What does it take to institute REDD+?

An analysis of the Kilosa REDD + pilot, Tanzania

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Abstract

Reduced emissions from deforestation and forest degradation (REDD+) is seen as an important element in future climate policies. This paper analyzes the establishment of a REDD+ pilot project in Kilosa district, Tanzania. It documents changes in organizations and institutions for land management undertaken to enable villagers to produce and sell stored carbon. Moreover, it evaluates the legitimacy both of the process of introducing REDD+ and the outcomes in the form of new governance structures. We find that establishing tradable carbon is demanding. In fact, no carbon has yet been sold. We observe that while the Kilosa REDD+ pilot managed to engage local communities to a rather unusual extent, the case also showed that introducing REDD+ 'on the ground' faces several challenges regarding legitimacy.

Keywords: Reduced deforestation; institutional change; carbon trading; forest policy; legitimacy; participation

1. Introduction

Reduced emissions from deforestation and forest degradation (REDD+) is a key component in the global strategy to mitigate climate change. Since it puts restrictions on important livelihoods of rural poor in the South, the idea is that the North should pay the South for potential losses. This could be ensured through financial support to states for changing their forest policies. Another way is to make forest carbon tradable and link it to voluntary or cap-and-trade based markets.

Whichever way is chosen, establishing REDD+ demands institutional change. From the start at the UNFCCC COPs at Montreal (2005) and Bali (2007), the main focus in this respect has been on systems for ensuring funding and procedures for measuring forest carbon – e.g., Thompson et al. (2011); Lederer (2012). Over time, we also see emphasis on what it demands to reduce deforestation locally and make carbon a tradable commodity – e.g., clarifying property rights to forests, regulating forest uses and creating locally adapted systems for payments linked to the carbon market. While this is technically demanding, the literature also emphasizes the dangers of further marginalization that REDD+ could imply for forest communities – e.g., Phelps et al. (2010); Corbera and Schroeder (2011); Thompson et al. (2011); Larson et al. (2013). This has resulted in a plea for local participation when instituting REDD+ 'on the ground' (Agrawal and Angelsen 2009; Naugthon-Treves and Wendland 2014). What is at stake is the legitimacy of the initiative – both the quality of rule-making processes themselves and of the outcomes.

To generate experiences regarding local institutional building, a series of so-called REDD+ pilots have been established. This paper focuses on a pilot in Kilosa district, Tanzania, being led by the Tanzanian Forest Conservation Group (TFCG) together with the Community Forest

Conservation Network of Tanzania (MJUMITA). The case is chosen as it aimed at taking all steps to make communities able to enter the (voluntary) carbon market.

The paper aims at documenting changes in governance structures undertaken in Kilosa to create a tradable commodity under REDD+ and which processes that have been initiated to make these changes happen. Furthermore, we aim at evaluating the legitimacy of the processes and the new governance structures established. We analyze their acceptability as evaluated both by local people themselves and by reference to more general principles of legitimacy.

2. Framing the analysis

2.1 REDD+ as organizational and institutional change

REDD+ implies changes in the governance of land and attached resources. Most authors link governance to 'steering' – e.g., Kooiman (1993); Biermann et al. (2009). It encompasses both the formulation of social priorities and the formation of governance structures that shape human action and interaction to realize these aims. These structures can be seen as consisting of two main components (Vatn 2015):

- The *actors* involved (characterized by their interests, capacities and competencies, rights and responsibilities); and
- The *institutional structures* (conventions, norms and legal rules) influencing access to resources and facilitating the interaction between the actors

Governance structures define how effectively one can realize priorities made – i.e., in our case reducing carbon emissions from forests by making forest carbon into a tradable commodity. Changing these structures may both be technically demanding and conflictual as it influences the position of various actors. In the case of REDD+, important elements regard defining property rights to forests, establishing well-functioning management systems including systems for

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monitoring and leakage control. It also requires organizing trading, including validation and verification under an internationally accepted standard and creating systems for payments to involved people/communities. These are challenging issues in most countries relevant to REDD+ (e.g., Naugthon-Treves and Wendland 2014). Tanzania is no exception (Dokken et al. 2014; Sunderlin et al. 2014). Local communities typically only have use rights to forests. These rights are moreover often contested. Local people may have different interests in the land and this may cause internal conflicts regarding e.g., the level of protection. Finally, payments may be organized according to different principles and are vulnerable to elite capture, least of all in a context like Tanzania (e.g., Lund 2015; Koch in press).

2.2 Legitimacy

Legitimacy is vital for societal decisions. If there is conflict – and some interests cannot be accounted for – it is of particular importance that processes and outcomes follow 'acceptable standards' not least regarding how potential losers are handled. It is also assumed that for collective rules to be effective, those involved must accept them. REDD+ may represent substantial changes for local communities regarding governance of forest resources. It is therefore important to evaluate to what extent both decision-making processes and new governance structures are found legitimate by the communities as well as how they stand when evaluated against more general principles of legitimacy.

