Chapter 11

How do we achieve REDD co-benefits and avoid doing harm?

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11.1 Introduction

Global climate change negotiations concern more than just the reduction of greenhouse gas emissions. Article Two of the United Nations Framework Convention on Climate Change (UNFFCC) states that the ultimate objective of the convention is to stabilise greenhouse gas concentrations while also ensuring food production is not threatened and economic development proceeds in a sustainable manner. The Thirteenth Session of the Conference of Parties in Bali in December 2007 (Decision 2/CP.13) recognised that reduced emissions from deforestation and forest degradation (REDD) 'can promote co-benefits and may complement the aims and objectives of other relevant international conventions and agreements' and that 'the needs of local and indigenous communities should be addressed when action is taken' to implement REDD.

1 The chapter draws on Brown and Peskett (2008), Peskett *et al.* (2008) and Seymour (forthcoming).

Parties to the UNFCCC have thus recognised that REDD will have implications beyond mitigation of carbon emissions. This chapter deals with these broader dimensions or 'co-benefits' of REDD, focusing on:

- social co-benefits associated with pro-poor development;
- protection of human rights and improvement in forest governance; and
- environmental co-benefits, particularly enhanced biodiversity protection and soil and water quality and availability.

The chapter considers the extent to which the various REDD design options discussed in previous chapters can be made compatible with desired co-benefits, and avoid doing harm. Accordingly, for each of the three sets of co-benefits, this chapter will briefly summarise:

- opportunities and challenges of direct relevance to negotiations on the global architecture of an agreement on REDD; and
- implications for REDD implementation at the national level and below.

REDD is being negotiated in the context of a number of international agreements and allied instruments that recognise the importance of social co-benefits in the management of forest resources. The 'Bali Road Map' refers to such instruments in the 'Indicative Guidance' for demonstration activities, which 'should be consistent with sustainable forest management, noting, *inter alia,* the relevant provisions of the United Nations Forum on Forests (UNFF), United Nations Convention to Combat Desertification and the Convention on Biological Diversity' (Decision 2/CP.13 – Annex). For example, Article 20 of the Convention on Biological Diversity asserts that economic and social development and poverty eradication are the first and overriding priorities of the developing country partners, and international support needs to be tailored accordingly. The UNFF non-legally binding instrument includes in its purposes to 'enhance the contribution of forests to the achievement of the internationally agreed development goals, including the Millennium Development Goals, with respect to poverty eradication and environmental sustainability...' (Paragraph II, Principle 1). Such agreements – as well as such instruments as the safeguard policies of multilateral development banks – provide an emerging body of international norms relevant to REDD.

At the same time, there are strong arguments for keeping REDD simple, in that an overemphasis on co-benefit and safeguard requirements could overload the agenda and discourage investment. Thus, as with other REDD design elements discussed in this volume, potential trade-offs among effectiveness, efficiency, and equity must be taken into account.

11.2 Co-benefits for poverty reduction and enhanced equity

The questions of whether and how social co-benefits should be factored into REDD design and delivery are hotly debated. There are two positions among those who favour inclusion of REDD in a climate change regime. Some argue that because the main aim of REDD is to tackle climate change, not poverty, the appropriate stance should be that of 'do no harm' to the poor.[2] Others favouring a 'pro-poor' approach argue that REDD will not succeed unless co-benefits are delivered. This group views REDD as deriving much of its legitimacy and potential effectiveness from its ability to improve the welfare of the forest-dependent poor and foster development in some of the poorest regions of the world. The arguments in favour of a pro-poor approach are diverse and compelling (see Box 11.1).

Box 11.1. Why should REDD be pro-poor?

Moral arguments concern the need not only to ensure that any major international initiative aims at improving welfare and equity, but also to address the interests of those with legitimate rights to use the forest who might be adversely affected by internationally supported interventions.

