

# Analysing REDD+

## Challenges and choices

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## Financing REDD+

Charlotte Streck and Charlie Parker

- REDD+ finance is at an inflection point: while short-term finance is available, disbursements are slow and investment opportunities scarce; at the same time, there is no adequate and predictable long-term strategy to meet the financial needs of REDD+.
- In the absence of ambitious climate change mitigation goals, for the foreseeable future most REDD+ finance will be mobilised by the public sector. During this interim phase, in which financing for REDD+ is likely to be fragmented and channelled through various agencies, it will be important to test a variety of financing options that leverage private sector finance and directly address the drivers of deforestation.
- Wealthier REDD+ countries with stronger institutions may opt to self-finance a significant part of REDD+. They may also choose to engage in results-based agreements with donors and international agencies. The more fragile states are likely to rely on official development assistance (ODA)-type finance, which combines financial support with technical assistance and policy guidance.

## 7.1 Introduction

Reducing emissions from deforestation comes at a cost, since the protection of forest implies foregone revenues from timber, crops and livestock. Without legal and economic mechanisms to enforce or compensate action by owners and users, forests will continue to be worth more dead than alive. The emerging incentive framework to reduce emissions from deforestation and forest degradation (and the role of conservation, sustainable management and enhancement of forest), referred to as REDD+, seeks to promote economic development and growth without destroying valuable natural resources. In the context of REDD+, countries have agreed to “collectively aim to slow, halt and reverse forest cover and carbon loss”, and to do this “in the context of the provision of adequate and predictable support to developing country Parties” (UNFCCC 2011a). Within countries, those that suffer economic loss (former forest users and beneficiaries) and current protectors or stewards of the forest may be compensated for loss or receive reward for action. Such payment may originate from international or national sources and will be channelled through national institutions. Private finance may also go directly to the beneficiaries through market-based mechanisms.

Reflecting the principle of ‘common-but-differentiated responsibilities’, allocation of the costs of REDD+ implementation has been an integral part of the REDD+ negotiations under the UN Framework Convention on Climate Change (UNFCCC). Finance appears implicitly within the context of technical issues, such as measurement and reference levels discussed by the Subsidiary Body for Scientific and Technological Advice or, explicitly, within the context of the financial negotiations under the Ad-Hoc Working Group on Long-Term Cooperative Action. In December 2011, at the 17th session of the Conference of the Parties to the UNFCCC (COP17), parties agreed that “results-based finance provided to developing country Parties that is new, additional and predictable may come from a wide variety of sources, public and private, bilateral and multilateral, including alternative sources” and that “appropriate market-based approaches [...] to support results-based actions by developing countries” could be developed (UNFCCC 2012). Parties also adopted guidance on reference levels to account for emission reductions from REDD+ activities. However, it remains unclear if and how these reference levels might be tied to financial ‘results-based’ incentives in the future (see also Chapter 16).

There are four major challenges associated with REDD+ finance:

- Defining REDD+ costs and estimating the financial needs of REDD+
- Mobilising sufficient international and national finance to cover the costs of REDD+ policies and measures
- Allocating and disbursing REDD+ finance efficiently, effectively and equitably to produce clear and measurable results

- Matching the requirements and needs of policy makers and other stakeholders in developing countries with those of donors or investors in REDD+, and creating and/or strengthening the institutions needed to implement policies and manage REDD+ funds.

This chapter sheds light on these challenges and discusses the implications for REDD+ implementation. Section 7.2 summarises the most common ways to calculate REDD+ costs and presents the range of cost estimates that have been put forward to significantly reduce forest-related emissions in developing countries. Section 7.3 discusses the various options that exist to mobilise REDD+ finance in the short and long term. Section 7.4 describes the disbursement challenges from REDD+ country and donor perspectives. The chapter concludes with a discussion of different institutional and policy options that can help to overcome current and future funding challenges.

## 7.2 REDD+ costs

### 7.2.1 Estimating REDD+ costs

Most estimates of the costs of REDD+ use an opportunity cost approach (see e.g. Kindermann *et al.* 2006; Blaser and Robledo 2007; Kindermann *et al.* 2008; Simula 2010). Government experts and consultants have proposed variations to this approach (e.g. Republic of Guyana 2008; UNDP and President of Ecuador 2011). Opportunity costs are the foregone revenue from the best alternative land use. Forestland in different locations has varying productivity and carbon content, and such analyses calculate the marginal costs of forest protection, concluding how much forest can be protected at a certain carbon price level. These models do not necessarily reflect the incentive required for the country to reach a particular emission reduction target (IWG-IFR 2009), neither do they take into account the political context of decision making. In some instances (e.g. where costly structural reforms have to be implemented), the costs of REDD+ to society may be much higher than calculated, but in other situations they may be lower, e.g. where REDD+ can be implemented through law enforcement and command-and-control measures that benefit society (White and Minang 2011). In most cases, policies that yield REDD+ benefits will also pursue other – sometimes primary – objectives, such as a reform of agriculture or land tenure. In these cases, it is difficult to distribute costs among the complementary goals.

