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Discourses on Deforestation in Global Climate Politics

Tobias Dan Nielsen



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Abstract Over the past decade, avoiding deforestation has bec Climate Change (UNFCCC). The focal point of this ha stands for Reducing Emissions from Deforestation an incentives for developing countries to reduce their fore financial value for the carbon not emitted into the atmost managed, but has also been the source of much continuous, leading some actors to argue that biodiver priority of managing deforestation. This thesis demons deforestation, matter. They matter because they priority of managing deforestation. This thesis demons deforestation, matter. They matter because they priority of managing deforestation. This thesis demons will eneglecting others. These, in turn, shape the way analysis (Hajer 1995), I explore the role of deforestation research questions: 1) which are the dominant storyling discourses articulated and manifested in REDD+? My questions is discursive storylines. In short, these are consense of complex issues without recourse to compreharound certain discourse(s) and manifested through conegotiations on REDD+. The main sources of data we as a wealth of secondary material. In addition, I attend intercessional-meetings, and conducted 38 semi-structive papers. Paper I maps the key storylines and discourse which is entering the REDD+ debates; Paper III analytin REDD+ and connects them to key storylines; and P in REDD+ and connects them to key storylines; and P in REDD+ and connects them to key storylines; and P in REDD+ and connects them to key storylines; and P in REDD+ and connects them to key storylines; and P in REDD+ and connects them to key storylines; and P in REDD+ and connects them to key storylines; and P in REDD+ and connects them to key storylines; and P in REDD+ and connects them to key storylines; and P in REDD+ and connects them to key storylines; and P in REDD+ and connects them to key storylines; and P in REDD+ and connects them to key storylines; and P in REDD+ and connects them to key storylines; and P in REDD+ and connects them to key storylines; and P in REDD+ and conne	s been the incentive-based med forest Degradation. A key notic set-related carbon emissions by posphere. REDD+ has changed hestation. The effects of deforestsity or socioeconomic factors, alstrates that words, and the way titlee certain underlying ideas, not we approach deforestation. Us on in global climate politics along hes and discourses on REDD+ a key conceptual and analytical trondensed figures of speech throndensed figures of undertied in the form of UNFCCC ded six UNFCCC Conference of cured interviews. The analysis has on REDD+; Paper II explores sees the technical debates on material to the speech of the speec	chanism of REDD+, which on in REDD+ is to establish creating and recognising a low tropical forests are attion go beyond carbon and not carbon, should be the we make sense of tions and understandings, ing argumentative discourse g the following overarching and 2) how are storylines and bool in addressing these bugh which actors make attions. They are organised cus is on the UNFCCC official documents, as well Parties (COPs) and as lead to foru cacdemic a 'new' emerging discourse unitoring forest carbon flows disation of social safeguards discourse permeate into different social safeguards both preover, analysing the esis argues that while the
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Discourses on Deforestation in Global Climate Politics

Tobias Dan Nielsen





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Faculty of Social Science | Department of Political Science

The research presented in this thesis is a contribution to the strategic research area Biodiversity and Ecosystems in a Changing Climate (BECC)

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To Hana and our boys

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List of Papers

- I. Nielsen, T. D. (2014) The role of discourses in governing forests to combat climate change. *International Environmental Agreements: Politics, Law and Economics.* Vol. 14(3): 265-280
- II. Nielsen, T. D. (under review) From REDD+ Forests to Green Landscapes? Analyzing the emerging integrated landscape approach discourse at the UNFCCC.
- Nielsen, T. D., Zelli, F., Dubber, W., (manuscript) Beyond Institutional
 Fragmentation A Framework for Analyzing Dominant Discourses and
 Practices: The Case of REDD+ Monitoring
 - All authors contributed to the design and writing of the paper. TDN took a lead on the theoretical framework and analysis sections.
- IV. Krause, T. and T. D. Nielsen (2014) The legitimacy of incentive-based conservation and a critical account of social safeguards. *Environmental Science and Policy*. Vol. 41:44-51.

All authors contributed equal to the design and writing of the paper.

Abbreviations

ADP Ad Hoc Working Group on the Durban Platform for Enhanced

Action

CBD Convention on Biological Diversity

CCBA Climate, Community and Biodiversity Alliance

CDM Clean Development Mechanism

GHG Greenhouse gas

CIFOR Center for International Forestry Research
COP Conference of the Parties to the UNFCCC

(annual UNFCCC summits)

CO₂ Carbon dioxide

ENB Earth Negotiations Bulletin

FAO Food and Agricultural Organization of the United Nations

FCPF Forest Carbon Partnership Facility (World Bank)

IISD International Institute for Sustainable Development

IPCC Intergovernmental Panel on Climate Change
LULUCF Land Use, Land-Use Change and Forestry
MRV Monitoring, Reporting and Verification

NAMA Nationally Appropriate Mitigation Actions

NGO Non-governmental organization

PES Payments for Environmental Services

PSB Ecuadorian Socio Bosque program

RED Reducing Emissions from Deforestation

REDD Reducing Emissions from Deforestation and forest Degradation

REDD+ Reducing Emissions from Deforestation and forest Degradation,

conserving and enhancing forest carbon stocks, and sustainably

managing forests

SBSTA Subsidiary Body for Scientific and Technological Advice

SBI Subsidiary Body for Implementation

VCS Verified Carbon Standard

UNFCCC United Nations Framework Convention on Climate Change

UNFF United Nations Forum on Forests

Introduction

"We, leaders, today in Paris on November 30th 2015, recognize the essential role forests play in the long-term health of our planet, in contributing to sustainable development, and in meeting our shared goal of avoiding dangerous climate change" (Statement issued by 17 Heads of Governments at COP21)

During the 1990s and 2000s, roughly 13 million hectares of forests - an area three times the size of Denmark - have been converted into other land uses on an annual basis (FAO 2011). This loss accounts for an estimated 10% of global greenhouse gas emissions (GHG) during this period (IPCC 2014 see Figure 1 below). To put the numbers into perspective, if deforestation were a country it would rank higher than the EU in terms of annual GHG emissions (Goodman and Herold 2014).² Consequently, global efforts to stabilize the concentration of GHG in the atmosphere are seen to be practically impossible to achieve without reducing emissions caused by deforestation (Gullison 2007).³ This has placed deforestation squarely within global climate politics, but also puts a particular perspective on deforestation by framing it as a loss of crucial carbon stocks and sinks. However, the effects of deforestation go beyond their contribution to climate change. As trees disappear, forest dwellers, often the poorest and most vulnerable members of society, are deprived of their homes and livelihoods. An estimated 1.6 billion people depend on forests for their livelihood, with some 300 million living within them (Millennium Ecosystem Assessment 2005). As plant and wildlife species become extinct, due in part to deforestation, biological diversity is reduced (FAO 1993). This occurs at an estimated rate of 100 species a day in rainforests alone (Venter et al. 2009).

In this light, managing (tropical) deforestation can be viewed not only as managing carbon stocks (to combat climate change), but also as improving the livelihoods of local populations, or protecting biodiversity. This leads to different and often conflicting arguments about what the key problem is, what policies to

¹ This figure is net emissions, hence the gross emissions from deforestation, minus the removals from forests growth.

² This concerns in particular tropical forests, which are the most affected by deforestation, but also by far the most effective forests at sequestering carbon from the atmosphere (IPCC 2014).

³ In this introduction chapter the term "deforestation" is a generic term, which refers to forest loss through deforestation and forest degradation.

implement and what goals to focus on (cf. Hulme 2009; Hiraldo and Tanner 2011). As such, reducing deforestation can be seen as being at the intersection of several conflicting ideas, understandings, and meanings on how deforestation should be managed.

Both the urgency of the deforestation topic and the associated diversity of understandings have motivated my main empirical and theoretical choices. This thesis explores the role of deforestation in global climate politics through the lens of discourse analysis. Tropical forests are impacted by the "facts" presented above, but which facts exactly (policy) actors emphasise and which stories they use to convey these facts goes back to different understandings of the issues at stake. In short, these understandings matter. As the thesis will illustrate, the ideas, understandings, and meanings that are emphasised in these stories, and the contestation between them, ultimately shape the political and social approaches towards deforestation. In this context, politics can be seen as the competition to secure support for a specific understanding of deforestation over others (Hajer and Versteeg 2005). Hence, the role of deforestation in global climate politics is not only determined by interests and institutions, but also by how issues get defined which aspects of social and physical reality are included and which are not.

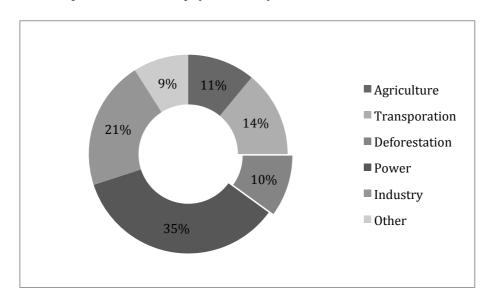


Figure 1. GHG emissions by source (based on the 2014 IPCC 5th Assessment Report)5

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⁴ Indeed earlier attempts to reduce global deforestation have focused on other aspects than forest carbon (cf. Humphreys 2006; Nielsen 2015).

⁵ Deforestation includes annual GHG flux from land use and land-use change activities.

Deforestation in Global Climate Politics: Enter REDD+

Given the diversity of understandings insinuated above, scholars have addressed global deforestation in different ways, studying for example the supply chains of unsustainable timber extraction or forest certification (cf. Dauvergne and Lister 2011; Cashore et al. 2004). Thus, for this thesis I also had to make an early choice for my thematic access to the problem of deforestation.

In light of its contribution to climate change (see Figure 1), and how it has been brought into global climate politics, I have studied deforestation through the UN-based mechanism called REDD+- for both its centrality and its high degree of contestation. REDD+ stands for *reducing emissions from forest degradation and deforestation, conserving and enhancing forest carbon stocks, and sustainably managing forests*. Since it was first initiated in 2005⁶ REDD+ has grown to become a central element of negotiation at the UN Framework Convention for Climate Change (UNFCCC). Notwithstanding frequent scepticism over the last years about the mechanism's effectiveness and future, the 2015 Paris Agreement has cemented the role of REDD+ as a major cornerstone in keeping global warming below the envisaged 1.5 °C (see section "A Decade of REDD+ in the UNFCCC"). And it has also become instrumental in shaping how tropical deforestation is approached around the globe (Angelsen et al. 2012; Pistorius 2012).

Initially, REDD+ was envisioned as a relatively simple financing mechanism to compensate developing countries in for reducing their forest-related carbon emissions, thereby simultaneously mitigating climate change and reducing deforestation (Vijge 2015). Unlike many other conservation initiatives, the basic logic behind REDD+ is to use economic incentives to conserve forests by creating a financial value for the ecosystem services that forests perform through sequestrating and storing carbon from the atmosphere (Corbera et al. 2010).⁷

Projects that follow this logic are financially rewarded for the emissions reductions they achieve through decreases in the conversion of forests to other land uses, such as agriculture. Essentially, this means providing forests with a value that could compete with the income generated through deforestation (Hufty and Haakenstad 2011). This places REDD+ in the context of a series of incentive-based mechanisms in environmental and climate governance that have been

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⁶ Papua New Guinea and Costa Rica, on behalf of the newly formed "Coalition for Rainforest Nations", initially proposed REDD+ at the 11th annual UNFCCC Conference of the Parties (COP11) in Montreal in 2005 (FCCC/CP/2005/L.2).

⁷ This is referred to as payments for ecosystem service (PES).

developed over the past 15 to 20 years (Bernstein 2002; Lederer 2011; McDermott 2014).⁸

This said, REDD+ continues to be heavily debated and contested amongst policymakers, members of civil society, and scholars alike. This is evident, for instance in the UNFCCC negotiations where REDD+ often has been the topic of heated debates, and further flanked by many civil society protests against REDD+ at the annual UNFCCC Conferences of the Parties (COPs). Critics of REDD+ argue that it is too fixated on carbon stocks and that reducing deforestation is linked to very different political, economic, technical, ecological, and social issues not fully acknowledged in REDD+ (Peskett et al. 2011; Thompson et al. 2011). Fuelled, in part by these conflicting views over how to deal with deforestation, REDD+ has considerably expanded its scope over time. This has, for example, included the so-called "non-carbon" values, such as local livelihoods, security of land tenure, biodiversity conservation, and "good governance" (cf. Pistorius 2012; den Besten et al. 2014).

This continuous struggle over what REDD+ should include, or should not include makes it a timely and suitable subject of a discourse analysis – in order to study how deforestation, and the approaches to reduce it, are being shaped according to different ideas, understandings, and meanings. For some, REDD+ is still just a financing mechanism, whereas for others it represents a larger framework or a whole governance issue in its own right, while others see it as the expression of a particular, e.g. neoliberal, worldview or discourse (Hiraldo and Tanner 2011). On the other hand, this contestation over REDD+, as well as its meanings and borders also poses challenges to delineating the scope of analysis for my thesis, which I will undertake in the respective section below.

The inconclusiveness and contestation of REDD+ is also mirrored in the associated institutional landscape. While born out of the UNFCCC negotiations, REDD+ governance efforts have grown into a complex and fragmented architecture with a very diverse mix of global public institutions, bilateral arrangements and non-governmental approaches (cf. Gupta et al. 2015) (for more details see Scope of Analysis section). While what REDD+ means continues to take shape through various UNFCCC negotiations, a series of bilateral agreements, multilateral funding initiatives, and carbon markets contribute to this meaning – or, rather, this diversity of meanings – outside of the UNFCCC umbrella (McDermott et al. 2012b). Adding to this, REDD+ pilot projects and

Other cases include the UNFCCC based Clean Development Mechanism (CDM), which some see as a precursor for REDD+ (Lederer 2011). For other examples, see: Stavins (2003) and Ring et al. 2010).

⁹ I witness this at several UNFCCC conferences, latest at the 2015 COP21 in Paris, where REDD+ despite having made strong progress in run up to the COP, once again became a contentious topic with in particular developing countries were making interventions on behalf of REDD+ in the Plenary.

REDD+-like projects¹⁰ are already up and running in different regions across the globe (Angelsen et al. 2012; Rantala and Di Gregorio 2014).

Against this backdrop, and to keep my research manageable, I had to make choices for particular sites where REDD+ is being discussed, and where associated discourses are reflected, produced and reproduced. I largely focused on the UNFCCC, as it is the central decision-making body and its conferences provide a hub for a wide range of actors to attend and discuss REDD+. However, the discourses and storylines I studied were not exclusive to the UNFCCC, but also expressed in other sites, along with possibly further discourses and storylines. This led me to take a designated part of my analysis outside of the UNFCCC: on the one hand to selected multilateral financing initiatives and country reports to these institutions, while on the other to the implementation of a REDD+-like project: Programa Socio Bosque (PSB) in Ecuador. PSB is more advanced than REDD+ pilot projects, and therefore allowed insights into longer experiences of different stakeholders with an incentive mechanism to reduce deforestation. As such, this study is anchored at the UNFCCC level, but it also, albeit in a limited manner, covers other (sub-)sites and their national, local, as well as technical debates on what REDD+ means (for more detail see Scope of Analysis). Figure 2 summarises the sequence of choices I made to narrow the scope of my analysis down to a manageable level that still covers crucial sites of decision-making, planning and implementation where key overarching discourses and storylines can be identified (for a more detailed overview that also includes sites I did not select, see Figure 3 further below).

