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REDD+ AND CARBON RIGHTS: LESSONS FROM THE FIELD

PROPERTY RIGHTS AND RESOURCE GOVERNANCE
PROJECT (PRRGP)

FEBRUARY 2012

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Report authored by Darryl Vhugen, attorney and Senior Land Tenure Specialist, Landesa; Soledad Aguilar, independent environmental policy and law analyst; Leo Peskett and Jonathan Miner, Research Assistant, Landesa.

Landesa
Seattle, WA
1424 Fourth Avenue, Suite 300
Seattle, WA 98101, USA

PRRG Implemented by:
Tetra Tech ARD
159 Bank Street, Suite 300
Burlington, Vermont 05401
Tel: (802) 658-3890
Email: ard@tetrattech.com

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ACRONYMS AND ABBREVIATIONS

AWG LCA	<i>Ad Hoc</i> Working Group on Long Term Cooperative Action
BAL	Basic Agrarian Law
CBFM	Community-Based Forest Management
CDM	Clean Development Mechanism
CER	Certified Emissions Reduction
CFM	Community Forest Management
CFR	Community Forest Reserve
CFUG	Community Forest User Group
CIFOR	Center for International Forestry Research
CONAFOR	<i>Comisión Nacional Forestal</i> (National Forestry Commission of Mexico)
FECOFUN	Federation of Community Forest Users, Nepal
GEF	Global Environment Facility
GHG	Greenhouse Gas
ICIMOD	International Centre for Integrated Mountain Development
IIED	International Institute for Environment and Development
IUCN	International Union for the Conservation of Nature
JFM	Joint Forest Management
LSGA	Local Self Government Act of 1998
MoFSC	Ministry of Forests and Soil Conservation
NGO	Nongovernmental Organization
NORAD	Norwegian Agency for Development Cooperation
NTFP	Non-Timber Forest Product
PES	Payment for Environmental Services
REDD	Reducing Emissions from Deforestation and Forest Degradation
R-PP	Readiness Preparation Proposal
SEMARNAT	Ministry of Environment and Natural Resources, Mexico

UNCED	United Nations Conference on Environment and Development
UNFCCC	United Nations Framework Convention on Climate Change
USAID	United States Agency for International Development
VDC	Village Development Committee
VLFR	Village Land Forest Reserve

I.0 INTRODUCTION

Tropical deforestation and forest degradation are responsible for 12-17% of global greenhouse gas emissions and are therefore a major contributor to climate change. This has led to considerable interest in new approaches to reduce tropical deforestation rates as a climate change mitigation instrument. One of the main approaches under discussion, “Reduced Emissions from Deforestation and Degradation” (REDD+)¹ proposes that developed countries offer financial incentives to developing countries linked to performance in reducing deforestation or forest degradation rates, or enhancing carbon stocks through sequestration by conserving and sustainably managing forests. Finance could either be provided from international public funds or potentially from carbon trading schemes. Such a mechanism would effectively create a new value for carbon removed from the atmosphere by, and stored in, forests.

This new and poorly-defined commodity raises questions about who holds the legal rights to the benefits associated with REDD+ activities, or in other words, as defined in this paper, who holds the ‘carbon rights’ (see box 1 for definitions). The links between stored carbon and the ownership or management of land and forests also makes any new financial mechanism susceptible to unfair practices and inequitable distribution that often occur in tropical forest areas where land tenure systems are unclear, contested or poorly enforced.

If those who predict that REDD+ will result in the transfer of substantial funds from developed to developing countries for forest management are correct, then there is an urgent need to revise or find ways to adequately interpret national laws and policies in time to take advantage of the REDD+ mechanism that is ultimately adopted and to ensure that populations living in and near forests have the opportunity to fully and effectively participate in, and benefit from, REDD+. Very few countries have developed laws relating to carbon sequestration as an environmental service, or forest carbon as a good or resource produced by forests. Those that do not enact such laws will have to apply existing laws to determine carbon rights if they wish to participate in either market or non-market incentive mechanisms. Uncertainties surrounding the ultimate shape of an international regime for REDD+ create difficulties for policymakers and analysts alike in making detailed recommendations concerning whether countries should adopt new laws or amend existing laws to facilitate effective and equitable REDD+ activities.

This paper addresses the need to understand better the legal and practical implications of forest carbon rights at the national and local levels in order to decide who has access to benefits derived from reducing forest-related greenhouse gas emissions or increasing carbon sequestration under REDD+. The paper assesses experience to date with defining forest carbon rights associated with emission reductions and carbon sequestration at national and sub-national levels. It includes a review of relevant laws, practices, and REDD+ strategies under consideration and suggests principles that should inform the drafting of carbon rights legislation.

The study focuses specifically on lessons learned from analyzing the laws and circumstances of five countries—Mexico, Indonesia, Nepal, Tanzania, and Mozambique—which were the subject of in depth case studies conducted by Landesa and the World Resource Institute. The specific objective of each case study was to assess the extent to which national laws explicitly, implicitly, or contractually establish a secure right to benefit from forest-related GHG emission reductions or sequestration. The case studies also discuss the carbon rights implications of some of the pilot projects operating in those countries. During field visits, interviews were conducted with representatives of government ministries, nongovernmental organizations

¹ The ‘plus’ component of REDD+ includes the role of conservation, sustainable management of forests and enhancement of forest carbon stocks.

(NGOs), leaders, and community members involved in pilot projects and other key informants. The detailed case studies are presented in an additional document.

Box 1: Definitions used in this paper

- **Carbon credit:** A legal instrument created through regulations or standards that reflects the reduction of greenhouse gas emissions in units of tons of CO₂e, and may be presented by its owner as evidence of emissions reductions for administrative or other purposes. Carbon credits can be traded within regulated or voluntary carbon markets. Carbon credits so far only exist for REDD+ in the voluntary carbon markets. The ability to generate, own and sell carbon credits from REDD+ programs or projects is one of the sources of benefits for REDD+.
- **Carbon offset:** A type of carbon credit that reflects emissions reductions by non-regulated entities, which may be bought or acquired by regulated entities to comply with their emission reduction targets or objectives.
- **Carbon right:** The legal right to benefit from reduced greenhouse gas emissions and/or increased carbon dioxide sequestration.
- **Carbon sequestration:** The process of removing carbon from the atmosphere and depositing it in a reservoir (trees are carbon reservoirs as through photosynthesis they remove carbon dioxide from the atmosphere, store carbon and release oxygen).
- **Carbon sinks:** Any process, activity or mechanism that removes a greenhouse gas from the atmosphere. Forests and other vegetation are considered sinks because they remove carbon dioxide through photosynthesis.
- **Emission reduction:** The reduction of greenhouse gas emissions (mainly carbon dioxide, in the case of forests) into the atmosphere.
- **Emission source:** A natural or human activity that emits greenhouse gases into the atmosphere. Carbon reservoirs such as forests become emission sources when timber extraction, burning or decay reduces the carbon stock.
- **Forest carbon stock:** The absolute quantity of carbon held within a forest at a specified time, including carbon stored in biomass within trees, litter, dead wood and soil organic carbon.
- **REDD+ activity:** Any policy or measure implemented to reduce greenhouse gas emissions resulting from deforestation and forest degradation as well as, to conserve and sustainably manage forests and enhance forest carbon stocks.
- **REDD+ benefit:** A financial or non-financial benefit generated as a result of a REDD+ activity. Monetary benefits could include, for example, additional income from employment or cash payments from the third parties (e.g. governments paying community participants in a PES scheme), as well as income from the sale of carbon credits. Non-financial benefits could include, for example, access to infrastructure services (health centers, schools), enhanced land tenure rights or improved local environmental quality.

2.0 INTRODUCTION TO CARBON RIGHTS, REDD, AND REDD+ AT THE INTERNATIONAL LEVEL

Reducing carbon dioxide emissions from deforestation has long been discussed within the United Nations Framework Convention on Climate Change (UNFCCC), although it was not accepted as a mitigation activity within the Kyoto Protocol's Clean Development Mechanism (CDM). The forest sector not only accounts for 12-17 percent of global emissions, (Intergovernmental Panel on Climate Change [IPCC], 2007) but forests are essential to the earth's capacity to sequester carbon dioxide. Given this role in the global carbon cycle, the large areas of forest under threat in developing countries, and the potential low cost of forest-related emissions abatement compared to other sectors, forest carbon mitigation activities are a crucial component of any post-2012 climate regime (Scheyvens, 2010; Eliasch, 2008).

When discussions commenced on a post-2012 regime in 2005, the Coalition for Rainforest Nations introduced the idea of creating a new mechanism to compensate developing countries for reducing their rates of deforestation. Debates have continued since then within the UNFCCC framework, incorporating the reduction of emissions from forest degradation (the second "D" in REDD), and finally expanding to consider the role of conservation, sustainable management of forests, and enhancement of carbon stocks (the "+" component of REDD+). This broader definition of REDD+ was agreed by the UNFCCC at the sixteenth meeting of the Conference of the Parties to the UNFCCC (COP 16) in Cancun in 2010 as a result of the work of the *Ad Hoc* Working Group on Long Term Cooperative Action (AWG LCA) (UNFCCC, 2010, p.12).

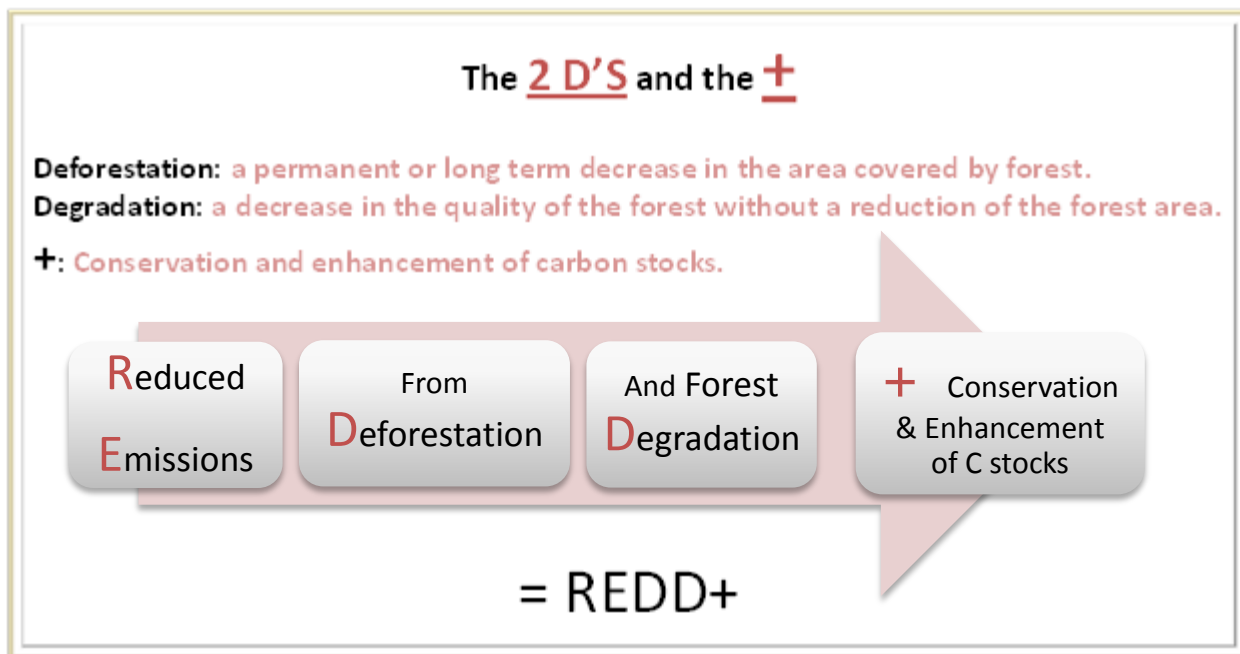
Decision 1/CP.16 of the "Cancun Agreements" also establishes three phases for REDD+ implementation and asks that: (1) developing countries start working on policy approaches and positive incentives for REDD+; (2) developed countries finance the 'readiness' phases that help countries to prepare to implement REDD+; and (3) all countries continue discussions on fully financing the implementation phases (UNFCCC, 2010, Section III.C).

Decision 1/CP.16 also establishes the regulatory objective, namely that parties to the Convention should collectively aim to "slow, halt and reverse forest cover and carbon loss, in accordance to national circumstances, consistent with the objective of the Convention," but does not establish a mechanism or set concrete emission reduction objectives for the sector.