Practical considerations relate to the fact that the immediate forest managers, who are often the forest-dependent poor, will need appropriate incentives to ensure the effectiveness of REDD.

Risk reduction arguments address the risk of local rejection, even social conflict, which could be a major disincentive to external investment, particularly given forestry's record as a highly charged policy arena.

Attractiveness of REDD investments will be greater for those investors whose motivations are related to corporate social responsibility if REDD delivers pro-poor benefits.

Political considerations: Much REDD investment is likely to come from international donors and development agencies for which social development is an underlying rationale.

Procedural matters: The UNFCCC recognises the importance of social issues, including poverty, as global priorities (Decision 2/CP.13).

2 For example, a 2007 submission to the UNFCCC by the Government of Tuvalu states that '...co-benefits may be possible but these should not outweigh the key principle of reducing emissions at the global level.' (UNFCCC 2007).

REDD could well prove high-risk for the forest-dependent poor. Reasons include the multiplicity of interests and the polarisation of wealth and power of different stakeholders in the forest sector. However, REDD also provides important opportunities to reduce poverty and enhance equity by delivering significant financial flows to rural areas, which are among the most depressed and underfunded parts of most developing economies.

11.2.1 Relevance to REDD architecture at the global Level

Previous chapters of this volume have assessed the equity implications of various REDD design elements, and potential trade-offs with effectiveness and efficiency. Some of these are briefly summarised below.

Market vs. fund-based finance (Chapter 5): The design of REDD finance mechanisms will have important implications for poverty and equity. The most obvious differences are likely to be in the overall volume of finance delivered, with compliance markets likely to deliver streams of finance that are an order of magnitude greater than concessional funding. However, market-based systems have two major limitations. First, markets are unlikely to fund the major public goods aspects of REDD delivery, particularly REDD preparedness. There is the risk that financing of REDD preparedness will be confined to the politically less challenging aspects (for example, developing technical monitoring capacity), to the detriment of major policy and institutional reforms that could help REDD realise its development potential (for example, forest tenure reforms).

Second, market finance is likely to be unevenly distributed between emerging economies (which tend to have quite well-elaborated legal frameworks and financial markets, conducive to private sector confidence) and less developed countries (which tend to be marked by 'poor governance'). Investors are unlikely to invest in countries where governance is problematic, thus concentrating investments in emerging economies, as has occurred with the Clean Development Mechanism (CDM) (Ebeling and Yasue 2008). The poorer the country, and the poorer the potential beneficiary groups within it, the smaller the likelihood of effective pre-financing of REDD-related activities by them.

In the short to medium term, governance considerations suggest that most REDD funding to less developed countries will come from discretionary aid donor and voluntary sources, not from compliance markets, although under some nested project arrangements, there may be potential for investment even in unfavourable national environments. In principle, donor financing should be more 'pro-poor' than compliance market finance, particularly as the lead agencies are mandated to promote development agendas. An alternative approach would involve use of a levy mechanism (for example, levying a fixed percentage from auctioning European Union Emissions Trading Scheme

(ETS) revenues). This scheme could combine the benefits of market finance (it is estimated that a 5% levy could generate EUR 2.5 billion by 2020) with the delivery of co-benefits, and thus has some attractions (Euractiv 2008). Despite its advantages, fund-based finance (whether development assistance or levy-based) weakens the link between payment and performance, and risks repeating the poor record of traditional aid to the forestry sector.

Scope and forest definitions (Chapter 2): The scope of REDD and the definitions of 'forest' have important implications on which countries and groups may benefit from REDD financial flows. The inclusion of degradation, for example, has different effects in countries where deforestation is mostly through industrial land conversion (e.g. Brazil) from countries where deforestation is driven more gradually by smallholder agriculture and demand for fuelwood and charcoal (e.g. many countries in Africa). Thus, accepting a definition that includes degradation as well as deforestation potentially widens the scope to reward the carbon conserving activities of the poor. A potential negative impact is that activities viewed as carbon degrading (swidden cultivation, for example) might be treated oppressively. On the other hand, narrow definitions[3] could soak up most of the available finance at the expense of pro-poor interventions.

