Chapter 1

Introduction

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The REDD+ idea meets reality

Reducing emissions from deforestation and forest degradation, and enhancing forest carbon stocks in developing countries (REDD+) can, according to proponents, generate large, cheap and quick reductions in global greenhouse gas (GHG) emissions. The international community can achieve this by paying forest owners and users – either through national governments or directly – to fell fewer trees and manage their forests better. Farmers, companies and forest owners can simply sell forest carbon credits and less cattle, coffee, cocoa or charcoal.

This apparently brilliant idea now faces realities on the ground. The ownership of forests is often unclear or contested. Governance is weak, and corruption and power struggles at many levels are rife. Most countries do not have good data, or the skills and systems to measure changes in forest carbon. Added to all this, the international REDD+ architecture itself is far from clear and will continue to evolve over the next few years.

Box 1.1. What is REDD+?

… policy approaches and positive incentives on issues relating to reducing emissions from deforestation and forest degradation in developing countries; and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries.

— UNFCCC Decision 2/CP.13–11

REDD+ has evolved as a concept (Chapters 2–4) and means different things to different countries, organisations and individuals. In this book we use REDD+ as an umbrella term for local, national and global actions that reduce emissions from deforestation and forest degradation, and enhance forest carbon stocks in developing countries (REDD+). The plus sign indicates *enhancement of forest carbon stock*, also referred to as *forest regeneration and rehabilitation*, *negative degradation*, *negative emissions*, *carbon uptake*, *carbon removal* or just *removals*. (*Removals* refer to sequestration of carbon from the atmosphere and storage in forest carbon pools.) We have used these terms interchangeably in 'Realising REDD+', but all refer to activities that increase the amount of carbon per hectare, sometimes called *carbon density*. Finally, the term *fluxes* is used to cover both emissions and removals.

Figure 2.1 in Chapter 2 clarifies the three types of changes that are included in REDD+: *deforestation* means forest area is reduced, *degradation* means carbon density is reduced and *regeneration* and *rehabilitation* means carbon density is increased. Enlarging the area of forests (e.g., through afforestation and reforestation, A/R), is another way to increase forest carbon stocks, but A/R is not part of REDD+. Future decisions by UNFCCC might change this. (A/R is part of the Clean Development Mechanism, CDM.)

The terms *conservation* and *sustainable management of forests*, as used in the quote above, do not fit easily into our definition. These terms might refer to activities that cut emissions and boost removals. For example, the *stock difference* approach (Wertz-Kanounnikoff and Verchot 2008), the standard way of measuring emissions and removals, does not take into account how changes occur. The *gain–loss approach*, on the other hand, estimates the impact of different activities, e.g., better management of forests, on forest carbon. Activities that might qualify (be accounted and credited) under the gain–loss approach are yet to be determined.

The term *conservation* as used in documents and debates, is also not clearly defined. Forest conservation is, of course, a means to reduce emissions. But conservation might also refer to a system in which payments are made on the basis of *actual* forest carbon stocks not on the basis of *changes in stocks* (see Angelsen and Wertz-Kanounnikoff 2008). It is unclear whether future REDD+ payments will be made on the basis of carbon stocks. In this book we focus on fluxes, payments for reduced emissions and increased removals.

Finally, REDD+ is shorthand for both a set of *policies* or *actions* that aim to reduce emissions and increase removals, and for the final *outcomes* of those policies or actions (i.e., reduced emissions and increased removals). In this book REDD+ is used in both senses.

REDD+ debates and negotiations are no longer confined to global forums but have made their way into national capitals and communities. Governments in developing countries, national and international organisations, hundreds of REDD+ projects and thousands of forest communities are trying to figure out how to make REDD+ work for them. More than 40 countries are developing national REDD+ strategies and policies, and working out answers to the simple question: What should REDD+ look like in our country?

Purpose of this book

This book draws lessons from research and experience to inform national REDD+ strategies and policies. Our audience is those who are developing strategies and formulating and implementing national level policies and demonstration activities at all levels. The book should also provide a useful reality check to those working to design the global REDD+ architecture.

