Water always Flows Downhill: A Case for Participatory Forest Management (PFM) and Decentralization of Forest Governance in REDD+ Implementation

Julia Blocher

DOI: 10.4000/books.cfee.449
Publisher: Centre français des études éthiopiennes
Place of publication: Addis-Abeba
Year of publication: 2016
Published on OpenEdition Books: 28 July 2016
Serie: Corne de l’Afrique contemporaine / Contemporary Horn of Africa
Electronic ISBN: 9782821873001

Electronic reference

This text was automatically generated on 24 April 2019. Il est issu d’une numérisation par reconnaissance optique de caractères.
Water always Flows Downhill: A Case for Participatory Forest Management (PFM) and Decentralization of Forest Governance in REDD+ Implementation

Julia Blocher

1 Forest loss has been considered in recent decades not only as an environmental concern to the local communities who depend on natural resources, but also at the national level as a possible loss of future sustainable development potential and as a contributor to national greenhouse gas emissions.

2 Aside from emissions from land use change, deforestation can also cause damage to agriculture and infrastructure and contribute to an increased frequency of flash floods, landslides and consequent displacement as well as loss of life (NEMC, 1995). Land degradation, reduction in agricultural productivity and loss of land area for communities downstream from serious erosion decrease the livelihood security of rural households. Deforestation, broadly considered here as “temporary or permanent clearance of forest for agriculture or other purposes” (Grainger, 1993), has many contributing factors. Expansion and clearance for small-scale and commercial agriculture, in particular for cash crops such as cotton and tobacco, have been a leading cause of deforestation and encroachment on forest reserves in developing countries for decades. Felling trees for fuelwood, charcoal, building poles, overgrazing, indiscriminate bush clearing and bush fires have also contributed (MTNRE, 1994).

3 Government programs across sub-Saharan Africa have sought to curb the loss of natural resources. Established in 2008, the United Nations collaborative initiative on Reducing Emissions from Deforestation and forest Degradation in developing countries is the
world’s leading forest conservation and management program, with global scope. It is characterized as the forest component in internationally agreed initiatives to reduce greenhouse gas emissions resulting from land use changes, first elaborated in 2005 in discussions surrounding the United Nations Framework Convention on Climate Change (UNFCCC, 1992). It has been proclaimed as “a new direction in forest conservation” (Anglesen, 2009: 125). By providing financial incentives to reduce forest loss, UN-REDD seeks to build mechanisms whereby developing and especially tropical countries can better protect and manage their forests while minimizing the emissions released by land use changes, by providing financial incentives to reduce forest loss (UN-REDD, 2013). The initiative was taken forward in collaboration between the United Nations Development Programme (UNDP), the United Nations Environment Programme (UNEP), and the Food and Agricultural Organization (FAO) grounded in a financial incentives-based approach proposed by UNEP, World Bank, and Global Environmental Facility (GEF). Nine pilot countries were chosen to develop the program’s strategy in phases, preparing developing countries for participation in future REDD carbon credit mechanisms. The pilot countries are: Bolivia, Democratic Republic of Congo, Indonesia, Panama, Papua New Guinea, Paraguay, Tanzania, Vietnam and Zambia. The program has since added five countries and refocused on “REDD+” climate change mitigation strategies, which go beyond deforestation and forest degradation in including the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in reducing emissions.4

A number of criticism have been leveled against UN-REDD, ranging from the practical (such as the lack of adequate baseline data to calculate reference forest emissions, cf. Burgess et al., 2010) to the socio-cultural (for example, the program stimulates a process of redefinition of socio-natural landscapes and socio-natural relations, cf. Farris & Bassett, 2012). This paper mainly confronts the issue of policy coherence, exploring the way that REDD is implemented vis-à-vis the achievement of program objectives, as well as the prospect of engendering unintended and potentially maladaptive outcomes. The core argument presented below is that elements of REDD programming which create an impetus towards recentralization of forest governance are counterproductive to the ultimate aims of UN-REDD, and risk producing damaging and maladaptive effects.5

A review of REDD policies and strategies demonstrates that despite a commitment to community participation at face value, there remains a dearth of sensitivity to local contexts, accountability to local institutions, and agency of the local community members. The focus remains on instituting financial incentive mechanisms that would require implementation at the centralized level (Katani et al., 2015) while community participation is mainly manifested in strategies to build local capacities to measure and monitor carbon stocks effectively and cost-efficiently in order to enable the allocation of carbon credits (Karky & Skutsch, 2010; Danielsen et al., 2013). Together these strategies are what is commonly referred to as “REDD+ readiness” (c.f. UN-REDD, 2012).

In questioning the possible impacts of potential recentralization of forest management as a downstream effect of REDD+ implementation, this paper ultimately argues for Participatory Forest Management projects (PFM) as the future of effective programs for reduction of forest loss and emissions. It argues that genuine and effective local participation is necessary to ensure the policy coherence of REDD+, for several key reasons. The first is that it provides the local community members with a more concrete and reliable picture of forest use and tenure rights. In most current systems in which centralized government hold ultimate ownership of a country’s extractable and non-
extractable forest resources, local community participation is critical for clarifying who will ultimately benefit from REDD+ benefits (i.e. carbon offsets), for avoiding centralized monopolization of forest resource benefits that takes resources away from local communities without proper compensation, and for minimizing perverse outcomes of REDD+ incentives, for example, rezoning of forest reserves in order to maintain net negative carbon emissions. Clarifying forest use and tenure rights also reduces the insecurity of forest user communities, which can lead to project abandonment, precipitate inter-community and inter-village tensions, and may contribute to maladaptive livelihood choices that exacerbate forest loss (for example, illegal charcoal production by “livelihood stressed” people).