An alternative approach is to estimate the budgetary costs of REDD+. This involves assessing the implementation costs of policies and measures, and the institutional reforms needed in a country. However, this approach only shifts the problem to another level, namely to express the costs and benefits of public policies in comparable terms (Heinzerling and Ackerman 2002). To achieve such comparability, any cost analyses would have to quantify the

value to society of a certain policy that results in a public good (i.e. robust infrastructure, good governance or environmental protection). It is very difficult to capture and price the unique features of a forest, including the irreversibility of its primary loss as well as its non-monetary values, e.g. recreation, enjoyment and beauty (Ostrom and Ostrom 1977).

Therefore, while cost assessments can inform REDD+ policies, they have significant shortcomings. Their underlying assumptions do not capture the full costs and benefits of protecting a country's forest estate and they may underestimate or overestimate costs, depending on the policy context. In many cases, particularly where they have been proposed by national governments or other interested stakeholders, cost estimates are driven more by a desired result than by rational analysis (see Box 7.1).

## 7.2.2 Global cost estimates

The Eliasch Review estimated the global costs of REDD+ to be between US \$17 and 33 billion per year, assuming a 50% abatement of forest-related emissions by 2020 (Eliasch 2008). Kindermann *et al.* (2008) estimated the costs to be between €13 and 21 billion per year,<sup>1</sup> while the European Commission established an annual price tag of €15–25 billion (EC 2008; ONFI 2008). These studies estimate the total economic abatement potential from REDD+ activities, assuming a certain price level per tonne of carbon dioxide and a certain cost associated with land use conversion. The figure for actual abatement potential, however, is likely to be smaller than this, due to the various constraints on generating emission reductions through REDD+. As such, global cost estimates illustrate the maximum potential of forests and other land use activities to remove or retain greenhouse gases at a certain price point rather than a realistic potential for emission reductions in the short to medium term (Lubowski 2008). To illustrate the supply of emissions reductions from REDD+, Table 7.1 shows the estimated global supply of emission reductions from reduced deforestation under different price scenarios.

Looking at the country level, REDD+ costs depend on the carbon content of the forest as well as the local driver of deforestation. For example, the highest opportunity cost of REDD+ in Indonesia occurs where forest conservation competes with palm oil production. Here, opportunity costs range from US \$0.49/ton CO<sub>2</sub>e for smallholder farming in Sumatra to US \$19.6/ton CO<sub>2</sub>e for conversion of degraded forest land to palm oil (Olsen and Bishop 2009). Meanwhile, Nepstad *et al.* (2007) calculated that eliminating deforestation completely in the Brazilian Amazon would cost US \$1.49/ton CO<sub>2</sub>e, but reducing deforestation to 94% of projected levels would cost only half that amount (US \$0.76/ton CO<sub>2</sub>e).

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1 In April 2012, 1 Euro = 1.32 US Dollars.

### **Box 7.1 “What does REDD+ cost?” is (almost) a meaningless question**

Arild Angelsen

What does REDD+ cost? At least since the influential Stern Review was published in 2006, many have argued that REDD+ is one of the cheapest options available to mitigate climate change. Others see the REDD+ mechanism as a costly effort with unpredictable results, for both the climate and forest people. So who is right?

Asking “what does REDD+ cost?” is about as precise as posing the question “what do cars cost?” It all depends on the type of car, how many cars, whether the cost of producing, buying and operating them is included, and so on. Most REDD+ cost estimates – including those of the Stern Review – focus on opportunity costs, which refer to the profit foregone from the best alternative land use, i.e. the lost benefits from not conserving forestland. A country implementing REDD+ will also face transaction and implementation costs, e.g. the costs of setting up a REDD+ system and implementing the necessary policies to achieve REDD+. The sum of opportunity costs, implementation costs (except those directly compensating opportunity costs) and transaction costs (to governments and forest users) therefore provides an estimate of the total cost to a country of avoided deforestation and degradation.

But governments of REDD+ countries might be equally interested in a variation on this question: what are the budgetary costs of REDD+? Opportunity costs can be a poor indicator of these, as they depend on the policies chosen and their effectiveness. Only in one special case would the budgetary costs be identical to the opportunity costs, namely in the hypothetical ‘perfect’ system of Payment for Environmental Services (PES). This implies zero transaction costs, targeting only those forest users who plan to apply their chainsaws to the forest in coming years, and requires complete information about these users’ opportunity costs. These assumptions are, of course, quite unrealistic and, in practice, the cost of a PES system will be much higher, even when land tenure and other preconditions allow for it.

