

The Effects of REDD+ on Forest People in Africa

Responsive Forest Governance Initiative (RFGI) Research Programme

The Responsive Forest Governance Initiative (RFGI) is a research and training program, focusing on environmental governance in Africa. It is jointly managed by the Council for the Development of Social Sciences Research in Africa (CODESRIA), the International Union for the Conservation of Nature (IUCN) and the University of Illinois at Urbana Champaign (UIUC). It is funded by the Swedish International Development Agency (SIDA). The RFGI activities are focused on 12 countries: Burkina Faso, Cameroon, DR Congo, Ghana, Kenya, Mozambique, Nigeria, Senegal, South Africa, South Sudan, Tanzania, and Uganda. The initiative is also training young, in-country policy researchers in order to build an Africa-wide network of environmental governance analysts.

Nations worldwide have introduced decentralization reforms aspiring to make local government responsive and accountable to the needs and aspirations of citizens so as to improve equity, service delivery and resource management. Natural resources, especially forests, play an important role in these decentralizations since they provide local governments and local people with needed revenue, wealth, and subsistence. Responsive local governments can provide forest resource-dependent populations the flexibility they need to manage, adapt to and remain resilient in their changing environment. RFGI aims to enhance and help institutionalize widespread responsive and accountable local governance processes that reduce vulnerability, enhance local wellbeing, and improve forest management with a special focus on developing safeguards and guidelines to ensure fair and equitable implementation of the Reduced Emissions from Deforestation and Forest Degradation (REDD+) and climate-adaptation interventions.

REDD+ is a global Programme for disbursing funds, primarily to pay national governments of developing countries, to reduce forest carbon emission. REDD+ will require permanent local institutions that can integrate local needs with national and international objectives. The results from RFGI Africa research will be compared with results from collaborators in Asia and South America in order to enhance RFGI comparative scope, and to broaden its geographic policy relevance.

RFGI Working Paper No. 1

Responsive Forest Governance Initiative (RFGI)
Supporting Resilient Forest Livelihoods
through Local Representation

**The Effects of REDD+
on Forest People in Africa**
Access, Distribution,
and Participation in Governance

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The Council for the Development of Social Science Research in Africa (CODESRIA) is an independent organisation whose principal objectives are to facilitate research, promote research-based publishing and create multiple forums geared towards the exchange of views and information among African researchers. All these are aimed at reducing the fragmentation of research in the continent through the creation of thematic research networks that cut across linguistic and regional boundaries.

CODESRIA publishes *Africa Development*, the longest standing Africa based social science journal; *Afrika Zamani*, a journal of history; the *African Sociological Review*; the *African Journal of International Affairs*; *Africa Review of Books* and the *Journal of Higher Education in Africa*. The Council also co-publishes the *Africa Media Review*; *Identity, Culture and Politics: An Afro-Asian Dialogue*; *The African Anthropologist* and the *Afro-Arab Selections for Social Sciences*. The results of its research and other activities are also disseminated through its Working Paper Series, Green Book Series, Monograph Series, Book Series, Policy Briefs and the CODESRIA Bulletin. Select CODESRIA publications are also accessible online at www.codesria.org.

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Preface

James Murombedzi, Jesse Ribot
and Gretchen Walters

Struggles for control over and access to nature and natural resources; struggles over land, forests, pastures and fisheries, are struggles for survival, self determination, and meaning. Natural resources are central to rural lives and livelihoods: they provide the material resources for survival, security, and freedom. To engage in the world requires assets that enable individuals, households, and communities to act in and on the world around them. The ability to accumulate assets and the ability to access government and market services depends partly on such resources along with the political-economic infrastructure – rights, recourse, representation, markets, and social services – that are the domain of government. Democracy, which both enables and requires the freedom to act, is predicated on these assets and infrastructures. Since the 1980s, African governments have been implementing local government decentralization reforms aimed at making local government more democratic by making them responsive and accountable to citizen needs and aspirations; in many places this has been done through a decentralisation of natural resource governance to local administrations. In order to be responsive to individual, household and community demands, local governments, too, need resources and decision-making powers. There must be a public domain – a set of public resources, such as forests or fisheries, which constitute this domain of democracy, the domain of decisions and services that citizens can demand of government. Natural resources, when decentralized into the domain of local authority, form an important part of the resources of individuals, households, communities and governments, making possible this move toward local democracy.

Natural resources provide local governments and people with wealth and subsistence. While nature is not the only source of rural income, the decentralization of natural resources governance is a core component of local government reform. However, governance reforms have been implemented in a context broadly characterized by an enduring crisis of the Western economic and financial systems, which in turn has stimulated privatization and liberalization in every sphere of life, including nature. The process has deprived local governments of public resources – depriving individuals and communities of a reason to engage, as a powerless government is not worth trying to influence. Privatization is depriving forest-dependent peoples of their access to formerly ‘public’ or traditionally managed resources. National governments, as well as international bodies such as the United Nations programme, titled the Reducing Emissions from Deforestation and forest Degradation (REDD), further this trend as they collaborate with private interests to promote the privatization of natural resources. The resulting enclosures threaten the wellbeing of resource-dependent populations and the viability of democratic reforms.

The specter of climate change is deepening the crisis of enclosure. A key response to climate change has been the attempt to mitigate greenhouse gas emissions through enhancing the capacity of forests in the developing world to store carbon, ostensibly for the benefit of the atmosphere as well as the communities who use these forests. UN REDD seeks to pay communities, through their national governments, to conserve their forests as carbon storage. A plus ‘+’ was added to REDD, forming REDD +, to call for improved ecosystems services, forest management, conservation, forest restoration and afforestation to enhance the capacity for carbon storage. Designed on the basis of similar payments for environmental services (PES) schemes, REDD+ has the potential to inject vast new sums of money into local resource use and governance. In the context of fragile local governments, nascent democracies and powerful private interests, such cash inflows result in the commercialization and privatization of forests and natural resources and the dispossession of local resource users. This financialization of natural resources grossly diminishes the scope for democratic natural resource governance schemes. To be sure, the implementation of REDD+ can also learn from and avoid the pitfalls experienced in these PES schemes, especially if they represent local interests in natural resource governance decision making.

The Responsive Forest Governance Initiative (RFGI) is an Africa-wide environmental-governance research and training program focusing on enabling responsive and accountable decentralization to strengthen the representation of forest-based rural people in local-government decision making. Since January 2012, the programme has carried out 33 case studies in 12 African countries, with comparative cases Nepal and Peru, to assess the conditions under which central authorities devolve forest management and use decisions to local government, and the conditions that enable local government to engage in sound, equitable and pro-poor forest management. Aimed at enabling local government to play an integrative role in rural development and natural resource management, these case studies are now being finalized and published to elicit public discourse and debate on local government and local democracy. This Working Paper series will publish the RFGI case studies as well as other comparative studies of decentralized natural resources governance in Africa and elsewhere that focus on the intersection between local democracy and natural resource management schemes. Using the concepts of institutional choice and recognition, the cases deal with a comprehensive range of issues in decentralized forest management in the context of REDD+, including the institutional choices of intervening agencies; the effects of such choices on accountability and representation; and the relationships between local government and other local institutions. The series will also include syntheses discussing the main findings of the RFGI research programme.

Based at CODESRIA, and funded by the Swedish International Development Agency (SIDA), the RFGI is a three year collaborative initiative of CODESRIA, the University of Illinois at Urbana-Champaign (UIUC) and the International Union for Conservation of Nature (IUCN). RFGI working papers and documents, including the background papers, the RFGI programme description, and the RFGI Methods Handbook, can be found online at <http://www.codesria.org/spip.php>, IUCN http://www.iucn.org/fr/propos/union/secretariat/bureaux/paco/programmes/paco_forest/thematiques_et_projets/gouvernance_and_iucn_tools/projets_en_cours/_programme_de_recherche_initiative_pour_la_gouvernance_democratique_des_forets/ and UIUC <http://sdep.beckman.illinois.edu/programs/democracyenvironment.aspx#RFGI>

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Introduction

It is estimated that about 15 million hectares are deforested globally every year (FAO 2006). This is significant, given that forests contain more than half of the world's terrestrial carbon, and account for 80 per cent of carbon exchanged between terrestrial ecosystems and the atmosphere (Montagnini and Nair 2004). Recently, conversion of forest to cropland has been the largest source of land-use emissions (Watson *et al.* 2000). Consequently, forestry activities will be important in mitigating global climate change. More than 120 countries signed the Copenhagen Accord recognizing 'the need to enhance removals of greenhouse gas emission by forests' (UNFCCC 2009, Decision 2/CP.15).

Forestry activities will likely play a particularly important role in mitigation activities in developing countries, in part because of the contributions of deforestation in developing countries to climate change, and in part because of the hoped-for potential for development benefits that might accompany mitigation activities. It has been estimated that tropical forest conversion is responsible for 25 per cent of CO₂ and up to 10 per cent of N₂O emissions globally (Palm *et al.* 2004). The FAO (2006) found that of the continents surveyed between 1990 and 2000, Africa and South America had the largest net loss of forests. Forestry and agroforestry activities can also be attractive mitigation options in developing countries where there is widespread reliance of rural livelihoods on agricultural and forestland.

Reduced Emissions from Deforestation and forest Degradation (REDD+) is an approach to climate change mitigation that was officially adopted for discussion under the United Nations Framework Convention on Climate Change (UNFCCC) at the thirteenth Conference of Parties (COP) in Bali in 2007

(Decision 2/CP.13). This decision included recognition that REDD+ could contribute local benefits and should take into account the needs of local people (Brown *et al.* 2008). REDD+ was developed to reflect a desire to use climate funding to support not only activities that reduce emissions, but also sustainable forest management practices that could generate complimentary human and local environment benefits (Cerbu *et al.* 2011). The Copenhagen Accord, created and signed at COP 15 in 2009, commits global actors to immediate implementation of REDD+ (Decision 2/CP.15). Subsequently, a set of environmental and social safeguards for REDD+ implementation was agreed to at COP 16 in Cancun in December 2010 (Decision 1/CP.16.Add.1), with additional guidelines for implementing safeguards coming in Durban in 2011 (UNFCCC Draft decision -/CP.17). In this paper, 'REDD+' is used to refer to current and future activities under the Reducing Emissions from Deforestation and forest Degradation banner, and any example activities that have been implemented explicitly as REDD+. 'REDD' is used to differentiate any activities implemented prior to the standardization and widespread use of REDD+, which may not have explicit social and environmental safeguards.

International initiatives have been established by the United Nations (UN-REDD+ Programme), the World Bank (Forest Carbon Partnership Facility, FCPF), and other donors to assist governments in the design and implementation of REDD+ activities. The REDD+ Partnership is another major international initiative launched during the Oslo Climate and Forest Conference in 2010, representing 71 countries (REDD+ Partnership 2011). There are also a number of voluntary REDD+ activities that have been implemented by non-governmental organizations (NGOs), governments, and carbon companies. Possible implementation strategies for REDD+ vary considerably, and can include both policies (e.g. policies to address illegal logging) and actions (e.g. market-based projects to promote forest conservation) (Tacconi *et al.* 2010). Theoretically, any approach that addresses forest degradation and/or deforestation can be used (Peskett *et al.* 2008).

REDD+ is still in the early stages of implementation but however it is implemented, it will have ramifications for climate change and development globally. Where REDD+ activities are implemented, they will affect forest-dependent economies at local through regional scales, and will have important implications for forest-dependent industries like timber and biofuels. In particular, REDD+

initiatives will directly affect an estimated 1.6 billion ‘forest people’ – indigenous peoples and local communities, who rely on forests for their livelihoods (Sikor *et al.* 2010). The reliance of the rural poor on forest resources (Campbell *et al.* 2008) means the impacts of REDD+ will be particularly pertinent in Sub-Saharan Africa, where much of the population is poor and rural (United Nations 2009, 2010). Although Sub-Saharan Africa has generally been under-represented as a location for mitigation activities,¹ Africa’s share of the forest carbon market has grown considerably in recent years (Hamilton *et al.* 2010; Jindal *et al.* 2008) and is expected to continue this growth trend (Diaz *et al.* 2011). A number of REDD+ activities are underway in Sub-Saharan Africa. Table 1 shows the distribution of these activities as of late 2009. Some countries are implementing REDD+ demonstration activities, while others are in earlier states of developing REDD+ Project Idea Notes (R-PINS).

Table 1. REDD+ activities in Africa as of October 2009

	REDD+ readiness activities	REDD+ demonstration activities
Madagascar	5	3
Tanzania	3	
Ethiopia	1	1
Kenya	1	1
Uganda	1	1
DRC	4	3
Cameroon	4	2
Republic of Congo	2	
Central African Republic	1	
Gabon	1	
Ghana		1
Ivory Coast		1
South Africa		1
Mozambique		1

Source: Based on Cerbu *et al.* (2011).

Although it is acknowledged that REDD+ alone is inadequate for addressing

underlying issues of redistribution of responsibility for climate change and drivers of deforestation related to global demands for land and resources (Accra Caucus 2010), there is nevertheless hope that REDD+ could provide unique opportunities to realize substantial global climate and local development benefits (Angelsen 2009). At the same time, concerns are also being expressed that forest people, particularly marginal groups, may not benefit, or may experience harmful effects as a result of REDD+ (Griffiths 2008; Tacconi *et al.* 2010). And, REDD+ is growing: in 2010, REDD+ surpassed all other project types on the global primary forest carbon market, supplying 19.5 Mt CO₂e of a total 29.0 MtCO₂e contracted (Diaz *et al.* 2011). The success and legitimacy of REDD+ in delivering concurrent global climate and local development benefits will depend largely on whether REDD+ is able to respect the rights of and meet the needs and expectations of various stakeholders, especially forest people (Angelsen 2009; Lindhjem *et al.* 2010; Springate-Baginski and Wollenberg 2010). To effectively protect the rights and interests of forest people, it will be important to understand how REDD+ has and is likely to impact the people who live around and in and depend on the resources of forests managed under REDD+ regimes (Tacconi *et al.* 2010).