Second, and equally important in terms of policy coherence, is that by virtue of its phases of implementation (these can broadly be categorized into incubation, transition, and consolidation) PFM promotes local management of sustainable forest. Local control promotes program adoption, decreases compliance costs and helps to ensure effectiveness and sustainability of the program. Even the most sophisticated and well-equipped force for policing, monitoring and enforcement would not be as effective as the commitment of local stakeholders to reducing overexploitation of forest resources (M. Tarimo, pers. comm.; C. Leonard, pers. comm.). These dynamics are discussed in greater detail below.

Rationale and questions

The impacts of climate change can be devastating to climate-dependent communities and vulnerable peoples around the world. Reducing emissions due to land use changes, of which forestry is a major contributor, as well as maintenance of forests as “carbon sinks” is thus of paramount importance to international efforts to mitigate climate change (IPCC, 2014).

Yet global and generalized initiatives to mitigate climate change through carbon accounting-dependent and land use change-related projects have in the past proven to be complex and rife with ultimately maladaptive inconsistencies, as in the case of biofuels (Fargione et al., 2008; Searchinger et al., 2008; UNEP, 2009; Blocher, 2010). To reduce emissions from deforestation and forest degradation, in tropical developing countries in particular, potential incoherencies and sources of carbon leakage in the early years of REDD+ need to be addressed.

In addressing the policy coherence of REDD initiatives at the local level, this paper seeks to better understand the circumstances in which forest management mechanisms engage the local community in protection and sustainable management of forests. With the ultimate goal of informing strategies relevant to this subject at the national and international level, it explores the strengths and weaknesses of REDD+ projects, broadly in terms of coherence between objectives and intentions and more specifically as regards improving the livelihoods of local people and maintaining project sustainability (compliance). One concern presents itself as key to understanding the potential outcomes: the re-centralization of forest resources which REDD+ initiatives threaten to engender. How this can be avoided is the primary concern of this paper.

In the process of analyzing a model case study of forest conservation and management efforts in Kilosa District of Tanzania – albeit, by no means a very extensive and exclusively positive one – a number of potential means to improve on existing initiatives
are suggested for integration into future projects. This paper does not seek to provide one-size-fits all solutions for REDD+ programs, quite the opposite; through the analysis, I advocate for greater sensitivity to contextual cultural and social circumstances as a necessary basis for successful implementation of REDD programs. A spotlight is placed on areas in which community- and empowerment-based projects can go farther than internationally conceived programs which ultimately require centralized governance.

Methods and approach

This study is based on a review of REDD policies and strategies, academic and “grey” literature and case studies of implementing REDD initiatives, as well as on observations and key informant interviews conducted in Dar es Salaam and Kilosa District in February 2015. As the goal of this study was a qualitative understanding of motivations and outcomes, no quantitative survey or carbon accounting was undertaken. Some initial findings and reflection are presented here, although it is too early to make concrete conclusions based on a short-term project (2009-14) that just beginning to review results. Longitudinal research and carbon assessments of the area of study would be needed to fully assess the dynamics of how communities respond to REDD+ initiatives and whether these efforts have positive or maladaptive effects.

Case study selection

As a leading country in developing participatory forest management programs for over two decades, as well as one of the nine initial pilot countries for UN-REDD and thus where much of the program’s objectives and strategy were elaborated, Tanzania provides the ideal setting to explore the elaboration of REDD+ initiatives. The case of a community forest project from Kilosa district in central Tanzania is presented, currently being carried out by the Tanzania Forest Conservation Group (TFCG) and the Community Forest Conservation Network of Tanzania (MJUMITA).

The following sections are structured as follows. First the rationale and developments in climate science leading up to the UN-REDD program and its focus on developing countries are briefly reviewed. Next the concerns raised by the potential recentralization of forest governance are considered with regard to local tenure, use and access rights. Finally, the strengths and weaknesses of REDD+ are laid out employing an illustrative example from Tanzania, providing arguments for how Participatory Forest Management (PFM) can address some incoherencies of REDD programming. The concluding section offers a reflection on the advantages of implementing PFM, along with concrete recommendations for Tanzania and the wider East African community.

Goals of REDD+ and its importance in East Africa for mitigation of carbon emissions

Deforestation is the second-largest anthropogenic source of carbon dioxide in the atmosphere, exceeded only by fossil fuel combustion (van der Werf et al., 2009). Despite moderate commitments to mitigation of greenhouse gas, forest conservation and management at the international level since the establishment of the United Nations Framework Convention on Climate Change (UNFCCC) in 2001 and the Kyoto Protocol...
(1997), “land use, land use change and forestry” (LULUCF)\(^4\) also show a rise in carbon emissions overall; although the rate of deforestation globally was slightly lower in the 2000-2005 period than in the 1990-2000 period (IPCC, 2007: 541-584), LULUCF emissions grew by 40% between 1970 and 2004 (IPCC, 2014: 3). Current research suggests that approximately 10% of all human-related carbon-based emissions in the past decade are from land use change, estimated at 3.3 billion tons of carbon dioxide equivalent annually (ibid.). Only moderate agreement exists among scientists in regards to the total LULUCF emissions – of which emissions from deforestation are a subset – owing largely to significant data uncertainties and some persisting incoherencies in carbon accounting for land use change (Blocher, 2010). The latest findings from the Intergovernmental Panel on Climate Change (IPCC), combining agriculture, forestry and other land use into one measurement, shorthanded as AFOLU, showing that the AFOLU sector is globally the largest emitter after energy, representing 20-24% of all direct emissions (IPCC 2013: 997) (Fig. 1). Experts contend that deforestation is the largest contributor to this sector, representing 6-17% of annual anthropogenic emissions (Baccini et al., 2012).