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¹⁰ REDD+-like projects refer to projects that countries create in anticipation of future REDD+ projects. They are not officially funded as a REDD+ project, but build on the same logics and are use to gain experience and capacity to implement REDD+ projects in the future (see Paper IV).

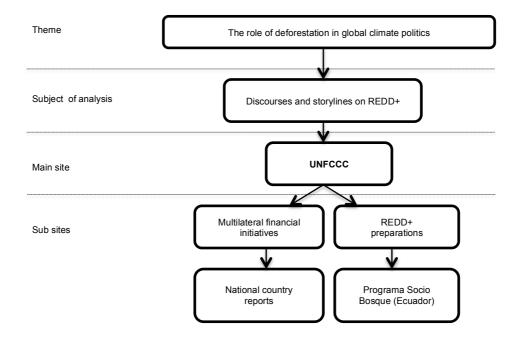


Figure 2. The thesis' main research sites on REDD+

Discourse and Deforestation

Given that global deforestation can be managed in different ways – and that these, in turn, depend on different understandings of the REDD+ mechanism and of its political, social, economic and environmental implications – this thesis takes as a starting assumption that words matter in the woods. Words do not simply describe, but (co-)constitute the world we live in. Words - or language - help us make sense of the multiple and complex issues at stake in REDD+. They shape the underlying arguments that actors conform to when discussing how deforestation should be managed. Although "facts" are crucial in developing REDD+ or changing policy in general, facts do not automatically lead to certain policies. Consequently, it is important to understand how we make sense of them (Jasanoff and Wynne 1998; Boyd 2010). Tropical forests are disappearing, species do become extinct, and ecosystems cannot absorb stress indefinitely. But people can make very different things of these phenomena, providing substance for political dispute. The co-existence of competing understandings is at the very core of global climate politics (Adger et al. 2001).

For this reason, I have studied the ways in which, on the one hand, actors makes sense of global tropical deforestation and how, on the other hand, their understandings promote certain policy options and choices. Discourse analysis is a suitable approach for this dual research objective of studying understandings and their consequences. On the one hand, discourse analysis allows me to analyse the plural rationalities that constitute the way deforestation is understood. Or, more precisely with regard to my focus on REDD+: discourse analysis allows me to identify and question the dominant knowledge(s) and arguments that impact the understandings of the REDD+ mechanism and its implications. On the other hand, discourse analysis also enables me to interpret particular policy practices around this mechanism – e.g. how concrete modalities of REDD+ are negotiated and implemented – in light of such rationalities and the form of power they may exert (Feindt and Oels 2005).

The focus of discourse analysis is on meaning. Discourses are basically sense-making practices – a way for us to apprehend or make sense of the world we live in, or a specific phenomenon (Epstein 2008). Maarten Hajer (2009:60) defines discourse as an

...ensemble of ideas, concepts, notions and categorizations that are produced, reproduced, and transformed in a particular set of practices and through which meaning is given to physical and social realities.

Most authors ascribe an element of power to discourses because they not only construct meanings and relationships, but at the same time delimit what is accepted legitimate knowledge and what are possible policy options (Litfin 1994).

This implies that there is not just one, but several discourses that may represent very different ideas of legitimate knowledge and understandings. Discourses therefore represent shared but also competing ways of apprehending and making sense of the world (Dryzek 2013). Different discourses favour certain descriptions of reality and empower certain policy tools, while marginalising others (Fairclough 1992; Litfin 1994). Since they shape social practices, for example regarding deforestation, insights into these discourses and into the meanings that they promote can help us better understand what underlies these phenomena (Bulkeley 2000). Hence, by understanding REDD+ at the intersection of different discourses, we are better positioned to understand the manifold construction of meanings produced by policy actors, as well as how different practices in REDD+ are shaped according to those meanings.

More concretely, if we place REDD+ into Hajer's definition of discourse (see above), the discourses on REDD+ contain competing ensembles of ideas (e.g. forests as "carbon stocks" or "livelihoods"), concepts (e.g. "sustainable forest management" or "payments for ecosystem services"), notions (e.g. to make forests worth more alive than dead) and categorisations (e.g. carbon versus non-carbon benefits). These elements within a discourse structure our language and create

patterns in the way we talk about REDD+, thus also shaping practices in REDD+. Such practices can be certain policies, institutional arrangements, or operational routines that produce and reproduce the meanings we allocate to social and physical phenomena, for example deforestation (Arts et al. 2010).

Research Aim and Questions

The overarching aim of this thesis is to apply discourse analysis to explore the role of tropical deforestation in global climate politics. To keep the scope of my analysis manageable I have concretized this comprehensive objective both empirically and theoretically. As discussed above, my empirical focus lies on the different discourses that shape deforestation through REDD+ and the ongoing struggle over the definition and conceptual framing of associated problems, the solutions to these problems, and the shared meanings that motivate policy responses.

Out of the wide array that discourse analysis has to offer, I have chosen a discursive approach rooted in the argumentative turn in policy analysis (cf. Fischer and Forester 1993; Fischer and Gottweis 2012) as my main theoretical framework. A key step here is the identification of the storylines¹¹ that actors use to make sense of the multiple issues of deforestation in a climate change context. I will introduce my theoretical framework and discuss its wider applicability in the following sections.

To structure my analysis, I unfold my overarching aim into two research questions that echo the aforementioned duality or mutuality of understandings and their implications for particular practices:

1) Which are the dominant storylines and discourses on REDD+?

The first research question addresses the overarching discourses that structure ways of thinking about tropical forests in global climate politics. Here, I turn my analytical focus towards the dominant discourses on REDD+, e.g. what are the different taken-for-granted assumptions that shape REDD+, which issues are highlighted over others, and how has the range of policy options been delaminated? Mapping the dominant discourse provides insights into the multiple, and often conflicting, arguments in the general REDD+ debates, and identifies the underlying discursive power structures that shape REDD+.

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¹¹ These are condensed figures of speech through which actors make sense of complex issues without recourse to comprehensive and cumbersome explanations. They are organized around certain discourse(s) and are manifested through certain practices. I will introduce the concept of storylines in the theory section.

2) How are storylines and discourses articulated and manifested in REDD+?

Having provided an overview of the dominant discourses, the second research question explores how discourses matter in REDD+. To address this question in more detail, I will narrow the empirical scope, zooming in on specific sites where discourses are manifested and articulated (see Overview of Papers). This question brings forth the interaction between linguistic elements of discourses and practices, e.g. "distinct techniques" and "organisational habits" (cf. Fairclough 1992; Hajer 2006; Wagenaar and Cook 2003). As such, this thesis also deals with the implication of discourses by analysing how and where discursive storylines are produced and reproduced through practices.

Overview of Papers

Paper I explores the role of discourses in managing deforestation as a way to combat climate change. It maps nine key discursive storylines on REDD+, identifying ecological modernisation and civic environmentalism (Bäckstrand and Lövbrand 2006) as being the dominant discourses on REDD+. It then demonstrates the dominance of market-driven, techno-managerial, and carbon focused approaches to reducing deforestation over issues such as the importance of non-carbon values, local participation, and acknowledging trade-offs between economic development and ecological values and social issues. A key motivation for this paper was to use discourse analysis to critically examine the complex and often conflicting views on REDD+ at the UNFCCC.

Paper II identifies and examines a new discourse which I termed the "integrated landscape approach discourse". This discourse promotes a focus beyond forests by including other forms of land use, such as agriculture, in a more holistic management scheme. The paper assesses the manifestation and articulation of this new discourse at the UNFCCC and looks at the power of this discourse by using Hajer's (1993; 1995) middle range concepts of discursive structuration and institutionalisation. The motivation for this paper came from my observation of how the integrated landscape approach went from being hardly mentioned at the UNFCCC to gaining widespread interest, by key actors in a short period of time.

Paper III explores how discourses and their storylines are articulated and manifested in certain organisational practices, concretely carbon monitoring practices. By analysing multilateral funding organisations and selected country reports, my co-authors and I examine which social and ecological factors are highlighted or neglected regarding the envisaged monitoring activities. We trace our findings on monitoring approaches and implementation patterns back to

overarching discourses that shape the academic and policy debates on REDD+. One of the motivations for writing this paper was to add a more practice-oriented and material aspect to my analysis.

Paper IV examines an incentive-based conservation programme, Programa Socio Bosque (PSB) in Ecuador, as a test case for REDD+. The paper uses input and output criteria of legitimacy to assess the perceived legitimacy of PSB by local stakeholders to evaluate the implementation of social safeguards. As such, this paper deals with the implications of a certain understanding of REDD+, e.g. placing carbon mitigation at the expense of social considerations. One of the key motivations for writing this paper was to extend my analysis of REDD+ debates at the UNFCCC to a local setting and to investigate how REDD+ plays out "on the ground" rather than in UNFCCC meeting rooms and side-events. With this analysis, I sought to gain more traction on the contestations around the operationalisation of the REDD+ mechanism.

Table 1 Overview of research questions and papers

RESEARCH QUESTION	PAPER	STATUS
Which are the dominant storylines and discourses on REDD+?	(I) "The Role of Discourses in Governing Forests to Combat Climate Change"	Published in International Environmental Agreements (2014)
	(II) From REDD+ forests to green landscapes? Analysing the emerging integrated landscape approach discourse at the UNFCCC	Under review at Forest Policy and Economics.
How are storylines and discourses manifested and articulated in REDD+?	(III) Beyond Institutional Fragmentation – A Framework for Analysing Dominant Discourses and Practices: The Case of REDD+ Monitoring	Manuscript part of successful special issue application to Environmental and Planning C.
	(IV) The legitimacy of incentive-based conservation and a critical account of social safeguards.	Published in Environmental Science and Policy (2014)

Other Written Contributions

In addition, I have written two co-authored reports commissioned by the Nordic Council of Ministers, two published academic papers, and one manuscript during my PhD time.¹²

¹² Blaxekjær, L., Chin-Yee, S., Kallbekken, S., Nielsen, T.D. and H. Sælen (2015) Building Bridges with the African Group of Negotiators. Internal Report for The Nordic Working Group for Global Climate Negotiations (NOAK). Nordic Council of Ministers.

Blaxekjær, L. Fang, F., Green-Weiskel, L., Kallbekken, S., Lahn, B., Nielsen, T.D. and H. Sælen (2014) *Building Bridges with the Like Minded Developing Countries*. Internal Report for The Nordic Working Group for Global Climate Negotiations (NOAK). Nordic Council of Ministers.

Blaxekjær, L. and Nielsen, T. D. (2014) Mapping the narrative positions of new political groups under the UNFCCC. Climate Policy. *Climate Policy*. Vol. 15(6): 751-766.

Nielsen, T. D. (2015) Forestry. In P. Pattberg and F. Zelli (Eds.) *Edward Elgar Encyclopaedia of Global Environmental Politics and Governance*. Cheltenham: Edward Elgar Publishing.

Scope of Analysis

Main Sites of Analysis

As indicated above, the major empirical focus of this thesis is on the UNFCCC its bodies, meetings and decisions. This is where I collected most of my empirical data (see Material section), and what is the major frame of reference for Papers I and II. When looking at the intersection between forests and climate change at the level of intergovernmental negotiations, there are certainly alternatives or additions to the UNFCCC that could have been considered, for example the Convention on Biological Diversity (CBD) or the UN Forum on Forests (UNFF). My motivation to focus on the UNFCCC was that it is the central decision-making body on REDD+, which in turn has become the omnipresent mechanism for addressing deforestation in a climate change context (Pistorius 2012). To help further illustrate this, I provide a more detailed overview of the centrality of the UNFCCC for REDD+ two sections further below.

The UNFCCC establishes the normative and regulatory framework with which all other actors, institutions, and organisations have to contend, and it is ultimately able to shift the direction of REDD+ debates¹³ (cf. Death 2011; Campbell et al. 2014; Betsill et al. 2015; Gupta et al. 2015). For instance, at a bare minimum, REDD+ projects have to incorporate the decisions reached at the UNFCCC within their contracts. This includes decisions on how to monitor forest carbon monitoring and on how to operationalise safeguards. The UNFCCC also provides a good site to study the different views on REDD+. Even though governments are the primary actors that make formal decisions in global politics, the quasi-public nature of meetings makes them places to which non-state actors direct their efforts in order to influence, reinforce, or contest the decisions. Thus, the meetings provide a nice blend of the different perceptions on REDD+ at one place (MacDonald and Corson 2012). In addition to the actual negotiations there are a number of side events that take place during the UNFCCC conferences.

Nielsen, T. D. and Thompson, M. (manuscript) REDD+ a Clumsy Solution to a Complex problem: How Cultural Theory can Aid the Emerging REDD+ Governance Architecture. Presented at the Tokyo *Earth System Governance Conference*. January 2013.

By setting new agendas, popularizing issues, generating new information, providing alerts, galvanizing administrative reform, adopting new norms, and including new actors (Haas 2002).

These also provide an interesting place to study different views on REDD+, and distil the latest knowledge on for example the implementation of REDD+ projects (see Material section and Paper II).

Zooming in on the UNFCCC negotiations, deforestation is dealt with in various negotiations across different negotiation tracks. ¹⁴ I have primarily followed the REDD+-related negotiations under the Subsidiary Body for Scientific and Technological Advice (SBSTA), the Subsidiary Body for Implementation (SBI), and the Ad Hoc Working Group on the Durban Platform for Enhanced Action (ADP). ¹⁵ They focus on the technical issues, the implementation of REDD+ and how it fits into the future post-Paris climate regime. Other negotiations, e.g. on Land Use, Land-Use Change and Forestry (LULUCF), Nationally Appropriate Mitigation Actions (NAMAs), and negotiations on finance also include discussions that affect the REDD+-related negotiations, but were beyond the scope of this study.

Zooming out from the UNFCCC, while staying at the international level, we also find a host of sites where REDD+ is understood and influenced. These include multilateral and bilateral initiatives that finance and support the implementation of REDD+ projects. Multilateral finance initiatives, such as the World Bank's Forest Carbon Partnership Facility (FCPF) and the UN REDD-Programme, play a key role in supporting REDD+ "readiness" activities in over 60 countries (Cerbu et al. 2011; McDermott et al. 2012b). They help countries prepare for the introduction of pilot projects, institutions across levels, and processes for financial compensation, and provide technical and scientific support (or direction) with respect to issues such as carbon monitoring, and the achievement of "multiple benefits" beyond emissions reduction (Thompson et al. 2011).

