
IMPLICATIONS OF THE LEGAL AND POLICY FRAMEWORK FOR TREE AND FOREST CARBON IN GHANA:

REDD OPPORTUNITIES SCOPING EXERCISE



Forest Trends' and the Katoomba Group's work on this analysis was made possible by:



REDD OPPORTUNITIES SCOPING EXERCISE:

IMPLICATIONS OF THE LEGAL AND POLICY FRAMEWORK FOR TREE AND FOREST CARBON IN GHANA

Rebecca Ashley Asare, Katoomba Incubator – Forest Trends

Contributors: Yaw Osafo, Legal Council, Michael Richards, Forest Trends, Slayde Hawkins, Forest Trends
Institutional Coordination: John Mason, NCRC, Jacob Olander, Katoomba Incubator – Forest Trends

June 2010



Forest Trends' mission is to maintain, restore, and enhance forests and connected natural ecosystems, life-sustaining processes, by promoting incentives stemming from a broad range of ecosystem services and products. Specifically, Forest Trends seeks to catalyze the development of integrated carbon, water, and biodiversity incentives that deliver real conservation outcomes and benefits to local communities and other stewards of our natural resources.

The Katoomba Ecosystem Services Incubator, a program of Forest Trends, aims to link communities with the emerging markets for ecosystem services by providing targeted technical, financial, business management and legal support to promising small-scale community-based projects with potential for long-term financial viability, and with the aim of benefiting low-income rural people and imperilled biodiversity.

<http://www.forest-trends.org>; <http://www.katoombagroup.org/incubator>



The Katoomba Group seeks to address key challenges for developing markets for ecosystem services, from enabling legislation to establishment of new market institutions, to strategies of pricing and marketing, and performance monitoring. It seeks to achieve the goal through strategic partnerships for analysis, information sharing, investment, market services and policy advocacy. The Katoomba Group includes over 180 experts and practitioners from around the world representing a unique range of experience in business finance, policy, research and advocacy.



The Nature Conservation Resource Centre (NCRC) is the leading conservation NGO in Ghana and rapidly becoming an international entity with project involvement in West and East Africa. NCRC is recognized internationally as a leader in developing rural ecotourism and community-protected areas as a means of economic development and resource conservation. Founded in 1996, NCRC has been collaborating with a broad group of other entities to highlight the opportunities presented by carbon finance; as part of this strategy, NCRC in 2009 entered into an agreement with the Katoomba Group to establish the ***West Africa Ecosystem Services Incubator***.

<http://www.ncrc-ghana.org>

Table of Contents

Executive Summary	v
1. Introduction	1
2. Current Legal and Policy Framework	2
3. Implications of the Legal and Policy Framework for Forest Carbon Finance and REDD+	11
4. Benefit-Sharing Mechanisms for REDD+	17
5. Discussion and Conclusions	20
References	24

Acknowledgments

This report was written by Rebecca Ashley Asare of Forest Trends and forms part of the REDD Opportunities Scoping Exercise (ROSE) conducted by the Katoomba Group in close coordination with NCRC, Ghana. Any views, opinions, or errors presented in this assessment are solely those of the author and do not necessarily represent those of the organization.

This analysis would not have been possible without the contributions of many people. In particular, I am very grateful to the following individuals for providing valuable information, ideas, and insights; Andrew Agyare (Wildlife Division), Alex Asare (Collaborative Forest Management Team – Forestry Commission), Godfred Ohene-Gyan (Resource Management Support Centre- Forestry Commission), Irene Messiba (Ministry of Local Government and Rural Development), K.S. Nketiah (Tropenbos International, Ghana), Nana Frimpong Ababio (National House of Chiefs), Nicholas Agyei-Gyan (Kuapa Kokoo), Raphael Yeboah (Forest Services Division – Forestry Commission), Saed Abdul Razak (Civic Response), Victoria Wiafe and Phil Cowling (The IDL Group), Nathan Amankwa and J. Gyan Emmanuel (Atwima Mponua District Assembly), William Osei (Ministry of Food and Agriculture – Atwima Mponu), Louis K. Bayuoh (Bibiani-Anhwiaso-Bekwai District Assembly), Ernest Nkansah Kwarteng (Bibiani Forest District), and all the participants at The Forests Dialogue in Ghana.

I also owe tremendous thanks to Yaw Osafo (Lawyer and REDD expert) who was at the heart of the original thinking, research, and writing of this analysis. I am grateful to Charlotte Streck, Carina Bracer and their colleagues at Climate Focus for their focused comments and suggestions. I am also grateful to Mike Packer for sharing his experiences and detailed comments. Within the Katoomba Incubator and Nature Conservation Research Centre (NCRC) team, many people have been extremely supportive, including Jacob Olander and John Mason. James Agyei-Ohemeng was indispensable in the field, and Slayde Hawkins provided critical editing at the end. Finally, I must say thank you to Michael Richards for his guidance, patience, and superb contributions.

This report is funded in part by the Gordon and Betty Moore Foundation, NORAD and UNDP/GEF.

Executive Summary

Ghana is in the early stages of grappling with the opportunities and challenges posed by carbon finance and measures to reduce emissions from deforestation and degradation (REDD, or REDD+ if it includes conservation, sustainable management of forests, and enhancement of forest carbon stocks). This REDD Opportunities Scoping Exercise (ROSE) presents an analysis of the legal and policy framework for tree and forest carbon in Ghana in an effort to contribute to this process. It shows that the current legal and regulatory structure for forestry and lands in Ghana provides indications of how carbon rights and benefits might be managed and distributed. But more importantly, the report also highlights significant hurdles and challenges that will need to be addressed. It argues that realizing the full ecological and economic potential of REDD+ will require meaningful legal reforms and innovative application of existing mechanisms so as to effectively address the real drivers of deforestation and ensure permanence in any REDD+ activities.

In principle, Ghana's Forest and Wildlife Policy (FWP) is strongly aligned with the goals of REDD+. Unfortunately, in terms of impact it carries less weight than the existing land- and forestry-related laws, acts, customary norms, and lesser policies that serve as the real directive for how forest resources are managed and exploited. These laws, norms, and policies specifically focus on:

- Rights to natural resources
- Ownership and user rights to naturally regenerated trees for economic and non-economic purposes
- Forest reserves
- Granting of timber-harvesting rights and responsibilities
- Payment of royalties from timber harvesting
- Ownership of planted trees
- Economic plants protection
- Land tenure arrangement
- Community Resource Management Areas (CREMAs)

These laws demonstrate that rather than ensuring conservation and sustainable forest management, the existing legal and policy framework has prioritized economic exploitation of the country's forests, largely to the benefit of the State. In contrast, farmers and forest-based communities have few legal, economic, or customary incentives to maintain trees or forest areas. Nonetheless, major efforts are underway to improve how Ghana's natural resources and environment are governed, financed, and managed, including the development of a Natural Resources and Environmental Governance (NREG) program, implementation of the Voluntary Partnership Agreement (VPA), and the Non-Legally Binding Instrument on All Types of Forests (NLBI), prioritization of plantation development, and efforts to address social rights and inequalities. However, significant attention is still required in order to adequately address the weaknesses of the current legal framework that pose real challenges to REDD+ including:

- 1) poor forest stewardship and governance;
- 2) perverse policy incentives;
- 3) weakly implemented and conflicting laws; and
- 4) a backlog of land disputes.

In terms of the question of how the legal and policy frameworks affect carbon and REDD+, the analysis highlights the need to address how carbon will be regulated, defined, and how rights will be issued. There has been speculation that because carbon is found in forest biomass and is linked to trees, its regulation and management should be housed in the Forestry Commission (FC); however, the analysis points out a number of concerns with this choice. The term carbon itself also requires further definition, as it can refer to 'carbon sequestration', 'carbon sink', 'carbon sequestration potential' and 'carbon credits', and a policy decision is needed as to whether it will be classified as a security or a commodity.

Once carbon is more clearly defined, then it will be necessary to allocate "rights" (either ownership rights, the economic right to benefit, or both) to the carbon. Of critical importance to the permanence of any REDD+ activities is the issue who or what is actually driving deforestation and forest degradation in on-reserve and off-reserve landscapes. A simple analysis of threats and decision-making under three hypothetical carbon-rights scenarios shows that when carbon rights are allocated according to the real drivers of deforestation and decision-making, the permanence risk is much less than when carbon rights are tied to economic tree rights or to land ownership and land tenure.

Arguably, the most important aspect of the entire equation is how benefits and costs will be shared which speaks to the efficiency, transparency, and equity of the respective financial structures. Regardless of how carbon rights and ownership discussions are resolved, benefit-sharing mechanisms must be able to provide individuals and communities with real and tangible incentives. The question of who owns the carbon may be less important than considering how rural farmers and resource users will be compensated for their efforts to sequester or maintain carbon stocks.