**Figure 1: Direct and indirect production of CO2 per sector**

In developing countries, forestry is a major contributor to net emissions compared to upper-middle and high income countries, where greenhouse gas emissions (hereafter CO2e)\(^5\) from energy, industry and transport are more significant (IPCC, 2007:566-67). Furthermore, it was found that for non-member countries of the Organisation for Economic Co-operation and Development (OECD), the agriculture and forestry sectors represent the largest supply-side economic mitigation potential, that is, the most carbon

---

\(^1\) IPCC, 2014

\(^4\) LULUCF: Land use, land use change and forestry

\(^5\) CO2e: Carbon dioxide equivalent

---
mitigation could be achieved at the lowest cost per ton of carbon equivalent per year (IPCC, 2014).

Findings indicate that emissions from deforestation in the latter half of the twentieth century, and showing overall a continuing upward trend in recent decades, run parallel to evidence in regard to forest resources in Sub-Saharan Africa.

Think global, act local: incoherencies and Inadequacies of REDD

Decentralization of forest management

The highly centralized nature of forest management across Sub-Saharan Africa has persisted until recently as a remnant of colonial rule, added to by a spate of other governance concerns. Efforts began in the late 1970s and early 1980s to address this, accomplished by “trickling down” forest governance to the local level, through district and village councils.

Benefits bypassing the forest users and rights-holders

In most Southern and East African countries, as much as 80% of all forestland is owned by national governments (Takacs, 2009). One criticism leveled against UN-REDD is that without clear definitions and strategies for benefiting from the outcomes of REDD+, the beneficiary of the program as well as the beneficiary of the forest resources themselves may not be the community occupying the forestland. This holds true in most cases where there is lack of secure forest use and carbon rights, whether legally explicit, implicit, or contractual (USAID, 2011).

A risk of the REDD program is therefore that central governments may assert “ownership” of the forests and reclaim forestland from communities with usufruct rights. Governments furthermore could do so without appropriately compensating the affected communities (Knox et al., 2010; Barnes & Quail, 2010). These states have the authority to legally seize forests and not to recognize existing rights or withdraw them altogether. Where the rights are not clear in existing laws, such a situation would apply both to non-extractive resources (e.g., wood and timber products and non-timber forest products such as fruits, nuts, medicinal plants, grasses and leaves), over which the government can claim ownership for the “public good”, as well as extractive resources (e.g., sequestered carbon, so-called payment for environmental services such as watershed protection) (USAID, 2012).

There is considerable evidence that involuntary evacuations of populations are already occurring (Mosi, 2013). On one hand, intensified activities of growing populations in environmentally sensitive areas have numerous negative downstream effects on income sources and inter-communal cohesion for populations in mid and lowland areas (M. J. Mbonile, pers. comm). This situation may have the perverse domino effect of leading to an increase in abandonment of conservation efforts and to unsustainable deforestation in livelihood-stressed communities. On the other hand, without planning compensation for evacuees, environmentally degrading activities may simply be displaced elsewhere. Involving local communities in forest management planning...
presents itself as a vital means to minimize maladaptive effects of forest conservation and management planning (Gebara et al., 2014).

In nearly all cases of centralized forest ownership it is unclear if the political will exists to allocate REDD+ benefits on the basis of recognition or existence of property rights and/or use rights over forest resources. In Tanzania, for example, sharing of REDD+ benefits is intended as part of the REDD+ readiness strategy; however, the persistence of unclear governance, lack of clarity or enforcement of rights, and insecurity of land tenure preclude the possibility of success and equity of benefit sharing (Campesen 2012).

**Participatory Forest Management and REDD+: Lessons from Tanzania**

Participatory forest management has a strong basis in Tanzania’s local government institutional frameworks, which formalize the role of local communities in forest protection and management. For this reason and because Tanzanian forests are testing grounds for REDD+ initiatives, the country provides an ideal context for exploring strengths and weaknesses. The following section explores a special PFM project in Kilosa district of Morogoro region. First, a background survey of forestry and forest conservation in Tanzania is provided, along with an outline of the relevant legal and institutional frameworks. Next the conditions of forest tenure, access and use as well as carbon rights in the country are discussed. Finally the case study of one participatory forest management project currently being conducted is presented to clearly bring out the points raised.

**Land and forestry in Tanzania**

Tanzania has the largest forest area in East Africa, with 35.3 million hectares of forests in 2005 (excluding Zanzibar’s forests) or 39.9% of its total land area (FAO, 2009). Approximately 14.3 million hectares of various forest types are declared as forest reserves, 2.5 million hectares are proposed forest reserves and around 2 million hectares are in game reserves or national parks (TZDPG, 2009). The forest reserves mat come under the authority of the central government (national reserves), District Councils (local authority forest reserves) or village governments (village land forest reserves, private and community forest reserves); they are classified either for production (managed for timber production and other productive uses) or for protection (i.e. for water catchment and/or biodiversity conservation functions). The remaining 16.5 million hectares of forests are classified as village or general land.

Decentralization became a core element of the forest policy developed starting in the 1990s: the National Forest Policy of 1998 (URT, 1998), the Forest Act of 2002 (URT, 2002), but also the Land and Village Land Acts of 1999 (URT 1999a; URT 1999b). The National Forest Program of 2001–2010 (URT 2001) was established as the implementation tool of the Forest Policy of 1998. In 2010, the Tanzanian Forest Service Agency was established and given the responsibility of managing the central government forest reserves.

Under Tanzania’s Land Act of 1999, the President is the trustee of all land, and controls it for the people. Like many – if not most – governments, Tanzania grants rights of
occupancy and forest product use rights, but not property rights, to communities, individuals and private entities.

