them could be addressed with a national-approach to REDD. For remaining issues, particularly challenges in transferring profits from the sale of REDD-generated credits to local level incentives to protect forests, development lessons internationally and from Indonesia show that such transfers could be structured in an effective way not only to achieve environmental benefits, but also to achieve broader development and poverty reduction aims. These lessons, discussed in Part IV, further bolster the case for any post-2012 agreement to incorporate a national-based approach to REDD, integrated into national development plans.

1

REDD AND ITS OMISSION FROM THE KYOTO PROTOCOL

The protection of forests is undervalued in legal and economic terms. The legal rights which attach to forests, such as the rights to own timber and land, have value and are tradeable. Forest rights are not only used by companies for profit, but forests also benefit local communities. Forests provide homes to 350 million people and livelihoods to 1.6 billion.⁷ Of those people living below the poverty line of USD 1 per day, it is estimated that over 90 per cent depend on forests to some extent for their livelihoods.⁸ Conversely, many of the benefits of forests left standing, such as clean air, biodiversity and carbon storage, are freely available to everyone and have not traditionally attracted legal rights.⁹ Accordingly the market has not, to date, reflected the true value of protecting forests and deforestation is occurring at rapid rates. It is estimated that at current rates, between 10 and 22 per cent of forests

in developing countries will be lost by 2050.¹⁰ Deforestation is occurring at the fastest rate in the tropics, where combined with increasing rates of industrialisation, harmful amounts of carbon emissions are being released into the atmosphere.¹¹ Southeast Asia, along with Central America, has the highest rates of deforestation, with Indonesia having lost two per cent of its forests in just five years (between 2000 and 2005).¹² Clearly, to reduce deforestation different incentives are needed. One way to incentivise the protection of forests is to assign legal and assignable rights to the emissions saved by avoiding cutting down forests through the international climate change framework.

The international climate change framework is governed by the United Nations Framework Convention on Climate Change (UNFCCC). The UNFCCC, ratified by most countries, aims to stabilise greenhouse gas concentrations in the atmosphere at 'a level that would prevent dangerous anthropogenic interference with the climate system'.¹³ Recognising that developed countries are responsible for the majority of emissions given they went through industrialisation earlier than developing countries, the UNFCCC reflects the notion of 'common but differentiated responsibilities',¹⁴ such that developed countries should take action first to reduce emissions. Legal

7 Johan Eliasch, *Climate Change: Financing Global Forests – The Eliasch Review* xv (Norwich: Earthscan, 2008).

8 *Id.* at 1.

9 Charlotte Streck et al. eds, *Climate Change and Forests: Emerging Policy and Market Opportunities* 7 (Virginia: Brookings Institute Press, 2008).

10 Robert O'Sullivan, 'Reducing Emissions from Deforestation in Developing Countries: An Introduction', as cited in Streck et al. eds., note 9 above at 180.

11 See Eliasch, note 7 above at xv. Tropical forests also emit more carbon dioxide than forests in other regions; see Intergovernmental Panel on Climate Change, *Climate Change 2007: Climate Change Impacts, Adaptation and Vulnerability: Summary for Policymakers* (Working Group II, Contribution to the IPCC, Fourth Assessment Report, 2007).

12 Markku Kanninen et al., *Do Trees Grow on Money? The Implications of Deforestation Research for Policies to Promote REDD* 8 (Bogor: Center for International Forestry Research, 2007).

13 United Nations Framework Convention on Climate Change, Rio de Janeiro 9 May 1992 31 *Int'l Leg. Mat.* 849 (1992), Art 4.

14 *Id.* Art 3.1. Note that this principle is coming into question as action from developing countries to address climate change is becoming increasingly urgent; see Ross Garnaut, *The Garnaut Climate Change Review: Final Report* 186 (Melbourne: Cambridge University Press, 2008).

obligations under the UNFCCC are augmented in its Kyoto Protocol which binds most developed countries and countries in transition to emission reduction targets. Developing countries are included in the agreement but are not subject to binding short-term emission reduction targets.

Despite the importance of addressing deforestation in developing countries and the relative low cost of reducing emissions by leaving forests standing, it is not incentivised by the current international climate change agreements and has therefore not been a major mitigation option to date.¹⁵ The dual approach to addressing climate change by reducing energy-related emissions as well as by increasing carbon removals by sinks is recognised in the UNFCCC. The Kyoto Protocol, however, focuses primarily on reducing energy-related emissions.¹⁶ This is partly because reducing emissions from fossil fuels can be more easily and accurately monitored and accounted for than emissions saved from avoiding deforestation.¹⁷ Monitoring and accounting challenges are addressed with respect to REDD in Part III.

1.1 The Clean Development Mechanism

The complexity of monitoring and accounting for emissions from forests was part of the reason why the inclusion of emissions and sinks from existing forests was a particularly fraught issue in the Kyoto Protocol negotiations.¹⁸ Developing countries are

included in the Kyoto Protocol through the Clean Development Mechanism (CDM).¹⁹ The CDM is a project-based flexibility mechanism where developed countries (or entities registered in those countries) can invest in projects in developing countries which generate additional emission reductions. Credits earned are legally assignable and are used as offsets to help developed countries meet their Kyoto Protocol emission targets. Over 3,000 projects have been approved and the CDM market is now worth several billions of dollars annually.²⁰

However, with respect to forests, only afforestation and reforestation²¹ projects are eligible to generate credits under the CDM - avoided deforestation projects are not eligible.²² This has 'led to a situation in which there is an incentive to restore and protect forest systems in industrialised countries ... but no incentive to reduce emissions from deforestation in developing countries - the most important source of emissions from the land-use sector'.²³

19 The Kyoto Protocol to the United Nations Framework Convention on Climate Change, Kyoto, 11 December 1997, 37 *Int'l Leg. Mat.* 22 (1998), Art 12.

20 See Streck et al eds., note 9 above at 7.

21 'Afforestation' is the direct human-induced conversion of land that has not been forested for a period of at least 50 years to forested land through planting, seeding and/or the human-induced promotion of natural seed sources; 'Reforestation' is the direct human-induced conversion of non-forested land to forested land through planting, seeding and/or the human-induced promotion of natural seed sources, on land that was forested but that has been converted to non-forested land; see Land use, land-use change and forestry, Decision 11/CP.7, in Report of the Conference of the Parties on its Seventh Session, Marrakesh, 29 October-10 November 2001, Vol. I, Doc. No. FCCC/CP/2001/13/Add.1 (2002).

22 Modalities and Procedures for a Clean Development Mechanism as Defined in Article 12 of the Kyoto Protocol, Decision 17/CP.7, in Report of the Conference of the Parties, Seventh Session, Marrakesh, 29 October-10 November 2001, Vol. II, Doc. No. FCCC/CP/2001/13/Add.2 (2002). Very few reforestation projects have been approved under the CDM; see O'Sullivan, note 10 above at 188. Despite the huge area of cleared land in Indonesia, no afforestation or reforestation projects have been approved despite numerous proposals. Some of the reasons cited include the project nature of CDM with its lack of synergy with other development activities and high transaction costs; see Noordwijk et al., note 3 above at 11.

23 See Streck et al. eds., note 9 above at 6.

15 It is estimated that the emissions resulting from deforestation in Indonesia and Brazil alone would cover 80 per cent of total emissions under the Kyoto Protocol's first commitment period; see O'Sullivan, note 10 above at 180. Carbon credits from avoided deforestation activities can be traded in some voluntary carbon markets, for example the Californian market. Notably the European Union market does not accept REDD credits.