This paper explores the documented and expected effects of REDD+ activities on forest people in Africa, focusing on access and distribution of REDD+ and forest resources and participation in REDD+ governance. We argue that although many of the formidable challenges that face effective forest governance in Africa generally will also be challenging in REDD+, REDD+ is potentially equipped to improve on outcomes for forest people over other forest management initiatives, largely because of its scale and internationally agreed upon safeguards. To succeed in realizing this potential, REDD+ must translate potential and intention into action and reality by mobilizing the resources necessary to drive the forest governance reforms that will be the foundation for REDD+ success in Africa. This will mean, in part, learning from other forest management activities, and developing rigorous indicators and research procedures for monitoring REDD+ effects.

Methods

We reviewed academic and grey literature reporting on REDD and REDD+ outcomes and research. Because REDD+ is still fairly new, few pilot projects have been implemented, and none have been underway for longer than a few years. Relevant literature on conservation and development approaches likely to be used to implement REDD+ and trends in forest management in Sub-Saharan Africa were therefore also consulted. We focused on literature reporting on Sub-Saharan Africa, and on RFGI focus countries (Burkina Faso, Ghana, Mozambique, Uganda, Democratic Republic of Congo (DRC), Senegal, Mali, Cameroon, Tanzania, South Africa and Sudan) whenever possible. Throughout the text, 'Africa' refers to Sub-Saharan Africa. Relevant literature from other geographic areas was also included where it provided additional insight. Both empirical and theoretical literature was included.

The effects of REDD+ and REDD+-like activities on forest people (those living in or close to forests who rely on forests for their livelihoods) were considered in terms of four dependent or outcome variables: participation in REDD+ governance, access to and distribution of REDD+ resources, access to and distribution of forest resources, and access to markets.

Participation in governance

This is the ability of forest people to meaningfully participate in decision-making with respect to the design and implementation of the REDD+ process. Participation in governance (or the lack thereof) of forest people, and vulnerable sub-sets of the community in particular, has implications for the equity, legitimacy, and ulti-

mately, the long-term viability and success of the REDD+ process (Accra Caucus 2010; Larson and Ribot 2009; Springate-Baginski and Wollenberg 2010; Thompson *et al.* 2011; Vatn *et al.* 2009). Without the meaningful participation of forest people in the entire REDD+ process, there is concern that REDD+-driven changes in law and policy could result in negative rather than positive outcomes for local people (Laltaika 2009; Sena 2009), undermine their procedural rights and rights to self-determination under REDD+ (Brown *et al.* 2008; Sikor *et al.* 2010) and ultimately jeopardize the contribution of REDD+ to climate change mitigation (Accra Caucus 2010; Angelsen 2009; Phelps *et al.* 2010). Thompson *et al.* (2011) argue that significant, effective engagement of local people will be critical in aligning the interests of forest people in developing countries with those motivated by global climate change goals in developed countries. This engagement will require both opportunities for forest people to be involved in decision-making and implementation of REDD+, as well as the capacity to make use of these opportunities.

Access and Distribution of REDD+Resources

REDD+ resources are the benefits that accrue to forest people as a result of REDD+ implementation. These can be both direct and indirect and include both monetary (e.g. carbon payments) and non-monetary benefits (e.g. infrastructure built using REDD+ investments). Benefits to forest people can accrue at different levels, including individual, household and community, depending on how payments schemes in REDD+ are designed and implemented. Access is the ability of forest people to benefit from something (Ribot and Peluso 2003), in this case, REDD+.

There is hope that REDD+ could improve sustainable forest management and provide new opportunities for forest people to generate income through participation in carbon markets, monitoring and conservation programs, and through carbon fund allocations to individuals and communities (Danielsen *et al.* 2011; Ghazoul *et al.* 2010; Lawlor and Huberman 2009). In Africa, forest carbon schemes have been found to contribute significant economic benefits to local communities both through increased household earnings and access to non-timber forest products (Jindal *et al.* 2008). Forest people could also realize benefits without participating directly in carbon markets, for example through wages or community funds (Tacconi *et al.* 2010).

Access and Distribution of Forest Resources

This is the access and distribution of forest resources to local people when forests are managed under REDD+. Forest resources include the full range of forest materials and services that forest people rely on for their livelihoods. These include tangible resources like land, timber, and non-timber forest products (NTFP), as well as other services like local climate regulation. Forest peoples' rights to equitable sharing of benefits under REDD+ is intended to extend beyond equitable distribution of REDD+ programmatic benefits to include equitable distribution of benefits from the forest itself (Sikor *et al.* 2010). By facilitating sustainable forest management, it is hoped that REDD+ could increase opportunities for non-timber forest product commercialization and ecotourism (Ghazoul *et al.* 2010). Conversely, REDD+ could perpetuate or exacerbate conflict and inequalities in distribution of benefits from forest resources in Africa, particularly if REDD+ facilitates privatization of resources (Vatn *et al.* 2009).

Access to Markets

This includes access and distribution of access to markets for environmental services and forest resources. This variable is tightly tied to access and distribution of REDD+ and forest resources. Where REDD+ is implemented using a Payment for Ecosystem Services (PES) scheme, the ability of forest people to access REDD+ benefits will depend in part on their ability to access environmental service markets on which to sell the carbon credits generated. Similarly, the impact on forest people of changes in access to and/or quality of forest resources will depend in part on how REDD+ will affect their ability to participate in markets for forest resources.

REDD+ affects these four variables through the ways that it interacts with a number of independent contextual variables, like policies and governance structures, rights and ownership, etc. We explore how REDD+ affects the four outcome variables through its effects on the following six independent variables:

1. Policy and governance.
2. Rights and ownership of forest land and resources.
3. Benefit-sharing and compensation.

4. Intermediaries, corruption and elite capture of benefits.
5. Wealth, resources and knowledge.
6. Approaches to REDD+ implementation.

These variables represent key issues and challenges that will be important to address in the implementation and evaluation of REDD+ activities. Both sets of variables are not mutually exclusive; most overlap and interact.

Three broad types of evidence are considered in analysing expected REDD+ effects: evidence from early REDD and REDD+ projects; evidence from REDD+-like forest management activities (proxies) that may be used as foundations and tools for implementing REDD+ and/or are considered useful sources of lessons for REDD+; and, reported outcomes and predictions of various types of models (primarily economic models of forest resource usage). REDD+ proxies include integrated conservation and development projects (ICDPs), Community Forest Management (CFM), and Payments for Environmental Services (PES), with a focus on carbon forestry as this is most relevant to REDD+. Descriptions of these activities and discussion of their similarities and differences to REDD+ are included in Appendix 1. To contextualize expected REDD+ effects, the background on trends in forest management in Sub-Saharan Africa is provided in Section 3 and on REDD+ characteristics and safeguards in Section 4. Section 5 presents evidence for likely REDD+ effects on livelihood outcome variables in terms of expected interactions of REDD+ with specified independent contextual variables. Appendix 2 provides an overview of research methods for studying these REDD+ impacts to assist with future efforts to expand this data.

3

Forest Management in Africa: Context and Trends

The context in which REDD+ is implemented includes factors like current and historic trends in forest policy and land tenure, corruption, power, and recognition of rights. This context affects how REDD+ will be implemented and the effects of REDD+ on local people, both in terms of potential benefits and the distribution of costs and benefits (Agrawal and Angelsen 2009; Gomera *et al.* 2010). To situate the subsequent discussion on potential REDD+ impacts in the African context, this section describes trends in forest governance and management in Sub-Saharan Africa, drawing primarily on texts by Wily (2011) and German *et al.* (2010a). We focus on trends seen in varying degrees in most countries in Africa, while acknowledging the wide variation on the continent in both historical and geographical contexts, and the effect this has on forest governance and the variability of outcomes of policy decisions and management activities.

The Colonial Legacy of Diminished Community Control Over Forests

Although colonial regimes operated differently in different countries in Africa, starting in the 1880s, colonialists in most of Africa shifted the rights of rural people to uncultivated lands like forests from ownership to rights of occupation and use and centralized control over land, taking rights away from local people (Wily 2011).² Communities faced many challenges in accessing customary lands, including the need to prove active use to gain occupancy rights, and the desig-

nation of native reserves (Wily 2011). The most productive lands were usually given to non-Africans, and ownership of most forests was designated to colonial powers (Wily 2011). By 1945, even rights to use were not being widely upheld (Wily 2011). As African countries became independent in the mid twentieth century, the elite classes that took over leadership tended to continue decreasing local control of forests (Wily 2011).

Governance Reforms and Community Participation in Forest Management

In the 1980s and 1990s, trends towards land reform and decentralization of forest managements began in much of Africa, largely due to pressure from the International Monetary Fund and the World Bank to reduce the size of centralized governments and budget deficits in African countries (German *et al.* 2010a; Wily 2011). Reforms in land and forest governance happen in different ways and to different extents in each country, and different contexts mean that the same reforms can have different outcomes in different places (German *et al.* 2010a). In general, the effects of land reforms included making land rights a subject for constitutional discussion, removing barriers to the sale of customary and untitled land, allowing foreigners to gain access to land, allowing customary rights to influence decision-making and property rights in limited ways, supporting women's land rights, increasing public participation in land policy making, decentralizing land administration (although not always to communities), increasing certification of customary rights (although not usually making them as strong legally as private property rights), and increasing community ownership possibilities (Wily 2011). Theoretically, decentralization of forest management should have increased opportunities for community level participation in day-to-day governance of forests. In most African countries, decentralization has only been partially implemented, with only partial sharing of power, authority and benefits from forests and with mixed positive and negative impacts on forest people (German *et al.* 2010a).

Reforms have resulted in a trend towards greater community involvement in forest management in Africa, and have tended to result in improved sharing of benefits from forests between different levels of government and between government and communities, and in some community investment of forest rev-

enues in local infrastructure and service improvements (German *et al.* 2010a). Gambia and Tanzania are thought to represent the most successful cases of community forest management, and ownership (Wily 2011). Many barriers to equitable sharing of forest benefits with communities persist, including extensive administration requirements, high transaction costs, and a tendency to give communities control of low value land while maintaining state control of high value land (German *et al.* 2010a). Common barriers to effective community forest management (CFM) in Africa include a lack of information needed for management, lack of awareness and information about the economic value of forests, conflict between central and local governments, widespread corruption, illegal logging and trade in forest products, lack of resources and information at the local level, lack of awareness of laws and rights that pertain to forest people, communication gaps, and lack of accountability (German *et al.* 2010a).

Although customary tenure is the major tenure regime in Africa, involving an estimated 428 million people, statutory tenure rights take precedence over the majority of uncultivated land in Africa, including forests (Wily 2011). With the exception of Uganda where the majority of forestland is privately owned (Vatn *et al.* 2009), most forests in Africa (98%) are state-owned (Wily 2011). Less than five million hectares are formally recognized as community property (Wily 2011). Customary tenure to community lands is rarely binding outside the community and statutory rights generally trump customary rights in national laws (Wily 2011).³ Customary access is often prohibited, or only allowed until forests can be put to commercial use (Wily 2011).

Recent attempts to restore rights to forest people have been limited and unclear forest tenure persists (Sunderlin *et al.* 2009). Although customary rights are increasingly gaining formal recognition, in some countries, customary rights must be registered and recognized as statutory rights, converting these rights to something other than how they were understood customarily (Wily 2011). Where statutory laws are in conflict with customary laws and practices, high transaction costs associated with compliance with state forest management laws can make customary forest uses illegal and can have detrimental effects on forest people (German *et al.* 2010a). In most of Sub-Saharan Africa, forests officially remain state-owned, with communities having only rights of occupancy and use, insecure tenure that leaves many forest people vulnerable to losing rights to the government or elite private interests (Sunderlin *et al.* 2008b; Wily 2011).

It appears this is not poised to change in the near future in most countries. In a survey of national land laws, about 25 per cent emerged as being positive with respect to customary land tenure (Wily 2011). It is expected that unre-served forests will be acknowledged as community property only in Benin, Burkina Faso, Ghana, Mozambique, South Africa, South Sudan, Tanzania and Uganda, with Uganda, Tanzania, Burkina Faso and Southern Sudan having the most positive national land laws with respect to recognizing customary tenure of forestland (Wily 2011). In other countries, it is thought that communities may gain more rights in managing forests, but are unlikely to gain formal ownership (Wily 2011).

Overall, decentralization has fallen short of expectations in terms of delivering equitable and sustainable outcomes, largely because it gave increased responsibility to the local level without also devolving the necessary power and resources to support effective management (German *et al.* 2010a).

Increasing International Interest in Africa's Forests

There has also been a recent trend towards increasing foreign interest in and acquisition and trade of land and resources in Africa (German *et al.* 2010a; Wily 2011). Exports and investment in African resources is increasing; for example, China offers African countries direct access to funds in exchange for guaranteed access to resources (German *et al.* 2010a). Markets are driving privatization of forests, with the most common form involving the awarding of logging and management concessions to private companies, a practice with roots in Africa's colonial history (German *et al.* 2010a; Wily 2011). These pressures are contributing to a trend in Eastern and Southern Africa towards recentralization of authority over natural resources and reduced local control of forest resources (Nelson 2010; Sanbrook *et al.* 2010).

Environmental motivations have also been driving foreign interest in Africa's forests, first for forest conservation, and then more recently for climate change mitigation and the generation of forest carbon credits. In the 1980s and 1990s, international conservation interests began leading to the creation of protected areas (PA), many in the form of integrated conservation and development projects (ICDPs) (Newmark and Hough 2000). Carbon forestry projects have been started in Africa to generate carbon credits for international compliance and

voluntary carbon markets⁴ (Diaz *et al.* 2011; Hamilton *et al.* 2010). Although Africa's initial share of the international carbon trade is small, the continent has been capturing an increasing share of the global forest carbon market, and was the dominant source of forest carbon credits in 2009 (Hamilton *et al.* 2010).