Key examples of benefit-sharing mechanisms can be found within existing social and governmental institutions in Ghana, providing an excellent opportunity to build an effective REDD+ benefit-sharing mechanism based on sound evidence and experience. These examples include:

- Distribution of stumpage fees
- Commercial plantation agreements
- Community Forest Management Projects (CFMP)
- Community Resource Management Areas (CREMA)
- Dedicated Forests (DF)
- Kuapa Kokoo benefit-sharing formula
- Traditional systems of sharing benefits from land

In addition, there are currently four opportunities that could prove to be very beneficial to the development of REDD+ in Ghana. The first is the fact that near-term project-based REDD activities can provide early abatement, together with critical experience and capacity to develop and deliver national level strategies. Second, the clarity of ownership of planted trees provides a very simple platform upon which to pursue initial REDD+ efforts while larger issues of carbon rights are still being decided. Third, the current policy of decentralizing certain aspects of natural resource management to the district level represents an opportunity to expand the scope of District Environment and Sanitation Committees, and to develop by-laws that can help guide REDD+ activities and benefit-sharing mechanisms at the local level. Fourth, the potential to use the Forestry Commission's CREMA model to devolve management rights for naturally regenerated trees would provide an ideal mechanism to circumvent the complexities and disincentives of the existing tree tenure framework.

Finally, the analysis argues that under the existing legal and policy framework, it is unlikely that REDD+ initiatives can succeed and that real abatement or mitigation will occur without a major shift in thinking. Therefore, it also provides key recommendations on how to build a system of incentives that can help the nation in transforming its perspective and practices in relation to forests and trees. These include:

- Implementation problems and contradictions in existing laws need to be addressed.
- Improved forest governance and compliance will be critical both for the effectiveness and equity of REDD+ initiatives whether market- or fund-based.
- Inter-sectoral coordination of REDD+ needs to happen at a high political level, preferably that of the Cabinet.
- The government could benefit from REDD+ initiatives through a taxation mechanism as opposed to outright carbon ownership, though this would require careful review and design so as not to threaten incentives for REDD.
- Expectations about the magnitude of benefits from REDD+ need to be kept realistic.
- A number of experiences and legal instruments in Ghana that have possible relevance to benefit sharing require further analysis.
- Forest reserves should be left to regenerate naturally, while the focus on plantation development should shift to the off-reserve.
- Outside of forest reserves, the main priority should be on tree tenure reform, so that farmers have positive rather than perverse incentives as regards maintaining timber or other trees as shade in the farming landscape.
- In the absence of tree tenure reform, CREMAs and DFs offer real promise for REDD+.
- Land and trees that become part of REDD+ activities should be surveyed and documented.

List of Abbreviations

CO ₂	Carbon dioxide
CFMP	Community Forest Management Project
CREMA	Community Resource Management Area
DA	District Assembly
DF	Dedicated Forest
EC	Executive Committee
FC	Forestry Commission
FCPF	Forest Carbon Partnership Facility
FR	Forest Reserve
FSD	Forest Services Division
FWP	Forest and Wildlife Policy
GoG	Government of Ghana
HFZ	High Forest Zone
MRV	Monitoring, Reporting and Verification
NCRC	Nature Conservation Research Centre
NLBI	Non-Legally Binding Instrument on All Types of Forests
NREG	Natural Resources and Environmental Governance
NTFP	Non-Timber Forest Products
OASL	Office of the Administrator of Stool Lands
REDD	Reducing Emissions from Deforestation and Forest Degradation
RMSC	Resource Management Support Centre
ROSE	REDD Opportunities Scoping Exercise
R-PP	Readiness Preparation Proposal
SRA	Social Responsibility Agreement
TIDD	Timber Industry Development Division
TA	Traditional Authority
TUC	Timber Utilization Contract
VPA	Voluntary Partnership Agreement
WD	Wildlife Division

1. Introduction

Clarifying the relationship between tree tenure and rights over carbon storage and sequestration is central to Reducing Emissions from Deforestation and Forest Degradation (REDD). Like other countries with tropical high forests, Ghana is in the early stages of grappling with the opportunities and challenges posed by carbon finance and REDD+. One of the key challenges is the development of a legal, policy, and institutional framework for REDD+. The current legal and regulatory structure for forestry and lands in Ghana provides indications of how carbon rights and benefits might be managed and distributed, yet it also highlights significant hurdles and challenges that will need to be addressed. While options exist for creating stronger incentives to reduce forest degradation and enable carbon stock enhancement and forest protection through REDD+, realizing the full ecological and economic potential in a market system or state-led and results-based REDD+ architecture, or in a combination of the two, calls for meaningful legal reforms and innovative application of existing mechanisms.

As demonstrated by its official submission of the Readiness Preparation Proposal (R-PP) in January 2010 to the World Bank Forest Carbon Partnership Facility (FCPF), the Government of Ghana (GoG) is committed to protecting its remaining forest resources, reducing degradation, and enhancing its forest stocks (Ministry of Lands and Forestry 1994). In reality, Ghana's ability to live up to this commitment rests upon its willingness to significantly alter the manner in which it has historically valued and regulated its forest resources. Change rarely comes effortlessly, and it has been argued that in Ghana, REDD+ will be, "neither fast nor easy" (Hansen et al. 2009) due to a political economy that favors economic development over conservation and an institutional culture that enables high-level officials to benefit from resource extraction. Therefore, building a national REDD+ architecture and benefit-sharing structure will require taking a critical look at the legal and policy *status quo* and then thinking creatively and collaboratively in order to develop a framework that can help to reverse the current trends by introducing real incentives to protect and enhance the country's forest resources across the entire forest-farming landscape.

The Katoomba Ecosystem Services Incubator has developed a tool called the REDD Opportunities Scoping Exercise (ROSE) as a means of assessing how and where to engage with REDD+ in a given country. This tool enables the user, which could be a government body, to classify and prioritize potential REDD+ sub-national activities and to make an initial assessment of the key constraints to project development, including those associated with the legal, policy, and institutional framework for carbon finance. The ROSE process consists of two main parts: 1) a 2-3 day REDD key informant or expert workshop to discuss potential REDD+ sub-national opportunities and brainstorm the constraints to realising these opportunities; and 2) a more in-depth analysis of the key legal, policy, and institutional issues or constraints undertaken by a small in-country research team. This paper presents the findings of the latter exercise and is a companion piece to the Katoomba Incubator report of the Ghana ROSE

expert workshop held in July 2009: “REDD Opportunities Scoping Exercise (ROSE) for Ghana: ROSE Expert Workshop Report”.¹

2. Current Legal and Policy Framework

The legal and policy frameworks that most directly inform the core of potential REDD+ activities in Ghana stem from the forestry, ‘lands’ and environmental sectors, which are housed within the Ministry of Lands and Natural Resources and the Ministry of the Environment. Within these sectors, overlapping statutory and customary laws predominantly prioritize the rights of the State to manage and profit from forest resources, while recognizing that the traditional authorities² are *de jure* the rightful landowners. Even though the traditional authorities receive nominal benefits, the thousands of individual farmers and forest-dependent communities who use and manage forest resources on a daily basis have no legal rights to these resources and are further marginalized due to weak implementation of the few laws that favor their interests or provide benefits.

From a REDD+ standpoint, the problem with the current scenario is two-fold. Under the existing system, the Forestry Commission (FC)³ has not been able to ensure conservation and sustainable development of the country’s forests (Hansen and Treue 2008), and the resulting high rate of deforestation and degradation has provoked a sense of urgency but also created an opportunity for REDD+ in Ghana. The second problem is that agriculture and forest-based communities are intimately linked with current patterns of forest degradation, making them key players in any future REDD+ strategy. Yet, it is unrealistic to assume that farmers and forest users will significantly alter their practices, unless they are presented with socio-culturally compatible incentives that are founded upon expanded rights and opportunities (See Section 3.3 “Rights in Carbon” and Section 4 “Benefit-Sharing Mechanisms for REDD+”). Therefore, the challenge for REDD+ is how to transform and adapt the existing framework so as to enable the successful implementation of REDD+ initiatives over the long-term.

2.1 Existing Legal and Policy Framework for Forests and Trees

On paper at least, the existing policy framework is geared towards facilitating the same climate benefits that could ensue from a national REDD+ strategy. Ghana’s 1994 Forest and Wildlife Policy (FWP) is

¹ Available at <http://www.forest-trends.org/publications.php>.