The Decision further requests developing countries aiming to undertake REDD+ activities to develop the following elements, with international financial support:

- A national strategy or action plan;
- A national forest reference emission level and/or forest reference level (with provisions for temporary consideration of subnational reference levels);
- A robust and transparent national forest monitoring system; and
- A system for providing information on how the environmental and social safeguards, described in an Appendix to the Decision, are being addressed.

FIGURE 1: OVERVIEW OF ELEMENTS OF REDD+



The establishment of these policies is expected to provide the basis for a future payment-for-performance mechanism, where funds are transferred to developing countries (through nationally managed trust funds or decentralized project activities). With regard to REDD+ strategies, the Decision requires countries to address, among other things, the drivers of deforestation and forest degradation, land tenure issues, forest governance issues, gender considerations, and the environmental and social safeguards included in an Appendix to the Decision. It also advises countries to ensure the full and effective participation of relevant stakeholders, including indigenous peoples and local communities.

The Decision does not allocate specific funding for these activities, so it is expected that countries will use existing sources like the Global Environment Facility (GEF) and bilateral cooperation to prepare for REDD+. It does urge developed country parties, however, to support the first two phases of REDD+ policy design in developing countries (i.e. the development of national strategies and action plans and the implementation of national policies and results-based demonstration activities).

The Cancun Agreements thus set out the context for a future REDD+ regime, but leave for further negotiation the actual modalities to implement the regime and the decision regarding what level of funding will be transferred to developing countries. Furthermore, due to the rejection of market alternatives and the “commoditization of forests” by countries like Bolivia, the Decision does not make reference to the use of carbon markets for REDD+.

The more recent decisions at COP 17 held in Durban in December 2011 make a firmer reference to market based approaches, but still fail to adopt the modalities for a REDD+ mechanism. One of the Decisions taken in Durban “considers, in the light of the experience gained from current and future demonstration activities, appropriate market-based approaches could be developed by the Conference of the Parties to support results-based actions by developing country Parties [...]” (UNFCCC, 2011b par. 66). It also establishes a process for countries to establish and report on their national forest reference emission level and/or forest reference levels (UNFCCC, 2011c) and for considering potential sources of results-based financing, starting with a submission from parties and observers in March 2012 (UNFCCC, 2011b). These decisions could help to address the question surrounding how the final stage of REDD+ policy development will be funded, but given the launch of a new process for negotiating a global mitigation regime aiming at implementation by 2020 (UNFCCC, 2011a) much uncertainty remains about how and when any decision on REDD+ could be reached.

2.1 REDD+ AND SAFEGUARDS IN THE UNFCCC

Appendix I to the Cancun Agreements (Decision 1/CP.16) includes guidance and safeguards for REDD+. In reference to the specific activities outlined above, the Appendix states that they should, among other things:

- Respect and support a number of objectives, including national development priorities and needs, environmental integrity, and the sustainable management of forests;
- Respect the knowledge and rights of indigenous peoples and members of local communities; and
- Ensure the full and effective participation of relevant stakeholders, including indigenous peoples and local communities.

The decision does not instruct policy makers on how to allocate rights to benefit from REDD+ activities. Each country, therefore, will need to discuss this issue internally, prior to the adoption of national strategies and action plans. The Decision is silent on specific steps to protect vulnerable groups that may not have legal rights over the forests they manage or preserve. This issue will be one that local communities and others acting on their behalf will need to monitor closely when participating in national REDD+ strategy design. There also is a need to ensure that the definition of carbon rights adopted in each country respects the rights and interests of local populations, as well as provides a mechanism for these populations to receive benefits.

BOX 2: One Example of Safeguards: REDD+ Social & Environmental Standards-Principles

1. *Rights to land, territories and resources are recognized and respected by the REDD+ program.*
2. *The benefits of the REDD+ program are shared equitably among all relevant rights holders and stakeholders.*
3. *The REDD+ program improves long-term livelihood security and well-being of Indigenous Peoples and local communities with special attention to the most vulnerable people.*
4. *The REDD+ program contributes to broader sustainable development, protection of development of human rights and good governance objectives.*
5. *The REDD+ program maintains and enhances biodiversity and ecosystem services.*
6. *All relevant rights holders and stakeholders participate fully and effectively in the REDD+ program.*
7. *All rights holders and stakeholders have timely access to appropriate and accurate information to enable informed decision-making and good governance of the REDD+ program.*
8. *The REDD+ program complies with applicable local and national laws and international treaties, conventions and other instruments.*

Source: http://www.redd-standards.org/files/pdf/lang/english/REDD_Social_Environmental_Standards_06_01_10_final-English.pdf

The COP 17 decisions taken at Durban have not changed the language of the text on safeguards. However, draft guidance has been produced on systems for providing information on how such safeguards are addressed as well as on the determination of reference levels (UNFCCC, 2011c). Links have also been made between financing sources and compliance with safeguards (UNFCCC, 2011b). These decisions are likely to inform voluntary markets, and may also influence the definition of carbon rights holders, until a global mechanism is adopted for REDD+, an achievement that, at the time of this writing, is difficult to envision before 2015, the target date for finalizing a global regime.

2.2 CARBON RIGHTS PRECEDENTS IN THE UNFCCC

The clearest precedent for allocation of carbon rights within the international climate regime is found in the CDM. Participants in projects that are eligible for CDM funding receive compensation, in the form of Certified Emission Reductions (CERs), for reductions achieved during the life of the project.

General CDM rules do not establish specific requirements regarding the project participant's legal right to the land where the project takes place, but do define the "project boundary" limiting it to anthropogenic emissions by sources under the control of the project participants that are significant and reasonably attributable to the CDM project activity (Decision 3/CMP.1, Annex par. 52). In the case of forestry projects, the boundary is the area that "geographically delineates the afforestation or reforestation project activity under the control of the project participants" (Kyoto Protocol Decision 3/CMP.1, 2005). Thus, the criteria used for allocating carbon rights, in the case of regular projects, is control over the sources of greenhouse gas (GHG) emissions. In the case of forestry projects, the criterion used for allocating carbon rights is control over the forest management activities. There is no requirement for formal ownership of the land in any of these cases.

It is important to note, however, that REDD+ entails additional complexities when allocating carbon rights. Unlike the CDM, which measures emissions reductions or carbon sequestration on a project basis and simply allocates all carbon rights to project developers (with a two percent levy going towards a specific Adaptation Fund created under the Kyoto Protocol), a REDD+ regime will measure net emission reductions on a larger scale (subnational or country level) and thus will require the allocation of rights among a wider set of actors, including governments, communities, and other subnational entities participating in the shared effort.

Box 3: Links between carbon rights and safeguards

A "carbon right" can be thought of as a bundle of different rights. Some of these rights are linked to property rights over carbon stored in trees, which in many legal systems is linked either to ownership rights over land and forests, or use and management rights related to forests, particularly in countries where the state owns all land and resources. But the right to own or manage forests does not necessarily confer the right to benefit from it, for example through selling credits in carbon trading schemes. Carbon trading schemes often require compliance with procedural requirements or respect for procedural rights through safeguards that may include, for example, procedures for social impact assessment or compliance with human rights obligations, which need to be inspected by third parties in order for credits to be certified and marketable.

2.3 ANALYZING LEGAL FRAMEWORKS TO ESTABLISH THE "CARBON RIGHT" TO REDD+ BENEFITS

In order to participate effectively in REDD+, a nation's legal framework will have to establish clearly who has the "carbon right." Within the academic literature to date, there is no agreed-upon definition of "carbon right." Knox et al. (2010) defined carbon rights as the "right to economically benefit from reduced emissions or increased sequestration by carbon stored in biomass" (p. 7). For the purpose of this paper, we define a

carbon right as the legal right to benefit from reduced forest greenhouse gas emissions and/or increased forest carbon sequestration. The focus is on identifying who holds the right to benefits that are linked to sequestered forest carbon and or reduced emissions from forests.

Carbon rights can also be interpreted more broadly to include a variety of procedural rights, such as rights to consultation or consent during the design and operation of REDD+ schemes. This paper does not specifically focus on such rights, as it is primarily concerned with addressing the question of which actors in a given legal regime would have rights to the benefits associated with REDD+ activities. However, it should be noted that such procedural rights may form part of the bundle of rights that constitutes a carbon right, for example, being transferred through trade.

The definition of carbon rights used in this paper broadly covers the diverse situations encountered in field studies and is also consistent with the end goals of the international effort to reduce forest emissions and to enhance carbon sequestration by forests. Because the goal is to reduce deforestation and forest degradation, the benefit should go to the actors who actually make decisions over forest use. Often, these actors will be the community or people who live in or near the forest and have the right to benefit from forest resources and timber. Thus, benefits should be shared with these actors so as to incentivize the desired change in land use. Placing the right to a significant share of REDD+ benefits with local, forest-dependent communities that are in the best position to protect the forest, or use it sustainably, is the best way to achieve the dual goals of protecting the forest and ensuring equitable benefit sharing at the local level (Knox et al., 2010; Sunderlin, 2009).

This discussion of carbon rights applies generally to REDD+ benefits derived from any and all sources: donor-funded, international carbon credits generated by a country, other domestic trading mechanisms, or voluntary market credits. As explained above, countries still debate what the mix of market and non-market scenarios should be, or even whether or not REDD+ will lead to forest carbon credits at all under an international system. In the face of these significant unknowns, this analysis recognizes that the benefit at stake could be a carbon credit itself, funds generated by the sale of carbon credits at the national or international level, or donor funds provided to countries based on their performance in reducing forest emissions or increasing carbon sequestration by forests. Under any scenario requiring forest protection or enhancement at the local level, local communities participating in REDD+ activities should have carbon rights entitling them to receive a fair share of the benefits.

While determining the holder of rights over trees and their products will be a key step in establishing who should receive REDD+ benefits, it may not be the only step. As explained above, REDD+ rules at the international level undoubtedly will require the inclusion of social safeguards to ensure that no harm is done to specific vulnerable groups and may also promote other policy objectives. Thus, for example, a REDD+ benefit-sharing mechanism adopted in a country might provide an extra payment to communities that include women in decision-making in addition to the payment that community would receive by virtue of the carbon stored in the forest it controls (Box 3). Nepal is planning to include such a provision in its REDD+ benefit-sharing mechanism. Nepal's REDD+ pilot projects are distributing funds to community forest user groups (CFUGs) on the basis of the amount of carbon sequestered within the CFUG, and the following three social criteria: the poverty index within the CFUG; the extent of indigenous groups present; and the percentage of women-led households in the CFUG.²

Similarly, other countries might decide to provide REDD+ benefits to communities that are located near a forest but do not hold rights to that forestland or its resources as a strategy to reduce the likelihood of conflict over the receiving of benefits by neighboring communities. In Mozambique, for example, benefits from REDD+ will likely be shared in some way with communities that do not have forests on their lands but are located near other communities that control forested areas. The government is concerned about directing

² Interview with Dr. Bhaskar Karky at the International Centre for Integrated Mountain Development (ICIMOD) on Apr 29, 2011

all benefits to forest communities, thus leaving non-forest communities out. This approach reflects a desire to provide incentives to communities so that they do not undermine the efforts by their neighbors to protect nearby forests.³ These sorts of tradeoffs will likely need to be made in most country's REDD+ programs. Alternatively, REDD+ incentives may lead to governments centralizing control over forests and excluding local populations from REDD+ decision making and benefit distribution. Clarity on carbon rights is thus one way to mitigate potential negative impacts of REDD+ activities on local populations.

Box 4: Understanding national, nested and project-based approaches to REDD+ benefit-sharing

Three main approaches to REDD+ are being considered and piloted: national, nested and project-based approaches. The actors holding carbon rights and the types of benefits associated with these rights may differ between approaches. The following three scenarios illustrate some of the options being considered.

In a national REDD+ scheme, one approach would be for the government to receive international financial incentives (either from international public funds or carbon markets) linked to national performance in reducing emissions. Sub-national actors could have the legal right to benefit from these international payments, based on existing laws or new benefit sharing laws specifically designed for REDD+. A number of different criteria could be used to determine their eligibility to receive benefits. Ownership of land, forest or carbon could be important criteria, especially if the government implements REDD+ through a national payment for environmental services scheme such as in Mexico (page 18). However, other criteria could also be used instead or in addition, such as wealth ranking or gender, meaning that rights to benefits may be less directly tied to ownership or management of carbon sinks. The type of benefits that sub-national actors receive may also be in different forms, such as financial payments, investments in infrastructure or the devolution of rights.