Many other REDD+ policies are available. Governments can stop issuing licenses for forest conversion, establish forest-protected areas, and increase the enforcement of forest laws and regulations, without any compensation to the current or prospective forest users. The budgetary costs then may be lower than the opportunity costs. Or they can reduce the profitability of agricultural encroachment by removing government subsidies, which should save money in government budgets. Other agricultural policies, such as agricultural intensification, can have costs in excess of the opportunity costs, but they may achieve additional goals, such as increased production and food security.

So, the question “what does REDD+ cost?” must be made more precise and contextual before it can be answered. First, it depends on whose costs we look at: the society at large, the government, the local forest users, or commodity traders. Second, it depends on the mix of policy instruments chosen to implement REDD+ and their effectiveness. Third, it depends on the scale of emission reductions required and how fast you want them.

**Table 7.1 Global supply of emission reductions from REDD+ (GtCO<sub>2</sub>e per year) (Meridian Institute 2009)**

Avoided deforestation (RED)		REDD+
No price specified		3.5–4.9 (Grieg-Gran 2008)
<US \$10/tCO <sub>2</sub> e	1.8 (Murray <i>et al.</i> 2009)	2.7 (McKinsey and Company 2009) [3.6*]
<US \$20/tCO <sub>2</sub> e	2.5 (Murray <i>et al.</i> 2009) 1.6–4.3 (Kindermann <i>et al.</i> 2008)	4.3 (McKinsey and Company 2009) [5.2*]
<US \$30/tCO <sub>2</sub> e	2.8 (Kindermann <i>et al.</i> 2008) 2.8 (Sohngen 2009) 2.9 (Murray <i>et al.</i> 2009)	4.6 (Sohngen 2009)
>US \$100/tCO <sub>2</sub> e or potential	4.5 (Tavoni <i>et al.</i> 2007) 3.1–4.7 (Kindermann <i>et al.</i> 2008)	7.2 (Tavoni <i>et al.</i> 2007) 7.8 (McKinsey and Company 2009)*

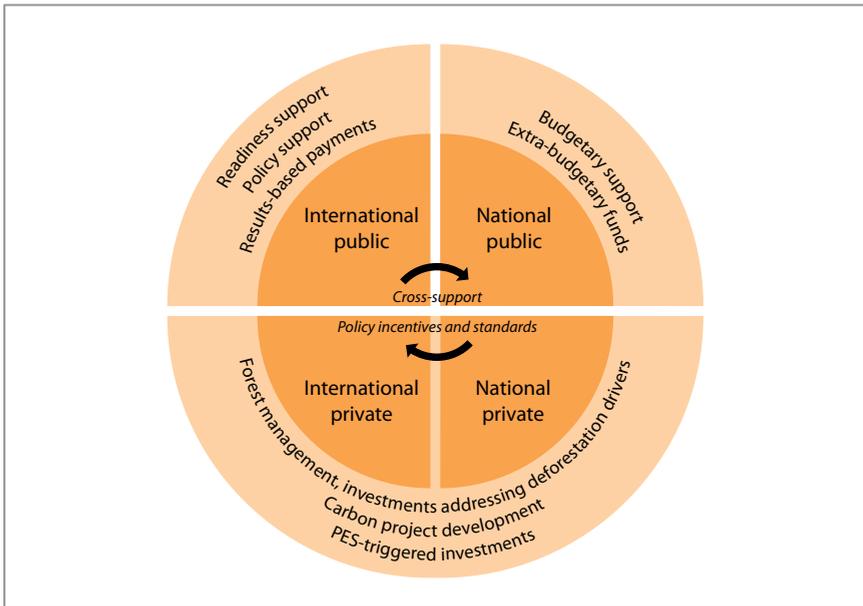
\*Includes emissions reductions from peatland

## 7.3 Mobilising finance for REDD+

### 7.3.1 Current sources of finance for REDD+

Currently, REDD+ finance has several sources – public, private, national and international – as well as different mechanisms (e.g. taxes, carbon markets and auctioning of allowances). Public sector finance is defined here as revenue generated through a mechanism controlled by a public body, while private sector finance does not enter the hands of the public sector. Using these definitions, four categories of REDD+ finance emerge (see Figure 7.1). International public finance currently accounts for around US \$3 billion per annum, including pledges made in the context of the UNFCCC as well as funding through other channels, such as the Global Environment Facility (GEF) and the Convention on Biological Diversity (Parker *et al.* 2012). These funds are being disbursed primarily through bilateral and multilateral channels as grants and loans, with some limited use of performance-based payments.