As we illustrate in Paper III, the multilateral funding initiatives play a crucial part in defining how REDD+ is implemented on the ground, therefore providing a key site to study how understandings are delineated and manifested on REDD+. Alternative sites that I did not consider in my analysis include bilateral agreements between REDD+ donor countries, most noticeably Norway, and REDD+ recipient countries, since these account for a substantial amount of the funding for REDD+ projects. Norway alone has pledged up to USD\$ 500 million a year, since 2007, in development cooperation funding in support of REDD+, through its International Climate and Forest Initiative.

With regard to transnational initiatives, there is also a range of NGOs and private sector actors that have started to implement a host of REDD+ pilot and demonstration activities on the ground. In part, this has created a proliferation of

¹⁴ Landing at my first COP this took me time to figure out.

¹⁵ Here I have focused on the negotiations around the submission of countries climate plans – Intended National Determined Contributions (INDCs).

REDD+ certification standards, including the corporate-driven Verified Carbon Standards (VCS) that focus exclusively on verifying saleable emissions credits, and the NGO-driven Climate, Community and Biodiversity Alliance (CCBA), which focuses on biodiversity and social co-benefits (Hajek et al. 2011; McDermott et al. 2012b).

I am aware that excluding these sites from my analysis leaves out further evidence on REDD+ understandings of governmental, civil society and business actors. But this omission is, at least in part, balanced through my focus on the larger intergovernmental arenas mentioned above, especially the UNFCCC (where all three types of actors are involved), as well as by my additional, albeit necessarily selective focus, on implementation efforts at the national and subnational level.

On a national level, countries themselves are shaping their forest policies in anticipation of the introduction of a REDD+ mechanism. This presents an opportunity to study the implementation of REDD+-related measures and how the different views on REDD+ play out in domestic contexts. One such project I have studied is the Programa Socio Bosque (PSB) in Ecuador, which forms part of the country's national REDD+ programme and is used to inform the further design and implementation of the mechanism (Chíu and Carríon 2011). PSB is a voluntary and government-run national incentive-based conservation programme whose compensation logic is based on the same core idea as REDD+ (Paper IV).

Other aspects that influence the understandings and practices of REDD+ include conflicts over mandates on how to plan and implement REDD+ between various different ministries, forestry and agriculture agencies and regional governments (in case of decentralized forestry competencies in a country). These conflicts are often paired with overlapping land tenure systems for which the different national institutions are responsible. Zooming further in on the subnational project levels, finally, there are a range of local actors that influence how REDD+ is operationalized, including: landowners, project developers, local communities and local government.

Figure 3, presents a non-exhaustive illustration of the multiple sites where REDD+ is being defined, contested and implemented across different levels, and identifies the ones that I selected for my analysis.

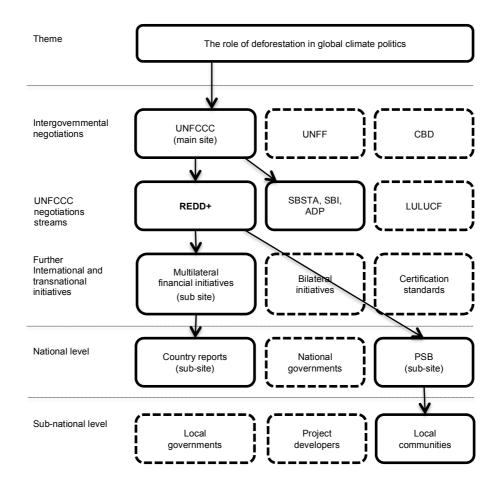


Figure 3. Sites of REDD+related decision-making and implementation (arrows pointing to sites selected for my empirical analysis)

Conceptualising REDD+

So what exactly is REDD+? As insinuated above, with inconclusive and often abstract criteria defined under the UNFCCC and a large diversity of further sites of debates, REDD+ has been conceptualised in a number of ways, by both practitioners and scholars.

To a certain extent, I do not need to take sides in these contestations – at least not consciously, althrough from a discursive point of view, a positionality is of course unavoidable. But instead of intentionally adopting a particular perspecitive,

the very objective of my thesis to identify the different understandings and how they matter. This notwithstanding, with regard to manageability and clarity, I have to delineate the scope of my analysis, not only empirically and institutionally, as in the previous section, but also conceptually.

In my papers, I refer to REDD+ as a "mechanism". This adopts the technical language of how REDD+ is generally referred to in the academic literature, at the UNFCCC and among the practitioners I have talked to. This also draws attention to the logics behind REDD+ as an incentive-based mechanism, which is negotiated at the UNFCCC and implemented at the local level (cf. Lederer 2011; Pistorius 2012). As such it places REDD+ in a wider set of (policy) tools and mechanisms that go under the concept of payments for ecosystem services (PES).

Thus, when I speak of REDD+ alone, I refer to the mechanism, when adding a particular term, as in "REDD+ governance", "REDD+ negotiations" or "REDD+ projects", I point to more specific activities or institutions that refer to this mechanism – and which provide the very sites of contesting and understanding the mechanism and its implications. These activities turn REDD+ into more than just a technical aspect, in the same way that CDM or LULUCF negotiations, or climate change negotiations as a whole, go beyond the physical issue at stake by building political (institutions, decisions, implementation, effectiveness), managerial (monitoring, evaluation), economic (financing) social (equity, fairness) or further environmental dimensions (biodiversity) around it.

This said, there are exceptions in my terminology. While in Paper II, I build on the understanding of REDD+ as a mechanism, I largely refer to REDD+ as a framework there. This may look inconsistent, but does justice to the cumulative development that REDD+ had undergone in UNFCCC negotiations at the time: from a rather lean understanding as financial compensation for protecting carbon stocks in tropical forests to an increasingly complex set of additional social, economic, environmental and political dimensions. In particular the Warsaw Framework on REDD+, which was adopted at COP19 in Warsaw 2013, comprises of a series of decisions on how to implement REDD+ (see next section). However, even with this changed terminology of a framework, I stick to the technical criteria that are added to the core of the original compensation mechanism – while avoiding any convoluting of the term by adding the discourses and sites that facilitated these supplementary criteria.

Coming back to the above remark on (unavoidable) positionality: When I talk about REDD+ as a mechanism, I do not intend to use this in analytical terms to grasp its mechanistic elements, or to follow a particular discourse that stresses these elements. I use it as my frame of reference for identifying related sites, understandings and practices. However, "mechanism" has become the dominant term, which fits well with the technical and market-based approach to reduce deforestation that the dominant discourse I find on REDD+, ecological modernisation, represents. So my discursive analysis will ultimately also shed

light on the contingency of the (presumably "neutral") terminology of a mechanism (see Results section).

By contrast, other scholars chose to incorporate some of the aforementioned aspects into their definition of REDD+ or they take different accesses to the term's contestedness. In the remainder of this section, I provide a brief, non-exhaustive overview of such wider understandings. Those scholars that focus their analytical lens on the multiple layers and dimensions of the global REDD+ architecture (illustrated above) conceive of REDD+ in governance terms (Biermann and Pattberg 2012). This captures the policies that make up the UNFCCC agreements on REDD+, but also more broadly the global change processes that the different entities of REDD+ are embedded in. Here, REDD+ functions as a form of environmental governance, in which governmental strategies and agencies are legitimized by a particular framing of environmental problems and their proposed solutions (Thompson et al. 2011). For example, Corbera and Schroeder (2011) see REDD+ functioning as a dynamic and contested instrument of governance where rules are designed and interpreted at multiple scales involving state, private sector and civil society actors who interact within a yet broader network of actors and interests concerned with forest conservation, development and trade (see also van Asselt and Zelli 2014).

With regard to its contestedness, McDermott and colleagues conceive of REDD+ as a "boundary object", which is being pulled in different directions by different actors, yet retains enough immutable content to still be recognisable (McDermott et al. 2012a: 64). Stephan (2012) sees it as a "floating signifier" (Laclau and Mouffe 1985) suspended between different frontiers, for example, between proponents and opponents of a carbon market integration of REDD+. Vijge (2015) sees REDD+ as a "discursive construct". This conceptualises REDD+ as a discourse or set of (competing) storylines that is actively constructed and reconstructed by actors at various levels of governance (see also den Besten et al. 2014; Melo et al. 2014).

I summarise these different views in Table 2. They help depict the complexity and magnitude of REDD+. REDD+ not only exists in the policy realm of the UNFCCC, but is dealt with in multiple sites from UNFCCC negotiations to funding organizations, to national ministries, to local communities and to civil society. All have an influence on what is REDD+ and how it is operationalised, thereby leaving room for multiple interpretations across scales, space and time (Buizer et al. 2014). The table is a merely descriptive overview. In the course of my thesis, I will use argumentative discourse analysis to draw attention to underlying storylines and discourses, and how they have shaped actors' understandings of REDD+ in different ways (cf. Bäckstrand and Lövbrand 2006; Arts et al. 2010).

Table 2. Different conceptualisations of REDD+ in the literature - with my own conceptual choices in bold

	 most common way of talking about REDD+ (cf. Lederer 2011; Pistorius 2012); draws attention to REDD+ as an incentive-based mechanism, such as CDM; fits with the dominant discourse on REDD+: ecological modernisation; I use "mechanism" to echo how it most commonly used and as a reference point, not in an analytical sense or to follow a particular discourse.
Framework	 similar to mechanism, but refers to an enlarged set of defining criteria resulting from different decisions that make up the 2013 Warsaw Framework on REDD+; I use this term in Paper II where I focus on the integrated landscape approach discourse, which has been emerging in this time period.
Governance process	 brings attention to the broad scope of REDD+ as a dynamic and contested instrument of (environmental) governance that stretches across multiple scales, spaces and types of actors; captures the multiplicity of REDD+ and how it transcends national boundaries, links different geographical and governance scales, and enables traditional and non-traditional policy actors to interact (cf. Corbera and Schroeder 2011; Thompson et al. 2011; Gupta 2012).
Discursive	 REDD+ as a "boundary object" (McDermott et al. 2012a); REDD+ as a "floating signifier" (Stephan 2012); REDD+ as a "discursive construct" (Vijge 2015).).

A Decade of REDD+ in the UNFCCC

Efforts to reduce tropical deforestation have been around since the 1980s, but without gathering significant momentum at the top level of international politics (Hoogeveen and Verkooijen 2010; Nielsen 2014). During the 2000s, political attention and the international forest agenda shifted towards the notion that forests could play a key role in climate change mitigation (Humphreys 2008; Gupta 2014). This was facilitated in part by influential (economic) reports (Stern 2006; Eliasch Review 2008), advancements in measuring and monitoring forest carbon stocks (cf. IPCC reports), combined with initial beliefs that forests would be a cheap, effective, and relatively simple mitigation option (Logan-Hines et al. 2012)

This led to the emergence of many alternative and competing frameworks as to how avoided deforestation should be accepted into the UNFCCC (Estrada et al. 2007). Initially avoided emissions from reduced deforestation remained excluded from carbon trading under the Kyoto Protocol (Lederer 2011). This changed when REDD+ was proposed at COP 11 in Montreal in 2005 (FCCC/CP/2005/L.2). The initial proposal was broadly welcomed by state parties and civil society. It was agreed during COP13 in Bali 2007 with a statement declaring that a comprehensive approach to mitigating climate change should include deforestation and forest degradation (Decision 2/CP.13, 2007). Since then REDD+ has been one of the flagships for progress in the UNFCCC that as a topic – despite several setbacks in the UNFCCC process – was able to gather wide support over the years.

This brief overview illustrates the centrality of the UN climate regime for the development of REDD+, hence indicating how different understandings of REDD+ have shaped the process since its inclusion in the UNFCCC negotiations. In the disappointing aftermath of COP15 in Copenhagen 2009, REDD+ was one of the few consensual agreements to be made. The year after, it was highlighted as a key success story at COP16 in the Cancún Agreement which also saw the inclusion of social and environmental safeguards as part of the REDD+ text albeit in the annex (Pistorius 2012). This signified a stronger commitment (but no guarantee) that the "non-carbon benefits" of protecting biodiversity and livelihoods should be included on an equal footing with carbon storage and uptake. Consequently, the critical voices on the carbon-centric focus of REDD+ were herewith acknowledged. COP19 in Warsaw was another landmark in REDD+ negotiations. It created the REDD+ framework, which is a technical "rulebook" for implementing REDD+. Six months after, during the 2015 June UNFCCC Bonn session, the three unresolved issues of the rulebook were unexpectedly agreed upon. 16 This essentially concluded the technical (SBSTA) negotiations on REDD+. The rulebook was formally adopted at COP21 in Paris, which also saw REDD+ mentioned in the Paris Agreement, cementing its part in the future climate regime.¹⁷

In its relatively short history, REDD+ has gained significant interest at the top level of global climate politics. Moreover, it has already had a significant influence on how forests are approached in developing countries (Angelsen et al. 2012). REDD+ has also been described as a game changer; able to lead where previous decades of approaches to reduce tropical deforestation have failed (Buizer et al. 2014). It has gained unprecedented financial commitments, placed (tropical) forests at the centre stage of global climate politics and the national parliaments of forest-rich developing countries, brought together a new set of actors, and, through the extensive monitoring of forest carbon flux, provided a lot of new data on forests and the role they play in climate change (Pistorius 2012).

However, REDD+ has also been the source of much controversy, not least concerns about the number of negative ecological and social impacts of REDD+ pilot projects (Schroeder and McDermott 2012). REDD+ has not turned out to be as simple, cost-effective and efficient as many hoped in its early days (Pistorius 2012). Other key concerns include: *leakage*, i.e. reducing deforestation in one area leading to increased deforestation in another area; *additionality*, i.e. challenges of predicting how many tropical forests would have been spared or cut down in the absence of REDD+ projects; *finance*, with insufficient REDD+ funding, despite initial hopes for the opposite, and problems ensuring that the money gets into the

 $^{\rm 16}$ Author's observations during the 2015 June UNFCCC Bonn session.

Although the acronym REDD+ does not appear, the official title (Reducing Emissions from Deforestation and forest Degradation) appears in the text (FCCC/CP/2015/L.9/Rev.1).

'right' hands; *rights*, i.e. the inclusion of indigenous people and local communities as stakeholders, and the extent of their rights in terms of participation, land tenure, distribution of funds; etc. (Angelsen et al. 2012; Parrotta 2012).

Table 3 summarises the key global events and their contributions to the development of REDD+. The past decade of REDD+ negotiations illustrates that forests and deforestation are not as easily confined into a simple mechanism. REDD+ has proven to be a complex and emotive topic of debate. It covers environmental, moral, cultural, political and economic aspects of both deforestation and climate change (Okereke and Dooley 2010; Hoogeveen and Verkooijen 2010).