The government could also implement a “nested” REDD+ system in which individual actors or projects could directly trade REDD+ credits in international carbon markets, but with some involvement from government in establishing national reference emissions levels and monitoring performance in emissions reduction/removals. In this case sub-national actors would have rights to benefits from REDD+ and the main benefit for the project developer (which could be a local government, private company, community group or individual) would be income from the sale of carbon credits. It is likely that arrangements would be established to share proceeds from the carbon sales or a proportion of the credits with the government in order to cover costs and spread risks between different schemes.

Project-based approaches would work in a similar way to nested approaches although with little involvement from government. The Nhambita project in Mozambique (pages 26-27) illustrates how such a system could work. Farmers have rights to a percentage of the income from carbon sales, with the percentage being proportional to the volume of emissions avoided or carbon sequestered on their land during the contract period. The project developer acts as an aggregator for many different producers and sells larger volumes of credits into international markets. Carbon rights are therefore effectively created through contracts between the project developer and farmers, tied to compliance with agreed land use plans. Communities or individuals do not own the land or forests but have long-term use or occupancy rights over these resources.

³ Interview with Paula Panguene, Deputy Director for Environment Management, Ministry for the Coordination of Environmental Affairs, Government of Mozambique, June 6, 2011.

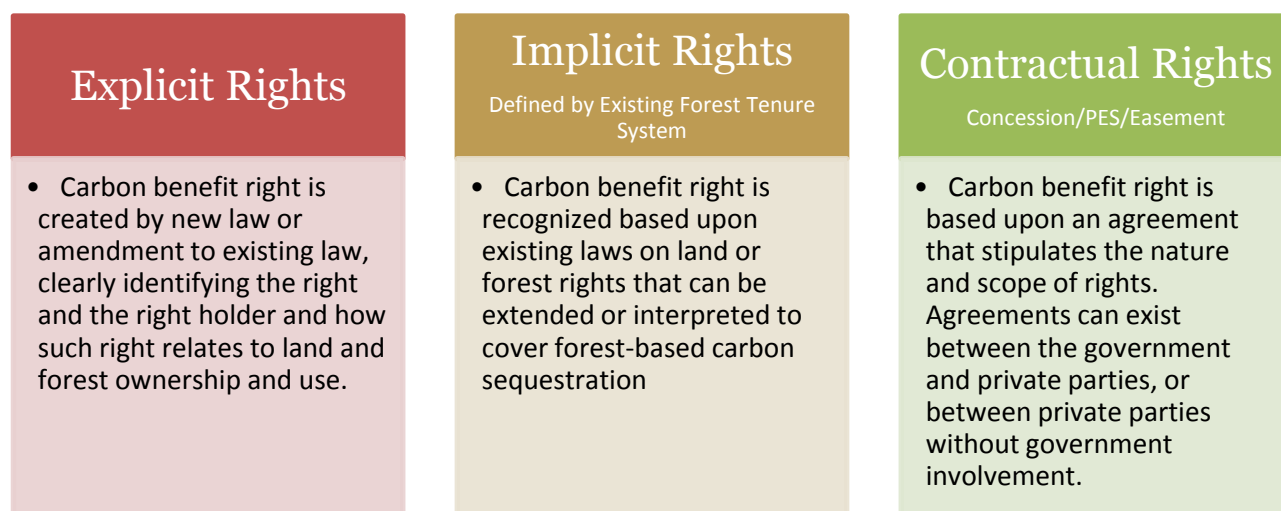
3.0 LEGAL FRAMEWORKS FOR “CARBON RIGHTS”

As discussed above, there is little top-down direction from the UNFCCC in mandating definitions of carbon rights for countries desiring to participate within REDD+ schemes. This is not necessarily a problem, as each country will have different sets of local conditions that would make a top-down approach cumbersome and potentially heavy-handed. However, this lack of standardization in defining carbon rights within national law has two implications. First, it means that if countries choose to draft new legislation explicitly defining carbon rights, such legislation may look quite different from country to country. Second, since there is no mandate to create new carbon rights legislation as part of REDD+ participation, many countries may instead rely on existing laws that may implicitly create and govern carbon rights.

Despite this potential variation, it is still possible to create some broad categorizations into which different carbon rights approaches can fall. These categories are:

- Explicit legal rights, founded in a law specifically defining the rights and responsibilities relating to reduced deforestation/degradation and or carbon sequestration by forests;
- Implicit legal rights derived from existing laws or existing rights that do not specifically mention carbon rights by name, but nonetheless could govern rights to benefit from reduced deforestation/degradation or carbon sequestration by forests; and
- Contractual rights, or rights that arise through particular agreements between parties that are enforceable under existing national contract or administrative law.

FIGURE 2 LEGAL FRAMEWORKS FOR CONSIDERING CARBON RIGHTS



All three of these categories can provide the basis for a carbon right; that is, each one can provide sufficient legal structure in which to house the right to receive a benefit linked to reduced forest emissions or forest carbon sequestration. Legal frameworks can also rely on a combination of contractual and implicit or explicit rights.

3.1 LAWS CREATING EXPLICIT CARBON RIGHTS

In any country, the first step in determining who has legal rights to REDD+ benefits is to ask if the country has adopted laws creating or recognizing explicit “carbon rights” as entitlements for certain actors to receive benefits, including (but not restricted to) tradable carbon credits from forest emissions reductions or carbon sequestration. Of the five case study countries considered in this paper, only one has developed explicit laws on carbon rights. However, the Australian states and the Canadian province of Alberta have enacted carbon rights legislation. Brazil and the national government of Australia are also considering enacting this kind of legislation. As will be discussed in Section 3.1.4, Indonesia has taken steps towards adopting regulations on REDD+ projects.

3.1.1 AUSTRALIA

Australia’s Carbon Credits (Carbon Farming Initiative) Bill 2011, currently under consideration by Parliament, will provide a mechanism to generate offset credits for the country’s draft national cap-and-trade system. The Carbon Farming initiative will require that project proponents present evidence of their private property rights over the estate where activities will take place. With this evidence, proponents will have the exclusive legal right to obtain the benefit (whether present or future) of carbon stored in the relevant carbon sink on the area of land (Government of Australia, 2011).

This arrangement already is in place in all six Australian states, which consider carbon rights a property interest separate from the land upon which the project is situated. By considering carbon rights as an interest separate from the property rights over trees and forests, they allow carbon rights originating in forest-related projects to be traded in the market without transferring land ownership. Requirements to register such arrangements with land registries ensure that restrictions to specific uses are inscribed in land titles and passed on to future landowners (Hepburn, 2009).

3.1.2 ALBERTA, CANADA

Similarly, the province of Alberta, Canada, has its own carbon-offset scheme applicable to forests and agriculture. It defines “sink rights” as property rights, but does not attach sink rights to ownership over the land (Government of Alberta, 2011). Rather, it requires that project developers provide evidence of “clearly established ownership” over greenhouse gas reduction/removal activities prior to being allowed to register and trade such offsets in the market. In the event that more than one party claims the offset credits, or when projects pertain to lands that were further sold or leased, a contractual arrangement is required between affected parties to clarify how benefits are to be allocated, in order to enable the verifier to sign off on the documentation for offset credits to be registered.

3.1.3 BRAZIL

Brazil is considering draft legislation for REDD+ that would create a hybrid system with two categories of carbon rights, one category to receive benefits from various national and international funding sources in the form of payment for ecosystem services and another to be traded in carbon markets (Costenbader, 2011; Schwarte & Mohammed, 2011). Carbon rights would be allocated by a National REDD Commission, comprised of national, state, and municipal authorities, as well as representatives from the business and academic sectors (Government of Brazil, 2011).

3.1.4 INDONESIA

In 2008 and 2009, Indonesia’s Ministry of Forestry issued relatively comprehensive REDD+ regulations governing REDD+ demonstration and commercial projects (Government of Indonesia, 2008, 2009a, 2009b). There are three primary regulations. The 2008 Decree establishes permission and approval procedures for REDD+ demonstration activities so as “to test and develop methodologies, technology and institutions for

sustainable forest management that endeavor to reduce carbon emissions through controlling deforestation and forest degradation (Government of Indonesia, 2008).”

The first 2009 Decree establishes procedures and requirements with which REDD+ project developers must comply, including verification and certification, types of forest areas where projects can be established, and standards and requirements to be met by implementing bodies. The decree authorizes demonstration activities and voluntary carbon trading prior to final determination of an international REDD+ regime. As explained in some detail in the Indonesia case study, various categories of forest rights holders expressly receive an entitlement to participate in REDD+ projects in partnership with an international entity. Rather than address revenue sharing, the decree explicitly states that the issue will be addressed in a regulation that will be adopted later.

The second decree of 2009 sets forth procedures for licensing specifically defined commercial carbon sequestration projects in Production and Protected Forests. It also covers approvals for those with and without pre-existing licenses for various forestland uses, including environmental services, ecosystem restoration services, and timber production in different types of forests. The decree includes required benefit sharing allocation percentages for each forest rights category. The Ministry of Finance has challenged the authority of the Ministry of Forestry to regulate revenue distribution. As a result, there is considerable doubt as to whether this decree will take effect.

3.2 IMPLICIT RIGHTS: CARBON RIGHTS DERIVED FROM AN EXISTING TENURE RIGHT

In most countries, carbon rights are not explicitly defined and recognized in national legislation. In these countries it is necessary to determine whether or not there are other rights that implicitly form the basis for new carbon rights. As illustrated in Figure 2.1, the relevant existing rights may stem either from rights to land which encompass rights over trees found on the land, or could stem from rights over trees or forest products and resources that are independent of rights to land. In both of those categories these rights can take on a wide variety of forms. The holders of the rights might be individuals, whole communities, private businesses, the state, or a mix of these stakeholders. Additionally, the right itself can vary in content and quality: it might be outright ownership, or use-rights; it could be perpetual, long-term, or short-term; it might be based in codified statutory law or based in customary law. The rights may or may not be documented and recorded in a national registry; may or may not be transferrable, inheritable, or devisable by will; and may be secure or insecure, depending on the capacity for legal enforcement within each country.

Not surprisingly, the combination and permutations from which a carbon right may spring in each country is quite complex and can require a great deal of legal analysis of each country’s property laws, land-use laws, forest laws, policies regarding customary law, inheritance and succession laws, and contract laws. For the purposes of this paper, however, we have simplified the discussion assuming that carbon rights refer to carbon as a forest resource, allowing both the consideration of carbon stored in trees as a forest product or of carbon sequestration as a forest service.⁴ That said, the key to the analysis in countries without carbon rights laws is determining two things under the prevailing law(s): (i) Who has the right to receive benefits from forest products or services?; and (ii) Does that right include the entitlement to commercially benefit from forests (as differentiated from consuming for subsistence purposes) by way of a reasonably accessible process?

⁴ See UNCED. 1992. “Earth Summit - Rio Declaration & Forest Principles” which refers to forest products and services, such as wood and -wood products, water, food, fodder, medicine, fuel, shelter, employment, recreation, habitats for wildlife, landscape diversity, carbon sinks and reservoirs, and for other forest products. See, e.g., the definition of “forest produce” in Tanzania’s Forest Law 2002, section 1(3) which includes “...anything which is produced by or from trees or grows in a forest or is naturally found in a forest....”

3.2.1 WHO HAS THE RIGHT TO RECEIVE BENEFITS FROM FOREST PRODUCTS OR SERVICES?

Forest laws generally define who has the right to benefit from forest products. Typically, such laws divide forest products into two categories: timber products, primarily harvested trees; and non-timber forest products (NTFPs), such as nuts, fruit, medicinal plants and leaves, and grasses for fodder. Carbon stored in trees does not fit neatly into either category. It is not a timber product because the tree is not cut. It may not be a NTFP as they usually encompass things that are physically removed from the forest, most often for personal consumption. Carbon stored in trees could be considered to be within a third category: either as a non-extractive forest product or a forest service (carbon sequestration).⁵ Thus, a community or person can have the right to benefit from the carbon stored in trees without having the right to extract timber or harvest the fruit (NTFP) growing on the trees. Rather, the entitlement is to receive a benefit from protecting, not harvesting, the tree.

FIGURE 3: CATEGORIES OF FOREST RESOURCES

Categories of Forest Resources	Extractive	<ul style="list-style-type: none">• Timber products (harvested trees)• NTFPs (nuts, fruits, medicinal plants, honey)	Typically covered by forest laws
	Non-extractive	<ul style="list-style-type: none">• Sequestered Carbon(trees, soil)• PES such as watershed protection	Typically not covered by forest laws

Similar examples may be found in Payment for Environmental Services (PES) schemes that compensate a forestland holder for preserving forest habitat to attract eco-tourists or to protect a watershed. The PES provider receives a benefit without physically removing anything from the forest. Mexico has created an implicit right by including carbon sequestration in the category of environmental services for which landowners can be compensated under PES programs (Government of Mexico, 2003).

