

Oxford University School of Geography and the Environment

# REDD+ Biodiversity Safeguards: Strength in Diversity

A study of the capacity of the UNFCCC to deliver equitable, effective, and efficient forest conservation policies for developing countries

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## Abstract

‘Reducing Emissions from Deforestation and forest Degradation in developing countries, and the role of conservation, sustainable management of forests and enhancement of forest stocks in developing countries’ (REDD+) is an environmental governance mechanism which, if implemented under a United Nations Framework Convention on Climate Change (UNFCCC) regime, will regulate and administer funding to projects maintaining forest cover in areas which would otherwise be deforested. Its primary objective is the reduction of greenhouse gas emissions, but REDD+ also has the potential to reduce significantly the degradation of forest ecosystems and the biodiversity within them.

This study analyses three types of environmental governance mechanism – national legislation, the project funding requirements of multilateral financial institutions, and voluntary certification schemes – currently applied to REDD+ pilot projects in Vietnam, Cameroon, and Brazil. The findings indicate that a UNFCCC framework (which embodies a set of universal principles and policies) may have only a limited capacity to safeguard equitable, effective, and efficient biodiversity conservation under a REDD+ system. Instead, forests may be more sustainably governed by mechanisms which are independent of, but complementary to, a UNFCCC treaty. This conclusion is based on evidence that strategies for successful forest conservation vary greatly depending on the socio-economic and political contexts in which they are located.

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## Abbreviations and Acronyms

APP	Area of Permanent Preservation
CBD	Convention on Biological Diversity
CCB Standards	Climate, Community & Biodiversity Standards
CIFOR	Centre for International Forestry Research
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
COMIFCAC	Treaty on the Conservation and Sustainable Management of Forest Ecosystems in Central Africa and to establish the Central African Forests Commission
COP	Conference of the Parties
FAO	Food and Agricultural Organisation
FSC	Forest Stewardship Council
GEF	Global Environment Facility
GLIN	Global Legal Information Network
IBAMA	Brazilian Institute of Environment and Renewable Natural Resources
IUCN	International Union for Conservation of Nature and Natural Resources
NSMD	Non-state market driven
PES	Payments for Ecosystems Services
RECOFTC	Centre for People and Forests
RED	Reducing Emissions through Deforestation
REDD+	Reducing Emissions through Deforestation and forest Degradation in developing countries, and the role of conservation, sustainable management of forests and enhancement of forest stocks in developing countries
UN-REDD	The United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries
UNFCCC	United Nations Framework Convention on Climate Change
UNEP	United Nations Environment Programme
WB-OP	World Bank Operating Procedures

## Introduction

‘Reducing Emissions from Deforestation and forest Degradation in developing countries, and the role of conservation, sustainable management of forests and enhancement of forest stocks in developing countries’ (REDD+) is a complex instrument of governance. It is treated by many stakeholders as a Payments for Ecosystems Services (PES) scheme (Clements: 2010, Collins et. al.: 2011) which seeks to translate the process of carbon sequestration through arboreal photosynthesis into real financial incentives for ecosystems managers, and in so doing to promote the conservation and sustainable management of natural habitats (Engel et. al.: 2008). REDD+ has an ambitious mandate which covers the “*interconnected environmental, moral, cultural, political and economic aspects of both deforestation and climate change*” (Okereke & Dooley: 2010). Two of the key ‘interconnected environmental aspects’ of REDD+ are climate change and biodiversity.

The United Nations Framework Convention on Climate Change (UNFCCC) is a multilateral agreement signed by 194 nations, with the objective of stabilizing concentrations of greenhouse gases in the atmosphere (UNFCCC: 1992). In Article 1.2 of the treaty, Climate Change is defined as a “*change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods*” (1992). It is generally believed that the effects of climate change can be mitigated by reducing emissions of greenhouse gases by a variety of methods.

In the global environmental governance discourse, biological diversity (or biodiversity) is understood as “*the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part: this includes diversity within species, between species and of ecosystems*” (CBD: 1992, Article 2). The welfare and survival of the human populations is directly dependent on ecosystem biodiversity. It has been demonstrated that, on average, the level of biodiversity measured on a given area of land correlates positively with its economic value (Tilman et. al.: 2005). Perhaps more importantly, depleted biodiversity can directly reduce food, fuel, medicinal, and a host of other resources at local and global levels (Chapin III et. al.: 2000). These losses are likely to be felt most keenly in developing countries, where a large proportion of the population are reliant on natural resources for their immediate subsistence (Dasgupta et.al.: 2008).

The following is a study of the potential for the development of a UNFCCC framework to govern the ‘interconnected environmental aspects’ of REDD+ in a manner which is equitable, effective, and efficient. The first chapter will explore environmental governance as a theoretical concept, and the challenges faced by policy makers in implementing REDD+ as a legally binding international regime. It will discuss the roles of the UNFCCC, national legislation, multilateral financial institutions, and voluntary certification schemes as mechanisms of governance. Chapter 2 will analyse biodiversity conservation as one aspect of environmental governance which will be addressed by REDD+ safeguards. Two prominent but opposing strategies of ecosystems management are identified, which will be referred to as ‘inclusive’ and ‘fortress’ conservation, and which are employed by national governments around the world. These opposing paradigms present a significant practical and ideological challenge to the design of REDD+ safeguard policies capable of delivering universal equity, effectiveness, and efficiency. This particular challenge is the primary focus of this study.

Chapter 3 describes the methods employed to analyse the existing biodiversity conservation policies implemented at REDD+ pilot project sites by three independent but overlapping governance mechanisms: national legislation, the project funding requirements of multilateral financial institutions, and voluntary certification schemes. The findings of this analysis will be presented in Chapter 4. In Chapter 5, these results will be discussed to assess the potential for the UNFCCC to introduce international safeguards to ensure the equity, effectiveness, and efficiency of environmental governance in forests across the globe. Finally, the concluding chapter argues that, given the dramatic divergence in conservation strategies adopted by governments of developing countries across the world, the UNFCCC has only a limited potential to implement universally equitable, effective, and efficient REDD+ biodiversity safeguards. Instead, these objectives may be more successfully realised by complementary governance mechanisms which are more sensitive to the social, economic, and political contexts of the areas in which they are applied.

## Chapter 1: The Governance of REDD+

In order to usefully assess the relative benefits of the various governance mechanisms currently applied to REDD+ pilot projects, as well as those that may be applied under a UNFCCC regime, it is first necessary to define the concept of governance. ‘Governance’ is a term which is used with increasing frequency in the realms of politics and international relations. Unfortunately, there is no real consensus as to what constitutes a mechanism, network or act of ‘governance’ (van Kersbergen & van Warden: 2004; Biermann et. al.: 2010).

This study deals specifically with the regulation of international environmental issues. Climate change, biodiversity loss, and deforestation impact the biosphere in innumerable and often poorly understood ways, yet there remains little dispute that the impacts of these phenomena are felt in every corner of the world (UNFCCC: 1992; CBD: 1992). As such, this study will use Lemos and Agrawal’s (2006) definition of ‘environmental governance’. ‘Governance’, therefore, can be understood as *‘the set of regulatory processes, mechanisms and organisations through which political actors influence environmental actions and outcomes’*.

The environmental events described above have been taken up by a multitude of actors operating at regional, national, and international levels (Corbera & Schroeder: 2011); in search of a consensus on how to deal with their impacts, both in terms of mitigation and adaptation. At the international level, these actors include, but are not limited to, national governments, non-governmental organisations, private corporations, and multilateral institutions (Biermann et. al.: 2010).

There are a number of lenses through which environmental governance can be assessed. This study uses an adapted version of the ‘3E+’ framework adopted by Anglesen et. al. in the 2009 CIFOR report on ‘Realising REDD+’.

### Equity, Effectiveness, and Efficiency – **the ‘3Es’ of Environmental Governance**

Anglesen & Wertz-Kanounnikoff (2008) and Anglesen et. al. (2009), identify three crucial factors in ensuring successful outcomes to climate change management activities. The first of these is ‘equity’, which refers to the fair distribution of costs and benefits under a particular system of governance. There are many levels of environmental governance relevant to

REDD+ at which stakeholder equity is demanded, including the individual, community, and international levels (Metz: 2000; Vogler: 2003). This study examines not only social equity, but also ‘deep equity’, which is the *‘[simultaneous promotion of] individual, community, and ecosystem health in present and future generations’* in forest carbon projects (Takacs: 2010). This concept is also referred to as ‘ecosystems equity’ (McDermott et. al.: forthcoming), and is concerned with the fair treatment of all occupants of a site, both human and non-human.

‘Effectiveness’ can be understood as the positive reduction or avoided increase in emissions and habitat degradation through REDD+ actions. Closely linked to effectiveness is the cost ‘efficiency’ of REDD+ project implementation. The effectiveness and efficiency of REDD+ projects are largely determined by pragmatic concerns, such as transaction costs, tenure, and liability. The status of such issues at REDD+ project sites is largely influenced by the requirements of national legislation and international treaties, as well as localised market economies and socio-political circumstances.

Equity, effectiveness, and efficiency are not mutually dependent (Okereke: 2010). This is evident in the fact that the implementation of an international regime which promotes equity in a manner which directly contravenes the principles guiding existing forest conservation and management requirements may have only a limited ability to deliver real improvements in forest governance. This dilemma applies not only to climate change mitigation and adaptation, but to all aspects of international environmental governance. These challenges may be more pronounced for REDD+, which seeks to address multiple environmental issues under a single governance framework.

### **The Challenges of Implementing REDD+**

The climate change mitigation strategy ‘Reducing Emissions through Deforestation’ was first introduced into the international climate governance discourse by the governments of Papua New Guinea and Costa Rica at the Eleventh Conference of the Parties (COP) of the UNFCCC in Montreal in 2005 (UNFCCC: 2006). The decision to develop national capacities to implement this strategy was made at COP-13 in Bali in 2007 (UNFCCC: 2008, Decision 2). Over the last three years, it has rapidly developed into the conceptual framework of ‘REDD+’, which is becoming an increasingly prominent term of reference in the international climate change arena. Should REDD+ be adopted under a post-2012 UNFCCC protocol, it is generally agreed that a standardised procedural framework will be designed in

attempt to ensure its equitable, effective, and efficient implementation across the globe (Anglesen et. al.: 2009).

REDD+ has been hailed by some as “*potentially the most far reaching and powerful policy instrument for influencing... tropical rainforest conservation*” (Stickler et. al: 2009). However, others are more wary of the difficulties of designing a REDD+ framework, implemented under the auspices of the UNFCCC, which is equitable, effective, and efficient, both in terms of emissions reductions and biodiversity conservation.

One critical concern in achieving this objective is the scale of financing which REDD+ has already attracted, and the implications of this on its future operations. In 2010, developed countries committed US\$4 billion to REDD+ advancement through the United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries (UN-REDD Programme) alone – a vast sum in relation to the total income of US\$1.35 billion received by all global biodiversity conservation and development programs in 2008 (Clements: 2010). The large capital injections currently being given to REDD+ have generated concerns that these projects are likely to attract investors whose primary motivations are the profits derived from the carbon credits generated by their activities, rather than concern for securing the co-benefits of biodiversity conservation and sustainable forest management (Vatn & Vedeld: 2011). Based on this rationale, REDD+'s focus on the environmental service of carbon sequestration has caused concern that forests will not be conserved in perpetuity, but rather subject to fluctuating international carbon prices and/or political circumstances, leaving them vulnerable to conversion (Clements: 2010). Currently, whether UNFCCC REDD+ funding will be allocated predominantly by means of a market-based architecture or through an international funding body remains undetermined (Vatn & Vedeld: 2011; Corbera & Schroeder: 2011).

An additional challenge is that the explicit focus of REDD+ on carbon is seen by some to represent an oversimplification of the causality of deforestation (Thompson et. al.: 2011), creating a significant risk that socio-economic development and ecosystems conservation will be neglected under this system of governance (Stickler et. al.: 2009). Failure to account for the ecosystems service value of forests beyond carbon sequestration under REDD+ could hypothetically result in the conversion of high biodiversity forests into monoculture plantations with greater short-term carbon-capturing potential (Stickler et. al.: 2009), or the establishment of powerful economic and political forces seeking to maximise

returns on carbon investments, which create perverse incentives for deforestation by local forest-dwelling communities (Clements: 2010). Under such circumstances, REDD+ would do more harm than good for protecting forests in developing countries. It is hoped that such eventualities can be avoided through the implementation of appropriate ‘safeguard’ policies under a UNFCCC regime.

Consequently, a third major challenge for the successful implementation of a REDD+ governance mechanism under a UNFCCC regime, will be to design a set of international biodiversity safeguards which can ensure equitable, effective, and efficient forest governance in every developing country in which it is implemented. Identifying the potential for the UNFCCC to achieve this objective will be the primary focus of this study.

## The Cancun Agreement and REDD+ Safeguards

In order to ensure that the environmental integrity of developing country forests (the ‘+’ in REDD+) is maintained, the parties of the UNFCCC have placed increasing emphasis on the inclusion of biodiversity ‘safeguards’ in any future international treaty that includes that mechanism (UNFCCC: 2011). The objective of these safeguards is to ensure that funding for REDD+ projects is contingent on fulfilling certain co-benefit requirements, including biodiversity conservation and the protection of social welfare. Under a UNFCCC treaty, these policies would be legally binding for all signatory states.

The two flavours of safeguard (biodiversity and social) tend to be discussed as if independent of each other. For example, the “*full and effective participation of relevant stakeholders, in particular indigenous peoples and local communities*” (UNFCCC: 2011, Appendix 1, Paragraph 2.d) is generally identified as a social safeguard. Of course, in reality, safeguards of this kind cannot easily be divorced from the issue of biodiversity conservation. However, to demonstrate the importance of social safeguards in contributing to the delivery of effective sustainable forest management and biodiversity conservation is beyond the scope of this study. Instead it will focus only on policies included in UNFCCC documents which explicitly address biodiversity conservation.