Foreign interest and investment in Africa's forests has not widely benefited forest people. The most valuable land is often given to investors, while local people are evicted from common lands (Wily 2011). The creation of protected areas by governments and conservation NGOs has resulted in evictions and restricted access of local people to forests. For example, in DRC and Cameroon, the government has created and expanded forest reserves and excluded local people without their consultation or any compensation for lost economic activities that were previously conducted in the reserve area (Dkamela *et al.* 2009). Even where decision-making surrounding state-owned resources like forests is devolved to the local level, powerful actors still often gain control (German *et al.* 2010a). In the case of carbon trade, high initial investment and expertise requirements and the need for clear property rights can make it difficult for decentralized governments and forest people to participate in carbon trade, particularly through the Clean Development Mechanism (CDM) (German *et al.* 2010a). State desire to take advantage of investor interest is impeding good, transparent governance practices, community participation in allocation decisions, the likelihood of legal strengthening of customary ownership rights, the application of international human rights laws, and threatening peace (Wily 2011). Increased trade is putting considerable pressure on Africa's forests; for example, in Tanzania, illegal logging and trade represents up to 96 per cent of harvest volume (German *et al.* 2010a), which could be problematic for people who rely on forests for their livelihoods.

As the value of Africa's land increases, land ownership is becoming concentrated and class formation is rising (Wily 2011). There is concern that foreign interest in forests could contribute to the recentralization of forest management in Africa, and further marginalize forest people from forest resources (German *et al.* 2010a). Without formal land rights, forest people are ill-equipped to defend their customary rights to forests and forest resources (Wily 2011). At the same time, increased international trade in African forest products and participation of Africa in international environmental negotiations are also raising standards and scrutiny with respect to the actions of state and corporate actors, and increasing pressure for transparency and government reform (German

et al. 2010a). Although African governments have generally been reluctant to respond to international pressure, it is generally resulting in increasing alignment of norms and standards in Africa with international norms and standards (German *et al.* 2010a).

Current Outlook

Although many of the trends in land and forest management in Africa are similar to other developing regions of the world, Africa likely faces greater challenges related to extensive poverty, fragile states, vulnerability to violent conflict, weak state institutions, and a lack of information and capacity (German *et al.* 2010a). Nevertheless, Africa has considerable capacity, particularly at the local level, and recent multi-tiered transnational civil society movement around forest-related issues is generating new ideas and innovation in forest governance, resulting in increased participation of forest peoples and increased attention on forest peoples' rights and forest management (German *et al.* 2010a). In general, the effectiveness of government reforms and trade regulation depends largely on the quality of governance (German *et al.* 2010a). The impacts of forest management and governance trends on forest people will be closely linked to how community ownership over forests and forest resources is resolved (Wily 2011).

4

Introducing REDD+

Since first support for the idea in Bali, REDD+ has undergone continual development into an increasingly defined, implementable approach to climate change mitigation. Currently, REDD+ includes forestry activities that (UNFCCC 2010, Decision 1/CP.16.Add.1):

- (a) Reduce emissions from deforestation;
- (b) Reduce emissions from forest degradation;
- (c) Conserve forest carbon stocks;
- (d) Contribute to sustainable management of forests;
- (e) Enhance forest carbon stocks.

To participate in REDD+, countries are requested to (UNFCCC 2010, Decision 1/CP.16.Add.1):

- (a) Develop a national strategy or action plan;
- (b) Establish a national forest reference emission level;
- (c) Establish a robust and transparent national forest monitoring system;
- (d) Establish a system for reporting on how social and environmental safeguards are being addressed and respected.

The agreement of multiple nations on a set of guiding ideas and social and environmental safeguards in Cancun in 2010 represents a significant step in the development of REDD+. We highlight some of these guiding ideas and safeguards here; a complete list can be found in Appendix I of Decision 1/CP.16.Add.1.

The Cancun decision acknowledged that REDD+ should:

- Be country-driven;
- Be undertaken in accordance with national development priorities, objectives and circumstances and capabilities and should respect sovereignty;
- Be consistent with Parties' national sustainable development needs and goals;
- Be implemented in the context of sustainable development and reducing poverty;
- Be supported by adequate and predictable financial and technology support, including support for capacity building;
- Be results based;
- Promote sustainable management of forests.

Safeguards that should be 'promoted and supported' in REDD+ include:

- Ensuring actions complement or are consistent with the objectives of national forest programmes and relevant international conventions and agreements;
- Transparent and effective national forest governance structures, taking into account national legislation and sovereignty;
- Respect for the knowledge and rights of indigenous peoples and members of local communities, by taking into account relevant international obligations, national circumstances and laws;
- The full and effective participation of relevant stakeholders, in particular indigenous people and local communities;
- Ensuring actions are not used for the conversion of natural forests, but instead to incentivize the protection and conservation of natural forests and their ecosystem services, and to enhance other social and environmental benefits.

At the 17th Conference of Parties in Durban in 2011, it was agreed that information on how all safeguards are being addressed and respected should be made available, and be accessible to all stakeholders for REDD+ implementations (UNFCCC Draft decision -/CP.17).

Different Countries, Different Implementations of REDD+

REDD+ implementation will be unified by the steps and guidelines provided by the ongoing COP negotiations. These steps and guidelines will be implemented differently in different countries, in part reflecting differences in context, such as land tenure systems, drivers of deforestation, and governance (Sills *et al.* 2009). In many cases, REDD+ will be implemented based on existing forest management approaches (Vatn *et al.* 2009). It will involve both policy and project level actions. Choices about how to implement REDD+ will often involve trade-offs between political legitimacy, efficiency, accountability, transparency and co-benefits, which will have implications for local people (Agrawal and Angelsen 2009; Peskett *et al.* 2008; Seymour and Angelsen 2009).

Several aspects of REDD+ implementation are expected to have important implications for how REDD+ affects forest people:

Reference levels or baselines against which changes in forests are measured will affect which forests and activities will be eligible, and thus, what forest people may be eligible to receive REDD+ benefits (Brown *et al.* 2008; Peskett *et al.* 2008).

Financing mechanism – A market mechanism could provide more funds and better links between payments and performance, while donor funding could be more pro-poor and accessible to less developed countries (Brown *et al.* 2008; Peskett *et al.* 2008).

The scope of activities that are included under REDD+ and the definition of forest used will influence who can participate and how local communities are impacted by REDD+ activities. For example, certain definitions of forest may exclude activities from REDD+, such as agroforestry, that could have pro-poor benefits (Brown *et al.* 2008; Peskett *et al.* 2008).

Risk and liability – The level at which risk is borne could affect how costs and benefits associated with REDD+ implementation are shared; for example, if the national government bears all risk, it is less likely that REDD+

resources will be shared with forest communities (Brown *et al.* 2008; Peskett *et al.* 2008).

Scale of implementation – National level implementation offers the possibility of a more integrated intervention, but increases the scope for problems like corruption. A project-level focus could have less ability to affect country policy and is prone to leakage (Brown *et al.* 2008; Peskett *et al.* 2008).

Evaluation and monitoring – Including local people in monitoring is seen as one way to keep costs down while contributing to local livelihood and environment benefits (Danielsen *et al.* 2011; Skutsch and Ba 2010). The criteria used for monitoring will in part determine the extent to which local development and environment impacts are successfully considered in REDD+ implementation and evaluation.

How is REDD+ Different from Other Types of Forest Management and Carbon Forestry?

Because REDD+ will be different in every country and will build on existing forest structures and be adapted to local contexts (Tacconi *et al.* 2010), it is difficult to specify in detail how REDD+ will be implemented and how it will differ from other forest management activities. A suite of broad differences is however apparent:

National-level approach – Although it is acknowledged that links will need to be made between national level plans and sub-national projects and initiatives, most proposals for REDD+ support a national-level approach to forest management that allows for country-level monitoring and planning (Irawan and Tacconi 2009; Tacconi *et al.* 2010).

Large-scale – REDD+ is also much larger than any previous forest development initiative (Angelsen 2009).

Social and environmental safeguards – REDD+'s social and environmental safeguards and guidelines have been broadly agreed to and refer to international standards and norms (UNFCCC 2010, Decision 1/CP.16.Add.1).

Performance-based – Unlike many conventional initiatives, REDD+ is performance-based, and includes a requirement to verify both environmental and social outcomes, and is being closely scrutinized by many organizations and individuals (Angelsen 2009).

These differences mean that REDD+, if implemented well, could offer improvements over the *status quo* in many countries. These include opportunities, incentives and resources to:

- Access significant new sources of funding from carbon for realizing environmental and biodiversity conservation as well as development goals (Brown *et al.* 2008; Rosendal and Andresen 2011).
- Align forest management in many countries with international norms and safeguards, such as the principle of ‘free, prior and informed consent’ (FPIC) with respect to affected communities (Brown *et al.* 2008).
- Increase international attention to and monitoring of forest management, international safeguards, and the rights of local communities (Brown *et al.* 2008).
- Address corruption, support government reform and improve structures and processes supporting resource governance (Brown *et al.* 2008; Ebeling and Yasué 2008; Vatn *et al.* 2009); e.g. in Tanzania, REDD+ resources could put pressure on government to strengthen anti-corruption and positive forest governance policies (Vatn *et al.* 2009).
- Assist in decentralizing some resources and responsibility to forest people for forest management and improve the involvement of forest people in forest governance (Accra Caucus 2010; Odgaard and Maganga 2009).
- Improve sustainability of forest management practices, particularly in countries like Burkina Faso that do not currently have the resources or capacity to monitor and manage forests effectively (Westholm 2010).
- Address some of the larger scale drivers of deforestation (Campbell *et al.* 2008).
- Increase the value of forest conservation and protection as a land-use alternative, and potentially make it economically viable for forest communities to manage forests and continue traditional uses (Campbell *et al.* 2008; Van Dam 2011).

- Reduce control of forests by commercial interests and increase control of forests by governments and local communities (Westholm 2010).
- Secure and formalize land tenure and resource rights for local communities (Campbell *et al.* 2008; Lawlor and Huberman 2009; Vatn *et al.* 2009).
- Better integrate national and local project-level approaches to forest management; e.g. it is thought that Participatory Forest Management (PFM)⁵ would benefit from greater standardization, harmonization and quality control in Tanzania (Blomley and Ramadhani 2006), which a national-level REDD+ plan could help to put in place.
- Increase transparency, accountability, and communication between forest stakeholders by making REDD+ payments contingent on performance (Brown *et al.* 2008).
- Improve forest benefit sharing arrangements (Lindhjem *et al.* 2010).
- Provide more stable, regular and sustained income sources for the forest-dependent poor (Peskett *et al.* 2008).

Given the early stage of REDD+ implementation, most authors are still speculative about the potential of REDD+ for both benefits and risks to forest people. The following section examines what REDD+ could mean for key challenges in managing forests to benefit forest people in Africa, in terms of participation in REDD+ governance and access and distribution of REDD+ and forest resources.

Implications of REDD+ for Forest People

This section presents the results of this review of the literature in terms of key areas that are central to the consideration of REDD+ impacts on forest people and will need to be considered with respect to the impacts of REDD+ activities on forest people. The findings are summarized in Table 2, and then discussed in more detail in the following sub-sections.

Policy and Governance

Governance structures and forest management policies affect who is able to participate in decision-making with respect to forests and REDD+, and who is able to capture benefits from forests, including REDD+. Policy and governance generally have particularly important implications for the ability of forest people to participate in REDD+ governance. Governance is of particular concern in much of Africa, where weak institutional structures have restricted the implementation of other (market-based) carbon schemes (Vatn *et al.* 2009), and where conflict is more common in forested areas (De Koning *et al.* 2007). In particular, it is thought that outcomes from REDD+ for both carbon storage and local livelihoods and the ability of the poor to participate in REDD+ design and implementation will depend on the existence and quality of structures to devolve funds and control and ownership of forest management to the community level (Chhatre and Agrawal 2009; Peskett *et al.* 2008; Sanbrook *et al.* 2010).

Table 2. Summary of Potential Effects of REDD+ on Contextual (independent) Variables with Respect to Outcomes for Forest People

Contextual Variable	Potential Negative Effects	Potential Positive Effect	Suggested Actions
Policy and governance	Because it focuses on national-level planning, REDD+ could contribute to recentralization of forest governance in a way that excludes local communities from meaningful participation in decision-making about forest resources, including participation in REDD+ governance. Lack of harmony in national natural resource policies could prevent forest people from benefiting from improved forest resources under REDD+.	REDD+ resources coupled with international scrutiny and social and environmental safeguards could provide incentives and resources to support effective decentralization to increase local participation in forest governance and improve the sharing of forest benefits with forest people.	Harmonize natural resource management policies to maximize benefits of REDD+-managed forests to forest people. Couple decentralization with strong local level institutions to ensure it results in opportunities for forest people to meaningfully participate in REDD+ governance and benefit from REDD+.