Also, the right to receive benefits linked to carbon stored in trees can, but need not be, separated from the right to own or use the land on which the trees grow. That is, the forest product right may or may not be held by the same person, community or governmental entity that owns or has the right to use the land where the forest is situated. Under Brazilian law, forest and land tenure can be separated. The carbon right is presumed to go to whoever owns the forest resource (Takacs, 2009). Title to land and trees may also be separated under the law of Liberia. Similarly, in Ghana, people possess rights to trees only if they have planted them; natural trees are the property of the state.⁶ In Cameroon, formal recognition of rights to planted trees is only accorded to those who have registered title to their land (Egbe, 2001).

Of course, identifying who has the right to benefit from forest products may be no easy task. The right may be held by the government, individual households or entities, a community, or some combination of the three. Customary systems are particularly complex and may consist of compatible yet to some extent overlapping rights and responsibilities to use different resources. Group rights tend to prevail for use of forests (Streck, 2009).

⁵ Other activities that might be included in this non-extractive category could be protecting the forest to produce eco-tourism or hunting revenues.

⁶ See Ghana's Timber Resource Management (Amendment) Act, 2002.

It is perhaps obvious to observe that carbon rights will be strongest where the rights holder has secure rights to both the land and the forest products found thereon. From a REDD+ perspective, however, the right to benefit from forest resources, if the definition is broad enough to include stored carbon as a good or carbon sequestration as a service, is likely to be more important than the right to harvest timber or to use and benefit from the land itself.

Having said that, for REDD+ purposes, it may be impractical to separate land rights from forest product rights as protecting the forest requires an element of guarding the land on which the trees reside and conflict between the rights holders may make protecting the forest practically impossible. In addition, in some settings, soil carbon comprises a significant percentage of carbon stocks. One example is in Indonesia in which there are massive peat lands that are saturated with carbon.⁷ Theoretically, a land rights holder could receive a benefit from soil carbon while a different forest products rights holder could receive a benefit from tree carbon. This might lead the two to cooperate in forest protection and enhancement activities.⁸ In any case, if these rights are held separately, it is essential that the rights of each be clearly identified and documented so that there is no dispute over who is entitled to receive any benefits linked to the carbon stored, how these benefits should be shared, and who has the responsibility for protecting the forest.

3.2.2 IS THE RIGHT TO THE TREE AND OTHER FOREST RESOURCES LIMITED TO SUBSISTENCE USE?

In some countries, the forest laws allow local communities to collect NTFPs and other forest resources for their personal consumption but restrict or prohibit their right to reap commercial benefits from those activities. Thus, for example, a community might have the right to collect nuts for their own consumption but not the right to sell them in the market without obtaining a license of some kind. In order to benefit from REDD+, communities must have the right to benefit commercially from trees or forests, rather than solely having rights to subsistence consumption (Cotula & Mayers, 2009). It is, therefore, important to determine not only who is entitled to use a particular type of forest resource, but also any restrictions on that use.

Most laws limiting exploitation of forest resources were enacted before anyone had conceived of the idea of paying for reduced emissions from, or enhanced sequestration by, forests. Therefore, the drafters of most forest laws almost certainly did not consider whether receiving a commercial (i.e., non-subsistence) benefit from protecting trees should require a license to the same extent as other commercial and extractive uses, such as harvesting timber or collecting and selling nuts. However, many (perhaps most) countries require communities to have approved management plans and/or licenses to derive commercial benefits from both timber and NTFPs (Almeida & Hatcher, 2011).

Based on the case studies, it seems that the laws in many countries do not clearly state whether local communities with forest resource use rights are required to obtain a license to receive commercial benefits from a non-extractive use of those resources. This additional layer of legal uncertainty and the possibility that obtaining a license may be complex and expensive will threaten the goal of equitably sharing benefits with local communities and may also undermine the community's willingness to protect the forest. Thus, governments would be well advised to review and, if necessary, amend their laws to remove or simplify any restrictions on the rights of those holding rights to forest products to commercially benefit from non-

⁷ The analysis of carbon rights on a given parcel of land can become even more complicated if, for example, one party holds the right to benefit from forest products, another controls the land and a third, likely the government, owns the right to subsurface minerals and petroleum. See also Takacs at 14.

⁸ A discussion of rights to soil carbon is largely beyond the scope of this paper with its focus on REDD+. IPCC rules applied to calculating forest carbon consider two main categories: (i) above-ground biomass, such as stems, branches, wood and litter; and (ii) below ground biomass, including, roots, dead wood and litter, and soil carbon. Each country, however, has to decide which carbon pools to measure, considering the availability of data, technical feasibility of measuring and the magnitude of potential changes in carbon pools as a result of REDD+ activities.

extractive uses, such as carbon sequestration. The final section of this paper returns to this theme and discusses important considerations for drafting or amending laws related to carbon rights.

3.3 CARBON RIGHTS DERIVED FROM CONTRACTUAL RIGHT

In addition to carbon rights linked to property rights, carbon rights can also be created by a contractual relationship between parties. Although contract law and property law tend to be viewed as separate areas of law in the West, both can form a sufficiently secure foundation for rights. In the context of REDD+ programs, contracts between the state and a private individual or entity can form the basis for carbon rights. This sort of contractual arrangement is frequently found in the form of concession agreements where the state, which owns forest resources, grants a limited set of rights over an area of land to an individual, company or group for a set period of time, often in exchange for some payment to the government. Concession agreements made with the intention that the concessionaire would pursue REDD+ activities in order to receive financial benefits have not yet been widely pursued. That said, concessions over forestland in both the developed and developing world are very common, and the model will likely be extended to REDD+ in the future.

Concession arrangements over forestland (for non-REDD+ purposes) are common in all five of the countries visited as part of this study. For example, almost all forestland in Indonesia has concessions on it. Most concessions are commercial, such as concessions for harvesting timber or oil-palm plantations, but there are also some commercially driven ecosystem restoration concessions, where a developer seeks to grow forests with the goal of entering the carbon market. Several partners are working together in an attempt to establish such a project in Rimba Raya, on the southern coast of Central Kalimantan province.⁹ This model of securing contractual concession rights over a plot of land in order to pursue carbon sequestration payments is likely to fit into some countries' REDD+ plans.

Legally, a concession agreement may fall simultaneously within several areas of law. For example, the granting of concessions over forestland might be governed by a Forest Law while the enforcement of the rights and responsibilities formed by the concession would likely then be read in the context of a country's contract or administrative law. In cases where concessions are promoted for REDD+ participation, it will be important to analyze a given country's legal framework for forestland concessions and contractual law to find out what sorts of rights and responsibilities are created by the granting of a concession and what tools the concessionaire has to enforce these rights. As discussed further below, concession agreements may also raise some risks for third parties; this issue could be particularly relevant if governments grant private concessions over land that is inhabited or used by local communities without including those communities in the concession. Local communities may also find it difficult to compete for concessions with private developers if governments grant them to the highest bidder.

Another contractual model for carbon rights falls within the category of payments for environmental services (PES). For example, rights to financial benefits from the sale of carbon credits have been created through contracts in Mozambique's Nhambita Community Carbon Project. About 3,000 individual households and 20 communities that have taken actions resulting in measurable additional carbon sequestration on their land through planting trees on smallholdings or reduced emissions through protecting forests on large community lands. They have been paid in proportion to the volume of emissions reduced or sequestered. This illustrates how under some legal systems, contracts can be made with individuals or communities based on the act of planting and maintaining trees on a piece of land, regardless of the tenure regime governing the land.

⁹ Indonesia Visit - Alimi interview; Askham, Beth. "REDD Pilot Projects in Indonesia." *Ecos Magazine*. December 20, 2010. Available online. <http://www.ecosmagazine.com/?paper=EC10048>

3.4 DETERMINING THE SECURITY OF THE RIGHT TO BENEFIT FROM FOREST CARBON

Carbon rights, whether legally explicit, implicit, or contractual, must be reasonably secure and enforceable or they are essentially worthless. Indeed, a REDD+ scheme may fail if the right to benefit is insecure, or if there are competing claims over rights to forests products, forests use and forestland. If rights are not clear, other claimants to the land or forest products may appear to challenge the entitlement to REDD+ benefits. In order to incentivize change, the group or person whose land use behavior the system wishes to influence must also have a clear right to potential benefits. Tenure insecurity may make other short-term uses, such as harvesting the tree, more appealing than the receipt of a REDD+ benefit over the longer-term if the beneficiary believes that the benefit is unlikely to materialize. That is, the rights holder must see the REDD+ benefit as being more valuable than alternative uses. The more insecure the carbon rights, the more appealing the alternative uses will be, or the more likely that the land user may be evicted or separated from the land, with the added effect that international investors will pay a lower price to discount the risk posed by insecure rights.¹⁰

Aside from lack of definition, another source of legal uncertainty regarding carbon rights is the fact that states have the authority not to recognize existing rights or to legally seize or withdraw them altogether. About 80 percent of all forestland is owned by national governments (Takacs, 2009). Many, if not most, governments grant forest product use rights, not property rights, to communities, individuals and private entities.¹¹ Most governments that own forestland have not declared whether or not they will exclusively claim carbon rights. Until governments make that determination, there will be some chance that the state will retain benefits from REDD+, or in the worst case, take forestland back from vulnerable communities with usufruct rights, without appropriate compensation, by asserting governmental “ownership” of the forests (Knox et al., 2010; Barnes & Quail, 2010). This risk, in fact, seems to depend more on the political will of governments regarding the allocation of REDD+ benefits than on the recognition or existence of property and/or use rights over forest resources.¹²

Where forest carbon rights are currently held by local communities, there may be a risk that governments will take those rights away (Cotula & Mayers, 2009). All governments have the right to take away property if doing so is in the public interest, usually with a requirement of fair process and reasonable compensation. National laws have varying definitions of “public interest” and provide varying degrees of procedural rights and measures of what level and form of compensation is reasonable.¹³ Governments could decide to use their powers to take forestland and resources from those with current tenure rights and transfer those rights to a private concession for reforestation purposes, thus potentially transferring the entitlement to REDD+ benefits to the concessionaire or the government itself. Doing so may well undermine a REDD+ project’s performance if REDD+ safeguards or national legislation to protect forest-dwellers are not met.

Carbon rights that are secure on paper may not be secure in practice. A formal legal right to receive a benefit is worth little if it cannot be enforced (Sunderlin, 2009). According to Streck (2009), “In many REDD+

¹⁰ Knox, *supra* Note 12 at pg. 13. This discussion raises the issue of opportunity costs in implementing a REDD+ scheme. One may have a secure carbon right but decide not to transform that right into a REDD+ benefit if the opportunity costs of doing so are too high. While the issue is beyond the scope of this paper, taking opportunity costs into account is essential in designing a REDD+ mechanism.

¹¹ Examples from our study include Nepal, Tanzania, and Mozambique.

¹² New Zealand’s Climate Change Response Act of 2002 initially allocated carbon entitlements to the government for it to further redistribute benefits, generating more deforestation between 2004 and 2008 and leading to the reformulation of the policy to devolve carbon rights to forest owners.

¹³ In Tanzania, for example, public interest is defined broadly and includes infrastructure projects, resource exploitation and commercial development. In addition, adequate compensation, while required, is not often paid. Receiving payments for carbon sequestration would seem to be within any common sense definition of “resource exploitation” thus making the carbon rights of Tanzanians insecure. USAID Country Profile: Tanzania at 13. Washington, DC. 2011.

countries, the rule of law is weak, corruption rampant and the judiciary inefficient and partial” (p. 155). These overall institutional weaknesses can threaten the security of rights to REDD+ benefits. While a detailed analysis of institutional weaknesses is beyond the scope of this paper,¹⁴ important questions include:

- 1) Is there an accessible process available to the forest product and resource rights holder to defend/enforce the right?
- 2) Does the government have the capacity and will to enforce the right?
- 3) Is there an adequate dispute resolution mechanism?
- 4) Do rights holders have the capacity to understand their rights?

¹⁴ This issue is discussed at length in the companion paper produced by the World Resources Institute.

4.0 CASE STUDIES

During the research phase of this paper, in-country case studies were conducted in Mexico, Nepal, Tanzania, Mozambique, and Indonesia. This section briefly discusses the current structure of carbon rights in each country, the security of those rights, and the preliminarily planned REDD+ system for the country. Substantially more detailed reports for each country can be found in the Case Studies compendium to this paper.