In the same vein, we can observe a steady and mutual permeation of climate and forest governance over the issue of REDD+. On the one hand, the REDD+ negotiations have transferred many of the elements that characterises global climate politics, and UNFCCC negotiations in particular, into forest governance. These elements include: a central role of science and experts, e.g. forest monitoring as a precondition for REDD+; a market driven approach to forest conservation, e.g. the commodification of forest carbon and the linkage to carbon markets; and the merger of deforestation and climate politics into the same intergovernmental meetings, as well as into the same negotiation text (cf. Grist 2008; Humphrey 2008; Verweij 2011; Buizer et al. 2014).

On the other hand, some of the core elements of forest governance have, through REDD+, become an integrative part of global climate politics. This includes: the involvement of local communities, the importance of co-benefits, e.g. social and environmental safeguards; and sustainable forest management (Thompsen et al. 2011; Buizer et al. 2014). In addition, REDD+ has brought with it a wide range of actors, some of them new to the UNFCCC, such as multilateral REDD+ funding organisations (Paper III), forest and monitoring experts (Paper II and III), and indigenous groups (Paper IV) (for an overview see Corbera and Schroeder 2011; McDermott et al. 2012).

As a result, REDD+ has not only placed deforestation firmly on the climate change bandwagon, but it has, in turn, brought a set of diverse dynamics to global climate politics.

Table 3 REDD+ timeline: key global events

Table 3 REDD+ timeline: key global events			
Year	Event	Comment	
1992	UNFCCC	Establishing core principles of how climate change should be addressed. Each year, the Conference of the Parties (COP) to the Convention meets to assess progress in achieving the goals of the treaty. In addition, international conventions on desertification and biodiversity were agreed, but not on forests.	
1997	Kyoto Protocol	Establishing both collective and individual emission reduction commitments for industrialised (Annex I) countries (minus USA)	
2003	IPCC Good Practice Guidance	Establishing the basic guidelines for measuring forest carbon.	
2005	Kyoto Protocol enters into force	Forest projects only marginally included in the Clean Development Mechanism, and projects on preventing deforestation not part of the mechanism at all.	
	COP11 in Montreal	Introduction of a proposal on reducing emissions from deforestation (RED) by two key members of the Coalition for Rainforest Nations, Costa Rica and Papua New Guinea; arguing that RED would be able to overcome grievances other than the danger of climate change.	
2006	Stern Review on the Economics of Climate Change	Measuring the costs of adapting to climate change against the costs of mitigating. Reducing deforestation is framed as one of the cheapest greenhouse gas reduction efforts. It could potentially secure significant market-based funding to forest conservation efforts.	
	Brazil's alternative to RED financing	Should be based on public funding (from donations by industrialised countries) that is used to create positive incentives for developed countries to reduce their own emissions; cannot be used as off-setting.	
2007	IPCC Fourth Assessment Report	Deforestation alone is said to contribute about 18% of anthropogenic GHG emissions.	
	Bali Action Plan (COP 13)	Formal agreement to reinvigorate the role of forests within the UNFCCC, stating that a comprehensive approach to mitigating climate change should include deforestation and forest degradation (Decision 2/CP.13, 2007); adding the 'second' D in REDD.	
2008	UN-REDD Programme	Launched with UNEP, UNDP and FAO as programme agencies and Norway as a large financial contributor The programme supports nationally led REDD+ processes and promotes the involvement of local stakeholders in REDD+ implementation.	
	Forest Carbon Partnership Facility (FCPF)	Launched by the World Bank in order to work with the interface between capacity building (REDD+ readiness) and carbon finance, in particular with reference levels and MRV for sub-national emission reductions programs, and valuation approaches for emission reductions.	
2009	Copenhagen Accord (COP 15)	Pledges of billions of dollars towards REDD+ from a handful of developed nations (mostly through bilateral agreements) The REDD+ optimism was born out of the COP 15 disappointment. The Accord added the "+" to REDD+, signifying a stronger commitment, albeit no guarantee, that the so called "co-benefits" of protecting biodiversity and livelihoods should be included on an equal footing with carbon storage and uptake.	
2010	REDD+ Partnership	Established by a number of REDD+ donor and recipient countries as a response to the failure of COP 15 to keep momentum on REDD+ by scaling up actions and finance initiatives. Was concluded in 2015.	
	Norway-Indonesia REDD+ agreement	Norway will support Indonesia's efforts with up to USD 1 billion based on Indonesia's performance, over the course of the next 7-8 years.	
	Cancún Agreement (COP16)	Consensus agreement on REDD+ adding social and environmental safeguards to the Cancun Agreement (Annex 1); further increasing the importance of "co-benefits".	

2011	Advanced Durban Platform (COP17)	Establishing a new negotiating process – the "Durban Platform" – in order to agree on a new, "legally binding" global climate deal by 2015, with entry into force by 2020.
2013	Warsaw Framework for REDD+ adopted (COP 19)	Enabling countries to move forward with the implementation of REDD+ activities under the UNFCCC. The framework is comprised of a series of decisions that together are referred to as the "REDD+ rulebook" on how REDD+ must be implemented. It is considered one of the hallmarks in the REDD+ negotiations.
	Global Landscape Forum	Launched during COP 19, merging the old formats of "Forest Day" and "Agriculture Day"; gathering more than 1,000 participants from various backgrounds to discuss an integrated landscape approach (essentially bringing forest and other land uses together as part of a larger holistic landscape management strategy)
2014	Global Climate Fund	Establishing inter alia a framework for REDD+ results-based payments; essentially allowing some of this US\$ 100 billion+ public fund to provide funding to future REDD+ projects
	IPCC Fifth Assessment Report	Deforestation accounting globally for 12% of total anthropogenic GHG, equivalent to both transport (13%) and agriculture (12%).
2015	Bonn (ADP 2-8)	Concluding the missing elements in the REDD+ rulebook, including "non-carbon benefits", the role of non-market mechanisms and further guidance on safeguards. The agreement meant that the technical decision of the SBSTA on REDD+ could be concluded and moved REDD+ onto a different negotiation track within the UNFCCC.
	Paris Agreement (COP21)	Establishing the first-ever legally binding global climate deal; REDD+ mentioned in the agreement, cementing a key role of forests in future UNFCCC negotiations; Warsaw Framework for REDD+ formally adopted by COP.

Theoretical Framework

Review of Social Science Literature on REDD+

The social scientific literature on REDD+¹⁸ has increased considerably over the course of this thesis.¹⁹ However, the bulk of this literature is concerned with assessing or enhancing the effectiveness of REDD+ policies and practices, while competing discourses on what REDD+ is and should achieve in the first place and how it should be designed remain understudied.

Cox's (1981) seminal concept of problem-solving approaches can be used to describe the former group of literature. A problem-solving approach seeks to address problems without challenging dominant actors, relationships and ideologies; the focus is on making them work smoothly together. Here environmental problems are seen as "managerial" issues to be addressed through more effective policies and strengthened environmental institutions. The texts within the problem-solving group cover various issues, making this by far the larger and more prolific of the two groups. One focus is on learning lessons from climate and forest governance, including comparing REDD+ to other similar mechanisms, such as the UN-based Clean Development Mechanism (CDM) (Streck and Scholz 2006; Humphreys 2008; Angelsen et al. 2009; Kanowski et al., 2011; Lederer 2011; Gupta 2012; Pistorius 2012; McDermott 2014; Somorin et al. 2014). Another focus is on the lessons learned from the implementations of REDD+ projects (for an overview see Angelsen et al. 2012). These include technical dimensions on, for example, improving organisational aspects of carbon monitoring (Fry 2011; Grainger and Obersteiner 2011; Cerbu et al. 2011; De Sy et al. 2012; Mohren et al. 2012) or funding options (Corbera 2012; Hein and van der Meer 2012; Streck 2012; Karsenty et al. 2014). Some compare and assess different REDD+ proposals to the UN or are themselves additional proposals (see e.g. Dutschke and Pistorius 2008; Parker et al. 2009; Logan-Hines et al. 2012; Angelsen et al. 2008; 2009).

¹⁸ In addition to the contributions reviewed in this section, there is a broad body of literature from forestry, carbon cycling and remote sensing experts concerning the measurement and monitoring of deforestation and forest degradation or fluxes in forest carbon.

¹⁹ Including six special issues: Environmental Science and Society (2011; 2014), Forests (2011), Current Opinions in Environmental Sustainability (2012), as well as Ecology and Society (2014; 2014).

Another group of authors follow a more normative-based account of REDD+. These authors focus on, among others, the inherent shortcomings of a market-based approach to forest conservation, and on promoting the inclusion of marginalised local stakeholders and local knowledge (Sikor et al. 2010; Cadman and Maraseni 2011; Ezzine-de-Blas et al. 2011; Lyster 2011; Nasi et al. 2011; Visseren-Hamakers et al. 2012; Brockhaus et al. 2013; Korhonen-Kurki et al. 2013; Awono et al. 2014; Evans et al. 2014).

Discursive approaches analyse the underlying arguments, interest and assumptions that REDD+ relies on. When I started my Ph.D. project in 2010, there were only a handful of scholarly works on REDD+ applying discursive approaches (cf. Arts et al. 2009; Hiraldo and Tanner 2011). Since then the field has grown steadily. One group within this camp includes texts that draw on governmentality. They highlight the consequences of the integration of REDD+ into carbon markets, or the disciplining effects of monitoring, reporting and verification practices in REDD+ (cf. Stephan 2014; Gupta et al. 2012; Astuti and McGregor 2015). Others have looked at individual actors and mapped their understandings of REDD+ (Arts et al. 2009; Hiraldo and Tanner 2011; Somorin et al. 2012; and McDermott et al. 2012; Brockhaus et al. 2014; Rantal and Di Gregorio 2014). There is a small group of scholarly work that, like mine, applies an argumentative discourse analysis (see below), and has, at the same time, looked at forest governance at large (Bäckstrand and Lövbrand 2006; Arts et al. 2009) or analysed REDD+ on a national level (Brockhaus et al. 2014; Rantal and Di Gregorio 2014; Vijge 2015), while I focus on REDD+ at the global level. This type of analysis, although growing, remains a niche approach within the broader social science literature on REDD+ and it is the research gap, which I have sought to help fill.

Before I present my approach to discourse analysis in this thesis, I will briefly situate my ontological position in the broader discourse analysis landscape.

Positioning the Discursive Approach

Since the 1970s, a number of perspectives on discourse have emerged, building on various ontologies, epistemologies, and methodologies (cf. Howarth 2000; Jørgensen and Phillips 2008; Arts and Bruizer 2009; Glynos et al. 2009; Atkinson et al. 2010; Wagenaar 2011). To situate my theoretical approach, I draw on Arts et al. (2009) and their distinction of "thin" and "thick" approaches to discourse analysis as it highlights an ontological "struggle" that has shaped my analysis. Their framework outlines different perspectives on the agent-structure debate and asks whether there are limits to discourse in the form of non-discursive elements. Are agents regarded as "helpless" in the face of unyielding discursive structures or

are they capable of negotiating and resisting the discursive formation? Similarly, is there a physical and social world out there, which we give meaning to through framing processes, or it is only through discourse that meaning is given to them?

At the one end of this continuum (see below), frame analysis scholars generally make an explicit distinction between discourse (and language) on the one hand and social action, institutions and practice on the other (cf. Fischer and Forester 1993; Schön and Rein 1993; Snow and Benford 1998). Frames are seen as a lens on the way that policy problems are viewed, discussed and resolved. Here, agents are thought to have a certain degree of autonomy and language is seen as a means or medium through which individuals can influence and change the policy world around them (Brink and Metze 2009; Atkinson et al. 2010). Other discursive approaches, such as a critical discourse analysis (Fairclough 1995; Fairclough and Wodak 1997), in addition to some accounts of Foucault (cf. the concept of dispositif) also make a similar distinction between discourse and the physical as well as social world or between discursive and non-discursive practices (Wagenaar 2011). They acknowledge that there is a physical and social world out there, which we give meaning to through discourses. Moreover, there is a strong focus on "agency", for example human beings that name and frame the world around them in a particular way.

At the other end of the continuum are the more "pure" post-structuralist discourse analysts (cf. Howarth 2000; Laclau and Mouffe 2005). They define discourse in a broader manner as being "social practice", emphasising how discourses and social practices, including institutions, the economy, and power processes, are intertwined. For them, discourse and language cannot be isolated from action and practice as the former in fact constitutes the latter. Objects in themselves do not have meaning; it is only through discourse that meaning is given to them (Jørgensen and Phillips 2008). Hence, there is no distinction between discursive and non-discursive objects. From this perspective all reality is discursive and therefore socially constructed as it is impossible to escape a social system of meaning in order to directly observe reality. Here discourses constitute politics, and hence, conceptually, have precedence over interests, institutions and outcomes. Agency plays a very limited role and the focus is more on structures that shape the thoughts, speech acts, behaviour and practices of people (Arts and Bruizer 2009).

Frame analysis

Post-structuralism

My approach

Figure 4. Mapping the discursive terrain

The approach to discourse analysis that I employ in this study is shaped by this debate among the different theories and the continuum it opens up. I am interested in identifying the overarching patterns and in mapping the discourses that are underlying the perspectives and practices around REDD+— and in how discourses reduce options while also presenting opportunities. This interest places a stronger focus of my analysis on structures and positions me slightly more towards the post-structuralism end of the continuum (see Figure 4). This notwithstanding, I also use concepts such as discourse coalitions (see next section) that allow agency some important space in my analysis. While, like the post-structuralists, I consider discourses and social practices to be deeply intertwined, I am not, as Wagenaar (2011:155) states, an "obsessive anti-essentialist", but acknowledge the institutional character of many social and political arrangements.

Concretely, I do not approach REDD+ as a discourse, but as an externally given social phenomenon, an incentive-based mechanism, that is shaped – particularly in its wider political, social, economic and environmental dimensions – according to actors' competing interpretations and storylines. Hence, knowledge about REDD+ is conditional with regard to social meanings and theoretical assumptions, and their contestability, as well as their fallibility, is put into the foreground (Fischer and Gottweis 2012). This means that the question about "what REDD+ really is" must be put in brackets. Knowledge about REDD+ is always for someone and for some purpose (Cox 1981).

Moreover, I do not engage solely in abstract discussions on the nature of a discourse, but aim to study how it impacts and interacts with practices and the material in more detail (cf. research question 2). Lastly, as Paper IV reflects in particular, I also draw normative conclusions from my research, which again implies that agency may have at least partly intended consequences.

Moreover, as shown in the section "Other Written Contributions" in the Introduction, I have written two papers, not included in my thesis, that draw on narrative policy analysis (Wagenaar 2011) and the theory of plural rationality (Verweij 2011). Both fall more in line with the *thin* approaches to discourse analysis (Arts et al. 2009).