Contextual Variable	Potential Negative Effects	Potential Positive Effect	Suggested Actions
<p>Rights and ownership over forest resources</p>	<p>An increase in forest value, privatization and centralized control of forest resources under REDD+ could increase exclusion and disincentivize formal recognition of customary land and resource rights. REDD+ could continue trends of exclusion of forest people from carbon markets and forests, and majority capture of carbon benefits by large-scale landowners.</p>	<p>REDD+ resources and safeguards could promote the signing of forest management agreements with communities and clarification of tenure and resource rights, improving the security of forest peoples' access to forest resources, including REDD+ benefits.</p>	<p>Design REDD+ to maintain access to forests by forest people. Use REDD+ as an opportunity to address tenure challenges, and clarify and formalize resource rights. Take advantage of international relationships and attention from REDD+ to support and strengthen the ability of forest people to enforce their rights.</p>

Contextual Variable	Potential Negative Effects	Potential Positive Effect	Suggested Actions
Benefit-sharing and compensation	<p>REDD+ could perpetuate a poor track record for inequitable sharing of forest benefits in many African countries, particularly if the centralized approach of REDD+ concentrates REDD+ resources at the national level. Appropriate compensation for costs of REDD+ to forest people may be difficult if the full impacts of REDD+ on forest people are not understood, or carbon prices are inadequate to compensate foregone opportunities.</p>	<p>REDD+ resources and safeguards could help to improve forest benefit sharing, including REDD+ benefits.</p>	<p>Ensure forest people participate in REDD+ processes to make benefit sharing acceptable to all stakeholders. Use REDD+ to support governance reforms that improve sharing of forest and REDD+ resources. Combine REDD+ with other forest management goals (e.g. biodiversity protection) to facilitate adequate compensation to forest people.</p>

Contextual Variable	Potential Negative Effects	Potential Positive Effect	Suggested Actions
<p>Intermediaries, corruption and elite capture of benefits</p>	<p>The national level focus of REDD+ will increase the number of intermediaries involved, which could exacerbate the potential for poor intermediaries and reduced participation of forest people in REDD+ governance. Widespread corruption in African institutions and evidence of elite capture of benefits in many forest management regimes in Africa suggest that REDD+ will not avoid elite capture of REDD+ and forest benefits without governance reforms. Increased international scrutiny in REDD+ could disincentivize the participation in REDD+ of countries where national elites currently capture the majority of resource exploitation benefits, which would prevent forest people from accessing REDD+ resources. REDD+ could perpetuate local level inequity in forest benefit capture.</p>	<p>REDD+ safeguards for 'transparent and effective national forest governance structures' and requirements to be results-based and respect forest peoples rights and international agreements should help to ensure good quality intermediaries, and may help REDD+ to support governance reforms that reduce corruption and improve the equity of benefit sharing from REDD+ and REDD+-managed forests.</p>	<p>Use REDD+ to support government reforms, accountability and transparency. Support participation of forest people in REDD+ governance at all stages. Encourage partnerships and results-based REDD+ monitoring that includes evaluation of the distribution of REDD+ and forest resources under REDD+.</p>

Contextual Variable	Potential Negative Effects	Potential Positive Effect	Suggested Actions
Wealth, resources and knowledge	Lack of capacity related to wealth and knowledge about REDD+ may limit the ability of some forest people, particularly the poor and marginalized, to participate in REDD+ governance and benefit from REDD+, especially where REDD+ restricts access to forest resources. Integration of monitoring of social impacts in REDD+ is lagging.	REDD+ safeguards regarding the rights and participation of forest people and respect for human rights could support the building of forest peoples' capacity to participate in REDD+ governance and the rights of the poor and marginalized to access REDD+ and forest benefits. Tools and procedures for monitoring REDD+ social impacts are appearing, which should help REDD+ to respect safeguards to be results-based socially as well as environmentally, and avoid negative impacts on the poor and marginalized.	Design REDD+ to be accessible to all forest people, and/or provide appropriate compensation to those who are being negatively impacted. Implement social impact monitoring programs in all REDD+ initiatives to ensure equity in access to benefits and opportunities to participate in REDD+ governance for all sub-groups of forest people.

Contextual Variable	Potential Negative Effects	Potential Positive Effect	Suggested Actions
<p>Approaches to REDD+ implementation</p>	<p>The definition of forests and eligible activities under REDD+ may restrict the ability of some forest people to access REDD+ benefits, and could favour private concessions. Some approaches to REDD+ implementation can restrict the flow of REDD+ and forest benefits to certain forest people. If REDD+ is not designed to be pro-poor adverse effects may disproportionately affect the poor and marginalized,</p>	<p>REDD+ safeguards regarding the rights and participation of forest people in REDD+ design and the need for REDD+ not to contribute to forest conversion could help to avoid potential negative effects of REDD+ implementation on access to REDD+ and forest resources.</p>	<p>Involve all stakeholders, including all groups of forest people, in designing REDD+ implementation such that approaches are chosen that share REDD+ and forest resources in a manner deemed acceptable to all. Improve equity in local distribution of benefits by taking a pro-poor approach and applying lessons from carbon, conservation and community forestry schemes for improving equity in benefit distribution at the local level, e.g. combining individual and community level payments and maintaining forest access.</p>

Alignment of Natural Resource Management Policies

There is hope that REDD+, like some PES projects, could improve local environments (Corbera 2010; German *et al.* 2010b; Tacconi *et al.* 2010; Westholm 2010), which could in turn improve the quality and quantity of forest services available to forest people. In both Mexico and Uganda, PES programs have been associated with local environmental improvements (Corbera 2010; German *et al.* 2010b). CFM has been found to improve or maintain forest quality in Tanzania (Blomley and Ramadhani 2006). It is expected that REDD+ will have positive effects on forest services like hydrological and soil conservation services, and on biodiversity (Brown *et al.* 2008). On a broad scale, it is thought that REDD+ could help to reduce regional environmental costs and conflicts from deforestation (Ghazoul *et al.* 2010).

The ability of local people to benefit from improved forest services will depend in part on the national policy context with respect to resource use. For example, although wildlife populations have increased in Tanzania due to PFM, divergent resource policies tending towards decentralized control of forests and centralized control of wildlife means that forest people are largely unable to benefit from these increases (Blomley and Ramadhani 2006; Mwakalobo *et al.* 2011). Thus, if forest people are to realize maximum benefits from REDD+, it will be important to harmonize national resource management laws (Blomley and Ramadhani 2006).

Participation in International REDD+ Governance

Policy and governance can affect the ability of forest people to participate in international conversations about how REDD+ is implemented. Stakeholder participation in climate negotiations is increasing, mostly through informal opportunities like dissemination of information and exchanges of ideas in side events (Schroeder 2010). Although initially under-represented, indigenous and forest people have been by-passing national channels by organizing with each other internationally and finding avenues to participate in the REDD+ process indirectly (Schroeder 2010), including through the Accra Caucus, a civil society organization that speaks to REDD+ policy and rights on behalf of forest people (Muchuba 2009).

Decentralization and Participation in REDD+ Governance

Participation in REDD+ governance will be important to ensure that forest peoples' rights are respected and that they are able to benefit from REDD+ and REDD+-managed forests in ways they deem to be fair and acceptable. Effective local participation in governance has been difficult to implement in practice in other forest management approaches, like ICDPs (Brandon and Wells 2009). Generally, experience with community-based natural resource management suggests that forest people in Africa may often be limited in their ability to influence decision-making beyond the local level (Nelson 2010). Negative effects on forest people are more likely where institutional capacity is lacking or if benefit sharing and tenure issues are not addressed (Campbell *et al.* 2008; Jindal 2010). In Cameroon, where links between government institutions, between different levels of government, and between government and communities are weak (Brown *et al.* 2010), communities have been limited in their ability to participate in and benefit from carbon schemes due in part to a lack of government support at the local level (Minang *et al.* 2007).

Opportunities to participate in REDD+ governance will depend considerably on the governance and policy context in individual countries. Democratic decentralization will likely play an important role in determining forest peoples' ability to participate in REDD+ and REDD+ governance, and thus their ability to benefit. Decentralization of forest governance and the devolution of decisions to representative, effective local governments could provide forest people with meaningful opportunities to participate in decision-making in the REDD+ process, and will likely be necessary to some extent for the success of REDD+ (Larson and Ribot 2009; Sikor *et al.* 2010). Programs like REDD+ that give resources to centralized actors and increase the value of forests are not likely to incentivize the required structural and governance transformations needed for decentralization of natural resource management (Nelson 2010; Sanbrook *et al.* 2010). If REDD+ follows patterns of previous forest management arrangements and REDD+-like activities, the ability of forest people to influence centralized REDD+ planning and implementation in Africa may be limited. However, the tendency of REDD+ towards recentralization may be balanced by the fact that REDD+ also entrenches support for the inclusion of forest people and their interests in the REDD+ process. The REDD+ Advance Negotiating Text is con-

sidered 'ground-breaking' for including references to the rights of indigenous and local peoples (Lyster 2011). Consideration of forest people is also entrenched at the level of donors. For example, the FCPF allocates funds specifically for community outreach and consultation and requires REDD+ Project Information Notes (R-PINS) to include information about indigenous people (Sena 2009).

Experience from CFM also highlights how decentralization does not automatically improve forest peoples' participation in forest governance. In Cameroon, decentralization actually resulted in decreased involvement of forest people in forest management because lack of market access led communities to sell their rights to forest resources to logging companies (Westholm *et al.* 2009). As Lyster (2011) notes, for forest people to have meaningful opportunities to participate in REDD+ and REDD+ governance and share in REDD+ benefits, words and intentions must be translated into actions for effective implementation of REDD+, and forest people must not only be consulted, but have opportunities to give consent to REDD+ (Muchuba 2009).

Considerable criticism of the participation of forest people in early REDD+ governance suggests that intentions were not well translated into real participation in practice, at least initially. Early R-PINS and REDD+ planning did not include explicit acknowledgement of human rights issues and standards, or any indication of how to address existing issues with resource rights and governance prior to implementing REDD+ (Dooley *et al.* 2008; Griffiths 2008). The Accra Caucus (2010), an international organization representing indigenous people, believes there has been inadequate participation of civil society in the REDD+ process, and that REDD+ has been primarily driven by international organizations and market actors rather than forest people. Of 14 African R-PINS in 2009, none included information on indigenous peoples, and none had involved indigenous consultations (Sena 2009). As of late 2009, forest people were only involved in one demonstration activity and no readiness activities globally (Cerbu *et al.* 2011). In Tanzania, indigenous peoples have been included only in the final approval process for the country's national REDD+ agreement (Laltaika 2009). It is unclear whether this late involvement adequately represented the concerns of indigenous people (Odgaard and Maganga 2009). In the case of the FCPF REDD+ program, it has been suggested that FCPF's own social commitments and requirements for consultation with forest people were not being met, in part because the process was rushed, implicitly market oriented, and dominated by

the national government (Dooley *et al.* 2008; Griffiths 2008). In Madagascar and Tanzania, the focus of REDD+ activities has been on the technical carbon accounting side, with little attention paid to how to incorporate community participation into the process and how to distribute benefits fairly (Springate-Baginski and Wollenberg 2010). This could be in part because environmental and conservation organizations, rather than development organizations, dominate those organizations involved in most REDD+ activities (Cerbu *et al.* 2011).

However, in some countries it may still be too early to judge the quality of REDD+ planning and consultations (Bosquet 2011; Hoyle 2011), and in general, the participation of forest people in REDD+ governance appears to be improving. In some cases, REDD+ may be providing resources and the impetus to improve local capacity and support the decentralization of some forest control, as evidenced by the fact that decentralization and capacity building are both included in Tanzania's REDD+ plan (Burgess *et al.* 2010). International donors are also making efforts to facilitate the involvement of forest people. For example, in 2010, the UN-REDD+ programme conducted trainings and workshops all over DRC and chose seven REDD+ projects to implement based on public consultations, worked with the FCPF to develop a common set of Guidelines on Engagement of Indigenous People and Other Forest Dependent Communities, developed a set of social and environmental principles to allow assessment of local risks from REDD+, developed an approach for national participatory governance assessments of REDD+, and set up a fund to support the participation of indigenous and civil society representatives in the program's governance (UN-REDD Programme 2011). At the country level, tentative optimism has been expressed about the participation of forest people in the REDD+ process in DRC. This stems from the country's Working Group on REDD+, which involves civil society and indigenous people in giving feedback on the REDD+ process, and the National Committee, an organization involved in planning, implementation, follow-up, and the distribution of benefits from REDD+ on which civil society has been allocated five of 14 spots (including two for indigenous peoples) (Muchuba 2009). Conversely, others caution that these efforts in the DRC could be more symbolic than meaningful (Accra Caucus 2010), and it has been argued that the ability of forest people to effectively and directly participate in REDD+ to ensure that their views and concerns are reflected in how REDD+ is implemented remains limited (Schroeder 2010).

In practice, successful implementation of REDD+ will likely require a combination of decentralized and centralized forest governance approaches to be effective (Larson and Ribot 2009; Nelson 2010; Phelps *et al.* 2010), which in most cases, REDD+ will require significant reforms of forest governance structures involving stakeholders at local through national scales (Hansen *et al.* 2009; Sikor *et al.* 2010).

Quality of Opportunities to Participate in REDD+ Governance

The ability of forest people to take advantage of opportunities, in part via decentralization and governance reform, and meaningfully participate in REDD+ and REDD+ governance will depend in part on the quality of the opportunities presented. Donor-supported participation of forest people in meetings could make representative participation more difficult if forest people find it difficult to express opinions at odds with those of the donor (Sena 2009). It will also be important for people to have sufficient capacity to take advantage of opportunities. In DRC, there was insufficient time for local people to provide feedback on a REDD+ document, and the document was not translated into the local language (Accra Caucus 2010). At the local level in Tanzania, pastoralists and other vulnerable groups have often been excluded from village decision-making about what areas of common land to reserve for PFM because they were not informed about meetings (Odgaard and Maganga 2009). Even if communities are invited to meetings in which REDD+ decisions will be made, if the meetings are far away or people are not given enough notice, local people may still be unable to participate (Accra Caucus 2010). Thus, opportunities for forest people to participate in REDD+ governance must be both accessible and allow them to substantively influence the REDD+ process.

Broadly, Angelsen (2009) concludes that there is a need in each country for a process to resolve conflicts and decide how to implement REDD+ in a manner that effectively includes and is considered legitimate by all stakeholders. In many cases, acceptable REDD+ implementation will require progressive reform in both forest tenure and governance (Griffiths 2008), and transformative national scale policy and institutional changes (Angelsen 2009). Given that the REDD+ safeguards agreed to in Cancun (UNFCCC 2010, Decision 1/CP.16.Add.1) include the need for 'transparent and effective national governance structures',

respect for the knowledge and rights of forest people, 'full and effective participation of relevant stakeholders', and consistency with international conventions, agreements and obligations, it is possible that REDD+ could provide additional incentives and resources to implement the needed governance reforms to continue to improve the participation of forest people in REDD+ governance and in forest governance more broadly, which could improve their ability to benefit from REDD+ and REDD+-managed forests.