2.2.1 The concept of legitimacy

A simple definition of legitimacy is that a decision is accepted by those concerned. Legitimacy as acceptability is often called the 'descriptive' understanding. There is, however, also a 'normative' perspective emphasizing that what is legitimate has to follow some general

standards/judged favorably by society along more principal terms (see e.g., Habermas 1996; Bernstein 2005).

Recently, it has become common to distinguish between the legitimacy of the decision-making process – i.e., 'input legitimacy' – and of the results – i.e., 'output legitimacy' (e.g., Scharpf 1999; Bäckstrand 2006). Regarding input legitimacy, issues like participation, transparency and accountability are emphasized (ibid.). Concerning output legitimacy, the concept of distributional justice – e.g., Bolin et al. (2012) – is the most relevant aspect in our case.[1]

2.2.2 Input legitimacy: Participation, deliberation, transparency and accountability

Participation may be seen as a way to ensure that all interests are heard and that outcomes are just. Following Lukes' (2005) understanding of power, there is, however, the power of elites to rule by shaping perceptions and preferences so that people may accept solutions against their 'objective' interests. Analyses of legitimacy must be sensitive to this, hence, the distinction between the 'descriptive' and 'normative' accounts. Defining what is an objective interest is, however, difficult, and there are obvious challenges involved.

Participation may take various forms. Pretty (1995) specifies seven categories in a hierarchy spanning the field from top-down, via professionally guided approaches to bottom-up. From a normative perspective, one may argue that input legitimacy increases from the bottom to the top of the hierarchy. Establishing institutions facilitating REDD+ can, however, hardly be bottom-up. There are also challenges related to the fact that REDD+ as a global idea may force local communities to adapt in ways that are not in line with local values and norms (e.g., Koch in press). Hence, it seems demanding to ensure legitimate processes and outcomes.

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[1] Note that this paper focuses on the legitimacy of the governance structures. Other elements of output legitimacy emphasized in the literature regard 'effectiveness' and 'efficiency'. It has not been an aim of the paper to evaluate these aspects – also because it would demand data that are (yet) not available on e.g., carbon storage – see later discussions regarding the problem of measuring changes in carbon stocks.

To bolster against these problems, the UN-REDD has emphasized that the implementation of REDD+ should be based on the principles of free, prior and informed consent (FPIC), reached through "customary decision-making processes" (UN-REDD, 2013, p. 20). While important, there is the issue of those not being acknowledged by these processes, or do not think they deserve a say – i.e., the perspective of Lukes (2005). The UN FPIC rules do not confront these issues.

Therefore, when evaluating the quality of the decision-making processes, it seems necessary to go beyond observing if local communities have been heard and look more in depth at transparency, who has participated and in what way. This also regards how thoroughly the various issues have been treated, how free various parties have been to voice their concerns and what possibilities there were to test arguments and develop well-supported solutions. According to Habermas (1996), the legitimacy of democratic decisions depends both on deliberative and practical quality of the outcomes, which these procedures generate.

Accountability regards relations between actors – more specifically their responsibility towards a constituency like democratically-elected bodies and the citizens. Bäckstrand (2006) notes that many recent initiatives in environmental governance are network based with competing/overlapping authorities. REDD+ piloting emphasizing carbon trade is an example where standard assumptions about hierarchical/democratic accountability may not apply.

2.2.3 Output legitimacy: Just distribution

In this paper, we delimit outputs to changed governance structures including rules regarding distribution of benefits and costs. In relation to this, the concept of distributive justice is key. Several principles are found in the literature – see e.g., Miller (1999); Stanford Encyclopedia of Philosophy (2013). We expect two of these to be of specific relevance in our case – the desert-

based and the egalitarian. The principle of desert-based justice emphasizes aspects like contribution, effort or costs.[2] As REDD+ is performance based, we expect that this principle of justice may be used to legitimize distribution of payments. The second principle is potentially relevant since forest use in Kilosa is community based, which may foster norms of equality. The question faced is, therefore, if the logic of performance/effort inherent in REDD+ is accepted regarding the distribution of payments, or if this principle of justice is challenged.

3. Methods and material

Our analyses are based on a combination of methods. We conducted structured interviews with local people in 5 out of the 13 involved villages in Kilosa: Ibingu, Chabima, Dodoma Isanga, Ilonga and Kisongwe. The villages were selected to include representation from all categories of land in the pilot area, namely the highlands, plateau and floodplains. We conducted interviews with 25 household heads in each village. We also made two rounds of focus group discussions (FGDs) in each village – one with ordinary community members (12 participants) and one with members of the village natural resource committee. A number of semi-structured interviews were conducted with resource persons – i.e., village chairs, representatives of TFCG/MJUMITA and district authorities. Many informal contacts were also made during our fieldwork. Finally, analyses of documents from TFCG/MJUMITA and the Tanzanian government relevant to REDD+ were undertaken. Data collection was made from 2013 to early 2017.