According to the guidelines detailed in Appendix 1, Paragraph 2 of the Cancun Agreement, REDD+ projects should ensure the following in order to deliver biodiversity conservation in conjunction with carbon sequestration:

*“2.a. [That their] actions complement or are consistent with the objectives of national forest programmes and relevant international conventions and agreements”*

And in addition, to ensure that:

*“2.e. [Their] actions are consistent with the conservation of natural forests and biological diversity... to incentivise the protection and conservation of natural forests and their ecosystems services, and to enhance other social and environmental benefits”*

(UNFCCC: 2011)

These policies appear to reflect a consensus reached by the parties that REDD+ payments should be allocated based on projects' conformity to the international values of biodiversity conservation.

However, the juxtaposition of these two guidelines also highlights one of the key aspects of the challenge of successful implementation of universally applicable REDD+ biodiversity safeguards: how to reconcile the fundamental rights of national sovereignty with the collective interest of humanity as represented by the United Nations?

## Un-United Nations

In the context of the United Nations, a regime can be defined as ‘*a set of interrelated norms, rules and procedures that structure the behaviour and relations of international actors so as to reduce the uncertainties that they face and facilitate the pursuit of a common interest in a given issue area*’ (Smouts in LePrestre: 2002). Unfortunately, agreements which reflect the ‘common interest’ of humanity frequently prove much more difficult to reach than one might expect. Yet this is consistent with Foucault’s lectures on governance, in which he asserts that nation states exist in a system of plurality (1978-9). Against the backdrop of international relations, states seek, first and foremost, to protect their own interests.

Consequently, the outcomes of international negotiations are often heavily influenced by the relations of power between state actors. Based on a Foucaultian understanding of power, one can argue that the texts produced by United Nations conventions (and indeed other international negotiations) generally reflect discourses and knowledge patterns of developed countries, which have the greatest reserves of financial and political resources.

Many scholars argue that this has created pressure for developing country governments to adapt their national policies to conform to emerging global regimes – regimes which tend to serve the interests of the powerful at the expense of the developing world (Biermann & Dingwerth: 2004; Thompson et. al.: 2011).

Should this be true of national biodiversity conservation laws and policies, it would inevitably call into question the capacity of these regulations to deliver equitable, effective, and efficient systems of environmental protection. In order to achieve this ultimate objective, it would appear that alternative – but not necessarily mutually exclusive – mechanisms of governance are required.

In order usefully to assess the opportunities for the UNFCCC to enhance equity, effectiveness, and efficiency of biodiversity conservation in developing country forests through the institution of REDD+ safeguards, it is necessary to first identify some of the relevant existing governance mechanisms which reflect the values of stakeholders operating at both the national and international level. This study comparatively analyses the requirements of three independent but overlapping governance systems which are being applied to REDD+ pilot projects in Vietnam, Cameroon and Brazil in the absence of an international regime: national legislation, funding requirements of multilateral financial institutions, and voluntary certification standards.

## Mechanisms of Governance Currently Applied to REDD+ Pilot Projects

### National Legislation

National legislation establishes the basic principles for interactions between citizens and with natural resources at the level of the sovereign state; including rights, processes, and institutions. In the context of forests, the most important policies directing management activities are defined at the national and subnational levels, in the absence of an overarching international framework (McDermott et. al. 2010, P.4). Because REDD+ policies implemented under the UNFCCC will ultimately address legal frameworks at the highest level of state government, this study will be limited to an analysis of national legislation. However, it should be recognised that additional governance instruments implemented at the sub-national level are critical to forest management, and that they are worthy of investigation in themselves.

The depth of analysis required to determine national-level governance requirements at the project level makes examining *all* countries in which REDD+ projects are being piloted unfeasible. Instead, three countries have been selected as representative cases of current REDD+ activities: Vietnam, Cameroon and Brazil.

These three cases embody a diversity of legal and political systems: Vietnam is a Socialist Republic; Cameroon a Presidential Republic and former French colony; and Brazil a Federative Republic. The policies and laws of these three states have been written and implemented under vastly different socio-economic and political conditions, yet there exists some apparent consistency in their core environmental values, as all three are signatories to the UNFCCC, the Kyoto Protocol, the CBD, and CITES. Furthermore, each of these three countries has classified forested land within their sovereign territories according to different land-use categories, each with specific legal requirements which dictate the acceptable levels of access to, and exploitation of, biodiversity resources (see Table 1). This suggests that the national governments of each of these countries recognise forests as vital natural resources and ecosystems service providers, whose exploitation requires careful regulation.

	Vietnam	Cameroon	Brazil
Forest Land Use Classification	Special Use Forest	Permanent Forest	Conservation Units (Integral Protection)
	Protection Forest	Non-Permanent Forest	Conservation Units (Sustainable Use)
	Production Forest		Indigenous Territory
			Private Land

Although this study is unable to identify an exhaustive list of potential concerns for a global REDD+ regime, the geographical and political diversity of this sample should ensure the flagging of these crucial issues.

National legislation is the only mechanism of governance currently applied to REDD+ pilot project sites on a mandatory basis. The other two mechanisms which will be analysed in this study – multilateral financial institution funding requirements and voluntary

certification schemes – are adopted on a non-compulsory basis, in addition to legislation. These complementary mechanisms are outlined below.

### Multilateral Financial Institutions

The UNFCCC and CBD, as well as the various treaties signed under their auspices are examples of multilateral agreements between sovereign states. While the concept of multilateralism can be simply defined as activities “*participated in by three or more parties, especially the governments of different countries*” (Oxford English Dictionary: 2011), its implementation is (inevitably) more complicated.

The enactment of international environmental agreements has been facilitated by multilateral financial institutions, such as the World Bank and Global Environment Facility (GEF), the latter of which was created explicitly to support the conventions borne of the 1992 United Nations Conference on Environment and Development (Hennicke et. al.: 2007). These organisations allocate financial resources to national projects for social and environmental development, and are largely owned by nation states, yet they are administered autonomously of national government interests (Siebenhüner: 2008). The decision to apply for project funding (and therefore to adopt an institution’s operational policies) is made by individual governments on a voluntary basis.

Multilateral financial institutions are important mechanisms in the governance of REDD+ pilot projects, because their values and practices reflect an intergovernmental mandate to address common issues. As such, it is reasonable to hypothesise that their policies and practices will be influential in the design of an international REDD+ framework. Furthermore, with respect to funding, multilateral financial institutions have in place operational policies and guidelines to assess the eligibility of various projects, which are designed to be applicable on an international scale (Hennicke et. al.: 2007; Dasgupta et. al.: 2008). The same generalisation cannot be made in the context of bilateral agreements established between pilot projects and other funding bodies such as national government departments, private corporations or NGOs – where the conditions of funding are more variable, depending on the specific set of parties involved and the geographical contexts of both the actors and the project sites. However, this is not to undermine the importance of these actors in developing the equity, efficiency and effectiveness of international environmental governance.

### Voluntary Certification Schemes – A Branch of Private Governance

In the sphere of international environmental management, ‘private governance’ (Pattberg: 2005) (Levin et. al.: 2009), or ‘non-state market driven’ (NSMD) governance, has emerged as an increasingly important system of governance to complement national legislation and multilateral institutions. Private governance systems are implemented by actors such as non-profit organisations and corporations, and do not feature direct government involvement. As with multilateral financial institutions, the projects adopting private governance systems do so on a voluntary, rather than compliance, basis.

It has long been argued that private actors represent international constituencies which are more concerned than are state-level governments with global economic and social interests (Coen: 1999; Okereke: 2010). This is based on the fact that the management strategies of multi-national corporations are largely driven by global market demands and brand reputation, which place corporations in a position where their success depends on their ability to respond to international concerns regarding social and environmental responsibility (Clarke & Hebb: 2005). In addition, NGOs are widely perceived as legitimate agents of social change by international public and private actors (Pattberg: 2005), and their involvement lends credibility to environmental programmes and policies.

Voluntary schemes certifying carbon sequestration and/or biodiversity conservation activities in developing countries represent a form of private governance mechanism which has been developed in response to criticisms of states’ capacities to adopt ‘*effective and enduring environmental policies*’ (Levin et. al.: 2009). Such schemes have proliferated against the backdrop of the UNFCCC since the formation of the Forest Stewardship Council (FSC) in 1993; and have established standards for numerous aspects of forest carbon management, including the quantification and monitoring of emission reductions from deforestation; poverty alleviation; and biodiversity conservation, with the objective of “[*promoting*] *credible forest carbon projects for the voluntary carbon markets*” (Merger et. al.: 2011). They represent a system of governance which operates beyond sovereign authority, and is enforced instead by international markets. The success of these voluntary standards depends on market demands for evidence of corporate social and environmental responsibility by private firms investing in REDD+ projects (Pattberg: 2005, Schepers: 2010).

Certification schemes enforcing voluntary standards for forest management activities they reflect the values of key actors beyond the state in the field of international environmental governance. As such, one can hypothesise that these standards are likely to influence the design of a UNFCCC REDD+ framework. The idea is supported by a number of policy experts, including Ben Vickers, acting Climate Change Focal Point for The Centre for People and Forests (RECOFTC), Thailand; who has stated that “[t]he development of safeguards can be built on experiences we already have with global, regional, and national standards for certification of forest management.” (RECOFTC: 2010).

Every global environmental governance issue is driven by a plethora of stakeholders both at international and local levels. This study addresses governance mechanisms which are appropriate for implementation an international level. Stakeholders operating at sub-national levels – such as grassroots movements and municipal governments – will not be examined, given the highly contextual specificity of their involvement in guiding forest governance practices.

This chapter has examined challenges of implementing REDD+ as a mechanism of governance under a UNFCCC regime, as well as the roles of national legislation, funding requirements of multilateral financial institutions, and voluntary certification schemes as existing mechanisms of environmental governance. The following chapter will examine two key strategies for biodiversity conservation which dominate existing international conventions and national legislation. These will be referred to as ‘inclusive conservation’ and ‘fortress conservation’. It is crucial to understand these strategies (and the philosophies towards the environment which they embody) in order to assess the capacity of the various mechanisms of environmental governance identified above to deliver equitable, effective, and efficient biodiversity safeguards under REDD+.

## Chapter 2: ‘Inclusive’ vs. ‘Fortress’ Conservation – a clash of environmental ideologies

REDD+ is about more than climate change (Anglesen et. al.: 2009). It is a governance framework which has the potential to address the most basic principles of environmental sustainability. Appendix 1 of the Cancun Agreement states that REDD+ activities should, among other considerations:

*(d) Be consistent with the objective of environmental integrity and take into account the multiple functions of forests and other ecosystems;*

*(f) Be consistent with Parties’ national sustainable development needs and goals;*

*(g) Be implemented in the context of sustainable development and reducing poverty, while responding to climate change;*

(UNFCCC: 2011)

These provisions, in conjunction with the juxtaposition of the terms ‘conservation’ and ‘sustainable management’ in the framework’s very title, suggest a consensus attitude towards ecosystems in which human social and economic activities are harmoniously integrated with biodiversity conservation.

This approach to ecosystems management is advocated by environmental geographers such as Whatmore (2002, Chapter 2), who draws attention to the importance of integrating wildlife (the embodiment of biodiversity) into the economic and social networks of human inhabitants of conservation sites, according to their existing knowledge practices. This paradigm will henceforth be referred to as ‘inclusive conservation’.

The ideology of inclusive conservation is not universally adopted in the national and international environmental laws which govern forest conservation activities. One of the alternative approaches standing in stark contrast to that described above is the ‘fences-and-fines’ (Barrett & Arcese: 1995) approach to biodiversity protection, or ‘fortress conservation’ (Brockington: 2002, p. 3; Siurua: 2006), where non-human species are protected from extinction by the exclusion of human social and economic activities from their habitats. This ideology was integral to the establishment of National Parks and wildlife reserves in the United States of America during the Nineteenth Century (Cronon: 1996), and has subsequently diffused across a plethora of governance regimes. Since this time, National Parks and Nature Reserves have spread across the globe, establishing fortress conservation as

a key international strategy for species and ecosystems protection (Naughton-Treves et. al.: 2005).

In the context of international environmental governance, it is important to question whether or not such strategies were adopted because they were the most equitable, effective, and efficient methods of biodiversity management for the regions in which they were implemented. If they are not, could the spread of National Parks from the West to all corners of the globe be evidence of the international power relations between states discussed above (Biermann & Dingwerth: 2004)?

Fortress conservation methods are denounced by Cronon (1996) as the product of a paradigm born of Anglo-American Enlightenment philosophy, which has constructed an ‘impossible dichotomy’ between ‘nature’ and ‘society’. In the context of REDD+, this dichotomous understanding of the world, in which our trespass into pristine forest ecosystems causes their inevitable demise, raises concerns about a particular dimension of equity which has been inadequately addressed in current climate change debates: that between human and non-human actors in ecosystems where mitigation and adaptation activities are implemented.

### Ecosystems Equity in Biodiversity Conservation

In order to deliver ecosystems equity at REDD+ project sites, it is necessary to implement a framework which protects the interests of non-human components of the ecosystem, without marginalising those of forest-dwelling people.