In short, REDD+ has two big challenges: 1) To ensure that its inherent tendency towards centralization is adequately counter-balanced by the safeguards intended to ensure equitable outcomes; and 2) to directly and indirectly create the conditions necessary for effective participation by both increasing capacity at the local level while changing the underlying governance structures and institutional conditions (e.g. land tenure). Decentralization will likely be important to provide opportunities for forest people to benefit from REDD+; however, to allow people to take advantage of these opportunities, decentralization will have to be accompanied by strong structures at the local level to include those that are often marginalized. Therefore, while incentives for decentralization and consideration for local governance and rights will need to be incorporated into REDD+ schemes (Phelps *et al.* 2010; Sandbrook *et al.* 2010), REDD+ also will require adequate checks and balances at all levels of implementation to ensure that governance is representative and that human rights and procedural and distributional equity are respected and comply with standards for forest management and rights set at the national level (Larson and Ribot 2009).

Rights and Ownership Over Forest Lands and Resources

The establishment of rights to forests and forest resources is a key issue in determining how and whether forest people will benefit from REDD+ and from forests managed under REDD+, and how benefits will be distributed (Nelson 2010). In many places, rights to forests have not been legitimized (Angelsen 2009). As is evident from Section 3, in much of Africa, land is managed with a combination of overlapping customary rights and legal tenure (Accra Caucus 2010). This complexity makes land tenure both a key issue and a central challenge in the implementation of REDD+ (Burgess *et al.* 2010). It is speculated

that REDD+ could either exacerbate existing rights infringements, or help to resolve rights issues, depending on how it is implemented (Accra Caucus 2010; Angelsen 2009).

Access to Forests and Participation in Forest Management

Experience from carbon forestry and conservation forestry have raised concern that REDD+ could restrict access to forests for forest people and decrease their ownership and rights to forest resources. If REDD+ restricts access to forests and forest resources, it could have negative impacts on livelihoods and culture in forest communities (Blom *et al.* 2010; Odgaard and Maganga 2009; Shepherd 2004 in Blom *et al.* 2010; Brown *et al.* 2010). Carbon and other PES schemes demonstrate how unclear property rights can lead to conflict over benefits (Sprin-gate-Baginski and Wollenberg 2010), and can provide opportunities for more powerful actors to take control of resources (Jindal *et al.* 2008) and restrict access to forests (Lindhjem *et al.* 2010). For example in Uganda, local people who relied on a forest reserve for farming and resources were excluded when concessions were given to a foreign company for commercial generation of forest carbon credits (Jindal *et al.* 2008). ICDPs, forest protected areas, and forest carbon projects can restrict access to forests and forest resources, and change local power structures (Campbell *et al.* 2008; Jindal *et al.* 2008; Lindhjem *et al.* 2010). In Cameroon, many indigenous communities are hesitant about REDD+ because recent forest management regimes have decreased their lands and excluded them from forest revenues (Westholm *et al.* 2009). Early REDD activities suggest that these concerns may be well-founded: early activities have aggravated conflicts over land and resource rights between governments and forest people in Indonesia (Van Noordwijk *et al.* 2011), and restricted all harvesting in a forest reserve in Mozambique (Jindal 2010).

Without attention to land and resource rights and clarification of forest tenure, REDD+ could easily contribute to the 'scramble for Africa' (Gomera *et al.* 2010; Sunderlin *et al.* 2009). By increasing the value of forestland, REDD+ could promote a reversal of recent movement towards decentralization of forest governance in many African countries, and reduce access and control over forestlands by forest people by prompting African governments to renege on community forest management arrangements or increase enforcement of exist-

ing restrictions to commonlands, and/or by leading private commercial investors and environmental NGOs to buy up large tracts of forestland and exclude local communities (Accra Caucus 2010; Brown *et al.* 2008; Dkamela *et al.* 2009; Griffiths 2008; Lawlor and Huberman 2009; Nelson 2010; Odgaard and Maganga 2009; Peskett *et al.* 2008; Phelps *et al.* 2010; Sena 2009; Vatn *et al.* 2009). The potential for carbon income has slowed the recognition of community rights to forests, particularly in the Congo Basin and in some West African countries (Wily 2011). Centralized resource management structures and unclear tenure situations in much of Africa contribute to concern that formal state ownership and control will take priority over customary and informal rights, particularly in countries where customary land-use rights are not recognized and the government owns forests and controls access to resources (Accra Caucus 2010; Brown *et al.* 2010; Sunderlin *et al.* 2009). Where there are multiple and overlapping claims to forests, it is expected that less powerful claimants, like forest people, will lose out (Sunderlin *et al.* 2009). In the DRC where there are no land-use or zoning plans, forest people are concerned that the government may zone their customary lands for REDD+ without their input (Dkamela *et al.* 2009). In Tanzania, where the president can declare any part of the country a reserve, it is thought that REDD+ could lead to expansion of state-owned plantations and private forestry (Burgess *et al.* 2010). In Cameroon, land ownership can be formalized, but the process is expensive, allowing elites to buy up and privatize tracts of community land (Accra Caucus 2010). Additional earning potential from forests through REDD+ activities could further incentivize privatization and exclusion of forest people from forests while disincentivizing the devolution of forest management to forest people and making it less likely that forest people's customary rights to forestlands will be formally recognized.

However, it is not a given that REDD+ will have negative impacts on forest peoples' control of and access to forest resources. It is thought that REDD+ could facilitate the signing of forest management agreements with forest people in some cases (Van Noordwijk *et al.* 2011). In some situations, it may also be possible to design REDD+ to be compatible with many traditional forest uses, including hunting, gathering non-timber forest products, small scale agriculture, and many commercial activities (Van Dam 2011), such that forest people are able to maintain access to forest resources management under REDD+.

Access to Carbon Markets and Benefits

REDD+ will provide new opportunities for some forest people to participate directly in carbon markets through PES schemes, and/or new opportunities to benefit indirectly from carbon transactions, e.g. through community funds. Access to carbon benefits, including REDD+ benefits, by forest people depends on their access to land and resources and on their ability to exercise their rights (Corbera and Brown 2010). Complicated tenure in Africa can make it difficult for forest people to access carbon benefits. In Mali, changing seasonal land-uses involving multiple overlapping land-users and claims to land rights on communal land made a carbon sequestration project very difficult to implement in practice (Roncoli *et al.* 2007).

Many forest-dependent communities have been unable to benefit from forest management schemes, including carbon forestry, because they do not have legal ownership over forestlands, or because land and resource tenure is unclear (Boyd *et al.* 2007; Brown *et al.* 2008). This could also be an issue in REDD+ (Lawlor and Huberman 2009; Van Dam 2011). Where REDD+ creates a new commodity in the form of carbon, rights to this new commodity will need to be established (Peskett *et al.* 2008). This could be challenging, as multiple stakeholders may feel they have rights to forest carbon, including both legal forest owners as well as those involved in forest management like communities, governments, and organizations (Brandon and Wells 2009). In Africa, some governments are claiming that they have exclusive rights to carbon and carbon trade (Sena 2009). Lawlor and Huberman (2009) warn that local people may not be able to participate in carbon markets if rights to carbon are separated from rights to forests or forest management. At the local level, some community members may be better able to access carbon markets than others. For example, community leaders are generally more likely to participate in workshops and courses that increase knowledge about climate change and carbon, increasing their capacity to participate in carbon markets (Corbera and Brown 2010). Based on a review of PES, CBNRM, and CDM research, Vatn *et al.* (2009) document many examples of exclusion of forest people in these schemes and conclude that a project-oriented implementation of REDD+ will likely favour people with secure tenure over larger amounts of land.

Ability to Enforce Rights

Even when rights to forests and carbon are established, forest peoples' ability to access and benefit from forest resources depends on their ability to enforce their rights and participate in forest management. In some countries like Tanzania, rights to forest resources are not the issue; people lack the ability to enforce their rights as a result of structural issues and poor governance (Nelson 2010). In Ghana, local people have forest land and resource rights; however, they have little actual control over what happens to forests (Hansen *et al.* 2009). Inability to enforce rights can reduce the ability of forest people to benefit from forest management, and can contribute to illegal logging, an issue in both Uganda and Tanzania (Blomley and Ramadhani 2006; Vatn *et al.* 2009). Because it can be difficult for communities to enforce tenure laws due to lack of education and capacity at the community level (Sena 2009), a supportive, proactive government will be essential in ensuring local rights, once established, are respected. Increasing community-level legal awareness will also be important in helping forest people to enforce their rights (Blomley and Ramadhani 2006). Civil society and community organizations have been mobilizing around the rights of forest people, and communities in Eastern and Southern Africa have shown considerable capacity to address challenges to their rights by working with national and global partners (Nelson 2010). The entrenched recognition of the rights of forest people and alignment with international standards in REDD+ safeguards may further help to support this process.

Resolving Tenure Challenges to Ensure Efficacy and Equity of REDD+

Unclear and disputed forest tenure, common in Africa, could limit the effectiveness and equity of REDD+ by limiting what policy options are available under REDD+ (e.g. PES may not be possible where tenure is insecure), and result in unequal sharing of benefits and conflict (Sunderlin *et al.* 2009), which could ultimately undermine both social and environmental outcomes from REDD+. Clarifying and securing rights to land and carbon and other forest services is expected to be key in ensuring forest people can benefit from REDD+ (Accra Caucus 2010; Van Dam 2011); however, despite broad recognition of the importance of clarifying tenure to REDD+ success, there has been little progress

in this area (Sunderlin *et al.* 2009). This is likely in part due to the pervasiveness and complexity of tenure challenges in Africa, which will likely be difficult to resolve, particularly in a simple, universal way and in a time-scale that will be useful for climate change mitigation (Unruh 2008). Resolving tenure conflicts will be complicated by the fact that in much of Africa, and particularly in the Congo Basin and West Africa, a considerable amount of forestland will be under private, renewable concession for at least the next several decades (Wily 2011). Nevertheless, Tacconi *et al.* (2010) suggest that partial rights to forest resources and carbon could allow PES schemes to function in REDD+, and there is hope that REDD+ could provide the resources and motivation needed to implement the legal, institutional and policy mechanisms needed to secure and formalize forest tenure and resource rights for forest communities who have yet to have their claims to forests formally recognized (Campbell *et al.* 2008; Lawlor and Huberman 2009; Vatn *et al.* 2009).

Benefit-sharing and Compensation

Benefit-sharing and compensation determine who captures benefits from REDD+ and from REDD+-managed forests, as well as what types of benefits are available. REDD+ has the potential to drastically change how costs and benefits of forest management are distributed in Sub-Saharan Africa (Gomera *et al.* 2010). Equitable distribution of REDD+ benefits is necessary for REDD+ to respect the rights of forest peoples (Sikor *et al.* 2010), and will be important for legitimacy, effectiveness and efficiency in REDD+ implementation (Agrawal and Angelsen 2009; Blom *et al.* 2010; Oestreicher *et al.* 2009). In general, and in many African countries in particular, it is still unclear how REDD+ resources will be used and how benefits from REDD+ will be distributed (Odgaard and Maganga 2009; Sena 2009; Tacconi *et al.* 2010). Many different benefit sharing arrangements are possible in REDD+, including payments or resource investments at the individual, household or community level (potentially modelled on PES or ICDP projects), or wages paid for participation in conservation or monitoring activities (Lindhjem *et al.* 2010).

Because REDD+ payments will be made mainly to national governments (Ebeling and Yasué 2008), access to and distribution of REDD+ and forest resources at the local level will depend largely on how benefit sharing is designed,

and how well benefit sharing is implemented in practice. Implementing and monitoring equitable benefit sharing is expected to be a central challenge in putting REDD+ into practice (Burgess *et al.* 2010; Peskett *et al.* 2008). Without adequate consideration of the rights and livelihoods of local people, the costs of REDD+ could be unequally borne by forest people (Griffiths 2008). However, it is ultimately hoped that REDD+ can improve the sharing of forest resources between governments and forest people (Lindhjem *et al.* 2010). The ability of REDD+ to improve the sharing of forest benefits, including REDD+ benefits, will depend largely on how REDD+ affects benefit-sharing arrangements through forest governance structures. The ability of forest people to capture adequate benefit from REDD+ to ensure they do not bear a disproportionate share of costs from REDD+ implementation will be affected by how REDD+ compensation is determined.

Governance and Benefit Sharing

In Africa, past experience with benefit sharing in forest management has raised concern about the ability of governments to implement effective benefit sharing arrangements in REDD+. In DRC, the national forestry administration is hampered by limited funds and personnel (Dkamela *et al.* 2009) while in Ghana, despite the fact that local rights to forest revenues are recognized, the design of the benefit sharing scheme allows the central forestry administration to capture the majority of forest revenue and few benefits reach forest people (Hansen *et al.* 2009). In Tanzania, concerns about government deficiencies and indeterminate and vague benefit-sharing arrangements in PFM are raising concerns about benefit sharing in REDD+, which will be based on PFM (Burgess *et al.* 2010; Mwakalobo *et al.* 2011; Odgaard and Maganga 2009). In Cameroon, indigenous peoples continue to be concerned about accountability and embezzlement by local and national elites, despite the fact that the Annual Forest Royalties tax, the main benefit-sharing mechanism in forest management, explicitly includes a goal to contribute to local economic development (Accra Caucus 2010; Lindhjem *et al.* 2010). In one reserve under consideration for REDD+ in Uganda, forest people in CFM arrangements do not have sufficient capacity and accountability to effectively manage forests, while the national government is unable to enforce zoning for different levels of resource use in the reserve (Nabanoga *et al.* 2010).

Experience from other forest management activities demonstrates that benefit sharing is linked both to the quality of governance and the capacity of governments, and suggests that both may be lacking in some African countries.

REDD+ could contribute to improving benefit sharing if hopes are realized that REDD+ can increase communication between stakeholders (Brown *et al.* 2008), support reforms to better integrate national and local-level forest management approaches (Blomley and Ramadhani 2006) and reduce control of forests by commercial interests (Westholm and Kokko 2011). REDD+ safeguards (UN-FCCC 2010, Decision 1/CP.16.Add.1) supporting the rights and participation of forest people in REDD+ may help to ensure that these hopes are realized. In addition, effective benefit sharing will likely require transfers of forest tenure and carbon rights to local communities (Sikor *et al.* 2010). Benefit sharing in REDD+ may also be improved through research and forming partnerships between governments, NGOs and local communities, and with international actors working on corruption in climate governance (Burgess *et al.* 2010; UN-REDD Programme 2011). REDD+ could help to support these activities if REDD+ supports the clarification of tenure (Section 5.2), and provides additional resources and impetus for partnerships and research initiatives.