Regarding sampling procedures, purposive and random sampling were combined. We wanted 80% of the survey sample to cover people who had attended meetings regarding joining REDD+. The rest were selected among non-participants. Within these groups, we aimed at

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[2] Parts of the literature – e.g., Cattenao et al. (2010) – use 'merit-based' instead of desert-based

random selection (based on attendance lists and a list of village households respectively). The stratification was due to the fact that attendance in meetings was only around 20% (Forrester Kibuga et al. 2011), and we wanted to assure good coverage of those attending meetings across the whole village including sub-villages. In the end, more than 80% of the sample said they had been at meetings. One explanation for this could be incomplete attendance lists. In some of the villages, there were households living in the becoming REDD+ forest – between 1.5 and 2% of the households[3] – typically far away from the (sub-)village. It must be emphasized that none of these happened to be included in our samples. Participants in the focus groups consisting of community members were also selected from lists over people attending REDD+ meetings.

The above defined material is utilized to a different degree in the various parts of the analyses. Section 4 – analyzing the establishment of REDD + governance structures – is largely based on data from TFCG/MJUMITA (written and oral sources), interviews with resource persons and FGDs. Section 5 documents the internal evaluation of the legitimacy of processes and established governance structures as made by local village people and is largely based on data from the household interviews and FGDs. In the last section, the authors make an external evaluation of legitimacy based on an overall assessment of the data gathered. While we note that there were disagreements regarding the evaluation of the quality of processes and outcomes, we found no important discrepancies regarding *the content of* processes among our sources of information.

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[3] This figure has been established after data collection in 2013.

4. Building a REDD+ pilot in Kilosa

Tanzania has the largest stock of forest resources in East Africa – 48,090,700 ha according to recent assessments (URT 2015). While all land in principle is 'vested in the president', there is a subdivision of ownership and management responsibilities. According to the Vice President's Office (2013), about 48% of forests are in central and local government forest reserves, and 6% are in national parks. The remaining are village forests or forests on general land – the latter *de facto* open access and subjected to high pressures (ibid.). The average deforestation rate in the country is recently estimated at 0.77% per year (URT 2015).

REDD+ in Tanzania is developed in a context of historical conflicts over rights to land/forest resources – both in colonial and post-colonial times (e.g., Sunseri 2009). Tanzanian forest management used to be centralized. From the late 1990s, a decentralization policy was initiated (Lund and Treue 2008). The National Forest Programme (2001–2010) (URT 2001) emphasized participatory forest management (PFM) in the form of joint forest management (JFM) in government reserved forests or community-based forest management (CBFM) in village forests. According to official figures, almost 13% of the total forest in mainland Tanzania is under PFM (Vice President's Office 2013). However, Lund et al. (2017) documents that only about of a quarter of the involved villages had finalized the process by 2012. Decentralization emerges slowly due to administrative resistance, lack of administrative capacity, conflicts over rights and revenue-sharing arrangements (Larson et al. 2013).

Tanzania started its involvement in REDD+ in 2008 making agreements both with the Norwegian Ministry of Foreign Affairs and the UN-REDD Program. Two somewhat separate REDD+ readiness processes were established. First, there was the formulation of a national REDD+ strategy endorsed by the government in 2013. Second, nine pilot projects were set up in

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2009, run by NGOs and contracted directly with the Norwegian Ministry of Foreign Affairs[4]. The Kilosa pilot is one of these projects.

4.1 The TFCG and MJUMITA strategy for REDD+

The REDD+ pilot in Kilosa is part of the project 'Making REDD Work for Communities and Forest Conservation in Tanzania' as initiated by TFCG in partnership with MJUMITA (TFCG 2009). In a contract between TFCG and the Norwegian Ministry of Foreign Affairs, Norway committed up to NOK 41.4 million to TFCG for engagement in two pilot projects – Kilosa and Lindi districts – from 2009 until 2014 (Norwegian Ministry of Foreign Affairs 2009).

TFCG is an NGO with experience in forest conservation and implementing PFM in Tanzania. MJUMITA is a national network of community groups also involved in PFM (Meshack, pers. comm.). The Kilosa pilot project is based on the PFM principles, linking it to the national strategy of turning general land into (formalized) village forests. This demands creating village natural resource committees, establishing titled village forest reserves, forest resource management plans, village land-use plans and bylaws defining rules for forest resource use (MNRT-FBD 2007). The project moreover includes the development of a 'carbon enterprise' within MJUMITA, enabling communities to aggregate emission reductions and sell them on the international carbon market (TFCG & MJUMITA 2012). This demands validating the project and creating systems for monitoring, reporting and verification (Meshack pers. comm.). Finally, income-generating activities including improved agricultural practices, beekeeping, sustainable charcoal making and chicken rearing are part of a strategy to reduce pressure on forests.