Bilateral country programmes and projects currently fund two-thirds of all internationally supported REDD+ activities, with multilateral sources making up the remainder (Simula 2010; PWC 2011). This includes readiness programmes and, to a lesser extent, policy support and pilots for results-based payments. At the country level, Norway is the most prominent REDD+ donor. At COP 13 in 2007, the Government of Norway launched its International



**Figure 7.1** Financial sources for REDD+

Climate and Forest Initiative, pledging NOK 15 billion (US \$2.6 billion) over 5 years. Since then, Norway has entered into bilateral agreements with Brazil, Guyana, Indonesia, Mexico and Tanzania, and contributed to various multilateral funds. With its bilateral agreements with Brazil, Guyana and Indonesia, Norway has pursued a ‘payment-for-performance’ approach to REDD+. Other major donors include Australia, France, the European Commission, Germany, Japan, UK and USA. Until now, these donors have mostly supported readiness programmes, policy development and demonstration projects. So far, no other country has entered into bilateral agreements following the performance-based payment logic of the Norwegian agreements.

Data on domestic or national finance for REDD+ is still lacking, since developing countries have little consistent reporting on fund allocation for REDD+. However, it is clear that domestic financing is significant, particularly in emerging and middle-income economies, where it surpasses international contributions for REDD+. Brazil reports an historical annual average of US \$500 million for monitoring and inventory work, law enforcement and tenure reform, as well as for national and local plans to reduce deforestation. Mexico spends a similar sum (US \$460 million) per year on a range of programmes including its ProArbol afforestation programme, green subsidies, demonstration activities and measurement systems. Indonesia claims to have spent US \$1.5 billion on the protection of forests and the rehabilitation of degraded land, amongst other forest protection activities

(PWC 2011). Meanwhile, China has delivered around US \$7 billion annually for afforestation activities to protect watersheds and other ‘eco-compensation mechanisms’ under a range of government-mediated programmes, including the ‘Grain for Green’ programme (Parker *et al.* 2012).

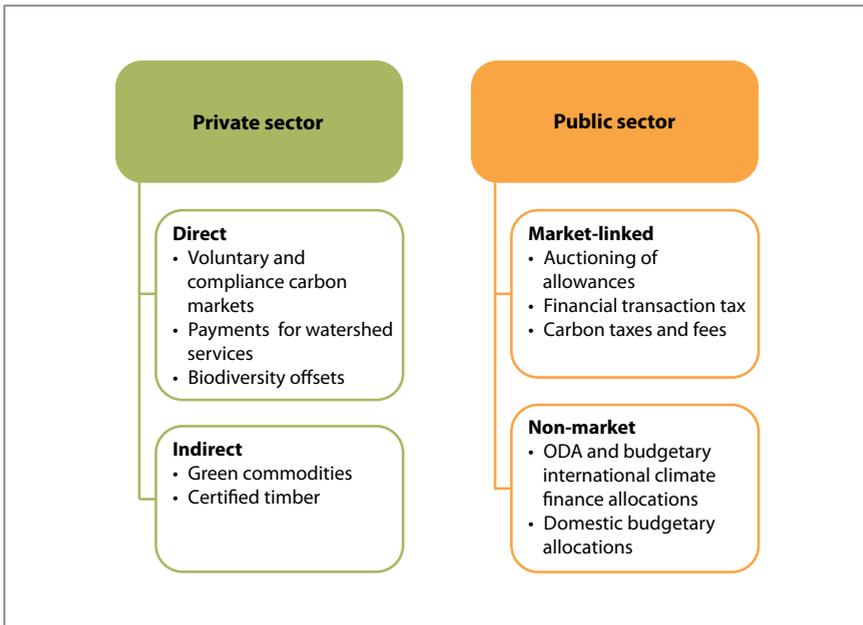
It is expected that the private sector will need to contribute a significant portion of REDD+ finance in the future. However, the current policy environment provides only limited incentives for private sector investment in REDD+. Some investment is being triggered by a combination of factors, including corporate social responsibility and pre-compliance, into voluntary carbon markets (about US \$140 million in 2010) (Diaz *et al.* 2011). Indirect market mechanisms, such as certified cocoa, coffee, timber, palm oil and soy, which aim to combat the drivers of deforestation, also provide a scalable source of private sector finance for REDD+. These mechanisms currently generate premiums upwards of US \$1 billion annually towards forest conservation in developing countries.

### 7.3.2 Future scale of finance for REDD+

Estimates of the future required scale of REDD+ financing vary greatly and depend largely on the sources of finance included. Within the categories of public and private sector finance outlined above, REDD+ finance can be divided into four key groups: *direct* and *indirect* private investments, and *market-linked* and *non-market* public finance (see Figure 7.2). Different methods and tools are required to scale up finance from these various sources.

