



FONDAZIONE ENI
ENRICO MATTEI



DEFORESTATION AND CLIMATE CHANGE

Reducing Carbon Emissions
from Deforestation and
Forest Degradation



Edited by
Valentina Bosetti
Ruben Lubowski

Deforestation and Climate Change

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and Forest Degradation

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Deforestation and Climate Change

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Reducing Carbon Emissions from Deforestation and Forest Degradation

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Preface

Concerns over the preservation of natural habitats and biological diversity have in the past fueled scientific and public attention to the problems of tropical deforestation and forest degradation. More recently, the debate over tropical forest conservation has dramatically shifted to the approximately 15 per cent of global greenhouse gas (GHG) emissions that are caused by deforestation and forest degradation, and to the potential synergies from integrating forest management with climate change policies. Rainforest nations, recognizing the potential for a novel approach to compensating forest protection efforts, were the first to bring Reducing Emissions from Deforestation and forest Degradation (REDD) into the spotlight of international climate change negotiations, backed by environmental organizations traditionally concerned with both forest conservation and climate change. But many different players have started to see the broader opportunities that REDD offers, including its potential to deliver low cost abatement that could increase the policy levers to fight climate change, thus making ambitious targets more achievable.

Even though REDD is a major opportunity to improve the efficiency of any climate policy, several areas of concern could in principle undermine its efficacy. Some concerns were severe enough to contribute to the exclusion of REDD from the Kyoto Protocol and, while the debates have shifted, several issues will need to be addressed to include and implement REDD as part of post-2012 climate policies at national, regional and international levels.

In November 2008, recognizing the importance of these themes, Fondazione Eni Enrico Mattei (FEEM), Italy, and the Environmental Defense Fund (EDF) in the United States co-organized an International Workshop on REDD. The workshop aimed to inform policymakers and the public on the potential contribution of REDD in future international climate policies so as to stimulate discussion among scientists, policymakers and civil society on this increasingly crucial issue in the climate change debate. The workshop brought together a broad audience of selected international researchers, policymakers and stakeholders, and its success in presenting policy-relevant research and policy issues motivated us to compile the material into this book.

The goal of the book is to shed light on some of the major concerns, issues

and challenges related to the inclusion of forest carbon in international climate policies, as well as some of the main potential solutions and paths forward. In addition, the book describes the status of REDD in international climate policy negotiations, providing both a historical perspective and the current positions of key international players that will frame the debate through the Copenhagen round of negotiations under the United Framework Convention on Climate Change (UNFCCC) and in the following phases.

This book aims to inform a non-technical audience and to provide a broader set of players with information on what will be one of the major topics of discussion in the next phases of climate policy negotiations. The authors have made an effort to leave out technical features and provide a clear discussion of each of their topics.

Chapter 1 (Boyd) provides an overview of the history and current status of REDD in the context of climate policy debates, with a focus on recent developments in the United States at both national and state levels. Chapter 2 (Bietta) reviews the history of REDD in international climate change negotiations and the current proposal of the Coalition of Rainforest Nations. Chapter 3 (Piris-Cabezas) provides an updated accounting of the latest policy developments on REDD in the EU. Chapter 4 (Leonard, Kopp and Purvis) identifies key concerns and strategies for moving REDD forward in a political context, reporting the results of a survey of key US congressional staff on the role of international forest carbon in national and international US policies. The survey describes how REDD was perceived and understood by policymakers and identifies key areas where additional knowledge would be valuable in informing the decision-making process.

The chapters that follow address more technical issues related to the implementation of REDD in practice. The World Bank has started to run a series of projects to help plan for REDD and develop on-the-ground experiences, institutions and infrastructures to enable more rapid implementation of REDD policies. This effort is described in Chapter 5 (Bosquet, Pagiola and Aquino). Chapter 6 (Cattaneo) examines how to design a crediting mechanism that provides incentives for preserving standing forests in countries or regions with historically low as well as high rates of deforestation. Chapter 7 (Obersteiner et al.) also focuses on the issue of setting reference emissions scenarios, which is crucial for measuring actual emission reductions that would be credited at national and subnational levels. In addition, this chapter describes a potential system for prioritizing ecological and social benefits along with reductions in carbon emissions.