LePrestre (2002) refers to CITES as an example of an existing regime under which ecosystems equity is not always safeguarded, often being implemented in a way that prioritises the conservation of species to the detriment of human social and economic concerns. That this inequity, at least in certain contexts, hinders the effectiveness of CITES as a tool for biodiversity conservation is demonstrated in Whatmore’s case study of the conservation management of *Caiman latirosis*, the broad-nosed crocodile, in Argentina (Whatmore: 2002, p.26-31). This species was down-listed from Appendix I to Appendix II of the Convention in 1997, permitting the ranching of crocodiles (hatched in captivity from eggs collected from wild nests) so that a fixed number of skins can be traded on the international market each year. The reason for relaxing restrictions on the trade of this endangered species was that the removal of a vested local economic interest in the continued existence of this

particular species would result in little direct incentive to protect it or its habitat. In this instance, the relaxing of regulations designed to protect the species actually enhanced its chances of survival.

This case echoes the principles of deep ecology, a philosophy of environmental management which relies on humanity's "*overcoming alienation from nature...and asserting the naturalness of humans by 'living in harmony with environment'*" (Pepper: 1993, p.114). It also serves as evidence to support the argument that the integration of social and economic activities of populations into the 'natural' environments they inhabit promotes the kind of equity at the ecosystem level which is vital for effective conservation of biodiversity.

### Balancing the 3Es

As discussed above, while equity, effectiveness and efficiency in policy implementation are linked, they are not mutually dependant on each other. Biodiversity safeguards which extol the value of human exploitation of ecosystems resources as an integral component of conservation will not always correspond with existing practices of environmental management across the world. While it is important to design safeguard requirements which encourage ecosystems equity, this must not compromise the effectiveness of REDD+ initiatives.

Having defined and explored the key objectives of equity, effectiveness, and efficiency which will inevitably be considered in the design of a UNFCCC REDD+ framework, it is necessary to determine to what extent they are being achieved under existing state policies of forest governance. There is a significant body of literature addressing the weakness of current forest governance practices, which will be explored below. Explanations for the ineffectiveness and inefficiency of state policies generally link back to the issue that national legislation of developing countries does not adequately represent the immediate rights and needs of forest dwelling communities within their jurisdictions.

### Evidence of Inequity, Ineffectiveness and Inefficiency at State-Level Forest Governance

In a report commissioned by the IUCN on forest governance and law enforcement, Moore et. al. (2010) acknowledged the importance of law in establishing the basic principles for

individual interactions with others and with natural resources. However, in the context of forest governance, these laws are seldom complied with. Furthermore, Moore et. al. argue that strengthening enforcement measures is, in many contexts, not the answer – suggesting that the root cause of non-compliance with forest legislation is a moral one. This coincides with the arguments that much of this legislation has been passed under the scrutiny of the international community both in the period immediately preceding, and in the wake of the formation of the UNFCCC in 1992, and better reflects the interests of powerful developed countries than those of the developing world (Biermann & Dingeworth: 2004, Thompson: 2011).

This study will offer evidence that, in many cases, conflicts of interest arise between national level institutions and local communities in the legal requirements relating to forests; as specific institutional requirements may not be easily transferrable across different geographical contexts (Schroeder: 2010). For example, they often revolve around decisions regarding land-use classification which restrict access to forested areas (Engel et. al.: 2008, Phuc: 2009). In some such situations, such as perceived or actual insecurity of land tenure for local communities, forest protection legislation may create perverse incentives for deforestation (Lyster: 2011).

The lack of national governments' engagement with local forest-dwelling communities is emphasised further by the fact that, in practice, many developing countries have two different systems of forest management regulation operating simultaneously; which Moore et. al. (2010) classify as 'statutory law' and 'customary law'. While statutory law is written or codified, and typically reflects the interests of government, customary law is based on oral traditions which form a set of rules defining acceptable and unacceptable behaviours in a given community, and thus are more representative of the interests of local forest-dwelling communities. Unsurprisingly, these two types of 'law' often conflict with one another in the context of forest management practices. One might expect these conflicts to be especially prevalent in situations where statutory law endorses fortress conservation, while forest-dwelling communities have typically subsisted by employing sustainable forest management and inclusive conservation practices, regulated by customary laws.

The circumstances under which statutory laws on environmental protection have been instigated by developing countries – including whether or not it is reasonable to expect international pressure for their adoption – can be inferred from the dates and contents of the

relevant documents. For this reason, a comprehensive analysis of the legal frameworks of countries in which REDD+ pilot projects are implemented is essential to understanding the potential for various systems of state and non-state mechanisms of governance to deliver equitable, effective, and efficient biodiversity safeguards under a REDD+ regime.

The methods by which these governance mechanisms are assessed will be outlined in the next chapter. The analysis will provide insights into the extent to which the UNFCCC is capable of delivering biodiversity safeguards which can equitably, effectively, and efficiently address the needs of both forest dwelling communities and non-human inhabitants of forest ecosystems under existing national regimes

## Chapter 3: Methodology

The objective of this study is to assess the capacity of the UNFCCC to safeguard biodiversity equitably, effectively, and efficiently through a REDD+ framework. In an attempt to provide an answer to this question, this study will compare the biodiversity conservation policies already in force in REDD+ pilot projects in Vietnam, Cameroon, and Brazil. These policies will be drawn from three independent but overlapping governance mechanisms: national legal frameworks, multilateral financial institutions, and voluntary certification standards. The methods by which these policies were identified and analysed are outlined below.

### Identification of national legislation addressing biodiversity conservation

The legislation for each of the three case countries necessary for this analysis was identified by conducting a cross-search of three databases relevant to each state. The search criteria were designed to identify legal documents which explicitly address issues of biodiversity conservation in the context of forests. For each database searched, only legislation implemented at the national level was selected for analysis. This was based on the rationale that to include sub-national legislature is beyond the scope of this study. The names and serial codes of the legislation identified using this method are included in Appendix 1 of this document.

#### Legal Databases

##### The REDD Desk

This is a collaborative database of documents relating to REDD+ activities aggregated by country. It is administered by the Global Canopy Programme, and the organisation's partners (a variety of governmental and non-governmental tropical forest institutions) are invited to contribute any documents they deem relevant to 'REDD+, forests and climate change' (REDD Desk: 2011a). The documents from the 'Legal Framework' and 'Plans and Policies' sections of the database were selected for analysis.

##### EcoLex

This is a public database of environmental laws administered by the FAO, IUCN and UNEP. For each of the three countries, a keyword search was performed on 'treaties' and

‘legislation’ using the following terms: ‘Environment\*<sup>1</sup>’, ‘Forest\*’, ‘Biodiversity’, ‘Species’, ‘Wildlife’, ‘Flora’, ‘Fauna’, ‘Climate change’, and ‘global warming’.

### Global Legal Information Network (GLIN)

This is a public database of official texts of laws, regulations and other complementary legal sources contributed by governmental agencies and international organizations for selected jurisdictions (GLIN: 2011). The same keyword search applied to EcoLex was performed on ‘laws’ in the GLIN database for the jurisdictions of Brazil and Cameroon. Relevant documents for each of these countries were selected based on a review of the summaries provided. Initial selections were limited to Laws and Decrees; however Decisions and Ordinances were sometimes subsequently retrieved if explicitly referred to in the documents selected in the initial search. Vietnamese legislation was not included in this database.

### Ministry of Justice Legal Document Database, Vietnam

Vietnam was the only one of the three countries for which the national government administers a searchable online database of its legal documents (Ministry of Justice, Vietnam: 2011). The same keyword search as above was performed on this database, and the relevant documents for each of these countries were selected based on a review of the summaries provided. As above, the decision to retrieve specific Decisions and Ordinances was based on the contents of the documents selected in the initial search.

### Sampling Multilateral Funding Institutions and Voluntary Standards

The REDD Desk database was searched for REDD+ pilot projects which are both ‘active’ (i.e. currently in operation) and in operation at a ‘subnational’ level. The decision to sample only active projects was reached in order to restrict the legislation examined to legislation which is actually in force. This is because projects currently only in the design phase may be subject to new laws when they are eventually implemented. Sampling of projects operating at a sub-national level was conducted to facilitate the identification of specific legal requirements based on identifiable land-use classification for each project. To ensure that

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<sup>1</sup> In the context of these databases ‘\*’ denotes a ‘truncation symbol’, allowing a search for all words for which the preceding characters form the root.

such requirements could be identified, sub-national projects implemented in multiple jurisdictions or unspecified forest classifications were excluded from the sample. The list of sampled projects can be found in Appendix 2.

The REDD+ pilot projects identified in this sample are funded by a variety of organisations, including national government ministries, NGOs and private corporations. Four multilateral financial institutions were identified: the World Bank, the GEF, the Amazon Fund and the UN-REDD Programme. Guidelines for approving project funding were identified for three of these: World Bank Operating Procedures (WB-OP); GEF Policies on Environmental and Social Safeguards and Gender Mainstreaming, and the Amazon Fund Guidelines and Criteria for Application. The UN-REDD Social and Environmental Principles Framework (Moss et. al.: 2011) has only recently been drafted, and its operational status in the context of active REDD+ pilot projects is not clear. As such, it has been excluded from this analysis.

Four voluntary certification standards were also identified as currently being applied to the chosen REDD+ pilot projects: the SOCIALCARBON Standard; The Plan Vivo Standards, CCB Standards; and the CarbonFix Standard. The links to all of the relevant safeguard guidelines and policies can be found in Appendix 3.

## Limitations and Challenges

### Translations

One of the main challenges encountered in this process of data collection was obtaining English-language versions of all relevant texts. This was not a serious problem in the case of Cameroon, where the Official Gazette of legal documents is published in both French and English. There are also official English translations of all Vietnamese legal documents provided by the government, but only up until 2008. English translations of selected documents published after 2008 were available on the REDD Desk, although the provenance of these translations was not referenced. The Brazilian government has published no official English translations of its legal texts. Through personal contacts with a law firm in Brazil, translations of Law No. 6.938/1981 (Regulating the National Environmental Policy) and Law No. 9.605/1998 (Provisions for the criminal and administrative sanctions arising from environmentally harmful conducts and activities, and other measures) were obtained.

The relevant documents for which translations could not otherwise be obtained from Vietnam (Decree 17/2010/ND-CP, Decree No99/2009/ND-CP) and Brazil (all documents analysed with the exception of those mentioned above, including the Amazon Fund application guidelines) were translated into English using Google's online software which, while imperfect, allowed a general comprehension of the texts. An Executive Summary of the National Plan on Climate Change for Brazil was available in English (Interministerial Committee on Climate Change: 2008). A Portuguese speaker was consulted regarding translations of crucial passages.

### Sample Omissions

Because texts were selected based on individual assessment of document summaries, there is a significant possibility that some potentially relevant documents have been omitted from this analysis as the result of human error.

### Method of Analysis

Cashore & Howlett's (2007) 'policy taxonomy' was employed to identify policy *settings* (the specific, on the ground, aims of policy) as the optimal unit of analysis for this approach, as it enables a direct comparison between the requirements of legislation, the project funding requirements of multilateral financial institutions, and voluntary standards.

The method used to compare these governance systems draws on Yanow's hypothesis that the aim of policy analysis is to provide '*an intelligent basis for discussing and judging conflicting ideas, proposals and outcomes*' (Yanow: 2000, p.2), and employs an 'interpretive approach' to this task, focusing on the contextual meanings of policies to '*broad-range of policy-relevant publics*' (*ibid.*, p.8). In this study the policy-relevant publics under consideration are international-level policy makers, as well as the governments and forest-dwelling communities of each of the three case countries. Chapter 4 examines the biodiversity conservation requirements stipulated in each of the three governance mechanisms under scrutiny. Chapter 5 discusses the potential for a UNFCCC regime to implement safeguards which can be delivered equitably, effectively and efficiently across developing countries. It will do so by exploring the implications of adopting the voluntary policies currently in place at pilot project sites as mandatory, universal safeguards. This is based on an examination of these policies in the context of the divergent legal frameworks of

Vietnam, Cameroon, and Brazil; from which it should be discernable whether or not the UNFCCC is an appropriate instrument for their enactment.

## Chapter 4: Findings

### Overview of National Legal Frameworks

**Table 2: National Legal Frameworks for Biodiversity in Vietnam, Cameroon and Brazil**

<u>Legal Frameworks/Documents</u>	Vietnam	Cameroon	Brazil
Environment	2005	1996	1981
Forest	2004	1994	1965
Sustainable Use			2006
Biodiversity	2008		2002
Wildlife / Endangered Species	2006	1994	2000
PES	2010		
Protected Areas / Conservation	2010		2000
Climate Change	2008	2009	2009
REDD+	2010		2009

  

Key	
Law ( <i>Project Law</i> )	
Decree	
Policy	
National Plan	
Specialised Committee / Administrative Body	

#### Vietnam

Vietnam's legislative framework for the management of national biodiversity resources appears comprehensive. It is the only one of the three case countries to have a law devoted to this issue (Biodiversity Law, No. 20/2008/QH12), and is also the only one to have taken action towards establishing a national Policy for Payment of Forest Environmental Services (Decree No: 99 /2010/ND-CP). The current Law on Environmental Protection (No. 52/2005/QH11) replaces that which was promulgated only a decade earlier, and demonstrates a development in both the depth and breadth of environmental issues addressed, including protection of biodiversity. This suggests that the government's attitude towards environmental protection and management has undergone a dramatic transformation in recent years.

Article 4 of the Law on Environmental Protection expresses a national commitment to environmental protection '*in harmony*' with socio-economic development, as well as in accordance with '*natural cultural and historical laws*'; while Article 30.1 requires that '*biodiversity protection must be carried out on the basis of ensuring rights and legitimate interests of local population communities and concerned entities.*' This suggests that the national government embraces a philosophy of inclusive conservation of biodiversity by forest dwelling communities.