Land is divided into three categories: (1) Reserved Land, including national parks and wildlife reserves; (2) Village Land, including registered Village Land, land that has been designated as Village Land by village councils and land that has been occupied and used by villages for more than 11 years under customary law; and (3) General Land, which is all land that is not Reserved or Village Land (ITW Char les, 2015; USAID, 2011). Importantly, the Village Land Act also recognizes several categories of land use for individual use and settlement, including land set aside for future use. This also provides for land for agricultural and housing and for communal use, including land use for grazing and harvesting forest products. All unoccupied or unused Village Land is considered to be General Land under the Land Act (C. Leonard, pers. comm.; USAID, 2010). General Land is a status that can create disputes over land use.

The Forest Act of 2002 governs the use and management of forests in Tanzania. Section 1 (3) defines forest products as “anything which is produced by or from trees or grows in a forest or is naturally found in a forest [...]” It furthermore establishes three main categories of forests: (1) national and local forest reserves, including parks and reserves, Village Land Forest Reserves, and forests on General Land; (2) Village Land Forest, for which a Village Council manages the forest; and (3) private forests.

Deforestation and forest degradation in Tanzania

In almost no other area of Sub-Saharan Africa are the effects of deforestation as evident as in central and coastal Tanzania. Some hills have been so blatantly manipulated by human hands and expunged of any rooted vegetation that they resemble terraced agricultural lands.

Tanzania has seen a large part of its forests decimated since the beginning of the twentieth century. By some estimates, well over 70% of the Usambara forests have been cleared since 1905 (NEMC, 1995). Considerable sections of the forests in the Shinyanga region and Kilimanjaro Forest Reserve have also been lost. Some estimates place the average annual rate of forest loss at 1.16% of the total forest area (FAO, 2010; Vatn et al., 2013). Deforestation is blamed on inadequate funds and capacity to monitor and police national forest reserves, parks and game reserves. However, most forest loss occurs outside reserves in the village and general lands, where the expanding human population lives (Hall et al., 2009; Tabor et al., 2010).

Participatory forest management

Participatory Forest Management (PFM) has been a feature in East African forestry over two decades as a strategy to sustain and conserve forests. It can be loosely defined as a forest management strategy that formally recognizes the role of communities in managing and owning forests in pilot projects, policies and legislation.

Tanzania led the development of these strategies in the 1990s with the first pilot projects in the forests of Duru-Haitemba, Mg ori and Suledo (TZDPG, 2009). By 2008, PFM applied to over 4.1 million hectares of forest land attached to over 2,300 villages across the country (Blomley et al., 2008; Burgess et al., 2010; TZDPG, 2009). Concretely, Tanzania has implemented two basic approaches to participatory forest management: Community
Based Forest Management (CBFM) and Joint Forest Management (JFM). Joint forest management is based on an agreement between local communities, for example through a Village Council, and government authorities to manage a local or central government forest reserve. Community-based forest management (CBFM) applies to forests for which the local villages, or sub-groups within the villages, are the sole forest manager by virtue of the local community declaring the land to be Village Land Forest Reserve (VLFR) or Community Forest Reserve (CFR). These terms are defined and described in the Tanzanian National Forestry Policy (MNRT, 1998), Forest Programme (MNRT, 2001) and Forest Act (URT, 2002).

Despite ultimate ownership of all resources of the forest by the central government, the Village Council or committee representing multiple villages assumes legal control over the use of all forest resources and produce upon declaration of a VLFR or CFR (Wildlife Conservation Society of Tanzania, 2010). Thus, “by establishing VLFRs or CFRs, communities obtain full legal rights to manage and benefit from their forests” (Wildlife Conservation Society of Tanzania, 2010: 15.)

**Duties and benefits are transferred to forest users**

Taken together, the Village Act, the Forest Act, and the Land Planning Act bring legal ownership of the forests to the village level (B. Luguwe and E. Fundi, pers. comm.). By-laws enacted in 2012 establish the village as being in control over the revenue gained from extractive forest products; these national laws, implemented at the local level through the authority of village councils, can be equated to a village forest management strategy and implementation plan (C. Leonard, pers. comm.). This situation provides for a number of practical benefits – for example, people can apply for permits to produce charcoal at the village level rather than at the district level (C. Leonard, pers. comm.). This cuts out unnecessary administrative complications, delays and travel, generally reducing the cost of compliance for the “typical” forest resource user.

By empowering the local community and making the inhabitants the principal forest stakeholders, the participatory management project encourages people to assume responsibility for the protection of the forest against external and often illegal exploitation. The community receives multiple tangible economic and social benefits. First, certain individuals directly gain income generated from the sale of charcoal. Second, the villages benefit by being the recipients of increased revenues, particularly from taxes levied against forest resource use and transport of charcoal, which they are themselves responsible for allocating through the village councils. Finally, this local political empowerment has intangible benefits, particularly for remote communities. The local inhabitants are assured the right to benefit from sustainable exploitation of local resources and, in the larger sense, the pursuit of improved economic conditions, educational and personal fulfillment, the highest attainable standard of physical and mental health, and the improvement of their surrounding environment (ICPR, 1966).

In the next section the downstream effects of the forest management plan are discussed in greater detail in regard to the case of the participatory forest management in Kilosa district.
Seeds of change? Participatory forest management in Kilosa district

Tanzania started its engagement in REDD+ in 2008 after signing a letter of intent on a Climate Change Partnership with the Norwegian Ministry of Foreign Affairs through the Norwegian Embassy in Dar es Salaam. UN-REDD also provided support (UN-REDD Programme). Two REDD+ readiness processes are manifest. First, a series of nine pilot projects were established and are run by various NGOs directly contracting with the Norwegian Embassy. Secondly, there is the national process including the establishment of a national REDD+ task force, a REDD+ secretariat and a set of technical working groups. In 2013 a national REDD+ strategy and action plan were endorsed by the government. In parallel, a national climate change technical committee was established to oversee climate change policy implementation, including REDD+. A REDD+ fund, which is potentially part of a more general climate change fund, is outlined in the strategy.