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[4] The latter choice may – at least partly – to be a response to the fact that there were some 'irregularities' regarding use of funds from Norway to the Forest and Beekeeping Division of the Ministry of Natural Resources and Tourism.

4.2 The process of establishing the Kilosa REDD+ pilot

Kilosa District covers 168 registered villages (ibid.), of which 13 were selected by TFCG and included in the Kilosa REDD+ project[5] (TFCG 2009). TFCG wanted to include villages eligible for CBFM only, in order to avoid any challenges regarding benefit sharing with state authorities under JFM. The pilot villages lie in the highlands including parts of the Eastern Arc Mountains – see Figure 1. The number of households in the 13 villages in 2010 was about 7,200 (Enos pers. comm.). The number in the 5 surveyed villages was about 3,100. Roughly two-thirds of the area is forested, dominated by miombo and evergreen mountain forests.

Figure 1 about here

The Kilosa district endorsed the pilot project in 2009. Thereafter a REDD+ facilitation team comprising representatives from the district and the two NGOs was established (Pima pers. comm.; FGDs). The team visited the selected villages where they met the village councils and informed about the REDD+ project. The councils were informed about what benefits they could receive from reducing deforestation. The next step was to organize a village assembly meeting to decide whether the village would endorse REDD+. TFCG proposed starting at the sub-village level to increase participation. This also ensured some time between the first introduction to the final decision on participation was made.

Meetings – at both sub-village and village level – typically took two to three hours. According to Forrester Kibuga et al. (2011), the village chair would introduce the REDD+ facilitation team and NGO representatives. The District Forest Officers explained that the district

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[5] Originally there were 14, while one village – Masugu – was taken out early on as it was merged with Kilosa town. We note that Masugu had high levels of charcoal making and excluding it probably simplified issues somewhat for TFCG/MJUMITA (see also Dyngeland et al., 2014)

had endorsed the project, emphasizing especially that forest conservation was urgently needed. Information regarding REDD+, how it would be implemented, and what benefits villagers would receive by implementing the project was offered – e.g., ensuring sustainable forest management; achieving secure land tenure; education for improved agriculture; that there would be payments for emission reductions (ibid.). According to our data, there seems to have been no emphasis on costs or risks.

Communities were informed that they were free to accept or reject the project, ask questions and make proposals (Forrester Kibuga et al. 2011; confirmed by FGDs). The decision to join REDD+ or not was taken through a majority vote at the general village assembly. Members of village natural resource committees (VNRC) were elected at this meeting.

The second step was to undertake land-use planning. According to our data (Pima pers. comm., village leaders and FGDs), this was done by the VNRC, the village land-use planning committee (responsible for land outside the forest reserves) and TFCG/MJUMITA staff. It resulted in draft proposals regarding village boundaries, land-use plans and bylaws for forests. The land-use plan defined areas set aside for 'REDD+ forests', so-called 'utilization forests', farming, etc. By-laws for forests defined utilization that a) did not demand prior permission; b) demanded a permit, but no payment; c) demanded a permit with payment; and finally activities not allowed. Farming, grazing and setting fire were generally not allowed in forests set aside for REDD+. By-laws also typically prohibited timber harvesting and charcoal making in these forests, while villages demarcating areas for utilization allowed (sustainable) charcoal making and timber harvesting against a paid permit in these zones.

The proposed village boundary, land-use plan and village forest bylaws were next decided upon at a village general assembly and sent to the district and then to the National Land-use

Commission for formal approval. According to Pima (pers. comm.), TFCG/MJUMITA went on establishing the REDD+ project without waiting for the (time-consuming) formal approval from national authorities to be able to complete the pilot project within time. We note that by the end of the pilot period (2014), all villages had received land certificates (Meshack pers. comm.).

At the same time, TFCG/MJUMITA facilitated the establishment of income-generating activity groups to achieve the objectives of avoiding leakage through improving local people's livelihoods (Luwuge pers. comm.). According to Pima (pers. comm.), these were established as 'test cases' since the project could reach only a fraction of the households. The rather low outreach was confirmed by FGDs. The fee for entering these groups was mentioned as a hindrance by focus group participants.

The third step was to introduce payments for reduced deforestation/CO_2 emissions. A system of 'trial payments' was developed. According to Pima (pers. comm.) and data from FGDs, MJUMITA proposed a mechanism based on an 'individual dividend', implying that the payment would be made to each eligible villager. This was thought to increase the sense of community-wide ownership over the forest and ensure transparency in the distribution of funds. According to TFCG and MJUMITA (2012), village assemblies could choose between paying all the money to individuals or keeping a certain fraction for community projects. According to information from village chairs and focus groups, all village assemblies except Dodoma Isanga decided to allocate a certain percentage to common projects. Actually, Ilonga allocated all payments to community projects, maybe due to the fact that the sum was very low – see below. FGDs revealed that local people felt they largely had to follow what the project organizers proposed regarding payment formats.