However, this inference is challenged by Article 51 of the Law on Forest Protection and Development (29/2004/QH11) and Article 7 of the Law on Biodiversity, under which access to biodiversity resources in Specialised-Use Forests is heavily restricted. Under these

laws, exploitation of biodiversity either for subsistence or commercial purposes is prohibited in *'strictly protected sections of conservation areas'*. Exploitation of natural resources is also limited in administrative- and buffer-zones of the same forest types. Contrary to the ideology of sustainable use suggested above, these measures imply that the Vietnamese government believes that effective conservation of biodiversity is impossible under conditions of human exploitation, however well-managed. Furthermore, the specific land-use practices permitted in Specialised-Use Forests under Article 4.2 of the Law on Forest Protection and Development suggests that the national government's priority is to maintain areas of pristine and unspoiled natural forest as a resource to attract foreign capital through environmental tourism and ecological research. Thus, the Vietnamese legislation shows evidence of adopting fortress conservation practices, including the conceptual construction of Cronon's (1996) 'impossible dichotomy', and a literal construction of frontiers of exploitation of forest resources. This situation is likely to generate conflict between statutory and customary laws at a local level. The ideological inconsistencies between national legal documents could be construed as evidence of the Vietnamese government's conformity to the normative demands of existing international governance regimes without adapting them to complement knowledge practices within the state.

### Cameroon

The legal framework for biodiversity management in Cameroon is limited both in scope and specificity. The majority of relevant legislation, including Law No. 94/1 to lay down the Forestry, Wildlife and Fisheries Regulations; the Framework Law Relating to Environmental Management (Act No. 96/12); and Decree No. 96/244 to organise the Ministry of Environment and Forests, was promulgated between 1994 and 1999 – possibly representing a display of optimism and good will in the aftermath of the creation of the UNCFF and CBD in 1992.

The contents of these laws (and those which followed) are somewhat vague in terms of legal rights and obligations relating to biodiversity management. For example, for many of the laws explicitly addressing biodiversity and/or ecosystems management, the Ministry responsible for administration and enforcement is not specified. In the case of Law No. 94-1, the Ministry of Forestry, Wildlife and Fisheries was only established in 2005 – eleven years after the regulations became effective. On the other hand, the government has also created

certain administrative bodies, such as the National Consultative Committee on the Environment and Sustainable Development (No. 94/2591/PM) and the National Observatory on Climate Change (Decree No. 2009/410), with no apparent regulations to administer.

The ownership and user rights of forest land lack clarity, and in many cases the extent of biodiversity exploitation permitted (including subsistence harvesting by local peoples within protected forests) is dependent on the content of management plans drawn up for specific areas (as seen in the Forestry, Wildlife and Fisheries Regulations, and the Framework Law on Environmental Management). Furthermore, there is a broad scope for discretion in the allocation of forest concessions for timber harvesting by central government authorities (Ordinance No.2763/MINF of 2000 to lay down Pre-selection Criteria and Procedures for Selecting Bids for Logging Permits). The inference drawn from these findings is that Cameroon's legislative framework is designed to allow the government to retain a significant degree of discretionary power over land use activities. This is supported by Article 43 of Forestry, Wildlife and Fisheries Regulations, under which the government reserves the right to mark any tree found in a forest concession as 'reserved', effectively revoking the rights of the concession holder to exploit its timber resources.

The Framework Law regulating Environmental Management advocates the '*rational management of the environment and natural resources*' (Article 9), and '*integration of environmental plans and programs to those of economic, energy, land and other sectors*' (Article 14.1). Furthermore, Articles 5 and 36.1 of the same Act serve to ensure access to a healthy environment for all citizens, and the maintenance of healthy soil systems respectively – which can be read as effectively prohibiting environmental degradation within the national territory. These articles suggest that the government endorses a philosophy of inclusive conservation.

Furthermore, Cameroon is a signatory of both the Yaoundé Declaration (1999) and the 'Treaty on the Conservation and Sustainable Management of Forest Ecosystems in Central Africa and to establish the Central African Forests Commission (COMIFCAC)' (2005), highlighting regional coordination of biodiversity and ecosystems management plans across the Congo Basin as a priority policy goal for increasing management effectiveness in a politically and economically unstable region.

With respect to regulations specifically directed towards wildlife management, it is apparent that the Cameroonian government perceives biodiversity as a major potential source

of international revenue derived from trophy-hunting. This is made clear by the attention paid to the development of hunting zones and game reserves throughout the legislation, as well as the system for classifying ‘protected’ species within the national territory. For example, under Order No. 0648/MINFOF (2006), elephants with tusks weighing less than 5kg are classified as Class A ‘totally’ protected species which may not be killed under any circumstances, whereas those with tusks weighing more than 5kg are listed as Class B protected species which may be killed with the authorisation of the relevant ministry. This suggests that the Cameroonian government recognises the economic potential of endorsing the commercial hunting of larger specimens.

However, as in the case of Vietnam, the legislative framework of Cameroon reveals some inconsistency between the ideology of sustainable exploitation of biodiversity in the context of forest management as described above, and that of restricting human access to areas of pristine nature to ensure its conservation. This can be seen in Article 64 of the Framework Law on Environmental Management, where the sustainable use of biodiversity is defined only in terms of the *‘inventory of existing species, particularly those threatened with extinction; management plans for species and preservation of their intact habitats; a system for controlling access to genetic resources’*, and in Article 86.1 of the Forestry, Wildlife and Fisheries Regulations, under which traditional hunting practices within state forests are strictly prohibited. When considered together, these articles suggest that the Cameroonian government adopts the view that biodiversity resources can only be sustained by limiting human access and exploitation rights. As in Vietnam, the ideological discrepancies evident in Cameroon’s legal framework are a potential source of conflict not only with a future international regime, but also with respect to the activities of local forest-dwelling communities.

## Brazil

Brazil has a comprehensive legal framework for regulating the exploitation of biodiversity, which apparently adopts an ‘inclusive’ approach to biodiversity conservation. It is the only one of the three case countries to have any legal provisions dedicated explicitly to sustainable use of forest resources: Law No. 11.284, 2 March 2006 providing for the Management of Public Forests for Sustainable Production.

The importance of ecosystems services is recognised in the Forest Code (Law. 4.771/1965), under Article 2 of which both public and private forested land in strategic locations – such as on steep slopes and along river banks – is designated as ‘Areas of Permanent Preservation’ (APPs). Article 3 implies that the rationale for these designations is to protect surrounding lands from natural hazards such as soil erosion and flooding. A more controversial requirement of the Forest Code is that of maintaining ‘legal reserves’ of native forest on private land used for exploitation. Under Article 16.2 of this law, forest cover must be maintained on 20% of private land area across the nation, a figure which increases to 80% in the Legal Amazon Region (Article 44 - amended from 50% in 2001). Similarly severe restrictions are placed on areas of pristine forest located within private land which may be cleared for conversion to crop and pasture land (Article 16).

Brazil’s legal framework also appears to adopt a holistic ‘ecosystems’ approach to biodiversity management, as is evident in Law 9.605/1998 providing for the Criminal and Administrative Sanctions arising from Environmentally Harmful Conduct, under which the unauthorised exploitation of any and all forest organisms is a punishable offence, and the inclusion of a species on IBAMA’s List of Brazilian Species in Danger of Extinction (2003) only increases the severity of the sanction. This list comprises 629 species of animal, including both aquatic and terrestrial invertebrates, and 115 plants. By comparison, the equivalent lists for Vietnam and Cameroon include 151 and 261 animals respectively, consisting only of large terrestrial vertebrates, mostly ‘charismatic megafauna’ (Walpole & Leader-Williams: 2002). Nevertheless, the recognition of subsistence rights to exploitation of biodiversity resources is apparent in the same law, specifically Article 50<sup>2</sup>, with exemption given to those carrying out such activities for immediate subsistence purposes. Article 37 provides the same exemption in the case of the slaughter of wild animals.

When these provisions are considered in conjunction with the General Principles laid out in Decree 4.339/2002 establishing the National Biodiversity Policy – which strongly echo those of the CBD – it suggests that the sustainable use of natural resources is a philosophy which permeates federal legislation. Although the nation’s forest management architecture does incorporate areas in which human exploitation of biodiversity resources is prohibited (Integral Protection Units), these form only a subset of the broader classification of ‘Conservation Units’ (Article 8 of the Law on Establishing a National System of

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<sup>2</sup> As amended under the Law on Management of Public Forests for Sustainable Production which provides sanctions for the unauthorised clearing, economic exploitation or degradation of public forests

Conservation of Nature). This umbrella term also encompasses ‘Sustainable Development Units’, which strongly advocate the marriage of biodiversity conservation and exploitation (Article 14 of the Law on Establishing a National System of Conservation of Nature).

The promotion of subsistence and small-scale economic exploitation of biodiversity within public forests may be linked to the high rate of compliance with (and/or enforcement of) land use requirements in state protected areas – with one study suggesting that only 3% of the 5 million hectares designated as National Parks and Reservation areas are being illegally exploited (Sparovek et. al.: 2010). It could be argued that the recognition of biodiversity access and exploitation rights of forest-dwelling communities gives legitimacy (based on Suchman’s definition<sup>3</sup>, 1995) to the statutory requirements. It is perhaps unsurprising then that none of Brazil’s REDD+ pilot projects is situated in Integral Protection Units, suggesting that these have not been identified as areas at high risk of deforestation.

Conversely, Sparovek et. al. (2010) suggest that up to 42% of APPs and legal reserves (covering 43 million hectares, and largely located on private land) are under illegal land use. The inference to be drawn from this evidence is that the strict legal requirements for forest and biodiversity protection on land privately purchased for the purpose of commercial exploitation – and the integration of natural and social landscapes which these demand – is in itself a source of conflict in the context of economic production.

However, the Forest Code is currently in the process of a potentially dramatic reform which could allow development closer to rivers and hill-tops, reduce the required area of legal reserves, and grant amnesty to land-owners who illegally cleared forests before 2008. The rationale behind this reform is that the current strictness of environmental legislation contradicts that of the 1970s, under which farmers were actively encouraged to clear rainforest and establish agriculture systems; and that the current regime is in direct conflict with farmers’ welfare (Guardian: 2011, Schwartzman: 2011). The possible implications of this potential loosening of deforestation restrictions will be considered below.

Having identified the mandatory forest management regulations in each of the three countries in which the sampled REDD+ pilot projects are located, the additional and complementary

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<sup>3</sup> Suchman defines Legitimacy is the ‘*generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions*’.

governance mechanisms which are implemented in certain of these projects can be more productively examined.

## **Biodiversity Conservation Requirements for Multilateral Funding Institutions**

### **World Bank**

The World Bank is an international financial institution made up of 187 member states which provides loans for poverty reduction projects in developing countries around the world (World Bank: 2011). This institution has a comprehensive Operations Manual which details the good-practice requirements that projects must meet to achieve and maintain funding eligibility. Series 4 of the Operations Procedures (OP4.00) addresses ‘Environmental and Social Safeguard Issues in Bank-Supported Projects’, with OP.4.01, 4.02, 4.04 and 4.36 addressing Environmental Assessments, Environmental Action Plans, Natural Habitats, and Forests respectively.

The biodiversity conservation requirements for World Bank funded projects are extensive, mandating not only compliance with national and international regulations, but also the identification of conservation priorities in project sites. These safeguards also include specific provisions for the sustainable harvesting of forest products, endorsing ‘*small scale harvesting [contingent on meeting] criteria for responsible forest management*’. This suggests, when considered alongside the Bank’s objective of achieving sustainable development, that the WB-OP endorses a philosophy of ecosystems equity in its safeguard policies.

### **GEF**

The Global Environment Facility is a partnership of 182 governments which was formed to address environmental issues. It is the financial mechanism for the CBD and the UNFCCC, as well as other international conventions (GEF: 2011). The World Bank is one of the partnership agencies of the GEF, and a trustee of the organisation. In addition to the organisation’s own ‘Policies on Environmental and Social Safeguards and Gender

Mainstreaming’, GEF projects are also explicitly referred to in the WB-OP, which states that the projects subject to these procedures include those which are funded under the GEF.

As such, it is reasonable to assume that WB-OP policies will generally be applied to GEF funded projects, in addition to those explicitly referred to in the GEF’s own safeguards. Given this assumption, the biodiversity conservation policies of the GEF closely mirror those of the World Bank – except that GEF policies require biodiversity in project sites not simply be maintained, but to be enhanced, something which creates an added dimension of difficulty for projects in demonstrating their eligibility for funding.

### Amazon Fund

The Amazon Fund is managed by the Brazilian Development Bank (BNDES), and provides ‘non-reimbursable financing’ for ‘projects that promote the preservation and sustainable use of forests in the Amazon Biome’ (Amazon Fund: 2011). Both the Norwegian and the German governments have pledged over US\$1 million to support the fund.

The full biodiversity safeguarding policies for the Amazon Fund were not freely available. However, the ‘Guidelines and Criteria for Application’ were available, and did highlight three basic criteria for eligibility: Environmental Impact Assessments, environmental monitoring, and compliance with relevant legislation.