**Direct market** mechanisms are private sector sources of finance that generate revenue directly for emissions reductions and include the voluntary and compliance carbon markets. These mechanisms can generate finance through regulation and increased demand for forest carbon credits and other direct forest services (e.g. biodiversity offsets). The amount of finance available will be determined by the number of countries that can participate in these mechanisms, the ambition of the targets, the conditions for accepting carbon credits and other factors that generate demand for forest-based ecosystem services.

**Indirect market** mechanisms raise finance by linking the value of forest conservation to traditional markets such as coffee, soy and beef. By lowering the ‘forest footprint’ of these associated markets, finance can be delivered to reduce deforestation but not necessarily in exchange for an emissions reduction (e.g. sustainable coffee markets or the commodity roundtables). Indirect market mechanisms can be scaled up by implementing demand-side regulation for green commodities. For example, legislation within the European Union (EU) or China (the two largest importers of soy globally) requiring sustainable production of soybeans would create a strong signal for ‘zero deforestation’ soy.



**Figure 7.2 Private and public sector finance for REDD+**

Adapted from Parker *et al.* (2009a) and Parker *et al.* (2012)

**Market-linked** and **non-market** mechanisms are both forms of public sector finance; although finance will be generated from a variety of public and private bodies (e.g. through taxes or other fees), the revenue is aggregated and disbursed by a public sector institution. **Market-linked** mechanisms generate finance from markets that are unrelated to forests (e.g. auctions of emissions allowances or a financial transaction tax). The scale of finance mobilised via these mechanisms will depend on the political coordination of competing agendas. For example, revenue from a financial transaction tax is currently being advocated for under a variety of worthy agendas, including poverty reduction, biodiversity conservation and the stabilisation of regional economies. Political coordination between these agendas can help to ensure that they benefit collectively from these sources of revenue.

Finally, the category of **non-market** mechanisms captures 'traditional' forms of public finance, such as official development assistance and domestic government spending allocated through general public budgets. Since non-market mechanisms are purely government-driven, the level of finance generated will be mainly a question of the strength of the political will and national agenda for forest conservation within individual governments. Even under international regulation (e.g. the Monterrey Consensus on Financing for Development), there is no guarantee that commitments will be adhered to.

Table 7.2 summarises the most important mechanisms for mobilising REDD+ finance. Most of these can be applied nationally and internationally. The scale of finance achieved through any mechanism will depend upon the extent to which REDD+, and forest conservation more broadly, maintains a politically compelling mandate within both developed and developing countries.

Over the short and medium term (up to 2020), public sector mechanisms are the largest potential source of finance for REDD+, with an additional US \$9 billion per annum coming from non-market mechanisms and a potential US \$7 billion from market-linked mechanisms. The largest share is most likely to come from national governments in developing countries. While they have potential to generate significant finance for REDD+, finance from market-linked mechanisms remains elusive. With the exception of auctioning of allowances, these mechanisms tend to be politically infeasible as they reside outside of the mandate of REDD+ proponents.

**Table 7.2 Current (2010) and future (2020) levels of REDD+ finance under public and private sector mechanisms (US \$ billions per annum)**

Sector	Market	Scale	Current (2010)	Future (2020)
Private	Direct	Compliance market	-	7.5 <sup>a</sup>
		Voluntary market	0.14 <sup>b</sup>	0.6
	Indirect	Greening commodities	1 <sup>c</sup>	5 <sup>d</sup>
<b>Total private</b>			<b>1.1</b>	<b>13.1</b>
Public	Market-linked and other	Auctioning of allowances	0.04	1.5 <sup>e</sup>
		Maritime tax or levy	-	1.7
		Financial transaction tax	-	3.8 <sup>f</sup>
		Levy on insurance premiums	-	1.7 <sup>g</sup>
	Non-market	Domestic government spending	10 <sup>h</sup>	13 <sup>i</sup>
		Official development assistance	4.4 <sup>j</sup>	10 <sup>g</sup>
		'Debt for nature' swaps	0.02	0.36 <sup>k</sup>
<b>Total public</b>			<b>14.5</b>	<b>32.1</b>

Notes: Table adapted from Parker *et al.* (2009a) and Parker *et al.* (2012) a) assuming a forest carbon market emerges and global supply of 3 GtCO<sub>2</sub> at US \$25/tCO<sub>2</sub>; b) Diaz *et al.* (2011); c) US \$300 million from certified timber and US \$700 million equivalent to 30% of all green commodities; d) based on continued 15–20% growth in market in developing countries; e) 40% of potential auction revenues to climate activities, 50% in developing countries, 28% ecosystem-based; f) low-end assumption: 5% of EU-wide tax on financial transactions goes to REDD+; g) based on continued growth in aid budget of 3% per year, of which 5% goes towards forest protection; h) includes recent pledges under the REDD+ Partnership Voluntary REDD+ Database, see <http://reddplusdatabase.org/>; i) based on projected increases in protected area funding; j) from Organisation for Economic Cooperation and Development Assistance Committee database [www.oecd.org/dac/stats/rioconventions](http://www.oecd.org/dac/stats/rioconventions); k) based on continued annual growth of 30% per year.