4.1 MEXICO

4.1.1 ENTITLEMENT TO BENEFIT FROM FOREST PRODUCTS

Mexico has not adopted laws creating any new “carbon rights”. However, local communities and indigenous communities have existing rights to land, forest resources, and environmental services that appear to provide them with reasonably secure entitlement to benefit from forest products consistent with a REDD+ regime.

The Mexican Constitution (Article 27) and the Forest Sustainable Development Law (Article 5) state that landowners, including agrarian communities known as “*ejidos*”, indigenous communities and individuals own the forest resources on their land (Government of Mexico, 2003). The rights of indigenous communities to have access to and use the resources found on their native lands are also protected by Article 2 of the Mexican Constitution. Moreover, Mexico’s Forest Sustainable Development Law of 2003 and the General Wildlife Law of 2000 both include carbon sequestration in the definition of environmental services. Because carbon sequestration is included in the definition of “environmental services” and landowners are legally entitled to rights to benefit from PES, landowners have implicit carbon rights associated with the land and attached resources they own. Although the law requires government approval for cutting and removal of forest products, there appears to be little doubt that carbon stored in trees will be considered to be a forest resource, the rights to which are held by the landowners. Based on the foregoing, it is reasonably safe to conclude that carbon rights associated with REDD+ activities are likely to be considered a type of environmental service provided by forests or ecosystems and benefits accrued would primarily benefit the owners of the forestland and resources (Corbera, 2011; Robles, 2011).

FIGURE 4: MAP OF MEXICO AND LOCATIONS VISITED FOR REDD+ INTERVIEWS



4.1.2 SECURITY OF THE RIGHT

The carbon rights implicitly held by local communities and landowners appear to be reasonably secure. While the Mexican government has eminent domain powers, the power is relatively narrow and requires reasonable compensation. Land owned by *ejidos* is especially well protected from unreasonable government takings (USAID, 2011a). Moreover, it seems that Mexico's REDD+ approach will expand upon sustainable community forestry initiatives that give forest communities the right to exploit forest resources in order to combat poverty and sustainably manage the resources (Government of Mexico, 2010). Thus, despite concerns by some stakeholders, it seems unlikely that Mexico will rely heavily on new or expanded protected areas that prohibit resource use and require involuntary expropriation of private land.¹⁵

While rights held by communities may be reasonably secure, potentially difficult issues may arise in how REDD+ benefits will be distributed within those communities. The elected leaders of the communities' general assemblies govern the allocation of land and resource rights in the communities. Those who are not official members of the communities are excluded from important community decision-making. There is a risk that they will be similarly excluded from accessing payments to the community that may be made under a REDD+ regime for improved land-use practices in communally-owned forests. This raises the potential for conflict and highlights a possible risk related to community held carbon rights.

4.1.3 MEXICO'S ANTICIPATED REDD+ MECHANISM

It possible that the existing PES program in Mexico will be the predominant model for distributing REDD+ benefits. Under this program, the government forest agency, known as *Comisión Nacional Forestal* (National Forestry Commission of Mexico, CONAFOR), enters into five-year contracts with landholders who apply to be included in the program. Most of the contracts support *ejidos* or indigenous communities that generally hold communal title to forestland and resources.¹⁶ Contracts are awarded to the applicants who score highest under a points system established by CONAFOR. Factors for which points are assigned include the risk of deforestation, presence of indigenous communities, participation of women, whether communities have good internal rules governing natural resource use, and other factors listed in the regulations. Contracting parties agree to make no land use changes and to protect the land from illegal logging and forest fires so as to protect and enhance the water services provided by the forest on their land. Payments are made over the five-year term. CONAFOR monitors performance remotely and by sending inspectors (Benneker & McCall, 2009). At the end of the term, it is the responsibility of the communities to find new buyers for the PES services.

A majority of the community assembly (the governing body) must approve the terms of the contract with CONAFOR. The community decides how to spend the money based on its internal decision-making practices.¹⁷

Overall, if the REDD+ system is based on this PES program, it seems reasonably likely to provide benefits to the communities that have rights to the forest resources and have the ability to protect and enhance those forests. Whether the amount of the benefits flowing to these communities will be sufficient to offset the opportunity costs of other uses of the forest remains to be seen.

¹⁵ Interview with Anthony Challenger of SEMARNAT. (March 3, 2011). However, one expert expressed fears that the government might use protected areas as one of the pillars of the REDD strategy, to the detriment of the communities located in those areas. Interview of Professor Leticia Merino Perez (March 3, 2011). The government may establish REDD+ programs in perhaps 40 percent of existing protected areas, but it is unclear whether they will do so in the face of community opposition. See Corbera, et al, at 316.

¹⁶ Comunidades are typically indigenous, are managed somewhat differently, and fall under different rules than ejidos.

¹⁷ Interview with several CONAFOR representatives, including Jose Maria Michel Fuentes, Paula Bauche Peterson, Sofia Magdalena Garcia Sanchez and Leticia Gutierrez Lorandi (March 2, 2011).

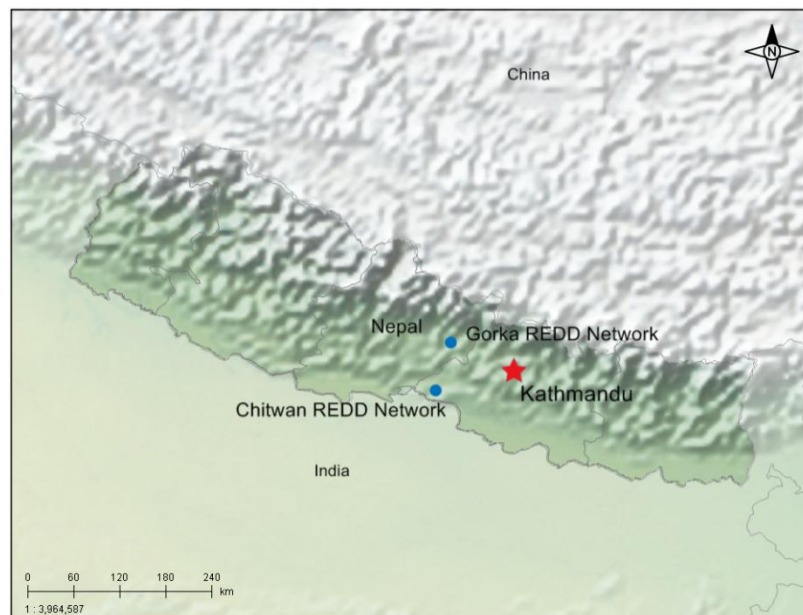
4.2 NEPAL

4.2.1 ENTITLEMENT TO BENEFIT FROM FOREST PRODUCTS

In Nepal, laws governing land, forests, and mining all contain substantial areas of overlap that cast serious uncertainty over entitlements to receive REDD+ benefits. Additionally, some forest use and management structures, such as the collaborative forestry management model, are contained solely within policies promulgated by the Ministry of Forestry and Soil Conservation (MoFSC) rather than being codified by law. Nepal's REDD+ efforts look set to rely primarily on Community Forest User Groups (CFUGs) in the hills and mountainous regions, and on Collaborative Forestry Management (CFM) in the low-land Terai.

Most of the experts interviewed seemed fairly confident that the CFUGs will hold carbon rights in a future REDD+ scheme. One government official asserted that, “in community forest contexts the community owns the carbon; it’s like a fruit on the tree.”¹⁸ This perspective appears to flow naturally from the Forest Act of 1993 and the 1995 Forest Regulations (Acharya et al., 2009). Though the government maintains ownership over the land and also provides some restrictions as to what uses a CFUG is allowed to exercise over the forest, the Act does not appear to provide the government with any use rights or benefits from forest products. It is presumed, however, that the government will receive income for their role in implementing REDD+ schemes, and could decide to broaden its access to benefits, if the resources generated by REDD+ turned out to be high. Based on the Forest Regulation of 1994, the CFUGs have broad discretion over use of forest resources so long as that use is consistent with their approved operational plan and does not violate provisions intended primarily to protect the forest. Protecting and enhancing carbon stocks certainly would not violate any such provisions. Overall, if the Forest Act is followed, which governs the CFUG structure, then entitlements to REDD+ benefits seem relatively clear.

FIGURE 5: MAP OF NEPAL AND LOCATIONS VISITED FOR REDD+ INTERVIEWS



¹⁸ Interview with Dr. K.C. Paudel, the Joint Secretary of the Environment Division of the Ministry of Forestry and Soil Conservation (REDD Cell member) on April 29, 2011.

However, inconsistent provisions in other laws raise the potential for contrary interpretations on entitlement. The primary law through which CFUG entitlements could be compromised is the Local Self Government Act of 1998 (LSGA).¹⁹ The LSGA gives local government units called Village Development Committees (VDCs) the right to sell forest resources to generate income from within the VDC area.²⁰ CFUGs are found within or across VDC boundaries. The LSGA specifies that forest and forest resources falling within the VDC area are the property of the VDC (Government of Nepal, 1998). All the forest products listed as under VDC authority in the LSGA are extractive in nature, so it can be argued that carbon stored in trees does not fall naturally within that authority. However, the potential for conflict exists.

In the context of CFM, carbon rights are substantially less clear. CFM in Nepal is based primarily on a forest policy promulgated by the MoFSC in 2001. It is not a well-defined legal or regulatory entity governed by legislation, like the CFUGs.²¹ Additionally, very few CFM areas currently exist. These two factors make it somewhat difficult to analyze rights to REDD+ benefits to the same extent as is possible under the CFUG model. The aspect of CFM that is most relevant to entitlements is the revenue sharing breakdown. A total of 75 percent of revenues generated on CFM forestland from the sales of forest products will go to the central government. It seems likely that if CFM is scaled up to include REDD+ activities then this arrangement will mean that the vast majority of revenues generated from REDD+ activities on CFM land will go to the central government. In the current setup, the remaining 25 percent of revenues are to go to the local government and to local communities that participate in the CFM. However, the CFM policy does not specify how funds are to be shared among the local government and community. As such, it is likely that basing entitlements to REDD+ benefits on the current CFM model would be subject to similar uncertainties. It is also an arrangement created by forest policy rather than law. Both factors make these entitlements extremely unclear and potentially unenforceable by local communities.

4.2.2 SECURITY OF THE RIGHT

The Government of Nepal has the power to take land if doing so is in the public interest, a term that is not defined in the interim Constitution or by law. This arrangement presumably provides broad discretion to the government to interpret the provision as it sees fit (USAID, 2011b). Consequently, the security of the CFUG's right to REDD+ benefits is in some jeopardy, although the political power of the CFUGs as a national movement should provide considerable protection against such actions. Nearly 50 percent of Nepal's rural population belongs to a CFUG, making them a powerful voting bloc.²²

Moreover, the 1993 Forest Act provides that a CFUG can be dissolved if it is abusing the forest in specified ways. Although the law's relative clarity would appear to give CFUGs some protection from arbitrary government decisions to retake their land, the Act does not provide a robust mechanism for a CFUG to appeal an adverse decision. The only appeal mechanism available is to a higher official within the Forest Office, so the CFUGs have little independent legal protection from arbitrary loss of their land. Once again, however, it seems that the CFUGs have sufficient political power and importance that this risk of arbitrary

¹⁹ Other conflicting provisions may be found under the various mining laws, including the Mines & Minerals Act, 2042 of 1985 and the Nepal Mines Act of 1966, which together could be interpreted as reserving rights to underground carbon to the government. Section 3 of the Mines and Minerals Act states that "all minerals lying or discovered on the surface or underground in any land belonging to an individual or the government within Nepal shall be the property of the Government of Nepal."

²⁰ See Ready for REDD at 28; see also Local Self Governance Act of 1998 at Section 58(d)-(e).

²¹ See Framework for Collaborative Forest Management in Nepal: February, 2003, by the FSCC-Collaborative Management Working Group. (Available at <http://www.docstoc.com/docs/37663122/Collaborative-Forest-Management-Policy>)

²² Interview with Peter Branney, Program Advisor, and Ramu Subedi, Deputy Programme Manager at Livelihoods and Forestry Programme on May 6, 2011.

governmental retaking of CFUG land is not a real concern. In fact, this political power and importance may be why a CFUG has never been dissolved.²³

Institutional weaknesses within the CFUGs could deprive women and indigenous groups of the opportunity to benefit from REDD+. Women are not well-represented in CFUG decision making bodies. The guidelines for community forestry state that women should comprise 50 percent of the CFUG committee but this often does not occur. Moreover, the participation of indigenous groups within CFUGs varies from community to community. In most CFUGs indigenous people are not represented in decision making bodies, though in parts of Nepal where they have higher population concentrations they are better represented.²⁴ These weaknesses are a threat to equitable allocation of benefits within CFUG communities.