<b>Table 3: Multilateral Financial Institution Project Funding Requirements</b>			World Bank	GEF	Amazon Fund		
Ensure	Planning and Design	Environmental Impact Assessment		█	█	█	
		Environmental expertise in design of project and implementation of mitigation measures					▒
		Mitigating potential negative impacts					
	Information	Identification of conservation priorities					
		Flora and fauna information research / monitoring					▒
	Legal	Accounting for national legislation and/or policy framework					▒
		Conform / complement international agreements					▒
		Compliance with relevant laws					▒
	Ecosystem/Habitat	Ecosystem/habitat maintenance/protection					▒
		Habitat rehabilitation					▒
		Conservation of forest ecosystems					▒
		Sustainable development/management of forest ecosystems/biodiversity					
	Biodiversity	Maintain biodiversity					
		Enhance biodiversity	-				
			If forest restoration and plantation are necessary to meet objectives				█
	Exploitation	Harvesting	Commercial harvesting of forests only in non-critical habitats				▒
Small scale permitted if achieved criteria of responsible forest management			▒				
Avoid	Ecosystem/Habitat	Degradation of natural habitat		█	█		
		Conversion of natural habitat					

**KEY**

█	: <b>Included</b>
▒	: <b>Presumed to be Included</b>
□	: <b>Not Included</b>

## Biodiversity Conservation Requirements for Existing Voluntary Safeguard Standards

### SOCIALCARBON Standard

This is a voluntary standard which certifies emission reduction projects for their contributions to sustainable development (SOCIALCARBON: 2011). Currently, it is only applied to REDD+ pilot projects in Brazil. This standard appears strongly to endorse a philosophy of human integration within natural ecosystems, mirroring that of Brazil's legal framework. In addition to the basic standards required for certification, this organisation has also published guidelines of detailed 'indicators' of sustainable development for the various types of projects it certifies, including forestry activities.

SOCIALCARBON includes two certification criteria which appear to be unique across the voluntary standards. These are the: 1) legal protection of project areas, which involves the (re)classification of sites so that their ecosystems may enjoy a protected status; and 2) the use of biodiversity on project sites. These specific demands seem to reflect Brazil's particular conservation strategies and as such, their effectiveness in other geographical contexts merits careful consideration.

### Climate, Community and Biodiversity (CCB) Project Design Standards

This set of standards is used to evaluate the sustainability of land-based carbon mitigation projects (CCB Standards: 2011). Assessments are carried out in two phases of the projects' development; the first in the design phase, and the second in the 'multiple benefits' phase. It is currently applied to pilot projects in both Vietnam and Brazil.

In comparison with the other standards which have been sampled, the CCB standards include a relatively comprehensive set of certification criteria, with emphasis not only on the maintenance of forest ecosystems, but on also delivering a 'net positive benefit' to biodiversity. This can be understood as a form of 'additionality' – a concept which is explicitly referred to in its Project Design Standards. Additionality is a complicated outcome for projects to demonstrate, as will be discussed in the following chapter.

The CCB standards are also unique in the context of this sample because they offer two levels of certification: the CCB Standard and the optional CCB Gold Standard for

projects which deliver ‘exceptional’ community or biodiversity benefits. The idea of ‘exceptional benefits’ also appears to echo the principles of additionality.

### CarbonFix Standards

CarbonFix is a programme which certifies the sustainable management of afforestation and reforestation projects, rather than projects which avoid deforestation (CarbonFix: 2011). This standard has been applied only to one of the pilot projects sampled: a reforestation programme in Vietnam which is financed exclusively through the sale of carbon credits.

Apart from certification requirements for environmental impact assessment, monitoring, and mitigation, this standard includes policies for the identification of conservation priority species, the enhancement of ecological impacts – including biodiversity, and the avoidance of ecosystems degradation and encroachment.

### Plan Vivo Standards

The Plan Vivo standard is based on ‘developing community-based PES projects and programmes’ (Plan Vivo: 2011). It is currently implemented in the Community PES pilot project in Cameroon. As with CarbonFix, Plan Vivo’s activities are focused predominantly on reforestation and forest regeneration rather than the preservation of standing forests. This is evidenced by the fact that they are unique among the sampled standards in requiring the planting of only native or naturalised tree species on project sites.

Aside from this requirement, Plan Vivo has few certification criteria relating to biodiversity. However, like the CCB standard, Plan Vivo also demands that the planting and/or restoration of native species should be ‘additional’ to business-as-usual activities at the project site.

<b>Table 4: Voluntary Certification Scheme Standards</b>			SOCIAL CARBON	CCB	CarbonFix	Plan Vivo
Ensure	Planning and Design	Environmental Impact Assessment				
		Mitigating potential negative impacts				
	Information	Identification of conservation priorities				
		Flora and Fauna information Research / Monitoring				
	Legal	Legal protection of project area				
	Ecosystem/Habitat	Ecosystem/habitat maintenance/protection				
		Conservation of forest ecosystems				
		Connectivity of native ecosystems				
		Sustainable development/management of forest ecosystems/biodiversity				
	Biodiversity	Use of Biodiversity				
		Planting restricted to native/naturalised species				
		Enhance biodiversity				
	Additionality	Additionality				
	Avoid	Ecosystem/Habitat	Degradation of natural habitat			
Conversion of natural habitat						

**KEY**

	: <b>Included</b>
	: <b>Presumed to be Included</b>
	: <b>Not Included</b>

The implications of the broader application of this and other criteria in determining projects' eligibility for REDD+ funding will be addressed in the following chapter.

## Chapter 5: Discussion

This chapter contains a comparative analysis of biodiversity conservation and management requirements of national legislation and non-state governance mechanisms at existing REDD+ pilot project sites. This analysis was carried out with the explicit intention of identifying which policies are within the capacity of a UNFCCC regime to implement, and which are more appropriately implemented through alternative governance mechanisms.

### Areas of consensus

A number of the safeguarding requirements applied across most (if not all) of the voluntary standards and multilateral funding requirements which were sampled do not appear to conflict with any of the national legal regulations of Vietnam, Cameroon or Brazil. They include three actions which, taken together, ensure as far as possible that no direct environmental harm is caused by REDD+ projects:

1. The completion of environmental impact assessments before the implementation of the project;
2. The mitigation of any negative impacts of its implementation and operation ;
3. The avoidance of degradation and or conversion of natural ecosystems.

An additional non-state governance requirement which corresponds with – and arguably enhances – national biodiversity management policies is that of research and/or monitoring of biodiversity and/or ecosystems conditions. The pervasive call for more information regarding forest biodiversity across these systems of governance highlights the current state of ignorance regarding these biomes, and the role of this knowledge in improving ecosystems management.

No reasonably foreseeable significant conflicts could arise from the inclusion of these safeguard policies in an international REDD+ framework. Instead, they could serve to reinforce existing philosophies of environmental protection and sustainable use, and contribute to the development of a global knowledge base of natural resources.

## Identification of Conservation Priorities

The funding from the World Bank and GEF, as well as certification by SOCIALCARBON, CarbonFix and the CCB Standards, require the identification of species to be prioritised for conservation activities in order for projects to achieve eligibility for funding or certification. However, based on the existing legal systems of Vietnam and Cameroon, if this measure were included in an international compliance framework, it could have the potential to create strong disincentives for forest dwelling communities in these countries to participate in REDD+.

Under Vietnamese Law, forests which provide habitat for ‘endangered, precious and rare’ species should be considered for re-classification as Special Use Forests (Decree No. 32/2006/ND-CP, Article 5.1), where exploitation of natural resources is heavily restricted. Furthermore, Articles 47.1 and 56.2 of the Law on Forest Protection and Development prohibit the exploitation of endangered, precious or rare species within Protection and Production forests respectively. These legal requirements give little incentive for forest dwelling peoples to identify species in their environs as ‘precious’ or endangered, because in so doing they risk losing their exploitation and subsistence rights at the hands of a government decision to re-classify these forests. A similar situation can be seen in Cameroon, where forest dwelling communities are awarded ‘customary rights’ to harvest all natural resources from forests, except for those species listed as protected (Article 8.1, Forests, Wildlife and Fisheries Regulations), or in ‘*state forests protected for wildlife conservation*’ (Article 86.1) – where traditional hunting practices are prohibited. As such, the same disincentives as in Vietnam for identifying species for conservation priority exist.

These potential conflicts and disincentives for the adoption of REDD+ activities are not as apparent in the context of Brazil. Legal provisions for the protection of endangered species include the Principles for the National Biodiversity Policy, which detail the measures for protection of endangered species within Indigenous Territories, and endorse the ‘*[identification of] areas for creation of new protected areas, based on the needs of endangered species*’ (Article 11.3.2). However, these laws are seldom implemented at the expense of subsistence rights of local forest-dwelling communities. As described above, the Law for Criminal and Administrative Sanctions arising from Environmentally Harmful Conduct permits the exploitation of biodiversity resources for subsistence purposes in relation to both species listed as endangered and within the limits of Conservation Units.

## Legal Protection of REDD+ Project Areas

The SOCIALCARBON standard includes a similarly contentious certification requirement for participating projects: that the legal protection enjoyed by project sites is strengthened over time. As in the case of identifying priority species for conservation, imposing legal protection as a mandatory requirement for REDD+ projects under a system of international governance could act as a disincentive for on-the-ground engagement with REDD+. This is because its application in the context of national legal frameworks such as that of Vietnam would involve the inevitable sacrifice of subsistence rights for the sake of biodiversity conservation.

In the case of Cameroon, the potential for direct conflict is less clear, as the permissible uses of Permanent Forests are highly variable. For example, the logging rights of local populations may be suspended if in contravention to the purpose of the forest (Article 26.1 of Forest, Wildlife and Fisheries Regulations). It appears that rights of access to Permanent Forest resources in Cameroon are largely dependent on the specific objectives and rules detailed in the management plans drawn up by local or central government officials for each forest zone (Articles 29.1 and 31.1 of Forest, Wildlife and Fisheries Regulations); which allows for a significant degree of discretion in the allocation of community rights.

At present, the SOCIALCARBON standards are applied only to pilot projects in Brazil (where legal protection of forest areas for the benefit of biodiversity conservation does not necessarily conflict with communities' exploitation rights), suggesting that this safeguard mechanism is considered by project administrators in Vietnam and Cameroon to be inappropriate for application in these sites.

## Use of biodiversity

Further evidence of the regional specificity of the SOCIALCARBON safeguards is that, under this standard, eligibility for certification of forest projects requires the 'utilisation of biodiversity'. This is a problematic phrase, as one could argue that the use of any biotic resource fulfils this criterion, rendering it so broad as to be meaningless in contributing towards conservation activities. However, given the context in which it is used, the term can

be understood as referring to the sustainable use of a diverse range of ecosystem resources in addition to the service of carbon sequestration.

While sustainable use of biodiversity resources is encouraged in the forest classifications in which Brazil's REDD+ pilot projects are currently situated, the same cannot be said of Vietnam or Cameroon. The severe limitations on natural resource extraction in Vietnam's Special Use Forests confine biodiversity exploitation within their boundaries to that of non-timber forest products in non-strictly protected zones and for non-commercial purposes (Article 51.2 of the Law on Forest Protection and Development and Article 7.1 of the Biodiversity Law). Under these conditions, legally viable biodiversity utilisation by local communities could be so restricted that it would render project sites in Special Use Forests ineligible for REDD+ funding.

Should the management plans for Permanent Forests in Cameroon include similar restrictions to biodiversity exploitation (which is not unlikely given the government's apparent preference for the development of populations of charismatic megafauna species for commercial trophy hunting), many potential REDD+ project sites would no longer be eligible for funding through the UNFCCC. The additional hindrance posed by the fact that legal biodiversity use is contingent on specific management plans is that it introduces a further element of uncertainty regarding future legal rights and obligations applicable to specific forest sites. These factors severely limit the potential for long-term sustainability of REDD+ projects in Cameroon.

### Enhancement of Biodiversity

The Carbon Fix and CCB voluntary standards, as well as the World Bank and GEF funding requirements, demand that the projects they support demonstrate not simply the maintenance of biodiversity, but rather its active enhancement. For most of these mechanisms, this policy is applied across all projects. However, the World Bank requires the enhancement of biodiversity only when forest restoration and plantation are necessary to meet the project's objectives (WB-OP 4.36.2). The primary interest of the CarbonFix programme is reforestation activities. Only land which has been un-forested for a minimum of 10 years is eligible for certification under CarbonFix. In the context of the sample of pilot projects under investigation, the CCB standard has only been applied to the CO<sub>2</sub>OL Biodiversity Reforestation project, which involves the '*the reforestation of former fallow land or*

*excessively used grasslands in Kon Tum Province*' (REDD Desk: 2011b). Under these project scenarios, it would seem legitimate to require the enhancement of biodiversity as an environmental safeguard.

However, the universal application of this requirement under an international framework could actively undermine the REDD+ system. As stated in the CBD (1992), biodiversity is simply "*the variability among living organisms ... and the ecological complexes of which they are part...*", and the circumstances under which its 'enhancement' would be beneficial to ecosystems functioning are not defined. In some cases, a short-term increase in the variability among organisms through the introduction of alien species could have devastating long-term effects on the biological diversity of a region. This suggests that the 'enhancement of biodiversity' should not be included as a UNFCCC policy objective before the conditions under which it is desirable are clearly identified.

Even assuming that the objective of biodiversity enhancement is restricted to native species, this policy continues to raise concerns if applied as an international safeguard. This is because native biodiversity enhancement may be most easily demonstrated in areas where ecosystems have already been degenerated. As such, the inclusion of a mandatory requirement of biodiversity enhancement for REDD+ funding could preclude intact but vulnerable ecosystems from eligibility – thereby creating a perverse incentive for deforestation and forest degradation. Such a situation might be avoided if, as specified under the WB-OP, enhancement of biodiversity is only a requirement in areas where there is evidence that ecosystems have previously been degraded.

## Compliance with National Legal Frameworks

The Amazon Fund and the World Bank (and presumably the GEF) stipulate that projects must demonstrate compliance with national legislation in order to be eligible for funding. While this requirement is not inherently contentious, it does highlight the reliance of effective global environmental governance on comprehensive legislation at the national level.

This raises concerns regarding the robustness of legal frameworks in politically unstable developing countries such as Cameroon. As discussed above, the absence of specific legal requirements regulating the use of forests and biodiversity at the national level results in

a dependency on sound management plans to ensure sustainable utilisation of these ecosystems.