² In Ghana, “traditional rulers” refers to the leaders of communities, clans, and entire ethnic groups. The term includes Kings, Chief, Queen Mothers, and other important sub-positions, which are frequently, but not exclusively, held by respected elders.

³ The Forestry Commission of Ghana is “responsible for the regulation of the utilization of forest and wildlife resources, the conservation and management of those resources and the coordination of policies related to them” (www.fcghana.com/forestry_commission/index.htm).

focused on the “conservation and sustainable development of the nation’s forest and wildlife resources for maintenance of environmental quality and perpetual flow of optimal benefits to all segments of society” (Ministry of Lands and Forestry 1994). This policy was written in an effort to correct decades of inefficient, anachronistic, and unsustainable forest and wildlife management policies that had led to a massive depletion of the State’s timber and wildlife resources. While the concept of payments for ecosystem services was not part of the common discourse when the policy was passed, certain objectives or goals of the FWP are compatible with the goals of REDD+. They include:

- 1) management and enhancement of Ghana’s permanent estate of forest and wildlife resources for preservation of vital soil and water resources, conservation of biological diversity and the environment, and sustainable production of domestic and commercial produce; and
- 2) promotion of public awareness and involvement of rural people in forestry and wildlife conservation, to maintain life-sustaining systems, preserve scenic areas and enhance the potential of recreation, tourism, and income-generation (Ministry of Lands and Forestry 1994).

While the FWP appears to be conducive to a REDD+ strategy, its actual impact is relatively weak compared to other forestry laws and customary norms that directly or indirectly inform questions of tree ownership, user rights, and management. The pre-FWP legal framework serves as the real directive for how forest resources are managed and exploited.⁴ Relevant laws, norms, and policies include:

- **Rights to Natural Resources** – The Constitution vests in Parliament the responsibility of ratifying any arrangement involving the allocation or exploitation of any mineral, water, or natural resource (Article 268 (1)); however, the ratification process can be simplified through an act of exemption by Parliament (Article 268 (2)) which designates an appropriate commission to approve resource use or extraction (Republic of Ghana 1992). Timber is subject to such an act and the FC has been designated as the proper management and regulatory body (Forestry Commission Act (Act 571) 1999). The FC is made up of the Forest Services Division (FSD), the Wildlife Division (WD), the Timber Industry Development Division (TIDD), and the Resource Management Support Centre (RMSC).
- **Ownership of Naturally Regenerated Trees** – All naturally occurring trees are symbolically owned by the traditional authorities, who hold the resources on behalf of the people. However, in the 1962 Concessions Act (Act 124: Section 16 (4)), all rights to “economic trees”⁵ were vested in the President in trust for the Stools⁶ concerned (Republic of Ghana 1962). This effectively

⁴ Ghanaian law is constituted within a common law system, and therefore it will be critical to review the legal case record and consider the Court’s decisions in order to fully understand stakeholders’ potential rights and roles within the context of REDD+.

⁵ “Economic trees” refers to trees of economic value, and to date has almost exclusively been used in reference to timber species.

⁶ “Stool” refers to the chair or seat that a king or chief sits upon, and the term symbolically represents a chieftaincy or the traditional authority for a given ethnic group or clan.

means that the government, through the FC, has the sole responsibility and right to manage, harvest, and sell the country's timber resources, while the affected Stools are relatively passive stakeholders in the formal decision-making process (Dadebo and Shinohara 1999).

- **Forest Reserves** – Ghana maintains a forest estate comprised of 282 Forest Reserves (FRs) and 15 wildlife protected areas, which are managed by the FSD and WD and cover more than 38,000 km² – 16 percent of the country's total land area (Ministry of Lands and Forestry 1994). The areas under FRs and associated plantations are commonly referred to as “on-reserve”, while lands⁷ located outside the FRs are called “off-reserve” areas. FRs are the sole domain of the FC, but the associated district assemblies, as well as the relevant bodies that represent the traditional authorities, receive a portion of the stumpage fees from trees harvested within FRs in their respective areas.⁸
- **Granting of Timber-Harvesting Rights** – According to the Timber Resources Management Act 617, it is illegal for any person to harvest timber from any land without a Timber Utilization Contract (TUC). A TUC can be issued on any land, with the exception of land subject to alienation holding or land with farms.⁹ On such lands, prior authorization in writing from concerned groups or individuals is required before harvesting can begin (Timber Resources Management Amendment Act (Act 617) 2002).
- **Logging Timber Trees in Off-Reserve Areas** – According to the Timber Resources Management Act 547, when a TUC is to be issued in off-reserve areas, including on farm lands, an inspection of the proposed land and written authorization from the landowners is required before any harvesting operations can begin (Timber Resource Management Act (Act 547) 1997).
- **Payment of Royalties** – The Timber Resources Management Act 547 also requires that, with respect to timber operations, royalties are paid to the designated bodies (Timber Resource Management Act (Act 547) 1997). Article 267 (6) of the Constitution outlines how revenues accruing from Stool Lands shall be divided (Republic of Ghana 1992). While the Administrator of Stool Lands, the Stool, the Traditional Authority, and the District Assembly have the right to receive payments from timber revenue (on-reserve and off-reserve), individual landowners and land users receive nothing.
- **Economic Plants Protection Act** – This act states that felling rights with respect to timber “shall not be granted where the timber trees stand in farms where specified plants [cocoa] are

⁷ Land in the off-reserve areas is a mosaic of different land-use systems, including forests, secondary forests, fallows, tree crops systems, food crop farms, and grasslands.

⁸ Royalties are paid to the chief and other traditional authorities, district governments, and the Forestry Commission. For more details, see section on Benefits Sharing.

⁹ It is worth noting that while the law prohibits logging on farm land, many of the existing TUCs are in fact issued within cocoa farming landscapes.

cultivated”. It further stipulates that, if timber is felled, the farmer should be compensated for his/her losses at a rate determined by the Minister (AFRCD 47 1979).

- **Landowners and Land-Users Lack of Rights to Economic Trees** – According to the Timber Resources Management Act 617, it is illegal for farmers and other rural land users to harvest any forest tree for commercial or domestic purposes, regardless of whether the tree is growing on their land or farm (Timber Resources Management Amendment Act (Act 617) 2002). Therefore, farmers do not have the right to harvest naturally regenerated trees for economic purposes.
- **Right to Fell Trees for Agriculture** – While landowners and land users do not have economic rights to naturally regenerated trees, there is nothing in the law that prohibits them from felling such trees for non-economic purposes. In this sense, the government recognizes customary laws and norms, which dictate that landowners and land users can clear and burn forested land or fell any tree for agricultural purposes, including the planting of food crops or tree crops.
- **Social Responsibility Agreement** – Once a TUC is granted in an off-reserve area, the holder of the timber rights is obliged to engage in a Social Responsibility Agreement (SRA) with the affected communities in the proposed area of operation (Timber Resource Management Act (Act 547) 1997). According to the SRA, a concessionaire is obliged to provide amenities to the affected communities amounting to no less than five percent of the annual stumpage fees (Asare 2006). When cocoa trees and other economic tree crops or food crops are damaged in the process of harvesting timber trees on farms, the law also states that the TUC shall issue specific terms and conditions for paying compensation for such damages (Timber Resources Management Regulations (L.I. 1649) 1998). However, the legislation lacks specific regulations on how to determine compensation and ensure that farmers are fairly compensated (Asare 2006).
- **Ownership of Planted Trees** – According to the Timber Resources Management Act 617, “no timber rights shall be granted in respect of land with private forest plantation; or land with any timber grown or owned by an individual or group of individuals” (Timber Resources Management Amendment Act (Act 617) 2002). Thus, farmers, landowners and land users have legal rights to any planted tree.

2.2 The Land Tenure Framework

Among farmers and rural land using communities, natural resource management decisions are significantly affected by land-use norms and tenure arrangements, which are backed by existing legislation and customary laws. Table 1 provides an overview of basic tenure arrangements for most farming communities in the High Forest Zone, as reported by Otsuka and colleagues (2003).

Across much of West Africa, including Ghana, the *doit d’hache*, or “right of the axe”, has prevailed as the customary means of claiming land. While variable tenure arrangements must always be respected, a

person in Ghana is generally able to claim land or bundles of user rights to the resources on the land through the act of clearing the existing vegetation and then planting crops or trees. According to custom, lands cannot, however, be claimed through clearing without the proper authorization. In the case of a sharecropper, if lands are given out but the land is not cleared within a given time period, the sharecropper's right to cultivate the land is nullified.