Initially, TFCG/MJUMITA planned to pay people on the basis on their individual performance (Kimbowa et al. 2011). According to Meshack (pers. comm.), they found it difficult in the end to propose a desert-based payment system based on individual performance/costs as it went against local norms of fair sharing. Charcoal producers were considered 'bad people' by many, as they utilized a common resource to their own economic advantage. Hence, TFCG proposed an undifferentiated payment per eligible inhabitant despite the fact that some inhabitants would face higher opportunity costs than others. Village assemblies supported this and defined a minimum age regarding who were eligible – typically including children. Limits were also set regarding how many could be compensated per family. Payments were organized by a separate REDD+ revenue sharing committee at village level including members of the village council and the VNRC. Eligibility was checked and payments demanded personal attendance. Payments to children were given to their mothers (TFCG and MJUMITA 2012).

The level of total payments to each village was 'mimicking' a performance-based system where the volumes of carbon stored were estimated based on the size of REDD+ forests and how well villages followed up on by-laws (see also Robinson et al. 2016). While the money for payments came from project funds, TFCG and MJUMITA used the carbon market price when paying since they planned for future financial resources to come from the market (Meshack pers. comm.). This price was at the time very low. Using data from TFCG and MJUMITA, we have calculated that the average trial payment per household in the five villages was about 14 USD, which is less than 2% of annual household income. If we exclude Ilonga, which had very little forest, but a large fraction of the households, the average figure is 40 USD per household

(calculations based on data from Enos, pers. comm.).[6] About 90% of the inhabitants participated in the meetings where payments were made (TFCG and MJUMITA 2012).

Parallel to this, TFCG and MJUMITA worked on creating a carbon enterprise to pool emission reductions from the various villages and prepare for entering the carbon market. The idea was to make this market the basis for funding REDD+ in Kilosa after the pilot period. This process is still not completed. Partly, it proved to be time consuming and could not be finalized within the project period. Moreover, there were problems with verification because cloud cover made it difficult to create good estimates for changes in carbon stored.[7] Finally, low carbon prices also influenced the eagerness to complete the process (Morgan-Brown pers. comm.).

In Lindi, TFCG/MJUMITA have completed the establishment of a carbon enterprise including finalizing the validation process. Moreover, carbon was traded based on verification for 2012-13. Data from this process confirms that it is challenging and involves a series of technical competencies. It also involves a memorandum of understanding between the organization and the involved villages (MJUMITA 2014) The memorandum demands that village councils agree to the distribution of payments (ibid.). The main role of MJUMITA is to handle the technicalities linked, not least of all, to verification and trading.

5. The legitimacy of the pilot as seen by local people

The analyses of local people's views on the process of introducing REDD+ in Kilosa was mainly based on data from the surveys and FGDs. Main data collection was made in 2013, after the

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[6] The figure varied between USD 46 per household in Chabima with 10.000 ha of forest and 313 households to USD 1.4 in Ilonga with 730 ha of forest and 1430 households. Note that payments per ha varied across villages and that the figures include both what was paid directly to individuals and kept for community projects.
[7] Morgan-Brown (pers. comm.) notes that they could have used another method (VM9 instead of VM15) to estimate changes in carbon stored as it would have been possible to do the calculations despite clouds. He notes, however, that this method has questionable assumptions.

REDD+ governance system was set up and trial payments were made. Regarding the survey participants (N=125), 96% had attained primary education (7 years). The rest were equally divided between those having received secondary education and those with no formal education. The average age of the respondents was 40 years and 61% were males. The average annual income in the pilot area is estimated to be less than USD 1000 per household (cash and subsistence). Agriculture is the dominant livelihood while income from forests is about 30% (Movik et al. 2012). Several ethnic groups were observed, with the Wakaguru dominating.

We start by looking at people's overall assessment of the pilot project, followed by their evaluation of the process of joining REDD+. Thereafter we will look at how people assessed the new rules for forest management and the payment system.

5.1 People's overall evaluation

The survey data show that people evaluated REDD+ quite favorably. Figure 2 shows an overview of the respondents' overall opinion of the project. Figure 3 shows opinions per village. The average score is 4.1 on a 5-point Likert scale with 5 being 'very positive'. Reasons given for positive attitudes regarded the importance of forest conservation, as well as income-generating activities and payments offered. The former was mentioned by almost 70%. It is notable that a vast majority of household respondents defined the REDD+ pilot project as forest conservation (67%) or environmental conservation (26%). Only 7% specified that it is about reduction of carbon emissions. This reflects that REDD+ was introduced primarily as a conservation project.