Opportunity Costs and Appropriate Compensation

If forest people are to have access to adequate REDD+ benefits, REDD+ must provide adequate local level compensation to incentivize forest conservation and offset any negative impacts (Irawan and Tacconi 2009). This issue is linked to opportunity costs of participating in REDD+: e.g. the costs of foregoing forest resources in conserved forest areas.

Determining appropriate incentives and compensation in REDD+ could be complicated, as appropriate incentives for conservation have also been difficult to achieve in ICDP arrangements (Lindhjem *et al.* 2010), and many PES schemes have not adequately estimated or compensated opportunity costs of participation (Tacconi *et al.* 2010). Ghazoul *et al.* (2010) note that compensation in REDD+ based on opportunity costs could underestimate true costs if a full range of economic, political, social and ecological factors and indirect values of current land uses and risks associated with new land uses are not included. For example, exclusion of people from forests could result in decreases in employ-

ment for local people from the forest sector and decreased commercial sector investment in local infrastructure and development activities, while new opportunities from REDD+ could have risks for local people, such as social costs of having to adjust to new livelihoods and acquire new skills (Ghazoul *et al.* 2010). Similarly, Peskett *et al.* (2008) suggest that if REDD+ focuses on the most obvious forest activities to calculate opportunity costs and appropriate compensation, many smaller scale forest activities important to the poor and potential opportunities to design REDD+ activities to benefit the poor, could be overlooked. It may also be difficult to adequately compensate land users for REDD+ in areas with high value land uses. A modelling exercise set in Ghana suggests that compensating opportunity costs may not be viable at current carbon prices in areas where high value agricultural products like cocoa are produced (Sandker *et al.* 2010). Similarly, a study in Tanzania concluded that compensation and incentives for farmers growing tobacco, the second highest value crop in the country and a significant contributor to deforestation, may be difficult (Mwakalobo *et al.* 2011). This raises the question as to whether REDD+ can incentivize optimal land use decisions.

To ensure appropriate compensation for forest people, several authors suggest a human rights approach and a focus on equitable benefit sharing (Lawlor and Huberman 2009; Sikor *et al.* 2010). Combining REDD+ incentives with incentives to conserve biodiversity and other ecosystem services could be one way to generate additional revenues from projects (Mwakalobo *et al.* 2011), and could be one strategy for creating adequate compensation in areas where REDD+ activities have high opportunity costs.

Intermediaries, Corruption and Elite Capture of Benefits

It has been argued that forest communities cannot gain benefits from carbon without engagement with intermediaries that have the necessary capital, expertise about carbon markets and carbon monitoring, and technology to allow them to participate in international carbon markets (Corbera and Brown 2010). Intermediaries can also help to lower transaction costs associated with working with smallholders (Jindal *et al.* 2008), which will be important in facilitating forest peoples' access to REDD+ benefits. In REDD+, the intermediaries – governments, NGOs, project managers, community organizations, etc. – that link

local people to international REDD+ donors and carbon markets will likely play an important role in determining how and whether forest people participate in REDD+ governance and how benefit sharing arrangements are implemented, with consequences for access and distribution of benefits.

Given the need for (likely multiple) intermediaries in REDD+, issues of power and control, at government through community levels, could be important determinants of how benefits from REDD+ and REDD+-managed forests are distributed, and who is able to participate in governance of these resources. There is widespread concern that weak governance and corruption and embezzlement of REDD+ funds by elites at national through local levels could prevent equitable distribution of REDD+ benefits and exclude marginal groups (Ebeling and Yasué 2008; Griffiths 2008; Larson and Ribot 2009; Lawlor and Huberman 2009; Peskett *et al.* 2008). Because forest people tend to have less power (Sunderlin *et al.* 2009), corruption in governance structures could allow elites – those with more power in the chain of intermediaries linking forest people to REDD+ donors – to capture more than an equitable share of REDD+ benefits.

Quality of Intermediaries

In PES carbon schemes, it has been found that the quality of intermediaries linking carbon credit producers to buyers can play an important role in determining the extent to which local people benefit (Corbera 2010). Intermediaries can remove decision-making control from local people, and less skilled intermediaries can have negative impacts on local communities (Corbera 2010; Nelson and de Jong 2003).

In the centralized implementation of REDD+, intermediaries appear to hold considerable power in payment structures (Vatn *et al.* 2009), raising concerns that too many intermediaries could lie between national and local stakeholders, and that intermediaries could capture the majority of funds with few benefits reaching forest people (Van Dam 2011). Successful REDD+ will therefore require the design and implementation of effective and equitable benefit sharing arrangements combined with appropriate policies and monitoring to reduce corruption and ensure transparency and accountability from donors and carbon credit buyers to forest peoples (Angelsen 2009; Vatn *et al.* 2009). REDD+ safeguards requiring ‘transparent and effective national forest governance structures’

and requirements to be results based should support these processes (UNFCCC 2010, Decision 1/CP.16.Add.1). REDD+ activities orchestrated by development-oriented programs like the UN-REDD Programme may also be better positioned to provide and support socially-oriented intermediaries compared to profit-oriented forest carbon companies.

Corruption

Corruption, to varying degrees, is apparent in many of the national institutions that are involved in REDD+ (Angelsen 2009). Many of the countries that have the highest potential to generate income or to gain from the associated conservation and/or human development benefits of REDD+, including Liberia and DRC, score poorly on indicators of governance (Ebeling and Yasué 2008). Forest people in DRC are concerned that low accountability and transparency in centralized governments, which have resulted in a lack of control over forest resources and lack of ability to benefit from forests, will be perpetuated under REDD+ (Dkamela *et al.* 2009). Similarly, in Cameroon, NGOs are concerned that REDD+ will be handled similarly to other international initiatives, like HIV/AIDS, where there was little accountability in how funds were used by the government, such that the people of Cameroon did not benefit significantly (Brown *et al.* 2010). Embezzlement and elite capture have been observed in the forest tax in Cameroon (Lindhjem *et al.* 2010), and in the control and management of forest exploitation rights and access to international markets in Ghana (Hansen *et al.* 2009). It is thought that even PFM in Tanzania, a program that has fairly progressive forest policies and significant donor support, would benefit from considerable reforms to address government deficiencies, inefficiency, and corruption (Burgess *et al.* 2010; Vatn *et al.* 2009).

At the local level, experience from other forest management activities demonstrates how individuals and community organizations may fail to distribute funds in an equitable manner. Some ICDP and CFM arrangements have resulted in funds that have been controlled by village elites, embezzled, or spent on projects that do not benefit the majority of the community, often exacerbating marginalization of some less empowered community groups (Lindhjem *et al.* 2010). Embezzlement from village development and forest management funds has been a problem in Burkina Faso where community funds established to dis-

tribute funds from wood harvest in local forests in many communities have seen a gradual increase in corruption and increasingly unequal distribution of funds (Kokko 2010; Westholm and Kokko 2011). Evidence from past forest management activities demonstrates the importance of good governance and transparency from national through local scales to avoid corruption and elite capture of forest management benefits.

There is concern that it will be difficult to avoid corruption and complete legitimate financial transactions in REDD+ (Vatn *et al.* 2009). Where corruption and lack of transparency and accountability exist, REDD+ will be less likely to benefit the poor (Peskett *et al.* 2008). At the international level, high corruption and low transparency and accountability could deter REDD+ investment in many poorer countries (Cerbu *et al.* 2011; Peskett *et al.* 2008), preventing forest people in these countries from accessing REDD+ benefits. Conversely, the potential for increased international scrutiny and pressure to decentralize control over forest resources under REDD+ could make it less attractive in countries like Ghana where political elites currently benefit from significant resource exploitation revenues (Hansen *et al.* 2009). In both cases, the effect would be to preclude the ability of forest people in these countries to access REDD+ benefits. However, if REDD+ safeguards are implemented requiring 'transparent and effective national forest governance structures' (UNFCCC 2010, Decision 1/CP.16. Add.1), REDD+ could support reforms that reduce corruption and elite capture of benefits from REDD+ and REDD+-managed forests.

Local Level Elite Capture and Equitable Distribution of Benefits

Experience from forest management shows how local level elites may be positioned to capture an inequitable share of benefits, even through legal channels. In Tanzania and Cameroon, CFM arrangements have resulted in the emergence of village elites who control funds and make decisions based on their vested interests (Accra Caucus 2010; Odgaard and Maganga 2009; Oyono *et al.* 2007). PFM in Tanzania demonstrates that even when significant returns are realized at the village level, local institutions do not always have the capacity to manage the collection and dispersal of the funds, while lucrative illegal logging opportunities can act as a disincentive for local officials to make resource decisions in a way that honour local rights and equitably share benefits (Blomley and Ramadhani 2006; Nelson 2010).

It is generally hoped that REDD+ could be used as a tool to transition towards more inclusive and accessible carbon markets (Haskett and Gutman 2010), and could provide more stable sources of income for the poor (Peskett *et al.* 2008). However, REDD+ safeguards do not specifically address inequity in distribution at the local level, and in a review of nine of the first 25 R-PINS, only the DRC and Nepal referenced the need to monitor social impacts of REDD+ (Dooley *et al.* 2008). REDD+ monitoring still currently focuses on carbon and cost-effectiveness, with criteria for evaluating livelihood contributions and impacts yet to be defined and formally integrated in most initiatives (Rosendal and Andresen 2011). Nevertheless, REDD+ safeguards do require REDD+ to be driven by results and to align with international conventions and agreements, which presumably include those pertaining to human rights and development (UNFCCC 2010, Decision 1/CP.16.Add.1), and REDD+ programs are beginning to establish social impact monitoring procedures and criteria (e.g. UN-REDD Programme's Social and Environmental Principles and Criteria (SEPC) and Benefit and Risks Tool (BeRT) (UN-REDD Programme 2009)).

In general, it is thought that participation of local and indigenous people in the REDD+ process and good benefit-sharing mechanisms will improve equity and reduce the likelihood that REDD+ is implemented in such a way as to have negative effects on land and resource rights, livelihoods and culture at the local level (Agrawal and Angelsen 2009; Laltaika 2009). REDD+ safeguards support this participation (UNFCCC 2010, Decision 1/CP.16.Add.1). Sena (2009) notes that it is important for local people to take the initiative in being involved in REDD+ processes. Equitable distribution of REDD+ benefits may also be improved by involving local people in monitoring (Burgess *et al.* 2010). Key challenges will be establishing trustworthy intermediaries (Vatn *et al.* 2009) and creating effective community organizations to manage decentralized forest responsibilities and revenues (Mwakalobo *et al.* 2011).

Wealth, Resources, and Knowledge

Wealth, resources and knowledge can affect the capacity of different forest people to participate in REDD+ activities, participate in REDD+ governance, and access REDD+ benefits and forest resources.

Knowledge and Participation in REDD+ and Forest Governance

The procedural rights of forest people include the right to sufficient information to allow them to participate in decision-making about forest management (Brown *et al.* 2008; Sikor *et al.* 2010). Experience with ICDPs suggests that equipping local communities and organizations to make decisions will be important to REDD+ success (Brandon and Wells 2009). Access to benefits from carbon PES is shaped by the skill, education and negotiating ability of potential participants (Tacconi *et al.* 2010). In general, farmers and rural communities are less able to benefit from forest carbon sequestration because they do not have sufficient knowledge and expertise (Corbera and Brown 2010; Minang *et al.* 2007). Knowledge is also lacking about current forest management rules and structures; for example, forestry laws in the DRC are often not available in local languages (Dkamela *et al.* 2009).

Forest people need sufficient authority and information to allow them to decide whether and how they want to participate in REDD+, and to allow them to participate in decision-making and implementation with respect to all aspects of REDD+, including monitoring and revenue sharing (Phelps *et al.* 2010). However, awareness and knowledge about REDD+ and its implications is still quite limited in forest communities in Africa, and in indigenous communities in particular (Accra Caucus 2010; Brown *et al.* 2010; Dkamela *et al.* 2009; Kokko 2010; Odgaard and Maganga 2009; Sena 2009).

Wealth and Capacity to Access Benefits from REDD+

The ability of poor forest people to participate in and benefit from REDD+ will be an important consideration, given that there is a correlation between high poverty and forest areas (Sunderlin *et al.* 2008a). Experience with forestry and carbon forestry suggests that the poor may have reduced capacity to access REDD+ benefits and participate in REDD+ negotiations (Brown *et al.* 2010; Peskett *et al.* 2008). Experience with verification schemes in the current forestry sector suggests that strict carbon verification schemes in REDD+ could restrict access to REDD+ benefits by smaller producers and the poor (Peskett *et al.* 2008). Lessons from CFM and PES suggest that wealthier community members tend to have more decision-making power and are more likely to have the

time and resources to participate in income generating opportunities (Lindhjem *et al.* 2010). Where PES is used to implement REDD+, there is evidence that while the poor are able to participate, they face sizeable barriers to participation if transaction and initial investment costs are high (Grieg-Gran *et al.* 2005; Jindal *et al.* 2008; Pagiola *et al.* 2009). In Uganda, the ability of households to participate in a carbon PES scheme was largely determined by whether they had adequate wealth to overcome up-front costs (German *et al.* 2010b). In Brazil, it was estimated that large landowners would benefit most from a PES scheme under REDD+, largely because they are responsible for most deforestation (80 %) in the country (Börner *et al.* 2010). Similarly, in a modelling exercise in cocoa agroforests in Ghana, it was found that REDD+ will likely exacerbate gaps between rich and poor farmers, because wealthier farmers who own more land would get significantly larger REDD+ payments (Sandker *et al.* 2010). Small landowners, by contrast, are generally less attractive partners for forest carbon projects because of higher associated transaction costs (Jindal *et al.* 2008). Springate-Baginski and Wollenberg (2010) conclude that the Kyoto Mechanism's Clean Development Market (CDM) and voluntary carbon markets do not benefit the poor and can exacerbate marginalization, largely due to high transaction costs. There is concern that REDD+ could have the same issues with respect to high transaction costs restricting participation by the poor (Lawlor and Huberman 2009).