The success of these management plans in the delivery of effective and efficient environmental protection in turn relies largely on the specific interests of the national government in power – which may or may not include the sustainable development of forest ecosystems. It also relies, at least in part, on adequate collection and analysis of data regarding biodiversity. The fact that in Cameroon the most recent available Joint Order detailing the species of native plants banned or restricted from export (No.796-AC-MINEF-MINDIC) was promulgated in 1999 suggests that the existing knowledge bases in such contexts may not be particularly robust.

Furthermore, the inclusion of compliance with national legislation as a criterion for funding under a global environmental governance framework could be interpreted as undermining the integrity of sovereign laws, and accepting non-compliance as a business-as-usual scenario. Adopting such a position would necessitate a dramatic re-evaluation of the ideological conceptualisation of elements of REDD+ (including issues such as ‘additionality’, discussed below) in order to ensure equity, effectiveness, and efficiency in its delivery.

## Additionality

Additionality is one of the requirements for certification under the CCB and Plan Vivo standards. In the context of climate change mitigation activities, additionality is generally understood as a positive deviation from business-as-usual trends, either in terms of emissions or, in the case of REDD+ safeguards, biodiversity loss. It can be assessed by comparing the project’s activities to a reference scenario consisting of the course of host country activities which would occur in the absence of the financial incentives (Karsenty 2008). One of the practical concerns with demanding a demonstration of additionality in an international governance framework is the need to provide clear mechanisms to assess whether it has been achieved – a procedure which has proved very difficult to implement at the project level (Karsenty 2008).

One of the key challenges in assessing the biodiversity-related additionality of avoided deforestation is establishing what constitutes business-as-usual: legally permitted activities land-use activities, or observed land-use activities? This analysis has been

conducted based on an assumption that national forest and biodiversity laws are strictly complied with. However, there is a significant body of literature providing evidence that this assumption is grossly inaccurate across all three case countries (Mvondo: 2009; Phuc: 2009; Moore et. al. 2010; Nguyen: 2010; Sparovek et. al.: 2010, etc.). In addition, the very fact that there are REDD+ pilot projects located in Special Use Forests of Vietnam and Cameroonian National Parks where, if national legislation were strictly enforced, there would be little or no risk of their exposure to anthropogenic forest cover loss or biodiversity degradation, implies that non-compliance with national legislation is a key concern of international forest governance.

Given these circumstances, it could be argued that REDD+ would be delivered more effectively and efficiently if additionality were defined in relation to observed land-use practices. Based on this definition, external funding to incentivise compliance with national legislation which protects biodiversity and ecosystem integrity in specific forest zones could be construed a positive deviation from business-as-usual trends of illegal deforestation, thereby meeting the criteria of providing additionality. Essentially, compliance with national legislation would constitute additionality. However, this could again risk undermining the integrity of national legislation. Furthermore, should such a system be implemented under a global framework, it would be much more difficult to demonstrate additionality in sites where local populations do comply with existing regulations. As such, REDD+ eligibility would be more easily achieved at sites where illegal land use is the norm, effectively penalising law-abiding citizens, and rewarding those who have historically flouted national law. This would establish REDD+ as a distinctly inequitable international regime.

On the other hand, defining additionality in relation to legally permissible land-use practices raises a new set of concerns relating to its equity. If this definition is adopted, it could be argued that REDD+ may be more effective and efficient where national legal provisions are less stringent. For example, it would be easier for private land owners to demonstrate the additionality of forest conservation under the proposed revisions to Brazil's Forest Code, than under the existing legal framework. This is because a revised Forest Code would reduce the total area of forest designated as APPs and Legal Reserves, reducing land owners' existing conservation obligations. As such, this safeguard policy could be interpreted as a disincentive for national governments to develop strict environmental protection legislation, rendering those ecosystems ineligible for REDD+ funding even more vulnerable to deforestation and degradation by comparison.

Furthermore, policies derived from an understanding of additionality based on full compliance with statutory forest laws would be founded upon an implicit judgement by policy makers that such compliance with national legislation by forest-dwelling communities is a reasonable expectation. However, based on the arguments of Biermann & Dingwerth (2004), and Thompson et. al. (2011), the contents of national environmental legislation promulgated over the last twenty years does not necessarily reflect the needs and rights of forest-dwelling communities – but instead serves the interests of particular national governments as players in a multilateral political and economic arena.

If this position is ultimately adopted by international policy makers, then local level compliance with national laws would no longer be implicitly assumed. Instead, it would be a tool to be employed in specific socio-geographical contexts to guide and enhance forest governance.

The decisions regarding acceptable criteria for additionality and levels of compliance with national legislation have the potential dramatically to reconfigure understandings of, and attitudes towards, the delivery of equity in the context of this specific mechanism of global environmental governance. It is beyond the scope of this study to suggest what these decisions should be. Instead, this study is limited to suggesting – on the basis of current understandings of these concepts – which policies for safeguarding biodiversity could be included in an international REDD+ framework. These policies should facilitate equitable, effective, and efficient forest governance practices across forest sites in developing countries, irrespective of their social, economic, and political contexts. Equally, it is possible to identify policies the success of which is contingent on the presence or absence of legal requirements pertaining to biodiversity and forest management, and which, as such, may be more appropriately applied through one or more non-state governance mechanisms.

## Chapter 6: Conclusions

There are some opportunities for the UNFCCC to promote the development of equitable, effective, and efficient forest ecosystems conservation strategies under a REDD+ mechanism. However, many of the policies required to achieve this objective will necessarily vary according to the attitudes towards biodiversity conservation embodied in the national legislation of the countries in which REDD+ is implemented. This is further complicated by the fact that certain developing countries, such as Vietnam and Cameroon, demonstrate conflicting ideologies regarding biodiversity conservation within their own legislative frameworks. As such, certain policies to promote the sustainability of biodiversity conservation in REDD+ project sites may be more appropriately implemented through complementary systems of governance, such as voluntary certification schemes and the funding requirements of multilateral financial institutions.

Certain policies are more or less universal across the governance systems analysed in this study. They include the employment of comprehensive environmental impact assessments and appropriate mitigation measures, and the establishment of systems to develop knowledge bases relating to local biodiversity and forest ecosystems. Because these actions pervade existing national legislation, multi-lateral funding bodies and voluntary safeguards, their reiteration in a REDD+ system is likely to encourage further the adoption of these good governance practices.

Other policies – such as the identification of conservation priorities, and the provision of legal protection status to REDD+ project areas – may be effective, and indeed necessary, tools of conservation in certain geographical contexts. For example, there is evidence that they could enhance environmental governance in nations such as Brazil which endorse inclusive conservation strategies, where sustainable resource exploitation is encouraged within the boundaries of many legally protected forests. On the other hand, they could render REDD+ an ineffective system of governance in areas such as Vietnam and Cameroon, where biodiversity is protected through fortress conservation measures. Under these conditions, enforcing such policies under the auspices of an international treaty may risk discouraging local communities from engaging with REDD+, as they could perceive the projects as a threat to their livelihoods. As such, these policies may not be appropriate for a UNFCCC framework, although their value in complementary governance systems in certain forest regions should not be underestimated.

In addition, policies encouraging the utilisation of biodiversity re-iterate the philosophy of inclusive conservation which is apparently endorsed in the Cancun Agreement. However, the manner in which these are executed requires careful consideration, in order to avoid undermining the paradigms endorsed at the national government level with respect to their specific biodiversity conservation strategies. An explicit endorsement of harmonious integration of socio-economic and conservation activities could be construed as an act of deep hypocrisy, given that a number of scholars argue that developing countries have only adopted fortress conservation approaches under the influence of pre-existing global environmental treaties and conventions.

The policy of compliance with national laws featured in the funding requirements of multilateral financial institutions such as the World Bank may also be inappropriate for application in the context of a UNFCCC framework. An assumption of full compliance with legislation does not represent reality at many REDD+ pilot project sites, and reflects an oversimplification of social, political, and economic circumstances in the majority of forested areas in developing countries. The causes of non-compliance with forest law inevitably differ according to the project site. However, statutes promulgated by centralised governments which regulate the exploitation of, and access to, biodiversity resources within forests may not represent the customary laws of forest-dwelling communities, and may fail to take adequate account of their subsistence rights and needs. While the absence of this policy from a REDD+ framework does not explicitly challenge the sovereignty of states, its inclusion could be construed by certain actors, such as indigenous groups, as reinforcing the legitimacy of policies which marginalise the interests of forest peoples for the sake of biodiversity conservation (as seen in some areas of Vietnam and Cameroon). The potential political conflict which could arise as a result could jeopardise the long-term sustainability of REDD+.

Finally, the implications of the policy of requiring projects to demonstrate additionality are closely linked to the question of compliance. Not only is it very difficult to demonstrate additionality at the project level, but also without a firm position vis-à-vis the expected levels of illegal land use at the project level, it is not clear what type of projects would be counted as ‘additional’. For example, if a REDD+ framework is implemented under which full compliance with the law is expected, certain REDD+ pilot projects which have been implemented in Vietnam and Cameroon could in fact be deemed ineligible for funding as they do not necessarily offer any benefits ‘additional’ to what is legally required of those sites under national statutes. On the other hand, adopting a framework which accepts illegal

activity as a business-as-usual scenario would not only undermine the legitimacy of national statutes, but would also raise further concerns about the ability of REDD+ equitably to distribute costs and benefits at the national and international level between human populations. As such, while additionality is an important tool for encouraging conservation activities to go beyond legal requirements, this may be more fruitfully applied in the context of non-state governance schemes than a UNFCCC regime.

Appreciation of the various risks and opportunities embodied in the policy areas assessed in this study could facilitate the development of a UNFCCC REDD+ regime which delivers visible reductions in greenhouse gas emissions and biodiversity loss, and also promotes the fair distribution of the costs and benefits of the strategies to achieve these outcomes.

This study does not claim comprehensively to address all aspects of REDD+. To attempt a comprehensive analysis would have been unfeasible given the sheer complexity of this mechanism of global environmental governance. Instead, the study has focused on a very specific issue, and a specific subset of governance mechanisms involved in this issue. In so doing, it has, however, highlighted opportunities for future research. Areas of the REDD+ governance framework touched upon in this study which merit further investigation include:

- Mechanisms for safeguarding biodiversity implemented by other actors in the arena of environmental governance, such as private corporations and NGOs providing funding to REDD+ pilot projects, as well as municipal governments and grass-roots movements; and
- The development and implementation of safeguards to secure social welfare under REDD+, and their integration with those designed to conserve biodiversity.

My hope is that this study, and any future studies which build on it, will contribute to a more complete understanding of the role of international regimes within the plethora of environmental governance practices across the myriad of socio-political contexts in which forest carbon stocks are managed and conserved. In so doing, this research could further facilitate the identification of ways in which biodiversity safeguards which are likely to form part of the UNFCCC's REDD+ regime could complement national legislation, voluntary standards, multilateral funding institutions, and the host of other mechanisms of global environmental governance.

## References

- Amazon Fund (2011) *Amazon Fund*. Brazilian Development Bank: Rio de Janeiro [online] [http://www.amazonfund.gov.br/FundoAmazonia/fam/site\\_en](http://www.amazonfund.gov.br/FundoAmazonia/fam/site_en) - accessed 15/08/2011
- Angelsen, A. and Wertz-Kanounnikoff, S. (2008), What are the key design issues for REDD and the criteria for assessing options? In: Angelsen, A. (ed.) *Moving ahead with REDD: issues, options and implications*. CIFOR, Bogor, Indonesia.
- Angelsen, A., Brockhaus, M., Kanninen, M., Sills, E., Sunderlin, W. D., Wertz-Kanounnikoff, S., Dokken, T. & Johnaon, E. A. eds. (2009), *Realising REDD+ – National Strategy and Policy Options*. Denmark, the Centre for International Forestry Research. ISBN: 978-6-02-869303-5
- Barrett, C. B. & Arcese, P. (1995), Are Integrated Conservation-Development Projects (ICDPs) Sustainable? On the conservation of large mammals in sub-Saharan Africa. *World Development*, 23(7), pp. 1073-1084.
- Biermann, F., Betsill, M.M., Vieira, S.C., Gupta, J., Kanie, N., Lebel, L., Liverman, D., Schroeder, H., Siebenhüner, B., Yanda, P.Z. & Zondervan, R. (2010), Navigating the anthropocene: The Earth System Governance Project strategy paper. *Current Opinion in Environmental Sustainability*, 2(3), pp. 202-208.
- Biermann, F. & Dingwerth, K. (2004), Global Environmental Change and the Nation State. *Global Environmental Politics*, 4(1), pp. 1-22
- Brockington, D. (2002), *Fortress conservation: the preservation of the Mkomazi Game Reserve, Tanzania*. James Currey Publishers, Oxford
- CarbonFix (2011) *CarbonFix Standard*. Carbon Fix: Stuttgart [online] <http://www.carbonfix.info/> - 15/08/2011
- Cashore, B. & Howlett, M. (2007), Punctuating which equilibrium? Understanding thermostatic policy dynamics in Pacific Northwest forestry. *American Journal of Political Science*, 51(3), pp. 532-551.
- CCB Standards (2011) *The CCB Standards*. The Climate, Community and Biodiversity Alliance: Arlington [online] <http://www.climate-standards.org/standards/index.html> - accessed 15/08/2011
- CBD (1992), *Convention on Biological Diversity*. Convention on Biodiversity Secretariat: Montreal [online] <http://www.cbd.int/convention/text/> - accessed 15/08/2011
- Chapin III, S. F., Zavaleta, E. S., Eviner, V. T., Naylor, R. L., Vitousek, P. M., Reynolds, H. L., Hooper, D. U., Lavorel, S., Sala, O. E., Hobbie, S. E., Mack, M. C. & Dia, S. (2000), Consequences of Changing Biodiversity. *Nature*, 405, pp. 234 – 242.