Table 1: Land Tenure Arrangements in the High Forest Zone¹⁰

Land Tenure Category	Description
Family Land	In a matrilineal inheritance system, which is the most common in all of the Akan ethnic groups, land is transferred to a deceased man's matrilineal relatives (brothers or nephews), but not to his wives or children. In the less common patrilineal inheritance systems, land is transferred from fathers to sons. Land can also be temporarily allocated to matrilineal family members, as in the case of a family landholder transferring land to his niece or cousin for food crop production or cocoa cultivation.
Village Land	Land owned by the customary authority or Stool can be given to community members for cultivation.
Purchased Land	Land owned by the Stool can also be sold to individuals. This was more common when forest lands were in abundance.
Gifted Land	The giving of gifts developed as a way of circumventing traditional Akan matrilineal inheritance, which excludes wives and children. Legally, under PNDC Law 111, a portion of a person's estate goes to the spouse(s) and children; however, this does not necessarily apply to 'family land'. Nonetheless, farmers have used this option as a means of intentionally giving land to spouses, children, or other relatives.
Share-cropping/Renting	Migrant farmers rent parcels of land from landowners. In the case of cocoa, the renter is obliged to clear the designated area and plant it with cocoa. Once the trees are mature, the parcel is either divided evenly (<i>Ebunu</i>) or in a 2:1 arrangement (<i>Ebusan</i>) between the landowner and renting farmer, and for the duration of the life of the cocoa the renter retains strong user rights. Renting can also occur on a seasonal or short-term basis when land is rented to plant food crops.
Caretaking	Men work as caretakers of mature cocoa farms for which they receive one third of the harvested crop.
Borrowed Land	This refers to land that is borrowed from non-relatives.

Source: Adapted from Otsuka et al. (2003).

From a legal standpoint, there are two main types of land in Ghana – Public Land and Private Land. According to the Constitution, Public Land is vested in the President on behalf of, and in trust for, the people of Ghana (Republic of Ghana 1992). Such land is effectively owned by the government and managed by the Lands Commission. Private Land,¹¹ which can be bought and sold, is significantly less

¹⁰ This table represents land tenure arrangements for the Akan ethnic groups. Land tenure arrangements in other areas of Ghana and amongst other ethnic groups are somewhat different.

¹¹ "Private Land" refers to parcels of land that are sold by one landowner (or traditional group) to another. However, such land is significantly less common, particularly in rural areas, because the traditional authorities are wary of losing title to their ancestral lands.

common in rural areas. Instead, most Private Land is classified as “Stool or Skin Land”.¹² According to the Constitution, Stool and Skin Land is vested in a Stool (Chieftaincy) on behalf of, and in trust for, the subjects of the Stool and in accordance with customary law and usage (Republic of Ghana 1992). While the Constitution explicitly guarantees the Chieftaincy’s institutional right to exist (Republic of Ghana 1992), it does not describe the responsibilities of the Stool (and associated authorities) to its communities, nor does it define “community,” therefore raising issues of local versus migrant or settler rights.

In practice, Stool Lands are managed in a pluralistic framework in which both statutory and customary laws prevail. Multiple tenure arrangements differentially determine *who* is allowed to use the land or forest resources and *how* the land and natural resources may be used. For example, parcels of land within a particular Stool’s territory and the usufruct rights to the resources on the land can be claimed by individuals or families and then be passed down or inherited over generations. Such individual ‘landowners’ can also lease or rent their land to migrants or fellow community members, although this type of contract can be quite specific about how the land and resources may be used by the migrant or sharecropper and is often subject to approval by the traditional authority. Of particular importance is the potential, under Ghana’s customary tenure system, for oral legal arrangements that are not written down or recorded, but are recognized by the whole community.

Community Resource Management Areas (CREMAs) are a relatively recent tenure modality in which resident communities in important wildlife or biodiversity areas are given increased tenure security and natural resource management rights. The CREMA concept emerged from the 1994 FWP and evolved in the later part of the decade in response to communities’ actions. Only three CREMAs were officially established by mid-2009, but a further 16 were in the pipeline (personal communication, Andrew Agyare).

While yet to be backed by legislation, the CREMA policy is very clearly defined and the concept is being incorporated into the new Wildlife Bill. The purpose of a CREMA is to enable community-based wildlife management, ecotourism, decentralization of law enforcement, and habitat management to reduce deforestation and wildlife habitat degradation. Even though the original focus was on sustainable bush meat production and ecotourism, CREMAs provide a natural resource management structure that is highly conducive to community-based REDD+ projects, particularly in off-reserve landscapes that include mosaics of forests, agro-forests, and agriculture. Some strong points of CREMAs include clear boundaries, a constitution that is developed through a participatory process, backing by District Assembly by-laws, strong social cohesion, and opportunities for generating revenue and benefit-sharing outside the normal legal framework.

¹² “Stool Land” and “Skin Land” refer to land that falls under the traditional or customary ownership of a particular ethnic group, clan, or tribe.

2.3 Strengths and Weakness of the Current Legal Framework

Many Ghanaian leaders in the environment and forest sectors are acutely aware of the shortcomings of the existing system. One could argue that at the national policy level, the development of the Natural Resources and Environmental Governance (NREG) program, and the implementation of the Voluntary Partnership Agreement (VPA) and the Non-legally Binding Instrument on All Types of Forests (NLBI, also known as the Forest Instrument) represent major efforts to change the current system of environmental and forest management. In addition, the expanding focus on plantation establishment on-reserve and off-reserve appears to reflect a growing concern about the condition of the natural forest estate and the country's supply of timber and other wood products. Efforts to address social concerns and community rights are also reflected in the establishment of CREMAs and the existence of the Community Forest Management Project (CFMP), which uses a modified Taungya approach to reforest FRs, and more recently in efforts to encourage tree planting on farms and on individual lands. The push to implement the SRA (as dictated by the Timber Resources Management Act 547) between logging companies and communities also represents an attempt to ensure that communities reap at least some modest benefits from industrial logging. Despite these positive signs, significant problems persist when it comes to the management and use of the land, and its forests and trees. These challenges can be grouped into four categories:

1. Poor Forest Stewardship & Governance

Poor forest governance is a major constraint that is politically challenging to address and has seriously exacerbated forest degradation and deforestation. In their seminal book, Hall and Swaine (1981) documented the degraded state of Ghana's forest estate and the factors they described still prevail some 30 years later:

- Unchecked illegal logging and illegal chain-sawing operations
- Insufficient financial resources and manpower for effective forest management
- Poor adherence to FR management plans and inconsistent monitoring
- Lack of political will to change the *status quo* or re-balance the tremendous power of the timber industry against the well-being of the forests and forest dependent communities
- Policy conflicts between forestry, cocoa and mining sectors
- Personal conflicts of interest in which government representatives are commercially involved in one or multiple sectors
- Over-capacity of the supply chain and under-pricing of wood products
- Misuse of power by some traditional leaders and government officials in order to benefit from encroachment into FRs

2. Perverse Policy Incentives

In off-reserve areas, farmers are the *de facto* managers of the tree and forest resources and therefore strongly influence the density and diversity of tree species found in the landscape. The

reason for this is that in the forest-farm mosaic farmers actively manage natural processes of forest succession by selecting and nurturing tree seedlings, coppice sprouts, and mature trees to provide shade and other products on their farms (Asare and Asare 2008; Amanor 1996). Despite their clear role in influencing the off-reserve landscape, farmers are not entitled to any of the stumpage fees from trees that they nurture. Because land owners and land users have no economic rights to naturally regenerated trees, farmers have few reasons to retain or maintain high value economic species that are likely to be felled for timber. In fact, most farmers say that they intentionally eliminate timber species so as to avoid future damage to their tree crops and conflicts with timber companies when the lands on which they farm are issued as part of a TUC. Under the current system, trees on farms represent a risk to farmers, as opposed to an asset or a secure investment. The perverse incentives surrounding timber trees on cocoa farms were documented by Richards and Asare (1999).

More broadly, the legal and cultural systems encourage deforestation because trees can legally be felled for agricultural expansion, but not for other purposes. Similarly, user rights to land become weaker and are more easily contested or nullified when land is left uncleared or in fallow for an extended period of time. For example, a sharecropper farmer will lose his rights to a parcel of land (on which he has an agreement), if he does not clear the vegetation in a relatively short period of time.

3. Weakly Implemented and Conflicting Laws

Many of the legal parameters associated with TUCs are ignored. According to the Timber Resources Act 547, an inspection of the affected farms and a written letter authorizing timber harvesting by the landowner is required, when a TUC is issued in land with farms (Timber Resource Management Act (Act 547) 1997). In 2002, this Act was amended to specify that a TUC should not be issued on farmland without prior authorization from the concerned groups or individuals (Timber Resources Management Amendment Act (Act 617) 2002). In reality, felling of timber trees on farms is very common, as farmers are almost wholly unaware of these laws and there is scant evidence that the FSD seeks the stipulated permission or that inspections take place or written approval is sought before felling.