4.2.3 NEPAL'S ANTICIPATED REDD+ MECHANISM

Nepal has yet to adopt its REDD+ strategy, in part because the government and various stakeholders are preoccupied with producing a new Constitution. At this point, it seems likely that the government will form a central clearinghouse to manage carbon credit transactions with outside investors and maintain a central carbon registry. However, according to Nepal's REDD+ Readiness Preparation Proposal (R-PP), the institutional mechanism for this arrangement has not been developed. With respect to payments, Nepal's R-PP identified a "risk of fungibility if funds are routed through central government channels where competing development needs could lead to a diversion of REDD+ payments to other activities (p. 49)." In order to avoid this risk, the R-PP suggests forming a national trust fund, managed by a multi-stakeholder board. This fund has yet to be established, but interviewees indicated that this approach was still a preferred method for managing REDD+ funds.²⁵ Piloting of a trust fund is also going forward through the Forest Carbon Trust Fund, which will be distributing REDD+ seed money to three pilot projects supported by the Norwegian Agency for Development Cooperation (NORAD).²⁶

The NORAD pilots are being used as a test case for benefit distribution at the local level for CFUGs. Each pilot joins a number of CFUGs within a watershed area into a REDD+ Network. The Networks will then receive REDD+ seed money and eventually payments for the emissions avoided and or carbon sequestered within their watersheds. At that point, payments will not necessarily flow to individual CFUGs on the basis of the quantity of emissions they actually avoided or sequestered. Rather, the Networks plan to use four criteria to distribute funds to their member CFUGs: (1) the amount of carbon sequestered within the CFUG; (2) the poverty index within the CFUG; (3) the extent of indigenous groups present; and (4) the percentage of women-led households in the CFUG.²⁷

4.3 TANZANIA

4.3.1 ENTITLEMENT TO BENEFIT FROM FOREST PRODUCTS

Tanzania has not adopted any carbon rights legislation. Uncertainty concerning who owns the carbon sequestered in trees in some tenure settings is widely recognized, including in the draft of the country's

²³ See e.g. Interview with Dr. Dil Raj Khanal of Federation of Community Forest Users, Nepal (FECOFUN) on May 4, 2011, who reported only one instance where a CFUG came close to being dissolved.

²⁴ Interview with Pasang Dolma Sherpa, National Coordinator at Nepal Federation of Indigenous Nationalities (NEFIN) on May 5, 2011.

²⁵ Dr. Bhaskar Karky interview.

²⁶ Ibid. See also Operational Guidelines for Forest Carbon Trust Fund (2011), available at <http://communityredd.net/wp-content/uploads/2011/06/REDD-FCTF-Operational-Guidelines-English.pdf>.

²⁷ See Bhaskar Karky Interview. See also Operational Guidelines for Forest Carbon Trust Fund (2011).

REDD+ strategy.²⁸ The issue has been discussed by the Tanzanian REDD Task Force as part of developing the strategy and is to be the subject of a new analysis to be conducted by an outside group by the end of 2011.²⁹

Under Tanzania's Land Act 1999, all land is controlled by the President who holds it as a trustee for the people and grants rights of occupancy. Land in Tanzania is divided into three categories: (1) Reserved Land, including national parks and wildlife reserves; (2) Village Land, including registered Village Land, land that has been designated as Village Land by village councils and land that has been occupied and used by villages for more than 11 years under customary law; and (3) General Land, which is all land that is not Reserved or Village Land. Importantly, the Land Act provides that unoccupied or unused Village Land is considered to be General Land (USAID. 2010a).



Figure 6: Map of Tanzania and locations visited for REDD+ interviews

Under the Village Land Act, adopted in the same year as the Land Act, there are three categories of Village Land: (1) communal land (markets, grazing land, etc.); (2) occupied land, primarily land held by individuals or by groups for grazing; and (3) land that has been set aside for future use. The Village Land Act also recognizes several categories of land use, including individual use and settlement, such as for agricultural and housing, communal use, including land use for grazing and harvesting forest products, and land set aside for future use. Most forests on village land should fall under one of the latter two categories.

The Land and Village Land Acts are inconsistent in one very important respect. Under the Land Act, General Land includes unoccupied or unused Village Land. However, under the Village Land Act this unoccupied or unused land is classified as land set aside for future use, making it Village Land. By law, if unoccupied or unused Village Land is deemed to be General Land, it falls under the jurisdiction of the central

²⁸ See, e.g., (Draft) National Strategy for Reduced Emissions from Deforestation and Forest Degradation (REDD+) at 19. Government of Tanzania, December 2012; Interview with Simon Milledge, Consultant on Environment and Climate Change, Norwegian Embassy, Tanzania, on May 20, 2011.

²⁹ Milledge interview.

government Land Commissioner. If it is Village Land, it is controlled by the village government. It is not clear which act would prevail in the event of a dispute over whether a parcel of unoccupied or unused land within a village is Village or General Land.³⁰

Tanzania's Forest Act, which was passed in 2002, essentially governs the use and management of Tanzania's forests. There are three main categories of forests: (1) national and local forest reserves, including national parks, game reserves, central and local government reserves, Village Land Forest Reserves, and forests on General Land; (2) Village Land Forest, which include all forests managed by a Village Council; and (3) private forests, which are held by individuals through rights of occupancy or leased and managed by private entities, most often for game farms or forest plantations (USAID, 2011a).

Participatory Forest Management (PFM) has been a key part of Tanzania's National Forestry Policy for more than 15 years. Two types of PFM projects are in place in Tanzania: joint forest management (JFM), in which a Village Council manages a local or central government forest reserve pursuant to an agreement with the government; and community-based forest management (CBFM), where a local community or communities manage forests on Village Land that the local community declares to be Village Land Forest Reserve (VLFR) or Community Forest Reserve (CFR). While the central government owns all biological resources of the Forest, the Village Council or committee representing multiple villages assumes legal control over the use of all forest resources and produce upon declaration of a VLFR or CFR (Wildlife Conservation Society of Tanzania, 2010). Thus, "by establishing VLFRs or CFRs, communities obtain full legal rights to manage and benefit from their forests." (Wildlife Conservation Society of Tanzania, 2010, p. 15.)

As explained more fully in the associated case study, communities that form CBFM institutions and declare VLFRs or CFRs would appear to have relatively secure carbon rights under existing law. Because carbon is not removed or extracted from the forest, such communities would not need a harvesting license under the Forest Act to sell carbon offsets, although if a national REDD+ scheme were to be adopted they would likely be required to include specific registration/licensing requirements to account for reductions within the national scheme. Local communities with Village Land Forests on land set aside for future use, but which is not within a VLFR, may be hard-pressed to successfully assert their rights to benefits associated with emissions reduction or sequestration activities in forests on such village land. This scenario could involve millions of hectares of forestland. If these forests are considered to be General Land, the government will hold the right to REDD+ benefits. The issue is unclear and unresolved.

4.3.2 SECURITY OF THE RIGHT

Even those villages that have rights to all of their forest resources by virtue of having formed a VLFR may find those rights difficult to defend. Under the Village Land Act, the president has the power to transfer Village Land to Reserve or General Land if doing so serves the public interest, a term that is not defined in the law. Those with rights of occupancy are supposed to receive compensation. These powers have been used to convert Village Land to General Land to make it available to investors, sometimes without adequate process or compensation. Around 2.5 million hectares have been transferred to the Tanzania Investment Centre, which established a land bank to make land available to investors.³¹ There appears to be nothing in the law to prevent village forestlands, including VLFRs, from being converted to General Land in order to ensure that the government, or an investor who acquires long-term use rights, is eligible to receive REDD+ benefits.

³⁰ Interview with Dr. Zahabu, Forest and Beekeeping Division, May 16, 2011; interview with Andrew Williams, May 22, 2011.

³¹ Interview of George Jambiya, May 27, 2011; Tanzania Country Profile at 13; Tanzania Investment Centre, 2011. URL: <http://www.tic.co.tz/TICWebSite.nsf/afcb2c053c1fe218882571fe005e6fc3/729d4c075f2b03fc432572d10024bea6?OpenDocument> (accessed July, 2011).

In general, the government seems to be contemplating passing a portion of REDD+ revenues to village governments which would then determine how to spend the funds. No decision has been made on whether to funnel the funds through district governments or send them directly to the Village Councils.³² If the district government is used to direct funds, there will be substantial risks that corruption; lack of capacity and inefficiency at the district level will prevent benefits from actually flowing to the villages.

4.3.3 TANZANIA'S ANTICIPATED REDD+ MECHANISM

Tanzania is still in the process of developing its REDD+ strategy. At this point, it appears that the government may establish two national level REDD+ institutions: (1) a national REDD Trust Fund that will receive all REDD+ funds, both from donors and the market; and (2) a national Carbon Monitoring Center responsible for monitoring, verification and reporting. The draft strategy states that the national REDD Trust Fund will purchase all carbon and sell it internationally (Government of Tanzania, 2010). While this arrangement might imply that carbon could be locally owned, that decision has yet to be made, as explained above.

Tanzania's Vision for REDD+ calls for REDD+ "benefits, goods and services ... [to be] equitably shared by all stakeholders...." (Government of Tanzania, 2010 at pg 5.) Without clarifying the country's inconsistent land and forest laws and making the application of the government's power to convert Village Land to General Land far more beneficial to local communities, it will be difficult to achieve this vision.

4.4 MOZAMBIQUE

4.4.1 ENTITLEMENT TO BENEFIT FROM FOREST PRODUCTS

The question of who will hold forest carbon rights in Mozambique has no clear answer. Under the country's Land Law, the state owns all land but communities, individuals and companies can obtain long-term and sometimes perpetual use rights. Communities and individuals can obtain such rights based on traditional or long-term occupancy. Communities are entitled to community land titles to land that is communally held and such rights are equivalent to titles held by individuals or companies. The government can grant 50-year use rights to private entities, either foreign or domestic, which submit and carry out approved investment plans setting forth the intended use of the land. Investors are supposed to negotiate and reach agreement with communities if the land sought by the investor is held by the community, whether or not the land is formally demarcated and registered in the name of the community (USAID, 2010b). The Land Law is generally interpreted as giving community or individual rights holders the right to forest resources on the land.³³

The state also owns all natural forests and forest resources. Under the Forestry Law, forest resource use rights of individuals and local communities in Mozambique are limited to subsistence uses. The state recognizes no other customary or inherent rights to the resources, which is inconsistent with the Land Law's treatment of land use rights (De Wit & Norfolk, 2010).

Communities, individuals, and entities can obtain use rights based on either occupancy or an exploitation license from the state. A license is required to use and benefit from exploitation of forest products, except that local communities and individuals can use forest resources for subsistence needs and personal consumption without obtaining a license (USAID, 2010b). "Exploitation" requiring a license is defined as the "extraction" of forest products, according to the Mozambique Forestry Regulations of 2002. This definition does not seem to include selling carbon credits or otherwise benefiting from carbon sequestration as those activities do not entail any "extraction" under any reasonable definition of the word. However, the fact that

³² Interview of Dr. Zahabu, Tanzania Forest and Beekeeping Division, May 16, 2011.

³³ Interview with Alda Salomao, Director General, Centro Terra Viva, June 7, 2011;

the law requires a license for commercial use of forest products suggests that a community might need a forest license in order to sell carbon credits or to receive other types of benefits linked to forest carbon (USAID, 2010b). More importantly, if the law requires communities to obtain a license, the legal requirements could either strengthen the communities' rights (if they unequivocally assign the eligibility to obtain a license to communities living on the land, for example) or annul such rights if they establish requirements with which communities cannot comply because they are too cumbersome.

FIGURE 7: MAP OF MOZAMBIQUE AND LOCATIONS VISITED FOR REDD+ INTERVIEWS



In sum, if the Land Law prevails, local communities probably hold the carbon rights. However, those rights may be called into question by the fact that the forest laws are generally interpreted to preclude communities from receiving any commercial benefit from forest resources, which would probably include benefits from REDD+ activities (De Wit & Norfolk, 2010). Local communities risk having such rights restricted or even annulled. Because of this legal uncertainty, current Mozambique law does not clearly establish the subjects of carbon rights.