The core idea of REDD+ is to create a multilevel (global-national-local) system of payments for environmental services (PES) that will reduce emissions and increase forest carbon stocks. While payment directly to forest carbon rights holders (forest owners and users) has strong merits, the challenges for wide application in the short term are huge. Throughout the book we argue that, at least in the short to medium term, REDD+ will need to embrace a broad set of policies. These include institutional reforms to improve governance, clarify tenure, decentralise appropriately and encourage community forest management (CFM). Changes in agricultural policy could curb demand for new agricultural land and clearing of forests. Energy policies could reduce forest degradation caused by harvesting woodfuel, while encouraging reduced impact logging (RIL) practices could lessen the harmful effects of timber extraction. Setting up protected areas could also be effective in conserving forests.

This book puts lessons from several decades of experience in implementing such policies on the table. Many of the REDD+ policies that governments are planning are variations on measures tried in the past. CFM schemes sponsored by external agencies, for example, have been tried for more than 50 years, and protected areas have an even longer history. Unfortunately, many past interventions have had disappointing results. The lessons we have learned, although often about 'what not to do', are still important. REDD+ planners and policy makers need to appreciate that REDD+ is not something entirely new and that there is much we can learn from previous experiences in forest conservation and management.

Box 1.2. The forest transition

The change in the area of forest in a country may follow the pattern suggested by the forest transition theory (Mather 1992). Initially, a country has a high and relatively stable portion of land under forest cover. Deforestation begins, then accelerates and forest cover reduces. At some point deforestation slows, forest cover stabilises and begins to recover. This pattern is shown in Figure 1.1, where five different stages are identified:

- Stage 1: High forest cover, low deforestation rates (HFLD)
- Stage 2: High forest cover, high deforestation rates (HFHD)
- Stage 3: Low forest cover, high deforestation rates (LFHD)
- Stage 4: Low forest cover, low deforestation rates (LFLD)
- Stage 5: Low forest cover, negative deforestation rates (LFND)

The forest transition theory can be applied both to countries and regions within countries. The trigger that sets off forest transition is frequently new roads, which open up markets for agricultural products and are often part of colonisation programmes (Chomitz *et al.* 2006; Angelsen 2007). A number of reinforcing loops can accelerate deforestation: further infrastructure developments that provide better access to markets, high population densities and rising incomes that boost demand and capital accumulation. Two forces eventually stabilise forest cover, *economic development*, where better paid, off-farm jobs reduce the agricultural rent and the profitability of deforestation (see Box 10.1), and *forest scarcity*, where scarce forest cover increases forest rent (the value of forest products and environmental services) and puts the brakes on forest conversion (Rudel *et al.* 2005).

The forest transition is not a law of nature, and transitions are influenced by national contexts, global economic forces and government policies. Countries may have very little remaining forest before forest cover stabilises, or they might, if policies are appropriate, be able to 'bridge the forest transition' – a central aim of REDD+.

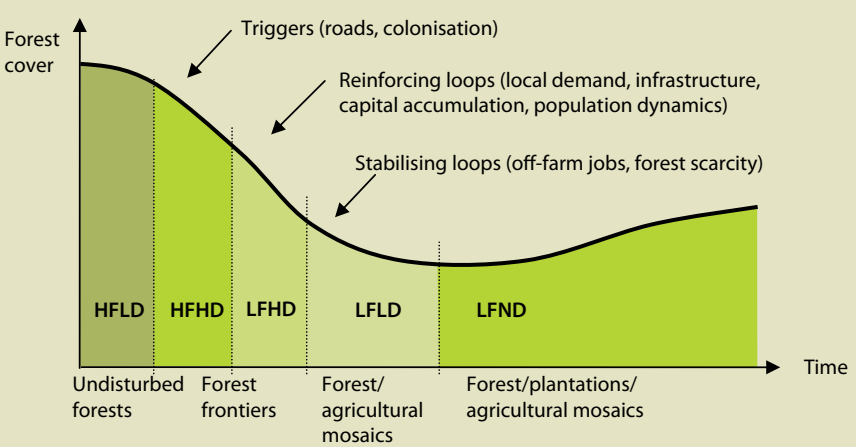

Figure 1.1. Different stages in the forest transition

Box 1.3. Effectiveness, efficiency, equity and co-benefits (3Es+)

The 3E+ criteria refer to effectiveness, efficiency and equity and are used in the climate debate to assess proposed options and their expected outcomes (Stern 2008), or to evaluate actual outcomes (Chapter 22).