Risk and liability (Chapter 8): Issues of risk and liability are central concerns of compliance markets. Many international buyers will be motivated by the desire to transact high volumes at minimum risk, and pro-poor activities may be discounted on both fronts. Making national authorities bear all the delivery risk could severely reduce their willingness to invest in pro-poor activities. National authorities are also less likely to pass on any pre-financing they receive to rural communities. Downstream liability (should the scheme in question fail to deliver the promised emissions reductions) could be problematic for poor actors and communities if their governments, on behalf of investors, were to transfer liability to them.

Scale (Chapter 4): The architecture developed to nurture REDD activities will also affect the quality of pro-poor reforms, and there are some important effects of the scale chosen. For example, a nested approach in which liability initially accrues at project level will favour project interventions, with the strengths and weaknesses typical of this modality. If payments are being received and accounted for at project level, this may facilitate tight management, but it may be difficult to inform or influence the wider policy milieu which has the greatest impact on drivers of deforestation. An approach that focuses on national-level actions and encourages financial flows to be aligned with national budgetary processes and harmonised with national poverty strategies will have greater potential to influence the policy environment, although it will be more vulnerable to governance failures and corruption.

3 For example, definitions that view 'forests' as coterminous with production and protection forests, and focus attention on rewarding industrial logging companies for enhancing their carbon retention.

11.2.2 Opportunities and challenges at the national level

Though the international architecture will set the framework for REDD implementation, the realisation of co-benefits for poverty and equity will largely depend on the ways in which REDD incentive payments are translated into strategies for emissions reductions at the national level. Policies and measures could range from national-level policies (for example, removing subsidies that encourage deforestation and degradation, taxing land clearance, strategic planning of road systems) through improved industrial practices (such as support for timber certification and reduced impact logging), to initiatives that directly involve and affect the livelihoods of the poor (alternative livelihoods programmes, fire prevention strategies, agricultural intensification schemes aimed at reducing forest destruction, and improved off-farm employment).

While few REDD projects have so far been implemented – and those were only in the voluntary sector – there is nevertheless much relevant evidence from a generation of 'conservation and development' projects with essentially similar aims. There are various reasons why these projects have met with only limited success, which includes the failure of project proponents to articulate clear strategies linking project interventions to expected changes in conservation and development outcomes (Hughes and Flintan 2001). A key constraint to increasing rural incomes through sustainable forestry has been the insecurity of property rights of many of the forest dependent poor.

For REDD to be effective in reducing carbon emissions and generating significant co-benefits related to poverty reduction and equity, it will need to be integrated and aligned with broader economic development strategies. These include strategies designed to decrease dependence on forests and other natural resources, such as industrial growth and more effective educational and social service delivery (Byron and Arnold 1999). Governments will need to coordinate REDD with national poverty reduction strategies and associated support from international donors.

Finally, there is a case for using REDD-related financial resources to support local government reform processes and social capital development, not only to help channel financial flows to the actual forest managers, but also to improve broader forest governance. Through the vehicle of local government reform, REDD would have great potential to improve timber revenue capture and management, and to help local communities manage the local component of those revenues and deploy them for community benefit (cf. Larson and Ribot 2006).

11.3 Co-benefits for human rights and governance

Much of the opposition against the inclusion of REDD in the global climate protection regime is based on concerns that REDD could have negative consequences for the protection of human rights and could slow or reverse nascent improvements in forest governance at the national level. By conferring new value on forest lands, REDD could create incentives for government and commercial interests to actively deny or passively ignore the rights of indigenous and other forest-dependent communities to access and control forest resources. Large new financial flows would likely fuel conflict and create new opportunities for corruption.