The REDD+ pilot in Kilosa (2009-2014) is part of the project “Making REDD Work for Communities and Forest Conservation in Tanzania.” It is implemented by the Tanzania Forest Conservation Group (TFCG) in partnership with the Tanzania Community Forest Conservation Network (MJUMITA) and is one of the NGO-led REDD+ pilot projects that have received funding from the climate change partnership between Norway and Tanzania (TFCG, 2009; Norwegian Ministry of Foreign Affairs, 2009). TFCG is Tanzania’s largest forest conservation NGO, while MJUMITA is a national network of 108 affiliated community networks involved in PFM from across the country (Vatn et al., 2013).

The Kilosa REDD+ project

Kilosa District is a geophysically diverse and largely natural area in the Eastern Arc Mountains about 300 km west of Dar es Salaam. It was chosen to host the pilot REDD+ project partly due to its substantial amount of forested area (TFCG, 2009). About 28% of the land in the district is under government management, mainly for the large national park at Mikumi (approx. 22.5%) and the rest in forest reserves (approx. 5.5%); the rest is village land, general land and a handful of small urban areas (M. Tarimo, pers. comm). Importantly, only general land and village forests were included in the Kilosa pilot, not governmental land. The district is subdivided into nine divisions, 37 wards and 168 villages. Fourteen villages, mainly to the west of Kilosa town, were included in the original Kilosa project (Vatn et al., 2013); the project was implemented until the end of 2014 in ten villages (B. Luguwe and E. Fundi, pers. comm.). The population of the pilot villages is around 25,000 (Vatn et al., 2013).

The REDD+ pilot project in Kilosa District was initiated and designed by a direct contract with the Norwegian Ministry of Foreign Affairs of Norway. Following consultation and endorsement by district and village authorities in the site selection process (M. Tarimo pers. comm.), PFM guidelines ensured the participation of the local population through the establishment of village natural resources committees (VNRC), village assembly meetings, and a participatory resource assessment (PRA) process that necessarily included a forest resources assessment (Mosi 2013; Vatn et al. 2013). By 2012 all the village councils had drafted by-laws and proposals for the allocation, access, utilization and management of all forest reserves within the village boundaries, all of which were...
defined to be ‘under REDD’ (Vatn et al., 2013). In most villages these by-laws established a system in which all forest resource access and use required a permit and supervision by a member of the VNRC (ibid). Farming, human settlements, grazing, and mining are prohibited altogether and subject to fines. Taking firewood, cutting poles for building and starting fires are highly regulated. Collecting timber and burning charcoal require both permit and payment.

The establishment of a number of test income-generating groups within the project boundaries was or became a core component of MJUMITA’s involvement (see below), aiming at improving local people’s traditional livelihoods and ensure maintenance of sources of income (B. Luguwe and E. Fundi, pers. comm.). A small number of households in a limited number of villages were included in these test groups.

**Aims and implementation**

TFCG aims to foster community-based forest management (CBFM) across the country by supporting a reclassification of general land into formalized and secure village forests (C. Leonard, pers. comm.). CBFM guidelines require that the village natural resources committees (VNRC) be established along with village forest reserves governed by forest resource management plans and/or village land-use plans, establishing village-land titles and creating by-laws defining rules for access to and utilization of forest resources as well as “attractive” distribution of payments for carbon (TFCG, 2012).

MJUMITA seeks to validate emissions reductions through verified standards. The initial aim was to develop a self-financing carbon payments system by the end of the project timeline (TFCG 2012). Local capacity building to ensure monitoring, reporting and verification (MRV) comprising emissions-relevant data is an essential component in achieving this aim, which is also implicit in the participatory forest assessments at village level and MRV built into CBFM projects. The pilot also aims to be “replicable, equitable and cost-effective” in reducing drivers of deforestation and to reduce the amount of emissions-producing activities that are merely moved across project sites. This can be an intentional or unintentional result of such projects known as “carbon leakage” reduces the accuracy of carbon accounting. Advocacy for equitable and effective REDD+ benefit sharing and building capacities of stakeholders is also a priority (TFCG 2012).

A general dearth of employment opportunities in the district is considered to be the main reason for high levels of poverty in the area (MJUMITA, 2014). The employment conditions, together with the prohibitive cost of traveling to larger urban areas such as Morogoro and Dar es Salaam as well as barriers to obtaining (skilled) employment in this area, are often cited as primary contributors to unmanaged forest loss caused by shifting cultivation, charcoal production, timber harvesting, and other extraction of forest resources. With the aim of reducing these drivers of deforestation, TFCG/MJUMITA has supported projects to enhance income-generating activities, and improved efficiency of charcoal production in particular.

The project has two core components. First, to train locals in a more efficient mode of charcoal production, which includes means for reducing heat loss and improving the carbonization of wood. Second, to raise awareness on the importance of managed forests as a means to sustain the forests and maintain their value for the future. The by-laws in many villages ensure that income from taxes on charcoal production and transportation, which village councils are empowered to allocate (as stated above), will go towards
community activities. Given proper calculations of both current total forest resources and the optimal use that still allows for forest regeneration, total project compliance would reduce emissions from land use changes all while ensuring forest users significant direct income as well as indirect benefits from charcoal production (B. Luguwe and E. Fundi, pers. comm.).