Unpacking the Argumentative Approach to Discourse Analysis

The argumentative approach to discourse analysis (ADA) provides the basis of my theoretical approach. It reflects a growing interest in discursive approaches to the field of policy studies and is related both to the so-called "argumentative turn" in the social and political sciences (cf. Winner 1992; Fischer and Forester 1993), as well as interpretive policy analysis (Yanow 2000; Wagenaar 2011; Feindt and Netherwood 2013).²¹ ADA brings forward the fundamental argument that history and humans are "driven" by collective interpretations of the world (Fischer 2003). It has been developed by a range of theorists who stress the importance of narratives, storylines, discourse-coalitions, framing, interpretation, argumentation, and meaning to critically explain the initiation, formation, implementation, and evaluation of public policies in various contexts and settings (Glynos et al. 2009). A key aim of ADA is to explore how different agents' understandings, or meanings, of a problem impact policymaking and to analyse political struggles over these meanings (Wagenaar 2011). Illuminating discourses allows for an analysis of such controversies not in terms of rational argumentation, but in terms of the argumentative rationality that people bring to a discussion (Fischer and Forester 1993) by examining the narrative understandings, i.e. storylines, of these actors (Fischer 2003).

What drew me to ADA was that it provided a specific conceptual approach when it came to identifying and unpacking the different way actors made sense of REDD+, i.e. discursive storylines (explained below). Moreover, ADA resonates with my ontological position, allowing both for a dialogue between structure and agents, as well as between discourse and practice (material). More concretely, I have chosen ADA as my main theoretical framework since the following four aspects have been particularly relevant for my study:

Storylines: Detecting Linguistic Regularities

First, ADA places an emphasis on the construction of meaning. Its core aim is to unravel the argumentative structures by detecting linguistic regularities in documents and other written or spoken statements, as well as in the practices through which these utterances are made (Hajer and Versteeg 2005). The key concept used to detect linguistic regularities is discursive *storylines* (Hajer 1993).

21 The term 'argumentation' refers to the process through which people seek to reach conclusions through reason, much in the same manner as deliberation does (Fischer and Gottweis 2012).

Hajer defined storylines in various, closely related ways throughout his work, pointing at the different functions they can play for actors. They are a "generative sort of narrative that allows actors to draw upon various discursive categories to give meaning to specific physical or social phenomena" (Hajer 1995:56) and that people use as a kind of shorthand in discussions to summarise more complex aspects (Hajer 2006). He also refers to them as recurring figures of speech that dominate public understanding, rationalising and naturalising the existing social order (Hajer 1995). Agents may not be aware of the discourses, but they may consciously use storylines to order their experiences and construct reality, but by using storylines they tap into overarching discourses (Wagenaar 2011). It is even possible for stakeholders to share a specific set of storylines while still having their own separate interests as well as their own interpretations regarding the significance of the storylines (Hajer 2009). On the other hand, storylines are seen as being capable of changing the stakeholders' interpretation of what their interests are (Hansen et al. 2008) by shaping new understandings of, for example, what the objectives of REDD+ ought to be.

What I derive from these definitions is that storylines occupy a middle ground between discourses on the one side, and agents and practices on the other. The analysis of storylines is a way to bring in actors in their statements, and to identify and analyse how they make use of a certain discourse. Moreover, it enables me to identify more refined building blocks of discourses, and, subsequently, how practices (re)produce or transform these particular elements of discourses (cf. Paper III). These relations between storylines, discourses and practices are mutually constituted. Storylines make up, and can alter, the substance of a discourse. Discourses, in turn, can give them an overarching meaning and connect them to other storylines (Paper I). Put in methodical terms, I use storylines as a way to distil the main discourses, to map the different arguments of actors when trying to make sense of REDD+, and to analyse the manifestation of discourse into practices (see the Method section for more details). For example, the argument that it is essential to make forests worth more alive than dead, relates to a larger narrative on the benefits of a marketisation of forest conservation (Paper I). While actors may come and go and change their perspective in the fastmoving REDD+ processes, their statements and the storylines they provide me with endure

Agency and Practice

Second, ADA fits with my ontology by placing relatively more emphasis on the role of agency and on material than other post-structuralist discursive approaches (Glynos et al. 2009). ADA draws upon hermeneutic insights to explore what a policy means for different actors (Fischer and Forester 1993). Hence, policy-

makers draw upon and adapt discourses as a resource in their policy activities, but in so doing experience the "structuring effects arising from the parameters within those discourses" (Smith and Kern 2007: 5).

Agency and practices are represented in a second key middle-range analytical concept – *discourse coalitions*. This concept refers to a group of actors using and promoting a set of storylines over a particular period of time and in the context of an identifiable set of practices (Hajer 2006:70). These coalitions are not necessarily based on shared interests and goals; rather they consist of actors that see and understand the issue of climate change or how to reduce deforestation in similar ways (Bulkeley 2000; Szarka 2012). For example, Paper II identifies a discourse coalition that includes, among others, environmental NGOs and multinational companies that disagree on several accounts, but in this specific case promote similar storylines around the emerging integrated landscape approach discourse.

Another aspect of discourse coalitions is *practice*.²² If we recall Hajer's (1995) definition, we see discourse as an ensemble of ideas and concepts that are produced, and re-produced, and transformed in a particular set of practices (ibid: 44). Practice highlights how discourses exist in certain contexts as well as how they become manifested and articulated in the things we do. Hence, although language is a central part of the analysis, the interaction of discourses and the formation of socially constructed realities do not take place in a social vacuum, but rather in the context of existing "mutually accepted rules and norms", "distinct techniques" and "organisational routines" (Fischer and Forester 1993; Hajer 1995; Wagenaar and Cook 2003). Hajer and Versteeg (2005) argue that "the first strength of discourse analysis is its capacity to illuminate the central role of language in politics, its second strength is to reveal the embeddedness of language in practice" (ibid:177). Where ADA is very helpful is that it enables a focus on how discourses are played out in practice, which relates to my Research Question 2. Practice opens up for the analysis of discourse beyond mere texts (Neumann 2002). Analysing practices provides insights into how discourses are manifested and can therefore also help us to identify the existence or dominance of a discourse.

Across my papers, when distinguishing and identifying different types of practices, I am guided by Hajer's understanding of the term, but also build on further concretisations in the literature:

- In Paper II, I study practices at COPs in the form of UNFCCC submissions, statements, negotiation texts, and side-events. These can be

²² The concept of practice has been the object of study within a long tradition of study. It covers a wide range of definitions from a standardised patterned form of behaviour which is easily observable to a more philosophical account of practice as a way of life (Ringmar 2014).

seen as "organisational routines". Here, in addition to Hajer, I refer to Adler and Pouliot's (2011) account of practice at international summits. They argue that practice consists of observable patterned performances that rest on certain background knowledge and which are both ideational and material (ibid: 8).

- In Paper III, we look at the practices related to forest carbon monitoring techniques, which relates to Hajer's definition of distinct techniques and organisational routines. This includes remote sensing, field inventory, and the practice of submitting national reports to funding organisations. We argue that certain underlying storylines and discourses shape the different perceptions on how forest carbon should be monitored, by whom and what the monitoring focuses on (e.g. carbon or non-carbon elements). This helps to reinterpret the monitoring practices as discursive manifestations, connecting monitoring techniques and procedures with institutions as well as underlying dominant discourses.
- In Paper IV, we scrutinise practices involved in the operationalisation of social safeguards in the context of a REDD+-like programme in Ecuador, including organisational routines such as "national roundtable talks" and techniques such as individual project contracts and their communication to local stakeholders..

Power in Policy Processes

Third, ADA is often used to analyse the role of discursive power in policy processes (Hajer and Versteeg 2005; Lovell et al. 2009; Szarka 2012). In this vein, policy processes are conceived of as an on-going discursive struggle over which aspects of social reality are included, and which are left un-discussed (Fischer and Gottweis 2012). ADA recognises power that involves the emphasis or exclusion of certain perceptions, possibilities or participants from the policy process (Flyberg 1998; Barnett and Duvall 2005). Drawing on discourse theory, it relates power to the social process and the systems of knowledge in which meaning is produced, fixed, lived, experienced and transformed (Barnett and Duvall 2005). Power limits but also enables what can be authoritatively said and heard, and what is considered "thinkable" (Rabinow 1984). The ultimate aim of these discursive struggles is to

²³ Barnett and Duvall (2005) have produced a taxonomy of power to demonstrate how power has different types of expression: The first type is power as relations of interaction of direct control by one actor over another (Compulsory Power); the second is the control actors exercise indirectly over others through diffuse relations of interaction (Institutional Power); the third is the constitution of subjects' capacities in direct structural relation to one another (Structural Power); and the fourth is the socially diffuse production of subjectivity in systems of meaning and signification (Productive Power) (ibid:20,21). The type of power ADA recognises falls in between the two latter groups.

achieve hegemony. This is essentially acquired when certain discourses become "common sense" and are disseminated into the policy process. Hegemony is not necessarily about persuading actors to see things in a certain way, but about constraining the range of understandings and policy options to that of the dominant discourse. However, dominant discourses always remain vulnerable to those political forces excluded in their production such as marginalised discourses and the effects of events beyond their control. New discourses, or conflict between existing discourses, can stimulate policy change through the reordering of meaning, enabling new definitions of the problem at hand and its concomitant solutions (Hansen et al. 2008; Lovell et al. 2009). In my analysis of REDD+, I focus on the struggle between the dominant and marginalised discourse, rather than argue that one discourse is fully constitute of REDD+ (see Results and Wider Implications).

ADA provides two middle-range concepts to examine the power of discourses: discourse structuration and discourse institutionalisation (Hajer 1993; 1995). Discourse structuration occurs when storylines and agents of a discourse coalition achieve coherence and credibility, and when other key policy actors feel obliged to use these storylines in order to appear credible. Their need for more credibility then requires key actors to draw on the ideas, concepts and categories of a given discourse (Hajer 1995:60). Discourse institutionalisation is harder to achieve and occurs when the storylines articulated by a discourse coalition are acted on within the policy process and replace previous understandings of the issue (Lovell et al. 2009). To achieve this, a discourse coalition's conceptualisation has to solidify into an institution, an organisational practice, or a traditional way of reasoning (Hajer 1993: 46). If both discourse structuration and institutionalisation are achieved, a particular discourse is said to be hegemonic. This provides a two-step procedure in order to be able to assess the power of a discourse within a policy process (Hajer 2006), which I apply in Paper II.

Normative Dimension

Fourth, ADA rejects the assumption that policy analysis can be a value-free, technical project since it always involves complex combinations of descriptive and normative elements (Fischer 2003). A normative element of ADA is that it emphasises the importance of non-technocratic forms of policymaking, encouraging greater citizen participation and deliberation (Hajer 1993; Fischer 2003). This ambition sets ADA apart from post-structuralist discourse approaches and instead makes it overlap with theories on deliberative democracy (Habermas

1996).²⁴ ADA studies have echoed the debate on democratisation of policy analysis by applying the concept of deliberation to the work of policy analysts themselves (Fischer and Forester 1993; Fischer 2003; Hajer and Wagenaar 2003). Stevenson and Dryzek (2014) talk about deliberative democracy as a way to deal with multiple perspectives on problems, while Fischer (2003) is very critical of the technocratisation of society and sees discourse as a tool to unravel the dominance of it. This resonates with the broader interpretive policy analysis which at its base seeks to improve undesirable social situations by contributing to better policy making (Wagenaar 2011:117). Inherent to mapping different views on the role of forests lies an argument that taking these different views into consideration is important. This will be further discussed in the final section.

Limitations of Argumentative Discourse Analysis

Limitations of ADA include a lack of clarity on how to operationalise its middlerange concepts, although this is a general shortcoming with regard to several types of discourse analysis (Glynos et al. 2009). Furthermore, there is no clear differentiation between where storylines end and discourses begin as they are described in similar ways and assigned similar performances (Hajer 1993; Hansen et al. 2008). Ultimately it is the analyst who decides where to draw that line, and it might look quite different for various issues and policy fields. The way that I have approached this difference is to view storylines as a type of building block of discourses and, at the same time, a way to identify these discourses themselves with their "ideas, notions, concepts, and categories..." (Hajer 2009:60). As such, storylines can be seen as being the discursive elements that make up a discourse and which can be recognised as well as assessed in texts or speeches (Melo et al. 2014). Hajer states that when carrying out discourse analysis, "...one quickly realises that in any field there are a couple of such stories, which fulfil an especially important role" (Hajer 2005: 301). They present specific articulations of problems as well as their causes and solutions. In Paper I, III and IV, I show how storylines are indicative of existing environmental discourses, while in Paper II I use storylines to identify a new discourse.

Apart from identifying discourses, I have also identified dominance patterns among them. I am aware that this runs the risk of treating the dominant discourse as a stable and uniform formation, and of highlighting aspects that fit certain categories, while discarding or missing others (Stephan et al. 2014). One easily tends to harmonise the discourse and places a lower focus on contingency and

²⁴ Outside of ADA, theorists like Fairclough (1995) have highlighted the structural inequalities of society with elites using discourse to keep them in power, while others do not take any specific normative stand.

resistance. I have therefore not only highlighted "preconceived" ideal discourse types (Paper I), but also taken a more bottom-up approach in order to emphasise the struggle between discourses and to show how this struggle manifests itself at different sites (Paper II, III and IV). Showing this struggle between the discourses reveals a very dynamic REDD+ that has seen significant changes during its relatively short history.

Methods and Material

"Methods purport to function like instructions – they tell you how to go about doing research. But here we run into a huge paradox. The instruction is meant to set the novice on the proper path, yet I have only grasped what the method is about after I have found and walked the path myself. Hence the methodological instructions are not the beginning but rather the endpoint of a long process of socialization in which instructions are not of much use because I, as a novice, did not have the body of experience to interpret them properly." (Wagenaar 2011:243).

This section presents the methods and material I have used to conduct my analysis. The theoretical and methodological approaches are very much entangled in argumentative discourse analysis. The methodological aim has been to reflexively employ the middle-range concepts of storyline, discourse coalitions, discursive structuration and discursive institutionalisation (Hajer 1993; see previous section).

Identifying Storylines

The *key* analytical concept I have used in my thesis is discursive storylines. Distilling storylines is an interpretative and iterative process. The challenge of using storylines is that their methodological use has not been spelled out in the literature to the same degree as this has been done for other types of discourse-analytical approaches (cf. Fairclough and Wodak 1997). In this section I briefly introduce the research design I developed for identifying and analysing a storyline – based on the guidance I found in the literature (Hajer 2009; see also Bulkeley 2000; Cotton et al. 2014), but also based on my own elaboration regarding this guidance. The result is the following sequence of steps:

- a) Composing an ex-ante idea of what the key storylines might be, based on preliminary research derived from the literature review, early interviews, or observation.
- b) Testing these first drafts of the storylines regarding different types of material: text (academic, grey literature or UNFCCC documents), interviews, observations, statements etc. to see if they represent key

- arguments adhered to by different actors, or if these are evident in other types of material.
- c) Refining the storylines, either by modifying the ones developed in the first two steps, or by adding/subtracting storylines to better reflect what I have observed.²⁵
- d) Repeating these steps for a number of rounds with the data collection (i.e. text analysis or interviews), and being less exploratory as well as more focused. For example, the second round of interviews would seek to fill gaps from the first round, checking if the interviewees agree with the storylines, and where they would place themselves. In line with the ontological and epistemological positioning of my approach, there is no objective endpoint for this repetition. To know when a mapping of storylines is complete is not a matter of getting closer to reality. Instead, it is a matter of continuously looking at new material until one cannot find any new core arguments on the matter.
- e) Finally, connecting the storylines to discourses: Either evaluating how the storylines fit with discourses identified in the literature (Paper I and Paper III), or constructing a new discourse based on the storylines (i.e. the integrated landscape approach discourse that can be found in Paper II).