On the other hand, if REDD payments are contingent on performance, data on forest status and trends will have to be made publicly available, government and commercial interests will have to negotiate with people in a position to exercise effective stewardship over forest resources, and mechanisms for transparent and accountable financial transfers will need to be established. More generally, the heightened international scrutiny of forest management that will accompany REDD finance could strengthen the implementation of existing safeguards. All this could also have positive implications for human rights and governance.

11.3.1 Relevance to REDD architecture at the global level

A consideration that applies to decision-making at all levels is respect for procedural rights – access to information, participation in decision-making, and access to justice – as articulated in Principle 10 of the Rio Declaration (1992). The UN Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (the so-called 'Aarhus Convention') provides important guidance for citizen involvement in decision-making relevant to REDD implementation. It also requires signatories to promote its principles in international negotiations on the environment.

In the context of REDD negotiations, respect for procedural rights implies an obligation for governments to proactively provide their citizens with timely and relevant information and opportunities for meaningful participation in the design of REDD. Indigenous peoples advocates have decried the marginalisation of their voices in REDD debates. Other groups have proposed the establishment of formal advisory groups composed of indigenous peoples and civil society representatives to advise the various bodies of the UNFCCC on REDD design and implementation (Rights and Resources Initiative 2008).

Independent monitoring and assessment mechanisms will be an important component of REDD architecture at the global level to mitigate the risk of 'disbenefits' related to human rights and governance. Such mechanisms could be mandated to assess the impacts of REDD interventions on human rights and governance, and thus serve as an early warning system to enable prompt course correction.

Certain REDD design elements to be agreed at the global level may risk increasing human rights and governance problems in the context of national-level implementation, or conversely, could enhance opportunities for positive co-benefits. For example, subnational approaches to REDD implementation would be more compatible with application of safeguards and other instruments for monitoring and verification of impacts on human rights. Conversely, national approaches offer greater upside potential to using REDD to improve forest governance, for example, through broad-based tenure reform. A combination of elements of centralised and decentralised approaches to forest governance may be needed to optimise the advantages and disadvantages of each (Colfer and Capistrano 2005).

REDD can also be linked to various international agreements that articulate the obligations of parties to protect human rights. For example, Colchester (2008: 5) sums up a number of international legal instruments related to the rights of indigenous peoples as asserting forest peoples' right to 'own, control, use and peacefully enjoy their lands, territories and other resources, and be secure in their means of subsistence'. An illustrative summary of these instruments is provided in Box 11.2.

In addition to rights and obligations articulated in international agreements, there is an emerging body of 'soft law' and international norms of relevance to REDD. Especially important for human rights and governance are procedural standards. The principle of 'free, prior and informed consent' (FPIC) on the part of affected communities affected by external development interventions is increasingly recognised as a standard to be achieved by governments and private corporations prior to infrastructure or extractive industry projects (Colchester and Ferrari 2007). Establishing FPIC standards in the context of REDD implementation could ensure greater procedural rights for affected communities.

11.3.2 Opportunities and challenges at the national level

Any REDD-induced changes in national-level forest governance are likely to have major effects on the well-being of forest-dependent populations, including indigenous peoples. Many poor communities have progressively lost their rights since colonial times, and have been effectively reduced to the status

Box 11.2. Illustrative international human rights instruments relevant to REDD

The International Covenant on Economic, Social, and Cultural Rights asserts that 'In no case may a people be deprived of its own means of subsistence' (Article 1), suggesting an imperative that REDD not result in the denial of access to forest-based livelihoods.

The International Covenant on Civil and Political Rights provides guidance to ensure that human rights violations – such as arbitrary arrest and detention (Article 9) – do not result from repressive law enforcement-orientated approaches to achieve REDD objectives.