At an even more basic level, the law states that a TUC should not be issued on lands with farms (Timber Resources Management Amendment Act (Act 617) 2002), and according to the Economic Plants Protection Decree (1979), timber should not be felled where cocoa or other economic plants are cultivated. But these laws are ignored: most off-reserve concessions are in cocoa-farming landscapes, and it is likely that most off-reserve timber comes from cocoa farms.

A third problem is the implementation of, and compliance with, applicable laws. For example, many farmers enter FRs and plant cocoa farms with little recourse, and in FRs where older farms have been legally “admitted”, expansion of new farms frequently occurs unabated. The relative silence surrounding these legal and policy conflicts creates a state of paralysis in which further

degradation becomes the norm. Another example is that farmers have the right to be compensated for damages to cocoa trees during timber operations (Timber Resources Management Regulations (L.I. 1649) 1998); however, there are no guidelines that specify the amount of compensation or manner in which compensation should be paid,¹³ and there is weak oversight by the FSD to ensure that logging companies comply. Consequently, many cocoa farmers complain bitterly that timber companies take trees from their farms without permission and pay little or no compensation for damage.

Adherence to the SRA between logging companies and communities is also inconsistent and poorly enforced, and communities frequently receive only a portion of their promised benefits. In some communities, Chiefs demand personal benefits and favors instead of holding companies accountable to the community as a whole. In 2007, it was strongly rumored amongst villagers in a community in the Ashanti Region that their Chief was taking money for himself and using the few bags of cement that the company had promised the village to renovate his compound.

Finally, there has been poor dissemination of information to farmers about their rights to plant, and therefore own, forest trees. In a tour of over 15 administrative districts within the HFZ, the vast majority of farmers were unaware that ownership of planted trees extends to native species and not just teak or tree crops. Of the 15 districts, only one FSD office was actively encouraging on-farm tree planting and providing farmers with ownership certificates.

4. Land Dispute Challenges

Most land in rural areas has never been surveyed, and most landowners and land users do not possess written titles or deeds. As a result, boundaries are easily contested and multiple stakeholders dispute user rights and ownership. While it is not necessarily the case in rural areas, urban and peri-urban courts tend to have a large backlog of land cases and they can take a few years or more to resolve (personal communication, Yaw Osafo)¹⁴. Overall, it can be time-consuming and costly to litigate against actions or decisions taken by individuals, government institutions, or private companies with regard to land or natural resources.

¹³ In 1999, Richards and Asare reported an official compensation rate of Cedis 9,600 (\$1 = approximately 2,300 Cedis) as calculated by the Lands Valuation Department; however, no record of this rate or policy was found by the author.

¹⁴ According to an FAO document by K. Kasanga Honorable Professor, Minister of Lands and Forestry, Ghana had a backlog of approximately 60,000 land cases in 2002 (<http://www.fao.org/docrep/006/y5026e/y5026e0a.htm>).

3. Implications of the Legal and Policy Framework for Forest Carbon Finance and REDD+

3.1 Carbon Regulation Agency

There has been some speculation that because carbon found in forest biomass is linked to trees, the regulating agency or body should be housed in the FC of the Ministry of Lands and Natural Resources. However, this choice raises some concerns.

Firstly, the FC is a national service provider oriented towards commercial timber production. To date, timber production and sustainable forest management (or avoided deforestation) have not been combined successfully. Rather, there appears to be a conflict of interest between the two objectives.

A second concern is that although discussions to date have focused on REDD+ and trees or forests, carbon is sequestered and stored in many types of terrestrial ecosystem, not just forest biomass, so in the near future it will be necessary to expand the sources and definitions of carbon to include soil carbon and carbon from wetlands.

Thirdly, in Ghana the predominant forest degradation drivers are from the agricultural sector, and there are also difficult issues in the energy sector. As a result, it will require a strong and coherent intersectoral planning process to tackle forest degradation, and this requires coordination by a high-level Ministry- and/or Cabinet-level body.

Finally, while the ecosystem service of sequestering or storing carbon is centered around an environmental resource (trees, land), carbon trading or crediting will necessarily be linked to financial authorities. Thus, REDD+ activities will involve financial transactions that could fall under the jurisdiction of the Ministry of Finance and at a minimum require close coordination and decision-making between the two bodies.

Therefore, given the various competing interests, carbon might best be managed by a body at the Cabinet level in order to effectively integrate the various actors and interests.

3.2 Defining Carbon

Carbon is a naturally occurring element that flows between the atmosphere – mainly as carbon dioxide (CO₂) – and terrestrial ecosystems. Unlike tangible commodities like timber or gold, the value of which is derived by extraction, in the evolving climate change mechanism for REDD+, the value of carbon will increase when it is sequestered in woody biomass, soils, and sediments. Terrestrial storage, however, is not permanent because when trees are burned or allowed to rot, or when the soil is substantially disrupted, carbon is emitted back into the atmosphere in the form of greenhouse gases that contribute to climate change.

The term “carbon” tends to be used quite broadly, yet from a legal standpoint it encompasses a number of specific carbon-based ecosystem processes and patterns. According to Takacs (2009), it is important to define precisely the carbon property being owned. As such, he argues that carbon property might take the form of:

- Carbon sequestration: The process by which carbon is removed from the atmosphere. This could include tree planting or enabling natural regeneration.
- Carbon sink: Storage of carbon for an indefinite period of time. This can have different legal rights and responsibilities that potentially attach to land above ground and below ground as well as to trees. A standing tree or mature forest represents a carbon sink.
- Carbon sequestration potential: The right to manage a carbon sink to maximize its potential. A degraded forest that is allowed to regenerate and that receives appropriate silvicultural treatments can substantially increase its sequestration potential during the natural regeneration process.
- Carbon credits: Units representative of a certain amount of carbon dioxide reduced or removed from the atmosphere that are generated by the project.

Furthermore, a policy decision is needed as to how REDD+ (and carbon credits) will be marketed. Some have argued that the choice could be made to classify carbon credits as a security or as a commodity. However, REDD+ is not like the CDM in which the volume of carbon sequestered is the basis for determining credits. Rather, REDD is actually about selling the service of reducing emissions from forest degradation or deforestation. This means that initiatives or companies that are most successful in reducing forest degradation or deforestation rates from the business-as-usual scenario (or alternatively enhancing carbon stocks in the landscape) will have the most credits to sell. Even though credits are associated with avoided GHG emissions or sequestered carbon, in practical terms success can only be linked to the effectiveness of slowing deforestation or degradation rates. As such, one option is to view REDD+ as a new service industry that could be taxed by the government, as is the case with all service industries in Ghana. This would require, however, careful design and planning so as not to kill the incentive for REDD+ in the first place. Conceivably, as opportunities grow, this service could be expanded to include payments for watershed protection or biodiversity conservation.

3.3 Rights in Carbon

Carbon sequestration is often considered an ecosystem service, but ecosystem effectiveness in sequestering and storing carbon is affected by human decisions. Therefore, in order to reduce emissions from deforestation and degradation or enhance carbon stocks, policies, laws, and institutions must positively influence the decisions of individuals and entities that control (legally or not) the extent to which carbon is stored or emitted from terrestrial ecosystems. The key to REDD+ is that it is a results-based mechanism, whether it is market- or fund-based. The financial payments expected from REDD+

mechanisms will come over decades as a result of the monitoring, reporting, and verification (MRV), rather than all at once upon the commencement of a REDD+ mechanism. Therefore, appropriately and equitably allocating carbon rights based on actual threats and decision-making is vital.

Determining who has rights to carbon in potential project-based REDD+ activities is not a straightforward task. Some observers think that carbon rights must be clearly defined and allocated as a precondition for REDD+, although in a national REDD+ program this is not necessarily the case if the government is able to channel sufficiently positive economic incentives to the resource managers and users, such that the land-use opportunity costs are adequately compensated. However, clarity and equity of property rights is undoubtedly a major rights issue and will help safeguard the hoped-for positive equity impacts of REDD+. While in a national accounting system the government may do away with clearly defining ownership of carbon rights (or simply claim all rights to market all carbon stored), the issue of ownerships becomes more urgent when considering sub-national accounting and crediting mechanisms.¹⁵

In Ghana, questions of ownership and user rights to land and trees are complex and widely contested. Land and tree tenure are neither congruent nor clear-cut issues, because land and forest resources are allocated within a legally pluralistic system in which ‘bundles of rights’ are claimed both ‘legally’ and ‘illegally’ by multiple stakeholders for the same overlapping resources. For example, it is unclear whether carbon credits from carbon sequestration, carbon storage (stocks), or even potential sequestration should derive from ties to the land, economic rights to trees, or an entirely new entity that links credits to the specific parameters of REDD+, or ‘REDD-like’ activities, which might pertain to soils or other types of terrestrial systems in the near future.