Even where payments are made at the community rather than individual level, as in most PES schemes, experience from other forest management activities suggest the poor may still get excluded from benefits. In ICDPs, the poor are not always able to afford fees to access schools and clinics provided by ICDP funding (Lindhjem *et al.* 2010). At the same time, REDD+ could have additional adverse impacts on the poor by raising local commodity prices (Peskett *et al.* 2008).

Wealth and Access to Forest Resources

Carbon forestry suggests that potential restrictions in access to resources from REDD+-managed forests could negatively impact the poor. Voluntary and CDM carbon market programs that have formalized resource rights have often resulted in lost rights for the poorest people (Springate-Baginski and Wollenberg 2010). PES schemes can restrict access to land and resources, increase cost of living, and

increase the value of marginal land, resulting in lost income and displacement for non-participants, particularly for certain groups like women, the poor and informal settlers (Tacconi *et al.* 2010). A modelling study suggests land diverted to REDD+ activities may have similar impacts on the landless poor in Ghana who lease land from wealthier farmers (Sandker *et al.* 2010). Similarly, forest policy implemented without appropriate checks and balances can negatively affect the poor, as in Uganda where decentralization of forest management has restricted access to forest resources by poor households, while forest income for wealthy households has increased (Jagger 2008). Without adequate attention to equity considerations, REDD+ could facilitate similar shifts in distribution of access to forest resources (Larson and Ribot 2009). Indirectly, REDD+ could also restrict access to land by the poor by increasing land prices (Vatn *et al.* 2009).

If REDD+ restricts access to forests and forest resources that are particularly important to the livelihoods of poor forest people, it will negatively impact their ability to participate in important subsistence and income generating activities. This will mean that negative effects of restricted access to forests are most likely to be felt by more marginalized populations, including the poor, the elderly, and women (Lawlor and Huberman 2009; Peskett *et al.* 2008; Vatn *et al.* 2009). In Africa, where REDD+ is likely to be implemented largely on state-owned and common lands, restricted access could be particularly problematic for those, like the landless poor, who are more dependent on common lands for their livelihoods (Lindhjem *et al.* 2010). Restrictions on collection of non-timber forest products (NTFPs) in REDD+ reserves could prevent women and informal settlers from participating in NTFP markets, which could decrease their income (Tacconi *et al.* 2010). There is also concern in local communities in DRC and Cameroon that reduced access to land could reduce opportunities for development through activities like agricultural expansion, as has happened with reserve implementation in both countries (Dkamela *et al.* 2009). These issues could be particularly important in very poor countries like Burkina Faso where large proportions of the population are forest dependent (Westholm 2010), and rely on trees for livelihood diversification (Westholm and Kokko 2011), which is important for resilience (Scoones 1998). Restricted access to forest resources from REDD+ could thus have a substantial impact on the substantive rights of the poorest forest people, which involve their rights to a minimum standard of living (Sikor *et al.* 2010).

Gender and Ethnicity

In many places in Africa, resource and knowledge barriers are linked to gender and ethnicity. In Mozambique, there are fewer women in leadership roles in the community's trust that is managing REDD+ funds (Jindal 2010). PES studies also suggest that women often benefit less from these schemes (Corbera 2010; Hedge 2010; Jindal 2010); however, where reduced benefit is linked to land tenure (e.g. Corbera 2010), this inequity in distribution may be reduced in the case of REDD+ in Africa where forests are mainly owned by the state (Sunderlin *et al.* 2008b).

Indigenous communities have also been less active in participating in REDD+ as a result of having lower education, fewer government connections and support, weak legal standing, and a lack of resources and capacity to participate in international forums (Schroeder 2010; Sena 2009).

Approaches to REDD+ Implementation

When implementing REDD+, there are a number of choices that need to be made. These choices have significant implications for how REDD+ benefits are distributed and how REDD+ affects access to forest resources.

Definition of Forests and Eligibility of Activities Under REDD+

There is concern that the definition of forests and eligible activities under REDD+ could make some forest people ineligible to benefit, or could favour the distribution of REDD+ resources to non-forest people in some countries. Some communities may be ineligible to benefit from REDD+ if conservation activities are already underway in their forests, or if there is already a low deforestation rate (Lawlor and Huberman 2009; Van Dam 2011). For example, in Tanzania, DRC and Cameroon, there is concern that forest people could be excluded from REDD+ benefits where forests are already legally protected in reserves, meaning their conservation activities are not additional (Dkamela *et al.* 2009; Laltaika 2009). By contrast, commercial interests like logging companies could benefit considerably if the definition of forests adopted by REDD+ favours exotic plantations or existing logging concession holders (Accra Caucus 2010; Dkamela *et al.* 2009). In DRC, the REDD+ Preparation Proposal (RPP)

includes 10 million hectares of new logging concessions (Accra Caucus 2010), and plans to increase security of logging concessions (Dooley *et al.* 2008). More broadly, how baselines are established will affect the extent to which countries that have a history of forest conservation (and thus their forest people) will be able to access REDD+ resources (Peskett *et al.* 2008).

The potential for REDD+ definitions to negatively affect forest people will vary considerably with national plans to implement REDD+ and with national contexts and baseline calculations. Negative impacts should be at least partly avoided if REDD+ safeguards (UNFCCC 2010, Decision 1/CP.16.Add.1) regarding the rights of forest people and full and effective participation of all stakeholders are well implemented. In particular, the safeguard specifying that REDD+ 'actions are not used for the conversion of natural forests' should help to protect against REDD+ favouring logging interests over forest people.

REDD+ Design and Forest Management Choices

The forest management approaches chosen for REDD+ implementation determine what types of benefits are available and the pathways to accessing these benefits, which in turn affects who can participate in REDD+ and REDD+ governance, and who can benefit from resources from REDD+, and to what extent.

PES

Where PES is used in REDD+, evidence from schemes involving PES to individuals, including schemes in Mozambique and Uganda, suggests benefits to forest people could include significantly increased and stable income for participants, increased natural and social capital, access to education and training, education and health benefits from invested PES income, and increased capacity to participate in scheme governance (Blom *et al.* 2010; Tacconi *et al.* 2010). Some PES schemes have been found to increase social capital and community organization and capacity to participate in negotiations and planning, in part by improving connections between communities, and between communities and local government and external institutions (German *et al.* 2010b; Jindal 2010; Tacconi *et al.* 2010). However, PES also carries risks of inequitable distribution of costs and benefits and conflict between participants and non-participants (Tacconi *et al.*

2010). The potential for harm from exploitative contracts with forest people are another cause for concern in REDD+ (Lawlor and Huberman 2009), fuelled by PES research in Uganda and Mozambique that suggests that long-term carbon contracts could negatively impact local people if harvesting trees or alternative land-uses become more attractive (German *et al.* 2010b; Jindal *et al.* 2008). Shorter-term contracts combined with land-use flexibility may help people to access PES benefits (Purdon 2010).

PES can also have positive and negative impacts on those who are not directly participating, such as increased money and employment opportunities in the broader community, as well as adverse effects on agricultural lands adjacent to project lands and decreased access to customary grazing land (German *et al.* 2010b; Jindal 2010). In PES schemes, risks and benefits and their distribution are governed by how schemes are designed, resource rights, the existence of regulatory frameworks, the ability of the poor to participate, the size of payments, the capacity of sellers, the availability of market information, links to communication infrastructure and mechanisms to reduce transaction costs (Tacconi *et al.* 2010). It is likely that many of these factors will affect how benefits are realized in REDD+ projects, particularly those with a PES component.

Alternative Benefit Distribution Mechanisms

Alternative approaches to distributing benefits from REDD+ to forest people include employment opportunities, community funds and local infrastructure development. REDD+ could also provide indirect benefits to forest people via contributions to development at the national level (Peskest *et al.* 2008). Payments to communities may be important in the case of REDD+, particularly where forest people have only customary rights to land and resources and so are less able to participate directly in carbon transactions (Vatn *et al.* 2009). In some cases, non-PES approaches, or approaches modelled after PES on common land rather than private land, could provide more equitable distribution of resources, particularly where the need to own land prevents some community members from participating in PES schemes. For example, the Nhambita Community Carbon Project in Mozambique combines: a) direct REDD+ payments to individual community members who guard protected forests; b) REDD+ payments to a community trust; and c) a PES scheme on community members' land. This

delivers benefits to both those directly involved in REDD+ activities as well as those in the broader community who may be bearing some costs of restricted forest access (Jindal 2010). A community association representing different villages makes decisions about community trust funds, which so far have been used to build two schools and a health clinic (Jindal 2010). Similarly, based on a study of a carbon project in West Africa, Purdon (2010) suggests delivering a portion of carbon finance to community development projects. However, although REDD+ funds used to build local infrastructure like roads can improve access to markets, inequity in access to employment opportunities and infrastructure can still cause conflict, and collective payments may not be effectively managed, particularly where functioning community organizations do not exist prior to carbon project implementation (Tacconi *et al.* 2010).

Protected Areas

When forest PAs are established, the poorest in the community, who tend to be highly dependent on forests, have few tenure rights and less political influence, are therefore more likely to experience negative impacts (Campbell *et al.* 2008). In Tanzania, exclusion from forest reserves has had negative impacts on pastoralists who historically used those lands for grazing, and women who collect NTFP (Odgaard and Maganga 2009).

Pro-poor Approach to REDD+

A review of early experience with REDD+ found no evidence of negative effects on equity, and found small but positive livelihood benefits when efforts are taken to make REDD+ pro-poor (Bond *et al.* 2009). Although concern has been expressed that a pro-poor approach could complicate and reduce the effectiveness of REDD+ as an environmental tool (Peskett *et al.* 2008), many argue that REDD+ should not only do no harm to the poor, but should be pro-poor to ensure adequate conservation incentives for forest communities and equity, and to attract investors motivated by corporate social responsibility (Brown *et al.* 2008; Vatn *et al.* 2009).

At the national level, a pro-poor approach to REDD+ is being adopted in some African countries, like Tanzania; however, research is still needed to de-

termine how and whether the PFM approach that will be used can generate pro-poor benefits (Mwakalobo *et al.* 2011). At the local level, PES and REDD+ research suggests that these schemes can be designed and implemented to encourage broader participation, for example by: giving preferential payments to more disadvantaged participants, ensuring adequate upfront payments to cover initial investment costs where applicable, ensuring equitable distribution of resources from common areas, designing appropriate compensation to reflect opportunity costs⁶, compensating both those participating directly in REDD+ activities as well as others who have lost access to forest resources and opportunities, keeping transaction costs below 20 per cent of PES payments, grouping participants to reduce costs, providing *ex ante* payments for emission reductions rather than *ex post*, maintaining access to forest resources and grazing lands, and including a mixed portfolio of activities to increase and diversify rural incomes (Börner *et al.* 2010; Campbell *et al.* 2008; German *et al.* 2010b; Haskett and Gutman 2010; Jindal 2010; Peskett *et al.* 2008; Tacconi *et al.* 2010; Westholm 2010). Some REDD+ implementation options, such as community forestry, will likely be more effective at delivering benefits to the poor than others (Peskett *et al.* 2008). A Mozambique REDD+/PES project suggests that combining REDD+ activities on common land and PES on private land can lower overall transaction costs and help to make REDD+ resources equally accessible to the poor (Jindal 2010). Irrespective of the approach taken, the ability of REDD+ to benefit the poor will be affected by a variety of factors including institutional structures, government capacity, legislation, land tenure, administration and transaction costs, and information availability (German *et al.* 2010b; Haskett and Gutman 2010; Peskett *et al.* 2008). Whether REDD+ benefits the poor will likely also depend highly on where REDD+ is implemented; if REDD+ targets areas at high threat for deforestation, the poor, who tend to live in remote areas, may benefit less (Tacconi *et al.* 2010).

At the international level a pro-poor approach could prevent REDD+ from performing similarly to other multi-lateral funding and carbon market mechanisms, like the Global Environment Facility and CDM, which have seen the most developed developing countries receive the majority of funding (Cerbu *et al.* 2011; Rosendal and Andresen 2011). This would mean that opportunities to benefit from REDD+ resources are not available to many of the world's poorest people. Early trends are somewhat promising in that 37 countries selected for

REDD+ Readiness support include least developed as well as lower and middle income countries, with Africa, Asia and Latin America being equally represented (Cerbu *et al.* 2011; Rosendal and Andresen 2011). However, demonstration activities have been concentrated in East Asia, the Pacific, and the Amazon, and REDD+ investments have not been significantly aligned with human need (Cerbu *et al.* 2011), suggesting that REDD+ will also have to be designed to be pro-poor at the level of international funders.

6

Conclusion

REDD+ interacts with a number of contextual variables to effect different potential outcomes for forest people in terms of access to and distribution of resources, and their ability to participate in governance. These contextual and outcome variables are intertwined and interacting. Africa is a massive continent where, despite some general trends, large amounts of variation in historic and geographic contexts will likely have a significant impact on how REDD+ plays out in individual countries. How REDD+ affects forest people will depend significantly on the country context in which a REDD+ program is implemented, the choices made about REDD+ implementation and the extent to which REDD+ perpetuates or deviates from existing forest policy and management regimes, and the extent to which forest people are involved in REDD+ governance. In many countries in Africa, it is likely that REDD+ will require considerable reform of governance and forest management structures to increase transparency, decrease corruption, secure rights, improve benefit sharing, and increase opportunities for real participation of forest people in REDD+ negotiations, design, and implementation.

Perhaps more so than any previous forest management regimes, REDD+ is equipped with the resources and international support that could allow it to instigate reforms and address complex and persistent forest governance challenges to make real improvements in how forest governance affects forest people in Africa. The scale of REDD+ and extent of international buy-in make REDD+ a persuasive and pervasive force, while internationally agreed upon REDD+ guidelines and safeguards, coupled with international scrutiny, should help REDD+ activities and REDD+-instigated reforms to align to international norms and avoid many pitfalls common in forest management in Africa.