To be able to distil the storylines and "know" when to stop looking depends on knowing the field and the material quite well. Of course things change and discourses are a dynamic entity. Hence, the analysis only really captures a moment in time, which can change shortly after a study is published. This is a particular risk when studying an emerging phenomenon such as REDD+. The above steps form the basic "blueprint" for how I have distilled the storylines across the different papers. This said, there have been different operationalisations across papers, also owing to their different empirical and analytical foci, as well as the collaboration with other authors. To highlight these variations, the remainder of this section zooms in on the methods and material that I used in my papers.

In some ways, Paper I started as a literature overview and gradually turned into a discursive mapping exercise. The basic reason for this was that, as I was delving more and more into the REDD+ debate, as well as reading more texts, I began to see reoccurring arguments which were often taken for granted. This soon became the interest of my initial research. I began to map these arguments. Rather

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²⁵ I tested different qualitative data analysis programmes: NVivo, DEVON, and Dedoose, but in the end I found that basic coding in "pages" and "numbers" was the most useful for me.

²⁶ In addition to this, I have used similar techniques to identify key narratives on the new political groups at the UNFCCC since COP15 in 2009 (Blaxekjær and Nielsen 2015) and in two reports commissioned by the Nordic Council of Ministers working group for global climate negotiations (NOAK). This provided me with further experience for developing my techniques when it came to conducting this type of research.

than coming up with my own discourse, I saw that these storylines resonated with existing discourses in the literatures on climate change and forest governance (cf. Clapp and Dauvergne 2005; Bäckstrand and Lövbrand 2006; Zannakis 2009; Arts et al. 2010). These provided me with direction and substance as well as connecting me with existing work that had already identified certain discourses in environmental politics. The task for me was not only to identify what the overarching discourses were, but also to understand how they played out in the REDD+ debates. While the initial readings on discourses in environmental politics provided an important basis, the emphasis was on the REDD+ material – REDD+ texts, UNFCCC documents, statements, interviews and observation (COP17), etc. – from which I could carve out and refine the first set of REDD+ storylines. The empirical focus in this paper was on the broad debates regarding REDD+. I worked with different types of texts (both academic and non-academic) from various actors in order to get a broader view of how REDD+ is understood and made sense of.

In Paper II, the method was in many ways similar to Paper I when it came to distilling the key storylines of what I called the integrated landscape approach discourse at UNFCCC negotiations. One key difference to Paper I was that the approach for distilling the storylines was more bottom-up from the very start. Rather than connecting to already existing environmental discourses, I focused on identifying the discourse that surrounds the integrated landscape approach by meticulously studying documents and through further interviews. A particular challenge for this paper was to recognise and assess incidents of discursive structuration as well as institutionalisation – which have been discussed by others without much elaboration on how to identify them (cf. Bulkeley 2000; Lovell et al. 2009).

In Paper III, we identified the key characteristics of the two dominant monitoring approaches (remote sensing and national forests inventory) and connected them to key global climate change storylines (see Paper I; Melo et al. 2014). To identify how the discourses play out on at an institutional-, as well as practical level, we looked at five key funding organisations and studied several country reports – of which eight were used as in-depth studies. On the basis of this we determined which of the storylines were most dominant. This paper was written in collaboration with colleagues who work in the field of physical geography. Despite our different theoretical vantage points, we started to see certain issues in similar ways over time, finding ways to combine technical and theoretical approaches to carbon monitoring. The paper also builds on outcomes of an expert workshop in which researchers from social and natural sciences met for a day to discuss different aspects of forest monitoring.

Navigating the Jungle: Assessing the Diversity of Monitoring Approaches to Forest Carbon Stocks and Good Forest Governance, Lund, May 7 2013.

In Paper IV, we analysed the operationalisation of social safeguards by testing the level of input (procedural characteristics) and output (perceived performance) legitimacy of REDD+-like projects. We derived a set of parameters based on Scharpf (1997), as well as Biermann and Gupta (2011) to test this. The material for this paper came from analysing 116 structured interviews with local stakeholders, government representatives and civil society conducted by my coauthor Torsten Krause. In addition to this, our analysis builds on a review of relevant academic literature, reports and policy documents (UN-REDD, CIFOR, etc.), official documents including texts from Ecuadorian ministries and UN negotiation texts on social safeguards, as well as interviews and observations at the 2011 and 2013 UNFCCC negotiations on REDD+. This paper provided me with insights into the implications of a dominant discourse on the ground. It gave me a better understanding of how, in the absence of fully operationalised REDD+ projects, REDD+-like projects are implemented. Going beyond my usual focus on global climate negotiations and adding Ecuadorian domestic-, as well as local levels to the analysis, gave me important and novel insights into how discourses play out across scales.

Material

Neumann (2003: 47) emphasises what he calls "cultural competence" as a prerequisite for conducing discourse analysis. He argues that the analyst needs both a proper familiarity with the culture and language constituting the studied context as well as a sufficient pre-understanding of the particular field of interest – that is, an ability to comprehend the cultural codes sufficiently well to understand the metaphorical expressions embedded in the collective use of language in general and in policy-making circles in particular. Secondly, the analysis also has to be, or become, acquainted with the policy context in order to comprehend the key lines of reasoning and identify instances of differentiation in the policy debate. To this end, I have followed the UNFCCC meetings closely during my Ph.D. time. I have participated in three COPs (COP17 in 2011, COP19 in 2013, and COP20 in 2014), and three inter-sessional meetings on the Advanced Durban Platform (e.g. ADP 2.7, ADP 2.8 in 2014, and ADP 2.9 in 2015). In addition to this, I have published an academic paper (Blaxekjær and Nielsen 2014), as well as a number of blogs and newspaper articles, about the UNFCCC meetings. The primary empirical material that I have used in this context is categorised into the following groups:

Official UNFCCC negotiation documents on REDD+. The body of text in this category includes submissions from parties and observer groups, as well as

final negotiation texts and drafts written by the UNFCCC Secretariat during the negotiation process.

Participant observation at the UNFCCC meetings was another important source of information. During the COPs I had access to the Swedish and Danish delegation meetings, as well as the meetings of the NGO umbrella group CAN, in addition to the parts of official UNFCCC negotiations that were open for observers. The UNFCCC COPs are not just about the negotiations. As highlighted above, the side-events have an important function: They disseminate the latest experiences or research on REDD+, get key messages across, provide networking platforms for participants, and allow for issues to be discussed that do not form part of official negotiations (Schroeder and Lovell 2012). During the course of my Ph.D., I invested more time going to side-events rather than trying to stay updated on the latest developments in the negotiations. I attended many relevant sideevents, but specifically targeted the following ones as an opportunity to conduct interviews and as a way to gain insights into different storylines and discourses on REDD+. These observations were particularly useful as background knowledge and helped me to further develop my research strategy when it came to conducting interviews and collecting material:

- a) REDD+-specific side-events. There are often a large number of side-events at the COPs, covering quite varied aspects of climate negotiations. I selected these on the basis of their themes, but also with respect to a possible exchange or even an interview with the participants and audience taking part in these. This particularly regards civil society NGOs who are highly active in holding and attending side-events. In addition, I helped to organise and participated in two side-events during my Ph.D. time.²⁸
- b) Forest Day 5 (2011), a two day side-event which was attended by roughly 1,000 participants from 87 countries, including party delegates, researchers, NGOs, activists, business representatives, indigenous peoples organisations and key figures. A prominent person in the REDD+ negotiations, SBSTA co-facilitator Tony La Viña, perhaps exaggerating a bit, stated, "If you haven't been to Forest Day 5, you haven't been to COP17".
- c) Landscape Day was also a two day event that merged the previous Forest Days with the Agriculture and Rural Development Days. The aim of the event was to develop the landscapes approach for climate change policy and sustainable development goals. It had the same high-level profile as

²⁸ These side-events were: "REDD and Beyond: International and Indigenous Strategies in Forest Protection", 4 December 2014 at COP20; and "Carbon Footprints for Effective Climate Policy on International Trade",11 June 2015 at ADP2-9.

- Forest Day. I attended the Landscape Day in 2013 and 2014 at COP19 and COP20 respectively.
- d) Side-events organised by the International Emissions Trading Association (IETA) in 2011, 2013 and 2014. I considered these events to be a good opportunity for exchanges with representatives from the private sector. The IETA side-events attract many prominent people within the REDD+ community. These are held parallel to the official set of COP side-events.

Interviews were an important complementary approach to my other material by adding depth, nuance and new angles to my discursive analysis, and by visualizing conflict lines and differences of interpretation (cf. Wagenaar 2011). Most of the interviews were carried out during larger conferences, e.g. COPs or inter-sessional meetings (see Table 3 for an overview). I carried out 38 semi-structured interviews. Due to the context in which the interviews took place, 11 had more of the character of informal talks lasting 10-30 minutes, while the remaining 27 lasted between 0.5-2 hours. A number of the interviewees preferred to remain anonymous in exchange for being able to have a more open discussion. My questions always depended on where I was with regard to the work progress of my paper – specifically where I was in the sequence of identifying storylines or discourses, e.g. either first round explorative interviews or second round interviews that targeted particular gaps in the papers.

My selection of interviewees was based on which actors were viewed – both in the academic literature and among practitioners – to be relevant figures in the REDD+ debate, including co-facilitators, representatives from key countries, and influential NGOs and research institutes. Another criterion was to get perspectives from a large diversity of actors in REDD+ debates, e.g. funding institutions, donor and recipient countries, the private sector, NGOs, as well as technical experts. This said, there is an element of chance and spontaneity when conducting interviews at major conferences. Many of the decisions had to be made on the spot, when getting an available informant to talk was nearly always a top priority.

There are of course a number of limitations to studying REDD+ at the UNFCCC. More often than not, high-level negotiations on REDD+ are closed to non-state delegates. Furthermore, the sheer quantity of events and frequent last-minute schedule changes meant that I have missed several events. Also, doing interviews, as I mentioned above, has certain practical limitations in the hectic environment of climate negotiations. It is difficult to systematically plan how to go about gathering data. Opportunities come and go and new insights lead to a change in plans. Moreover, the UNFCCC may gather a range of actors, but it does not represent all the different perceptions on REDD+. Local communities, which are often most directly affected by REDD+, are not well represented and their views

are arguably not well reflected in the negotiations. In response to these limitations, I have also, as already indicated, gone beyond the UNFCCC in my research.

Table 4 List of interviews

Table 4 List of interviews		
Angelsen, Arild (CIFOR)	COP19, Warsaw, November 14, 2013	
Becerra, Alejandro Rivera (Mexican delegation),	ADP 2-6, Bonn, October 24, 2014	
Bucki, Michael (European Commission delegation),	COP 19, Warsaw, November 19, 2013	
Buckley, Kristy J. (Meridian Institute)	COP 19, Warsaw, November 15, 2013	
Contreras, Ramiro Ramirez (Venezuelan delegation),.	ADP 2-6, Bonn, October 23, 2014	
Dahl-Jørgensen, Andreas (Norwegian delegation)	COP 17, Durban, December 2, 2011.	
Fosse, Leif John (EU REDD Facility)	COP 20, Lima 5, 2014	
Graham, Peter (WWF, former co-facilitator for REDD+ SBSTA negotiations)	COP 20, Lima December 5, 2014	
Hugel, Bruno (UN-REDD)	COP 17, Durban, December 4, 2011	
Iversen, Peter Årup (Danish delegation)	Ministry of Climate Change and Energy Copenhagen, December 14, 2012	
Katerere, Yemi (WWF, former Head of Secretariat UN-REDD)	COP 21, Paris, December 9, 2015	
Kiplagat, Jackson (WWF)	ADP 2-8, Geneva February 8, 2015	
Leonard, Stephen (CIFOR)	ADP 2-8, Geneva, February 11, 2015	
Løvold, Lars (Rainforest foundation Norway)	COP 17, Durban, December 3, 2011	
Nkem, Johnson N. (African Climate Policy Center)	ADP 2-9, Bonn, June 10, 2015	
Reyes, Eduardo (Board of Directors - Coalition for Rainforest Nations)	COP 21, Paris, December 9, 2015	
Obersteiner, Michael, (IIASA)	COP 17, Durban, December 4, 2011	
Pettersson, Jorgen (Swedish delegation - Skogsstyrelsen)	COP 19, Warsaw, November 15, 2013	
Sandahl, Johanna (Swedish Society for Nature Conservation)	COP 17, Durban, November 29, 2011	
Seifert-Granzin, Joerg (Bolivian delegation)	Skype interview, November 29, 2013	
Stillwell, Matthew (Institute for Governance and Sustainable Development)	ADP 2-9, Bonn, June 8, 2015	
Sunderland, Terry (CIFOR)	COP 20, Lima, December 7, 2014	
Stolle, Fred (Word Resource Institute)	COP 17, Durban, December 6, 2011	
Thies, Christorph (Greenpeace)	COP 19, Warsaw, December 5, 2011	
Tuttle, Andrea (consultant for California's forest program)	COP 19, Warsaw, November 18, 2013	
Vino, Tony La (Philippines delegation, co-facilitator for REDD+ SBSTA negotiations)	COP 17, Durban, November 19, 2013	
Vlate, Ricardo (Advisor Ministry of Environment, Costa Rica)	ADP 2-8, Geneva, November 11, 2015	
Wardell, Andrew (CIFOR)	COP 17, Durban, November 17, 2013	
Wylie, Patrick (International Union for Conservation of Nature)	ADP 2-8, Geneva, February 11, 2015.	
Zwick, Steven, Ecosystems marketplace	COP 19, November 20, 2013	
Anonymous A, REDD+ country representative	COP 17, Durban, December 2, 2011	
Anonymous B, private sector representative	COP 17, Durban, December 3, 2011	
Anonymous C, NGO representative	COP 17, Durban, December 7, 2011	
Anonymous D, donor representative	COP 19, Warsaw, November 17, 2013	
Anonymous E, private sector representative	COP 19, Warsaw, November 18, 2013	
Anonymous F, REDD+ country representative	COP 20, Lima, December 5, 2014	
Anonymous G, LULUCF negotiator	COP 19, Lima, December 5, 2014.	
Anonymous H, forest expert	COP 21, Paris, December 5, 2015	

The *secondary material*, which in my case was a crucial source of data, consists of reports and information pamphlets produced by a variety of actors including REDD Monitor,²⁹ the Earth Negotiation Bulletins (ENB) compiled by the International Institute for Sustainable Development,³⁰ ECO,³¹ and Ecosystem Marketplace³² to name a few. Furthermore, a variety of reports on REDD+ projects or general briefings were used. Book-length publications by the Center for International Forest Research (CIFOR) (Angelsen et al. 2008, 2009, 2012) on REDD+ were a particular useful source of information. The same goes for the growing body of academic literature on REDD+ (see Section 2). UNFCCC texts, observations, and interviews offered building blocks for the reconstruction of discourses, coalitions, power and rules through a comparative content analysis, further based on the methodological principle of triangulation (Van den Brink and Metze 2009).