The private sector could become an important source of finance for REDD+, with the potential to deliver an additional US \$13 billion per annum by 2020. Carbon markets have long been proposed as a strategy to mobilise private finance and achieve REDD+. Using estimates from Table 7.1 for abatement potential (at a carbon price of US \$25/tCO<sub>2</sub>), carbon markets could deliver US \$7.5 billion by 2020. Angelsen *et al.* (2012) found that, if REDD+ credits are allowed to be traded in the global carbon market, emissions from deforestation will be reduced by 22–62% compared to business as usual levels (i.e. 42–71% compared to 2005 levels), depending on the scenario. However, the establishment of effective carbon markets depends on the acceptance of REDD+ offsets in global carbon markets.

At present, however, there is no global carbon market, neither is there an emerging global system. Since US lawmakers are not contemplating climate legislation and the EU will consider linking its emission trading system to REDD+ only after 2020, carbon markets hold limited promise in the short term. In addition, linking REDD+ to carbon markets will need careful evaluation, relying on tested REDD+ crediting frameworks accompanied by safeguards and regulation of supply and demand. In the absence of REDD+ specific finance instruments, strategies seeking long-term financial stability for REDD+ are turning to incentives for investment at the national (and regional) level.

The other key source of private sector finance for REDD+ would come through indirect market mechanisms. With limited data it is difficult to estimate the scale of finance that could be generated through green commodities. However, conservative estimates for the growth in certified commodities through initiatives such as the roundtables for responsible soy, palm oil and sugar, suggest that indirect market mechanisms could generate an additional US \$5 billion per annum by 2020.

## 7.4 Spending REDD+ finance

### 7.4.1 Allocation of finance

The mobilisation of REDD+ finance is related closely to its allocation and disbursement. Allocation refers to the distribution of REDD+ finance among countries as well as among relevant policies, strategies and programmes within a country. Some resource mobilisation mechanisms already include a preference for a particular allocation of finance. Experience with the Clean Development Mechanism (CDM) shows that carbon markets channel the majority of finance to countries with a favourable investment climate, that are characterised by a well functioning government administration and judiciary, and that have high emissions. Investments through carbon market mechanisms directly to projects will also favour areas with high levels of

deforestation, forests with high carbon content, and clearly identifiable, local drivers of deforestation, where leakage and permanence can be monitored and managed within the project context. Experience with national systems relying on payments for ecosystem services also shows that clear land title and ownership are additional conditions that encourage investment into afforestation or conservation schemes.

Bilateral donors tend to prefer making payments to preselected partner countries. REDD+ finance flowing into publicly managed funds or budgets then has to be allocated among the sectors that work to counter forest carbon loss. Such allocation generally follows a national prioritisation of activities reflecting emission reduction potential and cost, political acceptability and commitment, and stakeholder input. Budgets may create an enabling environment, such as engaging in integrated land use planning, clarifying land titles and property rights, strengthening institutions and building capacities. These activities serve multiple purposes, are lengthy undertakings and address underlying rather than direct drivers of deforestation. While ODA sources may support these processes, dedicated international climate finance will probably gravitate towards more direct action to counter the drivers of deforestation. This might include investing in agriculture to increase productivity, financing alternative infrastructure solutions, and creating alternative income sources for local communities.

At present, the largest portion of REDD+ finance goes to Brazil, the Democratic Republic of Congo and Indonesia (REDD+ Partnership 2011). These countries represent a significant portion of the three most important tropical forest basins (those of the Amazon, Congo Basin and Southeast Asia) and are responsible for more than half of the global forest-related emissions. The allocation of finance to these countries reflects their emissions reduction potential, although it does not necessarily reflect greater readiness than in smaller and more engaged countries. Norway's decision to enter into a strategic partnership with Guyana, in contrast, rewards the political commitment of a small forest nation with low emissions.

## 7.4.2 Disbursement of REDD+ finance

Disbursement of REDD+ finance uses international and national funds<sup>2</sup>, bilateral programmes and direct private sector incentives to channel REDD+ finance to countries and within countries to the ultimate beneficiaries.

International and regional funds are administered by multilateral finance organisations, such as the Forest Carbon Partnership Facility (FCPF), the UN

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<sup>2</sup> See, for example, the United Nations Development Programme proposal to set up National Climate Funds (UNDP 2011).