Effectiveness refers to the amount of emissions reduced or removals increased by REDD+ actions. Are the overall climate targets met? *Efficiency* refers to the costs of these emissions reductions or removal increases. Are the targets being achieved at minimum cost? *Equity* refers to the distribution of REDD+ costs and benefits. Are the benefit shared and the costs allocated fairly? Angelsen and Wertz-Kanounnikoff (2008) elaborate these criteria.

Effectiveness An *ex ante* evaluation of the effectiveness of a proposal would consider subcriteria such as depth and additionality, breadth and scope, flexibility and robustness, control or avoidance of leakage, permanence and liability, and to what extent the action is targeting the key drivers of deforestation and degradation. Governance and corruption would also be important considerations. For example, to what extent is the proposed action vulnerable to corrupt practices? An *ex post* evaluation would measure changes in forest carbon stocks directly, and compare with a business-as-usual (BAU) baseline.

Efficiency criteria would consider start-up costs (including capacity building), running costs of financial and information (MRV) systems, compensation for lost income (opportunity cost) and rent (rent equals transfers minus costs) along with the implementation costs of forest owners, managers and users. All these, except compensation and rent, are transaction costs.

Equity criteria would consider different scales (global, national, subnational) and groups of stakeholders based on income, assets such as land, ethnicity, gender and so on. In assessing equity there is also a distinction between REDD+ rents, the overall transfers and the costs of the action. The debate focuses more on sharing benefits (transfers) than on distributing costs (Chapter 12). Many REDD+ schemes will make no direct payments to forest owners and users, but will impose costs or lost opportunities. For example, policies that reduce demand for woodfuels will cause charcoal producers to lose income (Chapter 19). Such costs should also be considered.

REDD+ is not only about climate change. Other goals, known as 'co-benefits' (i.e., benefits in addition to reduced climate change) are also important. There are at least four types of co-benefits to consider. First, forest conservation, in addition to storing carbon, provides other environmental services, such as preserving biodiversity. Second, REDD+ actions (e.g., financial flows) and forest conservation might have socio-economic benefits, such as reducing poverty, supporting livelihoods and stimulating economic development. Third, REDD+ actions may spark political change toward better governance, less corruption, and more respect for the rights of vulnerable groups. Fourth, REDD+ actions and forest conservation could boost the capacity of both forests and humans to adapt to climate change.

Inspired by the move from REDD to REDD+, this book refers to the assessment criteria of effectiveness, efficiency, equity and co-benefits as the 3Es+.

In 2008, CIFOR published 'Moving Ahead with REDD', which focussed on what the global REDD+ architecture might look like. That book set the stage for this one. In 'Realising REDD' we shift the focus from the global to the national level.

The challenge when discussing national structures and policies rather than the global architecture is that there is one world, but there are one hundred tropical developing nations. Each country's forest context is unique: the drivers of deforestation and degradation are different, their forests are at different stages of the forest transition and their economies are at different stages of development. The capacity of countries to implement policies varies as do the politics that shape REDD+ strategies and policies. Given the diversity of national circumstances, formulating and assessing generic 'one size fits all' REDD+ strategy and policy options are very challenging.

The forest transition theory is a useful framework for making sense of the diversity of country contexts. This is partly because the extent of forest cover and rates of deforestation are important in themselves, and partly because the forest transition stage correlates with other country characteristics (see Box 1.2). The types of challenges and appropriate responses vary according to what stage a country's forests are at according to the forest transition framework. This framework is thus useful for assessing policy options to address the drivers of deforestation (e.g., Chapter 15).