- Clark, G.L. & Hebb, T. (2005), Why should they care? The role of institutional investors in the market for corporate global responsibility. *Environment and Planning A*, 37(11), pp. 2015-2031
- Clements, T. (2010), Reduced Expectations: the political and institutional challenges of REDD+. *Oryx*, 44(3), pp. 309–310
- Coen, D. (1999), Environmental and Business Lobbying Alliances in Europe: Learning from Washington? In: Levy, D.L. & Newell, P.J, eds. 2005, *The Business of Global Environmental Governance*. Cambridge, Mass.; London: MIT Press, Ch 8.
- Collins, M., MacDonald, E.A., Clayton, L., Duggio, I., MacDonald, D.W. & Milner-Gulland, E.J. (2011), Wildlife conservation and reduced emissions from deforestation in a case study of Nantu Wildlife Reserve, Sulawesi: An institutional framework for REDD implementation. *Environmental Science and Policy*, 14(6), pp. 709-718.
- Corbera, E. and Schroeder, H. (2011), Governing and implementing REDD+. *Environmental Science and Policy*, 14(2), pp. 89-99.
- Cronon, W. (1996), The trouble with wilderness - Or, getting back to the wrong nature. *Environmental History*, 1(1), pp. x1-28.
- Dasgupta, S., Hamilton, K., Pagiola, S. and Wheeler, D. (2008), Environmental economics at the World Bank. *Review of Environmental Economics and Policy*, 2(1), pp. 4-25.
- Engel, S., Pagiola, S. & Wunder, S. (2008), Designing payments for environmental services in theory and practice: An overview of the issues. *Ecological Economics*, 65(4), pp. 663-674.
- Foucault (1978-9), *The Birth of Biopolitics*. Edited by Michel Senellart & translated by Graham Burchell. Palgrave Macmillan: Basingstoke, 2008.
- GEF (2011), *Global Environment Facility – What is the GEF*. GEF Secretariat: Washington DC [online] <http://www.thegef.org/gef/whatisgef> - accessed 15/08/2011
- GLIN (2011), *Global Legal Information Network – Welcome to GLIN*. Law Library of Congress: Washington DC [online] <http://www.glin.gov/search.action> - accessed 04/08/2011
- Guardian (2011), *Brazil Loosens Restrictions on Amazon Land Use*. Guardian: London [online] <http://www.guardian.co.uk/world/2011/may/25/brazil-loosens-restrictions-amazon-land-use> - accessed 04/06/2011
- Hennicke, P., Borbonus, S. and Woerlen, C. (2007), The GEF's interventions in the climate change focal area: the contribution to strategies for climate change mitigation and sustainable development. *Energy for Sustainable Development*, 11(1), pp. 13-25.

- IBAMA (2003) *Lista Nacional das Espécies da Fauna Brasileira Ameaçadas de Extinção*. Ministério do Meio Ambiente: Brasília [online] <http://www.meioambiente.es.gov.br/download/NovaListaFaunaAmeacaMMA2003.pdf> - accessed 25/07/2011
- Interministerial Committee on Climate Change (2008), *Executive Summary – National Plan on Climate Change – Brazil (Decree No. 6263 of November 21, 2007)*. Government of Brazil, Brasília (2008) [online] [http://www.elaw.org/system/files/Brazil+Climate+Change\\_0.pdf](http://www.elaw.org/system/files/Brazil+Climate+Change_0.pdf) – accessed 19/07/2011
- Karsenty, A. (2008), The architecture of proposed REDD schemes after Bali: Facing critical choices. *International Forestry Review*, 10(3), pp. 443-457.
- Lemos, M. C., & Agrawal, A. (2006), Environmental Governance. *Annual Review of Environment and Natural Resources*, 31, pp. 297-325
- LePrestre, P. G.(2002), The CBD at ten: The long road to effectiveness. *Journal of International Wildlife Law & Policy*, 5(3), pp. 269-285
- Levin, K., B. Cashore, and J. Koppell (2009), Can Non-state certification systems bolster state-centered efforts to promote sustainable development through the Clean Development Mechanism (CDM)? *Wake Forest Law Review*, 44, pp. 777-798.
- Lyster, R. (2011), REDD+, transparency, participation and resource rights: The role of law. *Environmental Science and Policy*, 14(2), pp. 118-126.
- McDermott, C. L., Cashore, B. & Kanowski, P. (2010), *Global environmental forestry policies: an international comparison*. London: Earthscan. International Union for Conservation of Nature and Natural Resources
- McDermott, M., Mahanty, S. & Schreckenberg, K. (forthcoming). *Defining Equity: A framework for evaluating equity in the context of ecosystems services*.
- Merger, E., Dutschke, M., & Verchot, L. (2011), Options for REDD+ Voluntary Certification to Ensure Net GHG Benefits, Poverty Alleviation, Sustainable Management of Forests and Biodiversity Conservation. *Forests*, 2, pp.550–577
- Metz, B. (2000), International equity in climate change policy. *Integrated Assessment*, 1, pp. 111-126.
- Ministry of Justice, Vietnam (2011), *Legal Normative Documents*. [online] Ministry of Justice's Portal: Hanoi [online] <http://vbqpl.moj.gov.vn/vbqpl/en/pages/vbqpl.aspx> - accessed 04/08/2011
- Moore, P., Greiber, T. & Baig, S. (2010), *Strengthening Voices for Better Choices – Forest governance and law enforcement: Findings from the field*. International Union for

- Conservation of Nature and Natural Resources: Gland <http://data.iucn.org/dbtw-wpd/edocs/Rep-2010-010.pdf> - accessed 05/05/2011
- Moss, N., Nussbaum, R., Muchemi, J. & Halverson, E. (2011), *A Review of Three REDD+ Safeguard Initiatives*. UN-REDD & Forest Carbon Partnership Facility: Washington DC. [online] [http://www.thereddesk.org/sites/default/files/resources/pdf/2011/a\\_review\\_of\\_three\\_redd\\_safeguard\\_initiatives-1.pdf](http://www.thereddesk.org/sites/default/files/resources/pdf/2011/a_review_of_three_redd_safeguard_initiatives-1.pdf) - accessed 20/07/2011
- Mvondo, S.A. (2009), State failure and governance in vulnerable states: An assessment of forest law compliance and enforcement in Cameroon. *Africa Today*, 55(3), pp. 85-102.
- Naughton-Treves, L., Holland, M. B., Brandon, K. (2005), The Role of Protected Areas in Conserving Biodiversity and Sustaining Local Livelihoods. *Annual Review of Environment and Resources*, 30, pp. 219-252.
- Nguyen, T.T., Bauer, S., Uibris, H. (2010), Land privatization and afforestation incentive of rural farms in the Northern Uplands of Vietnam. *Forest Policy and Economics*, 12, pp. 518-526
- Okereke, C (2010), Climate justice and the international regime. *WIREs Climate Change*, 1(3), pp. 462-474.
- Okereke, C. & Dooley, K. (2010), Principles of justice in proposals and policy approaches to avoided deforestation: Towards a post-Kyoto climate agreement. *Global Environmental Change*, 20(1), pp. 82-95.
- Oxford English Dictionary (2011), *Multilateral*. Oxford University Press: Oxford. [online] [http://oxforddictionaries.com/definition/multilateral#m\\_en\\_gb0541000.006](http://oxforddictionaries.com/definition/multilateral#m_en_gb0541000.006) – accessed 21/08/2011.
- Pattberg, P. (2005), The institutionalization of private governance: How business and nonprofit organizations agree on transnational rules. *Governance*, 18(4), pp. 589-610.
- Pepper, D. (1993), *Eco-socialism : from deep ecology to social justice*. London : Routledge, 1993.
- Phuc, T.X. (2009), Why did the forest conservation policy fail in the Vietnamese uplands? Forest conflicts in Ba Vi National Park in Northern Region. *International Journal of Environmental Studies*, 66(1), pp. 59-68.
- Plan Vivo (2011) *Plan Vivo, Home*. Plan Vivo: Edinburgh [online] <http://www.planvivo.org/> - accessed 15/08/2011
- RECOFTC (2010), *Forests and Climate Change After Copenhagen: An Asia-Pacific Perspective*. RECOFTC: Bangkok (2010). ISBN: 978-616-90183-0-8

- REDD Desk (2011a), "Countries Database Guidance for Partners". [Leaflet] ed. April 2011, Global Canopy Programme: London
- REDD Desk (2011b) "REDD Countries – Co2OL Biodiversity". Global Canopy Programme: London [online] [http://www.theredddesk.org/countries/vietnam/info/activity/co2ol\\_biodiversity](http://www.theredddesk.org/countries/vietnam/info/activity/co2ol_biodiversity) - accessed 08/08/2011
- Schepers, D.H. (2010), Challenges to legitimacy at the forest Stewardship council. *Journal of Business Ethics*, vol. 92, no. 2, pp. 279-290.
- Schroeder, H. (2010), Agency in international climate negotiations: the case of indigenous peoples and avoided deforestation. *International Environmental Agreements*, 10, pp.317-332
- Schwartzman (2011), *Brazil at the Crossroads*. Forest Carbon Portal: Washington DC [online] <http://www.forestcarbonportal.com/content/brazil-crossroads-%E2%80%93-house-representatives-vote-roll-back-environmental-regulation-slew-killi> - accessed 04/06/2011
- Siebenhüner, B. (2008), Learning in international organizations in global environmental governance. *Global Environmental Politics*, 8(4), pp. 92-116.
- Siurua, H. (2006), Nature Above People: Rolston and "Fortress" Conservation in the South. *Ethics & the Environment*, 11(1), pp. 71-96
- SOCIALCARBON (2011) *SOCIALCARBON*. SOCIALCARBON: Palmas [online] <http://www.socialcarbon.org/> - accessed 15/08/2011
- Sparovek, G., Berndes, G., Klug, I.L.F. and Barretto, A.G.O.P. (2010), Brazilian agriculture and environmental legislation: Status and future challenges. *Environmental Science and Technology*, 44(16), pp. 6046–6053.
- Stickler, C.M., Nepstad, D.C., Coe, M.T., McGrath, D.G., Rodrigues, H.O., Walker, W.S., Soares-Filho, B. and Davidson, E.A. (2009), The potential ecological costs and co-benefits of REDD: a critical review and case study from the Amazon region. *Global Change Biology*, 15(12), pp. 2803–2824.
- Suchman, M. C. (1995), Managing Legitimacy: Strategic and Institutional Approaches. *Academy of Management Review*, 20, 571–610.
- Takacs, D. (2010), Forest Carbon Offsets and International Law: A Deep Equity Legal Analysis. *Georgetown International Environmental Law Review*, 22, pp.1–49
- Tilman, D., Polasky, S. and Lehman, C. (2005), Diversity, productivity and temporal stability in the economies of humans and nature. *Journal of Environmental Economics and Management*, 49(3), pp. 405–426.

- Thompson, M. C., Baruah, M. & Carr, E. R. (2011), Seeing REDD+ as a project of environmental governance. *Environmental Science & Policy* 14, pp.100–110
- Treaty on the Conservation and Sustainable Management of Forest Ecosystems in Central Africa and to establish the Central African Forests Commission (COMIFCAC) (Brazzaville, 5 February 2005), <http://www.ecolex.org/server2.php/libcat/docs/TRE/Multilateral/En/TRE154456.pdf> - accessed 10/07/2010
- UNFCCC (1992), *United Nations Framework Convention on Climate Change*. UNFCCC Secretariat: Bonn [online] <http://unfccc.int/resource/docs/convkp/conveng.pdf> - accessed 27/07/2011
- UNFCCC (2006), *Report of the Conference of the Parties on its eleventh session, held at Montreal from 28 November to 10 December 2005*. UNFCCC Secretariat: Bonn [online] <http://unfccc.int/resource/docs/2005/cop11/eng/05.pdf> - accessed 18/08/2011
- UNFCCC (2008), *Report of the Conference of the Parties on its thirteenth session, held in Bali from 3 to 15 December 2007*. UNFCCC Secretariat: Bonn [online] <http://unfccc.int/resource/docs/2007/cop13/eng/06a01.pdf> - accessed 05/05/2011
- UNFCCC (2011), *Report of the Conference of the Parties on its sixteenth session, held in Cancun from 29 November to 10 December 2010*. UNFCCC Secretariat: Bonn [online] <http://unfccc.int/resource/docs/2010/cop16/eng/07a01.pdf#page=2> – accessed 05/05/2011
- Van Kersbergen, K. & Van Waarden, F. (2004), Governance' as a bridge between disciplines: Cross-disciplinary inspiration regarding shifts in governance and problems of governability, accountability and legitimacy. *European Journal of Political Research*, 43(2), pp. 143-171.
- Vatn, A. & Vedeld, P. (2011), *Getting Ready! A Study of National Governance Structures for REDD+*. Noragric Report No. 59 (April 2011) - Norwegian University of Life Sciences (UMB), ISSN: 1502-8127.
- Vogler, J. (2003), Taking Institutions Seriously: How Regimes can be Relevant to Multilevel Environmental Governance. *Global Environmental Politics*, 3(2), pp. 25–39
- Walpole, M. J. & Leader-Williams, N. (2002), Tourism and flagship species in conservation. *Biodiversity and Conservation*, 11(3), pp. 543–547
- Whatmore, S. (2002), *Hybrid Geographies: Natures Cultures Spaces*. Sage, London.
- World Bank (2011) *World Bank - About Us*. World Bank: Washington DC [online] <http://web.worldbank.org/WBSITE/EXTERNAL/EXTABOUTUS/0,,pagePK:50004410~piPK:36602~theSitePK:29708,00.html> – accessed 15/08/2011
- Yanow, D. (2000), *Conducting Interpretive Policy Analysis*. Sage: London.