The United Nations Declaration on the Rights of Indigenous Peoples proclaims that 'States shall establish and implement, in conjunction with indigenous peoples concerned, a fair, independent, impartial, open and transparent process, giving due recognition to indigenous peoples' laws, traditions, customs and land tenure systems, to recognize and adjudicate the rights of indigenous peoples pertaining to their lands, territories and resources' (Article 27), a process that would need to precede REDD implementation.

The Convention on Elimination of All Forms of Discrimination against Women affirms that development plans must take into account 'the particular problems faced by rural women and the significant roles which rural women play in the economic survival of their families, including their work in the non-monetized sectors of the economy' (Article 14), which is particularly significant in the case of forest resource use.

of squatters on public lands. Pursuit of livelihoods in such situations often involves behaviour that, however legitimate and necessary, is formally 'illegal', and this contributes to vulnerability. If poor people lack rights, it limits their power to negotiate for outcomes suitable to their interests, and they also suffer from their inability to defend the rights they do have (Khan 2006).

While there has been a recent modest increase in the proportion of forest lands designated for use or ownership by communities and indigenous peoples, most of the forests in countries likely to participate in a global REDD regime remain in the hands of governments (Sunderlin *et al*. 2008). Revaluation of forest resources through the establishment of carbon rights could discourage cash-strapped governments from conceding forest carbon rights to communities. Should REDD payments be contingent on performance, the tendency for governments to withhold rights would be countered.

Although REDD may also provide an opportunity for further progress in reformist legislation, special attention to safeguards is needed to ensure that the interests of national elites and international commercial interests do not override the rights of forest communities. Accordingly, international

investments in REDD capacity building efforts should enhance the ability of duty bearers (including government agencies, corporations, and non-governmental organisations) to guard against human rights violations in REDD implementation, and should promote the ability of rights holders to claim their rights.

11.4 Co-benefits for biodiversity and other ecosystem services

REDD has a large potential to generate co-benefits for biodiversity conservation and other ecosystem services (beyond carbon sequestration). Tropical forest conservation is widely viewed to have been significantly underfunded in recent decades, in terms of both scale and length of funding cycle (Balmford and Whitten 2003), and the financial flows associated with REDD offer radical new possibilities on both fronts.

With respect to biodiversity, REDD avoids many of the pitfalls of Afforestation/Reforestation (A/R) schemes, which tend to favour monocultures of exotic species. Plantation monocultures are not without biodiversity value, but in general support only a small proportion of the biodiversity of typical natural forest ecosystems (Kanowski *et al*. 2005). Compared with A/R schemes, REDD probably also has the advantage of not requiring over-demanding biodiversity standards, given that much forest conservation is likely to be inherently good for biodiversity.

REDD can also be expected to provide co-benefits in terms of hydrological and soil conservation services. REDD could also help control soil erosion, and this affects both water and soil quality. Globally, three quarters of usable freshwater supplies come from forested catchments (Fischlin *et al*. 2007). Bundling carbon conservation with other ecosystem services such as water catchment could provide win-win scenarios.

More broadly, the large-scale forest conservation that REDD could bring about could also have positive impacts on the climate beyond provision of carbon sequestration services. Bruijnzeel (2004), for example, predicts that large-scale conversion of forests to pastureland in Amazonia might result in a seven percent reduction in annual rainfall. Avoiding such impacts could have wider environmental benefits and help avoid the major changes in climate that are anticipated as likely to occur (Nepstad 2007).

11.4.1 Relevance to REDD architecture at the global level

To some extent, REDD at any scale is likely to have positive impacts on biodiversity, although the various design options may have differing impacts. REDD funding, particularly if funds come from markets, is likely to be directed towards areas of high carbon emissions. This will ensure high carbon effectiveness, but these areas are not necessarily the areas of highest biodiversity. Already protected areas such as the indigenous reserves which cover 22 percent of the Brazilian Amazon, and other biodiversity hotspots such as the Guiana Shield, would be unlikely to benefit, at least initially (da Fonseca *et al*. 2007). By contrast, voluntary stock maintenance and fund-based REDD schemes could potentially capture a larger set of co-benefits for biodiversity through broader geographic targeting, but the levels of funding would likely be significantly lower. Thus, although carbon and biodiversity aims are largely compatible, there could be trade-offs in the geographical targeting of funds.