The next chapters focus on the issue of providing necessary funding for REDD at different points in time. The *Eliasch Review*, an independent report with support of the UK Office of Climate Change, summarized in Chapter 8 (Floater and Stone), represents a recent and extensive study of the potential

role of REDD in climate policy, with a focus on the financing needs and strategies to achieve this vision over the short, medium and long terms. Chapter 9 (Piris-Cabezas) further discusses the impacts of including REDD in carbon markets, with emphasis on the role of banking emission permits and the synergies with REDD. Credible long-term climate policy targets could provide strong incentives to preserve tropical forests now and reserve credits in anticipation of more stringent reductions needed in the future, speeding the delivery of financing and spreading the impact of REDD credits on the carbon price over time. Chapter 10 (Golub) highlights the uncertainties associated with REDD and climate policy more generally and proposes a financing mechanism using options on REDD. The option approach could help increase climate policy flexibility and provide financing to protect standing forests before all policy and institutional issues are resolved.

The book concludes with an overview (Bosetti and Lubowski) that highlights the key issues and proposed solutions described in the previous chapters.

Valentina Bosetti and Ruben Lubowski

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1. Deforestation and Emerging Greenhouse Gas Compliance Regimes: Toward a Global Environmental Law of Forests, Carbon and Climate Governance

William Boyd

INTRODUCTION

Efforts to include emissions from deforestation and forest degradation in climate policy have gained considerable traction in recent years at multiple levels of governance. With mounting evidence that we cannot stabilize atmospheric CO₂ at a safe level without addressing emissions from the forest sector, policymakers are actively seeking ways to integrate international forest carbon into existing and emerging GHG compliance regimes.¹ Since 2005, for example, there has been a concerted effort in the UN climate negotiations to integrate Reduced Emissions from Deforestation and forest Degradation (REDD) and other forest carbon activities into a post-2012 climate treaty.² In the United States, international forest carbon is also gaining traction in debates regarding the design of national and sub-national compliance regimes. Indeed, leading legislative proposals for a federal cap-and-trade system introduced in the US Congress over the last several years have included robust provisions for international forest carbon.³ Likewise, California and other states are actively exploring ways to include international forest carbon in their own GHG compliance regimes.⁴

To be sure, there is still much work to be done to integrate deforestation (and other international forest carbon activities) into climate change policy. Key issues in need of resolution include the coverage of forest carbon activities (i.e., deforestation only or the full range of forest carbon); the appropriate policy mechanism for recognizing and crediting forest carbon (fund- and/or market-based approaches); quantitative and qualitative limits for forest carbon offsets; methodologies for measuring, reporting and

verification; accounting frameworks; and participation by key stakeholders, such as forest-dependent local communities and indigenous peoples.

And there is no one right way of bringing deforestation and international forest carbon into climate policy. Nor does the ability to do so depend upon a fully-formed international climate treaty for the post-2012 period. Indeed, irrespective of how forest carbon is included in a post-2012 climate treaty (as seems likely), it could also be incorporated directly into national and sub-national compliance regimes (such as a US or California system) without having to wait for final resolution in the international negotiations and entry into force of a new international treaty, which may not have universal membership in any event. Thus, by creating robust provisions that recognize international forest carbon in US compliance regimes (federal and state), the US has an important opportunity to advance and even lead on this issue regardless of the ultimate outcome of the post-2012 negotiations.

This chapter reviews the current status of and prospects for efforts to include emissions from deforestation (and international forest carbon activities in general) in emerging GHG compliance regimes at the international level (the post-2012 process); future iterations of the European Union Emissions Trading Scheme (EU ETS); and in the United States. Three lessons emerge from this survey. First, in contrast to international climate policy debates during the 1990s and the early 2000s, deforestation has clearly emerged as a viable object of climate governance.⁵ Second, the policy architecture that is taking shape in the effort to bring reduced emissions from deforestation into climate governance is decidedly pluralistic, with important developments occurring at multiple levels and across multiple jurisdictions, illustrating what two legal scholars refer to as ‘global environmental law’.⁶ Third, the United States (at both national and sub-national levels) has emerged as perhaps the most important driver of efforts to construct a workable governance structure for compliance-grade REDD assets by sending strong signals that emerging US compliance regimes (state, regional and/or federal) will include robust provisions for REDD and international forest carbon.

1.1 REDD, INTERNATIONAL FOREST CARBON AND THE INTERNATIONAL CLIMATE REGIME

Forests in the UNFCCC/Kyoto Protocol

Although both the United Nations Framework on Climate Change (UNFCCC) and the Kyoto Protocol recognize the importance of including forests as part of an international climate protection effort,⁷ the politics