Yaoundé Declaration (Yaoundé: 17 March 1999) Summit of Heads of State on the Central African Conservation and Sustainable Management of Tropical Forests [online] <http://www.theredddesk.org/sites/default/files/declaration-de-yde.pdf> - accessed 10/07/2011

## Appendices

### Appendix 1: Summary of National Legislation relating to Forest and Biodiversity Conservation in Vietnam, Cameroon and Brazil

<b>Vietnam</b>			
<b>Doc. No.</b>	<b>Name</b>	<b>Date of Promulgation</b>	<b>Reference Code</b>
0	<i>Law on Environmental Protection [No longer in force]</i>	27 December 1993	Not available
1	<i>Decree On Management of the Export, Import and Transit of Wild Animals and Plants of Various Species</i>	22 January 2002	Decree No. 11/2002/ND-CP
2	<i>Law on Land</i>	26 November 2003	Law No. 13-2003-QH11
3	<i>Law on Forest Protection and Development</i>	03 December 2004	Law No. 29/2004/QH11
4	<i>Law on Environmental Protection</i>	12 December 2005	Law No. 52/2005/QH11
5	<i>Approval of National Plan on Restructuring of Agriculture, Forestry and Fisheries production till 2010 and vision towards 2020</i>	20 June 2005	Decision No. 150/2005/QD-TTg
6	<i>Decree on management of endangered, precious and rare forest plants and animals</i>	03 March 2006	Decree No. 32/2006/ND-CP
7	<i>Approving the national action Plan on biodiversity up to 2010 and orientations towards 2020 for implementation of the Convention on biological diversity and the Cartagena protocol on Biosafety</i>	31 May 2007	Decision No. 79/2007/QD-TTg
8	<i>Biodiversity Law</i>	13 November 2008	Law No. 20/2008/QH12
9	<i>Decision To approve the national target program on coping with climate change</i>	02 December 2008	Decision No. 158/2008/QD-TTg
10	<i>Decree Regarding sanctioning of administrative violations in forest management, forest protection and forest product management</i>	02 November 2009	Decree No. 99/2009/ND-CP
11	<i>Decision On establishment of the Steering Committee for implementation of the “Reducing emissions from deforestation and forest degradation, and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries (REDD+)” in Vietnam</i>	07 January 2010	Decision No. QD-BNN-TCCB
12	<i>Decree Detailing Regulations and Guidelines to Implement Several Articles of Law on Biodiversity</i>	11 June 2010	Decree No. 65/2010/ND-CP
13	<i>Decree on the Policy for Payment for Forest Environmental Services</i>	24 September 2010	Decree No. 99 /2010/ND-CP
14	<i>Decree On the organization and management of special use forest system</i>	24 December 2010	Decree No. 117/2010/ND-CP

<b>Cameroon</b>			
<b>Doc. No.</b>	<b>Name</b>	<b>Date of Promulgation</b>	<b>Reference Code</b>
1	<i>Rules Governing Land Tenure</i>	06 July 1974	Ordinance 74/1
2	<i>Rules Governing Land Tenure</i>	06 July 1974	Ordinance 74/2
3	<i>To lay down Forestry, Wildlife and Fisheries Regulations</i>	20 January 1994	Law No.94/1
4	<i>Decree to Set up a National Consultative Committee on the Environment and Sustainable Development</i>	31 May 1994	Decree No. 94/2591/PM
5	<i>Framework Law Relating to Environmental Management</i>	05 August 1996	Act No. 96/12
6	<i>Decree to Organise the Ministry of Environment and Forests</i>		Decree No. 96/244
7	<i>Law on Tourist Activities</i>	14 April 1998	Law No. 98/6
8	<i>Order to set up a Standing Committee to follow-up the implementation of the resolutions of the Yaounde Declaration on the conservation and sustainable management of tropical forests</i>	09 June 1999	Order No.29/CAB/PM
9	<i>Ministry of Environment and Forestry / Ministry of Industrial and Commercial Development - Classification of Wood Species</i>	18 June 1999	Joint Order No.796-AC-MINEF-MINDIC
10	<i>Amendment to Order No. 29-CAB-PM of 9 June 1999</i>	11 October 1999	Order No.78-CAB-PM
11	<i>Decree to Amend and Supplement the Provisions of Article 3 (1) of Decree No. 94/2591/PM</i>	11 October 1999	Decree No. 99/780/PM
12	<i>Ordinance to Supplement Certain Provisions of the Law No. 94-1 of 20 January 1994</i>	31 August 1999	Ordinance 99/1
13	<i>Law to Authorize the President of the Republic to ratify the Treaty on the Conservation and Sustainable Management of Forest Ecosystems in Central Africa</i>	25 April 2006	Law No.2-2006
14	<i>Decree on the establishment, organization and functioning of the National Observatory of Climate Change</i>	10 December 2009	Decree No. 2009/410

<b>Brazil</b>			
<b>Doc. No.</b>	<b>Name</b>	<b>Date of Promulgation</b>	<b>Reference Code</b>
1	<i>Forest Code - as reviewed under Law No. 7.803 or 18 July 1989</i>	15 September 1965	Law No. 4771/1965
2	<i>National Environmental Policy</i>	31 August 1981	Law No. 6.938/1981
3	<i>Ordinance on IBAMA Regulations for Licencing the Collection of Wildlife</i>	13 March 1990	Ordinance 332/1990
4	<i>Law Providing for the criminal and administrative sanctions arising from environmentally harmful conducts and activities, and other measures</i>	12 February 1998	Law No. 9.605/1998
5	<i>Decree on the ific Sanctions Applicable to Conduct and Activities Harmful to the Environment and Other Provisions.</i>		Decree No. 3.179/1999
6	<i>Law on Establishing a National System of Conservation of Nature</i>	18 July 2000	Law No. 9.985/2000
7	<i>Decree Providing for the Implementation of the Convention on International Trade in Endangered Species of Wild Flora and Fauna in Danger of Extinction (CITES), among other measures</i>	21 September 2000	Decree No. 3.607/2000
8	<i>Decree Establishing principles and guidelines for implementing the National Biodiversity Policy</i>	22 August 2002	Decree No. 4.339/2002
9	<i>Decree Providing for the National Programme for Biological Diversity - PRONABIO and the National Commission on Biodiversity, and other measures</i>	21 May 2003	Decree No.4703/2003
10	<i>Law Providing for the management of public forests for sustainable production, ... and other measures.</i>	02 March 2006	Law No.11.284/2006
11	<i>Law to Provide for the regularization of land occupations incidents in areas of the Union, in the Amazon; Laws no changes to 8666 of June 21, 1993, and 6015 of December 31, 1973, and other measures</i>	25 June 2009	Law No. 11.952/2009
12	<i>National Policy on Climate Change</i>	29 December 2009	Law No. 12.187/2009
13	<i>Decree Regulating Articles 6, 11 and 12 of Law No. 12.187</i>	09 December 2010	Decree No. 7.390/2010
14	<i>Bill by Committee on Environment and Sustainable Development – Establishing a National REDD+ System</i>	<i>Not Promulgated</i>	Bill 5586/2009

## Appendix 2: REDD+ Pilot Projects in Vietnam, Cameroon and Brazil sampled from the REDD Desk Database

<u>Key for Funding Institutions</u>	Government Department / Organisation	NGO	Multi-Lateral	Private Company
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<b>Vietnam</b>	<b>International Funding</b>						<b>National Funding</b>	<b>Land Classification</b>	<b>Biodiversity Safeguards</b>	
Forest Sector Development Project	World Bank	GEF	International Development Association (executing agency of the GEF)	Ministry of Foreign Affairs (Finland)	Ministry of Agriculture and Rural Development	Ministry of Agriculture and Rural Development	Special Use Forests	-		
Promotion of Sustainable Forest and Land Management in the Vietnam Uplands	GEF			International Development Association (executing agency of the GEF)	Ministry of Agriculture and Rural Development	Ministry of Agriculture and Rural Development	Protection and Production Forest	-		
CO2OL Biodiversity	<i>Exclusively Financed through Sale of Carbon Credits</i>						Special Use and Protection Forest	CCB	Carbon Fix	
Cat Tien Landscape Pro-Poor REDD Project	Darwin Initiative	Indochina Carbon	International Institute for Environment and Development	RECOFTC	Netherlands Development Organisation	UN-REDD	-	Special Use Forests	-	
<b>Cameroon</b>										
<b>Cameroon</b>	<b>International Funding</b>						<b>National Funding</b>	<b>Land Classification</b>	<b>Biodiversity Safeguards</b>	
Conserving the Cross River Gorilla Landscape	Spain-UNEP Partnership for Protected Areas, in support of Life-Web			USAID		-	-	-	-	
Mount Cameroon National Park REDD Project	-						-	National Park	-	
Community PES in the Congo Basin	Department for International Development (Britain)						-	Community Forest	Plan Vivo	
<b>Brazil</b>										
<b>Brazil</b>	<b>International Funding</b>						<b>National Funding</b>	<b>Land Classification</b>	<b>Biodiversity Safeguards</b>	
Atlantice Rainforest Conservation Project	General Motors						-	Conservation Unit	-	
Guaraqueçaba Climate Action Project	American Electric Power			General Motors			-	Conservation Unit -World Biosphere Reserve	-	

Recovery, Preservation and Sustainable Management of Natural Resources in Rural Settlements	-	-	Private Land	SOCIALCARBON Standards
Genesis Forest Project: Reforestation of Brazilian Savannah with Native Species in the State of Tocantins, Brazil	-	-	Private Land (Ecologica Netowrk)	SOCIALCARBON Standards
Bolsa Floresta Program	Amazon Fund		Amazonas Sustainable Foundation	Conservation Unit
Portal Seeds Project	Amazon Fund		-	Permanent Preservation Areas and Legal Reserves
TNC Project (Brazil)	Amazon Fund	The Nature Conservancy (Brazil)	-	Private Land
Secretariat of Environment of the State of (SEMA) Pará Project	Amazon Fund		-	Private Land
Surui REDD+ Project	-	-	Indigenous Land	CCB Standards
Avoided Deforestation on Small Rural Properties in the Region of the Transamazonian Highway	Amazon Fund		-	Private Land
Ecomapua Amazon REDD Project	-	-	Ecomapuá Conservação LTDA	Permanent Preservation Areas and Legal Reserves
The Juma Reserve REDD Project	Marriott		-	Sustainable Development Reserve

### Appendix 3: Online Sources for Multilateral Financial Institution and Voluntary Certification Scheme Safeguard Guidelines and Policies

<u>Institution</u>	<u>Safeguard Policy Document</u>	<u>Accessed at</u>
World Bank	World Bank Operating Policies	<a href="http://web.worldbank.org/WBSITE/EXTERNAL/PROJECTS/EXTPOLICIES/EXTOPMANUAL/0,,menuPK:64142516~pagePK:64141681~piPK:64141745~theSitePK:502184,00.html">http://web.worldbank.org/WBSITE/EXTERNAL/PROJECTS/EXTPOLICIES/EXTOPMANUAL/0,,menuPK:64142516~pagePK:64141681~piPK:64141745~theSitePK:502184,00.html</a>
Global Environmental Facility	GEF Policies on Environmental and Social Safeguards and Gender Mainstreaming	<a href="http://www.thegef.org/gef/node/4372">http://www.thegef.org/gef/node/4372</a>
Amazon Fund	Amazon Fund Guidelines and Criteria for Application	<a href="http://www.fundoamazonia.gov.br/FundoAmazonia/export/sites/default/site_pt/Galerias/Arquivos/diretrizes_criterios/Diretrizes_e_Criterios_Fundo_Amazonia-26-03-10.pdf">http://www.fundoamazonia.gov.br/FundoAmazonia/export/sites/default/site_pt/Galerias/Arquivos/diretrizes_criterios/Diretrizes_e_Criterios_Fundo_Amazonia-26-03-10.pdf</a>

<u>Voluntary Certification Scheme</u>	<u>Safeguard Policy Document</u>	<u>Accessed at</u>
SOCIALCARBON	SOCIALCARBON Standard	<a href="http://www.socialcarbon.org/uploadDocs/Documents/SOCIALCARBON_STANDARD_v.4.1.pdf">http://www.socialcarbon.org/uploadDocs/Documents/SOCIALCARBON_STANDARD_v.4.1.pdf</a>
		<a href="http://www.socialcarbon.org/uploadDocs/SOCIALCARBON_indicators_for_forest_projects_v.2.1_09_06_2011.pdf">http://www.socialcarbon.org/uploadDocs/SOCIALCARBON_indicators_for_forest_projects_v.2.1_09_06_2011.pdf</a>
CCBA	CCB Project Design Standard	<a href="http://www.climate-standards.org/standards/pdf/ccb_standards_second_edition_december_2008.pdf">http://www.climate-standards.org/standards/pdf/ccb_standards_second_edition_december_2008.pdf</a>
CarbonFix	CarbonFix Standard - Climate Forestation Projects	<a href="http://www.carbonfix.info/chameleon//outbox//public/209/CarbonFix-Standard-v31.pdf">http://www.carbonfix.info/chameleon//outbox//public/209/CarbonFix-Standard-v31.pdf</a>
Plan Vivo	The Plan Vivo Standard	<a href="http://www.planvivo.org/documents/standards.pdf">www.planvivo.org/documents/standards.pdf</a>