My research is to some extent more concentrated on the text (in the secondary material) as a core part of my material since (a) they cover "existential" topics, such as organisational sense-making and legitimacy; (b) are written by authoritative authors; (c) take the form of genres, i.e. transcend the language of specific organisations; (d) draw upon and contribute to well-established discourses; and (e) enhance the coherency and acceptability of these discourses.

The Interdisciplinary Context

My Ph.D. position is part of an interdisciplinary strategic research area: Biodiversity and Ecosystem Services in a Changing Climate (BECC). The aim of BECC is to provide interdisciplinary research approaches that contribute to the sustainable management of ecosystems and biodiversity in a changing world. I

²⁹ REDD-monitor represents one of the few well-established critical forums on REDD+. It is used to as a way to get an overview of the more critical voices (especially on carbon commodification in REDD+) and their view on the UNFCCC negotiations on REDD+.

³⁰ ENB is published by the International Institute for Sustainable Development, a Canadian NGO. ENB writers produce daily summaries of each negotiation, which also serve as a key information resource for UNFCCC negotiators. The ENB reporting has been used to get an overview of how REDD+ has been discussed within the UNFCCC.

³¹ ECO is a newsletter published by the NGO umbrella group within the UNFCCC, Climate Action Network. It is published daily for each major negotiation round offering CAN's commentary on those developments within the UNFCCC which it deems to be important. It was chosen here to get an overview of how the environmental NGO community has viewed the role of REDD+ within the climate change negotiations.

³² Ecosystem Marketplace provides news, data and analytics on markets and payments for ecosystem services. It covers, among others, the COP negotiations and was chosen to get an overview of how the business/carbon market advocates viewed the role of REDD+ within the climate change negotiations.

have taken it upon me to have regular exchange with scholars from other disciplines and their approaches to REDD+. As a major outcome of this interdisciplinary orientation, two of my papers (III and IV) have been co-authored with researchers from outside of my own discipline (natural geography and sustainability science). The advantage of this context is that it provides opportunities for exchange and dialogue across disciplines that raise critical issues at the intersection between various approaches and fields of research, notwithstanding ontological and epistemological differences. It creates a better understanding of how other disciplines "think". On the other hand, engaging in interdisciplinary work does take time and much of that time is spent in developing a shared understanding and vocabulary for the research (as was the case with Paper III).

The interdisciplinary experience has clearly had an effect on my papers. Paper IV is an example of how interdisciplinary research can lead to theoretical compromises. To make the paper more consistent I downplayed my theoretical approach to the point that there is no explicit engagement with ADA. However, there remains an assumption that social safeguards have been introduced as a response to critique raised within the civic environmentalism discourse (cf. Paper I). Moreover, we show that the formulation of social safeguards is political, and argue that legitimacy and deliberative democracy norms are linked – a point that is also made by several ADA authors (cf. Fisher 2003). Nevertheless, the lesson I learned from this is that interdisciplinary requires a certain degree of being grounded in one's own discipline in order to benefit from it the most.

Another lesson is that, in my experience, some approaches to discourse do not transfer as well as others into the natural sciences or among practitioners. During exchanges with colleagues from the natural sciences, I felt that the *thin* approach to discourse (Arts et al. 2009) works better with that audience than *thick* approaches to discourse. When I used a more stringent approach to frame analysis, namely the theory of plural rationality (Verweij 2011), where world-views are fixed much like elementary particles, this was easier to communicate to natural science scholars without any previous experience in discourse analysis. Yet, in turn, this theory also confined my own scope of research within this context.

Results and Wider Implications

In this thesis I illustrate how words and discourses matter in global climate and forest politics. They limit, but also enable, what can be authoritatively said or even imagined (Hajer and Wagenaar 2003; Barnett and Duvall 2005). The role of deforestation has evolved from being perceived as a cost-effective and relatively simple mitigation mechanism (Stern 2006), to one with a high degree of complexity and ambiguity, with considerable contestation about how (or even if) it should be operationalised. The following two sections summarise answers to my two key research questions and provide insights into how policies as well as practices on how REDD+ has taken shape in accordance with major discourses. It finds that, rather than being the product of one all encompassing discourse, a key characteristic of REDD+ is the struggle between opposing views on the role of deforestation and which aspects to place an emphasis on.

Dominant Discourses and Storylines on REDD+

The results of this thesis demonstrate that REDD+ is shaped by a dominant ecological modernisation discourse and a more marginalised civic environmentalism discourse. As laid out in Paper I, ecological modernisation captures the following key storylines:

- *Cost-efficiency* arguing that REDD+ is a cost-efficient and relatively "easy" mitigation tool.
- Win-win-win argues that REDD+ is able to not only provide effective and cost-efficient emission reduction, but also improve forest conservation and reduce poverty in a synergetic way.
- *Market logics* brings in the logic of the market, along with its perceived "proven" abilities of innovation and allocation of scarce resources, to provide the best solutions to deforestation and forest degradation by internalizing environmental costs.
- *Carbon accounting* portrays forests primarily as large carbon stocks and sinks, which through technical advances (in monitoring) can be subjected to management and control.

Technocratic rationale is directly related to carbon accounting and argues that policies based on scientific research and expert advice are best suited for solving the issues around REDD+.

As a consequence of this hegemony, the role of deforestation in global climate politics is characterised by the following aspects: (1) the favouring of commodification of forest carbon stocks over less easily measured social and environmental attributes that may be important to natural and social resilience; (2) a focus on global rather than local processes and financial instruments at the expense of alternative options; (3) an emphasis on experts and advanced technology, at the expense of locally based knowledge; and (4) an emphasis on synergies rather than trade-offs between climate, ecological and social goals (see also McDermott et al. 2011).

However, the balance between ecological modernisation and civic environmentalism is continuously changing, with the hegemony of the former being frequently contested (Pistorius 2012; den Besten et al. 2014). An example of this is the inclusion of safeguard provisions to prevent negative impacts on socalled "non-carbon" values, such as local livelihoods, security of land tenure, biodiversity conservation, and "good governance" in the REDD+ negotiations text at COP16 in 2010 in Cancún. Interestingly, many parties under the UNFCCC initially opposed this, as biodiversity conservation and the rights of Indigenous Peoples were considered to be outside the mandate of the UNFCCC, and it was feared that talk of safeguards would stall progress on REDD+ in the negotiations (Fry 2008). Nonetheless, the issues of safeguards and non-carbon values have gained prominence over the years. This has resulted in the inclusion of a safeguards information system (SIS) on how to monitor safeguards and in safeguards becoming a prerequisite for receiving payments under REDD+ (Decision -/CP.19, paragraph 4). The final REDD+ text at COP21 in Paris includes the issues of "social and environmental safeguards", "non-carbon benefits", and alternatives to carbon-market funding which all favour a civic environmentalism account of REDD+ and thus also exemplifying how a discourse both ideational and material dimensions of shape (FCCC/CP/2015/L.9).

As argued in more detail in Paper I, civic environmentalism captures a set of more critical storylines:

- Beyond markets storyline criticises REDD+ for its inherent market fixation. The storyline projects REDD+ not as maximizing synergies (e.g. win-win-win), but as involving trade-offs between economic growth and sustainable forest management.

- Local not only global emphasises the social dimension as being crucial for REDD+, both in terms of empowering local stakeholders and addressing some of the underlying social drivers of deforestation
- Biodiversity (seeing beyond the trees) promotes the idea of looking beyond a carbon-centric REDD+ and incorporating ecological (and social) aspects of forests.
- *North-South divide* argues for giving voices to the critique of REDD+, especially by indigenous community groups. It sees REDD+ as being carbon "colonialism", implying an indirect domination of Southern countries (rainforests) by the rich North.

Another key finding of my thesis is that these two key discourses are no longer the only discursive games in town. The dynamic and continuous contestation of REDD+ has gathered further momentum by the emergence of a third discourse, namely the "integrated landscape approach" discourse that I identify in Paper II. This new discourse has gained prominence in recent years in the UNFCCC and may alter the current constellation of a dominant ecological modernisation discourse and a contesting civic environmentalism discourses (see Figure 5). Its proponents present forests as being part of a wider multifunctional landscape. Here, the solutions to deforestation need to be thought of together with other interconnected issues, such as food insecurity, rural development, adaption to climate change, etc. This necessitates a more integrated and holistic procedure that incorporates forests, agriculture and other land uses into a single management strategy.

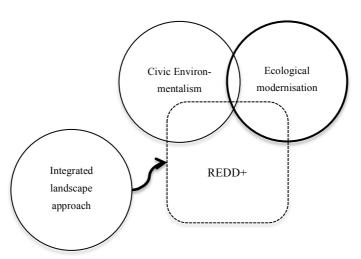


Figure 5. REDD+ in the intersection of discourses

Still, as further argued in Paper II, a closer look – owing to the use of the storylines approach of ADA – reveals that the discourse does not fundamentally challenge the *market rationale, carbon accounting,* or *technocratic rational* storylines that lie at the heart of an ecological modernisation account of REDD+. Rather, the integrated landscape approach discourse opens up opportunities for bringing in additional scientific expertise and funding by not only focusing on forest carbon. It essentially continues as a market and technology based account of land-use management. Critics see this as a case of projecting core storylines of REDD+ onto other land use arenas, thus expanding rather than changing REDD+. Indeed, if we compare the storylines I found here with the ones from Paper I, we see similarities and overlaps with the two dominant discourses:

- Multifunctional landscapes storyline argues that a fundamental shortcoming of existing conservation approaches is that they confine landscapes into different silos. Instead, forests and other land uses should be seen as part of a larger and more fluid (eco)system in which multiple interactions and feedback loops in particular between agriculture and forests have to be considered.
- Holistic approach storyline argues for placing an emphasis on local stakeholder engagement and for multiple objectives rather than a predetermined carbon-focused REDD+. This is similar to the *local not global, and biodiversity* storyline.
- *New triple-win* storyline acknowledges the inevitability of trade-offs, but argues that this can be better navigated with the deployment of an integrated landscape approach (critical of the original *win-win-win* storyline). It also promotes adaptation, which has been a side-lined issue within REDD+ negotiations so far.

Paper II also identifies a broad discourse coalition around the integrated landscape approach, i.e. actors that promote its storylines in a certain context over a period of time (Hajer 1995). They range from NGOs, including WWF and Greenpeace, to multinational companies, including Unilever and Danone, as well as from key developing countries with tropical forests like Peru and Indonesia to major donor countries like Norway and the USA. What is more, I found in my interviews and observations that certain forests and agriculture research institutes and multilateral funding initiatives have been instrumental in promoting the integrated landscape approach. These include: the World Bank, FAO, the Consultative Group for International Agricultural Research (CGIAR) and the Center for International Forest Research (CIFOR). Consequently, the integrated landscape approach discourse is being heavily promoted by an expert-led (epistemic) community, which is "informing" or providing "evidence-based" advice to key countries,

NGOs and companies, ultimately facilitating the very management policies they themselves have to implement (cf. Petrokofsky et al. 2011).

Thus, although the integrated landscape approach is a separate discourse it can be placed in the overarching struggle between ecological modernisation and civic environmentalism. It promotes some of civic environmentalism's storylines and arguments, especially its different more holistic messages – going beyond carbon stocks and a merely global orientation – but does not fundamentally challenge the core basis of ecological modernisation. In this more critical light, the paper questions whether the integrated landscape approach discourse actually presents an evolution of REDD+, thereby broadening its scope once again – this time to include other land uses other than forests and other aims than emissions reductions. In a sense, the discourse certainly reflects the continuous learning process on how to comprehensively manage tropical deforestation in a climate change nexus. But it also further diffuses some key notions of ecological modernisation.

This differentiated finding points to the relevance of argumentative discursive analysis. Rather than unquestionably accepting the promise of the integrated landscape approach as a novel discourse, the distinction of particular storylines could highlight that some of it is just old wine in new bottles, potentially further strengthening the dominance of ecological modernisation I found in Paper I. This finding may also be of relevance for practitioners. One of the things I noticed from talking with different actors about the integrated landscape approach is how they often phrase it as a "natural evolution" of REDD+, or as a "logical" way to implement REDD+. In a way, this undifferentiated welcoming of a holistic approach echoes how REDD+ itself was initially perceived by a wide range of stakeholders: as a win-win-win narrative that brushes over potential goal conflicts (cf. Stern 2006; Eliasch 2008). In the same way, the landscape discourse may obscure internal tensions and the dominance of market-oriented and technocratic storylines.

Altogether, the thesis reveals different degrees of power for the key discourses identified. The power of ecological modernisation is evident due to the fact that its storylines dominate not only the broad global debates on REDD+ (Paper I), but also debates at the local level (Paper IV), and technical debates on forest carbon monitoring (Paper III). The hegemony of this discourse is further reflected in the prevailing framing of REDD+ as an incentive-based mechanism and the very technical nature of how REDD+ projects are operationalised (Paper III, IV), which supports the general conceptualisation of REDD+ as a mechanism.

As I discuss in the next section, the thesis also shows how the dominance of ecological modernisation is reinforced when it comes to particular practices such

³³ This is in line with a more reform-based account of civic environmentalism (Bäckstrand and Lövbrand 2006) arguing for a more equitable, ecological just and less carbon focused account of REDD+.

as monitoring forest carbon and operationalising social safeguards. Hence, forest carbon monitoring practices exhibit a clear trend towards commodification and global perspectives and only a limited operationalisation of social safeguards. Civic environmentalism, on the other hand, represents the key criticism of REDD+, and provides alternative views to the focus and policy instruments of REDD+, but is manifested to a lower extent. By applying the ADA middle range concepts of discourse structuration and institutionalisation, I conclude in Paper II that, although the integrated landscape approach discourse is changing the way forests and deforestation are talked about at UNFCCC negotiations (discourse structuration),³⁴ it is not mentioned directly in REDD+ negotiations texts and has yet to impose its logics and rationales on REDD+ in a profound way (discourse institutionalisation). This, however, may well change in the future of REDD+ (cf. DeShazo et al. 2016).

Articulation and Manifestation of Discourses and Storylines in REDD+

The storylines I distinguished above also provide insights into how discourses are manifested in REDD+ by connecting discourses with certain practices and material aspects. I have analysed this for three selected practices: practices at the UNFCCC summits (Paper II, which I presented above), REDD+ monitoring techniques (in Paper III) and the operationalisation of social safeguards (in Paper IV). The latter two show how the choice and shape of these practices are impacted by the overarching discursive struggle between ecological modernisation and civic environmentalism.