16 See Streck et al eds., note 9 above at 6.

17 For example, it is relatively simple to work out how many emissions are saved when a certain amount of electricity is generated from a new wind farm as compared with the previous coal-fired power plant. However, it is more difficult to calculate emission reductions through activities conducted to protect a forest which might have been cut down but for those activities.

18 See O'Sullivan, note 10 above at 181; see also Tom Griffiths, Seeing 'RED'? 'Avoided Deforestation' and the Rights of Indigenous People and Local Communities 17 (Moreton-in-Marsh: Forest Peoples Program, 2007).

2 PROPOSALS TO INCLUDE REDD IN ANY POST-2012 AGREEMENT

Crucially, the Kyoto Protocol, even if fully complied with, will not reduce emissions to the extent necessary to prevent dangerous climate change.²⁴ Arrangements under the Kyoto Protocol will cease in 2012, and despite disappointment with the outcomes of the Copenhagen negotiations in December 2009, there is significant political will to reach a more effective and comprehensive international agreement on climate change. The Stern Review estimated that the costs of coping with the effects of climate change could amount to more than 20 per cent of the world's annual income if significant action is not taken in the short term and an agreement is not reached on avoided deforestation, the cheapest option for global mitigation.²⁵

2.1 Growing support for REDD

The parties to the UNFCCC agreed in 2005 to a proposal, supported by a number of developing countries led by Papua New Guinea and Costa Rica, to consider policy proposals to reduce emissions through deforestation in preparation for the UNFCCC meeting in Bali in 2007.²⁶ Many position papers were submitted and a considerable number of conferences and studies were prepared, presenting a diverse range of views.²⁷ At Bali, it was decided

that urgent action on avoided deforestation was needed. The parties agreed to consider 'policy approaches and positive incentives on issues relating to reducing emissions from deforestation and forest degradation in developing countries' and 'identify options and undertake efforts, including demonstration activities, to address the drivers of deforestation'.²⁸ Such approaches and actions have come to be referred to as 'REDD'. REDD does not refer to a particular activity, but rather a mechanism by which developing countries would be paid by developed countries to implement a range of policies, programs and projects to reduce rates of deforestation or forest degradation.²⁹ These mechanisms could include, for example, strengthening regulatory frameworks, sustainable forest management programs or projects to pay communities for their services to protect existing forests.

Despite the 'Bali Roadmap's' agenda for two years of negotiations aiming to reach a new international agreement by the Copenhagen meeting in December 2009, only minimal progress was made. With respect to REDD however, Parties agreed in the Copenhagen Accord on the need to provide incentives for REDD through the immediate establishment of a mechanism to mobilise funds from developed countries.³⁰ How this might be done is the subject of further negotiations.

Accordingly, in addition to the direct environmental benefits, support for REDD from many developing countries, particularly forested countries such as Indonesia, is driven by a desire for payments for the value of carbon emissions avoided.³¹ Indonesia proposes that avoided deforestation activities be

24 See Eliasch, note 7 above at 111. In fact it will not make much of a difference to what greenhouse gas emissions would have been but for the Protocol; i Frank Jotzo, 'Climate Change Economics and Policy in the Asia Pacific', 2 *Asian-Pacific Economic Literature* 14, 26 (2008).

25 Nicholas Stern, *The Stern Review: The Economics of Climate Change* i-ii, xiii (Cambridge: Cambridge University Press, 2006).

26 UNFCCC, Reducing Emissions from Deforestation in Developing Countries: Approaches to Stimulate Action, Doc. No. FCCC/CP/2005/MISC.1 (2005).

27 Proposals are summarised in the Global Canopy Programme, *The Little REDD Book: A Guide to Governmental and Non-governmental Proposals for Reducing Emissions from Deforestation and Degradation* (Oxford: Global Canopy Programme, 2008).

28 Reducing Emissions from Deforestation in Developing Countries: Approaches to Stimulate Action, Decision 2/CP.3, in Report of the Conference of the Parties, Thirteenth Session, Bali, 3-15 December 2007, Doc. No. FCCC/CP/2007/6/Add.1 (2008).

29 Leo Peskett et al., *Making REDD Work for the Poor* 5 (London: Poverty Environment Partnership, 2008).

30 Copenhagen Accord, Draft Decision -/CP.15, Conference of the Parties to the UNFCCC, Fifteenth Session, Copenhagen, 7-18 December 2009, Doc. No. FCCC/CP/2009/L.7 (2009).

31 Some estimate that these flows could amount to \$30 billion per year; see Peskett et al., note 29 above.

funded by accessing the carbon market to sell REDD credits and by official development assistance (ODA) from developed countries.³² Indonesia recommends that developed countries should support 'capacity building, improvement of infrastructure, technology transfer, and exchange of knowledge and experiences for developing countries'.³³ Donors and non-government organisations (NGOs) are working with Indonesia to prepare national policies and laws and baseline and monitoring systems to support REDD implementation and to conduct 'demonstration activities' to trial REDD approaches.³⁴

Given that total ODA for forests globally is estimated at less than \$1.5 billion per year, and the cost of stopping deforestation and addressing opportunity costs in the eight countries responsible for 70 per cent of global deforestation would be between \$10 and \$40 billion per year,³⁵ it is clear that funding sources beyond ODA are required to fund REDD. The ability to access funds from REDD-generated credits sold on the international carbon market would promote investment and provide substantial financial flows. In Indonesia's case, it is estimated that REDD could earn Indonesia several billion dollars a year, far more than current development assistance levels.³⁶

While consensus is growing that REDD needs to be included in any post-2012 agreement, how REDD would be included and implemented continues to

be the subject of disagreement, particularly over the scale of REDD. 'Scale' refers to the level of accounting and the level to which credits, and resulting profits, accrue. At one end of the spectrum are those who advocate taking a national-based approach to REDD and at the other those who promote a project-based approach, building on the lessons of the CDM.

2.2 Project-based approach to REDD

A project-based approach to REDD would be comparable to the CDM approach discussed in Part I. Governments or private sector investors would implement a discrete avoided deforestation project within a defined area and timeframe to earn tradeable emissions. These emissions could be traded to count towards binding emissions targets of developed countries or any targets agreed by developing countries. It is argued that a project-based approach would promote private investment more so than a national-based approach.³⁷ As a result of foreign investor concern over investing capital in many developing countries due to corruption, lack of legal certainty, instability or other business risks, investors will be more likely to invest in a way in which they can minimise these risks.³⁸ Projects, with investor-driven obligations and timeframes, are argued to enable investors to keep tighter control over their capital. Developing countries which favour a project-based approach to REDD include Peru, Paraguay, Argentina and Panama.³⁹

2.3 National-based approach to REDD

A national-based approach to REDD could consist of a developing country government opting to take

32 ASEAN Common Position Paper on Reducing Emissions from Deforestation and Forest Degradation (REDD) in Developing Countries, Paper submitted to the UNFCCC, 2008, available at http://www.aseanforest-chm.org/document_center/asof_fora/international_positioning/asean_2008_asean_common_position_paper.html

33 *Id.*

34 See Global Canopy Programme, note 27 above at 30; see also European Tropical Forest Research Network, *Financing Sustainable Forest Management* 138 (Wageningen: Tropenbos International, 2008).