Following the initiation and establishment phases, a third core step was defined in the contract agreement between TFCG/MJUMITA and the Norwegian Ministry of Foreign Affairs to introduce payments for reduced deforestation and CO2 emissions. MJUMITA began implementing a trial payment mechanism – staggered, as villages were in different stages of village land use planning processes – in September 2011, based on an “individual dividend”, implying that the external REDD+ income would be given to each eligible villager as agreed by the villages’ general assemblies (Vatn et al., 2013). Because of negative attitudes towards charcoal producers, in practice the payments could not be made on the basis of financially incentivizing persons producing charcoal or with other carbon-intense professions to reduce the emissions of these activities, as would be a common way to motivate emissions reductions. Village assemblies supported a TFCG/MJUMITA proposal that compensation be made in the form of an undifferentiated payment to each eligible inhabitant; this includes all inhabitants over six months of age, with some limits on the number of eligible persons per household (Vatn et al., 2013). Village assemblies chose what purpose the dividends – along with the revenue from permits and taxes – e.g., on charcoal transportation – would serve. In many cases projects with tangible community-wide social benefits were chosen for funding, such as building clinics and secondary schools (M. Tarimo, pers. comms.; C. Leonard pers. comm). An improvement in socio-economic indicators is the expected outcome; this would require longitudinal research to verify.

Case study Analysis

Strengths

The interviews conducted for this study as well as previous studies indicate a high level of satisfaction with the TFCG/MJUMITA pilot project from all stakeholders involved (c.f. Ngabo, 2013; Mosi, 2013; Vatn et al., 2013).

These findings underline an overall level of local participation that was accentuated in the project implementation. Indeed, the project fostered collaboration with district authorities as well as collaboration among villagers. Importantly, engaging in the project, the act of collaboration, the common sense of purpose, and the concrete community-wide benefits reflected in the heartfelt thanks expressed for the funded community projects (e.g., schools and clinics) helped foster a kind of social contract among the villagers. Such peer pressure serves as an effective policing measure that reduces the incidence of project abandonment, encroachment on project land, and illegal harvesting of forest products.

More research would be needed to explore if the expressions of satisfaction just noted are genuine or are otherwise motivated – for example, as an expression of conformity to the will of district leaders, or of a generalized desire to support community-based projects and income diversification.
In addition, it appears that the increased direct and indirect income from charcoal production supported by MJUMITA through the “income generating groups” (see below) has been positive overall for participating villages. While not necessarily changing local attitudes to charcoal producers and “invaders,” i.e., external illegal charcoal producers, the benefits of tax revenue are perceptible, even to villagers not involved in the groups.

**Challenges**

As one goal of the project was to emulate the current carbon trading schemes, which market-driven price of emissions reductions, the very low current price in carbon markets was used for the payments. Many participants considered their compensation to be inadequate and not worth the income loss resulting from restriction in forest resource use (C. Leonard, pers. comm.). Encroachments on land for grazing, agriculture and other uses were reported or discovered (M. Tarimo, pers. comm.). Illegal charcoal production and illegal timber harvesting were reported in some villages in 2012 (TFCG, 2012), 2013 (Mosi, 2013; Vatn et al., 2013) and again by residents in 2015. Charcoal and timber makers naturally disagreed on the amount of land that should be declared for village forest reserves given the high opportunity cost (Vatn et al., 2013). A number of village participants were designated into “income generating groups,” hand-picked and directed by the project leaders, were formed as part of the project. These groups were dedicated to generating income, especially through trainings and facilitation to produce charcoal efficiently. Given low carbon prices and limited number of participants in the income generating groups certain villages for which timber or charcoal production anchored the livelihoods of a high number of inhabitants did not appear to benefit significantly, and risked losing income.

The results of a project assessment survey published by the International Institute for Environment and Development (IIED) demonstrated that land demarcation, including size and quality, presented the most significant issue for respondents (Mosi 2013; Vatn et al. 2013). In one context, a foreign investor had previously taken a large swath of land for a plantation, creating land scarcity and leaving inhabitants, agriculturalists in particular, distrustful of outside plans for local land. Other villages expressed concern for the trustworthiness of the district and central government’s intentions for forest management plans, believing that the government would be the primary beneficiary of REDD+ payments. TFCG made significant efforts to assuage fears that the pilot project would operate in a similar way to previous foreign “land grabs” and previous land reallocations by the central government. These tensions are of particular importance to forced evacuations of mountain inhabitants to make way for the establishment of REDD+ forests and national forest reserves (Mosi, 2013) as well as to Maasai pastoralists in the district, who were apparently not consulted throughout the process (Vatn et al., 2013). Most tense situations appear to have been intra- or inter-communal, rather than involving conflict with TFCG/MJUMITA or with authorities; this would appear to support the argument that the fact that some people stood to benefit or be harmed more by REDD+ benefits than others added to tensions.

A lack of trust between villages and their leaders was highlighted in the IIED assessment (Vatn et al., 2013), a problem which still persisted in 2015 (C. Leonard, pers. comm.; B. Lugwe and E. Fundi, pers. comm.). One key reason is simply the differing involvement in and benefits experienced from the project, which the villagers and village councils had
little influence on. The villages in the pilot were chosen for a number of reasons, some of which are described above, yet these factors may not have appeared valid or relevant in the eyes of inhabitants of neighboring villages. The collective projects funded by the MJUMITA payments and tax revenue from the income-generation activities were noticeable symbols of the project’s success.

In addition, villages within the project had varying levels of concrete positive outcomes. In a few instances, either little funding was allocated for community projects or the resources were held by MJUMITA in a fund until the village was deemed “ready” (Vatn et al., 2013: 43).

An important issue concerns the carbon price, which is essentially determined at the international level. Villagers complain that the compensation they receive is small and they are unsure if another payment will come (Mosi, 2013). Funding for projects is a concern. After the pilot’s official conclusion in June 2014, the project has continued in uncertainty, although PFM and CBFM existed before and will continue in Tanzania. As for the carbon financing mechanisms, villagers may become less trusting of outside projects or even feel cheated. This reality runs counter to the purpose of local participation and positive sustainable outcomes of such a project.