This book follows the same recipe as 'Moving Ahead with REDD'. We set out the key problems, present options and discuss the options as regards carbon effectiveness, cost efficiency, equity and co-benefits (the 3E+ criteria, see Box 1.3). Chapters describe experiences and draw lessons from comparable interventions in the past, and point to what is new about REDD+. We believe this is the first comprehensive attempt to systematically discuss these lessons and their relevance to realising REDD+ at the national level.

The REDD+ debates display a wide range of opinions (Chapter 3). Researchers and scientists also disagree. Some of this diversity of opinions and interpretations of reality are also reflected in this book. This is healthy for the REDD+ debate, and open and free discussions should be encouraged. At the same time, some disagreements can be reduced by confronting positions with empirical evidence, including that of similar experiences in the past. The book therefore aims to both eliminate some of the disagreements but also stimulate further debate.

How the book is organised

The book is divided into five parts, as shown in Figure 1.2. Part 1, 'Moving REDD+ from global to national level', describes the links between discussions at the global and national levels, putting the discussion about national REDD+ strategies and policies in the global context. Chapter 2 first reviews six key elements of the global REDD+ system as these have significant implications for national systems. The second part of Chapter 2 then sets out a broad conceptual model for a national REDD+ architecture (Figure 2.2) which is used in later chapters. Similarly, Chapter 3 describes global REDD+ debates and identifies key actors and interests before discussing to what extent the debates and agendas are mirrored in national debates. The chapter explains the realities of implementing REDD+ in five countries: Bolivia, Cameroon, Indonesia, Tanzania and Vietnam. Chapter 4 puts current REDD+ debates into the historical context, asking why large forest conservation programmes in the past have generally failed, what is new about REDD+ and whether we have learned anything from past mistakes.

Part 2, 'Building REDD+ institutional architecture and processes' discusses REDD+ national institutional structures, defining the capacities and responsibilities of different actors, and the rules for their interaction. The first two chapters deal with institutions for handling REDD+ financial flows.

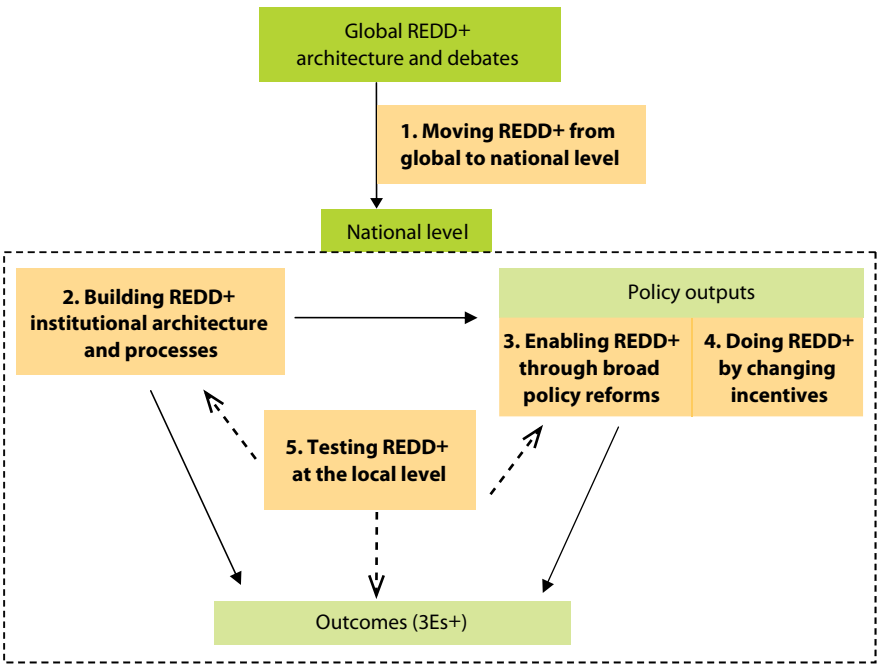

Figure 1.2. How this book is organised

Chapter 5 presents four options for managing REDD+ funds nationally, through projects, independent funds, funds within state administrations and budget support. Chapter 6 reviews the experiences of conservation trust funds (CTFs), which could be models for independent REDD+ funds, and discusses how different types of funds could manage different tasks in a national REDD+ scheme.