35 See O'Sullivan, note 10 above at 185.

36 See Noordwijk et al., note 3 above at 5; Angus Grigg, 'Clinton Urges Deforestation Inclusion', *Australian Financial Review* (Sydney), 23 February 2009 at 10. Australia is the largest donor to Indonesia and provides around A\$460 million per year (based on information gathered from Australian Agency for International Development website: <http://www.usaid.gov.au/country/country.cfm?CountryID=30&Region=EastAsia>).

37 Erin Myers, *Policies to Reduce Emissions from Deforestation and Degradation (REDD) in Tropical Forests: An Examination of the Issues Facing the Incorporation of REDD into Market-based Climate Policies* 26 (Washington DC: Resources for the Future, 2007).

38 *Id.*

39 Arild Angelsen ed, *Moving Ahead with REDD – Issues, Options and Implications* 33 (Bogor: Center for International Forestry Research, 2008).

on a national target to reduce emissions⁴⁰ and being rewarded for achieving the target with credits tradeable on the international carbon market. This would require international agreement on both a national deforestation rate baseline level (possibly calculated taking into account historical deforestation rates, population growth and level of development) and monitoring and accounting methodologies to measure actual deforestation rates against the agreed baseline.⁴¹ In order to protect the integrity of the international carbon market, the international agreement would need to include standard mechanisms for independent verification of the monitoring and assessment systems and for discouraging non-compliance with obligations.⁴² Indonesia and Australia support a national-based approach to REDD.⁴³

Within the internationally agreed methodologies, a developing country government would be responsible for national-level monitoring and accounting of emissions and for implementing

policies, programs and projects to reduce deforestation.⁴⁴ That is, how emission reductions would be achieved would be up to individual developing country governments. Specific actions could include reforming the law and its enforcement, removing perverse incentives, reducing licences available to the logging industry, offering programs to promote alternative and more sustainable livelihoods or paying forest-reliant communities for environmental services.⁴⁵ A national government could also provide incentives to local governments or communities to protect the forests or subcontract projects to private investors. The latter is different to private investors investing in a project under a project-based approach, such as under the CDM. Under CDM projects, credits generated are owned by the investor and can be traded on the carbon market with any other entity able to trade. In contrast, under a national-based approach, credits generated by the private investor would be included in the national inventory of the developing country government which contracted the project to be conducted within its own borders. Rights to trade any credits generated would belong to the national government, not the project implementer.

Others suggest a 'nested approach' but there is considerable divergence in what the term means.⁴⁶ Some define it as allowing countries to start with a project-based approach and then scale up over time to a national-based approach when they have more experience in implementing REDD.⁴⁷ Credits could accrue at the sub-national level as well as the national level.⁴⁸ Allowing REDD projects is expected to

40 A voluntary target is politically more likely than binding emission targets for most developing countries at this point. This could operate as a carrot, such that developing countries can sell credits in excess of their target, but are not penalised for failing to meet the target. This should only be a transitional measure, as it increases uncertainty in the market and reduces the environmental effectiveness. By 2020 all but the poorest of countries should commit to binding targets; *see* Garnaut, note 14 above at 198-200.

41 Australian Submission on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries, *in* Ideas and Proposals on the Elements Contained in Paragraph 1 of the Bali Action Plan, Ad Hoc Working Group on Long Term Cooperative Action under UNFCCC, Fifth Session, Bonn, 29 March-8 April 2009, Doc. No. FCCC/AWGLCA/2009/MISC.1/Add.2 (2009).

42 *Id* at 9. Canvassing the precise terms of the monitoring and compliance mechanisms is beyond the scope of this paper.

43 *Id* at 6. *See also* Indonesian Submission on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries, *in* Views on Outstanding Methodological Issues Related to Policy Approaches and Positive Incentives to Reduce Emissions from Deforestation and Forest Degradation in Developing Countries: Submissions from Parties, UNFCCC Subsidiary Body for Scientific and Technological Advice, Twenty-Eighth Session, 4- 13 June 2008, Doc. No. FCCC/SBSTA/2008/MISC.4 (2008).

44 *See* O'Sullivan, note 10 above at 183.

45 *See* Myers, note 37 above at 26 and Angelsen ed., note 39 above at 34.

46 Both Indonesia and Australia are advocating for a national-based approach to REDD, but as they state that countries should be able to elect to implement REDD sub-nationally, it is sometimes referred to as a 'nested approach'; *see* Indonesian Submission on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries, note 43 above and Australian Submission on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries, note 41 above.

47 Charlotte Streck et al., 'Creating Incentives for Avoiding Further Deforestation: The Nested Approach', *in* Streck et al eds., note 9 above at 237.

48 *Id*.

promote private sector investment for the reasons discussed above. The investors could earn credits which could be sold in the international market regardless of any policy failure of the government, which is beyond the investor's control.⁴⁹ However, for the purposes of this paper, a nested approach still requires national level monitoring and accounting and is therefore considered as a variation to the national-based approach.⁵⁰

3 VALIDITY OF ARGUMENTS AGAINST INCLUDING REDD IN A POST-2012 AGREEMENT

Regardless of disagreements about scale, there have been many objections raised by scientists, NGOs and governments (even forest-rich developing countries such as Brazil) against including REDD in any international agreement.⁵¹ Most of the methodological and technical concerns about the efficiency and effectiveness challenges of including REDD in the post-2012 framework were also raised in relation to negotiating the CDM. Many have since been overcome, at least to an extent, through technological advancement and experience in implementing CDM projects.⁵² As discussed below, many of the other arguments against REDD are really criticisms of a project-based approach to REDD and would be surmounted, at least to an extent, with a national-based approach to REDD.

⁴⁹ *Id.*

⁵⁰ *Id.* See also Angelsen ed, note 39 above at 34.

⁵¹ Simon Rawles, REDD Myths: A Critical Review of the Proposed Mechanisms to Reduce Emissions from Deforestation and Degradation in Developing Countries (Amsterdam: Friends of the Earth International, 2008), available at <http://www.foei.org/en/resources/publications/climate-justice-and-energy/2008/redd-myths>. Brazil fears losing sovereignty over its natural resources. The arguments of indigenous people have not been given much prominence; see Griffiths, note 18 above at 17.

⁵² See Streck et al eds., note 9 above at 6.

3.1 Measurement and reporting

Initially, the technology was insufficient to accurately and cost-effectively calculate a baseline against which avoided deforestation could be measured or to monitor the carbon captured in forests or released when they are cut down for reporting and compliance purposes. The advancement in monitoring technology over the last ten years, including in Indonesia, has reduced costs and improved accuracy.⁵³ Certainly the technology to calculate baselines and monitor and account for reduced emissions through avoided deforestation is not perfect, but it is regarded by significant players to be at a point where REDD could be included in the international regime with at least a conservative approach to carbon accounting.⁵⁴

It is also argued that including REDD in an international agreement would create perverse incentives if it were calculated against a baseline of

⁵³ Indonesia has submitted to the UNFCCC that it has developed low cost and reliable monitoring mechanisms based on satellite imagery, ground measurement verification and public participation in government mechanisms; see Indonesian Submission on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries, note 43 above at 32. See also Laura Alvarado and Sheila Wertz-Kanounnikoff, *Why Are We Seeing 'REDD'? – An Analysis of the International Debate on Reducing Emissions from Deforestation and Degradation in Developing Countries* 12 (Paris: Institut du développement durable et des relations internationales, 2007); Myers, note 37 above at 31; Climate Action Network, Reducing Emissions from Deforestation and Forest Degradation (REDD) 88 (Washington DC: Climate Action Network, Discussion Paper, 2007).