Despite this lack of legal clarity, payments for REDD+ activities are being made to communities in Mozambique by the Nhambita Community Carbon Project, developed and managed by a private company called Envirotrade. This project has made payments to about 3,000 individual households and 20 communities that have taken actions resulting in measurable additional carbon sequestration or emissions avoided on their land by abandoning 'slash and burn' practices and either planting trees on smallholdings (averaging about 1 hectare in size) or protecting forests on large community lands.³⁴

In the Nhambita project, Envirotrade helped communities to delimit and register their land while relying on the communities to verify the boundaries of plots held by individuals. Smallholders receive seedlings and technical assistance on how to improve the productivity of their farmland while reducing emissions and sequestering carbon. A farmer who complies with an agreed land use plan receives a share of revenues paid to Envirotrade for sale of carbon credits based on the predicted amount of carbon emissions to be avoided or sequestered on the farmer's plot over a 99-year period.³⁵

Revenues are supposed to be divided evenly between the land rights holder (either community or individual farmer), Envirotrade's operating costs and Envirotrade's marketing costs. However, in the case of individual

³⁴ Interview of Alastair MacCrimmon, Sofala Project Manager, Envirotrade, June 3, 2011; Nazerali interview. See, also the project summary and annual reports available online at <http://www.planvivo.org/projects/registeredprojects/nhambitita-community-carbon-mozambique/>.

³⁵ MacCrimmon interview.

farmers (as opposed to larger, community-held forests) revenues have not been sufficient to cover marketing costs so these are being covered from other revenue sources.³⁶ To date, revenues from carbon sales have been shared equally between farmers and operating costs.

While seeing the benefits accruing to the beneficiary households, Envirotrade has determined that it is simply too expensive to administer more than 3,000 contracts with individual smallholders. As a result, the company has decided to limit its future contracts to communities with at least 100,000 hectares of forestland.³⁷ The government's view of the viability of this model for Mozambique is unknown.

4.4.2 SECURITY OF THE RIGHT

Under the Land Law, an investor who wants to acquire a land use right from a community has to consult with the community and reach an agreement acceptable to both sides. The community has the right to reject the investment although it is difficult for the community to exercise this right in practice due to pressure from the government and others (USAID, 2010b). Contrary to the Land Law, the Forest and Wildlife Law requires consultation, but the community has no clear right to veto the investment, especially in the case of large forest concession contracts.³⁸ Thus, even if the community holds the legal carbon rights associated with forests on its land, they can lose that right to a concessionaire.

More generally, the government can take land, including community land, if doing so is in the “public interest,” which is not defined. While fair compensation is required, the laws do not set forth a required procedure or measure for determining the amount of compensation (Constitution of Mozambique, 2004). There is some doubt as to whether fair compensation is, in fact, paid in the majority of cases (USAID, 2010b).

Mozambique may model its REDD+ benefit sharing system on its current law that distributes to local communities 20 percent of timber taxes and royalties collected from forest concessions on timber harvested from community lands.³⁹ If this occurs, problems of local institutional capacity, corruption and elite capture must be addressed. In some of the communities that have received 20% share payments, questions have arisen concerning the expenditure of those funds. There are reports of money being misappropriated by local elites.⁴⁰ These institutional weaknesses pose serious threats to equitable sharing of benefits within local communities.

4.4.3 ANTICIPATED REDD+ MECHANISM

Consistent with the other countries in the study, Mozambique has yet to complete its REDD+ strategy. The country prepared a draft strategy in 2011. On the advice of the World Bank, work on the strategy will slow while an R-PP is drafted. As a result, Mozambique now aims to adopt its REDD+ strategy by August 2012.⁴¹

Some observers believe Mozambique will adopt a PES system to implement REDD+ aimed at slowing shifting cultivation practices, which result in the annual burning of a huge amount of Mozambique's forests (Wertz-Kanounnikoff et al., 2011). Some have expressed interest in a model utilized in Envirotrade's Nhambita Community Carbon Project. As discussed above, Envirotrade has found it too expensive to

³⁶ Ibid.

³⁷ Ibid.

³⁸ Alda Salomao interview; Mozambique Forestry Regulation Articles 26(e) and 36(3).

³⁹ Interview of Alima Issufo Taquidir, Head of Department, Mozambique Ministry of Agriculture, National Directorate of Lands and Forests, May 30, 2011.

⁴⁰ Salomao interview.

⁴¹ Taquidir interview.

administer large numbers of small contracts and will limit its future activity to communities with at least 100,000 hectares of forestland.⁴² This experience may lead the government to reject a system requiring payments to individual or small community rights holders due to the high transaction costs that such a mechanism will entail.

If the system is modeled on the existing benefit sharing system for timber taxes and royalties, percentages allocated to communities would need to be sufficient to cover opportunity costs, and thus may need to be flexible as they are likely to vary in different areas. A 20 percent share is likely to be too low. This program has been implemented slowly as communities have found it difficult to participate (Wertz-Kanounnikoff et al., 2011). Funds have also not been invested well because communities lack knowledge and experience in managing money-based projects.

4.5 INDONESIA

4.5.1 ENTITLEMENT TO BENEFIT FROM FOREST PRODUCTS

In 2008 and 2009, the Indonesian Ministry of Forestry issued regulations to govern REDD+ projects. Those regulations are best understood in the context of Indonesia's national land and forestry laws. The Basic Agrarian Law (BAL) is the most important law governing land rights. It recognizes, but contains only relatively weak protections for, customary rights of traditional (*adat*) communities, including those living in forested areas. Read literally, the BAL applies to all land in the country. However, since adoption of the Basic Forestry Law in 1967, the BAL has not been applied to forests. This arrangement did not change with the enactment of a new Forestry Law in 1999. Application of the Forestry Law, together with the 1967 Law on Mining, has effectively nullified the BAL's weak protections of customary land rights (USAID, 2011c).

Under the government's interpretation of the 1967 Basic Forestry Law and its successor, virtually all forestland is the property of, and controlled by, the state. Approximately 16 percent of forestland has been officially gazetted (Colchester, 2008). Some of this land is owned by private parties and some by governmental entities at various levels. The law contains a process by which forestland can be registered as *adat* forest so that an indigenous community gains the right to manage an area of the forest. The process is very difficult and few communities have successfully registered. Thus, as a practical matter, the government does not recognize *adat* rights to land.⁴³ This trend means that the Ministry of Forestry and other agencies usually give state interests priority over community interests in awarding commercial logging, mining or palm oil concessions to private companies on forestland (USAID, 2011c; interview with Gorgio Budi Indrarto).

Under Indonesia's Constitution, the state controls all "land and water and the natural riches therein" (Constitution of Indonesia, 1945, Article 33). Despite a broad government decentralization effort in the past decade, the Ministry of Forestry continues to exercise most power over forests. The law provides for the establishment of Village Forests (*hutan desa*), which transfers forest resource management authority to the village government. However, only one Village Forest has been successfully established in Indonesia after a process that lasted 10 years (ASB Partnership, 2010). While some advocate use of the *hutan desa* mechanism as a vehicle for local community participation in REDD+, there appears to be little political will to do so.⁴⁴

Indonesia has issued relatively comprehensive REDD+ regulations governing REDD+ demonstration and commercial REDD+ projects through the 2008 and 2009 Ministry of Forestry Decrees. The provisions establish a process and procedures for projects in different types of legal forestland categories. Indonesian

⁴² MacCrimmon interview.

⁴³ *Adat* rights may be somewhat stronger in the autonomous provinces of Aceh and Papua and the "special province" of West Papua. Provincial governments in those provinces have broader authority than the governments of other provinces. Takacs at 47-48.

⁴⁴ Interview of William Sunderlin, Principal Scientist-Climate Change Forests and Governance Programme CIFOR, January 26, 2011.

entities holding legal rights to those lands are given the right to collaborate with international entities to develop REDD+ projects. The most recent regulation establishes revenue sharing allocation percentages for carbon projects. The specific percentages depend on the type of forestland on which the project is situated. Revenues are divided among the government (central, provincial and district), local community and project developers. The local community's share ranges from 20–70 percent. As indicated above, this regulation on revenue sharing may never take effect as the Ministry of Finance has challenged the Ministry of Forestry's authority to regulate revenue sharing.

FIGURE 8: MAP OF INDONESIA AND LOCATIONS VISITED FOR REDD+ INTERVIEWS



For those who have secure rights to forestlands where REDD+ projects will be located, the regulations appear to create a legal entitlement to REDD+ benefits. Interestingly, none of the individuals interviewed during the field study cited these regulations as creating carbon rights, perhaps because of the legal opposition from the Ministry of Finance.

The regulations do not include any provisions addressing the forestland tenure issues identified above. The revenue sharing provisions do not make clear who the “local community” is for purposes of payments or assignment of rights. Moreover, the regulations contain no requirement that a developer consult with a local community, let alone obtain their consent.

Overall, Indonesia combines unclear land and forest tenure with an overlay of laws that do not conclusively establish the rights and duties of the various levels of government over forest management (Takacs, 2009). In virtually all cases, local indigenous communities have no obvious legal entitlement to forest resources that would form a basis for an entitlement to REDD+ benefits. The “legal framework that enables sustainable forest carbon projects is still under construction” (Takacs, 2009, p. 52).

4.5.2 SECURITY OF THE RIGHT

Those with secure rights to forestland suitable for REDD+ projects may have reasonable entitlements to REDD+ benefits under the regulations discussed above. However, rights to use forest resources in Indonesia are often highly contested so it is unclear how many rights holders will actually qualify. One can predict with a high level of confidence that local communities and indigenous peoples are unlikely to be among them (Costenbader, 2009). A great deal of the forestland in Indonesia is already subject to concession agreements. Much land actually has overlapping commercial concessions and is sometimes also subject to indigenous

claims (Neilson, 2010). For example, in Central Kalimantan, four million hectares of Forest Estate (25 percent of the province) has overlapping land use concessions that are in-process or have been issued.⁴⁵

In addition to overlapping concessions, land tenure security is also undermined by the Indonesian government's wide discretion to take land for public purposes, including the support of private business activities. This trend makes customary land rights, which are generally afforded very weak recognition, especially vulnerable to government takings (Cotula & Mayers, 2009).

4.5.3 INDONESIA'S ANTICIPATED REDD+ MECHANISM

Despite enacting a set of REDD+ regulations, the Indonesian government has not agreed on a final REDD+ strategy. There is no clear national vision of how benefit-sharing will unfold⁴⁶ beyond the revenue sharing provisions in the regulation discussed above. Nevertheless, given Indonesia's large forest estate and global importance for forest carbon emissions, there are numerous forest carbon activities financed by private actors, environmental NGOs, and international donors.

The most recent national REDD+ strategy document includes "empowerment of indigenous peoples and local communities" among eight "prioritized policies" (Government of Indonesia, 2010, p. 8). The document does not discuss how to achieve that objective nor does it address the problem of unclear tenure rights to forestland and resources.

The government has adopted regulations governing REDD+ demonstration activities, of which there are several in the early stages of development. The 2009 Ministry of Forestry Decree states that, "The objective of a REDD activity is to reduce the occurrence of deforestation and forest degradation in order to achieve sustainable forest management and to increase the welfare of the people" (Government of Indonesia, 2009a, chapter II, Article 2(1)). Though this is an admirable goal, the realities of weak land and forest rights, overlapping concession claims, and ease of government land takings significantly undermine the potential for secure carbon rights in Indonesia. Significant changes to Indonesia's laws and policies, as well as institutional capacity and incentives for enforcement, will be needed to make REDD+ successful in reducing deforestation and channeling benefits to forest communities.

⁴⁵ Address by Kuntoro Mangkusubroto, head of Indonesia's President's Delivery Unit for Development Monitoring and Oversight, to International Conference on Forest Tenure, Governance and Enterprise, July 12, 2011. Available online. URL: http://www.rightsandresources.org/documents/files/doc_2483.pdf (hereinafter "Kuntoro speech")

⁴⁶ Interview of Andrew Wardell, Programme Director, Forests and Governance, CIFOR, January 26, 2011.

FIGURE 9: REDD+ AND CARBON RIGHTS IN CASE STUDY COUNTRIES

Country	REDD+ Strategy	Current Carbon Rights Legal Regime	Security of Right of Local Community
Mexico	Under development; draft available	Implicit; contractual (PES)	Reasonably secure for landowners, <i>ejidos</i> and indigenous communities
Nepal	Under development; draft available	Implicit; current laws contain relatively minor inconsistencies but carbon rights still unclear	Reasonably secure for CFUGs for now due to political power; relatively insecure for others
Tanzania	Under development; draft available	Implicit; current laws contain major inconsistencies-carbon rights very unclear	Insecure
Mozambique	Under development; draft available	Implicit; contractual (pilot PES); land and forest laws must be harmonized for pro-community REDD+ implementation-carbon rights very unclear	Insecure
Indonesia	Under development; draft available	Explicit for pilot and early commercial projects; implicit for all other purposes; tenure and carbon rights mostly very unclear	Insecure

5.0 DESIRABILITY AND CONTENT OF CARBON RIGHTS LEGISLATION

If the existing mix of land, forest, and other laws does not clearly establish who has the right to benefit from carbon transactions, it may be desirable for a country to enact separate, stand-alone carbon rights legislation. Existing national laws may have been designed long ago to facilitate harvesting of natural resources, such as trees. As such, they may be ill-suited to accommodate an effort to preserve, rather than cut down, the forest. For example, some forest laws grant forestland tenure only to those who actively develop the forest. Clearing the forest will likely qualify as developing the forest, but leaving the forest untouched would not. Clearing forests, of course, is exactly the opposite of what a REDD+ system is intended to encourage (Streck, 2009).