Chapter 7 gives a comprehensive overview of monitoring, reporting and verification (MRV) requirements for REDD+ and identifies three challenges. The first is linking MRV to national policies, the second is helping countries participate before they are ready to implement REDD+ fully and the third is linking implementation at the national scale to implementation at the subnational scale. One option for linking national and subnational implementation is to integrate community monitoring into the national MRV system. Chapter 8 reports the experiences of a large project which found that communities can monitor carbon cheaply and accurately, and thereby help to establish payments for environmental service (PES) schemes. Chapter 9 is a broad discussion of how to integrate actors, both vertically (across scales) and horizontally (across sectors and state and non-state actors), in formulating and implementing policy.

The institutions and processes lead to a set of outputs (policy documents and decisions), which in turn produce a set of outcomes for forests and people (Figure 1.2). Chapter 10 introduces Part 3, 'Enabling REDD+ through broad policy reforms' and Part 4, 'Doing REDD+ by changing incentives' through sectoral and specific policies. Sectoral policies include policies to bring down agricultural profitability or rent in forested areas, policies to make standing forests more valuable and enable land users to capture that value, and policies to directly regulate land use. The broad policy reforms may only affect forests indirectly, but they contribute to effective, efficient and equitable outcomes, and often more co-benefits (3E+) of sectoral policies.

Chapters 11 and 12 deal with some of the hottest issues in the REDD+ debate: tenure, rights and benefit sharing. Chapter 11 focuses on the imperative for tenure reform and suggests concrete ways of doing this. Chapter 12 follows up by discussing options for reforming laws and regulations related to tenure, carbon rights and benefit sharing.

Chapter 13 looks at governance and corruption, reviewing how corruption in the forest sector may affect REDD+ outcomes and recommending concrete steps governments can take to stem corruption. Case studies from Bolivia, Cameroon and Indonesia show that targeted interventions can work. The last chapter in Part 3, Chapter 14, draws lessons from decades of decentralisation in the forest sector, and assesses five optional levels for REDD+ implementation

against the 3E+ criteria, central government, subnational governments, projects, forest user groups and traditional authorities.

The six chapters in Part 4, 'Doing REDD+ by changing incentives', deal with specific policies to realise REDD+. Chapter 15 first reviews how agricultural policies throughout history have shaped tropical landscapes, then introduces the concept of REAP, reduced emissions agricultural policy. REAP supports productive agricultural areas close to major population centres in order to reduce pressure from agriculture in forested areas.

The next three chapters look at three policy interventions that could be important at the local level. Chapter 16 draws on decades of experience and research in community forest management (CFM) to examine two questions: Under what circumstances is CFM likely to be viable? and, How can better design improve CFM interventions? Chapter 17 looks at payment for environmental services (PES) schemes, an important new feature of REDD+, and explains the preconditions for effective implementation. Lessons from PES experiences are discussed, including from case studies in Costa Rica and Ecuador, and a set of options for REDD+ implementation are put forward. Chapter 18 presents experiences from protected areas (PAs) and integrated conservation and development projects (ICDPs) over several decades, and the lessons we can learn for REDD+ implementation.

The last two chapters in Part 4 deal with degradation. Chapter 19 asks how emissions from the production and use of woodfuels (fuel wood and charcoal) can be reduced, and critically reviews previous policy interventions to either reduce demand or control supply. Similarly, Chapter 20 asks why so much tropical forest degradation is related to timber harvesting and discusses steps that can be taken to cut emissions and boost carbon uptake.

REDD+ is a new endeavour and several REDD+ activities (demonstration activities, pilot projects, first generation REDD+ projects) are already forging ahead. These are dealt with in Part 5, 'Testing REDD+ at the local level'. Chapter 21 gives a snapshot of current projects, particularly in the three largest tropical forest countries, Brazil, Indonesia and the Democratic Republic of Congo. Chapter 22 asks how we can 'learn while doing' in REDD+ projects. We must take a systematic approach to evaluate outcomes and to learn how REDD+ can work better, by collecting and analysing data. Chapter 23 concludes the book by presenting a set of dilemmas that national policy makers face in designing and implementing REDD+ strategies and policies.