⁵⁴ Danilo Mollicone et al., 'Elements for the Expected Mechanisms on 'Reduced Emissions from Deforestation and Degradation, REDD' under UNFCCC', 2 *Environmental Research Letters* 1,6 (2007); Danilo Mollicone et al., 'An Accounting Mechanism for Reducing Emissions from Deforestation and Degradation of Forests in Developing Countries', in Streck et al eds., note 9 above at 191, 204. Technological advancement has been impeded by the exclusion of REDD from CDM. The lack of political will of developed countries to treat forestry and other land use in the same way as other sectors, such as the energy sector, has not encouraged scientific improvements. However, a more conducive policy environment towards REDD is likely in turn to promote further testing and scientific improvements; see Eveline Trine, 'History and Context of LULUCF in the Climate Regime', in Streck et al eds., note 9 above at 33, 40.

current deforestation rates. Countries which have taken steps in the past to reduce deforestation would not be rewarded for these actions, while countries which have high rates of deforestation would be rewarded for having delayed action.⁵⁵ However, this problem could be addressed with a national baseline calculated by taking into account a basket of factors including historical multi-year deforestation rates, growth rates and poverty levels, as suggested above.⁵⁶

3.2 REDD design issues – leakage, additionality and permanence

'Leakage' refers to the risk that deforestation avoided in a particular area could simply cause deforestation to be conducted elsewhere. Problems with 'additionality' mean that it is difficult to prove whether the deforestation 'avoided' would have occurred in the absence of the project. With respect to sustainability of emission reductions, 'permanence' refers to the risk that the forest could be cut down after the avoided deforestation activity has been completed.⁵⁷ These concerns are well-founded with a project-based approach to REDD. Under such an approach, obligations to monitor carbon stocks would only be imposed within the project boundaries and for the life of the project. Accordingly, deforestation could simply be deferred or displaced.

However, these risks are reduced with a national-based approach to monitoring and accounting for REDD.⁵⁸ Even if an activity displaces deforestation to another location in that country, this leakage

would be captured in the government's national inventory.⁵⁹ National inventories could also capture any permanence issues, just as the system captures permanence risks in relation to energy-generating emissions. That is, where a wind farm is constructed to displace the use of coal, if the coal saved is later extracted and burnt, those emissions generated would be included in the future year's national inventory.⁶⁰ Furthermore, a long-term international framework and national policy reform to avoid deforestation would also be expected to contribute to the permanence of reductions.⁶¹

3.3 Carbon market flooding

It is argued that allowing REDD credits to be traded on the international carbon market would reduce the environmental efficacy of the scheme. It is feared that due to the relative low cost in earning credits from REDD activities, the carbon market could be flooded with credits. This would reduce the carbon price and make it more affordable for polluters, particularly fossil fuel producers, to continue polluting and discourage investment in cleaner technologies.⁶² However, this argument goes against the grain of basic market principles - excluding low cost means of reducing emissions undermines the whole purpose of a market. The risk of short-term market flooding could be avoided by imposing correspondingly more ambitious global targets for emission reductions, awarding REDD credits *ex post*⁶³ or providing banking options or trading caps to limit supply accompanied by guarantees that developed countries will purchase a minimum number of credits to ensure demand.⁶⁴ A national-

⁵⁵ See Alvarado and Wertz-Kanounnikoff, note 53 above at 11.

⁵⁶ Baseline calculations will be a negotiation challenge as countries' rates of deforestation change over time, linked not only to domestic circumstances, but to international pressures. A historic rate is probably safest, but individual country circumstances, such as levels of development, will need to be taken into account, just as the notion of 'common but differentiated responsibilities' influenced Kyoto Protocol negotiations. At least, the baseline calculation must be sure to not provide incentives to increase rates of deforestation before the scheme starts; see Angelsen ed., note 39 above at 46, 60 and Climate Action Network, note 53 above at 6.

⁵⁷ Much has been written about these issues, see e.g., Climate Action Network, note 53 above; Mollicone, note 54 above and Angelsen ed., note 39 above.

⁵⁸ See Climate Action Network, note 53 above at 7 and O'Sullivan, note 10 above at 183.

⁵⁹ It would not capture international leakage unless all countries signed up to binding targets but this is the case currently - for example when an aluminium smelter is shut down in a developed country and shifted to a developing country it still counts towards emission reduction targets.

⁶⁰ Insurance and liability mechanisms could also be established; see Climate Action Network, note 53 above at 7 and Angelsen ed., note 39 above at 77.

⁶¹ See Angelsen ed., note 39 above at 35.

⁶² Adam Morton, 'Labor Attacked on Forest Credits Plan', *The Age* (Melbourne), 31 March 2009, page 6.

⁶³ That is, after the emission reduction is made.

⁶⁴ See Angelsen ed., note 39 above at 61. Others have not very convincingly suggested creating a parallel market for REDD credits; see O'Sullivan, note 10 above at 186.

based approach, where governments trade credits, would be preferable to a project-based approach in which investors earn and trade credits and could further manipulate the carbon price by speculating on the future REDD market.

3.4 Impacts on forest-reliant communities

Possible negative impacts of avoided deforestation on the poor were given limited airplay at the time of negotiating the CDM where the deliberations were dominated by the technical and market challenges above. Further analysis is now emerging of how REDD could be detrimental for developing countries, particularly forest-reliant communities.⁶⁵ These issues have usually been framed in terms of equity and assume that weak governance would mean that the substantial funds expected to flow to developing countries through REDD would not be distributed to the poor and might in fact exacerbate existing problems.⁶⁶ In addition, governance concerns are also now being raised to question the efficiency and effectiveness of REDD and its ability to translate international incentives into the local level action needed to avoid deforestation.⁶⁷ The arguments below are raised in relation to both national and project-based approaches to REDD and are increasingly gaining prominence in the debate as the political will to include REDD is growing and the technical impediments are diminishing.

REDD would clearly have direct consequences for the ability of forest-reliant communities to derive income, for example if forest clearing for agricultural production was prohibited. Given that these communities are not the main drivers of deforestation, this would be unjust if compensation or other benefits from REDD were not received.⁶⁸

Distribution of benefits depends on a country's governance systems.⁶⁹ Many developing country candidates for REDD implementation suffer from low capacity and poor governance, meaning that systems may not be transparent and citizens may face barriers in holding their leaders to account. This provides opportunities for corruption and rent seeking which in turn reduces the benefits available to the poor.⁷⁰ The substantial potential benefits of REDD could be captured by elites with more power to demand implementation in their favour and could serve to wind back gains made in democratic governance.⁷¹

It is also argued that REDD could intensify existing inequities experienced by the forest-reliant poor. Many forest-reliant communities have progressively lost their land rights since colonial times and have little power to defend the rights they retain. It is important to note that the majority of forests in countries likely to participate in REDD are government-owned, including in Indonesia.⁷² Land ownership and customary rights to use and own land are some of the most common causes of disputes and conflicts in Indonesia and other developing countries.⁷³ Given the 'multiplicity of interests', the 'polarisation of wealth and power of different stakeholders in the forests sector'⁷⁴ and the financial benefits associated with REDD, the stakes are likely to be significantly raised. The potential for profits and rises in land and forest values could discourage governments from conceding further forest rights to, or resolving existing land disputes of, forest-reliant communities⁷⁵ and even encourage the commission of human rights violations, such as evictions, land expropriation and extortion.⁷⁶ It is feared that governments might increase law enforcement to deal with 'illegal' forest use, which

65 See e.g., Griffiths, note 18 above and Peskett et al., note 29 above.

66 See Robledo, note 5 above at 24.

67 See e.g., Friends of the Earth International, note 51 above at 19 and Anthony Hall, 'Better RED than Dead: Paying the People for Environmental Services in Amazonia', 363 *Philosophical Transactions of the Royal Society* 1925 (2008).