Incoherencies of REDD+ exposed: Increasing inter- and intra-community inequality, vulnerability

In contrast to villages where implementation of a TFCG/MJUMITA pilot project is occurring, a different story emerges from community members in villages that are involved only in REDD+ readiness. As the benefits of REDD+ offsets remain uncertain, due in part to the legal uncertainties described above, perceived ownership of the program is low. Villagers are concerned that their existing forest use rights and benefits – for many, their main source of income or an occasional risk insurance, as a means to smooth household consumption – will be undermined by REDD+ implementation. Similar concerns have emerged in other studies. A visible result has been less emphasis on protection of the forest from “invaders,” often external charcoal producers, and more concern with encroachment on protected land by external individuals and village community members (C. Leonard, pers. comm).

An additional concern highlighted in the case of Kilosa is the fostering of equity between communities (Katani et al., 2015). If certain communities receive REDD+ revenues while others do not, the latter may feel unfairly treated and be discouraged from supporting the REDD mechanisms. This contributes to the abandonment of sustainable forest management efforts and to further forest encroachment, which may or may not be captured in carbon auditing. Importantly, certain communities and specific groups within communities are less likely to benefit from fair distribution of benefits, leading to social tensions, increased inequality, and increased vulnerability. Appropriate and participatory knowledge input and assessment mechanisms are needed to avoid these maladaptive effects of policy implementation.

Intra-community inequalities are also critical. The income-generating activities appeared to be poorly understood and involved few inhabitants (Vatn et al., 2013). As stated above, in general charcoal and timber producers were initially dissatisfied with the amount of land demarcated for their use. However, in the long run the large-scale producers have
the economic incentive to support the project as it ensures them a constant and legal supply of charcoal. Given the fixed tax on the maximum weight of charcoal that is allowed to be transported, a more predictable supply of charcoal means that people involved in commercial and year-long charcoal production are able to maximize their profit margin. By contrast, the marginal gain is low for smaller producers or those who produce charcoal for fast cash for each additional unit of charcoal. Thus a situation is created in which large-scale producers are given incentives to continue producing large amounts of charcoal while those whose livelihood insecure cannot gain enough to pull themselves up by much. They also have incentive to continue producing inefficiently. Whether the goal to optimize charcoal production has been met or if the new practices have been adopted at all would need further research, although some indications from locals suggest mixed results. Such research is needed for an accurate assessment of overall emissions reductions.

Conclusions and recommendations

Ensuring the continuation of decentralized governance of natural resources

The preceding sections have sought to present the arguments as to why certain elements of PFM address many of the incoherencies of REDD+ programming. Part of the motivation of this paper has been to address some of the pitfalls of REDD+ planning, which has been on the table in UN discussions since 2005, so that an adequate and effective program for reducing emissions from forest loss can advance.

The case study presented of REDD+ supported forest management in Kilosa District of Tanzania has all the earmarks of being one in which participation was very central to the process. However, issues of accountability still rear their head. First, there are issues of villagers tending not to trust more central political institutions, especially when it comes to questions of land tenure and land use. Villagers were, at least initially, suspicious of REDD+ initiatives because of past circumstances in which land had been appropriated for use by other, and foreign, entities. Local NGOs TFCG/MJUMITA had to work to alleviate these concerns. The way in which the pilot project was established, bilaterally with the Norwegian (Mosi, 2013; Ngabo, 2013), may reflect both the expectation that NGOs could deliver REDD+ better than the state authorities could, and sensitivity to local distrust of central government interference in forest land access and use.

It is planned that after the pilot phase, the carbon benefits element of the project will be handed over completely from TFCG (a large NGO run by committee) to MJUMITA (a membership organization). This means that MJUMITA will act as an intermediary between villagers and international carbon markets (Mosi, 2013; Vatn et al., 2013). The accountability of MJUMITA is thus to national and internationally regulated carbon.

Potentially cutting out local and national political bodies is a shortcut. Commodification of carbon without clear forest tenure and use rights – as well as carbon rights – at the local and district level would imply a recentralization of forest land use and land-use planning. A national REDD+ strategy thus must prioritize a shift of responsibility to the villagers. The participatory forest management program, independent of the REDD+ carbon markets, is making strides to achieve this. If such programs could overcome the
problem of inadequate resources, for example by receiving financing from REDD+, current participatory forest management may become more effective in reducing carbon emissions and increasing forest carbon stocks, promoting sustainable management of forests and delivering significant social and environmental co-benefits (Zahabu & Jambiya, 2007; Burgess et al., 2010).

A number of recommendations are drawn from the study above:

• Issues of verification of emissions and lack of adequate financing have marred the potential of UN-REDD to successfully reduce emissions from deforestation. Participatory forest management within the framework of REDD+ must therefore include capacity building for monitoring, reporting and evaluation (MRV) processes, which are prerequisite to the establishment of carbon offset systems. Previous research has demonstrated local communities’ ability to carry out this work (Skutsch et al., 2009; Burgess et al., 2010). Monitoring is also needed for the social and governance aspect of local management, which has been shown to increase equitable distribution of benefits (Stuart-Hill et al., 2005).

• Forest land tenures, access and use rights must be trickled down to the forest communities themselves. Inconsistent laws – particularly those related to non-extractive forest resources (e.g., carbon, « payment for ecosystem service” i.e. in the case of protection of ecologically critical or sensitive areas such as water catchment zones) into forestry laws and forestry management policies.

• Significant efforts must be made to deal with the concerns of communities about their right to make decisions about natural resources and to benefit from those resources (Katani et al., 2012). The findings above supporting this recommendation are confirmed by previous studies that have also evidenced local concerns about community involvement and benefits from REDD+ (Katani et al., 2015).