The existing legal and institutional framework appears to present significant problems and challenges for implementing REDD+ strategies in Ghana. For example, naturally regenerated trees are nominally owned by the traditional authority, and the right to economically exploit such trees belongs to the State in both reserve (protected) and off-reserve areas. Even though individual landowners and land users do not have economic rights to naturally occurring trees, they do have the right to fell trees off-reserve during the land-clearing process and frequently nurture or eliminate species based upon their farming agenda and experiences (Amanor 1996). Therefore, it is the farmer’s decision-making process that plays the most important role in determining the extent of forest and tree cover across the landscape over time.

Table 2 offers a simple analysis (for example, it does not take account of natural resource management or development projects, chainsaw operators or timber companies) of the main drivers of deforestation and the associated decision-making points in relation to carbon rights in two hypothetical scenarios as regards the basis for allocating carbon property rights. The third scenario puts forward a REDD+-based proposal to tackle the shortcomings of scenarios one and two.

¹⁵ The importance of clearly defined carbon rights in these scenarios will be further elaborated in a subsequent paper, “Consolidating National REDD+ Accounting and Subnational Activities in Ghana”.

- 1) Allocation of carbon property rights based on land ownership and land tenure;
- 2) Allocation of carbon property rights based on tree ownership and tree tenure or 'economic rights';
- 3) Allocation of carbon property rights based on a purely REDD+ structured system.

Table 2 demonstrates that the relationship between rights, threats (**T**), and decision-making (**D**) is not always congruent and that the first two scenarios are quite often disjointed. While carbon rights may be given to a stakeholder like the government, the actual threat of deforestation and associated decisions about reforestation or regeneration depend on the traditional authority and/or the community members. Therefore, allocating carbon rights according to land tenure or tree laws could fail to address the most important relationships, causing REDD+ initiatives to fail. But if carbon rights were allocated according to the drivers of deforestation and in conjunction with the focal points of decision-making, then the relationships between these key variables become more unified, offering more chance of long-term success. Despite the long-term nature of the process, revision of laws may also be an approach that could help to increase the success of REDD+ initiatives.

For example, if carbon rights are tied to the land, the rights to the carbon would belong to the traditional authority, the landowner, or a sharecropper. This makes sense given that many of the threats and points of decision-making lie with these "landowners". However, this allocation does not account for the real "threat" from the government, who has a legal right to issue a TUC off-reserve. Failure to account for the government's role in managing trees in the landscape could reduce community members' confidence in REDD+ activities or even threaten the viability of maintaining naturally regenerated trees on farm or on Stool Land.

If, on the other hand, rights to carbon are tied to the economic rights to trees, in FRs the carbon rights to naturally regenerated trees and planted trees sit with the government. The problem is that significant threats and *de facto* decision-making come from the traditional authority, the community, and/or individuals. Therefore, while the government might have the right to carbon stored in the FR, the actual threat to these trees can stem from the traditional authority who may facilitate agricultural expansion into the reserve and the community members who breach the boundaries to harvest trees or plant cocoa or food crops.

With regard to naturally regenerated trees on Stool, individual, or sharecropped land, the strongest point of decision-making, and therefore the greatest threat to the forest/tree carbon, lie with these individuals or the traditional authority, but the carbon rights (and some of the threat) would belong to the government. This situation presents a permanence problem. Under this scenario, only planted trees demonstrate a case in which rights, threats, and decision-making are aligned.

In contrast to the other scenarios, there is clear alignment of the rights to the carbon with the sources of decision-making and threats, if carbon rights are aligned to a REDD+-based scenario, . Under this scenario, the rights to the carbon on-reserve could be shared between the government, the traditional authority, and the community where real threats exist. Off-reserve, the predominant right would sit

with the Stool or the individual due to the fact that they make the decisions about planting trees, cutting trees, or retaining legacies or seedlings. The government also maintains a right due to their ability to issue a TUC, but this could be dealt with through the creation of a CREMA which would devolve the right to exploit environmental benefits (including REDD) to communities. The economic rights of the government could then be replaced by a levy on proceeds obtained from REDD+ activities. Another option is to limit the FC's right to issue TUCs in certain areas so that the competition between REDD+ and timber is eliminated.

The key to REDD+ is that the rights to carbon, or perhaps to receive significant benefits, i.e., economic rights, should be aligned with the actual drivers of deforestation and degradation, as well as the real sources of decision-making about planting, retaining, or regenerating trees. If this does not occur then permanence will inevitably prove to be a major problem. When permanence is an issue, the investors' risks increase and the expected benefits from REDD+ diminish, or entirely disappear.

Table 2: Potential Carbon Property Rights Allocation Scenarios

	Traditional Authority	Individual Landowner	Sharecropper	Government	Community
<i>If Carbon Rights Tied to Land Ownership and Land Tenure</i>					
Stool land	Rights T/D			T	
Individual Land (inherited, bought, long lease, gift)		Rights T/D		T	
Sharecropped Land (ebunu, ebusan)	{ Rights	or Rights }	Rights T/D	T	
On-Reserve	Rights T			Rights T/D	T
<i>If Carbon Rights Tied to Economic Rights to Trees (i.e., Tree Tenure)</i>					
Planted Trees On-Reserve	T			Rights T/D	T
Nat. Reg. Trees On-Reserve	T			Rights T	T
Nat. Reg. Trees on Stool Land	T			Rights T	
Planted Trees on Stool Land	Rights T/D				
Nat. Reg. Trees on Individual Land		T/D		Rights T	
Planted Trees on Individual Land		Rights T/D			
Nat. Reg. Trees on Sharecropped Land			T/D	Rights T	
Planted Trees on Sharecropped Land			Rights T/D		
<i>If Carbon Rights Attached to REDD-Plus (i.e., threats and de facto decision-making)</i>					
Planted Trees On-Reserve				Rights T/D	Rights T
Nat. Reg. Trees On-Reserve	Rights T		and/or	Rights T	and/or Rights T
Nat. Reg. Trees on Stool Land	Rights T			Rights T	
Planted Trees on Stool Land	Rights T/D				
Nat. Reg. Trees on Individual Land		Rights T/D		Rights T	
Planted Trees on Individual Land		Rights T/D			
Nat. Reg. Trees on Sharecropped Land			Rights T/D	Rights T	
Planted Trees on Sharecropped Land			Rights T/D		

Abbreviations:

Rights = rights to carbon;

T = threats to trees or forests;

D = decision to plant trees or to select/nurture natural regeneration

Nat. Reg. = naturally regenerated trees

4. Benefit-Sharing Mechanisms for REDD+

4.1 Key Issues in Benefit Sharing

Some critics argue that REDD+ is hardly likely to succeed where other forest stewardship efforts have failed, but they tend to overlook that the difference with REDD+ is that it does not offer funding to spur change or finance compliance – rather it specifically links actions (including avoided deforestation, conservation, and enhancement of carbon stocks) to a quantifiable product that has a market value or would be compensated in a fund-based system. Countries and communities can choose to engage, or not, and they will be paid or receive benefits for the carbon credits or gains, if, and only if, those credits or gains are real.

Secondly, it should be borne in mind that most of the gross carbon revenue will be needed to compensate costs, and it is somewhat misleading to refer to all these payments as ‘benefits’. There are four major types of costs that require compensation – transaction costs, project implementation costs, opportunity costs borne by the land users or owners, and taxes to government. Strictly speaking, the benefits should refer only to payments in excess of these costs, but in practice at least the opportunity cost element is included under the term ‘benefits.’

Arguably, the most important aspect of the entire equation is how benefits and costs will be shared; a condition that speaks to the efficiency, transparency, and equity of the financial structures. Regardless of how carbon rights and ownership discussions are resolved, benefit-sharing mechanisms must be able to provide individuals and communities with real and tangible incentives. The question of who owns the carbon may be less important than considering how farmers will be compensated for their efforts to sequester or maintain carbon stocks.