REDD+ programme, and the Congo Basin Fund. Since disbursing REDD+ finance to national actors is a lengthy process, the allocation of finance to international programmes has great appeal for donors, but there can be a significant delay before the funds are put to use. In an evaluation of FCPF, 67% of the stakeholders interviewed disagreed with the statement that finance was disbursed in a timely manner (NORDECO 2011).

Disbursing finance via bilateral agencies (e.g. Agence française du développement, Kreditanstalt für Wiederaufbau and United States Agency for International Development) may be less strategic than supporting new, dedicated REDD+ programmes, but it can be quicker, in particular when finance is disbursed via existing programmes, institutional arrangements and appraisal mechanisms. Norway's partnership with Indonesia shows that innovative governance and disbursement mechanisms require long lead times, which may be underestimated. Even when countries administer funds by proven and professional local institutions, such as the Amazon Fund, the novelty of REDD+ and its need for new actors and performance metrics is likely to cause delays and frustrate expectations (although frustration may be less when actors are used to the slow disbursement cycles of existing environmental programmes such as GEF).

Additional barriers in the flow of finance are caused by inefficiency within intermediary organisations, a lack of absorptive capacity and natural 'growing pains' in a period of learning (The Prince's Rainforest Project 2011). Taking into account the level of political and stakeholder support that is needed for successful REDD+ implementation, the time required for consultations and consensus building has often been underestimated. Added to long bureaucratic chains and the lack of REDD+ programmes ready to receive investments, these delays mean that disbursement of international REDD+ finance has fallen sharply behind the REDD+ pledges.

Furthermore, there is clear evidence that lessons learned from efforts to improve development aid effectiveness are not being transferred to climate finance in general and to REDD+ finance in particular. At the same time, the project basis and earmarked nature of REDD+ financial mechanisms means that countries have to establish special management arrangements instead of using existing national systems.

In summary, it is evident that both recipient and donor countries would benefit from the development of REDD+ finance strategies, closer coordination, institutional strengthening and capacity building. There is a particular need to respond to national circumstances as well as to satisfy the requirements of external contributors for transparent and accountable use of REDD+ finance.

### 7.4.3 Role of national institutions

The success of REDD+ depends on having national policies and institutions that can deliver REDD+ emission reductions at a large scale and in effective, efficient and equitable ways. There is need for an effective channel for disbursement and absorptive capacity, both underpinned by rules, processes and safeguards that are transparent and simple while also being appropriate and flexible to local needs and scales (The Prince's Rainforest Project 2011).

National disbursement mechanisms can be linked to general governance reform, sector measures and direct fiscal incentive programmes. In the case of governance reform, finance will be used largely to support the public sector by adding capacities and resources. Sector measures seek to address the drivers of forest carbon loss and include the removal of perverse incentives and the introduction of planning and safeguards. They can also define direct fiscal incentives, in which targeted groups are paid for undertaking a particular activity (e.g. tree planting, monitoring and conserving) or stopping certain actions (e.g. land conversion and logging).

In the short term, international or bilateral intermediaries will continue to play an important role in disbursing readiness funds. However, long-term REDD+ finance will need to be allocated and disbursed by national institutions. While international financial support may help to induce policy changes, it is essential that REDD+ strategies are country driven, taking into account national needs and priorities. National institutions are essential agents in mobilising and distributing finance and must comply with internationally recognised fiduciary standards. Brazil's Amazon Fund is an example of a national fund that performs many financial and technical roles that in other cases would be left to international institutions. Countries with weaker institutions will take longer to reduce their dependence on such international intermediaries as the World Bank and UN, or bilateral assistance programmes, to manage and allocate REDD+ finance (see Box 7.2).

## 7.5 Conclusions: Linking REDD+ finance with policies and programmes

In 2009, the Copenhagen Accord committed developed countries to a total of US \$3.5 billion of fast-start finance to be disbursed during the 2010–2012 readiness phase of REDD+ (see Table 7.3 for the phases of REDD+ implementation and finance). However, by the end of 2011 (when the pledges had reached US \$4.17 billion), only US \$446 million had been allocated and approved to particular countries and funds (Nakhooda *et al.* 2011). A large proportion of the money is still being held in international trust funds, national budgets and recipient country funds, and it is unlikely

## Box 7.2 Financing REDD+ in the Democratic Republic of Congo

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The REDD+ process in DRC is led by the Ministry of Environment, Nature Conservation and Tourism through a dedicated national REDD+ coordination unit, staffed by national and expatriate experts. The national REDD+ strategy is still under construction, so the overall costs of achieving REDD+ are not yet known. Virtually all finance for REDD+ comes from international donors and there has been little private sector engagement so far, although an agroforestry CDM project led by a private Congolese company provides a noteworthy exception.