• Projects must incorporate sensitivity to promoting equity between the communities. If certain communities receive REDD+ revenues while others do not, they may feel unfairly treated and be discouraged from supporting the REDD mechanisms. Particular attention must be paid to households whose livelihood is insecure and which are severely impoverished, as well as specific vulnerable groups.

Overall, effective and coherent UN-REDD programming has the potential to secure livelihoods and increase community welfare and resilience. REDD+ funding in communities that are already involved in participatory forest management projects would serve to contribute to income diversification and risk spreading (Karky, 2008; Malimbwi & Zahabu 2009; Katani et al., 2012).

In order for the international community to deliver this potential and assist developing countries in promoting sustainable forest management, international funding and programming should promote decentralized management and empowerment of local communities, have greater sensitivity to contextual specificities and prioritize projects that actively address important socio-cultural aspects of forest management.
BIBLIOGRAPHY


Kyoto Protocol, 1997, Decision 1/CMP.1, Modalities and procedures for a clean development mechanism as defined in Article 12 of the Kyoto Protocol, Bonn, UNFCCC Secretariat [URL: http://unfccc.int/resource/docs/2005/cmp1/eng/08a01.pdf#page=].

Luwuge Bettie, Fundi Elida, Communications and Advocacy Officers, TFCG/MJUMITA, Interview February 16 2015.

Leonard Charles, Project Manager, TFCG/MJUMITA, Interview February 19 2015.

Ministry of Natural Resources and Tourism (MNRT), National Forest Policy, Dar es Salaam, Ministry of Natural Resources and Tourism [URL: http://www.tzonline.org/pdf/nationalforestpolicy.pdf].

MNRT, 2001, National Forestry Program in Tanzania, Dar es Salaam, United Republic of Tanzania.


Mbonile Jethro, Professor, University of Dar es Salaam Department of Geography, interview February 13 2015.


NATIONAL ENVIRONMENTAL MANAGEMENT COUNCIL (NEMC), 1995, Tanzania National Conservation Strategy for Sustainable Development, Dar es Salaam, NEMC.

SKUTSCH Margaret, ZAHABU Elias, KARKY Bhaskar Singh, 2009, Community measurement of carbon stock change for REDD, Rome, Food and Agricultural Organization.


TANZANIA FOREST CONVERSATION GROUP (TFCG), 2009, Guidelines on the implementation of REDD at community level in Tanzania., TFCG Technical Report, 34.


TARIMO Elias, Kilosa District Commissioner, Interview February 19 2015.


NOTES

1. Hereafter referred to as UN-REDD in regard to the program administration and as REDD+ when referring to the proposed carbon offsetting mechanism.

2. Other multilateral REDD+ initiatives include the Forest Carbon Partnership Facility (FCPF) and Forest Investment Program (FIP), hosted by The World Bank.

3. Maladaptation here is considered “an action taken ostensibly to avoid or reduce vulnerability to climate change that impacts adversely on, or increases the vulnerability of other systems, sectors or social groups” (Barnett & O’Neill, 2010: 211), including climate change actions that may ultimately have a net zero effect on emissions or result in their increase.

4. The term LULUCF used here and in the IPCC assessment describes the aggregate emissions from deforestation, biomass and burning, decay of biomass from logging and deforestation, decay of peat and peat fires; it does not include carbon uptake by biomass.

5. Carbon dioxide equivalent (CO2e) is a measure used to compare the emissions from various greenhouse gases based upon their global warming potential.

6. The IPCC fifth assessment report (2013) suggests that on the supply side, economic mitigation of 7.18 – 10.6 GtCO2e per year can be achieved with a price for carbon up to 100 USD/tCO2e.
Mitigation of about a third of that many gigatons of carbon dioxide equivalent can be achieved at less than 20 USD/tCO2e. (IPCC, 2013).

7. All citizens have a right to use and enjoy the natural resources of the state, equitably and sustainably; it is the State’s duty to ensure that people, including future generations, may enjoy this right. General Assembly resolution 1803 (XVII) in 1962 gave this principle momentum under international law in the decolonization process. In this important resolution the Assembly declared, inter alia: “The right of peoples and nations to permanent sovereignty over their natural wealth and resources must be exercised in the interest of their national development and of the well-being of the people of the State concerned...” and “The exploration, development and disposition of such resources, as well as the import of the foreign capital required for these purposes, should be in conformity with the rules and conditions which the peoples and nations freely consider to be necessary or desirable with regard to the authorization, restriction or prohibition of such activities.” Article 1 (2) of the Covenant on Civil and Political Rights and the Covenant on Economic, Social and Cultural Rights provides: “2. All peoples may, for their own ends, freely dispose of their natural wealth and resources without prejudice to any obligations arising out of international economic co-operation, based upon the principle of mutual benefit, and international law. In no case may a people be deprived of its own means of subsistence.”

8. The determination of calculations presents a major issue, given the inadequate baseline forestry data sets needed to calculate reference emission levels (Burgess et al., 2013). More information would be needed on types and figures for current forest resources, rates of forest loss, regeneration rates as well as optimal types and numbers of trees for harvesting, as well as participants’ compliance with these and rates of attrition of project participants These issues are beyond the scope of this paper.

INDEX

Mots-clés: forsterie, gouvernance, séquestration du carbone, climat, environnement

Keywords: forestry, governance, carbon storage, climate, environment

AUTHOR

JULIA BLOCHER

Visiting Scientist, United Nations University, Institute for Environment and Human Security.
Project Assistant, Politics of the Earth, Sciences Po Paris. PhD Candidate, Center for Ethnic and Migration Studies, University of Liège.

Water always Flows Downhill: A Case for Participatory Forest Management (PFM)...

Climatic and Environmental Challenges: Learning from the Horn of Africa