Paper III explores how discourses are manifested and articulated in REDD+carbon monitoring practices. The composition of monitoring practices, what they measure (carbon, biodiversity or socioeconomic aspects) and what they do not measure, why they measure it (climate change or sustainable forest management), and how it is measured (satellites or local communities) have not been decided based on purely objective technical grounds, but are partly structured through underlying discourses that shape these questions. The paper looks at two dominant monitoring techniques: remote sensing and national field inventory. The results demonstrate that remote sensing (re)produces many of the same storylines as

³⁴ The integrated landscape approach was a dominant theme of several REDD+ side events at COP19 - to the extent that one private sector representative I interviewed stated that "You can't almost hear REDD+ anymore, now it's landscape" (author's interview with private sector representative, Warsaw, November 20, 2013).

ecological modernisation. Concretely, Paper III identifies the following remote sensing storylines:

- Techno-managerial, this draws attention to the calculative practices that turn stocks and flows of forest carbon into objects of governance similar to the carbon accounting storyline in Paper I. It conveys the message that forest carbon is measurable through improving satellite technologies and consequently increasingly manageable (similar to the techno-rationale storyline).

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- *Techno-managerial*, this draws attention to the calculative practices that turn stocks and flows of forest carbon into objects of governance (see above).
- Carbon commodification promotes the conversion of tropical forests into a homogeneous tradable unit, i.e. carbon emissions. This helps transform forests into a perfect commodity, which is fully fungible at an international market level. As such it emphasises the role of markets in finding solutions to environmental problems in line with the *market rationale* storyline identified in Paper I. The storyline also carries a neo-liberal notion of achieving synergies between economic, ecological (biodiversity, water purification) and social aspects (poverty reduction, land tenure security) similar to the "original" winwin-win storyline.
- Global scale, remote sensing allows, or encourages, local forest cover patterns to be considered as a unitary whole, capable of being understood and managed on a global level.

The differentiated focus on storylines, instead of discourses as a whole, also helped me reveal that the second monitoring practice, national field inventory, ³⁵ is not necessarily an antagonistic approach that embodies the core of the civic environmentalism discourse. In fact, national field inventories also promote the *techno-managerial* storyline. Where it starts to differ from remote sensing is that it allows for the monitoring of other aspects of deforestation, not just carbon. It is able to monitor the so-called "co-benefits", e.g. social and ecological benefits beyond emission reductions. It also helps to portray the multiplicity of forests, which goes beyond what is possible to capture through remote sensing. In summary then, national field inventories promote the following storylines:

- Beyond carbon storyline promotes social and ecological aspects as pre-requisites for successful REDD+ projects. This implies, for

³⁵ This technique includes manually measuring tree diameters or volumes in different plots of a forest.

instance, the need to include biodiversity in order to get a fuller picture of the devastation caused by deforestation, or the need for local stakeholder participation, social justice, and addressing some of the underlying (social) drivers of deforestation – similar to the *local not global* and *beyond carbon* storylines of Paper I.

- Local view storyline reflects a more local approach to REDD+ by providing a heterogeneous view on the qualities of forests and how they are embedded in local cultural practices and local knowledge.

Altogether, national field inventories (re)produce much of the technical dominance that is embedded in ecological modernisation, while, nonetheless, also sharing some aspects with civic environmentalism. As such, the perspectives on this monitoring technique reflect the overall struggle between the two major discourses I identified in the first paper. Moreover, by demonstrating the prevalence of remote sensing in the REDD+ planning reports of countries, Paper III shows how the hegemonic ecological modernisation discourse is articulated and manifested into dominant monitoring practices. More concretely, this is evident in the lack of detail and ambiguity on monitoring co-benefits in the country reports studied.

Only a few countries, mainly those with previous experience with field inventories or community forest management, provide extensive details on how they would monitor indicators for co-benefits. This goes, for instance, for Peru in its Readiness Preparation Proposal (R-PP), also due to the particular lobbying of indigenous community associations: "In the case of native communities, their participation in forest monitoring is essential due to their understanding of the land and traditional knowledge, thus enabling efficient and effective monitoring" (Peru Readiness Preparation Proposal (Peru's R-PP 2010: 125). A similar formula can be found in Viet Nam Nam's 2010 R-PP.

Although notions of civic environmentalism, such as "stakeholder inclusion" and "co-benefits", may have generated momentum in the negotiations, they are only translated into relatively abstract phrasings about how countries plan the implementation of REDD+. "Capacity to undertake such monitoring [of cobenefits] is very limited at present and so progress will depend on donor support for funding and for building up capacity" (Laos R-PP 2010:84 On the other hand, techno-managerial and carbon commodification storylines are reflected in much more pronounced definitions and announcements on remote sensing and the monitoring of forest carbon in the national reports. From a technical point of view, part of the reasoning behind the emphasis on remote sensing is that national field inventory and safeguards information systems take time to develop, while remote sensing images are readily available. Indeed, advances in remote sensing and its ability to quantify forest carbon flows have fuelled the momentum of REDD+, at UNFCCC negotiations and multilateral funding initiatives as wall as and in national forest policies (Boyd 2010; Lövbrand and Stripple 2011). The advantage

of this has been a greater appreciation of the devastating extent of deforestation and its consequences of this - not least for climate change. This notwithstanding, Paper III also identifies some negative consequences of the dominance of remote sensing, most importantly that this method cements a carbon-focused implementation of REDD+. Thus, remote sensing plays a prominent role in putting a key storyline of the ecological modernisation discourse into practice – and, in the sense of a mutual constitution, it exemplifies how a material condition affects and further strengthens the power of this discourse.

However, switching to more national forest inventory will not in itself lead to a less carbon-focused implementation of REDD+. The paper also found that even in cases of country reports with a more developed national forest inventory, cobenefits were not always given more prominence. For example, in the case of Mexico's 2010 (R-PP), there does not seem to be a high level of detail when it comes to co-benefits monitoring, in spite of it being the most developed national forest inventory plan of all the sampled country reports. In some cases, a well-developed national forest inventory may well accommodate the interests of local forestry industries, rather than of other stakeholders.

Echoing the findings of Paper I, Paper IV on the Ecuadorian Programa Socio Bosque (PSB) starts from the assumption that REDD+ is dominated by an inherent market logic and a focus on carbon mitigation over social and other environmental issues. To balance these and to include the considerations of local stakeholders, "social safeguards" had been entering debates on REDD+. As with other types of practices such as monitoring techniques, we found that these safeguards and their specific requirements are embedded in a wider discourse on how REDD+ is designed and legitimized. Thus, the discursive features we identified for social safeguards in the PSB case are, again, similar to some of the storylines I distilled from the UNFCCC negotiations in Paper I. In general, they are contesting some arguments of the ecological modernisation storylines on REDD+.

In particular, the *win-win-win* storyline is put into question at the implementation level that we scrutinised in Paper IV. The lessons from PSB clearly challenge some of the generalising rhetoric that claims that REDD+ (or REDD+-like) projects, through the inclusion of social safeguard provisions, are able to promote synergies between emissions reductions, other ecological aspects and social concerns. Contrary to this silver bullet assumption, we found, in line with studies on other cases, that REDD+ projects can only be as effective and fair as the socio-economic context in which they are implemented (Zelli et al. 2014). A financial compensatory mechanism does not alleviate, but may even exacerbate existing inequalities, because project revenues are distributed according to longstanding patterns of social or economic exclusion or discrimination. For example, women and individuals who are not full community members were often marginalised in the decision-making processes, or were even given the right to vote in community assemblies discussing Socio Bosque.

In the same vein, results from Paper IV also question the *market rationale* storyline, holding that the consequences of payments for long-term conservation may be rather dim, especially in high-risk areas, and can be the source of intercommunal conflict as a result of an inequitable distribution of benefits. Quite to the contrary of PSB's core intention, the more affluent members of communities would often benefit disproportionately from the distribution of revenues.

Similarly, experiences with PSB put into question the arguments of the *carbon accounting* storyline with its heavy emphasis on carbon stocks and flows. Concretely, we found that the protection of animal species was not included in the conservation contracts of PSB. Yet while the trees may still stand, a problem like overhunting may, in the long run, threaten forest health and resilience (Krause and Zambonino 2013

On the other hand, results from Paper IV promote some of the civic environmentalism storylines. In particular the *beyond markets* storyline and its emphasis on the "social dimension" are increasingly declared crucial for the success of REDD+. For example, we found that the participation of local stakeholders in the decision-making process was strongly encouraged by the UN-REDD program in order to increase the legitimacy of the process.

In reality, however, our analysis revealed that the involvement of indigenous representatives and organizations is low, representing "tokenism" rather than a mutual partnership with government officials. Moreover the majority of interviewees within the communities lacked sufficient knowledge of the conservation contracts – e.g. the contracts' duration, the remuneration amounts, and the intended use of compensation payments in their community. This actual lack of participation and involvement of local communities threatens the perceived legitimacy of Socio Bosque, and consequently its success in conserving the forest.

Paper IV further suggests that, even when it comes to promoting issues of local stakeholders, some safeguards are at odds with traditional structures and institutions. They can be perceived as 'Western-based' models of democratic governance that imply an infringement on local and indigenous community cultures rather than safeguarding these. Hence, counter-intuitively, in their current operationalisation some social safeguards undermine the *local not global* and *North-South divide* storylines, rather than promoting these.

Finally, as the above sketch of my results repeatedly suggests, many storylines were resurfacing across papers and also overlapped to a certain extent across discourses and practices. To summarise some of these connections more systematically, the overview in Table 5 assigns the storylines and critical arguments of my four papers to the three major discourses I have identified

Table 5 Discourses on REDD+ and their overlapping storylines					
	Storylines in REDD+ negotiation s (Paper I)	Storylines in public debates and side-events on landscapes at the UNFCCC (Paper II)	Storylines in forest carbon monitoring (Paper III)	Storylines in Programa Socio Bosque (Paper IV)	
Ecological modernisation discourse (dominant)	Cost- efficiency	n.a.	Carbon commodificatio	(Implicitly reflects the dominance of some of these storylines, e.g. through win-win-win rhetoric and Western-based structures)	
	Win-win-win	New triple-wins	n (remote sensing)		
	Market rationale	(Does not explicitly challenge)			
	Carbon accounting		Techno- managerial (remote sensing and national field inventory)		
	Techno rationale				
Civic environmentalis m discourse (marginalised)	Beyond market	n.a.		(Explicitly challenges some of the assumptions of ecological modernisation storylines, pointing at lack of participation and transparency, unequal distribution of revenues, etc.	
	Local not global	Holistic approach	Local view Beyond carbon (national field inventory)		
	Beyond carbon				
	North-South divide	n.a.	n.a.		
Integrated landscape approach discourse (emerging)	n.a.	Multifunctional landscapes (exclusive to the integrated landscape approach discourse)	n.a.	n.a.	

Wider Implications

If we briefly broaden the picture and look beyond deforestation, we see that several aspects that have come to dominate decision-making on and implementation of REDD+ are also prevalent in other policy arenas and debates. Ecological modernisation places a lot of faith in market-oriented strategies, technological innovation, standardised practices, and expert-based practices – dominating trends that can be seen across global environmental governance (Adger et al. 2001; Baker 2007; Bernstein 2002), but also in other fields from peacebuilding to urban politics (Aggestam et al. 2015; Beveridge and Naumann 2014). This points at a broader societal pattern of favouring solutions provided by technocrats, bureaucrats and experts, thus reframing policy domains in technical economic and scientific terms, instead of political or moral issues that demand

political or moral solutions (Foster et al. 2014).³⁶ This pattern essentially delegates issues and policy functions from the public and governmental spheres to semi-official and private arenas (Hay 2014).

Critics of this trend point out that it leaves little room for public debate, downplays contestations and alternative views and leads to apolitical outcomes that give precedence to technocratic or economic rationality (Flinders and Wood 2014: 163). For these observers, this wider trend falls under the critical concept of *depoliticisation* (cf. Hay 2007; Flinders and Wood 2014). Depoliticisation is associated with a constructed separation between what is political, economic, and technical, whereby the latter two take primacy, essentially making less room for public deliberation and contestation.

Yet while this suggests that perspectives and practices on forest issues may have been reduced because of REDD+ (McDermott 2014), this development is not a one-way street. REDD+ has led to numerous "No REDD+" protests and public outcries at UNFCCC meetings, along with significant, and often emotional, disputes among actors on safeguards, financing and what exactly to monitor (author observations; Okereke and Dooley 2010). Hence, critiques of REDD+ that promote a broader understanding of the issues involved and demand less emphasis on technocratic solutions and experts keep the REDD+ debates and controversies alive. In other words, the antipode to an increasing technocratisation and marketisation of policy domains is the promotion of alternative understandings and a stronger deliberative quality to decision making (Dryzek 2013).

This struggle between ecological modernisation and civic environmentalism paints a more nuanced picture of the dynamic and fluid interplay between discourses in REDD+ and other areas of global environmental governance as well (Adgar et al. 2001; Bäckstrand and Lövbrand 2006). In a nutshell then, deforestation in global politics can be said to experience parallel and counterbalancing trends that also characterise other policy domains: A tendency towards depoliticisation on the one hand, and continuing conflicts as well as contestations that signal a countervailing force of re-politicisation on the other hand (Flinders and Wood 2014).

One consequence of the endeavour of this thesis – to uncover different perspectives, understandings and views (on REDD+) – is that such an overview opens up a discussion in favour of more deliberative policymaking (Fischer 2003; Hajer and Versteeg 2006; Feindt and Netherwood 2013). Mapping the plurality of views and the struggles between them unveils neglected problems and solutions that have been overshadowed by dominant discourses. But most of all, it shows that there is not just one universal truth or a perfect solution for approaching global deforestation, or climate change for that matter. When faced with

³⁶ Compared to other policy fields, the environment is a highly expert-dependent policy area. Environmental politics is science-dependent *par excellence* (Giddens 2009; Aggestam et al. 2015).

contradictory definitions of problems and solutions, one should not search for "the" definition that is prevalent, but rather, one should embrace complexity (Rayner et al. 2010). REDD+ is unlikely to simplify the challenges of tropical deforestation into that of forest carbon management. "It risks obscuring the plethora of issues and relationships that do not easily lend themselves to measurement. It cannot, simply by attaching a price tag on carbon, resolve the numerous conflicting interests and values." (McDermott 2014:18).

I hope that this thesis and its results can make their contribution to help foster a sense of dialogue and openness: The goal is not to find out which of the discourses – ecological modernisation, civic environmentalism or the integrated landscape approach – is best able to address the multiple aspects of deforestation; the goal is to provide room for conflicting views, and critiques thereof, that translate into a differentiated set of, in any sense of the word, meaningful practices.

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