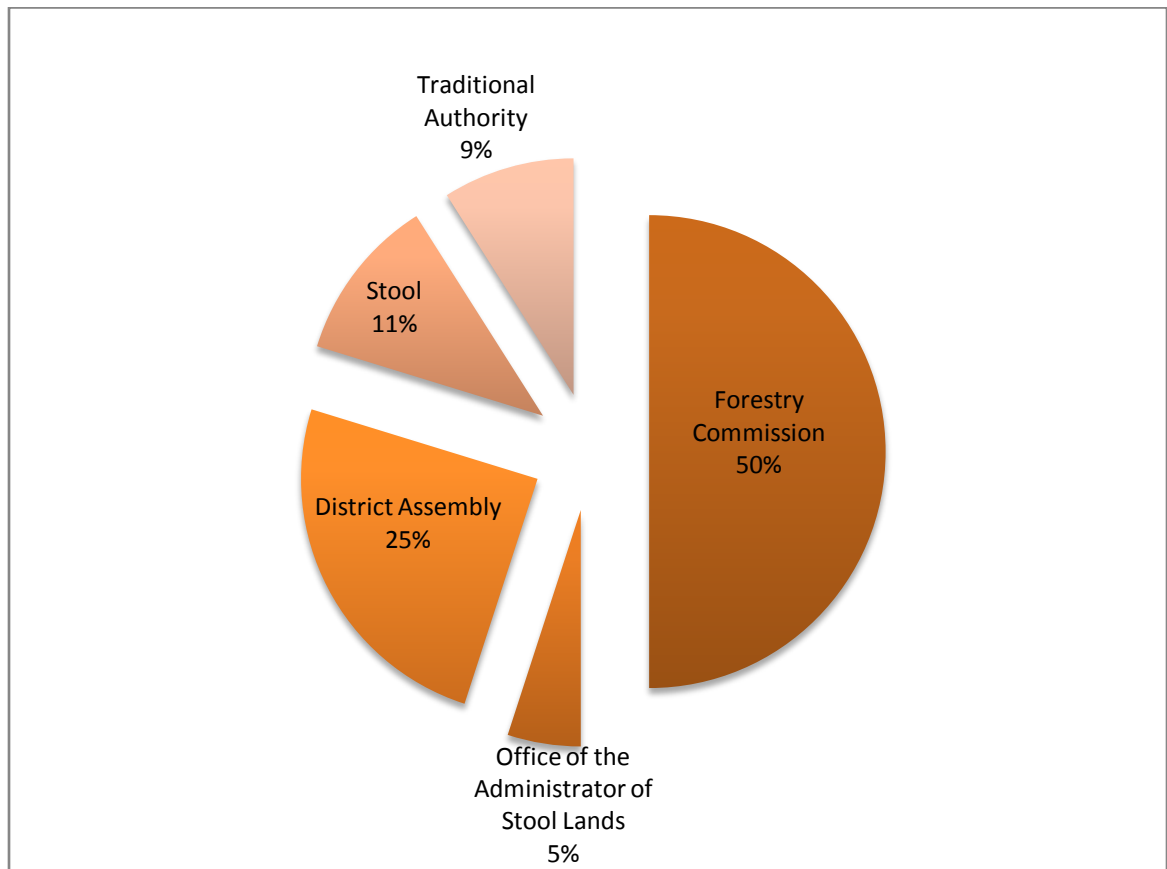
4.2 Benefit-Sharing Experiences and Options in Ghana

Examples of benefit-sharing mechanisms can be found in various social and government institutions. In the forestry sector, several options for integrated management, benefit sharing, and/or revenue sharing are available and have been tested at different scales. Cases can also be found within farmer associations and traditional land-use arrangements. These options and experiences include:

- **Distribution of Stumpage Fees:** In the case of timber harvesting on Stool Lands (which comprise roughly two-thirds of the land in Ghana), the FC takes 50% of stumpage fees for the management of this resource, while the remaining revenue is divided according to a constitutionally-agreed formula between the Office of the Administrator of Stool Lands (OASL), the Stool, the traditional authority (TA) and the district assembly (DA) (see Figure 1). The landowner or land user receives nothing. An obvious problem with this revenue-sharing arrangement, if applied to REDD+, is that there is no compensation to farmers or land users for their opportunity costs in retaining rather than felling a tree. How can landowners and land

users be motivated to cooperate with REDD+ schemes? It is possible that they could receive a portion of the Forestry Commission's 50%, or alternately receive a share through a Constitutional amendment. Supposing landowners and land users are included in the distribution, a key question is whether the limited carbon revenue is sufficient to satisfy all of the legal stakeholders as well as the opportunity costs of land users.

Figure 1: Distribution of Timber Revenues (Stumpage Fees) on Stool Lands¹⁶



- **Commercial Plantation Agreements** (on-reserve) enable private operators to bear the cost and effort of replanting in degraded FRs (using either exotic or native timber species), but allow them to retain 90% of the revenue, while the landowners (Stool) receive 6%, communities 2%, and the FC 2%. In terms of carbon, such an arrangement appears inequitable and could present serious impermanence challenges because it fails to account for the drivers of deforestation and future threats.

¹⁶ The FC articulates the distribution of stumpage fees in a slightly different and more complex manner; however at the end of the day Figure 1 presents a visual image of how stumpage fees are actually allocated.

- **Community Forest Management Projects** (on-reserve) that use the 'Modified Taungya' system to reforest degraded FRs share 40% of harvesting revenues with the farmers and farmer groups that plant and manage these trees. These farmers also receive additional social and economic benefits from their participation. Under this revenue-sharing scheme, the other 40% goes to the FC, 20% goes to the traditional authority, and 5% to the local community. Both of the aforementioned schemes are based on the recognition that outside participation (beyond FC) in resource management requires adequate incentives or compensation.
- **Community Resource Management Areas (CREMAs)** (off-reserve), as described in Section 2.4, were developed to facilitate community-based natural resource management with the aim of providing meaningful opportunities for livelihood diversification, poverty reduction, and environmental conservation. CREMAs are governed by an executive body and guided by a constitution that directs the activities and regulations of the CREMA. In terms of benefit sharing, the common arrangement is for 5-10% of revenue to go the CREMA Executive Committee (EC) for the serving of its functions, while the remaining 90-95% is allocated to the beneficiary communities for development activities. Certain CREMAs have intentionally chosen to share revenues with their district assemblies and traditional authorities. From a REDD+ perspective, all of these factors combine to significantly increase the likelihood of permanence. While the use of CREMAs for carbon finance has yet to be tested, CREMAs could potentially be used to vest full or partial carbon or tree tenure rights among the associated communities within a designated off-reserve area.
- **Dedicated Forests (DFs)** (off-reserve) provide a similar opportunity for local communities to protect sacred groves or otherwise locally valued off-reserve forests and to receive economic benefits through community forestry management. Ghana currently has two DFs that have engaged in attempts at artisanal harvesting of timber and the collection of non-timber forest products (NTFPs). Eco-tourism also plays a minor role. The mandate for DFs evolved in response to the FWP, and subsequent efforts were made to secure legal backing for DFs through the creation of associated legislation, but this was not successful. Currently, DFs are backed at the district level through by-laws that recognize their status.
- **Kuapa Kokoo** is a Fair Trade-certified organization that provides financial, in-kind, and development benefits to its farmer members. All Kuapa farmers receive a guaranteed premium on the price of their cocoa, bonuses at the end of each year, cutlasses with each new farming season, access to loans, and an opportunity to apply for development projects (water, schools, sanitation) on behalf of their communities (not just the Kuapa farmers). Interestingly, many farmers cite the democratic structure of the organization as the most compelling reason to join a Kuapa Kokoo society. Kuapa's numbers have grown substantially over the past 5 years (to over 60,000 farmers in 2009), a testament to the viability of layering in-kind and financial benefits, and a reminder that democratic, transparent, and equitable mechanisms are attractive to farmers.

- **Traditional Systems of Sharing Benefits from Land Use** reveals how local stakeholders have negotiated mechanisms for sharing benefits according to ownership and user rights. In the Western Region, Chiefs “give” land to local or migrant farmers so long as they agree to pay royalties (taxes) to the Chief each year. One could presume that under a REDD+ project, while Chiefs may require some benefits, as long as agreements are clearly defined at the start of the land use arrangement, there are likely to be few disputes about indigenous or migrant farmers’ rights to benefit from the resources on Stool Land. In a similar vein, one could argue that the government could tax carbon-based revenue, but allow individuals and communities to receive the direct economic benefits that they are responsible for generating through their resource conservation and management practices.

5. Discussion and Conclusions

5.1 Key Challenges for REDD+ in Ghana

Currently, the REDD+ policy debate continues, and there are few clear indications of how the REDD+ architecture will be structured or the rights and benefits allocated. Nonetheless, efforts to develop site-level projects are underway. Therefore, it is critical to acknowledge that an implied ‘phased’ approach to a national level REDD+ strategy creates risk for investments in project-level approaches, especially where projects are developed under voluntary market standards. Because the generation of carbon credits is a long process and it is likely that a national strategy will be developed in the meantime, such projects need some kind of official recognition or guarantee of carbon ownership.