Figure 2 here   Figure 3 here

According to a Fisher's Exact test, the people in Ibingu were significantly less satisfied compared to the rest of the sample (p=0.008). Here, 23 out of 240 households had to leave their

homes and resettle elsewhere as they lived in what became REDD+ forests (Enos, pers. comm.). A new area was set aside for them, while most households seem to have moved instead to a nearby village – also involved in REDD+. Such forced resettlement happened also in Chabima and Dodoma Isanga, while numbers were lower here. According to Kilawe (pers. comm.), there were instances of burned homes. We have not been able to establish who did this and when it was done. Altogether 1.7% of the households in the 5 surveyed villages had to resettle, which was about double the rate for the pilot as a whole. Regarding Ibingu, we also observed distrust towards the village chair, and according to FGDs, some VNRC members were accused of receiving money from illegal loggers/charcoal makers.

5.2 Evaluating the process of introducing REDD+

People responding to the survey were similarly quite positive to the process of establishing REDD+ in their villages. Provision of knowledge, creation of awareness, emphasis on village development and high attendance in meetings was mentioned as reasons for positive attitudes. There was, however, also a mention of 'poor consideration of villagers' ideas' (3 respondents).

The data indicate that villagers were fairly active during meetings. 75% noted that 'many questions were asked' (N=114). 26% said that 'many proposals' were made by villagers, while 42% stated 'a few proposals'. 41% noted that there were disagreements, mainly related to issues about access to land.

According to the survey responses, a large majority – 87% (N=114) – stated that they felt free to decide on joining REDD+. They explained their position by referring to 'meetings being open', 'everyone was free to ask any type of question about the REDD+ project', and that questions asked 'were answered by TFCG/MJUMITA'. These observations were confirmed by the FGDs. Nevertheless, 13% did not feel that everyone was free to take any position. Reasons

given for this included that 'minority say was not considered' (11 responses), while a few mentioned issues related to loss of land and income.

Some disagreed publicly regarding participation in REDD+. We do not have information about how many, but 16% of those responding to this question (N=113) stated that this happened. About 10% said they disagreed with the decision to join REDD+, while the rest agreed (N=125). All of those who disagreed had attended the village general assembly.

Similar levels of satisfaction were found for meetings and information regarding land-use planning and payments. Nevertheless, there were some issues regarding land demarcation. The discussions were most serious where people had to relocate. The disagreements seem to be mostly between people living outside and inside the forests. The former wanted the latter to move to facilitate the establishment of a village land forest reserves. Less critique was voiced against TFCG/MJUMITA, while it was the introduction of forest reserves following the REDD+ initiative that created this conflict. Relocation implied an income loss since forests mainly were in the fertile mountain slopes. Disagreements – FGD participants explained – were resolved through mediation while it was clear from these discussions that those having to move were unhappy about the outcome.

Another disagreement was, according to FGDs, between 'ordinary' villagers and charcoal makers/loggers. The latter disagreed on the size of land to be demarcated as REDD+ forests. According to Pima (pers. comm.), some tried to mislead their fellow villagers to believe that TFCG was taking their land. In the case of Dodoma Isanga, this developed into a serious discussion related both to whether they should join REDD+ and later regarding the size of the reserved village forests. An Arab investor had earlier 'grabbed' land for a sisal plantation, resulting in increased land scarcity and distrust. Villagers argued that TFCG had similar intentions.

The level of distrust seems to have been reduced over time as TFCG did not 'grab' any land. Finally, there was a border dispute between Dodoma Isanga and Chabima. According to FGDs, it was resolved through negotiations.

It should be noted that one of the 13 villages, Munisagala, opted out during the process of deciding on the land-use plan. According to Enos (pers. comm.), villagers were afraid to lose their land. We were also informed that their cultural traditions of deceased family members to be buried on their own lands was not respected as the land-use plan included a common cemetery.

So the introduction of REDD+ caused some conflicts. We also note that the Munisagala village left REDD+ after having first endorsed it – showing that the option of saying 'no' to REDD+ was real. It is notable that conflict levels seem to have been higher in Lindi than in Kilosa, not least of all due to the greater importance of charcoal making (Meshack pers. comm.). According to Scheba and Rakotonarivo (2016), it could also be a result of more border disputes in Lindi.[8] Data from the introduction of REDD+ in the Kondoa district also show higher conflict levels than in Kilosa (Nantongo et al., in review).

Finally, we note that Kilosa has recently experienced an influx of pastoralists, mainly of Maasai and Sukuma (Mwakalobo et al. 2011). They stay mostly on the flood plains of the Kilosa district, but are also observed in the pilot area. These groups were not consulted in the process of establishing REDD+.

5.3 People's views on the rules defined for land-use and payments

Land-use planning was not completed in Ilonga at the time of data collection and no payments were made there. Hence, this section is based on data from the four other villages only.