68 Drivers of deforestation include demand for land, agricultural and timber products, mining and other natural resources; see Griffiths, note 18 above at 1, 5.

69 See Robledo, note 5 above at 30.

70 See Peskett et al., note 29 above at 8.

71 *Id.* at 7, 8.

72 See Angelsen ed., note 39 above at 115.

73 World Bank, *Forging the Middle Ground: Engaging Non-State Justice in Indonesia* viii (Jakarta: World Bank, 2008).

74 See Angelsen ed., note 39 above at 110.

75 *Id.* at 115 and Friends of the Earth International, note 51 above at 6.

76 See Griffiths, note 18 above at 1, 12.

in a corrupt environment could further disadvantage the poor.⁷⁷

Exacerbating the potential for exploitation of the poor, the complexities of REDD, the international climate change framework and the fluctuating carbon market may make it difficult for the poor to negotiate effectively to access benefits.⁷⁸ Ambiguity over the definition of forests, the regulatory environment and who is entitled to profit from the production of carbon credits could leave some people out of the benefits and promote inequality and conflict between recipients and non-recipients.⁷⁹

These arguments are well-founded and have been presented in various forest protection contexts. Payments for environmental services (*PES*) schemes, where forest communities receive direct payments for protecting the environment, have provided sustainable development benefits however they have also been found to have some negative impacts. Some *PES* projects in South America have caused communities to become contracted into unfavourable obligations to carbon companies with misunderstandings as to where the liability for cost payments and technical services lie.⁸⁰ Examples of exploitation of forest-reliant communities have occurred in India, where some forest protection programs have increased state control over forests at the expense of local customary systems of land and other natural resource use.⁸¹ In other places, forestry protection program funds have been embezzled by local governments and NGOs and not reached forest-reliant communities.⁸² Conflict risks

are evident in respect of a privately-funded avoided deforestation project in the Indonesian province of Aceh from which carbon credits are to be traded on the Californian voluntary carbon market. There are reports that ex-rebel fighters are being paid and supplied with weapons to protect the forests from illegal logging, jeopardising the post-Indian Ocean Tsunami peace agreement which ended decades of civil war.⁸³

In summary, it is argued that REDD could serve to increase poverty and promote political resistance and conflict, including over land and other resources. Some indigenous people groups assert that REDD would

increase violation of our Human Rights, our rights to our lands, territories and resources, steal our land, cause forced evictions, prevent access and threaten indigenous agricultural practices, destroy biodiversity and culture diversity and cause social conflicts.⁸⁴

These risks primarily result from increasing the monetary value of forests and the potential to access large sums of money. To argue that REDD should not be included in a post-2012 framework for these reasons is tantamount to saying that financial assistance should not flow from developed to developing countries. These risks must be recognised and the way REDD is designed and implemented, just as with any ODA, must reflect country-specific

77 Frances Seymour, *Forests, Climate Change, and Human Rights: Managing Risk and Trade-offs* 11 (Bogor: Center for International Forestry Research, 2008). Women are particularly at risk of being discriminated against in this scenario; see Friends of the Earth International, note 51 above at 6.

78 See Peskett et al., note 29 above at 8.

79 See Griffiths, note 18 above at 1.

80 There are also examples of *PES* schemes in Indonesia, such as the Rewarding Upland Poor for Environmental Services; see Griffiths, note 18 above 8-11. See also Hall, note 67 above.

81 Griffiths cites several cases which evidence that top-down social forestry projects tend to serve the interests of the logging industry and government rather than forest-dependent communities; see Griffiths, note 18 above at 10.

82 *Id.* at 13.

83 *Id.* See also ABC Rural, Carbon Scheme Will Help Save Aceh Forest, 11 April 2008, available at <http://www.abc.net.au/rural/news/content/200804/s2214030.htm>. Merrill Lynch is expecting that the project will generate US\$432 million in carbon financing over the next 30 years; See Seymour, note 77 above at 10. Large in-flows of funds, comparable to potential REDD benefits, have had harmful impacts in other development contexts. For example, emergency and reconstruction funds pledged in response to the 2004 Indian Ocean Tsunami contributed to rising corruption and conflict in Sri Lanka.

84 Forest Peoples Program, Statement by the International Forum of Indigenous Peoples on Climate Change on 'Reduced Emission from Deforestation and Forest Degradation' (REDD) Agenda Item at the UNFCCC Climate Negotiations, Statement at the 13th session of Conference of the Parties to the UNFCCC, 2007, available at http://www.forestpeoples.org/documents/forest_issues/unfccc_bali_ifipcc_statement_redd_nov07_eng.shtml.

context and aim to alleviate these risks. A national approach to REDD, integrated into broader national development strategies, would be the most effective way to ensure that the poor are not disadvantaged and in fact receive sustainable benefits from REDD. Evidence to support this point will be discussed in greater detail in Part IV below.

3.5 A blunt instrument to tackle deforestation

It has been justifiably pointed out that simply assigning a tradeable value to forest carbon will not necessarily stop deforestation.⁸⁵ While valuing forest carbon should increase the price of, and therefore reduce demand for, products from forest land and provide fund flows to some developing countries, it will not automatically target the local drivers of deforestation.⁸⁶ For this, the design of the incentives to transfer funds from the international market to local actors is key to making REDD work to actually reduce deforestation.

The local drivers of deforestation are complex and reflect social, economic and political factors particular to that location. Not only do drivers of deforestation differ between developing countries, but they also vary within countries. For example, a significant cause of deforestation in the Indonesian province of Riau is the overcapacity of the pulp and paper industry but on the island of Kalimantan the main driver is a lack of clarity on the legal status of forests which leads to disputes between companies and local communities and causes the annual forest fires which blanket the region in thick smoke.⁸⁷ In efficiency terms, it is best if compensation can be tailored to compensate entities according to the specific opportunity costs they incur.⁸⁸ Within Indonesia, the way the funds would be distributed,

both horizontally between stakeholders such as companies, communities and individuals and vertically between the levels of decentralised government, would be crucial to determining whether the international financing would provide incentives to reduce emissions and distribute costs and benefits in an effective, equitable and efficient way.⁸⁹ Accordingly a blunt 'one size fits all' approach to REDD transfers would not be effective.⁹⁰

As opposed to a project-based approach in which activities would be investor-driven, a national-based approach to REDD would allow developing countries the flexibility to find the most efficient way to transfer international REDD incentives to the local level taking account of the government's own systems and priorities and regional disparities. For REDD to be most effective, these transfers should not only compensate people for opportunity costs, but should seek to 'trigger a change in our dominant human development model'.⁹¹ These transfer systems and related incentives are essentially the crux to making REDD work and will be discussed below.