REDD+ readiness needs are estimated at US \$23 million and funded mainly by FCPF and the UN REDD+ Programme. The Congo Basin Forest Fund will provide around US \$35 million to a series of pilot REDD+ projects, while the Forest Investment Program, executed by the World Bank and the African Development Bank, will provide US \$60 million to fund REDD+ investments in three large Congolese cities (Kinshasa, Kisangani and Mbuji Mayi – Kananga). Results-based payments for emission reductions are still a future goal, but the country has shown interest in accessing the Carbon Fund of the FCPF through a sub-national REDD+ programme.

There are several major disbursement challenges. Overall coordination is costly due to the multitude of sources of finance and different fiduciary and reporting procedures required by the different donors. Uncertainty at the global level on applying REDD+ finance at the national level, including how to deal with safeguards, has led to disbursement delays. Insufficient national fiduciary management capacity adds to the challenge. DRC has been dealing with disbursement delays by ensuring the national REDD+ unit has the mandate to coordinate different sources of finance, outsourcing fiduciary management to an existing fiduciary unit with the Ministry of Environment, and building the capacity of key staff.

Looking ahead, DRC is planning to establish an independent national REDD+ fund, embedded in a participatory fund allocation mechanism and with strong institutional capacity to deliver national finance in line with the emerging national strategy. International donors are expected to provide the majority of finance and, at first, these should be conditioned to policy reforms, institutional capacity building and proxy intermediary indicators. Over time, as institutional capacity is built, the fund could evolve into a verifiable emission reductions payment scheme. Parallel to the fund, DRC is allowing carbon transactions targeted at different markets (these are voluntary, emerging and regulated), within a national institutional framework to regulate carbon transactions, including the establishment of a transparent national registry.

**Table 7.3 Summary of REDD+ needs (adapted from Meridian Institute 2009)**

	REDD+ preparation costs	REDD+ implementation costs	
	<b>Phase 1: Readiness and upfront costs, and ongoing capacity building and institutional strengthening costs</b>	<b>Phase 2: Policies and measures</b>	<b>Phase 3: Results-based payments</b>
<b>Objectives</b>	Enable participation in REDD+, appraising policy options, establishing strategy and consensus  Establish and maintain the ability to successfully implement and monitor REDD+ activities	Create enabling environments, improve forest governance and forest management, address drivers of deforestation through investments	Compensate for emissions reductions
<b>Emissions reductions</b>	No or little direct effect on land use emissions	Effect on emissions less direct and there may be some delay	Should have clear link to emissions reductions
<b>Funding needs</b>	Upfront finance required, most likely non-market based	A blend of finance will be used.	Payment can be ex-post  Direct market and indirect market finance

to be disbursed by the end of 2012. Thus, while international pledges remain well short of cost estimates, there is a major problem in disbursing the finance already committed.

The overall cost of reducing emissions from deforestation depends on the types of expenditures considered, and the type and effectiveness of the chosen policy mix. The vast majority of countries – developed and developing – lack concrete strategies on how to implement REDD+. It is therefore difficult to define global and national REDD+ financial needs. However, it is clear that the long-term mobilisation of REDD+ finance remains unresolved. Even the most conservative calculation of the costs associated with implementation of REDD+ is well in excess of the US \$4.17 billion pledged as fast-start finance. The development of disbursement methods and channels, the building and strengthening of international and national institutions, and the formulation of robust financing mechanisms

and policies will therefore be key measures of progress for REDD+ in the short term as well as a condition for its long-term success.

In the short and medium term (until 2020 at least), REDD+ finance will come from multiple sources that follow different rules and target different actors. A large proportion of finance will need to come from developed country budgets. The scale of such finance will depend on sustained political will in developed countries, the level of ambition of national and international climate targets, and the ability to adopt mechanisms that mobilise finance from new sources. Wealthier developing countries will continue to finance their own REDD+ programmes. Payments for fragile states could be structured to create incentives to invest in new policies and reforms aimed at critical socio-economic transformations. Incentives would be targeted to those likely to respond to them, i.e. economic agents in the field, including farmers, communities and private entities (Karsenty and Ongolo 2012). Additional support for generating REDD+ activities at national and local level may come from voluntary carbon market transactions. The Governor's Climate and Forests Taskforce, initiated by the State of California, and emerging regional carbon markets in Asia provide interesting examples of sub-national initiatives.

In summary, REDD+ is unlikely to deliver direct finance for quick or cheap emission reductions. Nevertheless, it provides an important opportunity for countries to address the structural causes of deforestation and start a process of transformational change in considering forest resources. Where they are able to act without international support, governments may prefer results-based payments at the national scale (Phase 3). However, many countries will need support in both project set up and policy reform (Phase 2). In the next years, when REDD+ implementation scales up but a legally binding international policy framework for REDD+ is still absent, finance will need to come from a variety of sources that directly engage with the private sector to combat the drivers of deforestation.