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[8] The Scheba and Rakotonarivo paper documents a rather serious border conflict. We note that their paper is mainly focused at two villages, while it seems like the issue of border conflicts extends beyond these.

Regarding people's knowledge of the rules defined for forest protection – the forest reserve by-laws – some respondents to the survey (13%) stated they know them all, while 2% stated that they know none. The remainder was split equally between know 'most' and 'a few' (N=100). Asking more specifically about what rules they knew, rules for forest conservation were mentioned most often (49%, N=100). Several also mentioned the system of fines and permits. The descriptions they gave of rules were rather imprecise. We note that transfer of knowledge about rules is in practice only oral.

It is somewhat contradictory that most respondents maintained that they followed the rules to a great extent. This may reflect that they did not want to appear as rule breakers. The answers may also suggest that they felt they had a pretty good understanding of the aims of the project and refer to an intention to follow rules supporting these. Scheba and Mustalahti (2015) make similar observations regarding villagers around the Angai forest. It is notable that in Chabima, Ibingu and Kisongwe, some illegal charcoal making and logging were still going on as emphasized both in FGDs and by Pima (pers. comm.).

At the same time, villagers saw rules as good, with 74 and 15% having a 'positive' and 'very positive' view respectively; 8% had a 'negative' view; none were 'very negative' (N=100). Conservation was the core motive for positive attitudes. Nevertheless, 38% stated that rules influenced their livelihoods negatively. This indicates that many were willing to take on costs for REDD+, or they thought compensations would cover losses. FGDs supported the survey data. We observed some complaints about high fines for illegal activities. Participants in FGDs explained that these levels were still approved by village general assemblies as most villagers approved of strong reactions towards those acting illegally.

Regarding payments, communities were involved in defining the rules, especially who should be paid and how large a fraction should be left for community projects. The survey data indicate that 'most' or 'all' agreed to the rules at the general assembly – 51% respectively 49% stated so (N=70). In response to a separate question, some (13%, N=70) stated, however, that not all felt free to take whatever position they wanted on the issue. Reasons mentioned related to 'power dynamics'. As already noted, there was some pressure on those using forest resources the most to still accept the REDD+ project. The above could reflect this situation.

As already noted, this issue was also emphasized in FGDs. Participants felt that communities had little influence on the way the payment system was set up. FGDs also revealed disappointment with payment levels.[9] Moreover, it seems like nobody at the time realized that this was a 'trial payment' and that no more payments would be offered in the end.

As mentioned, payments were partly allocated to community projects. Meshack (pers. comm.) noted that some of the villages were weakly organized or there was low trust in leaders. In these instances, fewer resources were set aside for community activities or the money was set aside in a fund – held by MJUMITA – until the village 'felt ready' to take care of them.

6. Evaluation against general principles of legitimacy

As we have seen, establishing REDD+ and trying to create tradable carbon is demanding – especially in a context like Tanzania – a fact illustrated by the observation that the latter process was not completed within the time available for the Kilosa pilot despite having quite substantial funding. Challenges were technical, political and social. Referring to the general debate about payments for ecosystem services (e.g., Muradian et al. 2010), we note that there seems to have

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[9] We note that the focus of the survey was to get insights into how people evaluated the payment system and the process of making it – i.e., the governance perspective underlying the paper. The issue of payment levels came up in the FGDs as raised by participants.

been no opposition against selling carbon *per se*. Issues rather revolved around the processes of changing institutions to facilitate reduced deforestation and forest degradation and the potential income losses and redistributions implied. Despite all these demands, our data document rather high levels of acceptance of processes and outcomes by local inhabitants interviewed. When evaluating this finding, we must remind that those influenced most negatively by REDD+ (those relocated) were not among our sample.

6.1 Input legitimacy

How then does the introduction of REDD+ stand if we make an evaluation against more general principles of legitimacy? Starting with the input aspect, we observe that TFCG and MJUMITA put quite some effort into organizing a participatory process, starting at the level of sub-villages. Participation rates were around 20%. This was seen as high by many respondents. While orchestrating it and hence influencing outcomes through developing proposals, key decisions were made by the communities. It can therefore be characterized as a 'professionally guided process' with clear elements of 'interactive participation' (Pretty 1995). The process seems to have been quite transparent and inclusive, while we note that more effort could have been put into involving those most negatively influenced by REDD+. Anyway, according to village leaders, the process was actually better than those led by public authorities.

At the same time, we note that it was important for TFCG that the project was successful. Hence, information was primarily focused on the benefits of REDD+. Uncertainties related to future payments do not seem emphasized. Local communities had very limited access to independent information. The endorsement of the district may, moreover, have created pressure upon the villagers. While the process was inclusive and most people interviewed were rather happy about it, one may question if they had the necessary information to make a well-reasoned

choice on management of a key resource for the villages. The disappointment with payments, as observed in FGDs, supports this. One may also ask if meetings with a duration of typically 2-3 hours can ensure the necessary quality in the deliberations, while we note that the process was run both at sub-village and village level. Regarding the degree of inclusiveness, we also note that pastoralists were not involved. This is a weakness of the project as well as reflecting the fact that the Tanzanian system of land use planning responds only the situation of the sedentary part of the population.