4

WHY A NATIONAL-BASED APPROACH TO REDD WOULD BE MOST EFFECTIVE IN ENVIRONMENTAL AND DEVELOPMENT TERMS

The fact that REDD has largely been considered an environmental challenge has meant that lessons from development assistance and its associated experience in efforts to change human behaviour to reduce poverty have not been fully utilised. This paper seeks to redress this by analysing national versus project-based approaches to REDD from a development perspective.

⁸⁵ For example, Lars Schmidt, *Broadening the Horizon – Assessing REDD from an Integrated Perspective 3* (Bonn: German Development Institute, Discussion Paper, unpublished).

⁸⁶ And of course increasing the price will not stop all international drivers of deforestation, for example there would still need to be hard and soft international and regional measures to stop demand for unsustainable forest products; *id*, Section 2.4.

⁸⁷ See Noordwijk et al, note 3 above at 15.

⁸⁸ See Angelsen ed., note 39 above at 38.

⁸⁹ See Noordwijk et al, note 3 above at 7, 13.

⁹⁰ See Kanninen et al., note 12 above at 27.

⁹¹ See Schmidt, note 85 above at 3.

4.1 Development lessons promote an integrated approach to environmental activities

The concept of 'development assistance'⁹² has undergone considerable challenge and change in the last few decades. In the 1980s, many large donors⁹³ including the international financial institutions, regarded successful development as an increase in economic growth. Policies believed to increase economic growth were frequently imposed on developing countries as conditions of receiving assistance.⁹⁴ However, some of the neo-liberal economic policies imposed on developing countries proved to have negative impacts on poverty. Dire consequences were felt in many Asian countries during the 1990s' Asian Financial Crisis, and Indonesia was one of the worst affected. It is widely acknowledged, even by the International Monetary Fund itself, that the policies and programs imposed by the international institutions were partly responsible for aggravating Indonesia's recession which increased poverty and social turmoil.⁹⁵

Partially as a result of the failure of past approaches, development underwent considerable change. Donors now accept that effective poverty reduction requires that developing country partners have ownership over their reforms and that the complex interplay of social, political, economic as well as environmental elements must be integrated into

development policies.⁹⁶ However, the path to a greater convergence of environmental and poverty reduction interests has not always been a linear one. In the 2000s, the interests of the environmental and the poverty advocates diverged as the right to development grew in stature at the expense of environmental conservation, particularly biodiversity.⁹⁷ Unhelpfully, the debate tended to be polarised in terms of developed country interests in protecting the environment in opposition to developing country interests in poverty reduction and development.

Developed and developing country interests show signs of being similarly dichotomised in the current international climate change negotiations. Many developing countries do not trust developed countries to take responsibility for their greater share of causing the current climate change predicament.⁹⁸ This is exacerbated by disappointment with Copenhagen outcomes and the perceived failure of developed countries to fulfil their commitments to contribute to the UN and UNFCCC Special Climate Change Fund and to transfer technical assistance as required under the UNFCCC and Kyoto Protocol as well as their attempts to displace ODA with climate change assistance.⁹⁹ Some developed countries have little faith in the ability of many developing countries to use REDD funds transparently and accountably to protect forests or to provide business opportunities for private

92 Note that there is no consensus on the definition of development – it remains a contested term.

93 Donors mainly consist of multilateral organisations, NGOs and developed countries but some developing countries are becoming donors, for example India and China.

94 Joseph Stiglitz, *More Instruments and Broader Goals: Moving Toward the Post-Washington Consensus: The WIDER Annual Lecture, Helsinki*, 1998, available at <http://www.globalpolicy.org/soecon/bwi-wto/stig.htm>. See also Robert Wade, 'Showdown at the World Bank', 7 *New Left Review* 124 (2001).

95 Jack Boorman and Andrea Hume, *Life with the IMF: Indonesia's Choices for the Future* (Paper presented to the 15th Congress of the Indonesian Economists Association, Indonesia, 15 July 2003).

96 World Bank, *The Comprehensive Framework for Development*, available at <http://web.worldbank.org/WBSITE/EXTERNAL/PROJECTS/STRATEGIES/CDF/0,,pagePK:60447~theSitePK:140576,00.html>. An outcome of the rise of 'sustainable development' theory was that donors became increasingly accountable to local communities in developing countries and local participation in development activities was encouraged; see Dilys Roe, 'The Origins and Evolution of the Conservation-poverty Debate: A Review of Key Literature Events and Policy Processes', 42 *Oryx* 491 (2008).

97 *Id.*

98 See Streck et al eds., note 47 above at 238.

99 Joseph Aldy and Robert Stavins, *Architectures for Agreement: Addressing Global Climate Change in the Post Kyoto World* 362 (Cambridge: Cambridge University Press, 2007).

investors.¹⁰⁰ However, this paper argues for the reconvergence of the poverty and environment debates in relation to REDD, noting that recent experience in community and incentive-based approaches to sustainable development are important to making REDD work.

4.2 Development lessons promote a national-based approach over a project-based approach to assistance

In the quest to build on past experience and improve the outcomes achieved through development assistance, over 150 developed and developing countries and international organisations agreed to reform the way they operate to improve the effectiveness of aid delivery. The 2005 *Paris Declaration on Aid Effectiveness* is based on the principle of mutual accountability between developed and developing countries, recognising that to be effective, change needs to come from within developing countries.¹⁰¹ This means that developing countries should set their own strategies for development and donors should align behind these objectives.¹⁰² Where developing countries lead their own reform agenda, evidence shows that reforms are likely to be both more effective and sustainable.¹⁰³ Countries agreed that donors should 'avoid ... creating dedicated structures for day-to-day management and implementation of aid-financed

projects'.¹⁰⁴ Donors should align their assistance with developing country government policies which means they should use the developing country's own financial and management systems to deliver assistance as much as possible.¹⁰⁵

The CDM is an example of a project-based approach. Its success has been restricted by a number of project characteristics. For example, critics claim that the CDM has been impeded by complex parallel administrative and registration procedures which are time consuming and difficult for both investors and host countries to understand and compliance is expensive.¹⁰⁶ The argument in Part II above that projects encourage private investment because investors can keep tighter control over their capital, mitigating risks of investing in developing countries with poor governance, is not evidenced by the spread of CDM projects which are heavily concentrated in a few developing countries with relatively good governance indicators.¹⁰⁷ In support of CDM it has been argued that the requirement for host country approval of CDM projects can allow different ministries and other stakeholders to be engaged, which in turn can serve to link the projects with national development priorities.¹⁰⁸ However, while this link may encourage CDM projects to align with development priorities, CDM is not an effective tool to translate national development priorities into outcomes as evidenced by the limited range of CDM projects which have been approved.¹⁰⁹ Furthermore, limited technology transfer and host country engagement in implementing the projects has ensured that the CDM is unlikely to lead to sustainable benefits in either environmental or development terms.¹¹⁰ The

100 See Myers, note 37 above at 26.

101 See 'Why the Paris Declaration on Aid Effectiveness Counts', *OECD Observer 2005*, available at http://www.oecdobserver.org/news/fullstory.php/aid/2072/Why_the_Paris_declaration_on_aid_effectiveness_counts.html.