Since the Copenhagen meeting, the price of carbon has slightly fallen on some markets.¹⁷ Even if carbon prices rise again in 2010, a measure of realism is needed to keep expectations in check across the spectrum of potential stakeholders about the benefits that REDD+ will bring or the size of the ‘pay-out’.¹⁸ Many experts agree that REDD+ benefits will be marginal and therefore REDD+ should not be used in isolation, but should be paired with or layered upon a portfolio of practices that carry economic and other benefits, including sustainable harvesting of NTFPs, sustainable tree crops, and ecotourism among other activities. The risk of pursuing REDD+ schemes in isolation is that for many land-use scenarios, the financial return from REDD+ may not compare to the opportunity costs (i.e., the financial return from ‘business as usual’).

Implicit in discussions about REDD+ is a focus on economic relationships and decision-making. But issues of trust and socio-cultural norms are also crucial factors, and these aspects must be taken into account

¹⁷ See http://www.ecosystemmarketplace.com/pages/dynamic/marketwatch.landing_page.php.

¹⁸ Of course, the price of carbon in 2010 cannot necessarily serve as a basis for the price of what REDD+ credits could be in the future given that many variables will inform price setting under a regulated regime, and which are far from clear at this stage.

when considering how REDD+ will be structured. Another challenge will be how to resolve competing goals or conflicts of interest with regard to natural resource management. How will timber rights and carbon rights be negotiated within the same landscape? If a tree or forest patch exists within the landscape, can REDD+ take precedence over existing or future timber contracts, especially if rights to carbon do not align with economic rights to exploit trees?

Finally, land tenure is a major challenge to REDD+ and to social equity. From the perspective of investors, the prevalence of land disputes at the local level presents a significant risk. From the perspective of potentially marginalized groups, REDD+ efforts may threaten the availability of land for sharecroppers and tenant farmers, as landowners lose the incentive to parcel out their forested lands, including secondary forests and fallows. A significant cost of implementing REDD+ may be the implementation of poverty mitigation activities, although some of these actions would come into the category of leakage mitigation, because such displacement will most likely lead to increased degradation in other parts of the country, or possibly in other countries.

Key Opportunities for REDD+

This report identifies four current opportunities that could prove to be very beneficial to the development of REDD+ in Ghana:

- Near-term project-based REDD activities can provide early abatement together with critical experience and capacity to develop and deliver national-level goals and strategies.
- The clarity of ownership of planted trees provides a very simple platform upon which to pursue initial REDD+ efforts while larger issues of carbon rights are still being decided.
- The current policy of decentralizing certain aspects of natural resource management to the district level represents an opportunity to expand the scope of District Environment and Sanitation Committees and to develop by-laws that can help guide REDD+ activities and financial mechanisms at the local level.
- The potential to use CREMAs to devolve management rights for naturally regenerated trees would provide an ideal mechanism to circumvent the complexities and disincentives of the existing tree tenure framework.

Final Recommendations

Key recommendations of this study are as follows:

- There are several laws which, if implemented properly, would support REDD+ objectives, while other conflicting laws currently constrain the potential for REDD+. Addressing these implementation problems and contradictions will enhance REDD+ opportunities.
- Improved forest governance and compliance will, in general, be critical for both the effectiveness and equity of REDD+ initiatives, whether market- or fund-based.
- The inter-sectoral coordination required for an effective REDD+ strategy requires a high-level Ministry and/or Cabinet inter-Ministerial body. In a situation in which most of the drivers of deforestation and degradation are agricultural, the FC may not in the best position to coordinate a national REDD+ program. Neither will it be appropriate when the scope of carbon credits is expanded to include soil carbon and carbon from wetlands or mangroves.
- The government should benefit from REDD+ initiatives through an arrangement other than carbon ownership. Carbon ownership should be in accordance with the logic of countering deforestation threats through influencing land-use decision-making processes. Carbon ownership by landowners and users should also promote equity objectives.
- There needs to be more realism about the magnitude of the benefits or pay-offs of REDD+ including the fact that most so-called 'benefits' will be used for offsetting costs, including the land-use opportunity costs of REDD+.
- Ghana has a number of experiences and legal instruments of possible relevance to benefits sharing that require further analysis.
- Forest reserves should be left to regenerate naturally, perhaps with enrichment planting, and then the focus could shift to off-reserve plantations. Both activities would qualify as REDD+ activities. This would require major policy and legal changes, not least in terms of the government's policy towards the timber industry, as well as improvements in the productivity of off-reserve cocoa farms so that the pressures on reserves are reduced.
- Outside forest reserves, the main priority is tree tenure reform, so that farmers (and especially cocoa farmers) have positive rather than perverse incentives as regards maintaining timber or other trees as shade trees. People should be able to own, and benefit from, naturally regenerated trees on their lands, including through ownership of carbon credits.
- In the absence of tree tenure reform, the only hope in off-reserve high forest zones is through CREMAs or Dedicated Forests. CREMAs in particular appear to have real promise for REDD+.
- Lands and trees that become part of REDD+ activities need to be surveyed and documented.

It is important to highlight the fact that a large number of the recommendations made in this report align with the next steps and recommended actions in Ghana's REDD+ Readiness Plan (R-PP). As such, they exist in a nationally validated and partially funded work plan that paves the way for the FC and other institutions to analyze and consider these points. Therefore, the hope is that this report serves to enhance and further stimulate Ghana's commitment to serious analysis and action on critical REDD+ issues as articulated in the R-PP.

Finally, Ghana's leaders must take the lead in dramatically changing the way that people and officials think about the nation's forests and the way in which they choose to value the country's ecosystems and the services that they provide. If a large shift in thinking does not occur, then it is highly unlikely that REDD+ initiatives can succeed and that real abatement or mitigation will occur on a large scale. This observation reflects a common perspective amongst individuals within Ghana's forestry and environmental circles. Forests and trees in agricultural systems will not remain in Ghana's landscapes in the near future, if adoption of REDD+ only reflects an expectation of financial payments and gains. On the contrary, REDD+ is about developing a system of incentives that can support the nation in transforming its perspective and practices in relation to forests.

References

- AFRCD 47. 1979. Economic Plants Protection Act.
- Amanor, K. S. 1996. *Managing trees in the farming system: The perspective of farmers*. ed. G. Forestry Department, *Forest Farming Series*. Kumasi, Ghana: Forestry Department Planning Branch.
- Asare, R. 2006. Learning about neighbor trees in cocoa growing systems- a manual for farmer trainers. Horsholm: The Danish Centre for Forest, Landscape and Planning (KVL).
- Asare, R., and R. A. Asare. 2008. A participatory approach for tree diversification in cocoa farms: Ghanaian farmers' experience. Accra, Ghana: International Institute of Tropical Agriculture.
- Dadebo, M. A., and T. Shinohara. 1999. Forest Resources and Timber Production of Ghana: Current Instruments for Sustainable Development. *Journal of Forest Research* 4:1-12.
- Forestry Commission Act (Act 571). 1999. Ghana.
- Hall, J. B., and M. D. Swaine. 1981. *Distribution and ecology of vascular plants in a tropical rain forest: Forest vegetation in Ghana*. Boston: Dr. W. Junk Publishers.
- Hansen, C. P., J. F. Lund, and T. Treue. 2009. Neither fast nor easy. The prospect for Reducing Emissions from Deforestation and Degradation (REDD) in Ghana. *International Forestry Review* 11(4):439-455.
- Hansen, C. P., and T. Treue. 2008. Assessing illegal logging in Ghana. *International Forestry Review* 10(4):573-590.
- Ministry of Lands and Forestry. 1994. Forest and Wildlife Policy. Ghana.
- Otsuka, K., A. R. Quisumbing, E. Payongayong, and J. B. Aidoo. 2003. Land tenure and the management of land and trees: the case of customary land tenure areas of Ghana. *Environment and Development Economics* 8:77-104.
- Republic of Ghana. 1962. Concessions Act No. 124, Section 16(4).
- . 1992. Constitution of the Republic of Ghana.
- Richards, M., and A. Asare. 1999. Economic incentives for cocoa farmers to tend timber trees in southern Ghana. London: Overseas Development Institute.
- Takacs, D. 2009. Forest Carbon – Law and Property rights, edited by Conservation International. Arlington VA, USA.
- Timber Resource Management Act (Act 547). 1997. Ghana.
- Timber Resources Management Amendment Act (Act 617). 2002. Ghana.
- Timber Resources Management Regulations (L.I. 1649). 1998. Ghana.