From a biodiversity perspective, national systems are preferable to project-based approaches, in that they are likely to promote a more rational approach to landscape planning. The economies of scale in national-level measurement and monitoring systems will also facilitate planning at the landscape level. Project approaches, although prone to leakage (Chapter 7) may be 'good for biodiversity' by allowing investors to target specific areas with high biodiversity value. For example, the Noel Kempff Mercado Park in Bolivia, which is one of the few examples of a voluntary REDD scheme, has consolidated forest fragments into more ecologically coherent units despite concerns about leakage beyond its boundaries (Robertson and Wunder 2005).

The extent to which REDD finance flows to dry forests will be influenced by a number of global design elements, including reference levels, financing mechanisms, and whether the scope includes avoided degradation. Should REDD design facilitate targeting of forestlands covered under the UN Convention to Combat Desertification (UNCCD), this could have particularly important co-benefits in terms of combating soil erosion in those areas. However, such targeting would imply trade-offs in overall effectiveness and efficiency of the REDD mechanism, due to the significantly lower aboveground carbon stock of such areas compared to moist tropical forests.

Maintenance of major ecosystem functions suggests the need for coordinated landscape planning on an international scale, which is likely beyond the scope of an agreement focused on mitigation of carbon emissions. However, a number of international agreements are relevant to REDD delivery and encourage harmonisation with wider environmental objectives at national and regional scales. These include the UN Convention on Biological Diversity, the UNCCD, and the Ramsar Convention on Wetlands.

11.4.2 Opportunities and challenges at the national level

The extent to which REDD policies and measures implemented at the national level will affect biodiversity and other ecosystem services will depend on existing land use options and strategies, the types of activities incentivised or prohibited, as well as their geographic targeting. Much will depend on the underlying drivers of deforestation, and the overall environmental impacts of alternative uses of forest lands.

For example, in areas of forest that would otherwise be subjected to conventional logging practices, REDD funds could contribute to biodiversity conservation if effectively deployed to incentivise Reduced Impact Logging (RIL) (Meijaard *et al*. 2005). Co-benefits would be even greater if logged-over forests would otherwise be at risk of conversion to agricultural production in the absence of REDD finance.

REDD strategies intended to wean farmers away from destructive cyclical cultivation practices may appear positive for biodiversity, but the impact would need to be established for each situation. Farm bush biomes typical of shifting cultivation may have high biodiversity, for example (Tutin and Fernandez 1985), compared to permanent agriculture alternatives. Improving the productivity of cyclical practices and/or agroforestry systems may be better for biodiversity. Beverage crops such as coffee may allow for the connectivity, which is conducive to maintaining ecosystem effects particularly where shade tolerant or dependent tree varieties are employed, but may require heavy chemical treatments to suppress fungal and pest attacks. Optimising REDD carbon sequestration objectives with other environmental co-benefits will thus need to take into account inputs and outputs over the whole agricultural cycle.

11.5 Conclusion

The challenge for the international community is to ensure that the global architecture that is put in place by the UNFCCC provides – and does not foreclose – opportunities for developing countries to implement REDD in ways that deliver co-benefits related to poverty reduction, human rights protection, and non-carbon ecosystem services, and that avoid doing harm. Benefits are likely to be greatest, and risks minimised, if REDD financial flows and national-level implementation are harmonised with other pre-existing international commitments and emerging norms, as well as national development strategies.

A key challenge will be designing appropriate procedural standards – including assessment, monitoring and verification mechanisms – to ensure that due attention is paid to risks and opportunities without imposing excessive transaction costs that work to the detriment of achieving REDD objectives and co-benefits alike.

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