102 Paris Declaration on Aid Effectiveness, Paris, 2 March 2005, available at <http://www.oecd.org/dataoecd/30/63/43911948.pdf>.

103 Mzwanele Mfunwa, *Strengthening Internal Accountability in the Context of Programme-based Approaches in Sub-Saharan Africa 8* (Bonn: German Development Institute, 2006); Jesse Griffiths, *Technical Assistance: Supporting or Undermining Accountability?*, Actionaid International Presentation, 7 November 2006, available at <http://www.odi.org.uk/events/2006/11/06/285-presentation-day-2-jesse-griffiths-technical-assistance-undermining-supporting-accountability.pdf>; Paolo De Renzio, *Aid Effectiveness and Absorptive Capacity: Which Way Aid Reform and Accountability?* (London: Overseas Development Institute, 2007).

104 See Paris Declaration on Aid Effectiveness, note 102 above, para 21.

105 *Id.* Paras 3, 4 & 26.

106 United Nations Development Programme, *The Clean Development Mechanism – An Assessment of Progress 8* (New York: UNDP, 2006).

107 China, India and Brazil account for most credits generated from CDM Projects; *id.* at 12.

108 *Id.* at 13.

109 For example, transport and reforestation CDM projects are rare; *id.* at 11.

110 See Friends of the Earth International, note 51 above at 17; Adrian Muller, 'How to Make the Clean Development Mechanism Sustainable – the Potential of Rent Extraction' 35 *Energy Policy* 3203, 3205 (2007) and Garnaut, note 14 above at 182.

CDM experience correlates with development lessons as evidenced by the *Paris Declaration* and may be applied to other project-based approaches to climate change mitigation, including REDD.

Adhering to the *Paris Declaration* and avoiding project-based aid does not mean that developed countries cannot participate in formulating development policies in developing countries which are receiving their assistance. Clearly donor countries must be accountable for funds to their own citizens and this means that donors need to be confident in the credibility of the developing country government's systems, including financial systems. Where a developing country's systems are not sufficiently credible, the *Paris Declaration* calls for donors to provide technical assistance to strengthen the developing country's systems, rather than setting up parallel systems.¹¹¹ Accordingly, donors should engage in policy dialogue and work with developing countries to ensure that assistance is in line with the government's priorities and not creating a new system. These lessons will be applied below in relation to this paper's argument that REDD should be incentivised through a national-based approach and that assistance should be provided from developed countries to help make developing countries 'REDD-ready'.

4.3 Development and environmental benefits of integrating REDD into national development planning

Given past experience with forest protection efforts, it is not surprising that there is little faith from developed countries in developing country governments' ability to reform, implement and enforce policies and laws to reduce deforestation. With considerable assistance from donors, Indonesia has struggled for many years to implement effective policy, legal and institutional reforms to sustainably manage forests and protect the interests of the poor. Illegal logging, deliberately lit forest fires, corruption and exploitation by companies of communities in relation to land and natural resource rights are

prevalent. What is clear is that many competing interests are entwined in forests and policies and programs to avoid deforestation must navigate a complex interplay of issues and government department jurisdictions. Where the REDD debate has focussed on scientific, at the expense of social, issues attention has been misguided towards seeking a technological solution to what is largely a political issue¹¹² - political not only in the sense of international climate change negotiations around targets and baselines, but in terms of national and local governments and their governance of forests, related sectors and community interests. To be effective, approaches to avoid deforestation must therefore be integrated into a country's national policies and planning.

It is in the space of transfer systems that some of the most intractable arguments against national-based approaches to REDD arise. The debate on how to include REDD in any new international agreement has been reluctant to delve down into the implications of REDD for national development planning. There is a fear of complicating the efficiency and effectiveness considerations of REDD, seen by many as essentially an environmental mechanism, with equity and development considerations.¹¹³ Tainting the environmental objectives of REDD with the vagrancies of different national transfer and governance systems may jeopardise the negotiations to include REDD in the international scheme. However, including development considerations in the REDD debate is not only essential for the effective operation of REDD, but actually offers support to those seeking to develop consensus on including a national-based approach to REDD in any new international agreement.

The arguments above about the possible impacts of REDD on forest-reliant communities and the difficulties for developing country governments to transfer benefits to target the drivers of deforestation are largely premised on perceptions of poor governance of many developing

¹¹¹ Paris Declaration on Aid Effectiveness, Paris, 2nd March 2005, available at <http://www.oecd.org/dataoecd/30/63/43911948.pdf> para 17, 45.

¹¹² See European Tropical Forest Research Network, note 34 above at 139.

¹¹³ See Peskett et al., note 29 above at 5.

countries.¹¹⁴ However, REDD benefits may actually incentivise governance improvements. Many of the difficulties faced by forest protection activities are a result of lack of political will to protect forests in the face of substantial international financial incentives which drive deforestation. By valuing protected forests and providing financial incentives for reducing emissions, REDD offers an opportunity to alter these financial, and accordingly political, incentives in favour of valuing standing forests.¹¹⁵ Where national governments wish to attract private investment in REDD activities, competing with other countries for scarce capital could provide incentives for governments to improve governance and address regulatory and corruption impediments.¹¹⁶

Heavily forested developing countries would have stronger incentives to integrate policies and incentives to avoid deforestation in their development and poverty reduction strategies if a national-based approach to REDD is taken. Even where REDD incentives could not be expected to address governance problems, development experience as captured in the *Paris Declaration* shows that these problems should not be addressed by bypassing the government and implementing donor-controlled projects, as setting up parallel project systems serves to further weaken the government's management systems. Rather, these impediments should be directly addressed with technical assistance. It is acknowledged that assistance to make developing countries 'REDD-ready' is needed, but this should focus not only on monitoring and accounting capacity, but also on broader development planning and social policies.

4.4 Indonesia's experience in a national program to transfer incentives to the local level

Development experience in Indonesia shows how a national-based approach to financial transfers can be successfully implemented by a developing country to incentivise behaviour at the local level, including local governance improvements. Indonesia is a leader in effective approaches to community-driven development and has trialled various mechanisms to distribute funds and other benefits from the central government to local governments, communities and companies, including in relation to environmental activities.¹¹⁷ Lessons learned from these mechanisms such as how to promote transparency and accountability, reduce transaction costs, avoid perverse incentives and elite capture, have culminated into a new consolidated, national-based program called the National Community Empowerment Program (*PNPM*).

PNPM began as a World Bank community-driven development program and is now a national program run by the Indonesian Government. Communities submit proposals for use of block grants which are distributed from the central government. The proposals are judged competitively at the local level and the best proposals receive funds for their implementation. PNPM is in the process of being extended to all of Indonesia's 70,000 villages.¹¹⁸

Most of PNPM is funded by the Indonesian government. Donors provide additional funds, but Indonesia is gradually requiring that these funds be provided on-budget. Accordingly, funds provided by developed countries are owned and managed by the Indonesian government through its budget and other financial processes. At the central level, there is a coordinating body where many government departments are represented and developed country donors have a seat at the policy table. This means that while donors do not have control over how the

114 As discussed in Part 3, governance criticisms from developed countries include lack of financial transparency and accountability and attendant risks of corruption, lack of capacity including technical skills, lack of political will of governments to protect communities and the environment and lack of clean opportunities for private sector profits. See O'Sullivan, note 10 above at 183.