To succeed, REDD+ will need to continue learning from other forest management activities where appropriate, and develop rigorous indicators and research procedures for understanding, monitoring and predicting the social and environmental implications of different methods of REDD+ implementation in different contexts. Given the high degree of variability of the African context, understanding the usefulness of generalizations about REDD+ effects, and better-linking specific outcomes to individual permutations of contextual variables will be priority areas for further research. Additional important areas for further research include understanding the roles and motivations of international donors and their interactions with other contextual factors in shaping REDD+, the nuances of local level benefit distribution and how factors like social agreements come into play, and what local knowledge is needed for equitable participation in REDD+ and how knowledge dissemination is best accomplished. Because understanding of the effects of REDD+ on forest people is still largely speculative, future research and the collecting of good baseline and implementation data from REDD+ initiatives will be imperative to understand how REDD+ interacts with forest policy and activities and how the interests of different REDD+ stakeholders interact, and the consequences for forest people in terms of their ability to meaningfully participate in and benefit from REDD+.

Notes

1. In 2010, Africa provided 1.9 MtCO₂e of a total 29.0 MtCO₂e contracted on the global primary forest carbon market (Diaz *et al.* 2011).
2. Ghana is a notable exception, with Ghanaian elites fighting at the turn of the 20th century to retain land rights, such that 70 per cent of Ghana is collectively owned by communities (Wily 2011).
3. Exceptions include village land areas of Tanzania, stool, skin and family lands in Ghana, and community areas in Mozambique (Wily 2011).
4. Compliance markets are those markets set up for trade in carbon credits necessary to fulfill binding obligations to reduce emissions: e.g. the Clean Development Mechanism (CDM) set up to allow countries to fulfill their obligations under the Kyoto Protocol. Voluntary markets allow trade in carbon credits for individuals and groups that wish to offset their emissions voluntarily. Methodologies and allowed activities vary considerably between different schemes, and are generally more flexible compared to compliance markets.
5. PFM is a type of Community Forest Management that has been widely implemented in Tanzania, and is expected to form the basis of REDD+ implementation in the country.
6. However, Vatn *et al.* (2009) argue that if payments only equal opportunity costs, they will not provide additional opportunities for development.

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Appendices

Appendix 1: Forest Activities for Learning about REDD+

Integrated Conservation and Development Projects (ICDPs)

REDD+ has a number of similarities to Integrated Conservation and Development Programs (ICDP), making them a useful source of learning for REDD+ (Blom *et al.* 2010; Brandon and Wells 2009). In most cases, ICDPs are driven by a goal of biodiversity conservation and involve forest-protected areas with programs aimed at surrounding communities. Like many ICDPs, many REDD+ activities will involve common land and have dual conservation and development goals, which will make documentation of success and failure in implementing ICDPs useful to those designing and implementing REDD+ activities (Brandon and Wells 2009). However, REDD+ will not necessarily be implemented in protected areas, has much larger scale funding than most ICDPs, and is driven by carbon sequestration, an environmental service that is considerably easier to quantify than biodiversity (Brandon and Wells 2009).

Community Forest Management (CFM)

For countries like Tanzania that are including community forest management (CFM) approaches in their implementation of REDD+, it will be important to learn from this type of community-based natural resource management (CB-NRM) (Burgess *et al.* 2010). Pertinent learning from CFM for REDD+ relates to securing local support for REDD+, the creation of forest management units, benefit sharing, local participation in designing access rules, and approaches to monitoring and enforcement (Agrawal and Angelsen 2009; Gomera *et al.* 2010).

Payments for Environmental Services (PES)

Because many REDD+ initiatives will likely use payment for environmental service (PES) models to transfer benefits to forest people, a number of authors suggest looking to lessons from PES literature, in particular several examples of forest carbon projects in Africa (Angelsen 2009; Jindal *et al.* 2008; Tacconi *et al.* 2010). However, REDD+ will also be different from many PES schemes in that REDD+ will likely most often involve communal rather than private land (Tacconi *et al.* 2010). As such, tenure conflicts could make PES difficult to implement in REDD+, at least in the short term (Angelsen 2009). Notably, much of the evidence from PES case studies, particularly of long-term effects, is also still somewhat limited because, like REDD+, most PES initiatives have not been long underway (Bond *et al.* 2009). Because REDD+ is a carbon mitigation scheme, lessons from carbon forestry PES will likely be most pertinent. Because most forests in Africa fall under state ownership, with communities having common customary rights, PES schemes involving common lands will likely provide particularly useful lessons for REDD+.

Appendix 2: Assessing Social Impacts from REDD+

There is considerable need to increase our understanding of social impacts and standardize assessment for conservation, PES, and land-based carbon schemes (Campbell *et al.* 2008; Jagger *et al.* 2009; Richards and Panfil 2010). The considerable funds that have been promised for REDD+ present a sizeable opportunity to develop an organized, standardized research effort to document and learn from early attempts to implement REDD+, which could have beneficial outcomes for future REDD+ initiatives and conservation and development efforts more broadly (Jagger *et al.* 2009). Social and environmental impact assessments can also help in strengthening institutions and governance (Slunge *et al.* 2011). Evaluations of REDD+ will require both an understanding of social effects of REDD+ as well as the causal factors linked to those factors; as such, assessments of social impacts will require both process assessments (documenting and analysing project implementation) and rigorous impact assessments (measuring outcomes and evaluating these in light of what would have happened without REDD+) (Jagger *et al.* 2010).

The Network of Networks of Impact Evaluation (NONIE), a World Bank-hosted network of evaluators, recommend impact assessment be guided by nine key ideas, which are expanded upon in their guidance document (Leeuwand-Vaessen 2009):

1. Identify the type and scope of the intervention.
2. Agree on what is valued.
3. Carefully articulate the theories and linking interventions to outcomes.
4. Address the attribution problem.
5. Use a mixed methods approach.
6. Building existing knowledge.
7. Determine if an impact evaluation is feasible and worth the cost.
8. Start collecting data early.
9. Front-end planning is important.

Specific to the context of REDD+, a guide to assessing the local social and environmental impacts of land-based carbon projects was developed by a consortium of four international organizations, with the support of several key implementers of global REDD+ initiatives, including the World Bank and the United Nations

(Richards and Panfil 2010). Based on impact assessment concepts, this manual reflects many of the guiding ideas of NONIE, and provides an overarching framework for developing an impact assessment plan to understand local social and environmental impacts of land-based carbon projects like REDD+ activities. A similar approach is described specifically for REDD+ by Jagger *et al.* (2010). Their report, published by the Centre for International Forestry Research (CIFOR), emphasizes the importance of rigorous, quantitative impact assessments that are interpreted using a theory of change. Key steps in SIA for land-based carbon projects (elaborated in Richards and Panfil 2010) are:

1. Understand original site conditions.
2. Develop a Social Reference Scenario – What would happen without the project?
3. Understand how the project will contribute to local benefits.
4. Understand potential negative social impacts.
5. Identify indicators.
6. Develop a Community Monitoring Plan to measure indicators.
7. Analyse data, report, and verify data with stakeholders.

Social impact assessment (SIA) in the context of land-based carbon projects emphasizes the importance of a mixed methods approach (Jagger *et al.* 2010; Richards and Panfil 2010). Mixed methods approaches combine qualitative and quantitative data (e.g. Frechtling *et al.* 1997; White 2008). Participatory approaches are recommended to help to ensure a more complete understanding of what is happening on the ground by involving local people in knowledge generation (Evans *et al.* 2006; Fortmann 2008). Impact assessment in general also emphasizes the importance of comparing data collected both before and after project implementation (Leeuw and Vaessen 2009; Richards and Panfil 2010).

A.1: Research Approaches

Information and data collection requirements for SIA vary depending on the indicators and research tools chosen. These will be chosen based on the approach to SIA used. The choice of approach will depend in part on timing and available resources (Jagger *et al.* 2010). Richards and Panfil (2010) and Jagger *et al.* (2010) identify several approaches to SIA, which are not mutually exclusive:

Causal models – Theory of change analysis is used to choose indicators most likely to change as a result of the project (Richards and Panfil 2010). Jagger *et al.* (2010) emphasize the importance of mapping causal chains in all REDD+ SIAs in order to understand the nature and influence of contextual characteristics of REDD+ sites, how REDD+ was implemented, generating hypotheses about expected outcomes, determining qualitative and quantitative data needed to test hypotheses, and linking social impacts with causal factors.

Sustainability framework approaches – An existing framework is used to guide design of the SIA and choice of indicators and research tools. For example, a Sustainable Livelihoods framework (Scoones 1998) or the Social Carbon Standard (SocialCarbon 2011) may be used (Richards and Panfil 2010). The Landscape Outcomes Assessment Methodology is suggested as a participatory cost-effective approach to indicator selection (Aldrich and Sayer 2007; Richards and Panfil 2010).

Matched control intervention – Also simply called a matched methods approach (Richards and Panfil 2010), this quasi-experimental approach relies on comparing, usually statistically, observational data from project areas to a control group of non-participants chosen because they have similar characteristics (Jagger *et al.* 2010; Richards and Panfil 2010). This method can be implemented after a project has started (Jagger *et al.* 2010).

Randomisation – A method that involves random assignment of project and control sites that is able to influence project design (Jagger *et al.* 2010). It is implemented before the project starts.

Before-after-control-intervention (BACI) – A quasi-experimental approach where data is collected at control and project sites before and after project implementation (Jagger *et al.* 2010). This approach is commonly used in conservation program evaluations. BACI is a preferred approach; however, it is time and resource-intensive because it requires data collection both before and after project implementation at both project and control sites.

Before-after + projected counterfactual – A quasi-experimental modelling method that often uses data on historical trends (Jagger *et al.* 2010). It is implemented before the project starts.

Reflexive or retrospective – Changes due to a project are estimated based on perceptions or participant recall (Jagger *et al.* 2010). This method can be implemented after a project starts.

In addition, Jagger *et al.* (2010) provide guidelines for SIA in cases where REDD+ is implemented based on existing forest management programs and interventions.

A.2: Research Tools

There are a number of different research methods that can be used within these SIA approaches; a selection of these tools is summarized in the following table. Additional resources with suggestions for approaches and data collection tools can be found in Jagger *et al.* (2010). Many of these tools rely on basic data collection techniques, like surveys, interviews, focus groups, etc. summarized in Richards and Panfil (2010). Different approaches and tools will be appropriate for different types of REDD+ projects (Jagger *et al.* 2010). Sunderlin *et al.* (2010) provides guidelines for field data collection, including social data, at REDD+ sites and includes sample questionnaires for collecting household data.

Summary of tools for exploring social impacts of REDD+

Method	Description and uses	Information requirements	General comments	References, examples and guides
Stakeholder analysis	Does not assess impacts, but identifies and relates stakeholder groups and their likely reaction to the project. Important for framing SIA and selecting indicators.	List of stakeholders and relationships between stakeholders are evaluated through brainstorming, interviews, focus groups, and other participatory methods like Venn diagraming.	Social science methods	Richards and Panfil 2010; Evans <i>et al.</i> 2006
Problem trees	Useful mainly in step 3 of SIA for identifying and describing the nature and underlying causes of major project issues.	Project stakeholders draw a tree linking a project goal to related social, environmental and economic factors.		Richards and Panfil 2010
Scenario analysis	Useful mainly in steps 4 and 5 of SIA for understanding what would happen in the absence of a project.			Richards and Panfil 2010; Evans <i>et al.</i> 2006

Summary of tools for exploring social impacts of REDD+ (Contd)

Method	Description and uses	Information requirements	General comments	References, examples and guides
Rapid rural appraisal	Provides a quick, initial qualitative assessment of a situation. Intended to guide future in-depth research and preliminary decisions for design and implementation of projects.	What can be collected by a small interdisciplinary team (1-2) using methods including observations and unstructured interviews.	Developed primarily for use in rural development projects; combines social science approaches including systems methodology, triangulation from multiple research methods and an iterative approach.	Beebe 1995; Evans <i>et al.</i> 2006
Basic necessities survey	Measures changes in poverty over time based on participant-defined basic needs. A quick and low cost method that requires a control.	Basic needs determined via focus group, then assessed via surveys in control and project communities.	Developed by an NGO for SIA of protected areas.	Richards and Panfil 2010

Summary of tools for exploring social impacts of REDD+ (Contd)

Method	Description and uses	Information requirements	General comments	References, examples and guides
Participatory impact assessment	A multi-step participatory approach to selecting and measuring SIA indicators. Low cost, can be used without a control. Requires time-intensive planning and implementation.	Depend on indicators and methods chosen – a variety of participatory approaches are possible.	Developed by the Feinstein International Centre for evaluation of humanitarian emergency and development projects.	Richards and Panfil 2010; Catley <i>et al.</i> 2008
Quantitative participatory assessment	A participatory scoring system to translate qualitative understanding into quantitative measures. Quick, does not require a baseline. Difficult to repeat studies for longitudinal understanding.	Focus groups and community assessments are used to measure perceived changes in indicators.	Designed to monitor environmental and non-market benefits of watershed protection initiatives.	Richards and Panfil 2010
Participatory economic valuation	Estimation of value of benefits based on equivalent value in a commonly traded good. Useful for ranking, but not absolute value. Less effective for determining costs; therefore, should be combined with other methods	A series of ranking exercises that can be done individually or in groups.	A variation on contingent valuation.	Richards and Panfil 2010

Summary of tools for exploring social impacts of REDD+ (Contd)

Method	Description and uses	Information requirements	General comments	References, examples and guides
The most significant change method	A participatory method for monitoring throughout the project. It is particularly useful for gathering data on unexpected negative impacts. Very time-intensive.	A group of selected stakeholders is introduced to the approach and then involved in on-going evaluation and monitoring exercises, including selecting monitoring domains and collecting qualitative and quantitative data about these domains.	A type of participatory monitoring and evaluation.	Richards and Panfil 2010
FERVA	Analysis of fairness and efficiency along the REDD+ value chain.	A simulation model quantifying distributional effects of REDD+ benefits is combined with data on perceived fairness collected from focus groups.	Developed for REDD+ evaluations by ICRAF.	Van Noordwijk <i>et al.</i> 2011