Investors may be unwilling to invest if national laws do not clearly establish who has the right to benefit from carbon transactions linked to REDD+ activities. Without clear rights, there can be little certainty that emissions reduction or carbon sequestration activities are actually taking place, so investors will likely express a preference for purchasing carbon offsets from projects and programs that have clearly established rights (Knox et al., 2010; Cotula and Mayers, 2009). In REDD+ programs that are not market-based, donors also will likely require national laws that result in clear allocation of rights to ensure equitable sharing of benefits and that emissions reduction or sequestration actually occurs.

5.1 DRAFTING AND AMENDING CARBON RIGHTS LEGISLATION

A new carbon rights legal framework could represent an opportunity to amend existing laws to incentivize forest preservation and to satisfy investors and donors. Such laws might also be used to resolve land and forest tenure inconsistencies and inequities, although such comprehensive undertakings are likely to be highly complicated both legally and politically.

If a new carbon rights law is to be enacted, what key principles should guide the drafting process? Ideally, rights to benefit from reduced emissions or carbon sequestration should be housed within clear, state-sanctioned rights to the land and forest products or within climate mitigation laws also covering other sectors. A relatively narrow law could give statutory recognition of the rights (including customary rights) to land and the carbon stocks found on that land, as well as the entitlement to receive benefits associated with those stocks, such as from the sale of carbon credits. Alternatively, it may be sufficient to more broadly define rights, goods and services derived from land, trees and forests to encompass all benefits generated by those resources, without making specific reference to carbon (Knox et al., 2010).

At a minimum, the law should give the carbon right to the individual or community who has the legal or customary right to receive benefits from forest resources (or use the forest); is in a position to decide on forest use (extractive or non-extractive); and who will ultimately bear the opportunity cost of changing land use behavior. Once carbon rights are created, however, it is important to make them a separate entitlement from property over the trees or forests if policymakers want to enable rights holders to trade such benefits in the carbon markets without selling the trees or forests that are the source of the right. Separating rights,

however, may not be feasible in every country, as incentives for sustainable forest management by those managing the forest and for permanence also need to be maintained.

In addition, any legal provisions that place limitations on an entitlement to benefit commercially (as opposed to subsistence purposes) from forests or their products should be removed. Or, in situations where it is desirable to continue a general prohibition of forest uses other than for subsistence, it should be made clear that the entitlement to benefit commercially from emissions reduction or carbon sequestration activities will be an exception.

A carbon rights law should not undermine existing tenure rights and, if possible, should make them more secure. However, tenure issues often require a longer term fix. States could start with ensuring that the law creates the minimum level of tenure security needed to enable national level schemes and at the very least presents a pathway to a more optimum tenure regime. It may not be practical to make comprehensive tenure reform a requirement of REDD+ implementation, but in all cases such reform should be a longer term goal aimed at ensuring the sustainability of the REDD+ program (Streck, 2009). The desire to implement REDD+ quickly should not be used as an excuse to avoid instituting difficult tenure reforms that will ensure that local communities have adequate carbon rights.

Care also must be taken not to negatively impact secondary rights. In customary tenure systems, male heads of household are often primary rights holders and have stronger rights than others. Women, children, pastoralists and others tend to hold secondary rights. If legal regimes assign carbon rights to single rights holders, secondary rights holders could be denied REDD+ benefits altogether and potentially further weaken the tenure rights of women and others (Knox et al., 2010).

The law should not harm the rights and circumstances of women, indigenous people, and marginalized groups. If possible, the enactment of such a law and a REDD+ system should actually improve those rights and circumstances. Yet, as observers in Mexico pointed out, REDD+ and related tenure rights together cannot be expected to resolve entrenched, possibly centuries-old social problems.⁴⁷ Local communities are unlikely to significantly modify their social traditions solely in exchange for REDD+ benefits. These changes, such as providing more secure tenure rights to women, will only come as a part of larger efforts devoted to reshaping attitudes and norms which may be achieved through education and capacity building or other measures, such as mobilizing disadvantaged groups to advocate for their rights.

In addition, any requirement that a rights holder “develop” the forest by clearing or making other physical changes must be eliminated unless protecting the forest is specifically deemed to satisfy such a requirement. This adjustment means that the holders of rights to forests who simply leave the forests alone can qualify for a REDD+ benefit in the absence of any action by the rights holder, apart perhaps from guarding the forest.

Finally, an effective carbon rights law also should provide a mechanism by which carbon rights can be documented, registered and transferred (including, for example, writing down commitments regarding forest permanence within forest property registries) in order to enable carbon credits to be sold in the markets, or allocated to third parties, independent from the forests that have generated emissions reductions or removals. Moreover, compliance and enforcement procedures, including penalties, are necessary to ensure that the forests contained within REDD+ projects that may be bought and sold comply with REDD+ obligations, including permanence requirements, use restrictions, and safeguards. Establishing this mechanism is especially important if a country’s REDD+ strategy aims to achieve participation in international carbon markets (Knox et al., 2010).

⁴⁷ Interview with Santiago Enríques and Gabriela Lozada, ABT Associates, Mexico City, March 3, 2011; interview with Jorge Rickards, Director of Conservation WWF Mexico, March 4, 2011.

5.2 WHAT IS THE APPROPRIATE “BENEFICIARY UNIT?”

An important question to consider in the process of drafting new carbon rights legislation, or clarifying existing legislation that forms the implicit basis for carbon rights, is what will be the most efficient organizational unit within a given country for effecting land use change and distributing benefits. In other words, will it be individuals, traditional communities, village governments, or some combination of organizational units that is most effective at changing, or maintaining and enforcing forestland uses, thereby reducing emissions and/or generating additional carbon stocks. Answering this question will require consideration of the institutional capacity of a country to both monitor compliance with REDD+ responsibilities and to ensure that REDD+ benefits are distributed equitably to the appropriate actors. For example, it may be far too cumbersome and potentially too expensive for the central government to ask every family living in a forest area to change their forest uses and then pay each individual family for carbon emissions avoided or removed. Instead it may be much more feasible to work at a village or community level. It may also prove too cumbersome to establish the institutional structures necessary for countries to participate in international carbon markets and ensure forest users have appropriate incentives.

An example of the need to pay attention to the appropriate beneficiary unit can be seen in some of the carbon sequestration efforts in Mozambique, such as Envirotrade’s Nhambita Community Carbon Project discussed above, where payment to thousands of individuals was found to be too expensive and administratively difficult.

Any new laws or amendments to existing laws that are aimed at clarifying carbon rights will need to consider this issue and tailor the rights to the appropriate beneficiary unit. If this step is not done carefully, then new rights may be created that have little relevance to the realities of forest use and carbon sequestration on the ground.

5.3 MANAGEMENT OF LIABILITY FOR NON-PERFORMANCE

In most cases the right to REDD+ benefits will be linked to a responsibility to engage in land use behavior that impacts the concentration of carbon in the atmosphere by actually reducing emissions or sequestering carbon. This issue of responsibility is particularly relevant in allocating benefits, as well as in establishing compliance and enforcement procedures. At the international level, REDD+ may, in some cases, rely on a national accounting scheme whereby a country will be responsible for accounting for reduced emissions at a national or sub-national level. An initial question is posed by the fact that REDD+ compliance costs, or opportunity costs, may vary in different areas of the country, thus national systems will need to consider whether or not to adjust compensation to the level of effort and costs involved. This arrangement also means that some people or communities within a country could work hard to change their forest uses in order to reduce emissions or enhance removals, but if the net level of forest sector emissions in the country was still increasing then no payments would flow. This potential trend introduces the following two problems: (1) For those who did reduce emissions on their own land, will their efforts go uncompensated?; and (2) For those parties that did not fulfill their responsibilities, will there be any sanction? Both of these issues will undoubtedly be at the core of policy discussions and decisions at the national level when designing REDD+ strategies. Alternatively in sub-national or nested approaches, where private projects operate underneath a national framework, incentive structures may be significantly different among projects. Success in adequately defining these issues at the national level also will clarify and help to shape the definition of carbon rights and their corresponding obligations within national policy, as well as to determine a national system’s level of compliance with equity requirements and safeguards in REDD+ schemes.

6.0 CONCLUSION

In most tropical countries, home to most of the world's most carbon-rich forests, the law does not clearly establish who is entitled to benefit from REDD+ activities. Many of these countries will need to modify their legal regimes in order to participate effectively in an international REDD+ mechanism, particularly if this is linked to carbon markets. It may be desirable for some countries to enact separate legislation establishing explicit carbon rights. Others may find it preferable to amend existing laws governing forest and land tenure so as to encompass carbon rights therein. Still others will rely primarily on contracting arrangements.

No matter which approach is taken, a new carbon rights legal framework represents an opportunity to amend existing laws to incentivize forest conservation. It could also help to ensure access to new financial resources by reducing uncertainties for carbon investors and donors interested in funding REDD+. The lessons that can be drawn from the case studies and related research highlight the following recommendations for the development of all carbon rights legal regimes:

- Rights to benefit from reduced forest carbon emissions or forest carbon sequestration should be housed within clear, state-sanctioned rights to land and forest resources, whether customary or statutory rights. Legal inconsistencies, such as those found in Tanzania and Mozambique must be resolved.
- The system should give the carbon right to the individual or community who is in the best position to protect or manage the forest so that the system will lead to reduced emissions and/or increased sequestration. The share of benefits to which they are entitled must be high enough to incentivize environmentally-friendly use of the forest resources.
- Carbon rights should be separate from property rights to the trees or forests if policymakers want to enable rights holders to trade in the carbon markets without selling the trees or forests that are the source of the right.
- Any restrictions on those holding rights to forest products to benefit commercially from non-extractive uses such as carbon sequestration should be eliminated or made subject to very simple and accessible licensing procedures.
- A carbon rights system should not undermine existing tenure rights, including customary rights. If possible, the system should make such rights more secure. Care must be taken not to negatively impact secondary rights.
- The law should not harm the rights and circumstances of women, indigenous peoples and marginalized groups. If possible, the enactment of such a law and a REDD+ system should actually improve those rights and circumstances.
- Any requirement that a rights holder “develop” the forest by clearing or making other physical changes must be eliminated unless protecting the forest is specifically deemed to satisfy such a requirement. This will allow holders of rights to forests that are simply left alone to be eligible for REDD+ benefits.
- Compliance and enforcement procedures and penalties, and effective, accessible dispute resolution mechanisms should be included to comply with international REDD+ obligations, including

permanence requirements, use restrictions, and safeguards.

- Improved institutional capacity is required to ensure fair allocation and distribution of REDD+ benefits.

Most of these recommendations can be addressed through a thorough analysis of the existing legal system in a country, and identification of potential carbon rights beneficiaries according to existing laws, prior to adopting new legislation on REDD+. Based on this analysis, new legal frameworks for REDD+ could aim at resolving inconsistencies in the legal system and address weaknesses regarding the protection of rights of women and indigenous groups to ensure the new regulation provides additional clarity and security of rights so as to promote, and not detract from, the objectives stated above related to the protection of vulnerable or disadvantaged groups.

If REDD+ develops into an international mechanism for addressing climate change as its proponents hope, substantial sums of money could flow to countries and local communities that successfully alter their deforestation patterns and reduce emissions. In order to succeed, most countries will need to clarify carbon rights or create new carbon rights legislation as demonstrated by lessons learned from the five case studies. If this process is done carefully so as to give rights to those actors best positioned to change forest uses (and with an eye toward strengthening existing rights of local communities), REDD+ may succeed both in reducing global emissions and also in providing new security and benefits to forest-dwelling communities throughout the world. However, if necessary changes are not made, REDD+ might further marginalize the rights of indigenous and other forest dependent communities to use and benefit from forest resources and, in the end, fail to make a meaningful contribution to the fight against climate change.

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