115 See Myers, note 37 above at 26.

116 See Seymour, note 77 above at 10.

117 Some of these are discussed in Noordwijk et al, note 3 above at 16.

118 Further details are available at <http://www.pnpm-mandiri.org/>.

funds are spent, they can provide advice as to its effective use. Where the government, often in consultation with donors, wishes to incentivise particular activities in certain areas, for example where health indicators are low, additional benefits can be obtained where communities act together to raise health standards.¹¹⁹ Similar additional incentives, including technical assistance to devise alternative livelihood activities, could potentially be provided in forested areas to implement REDD.¹²⁰ The REDD demonstration activities being planned now - even if by their pilot nature they need to be targeted towards small areas at first - aim to show how REDD could be implemented on a larger geographic scale, so aligning the activities with existing national-based fund transfer systems would be sensible.

Complementing such a financial transfer system, the national government could provide additional incentives to facilitate the operation of REDD through the annual grants distributed to local governments.¹²¹ The way grants are allocated could

be used to encourage local governments to formulate enabling policies such as land law reform, changing forest concession terms, promoting access to dispute resolution mechanisms, or providing alternative livelihood options or technical assistance to enable communities to implement avoided deforestation activities. Essentially, the above mechanisms would allow compensation and incentives to be directed to the entities with the power to implement the required change. Using existing mechanisms, such as PNPM and annual grants to local governments, would increase REDD's success and sustainability by reducing transaction costs and simplifying its operation, both in terms of piloting approaches and subsequent increases in its geographic scale.¹²²

In addition to its positive impact on poverty reduction, PNPM seeks to improve many of the governance issues which trouble REDD opponents. Involvement by communities in PNPM requires various conditions to be met which are designed to improve local level governance. In particular, there are requirements for community participation (including women) in the formulation of proposals and various accountability and transparency protections such as community oversight over funds.¹²³ If such a mechanism was used to implement REDD, in addition to the governance and accountability benefits, there could also be expected to be pressure from communities and local government to clarify uncertainties surrounding land and forest law so that the benefits could accrue and risks be averted with greater certainty.¹²⁴ For developing countries without an established community development mechanism, the ability to access REDD funds could enable such a mechanism

119 World Bank, Villages Tackle Health and Education Challenges With Support from PNPM Generasi, available at <http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/EASTASIAPACIFICEXT/INDONESIAEXTN/0,,contentMDK:21732806~menuPK:3949640~pagePK:1497618~piPK:217854~theSitePK:226309,00.html>.

120 Notably, benefits distributed from the central level would not have to be grants which could be hard to distribute within a community, but could be in exchange for development programs, such as to upgrade a water and sanitation service with incremental payments going to its maintenance. The complicating factor in REDD is that payments would need to be staggered - the money is not provided for a one off activity, such as building a school or planting trees, but rather the avoided deforestation must be verified and monitored over time. However, if a community mechanism was used by which benefits accrued over time to that community, there would be community pressure and oversight to ensure no deforestation occurred so that benefits could be obtained by the community. Similar community pressure is evident in microfinance schemes which work well in Indonesia, with high rates of return. Where there is a grant made to a community there would have to be a mechanism for addressing the fact that individuals will relocate to and from the community. This could be done with a buy-in/buy-out mechanism for example.

121 Examples of these grants are special allocation (DAK) and general allocation (DAU) grants.

122 Indonesia is issuing regulations on how REDD demonstration activities are to be implemented, including revenue transfers. The first regulation was issued in December 2008 but further regulations on payment mechanisms are expected in 2009. It would be preferable if the regulations state that existing mechanisms are to be used.

123 PNPM website above n 118.

124 For example, forest conservation laws are the responsibility of the central government while forest resource management and utilisation laws are passed at the local level, which can lead to inconsistencies; see Luke Arnold, 'Deforestation in Decentralised Indonesia: What's Law Got to Do With It?', *4/2 Law and Environment and Development Journal* 75 (2008).

to be started, possibly with donor assistance, bringing knock-on benefits for community development and participatory governance structures.¹²⁵

Further afield, there are other examples of effective incentive mechanisms being implemented through national systems. In Mexico, payments for forest conservation of community owned forests have been made since the 1990s and, with some technical assistance to set up monitoring and accounting systems and information about how different forestry systems take up carbon, farmers have been keen to enter into carbon service agreements and sell carbon credits on voluntary carbon markets.¹²⁶ Initially development assistance funding was needed, but after five years the program made a profit through carbon trading. It is considered that this program has become more sustainable for the very reason that it is not dependent on donor projects.¹²⁷ The Noel Kempff Climate Action program in Bolivia is another example of an effective transfer system – evaluations have shown that proceeds from carbon credits sold on the voluntary market have been fairly and transparently shared between government, private investors and communities.¹²⁸

In summary, incentives and transfers such as these could be used to implement REDD in an effective, equitable and sustainable way while at the same time promote broader poverty reduction efforts and governance improvements. Using a national-based approach, developing country governments are best placed to structure incentives to avoid deforestation within their own borders. The role of developed countries should be to provide technical assistance to support the establishment of national transfer systems and engage in broader policy dialogue on national development planning.

¹²⁵ It must be acknowledged that Indonesia is now a middle-income country and establishing such systems in poorer countries may be more difficult, but Indonesia began providing incentives to the local level when it was a much poorer country.

¹²⁶ Richard Tipper, 'Case Study: Reflections on Community-Based Carbon Forestry in Mexico', in Streck et al eds., note 9 above at 308-310.

¹²⁷ *Id.* at 310.

¹²⁸ Jorg Seifert-Granzin, 'Case Study: The Noel Kempff Climate Action Project, Bolivia', in Streck et al eds., note 9 above at 223, 224.

5 CONCLUSION

To reduce the risk of dangerous climate change, REDD must be included in the international climate change agreement. The agreement should promote a national-based approach to earning REDD credits which can be traded on the international carbon market. The agreement would need to stipulate standard international methods for calculating national baselines, monitoring and accounting for emissions and penalising non-compliance, while retaining flexibility for developing countries to deliver REDD in a way which aligns with their national development planning and best targets local drivers of deforestation. Continuing to reflect the principle of 'common but differentiated responsibilities',¹²⁹ the agreement should require developed countries to assist developing countries in their 'REDD-market readiness'. For poorer countries this could include financial and technical assistance to establish national-based transfer and incentive programs, possibly following the PNPM model, in addition to the technical skills required to monitor and account for REDD credits.

For progress to be made on encouraging the participation of developing countries in any post-2012 framework, which is essential to avoid dangerous climate change, developing countries can no longer be categorised as a single block. Financial incentives offered by including a national-based approach to REDD in the new international agreement would offer a powerful motivation for some developing countries, including Indonesia, to opt-in to emission reduction target commitments. The analysis of Indonesia's position shows that profits from REDD credits could be efficiently and equitably distributed and integrated into broader development planning, in a way which would not only continue to provide incentives to avoid deforestation, but also contribute to improvements

¹²⁹ However, the imperative for increased participation of developing countries in reducing global emissions should shift the balance of responsibilities away from 'differentiated' and towards 'common'.

in governance and poverty reduction. In the current global economic crisis greater pressure on budgets and demands for opportunities from the private sector may invite a retreat back to old forms of project-based aid. However, the international community should resist pressure to agree to a project-based or CDM-like offset mechanism for REDD and instead agree to include a national-based approach to REDD for the effectiveness, efficiency and equity reasons presented.

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