A specific issue regards the conflicts that materialized. We note that establishing REDD+ forests and creating tradable carbon generated conflicts over the rules required. These conflicts seem mainly to have been between people in the villages themselves and not so much towards REDD+ organizers. REDD+ created expected gains for some and losses for others. We note that a significant minority expressed that people were not free to take any position. More specifically, the issue of relocation – typically forced – is a very problematic outcome of establishing REDD+ forests. 1.7% of the households in the villages visited had to move against their will. Hence, some serious minority issues were involved as an effect of the way the REDD+ program was instituted.

Regarding accountability, we note that the project is NGO led and the basis is a contract with Norwegian authorities. Hence, the NGOs were accountable to the donor. We observe that the government of Tanzania accepted that pilot projects were organized under the leadership of NGOs. There were, therefore, no legitimacy issues in this formal sense. The government, however, was not happy with the solution (Muyungi, pers. comm.). Scaling up using the system developed by TFCG/MJUMITA brings the accountability issue back in as the national political

system will be largely sidelined. They become 'service providers' to NGOs as was the case with the district authorities in our case.

At the same time, while the pilot shortcuts the line of democratic accountability in Tanzania, we observe that the way NGOs have operated seems to strengthen local participation when compared to similar processes in the country. This element of 'mobilization' should not be overlooked and given present conditions, it may not be easy to strengthen both participatory quality and accountability in the Tanzanian context. In relation to this we note that the national REDD+ strategy (Vice President's Office 2013) acknowledges that there are issues regarding how able the state has been at ensuring participation in forest management.

6.2 Output legitimacy

Outputs are new organizations, property rights, and rules regarding forest use as well as for payments for carbon sequestered. While formalizing property rights and by-laws was time consuming – completed first at the time the pilot closed (2014) – village property rights strengthen the position of villages and should support more sustainable land-use as compared to the previous *de facto* open access – see also Lund and Treue (2008). We observe that management rules were locally crafted, still creating some conflicts. We note, however, that land use plans and by-laws were approved by the National Land-use Commission. So, if REDD+ does not deliver the expected compensations, changing these documents may be demanding.

Payments were introduced to compensate for lost livelihoods. The principles for payments developed are found to be strictly egalitarian. So, those losing were not compensated according to their performance/losses of income. This choice was explained by the fact that a desert-based system was seen as culturally unacceptable. The outcome here may reflect that conservation was important to most people. We note, however, an alternative understanding where a majority

facing fewer costs related to REDD+ had the power to overrule a minority carrying higher costs. We note also that transaction costs were heavily reduced by not having to gather data on individual performance. A challenge is moreover to ensure that e.g., charcoal makers obey the new rules. As this business is heavy work, turning to alternative ways of generating income seem possible to accomplish. According to budget data from TFCG, the project set aside rather few resources for developing alternatives. Such changes are, however, profound and seem generally underestimated in projects directed at payments for ecosystem services – see Hiedanpää and Bromley (2014).

7. Conclusion

In this paper, we have analyzed 'what it takes' to establish REDD+ and transform forest carbon into a tradable commodity. The study is based on data from 5 out of 13 villages involved in the Kilosa REDD+ pilot. We have especially looked at the legitimacy of the process of instituting the necessary governance structures. Creating tradable carbon is institutionally demanding and time consuming. The villages have gone through a process of formalizing property rights, land-use planning and establishing regulations of access to forest resources. Systems for distributing payments have also been set up. New organizations have been created to strengthen resource management and land-use planning. A carbon enterprise was planned to connect villages to the global carbon market. The process of creating it was not completed within the time frame of the pilot because the NGOs 'ran out of time'. Moreover, cloud cover made it difficult to measure changes in carbon storage. This illustrates different aspects of how demanding it is to create tradable forest carbon.

Despite this, those interviewed in the communities seem to have accepted the project quite well. This concerns their overall judgment of it, of the processes of decision-making and the information given. They especially emphasized the conservation aspect as important. Payments were equal per person and not based on effort/loss of income. This seems to reflect local norms regarding forests as a common resource, while it implied that those using forests the most had to carry the highest burdens of REDD+, e.g., charcoal makers. There were also disappointment with the (trial) payment levels. In relation to this, we note that the data recorded on communities' evaluations were made before it became clear that no further payments would be offered.

Judging the case by applying more general principles of legitimacy, we note that the project responsible – TFCG and MJUMITA – have put quite some effort into ensuring participation and transparency. This was facilitated by access to ample resources. We observed at the same time issues concerning how informed the decisions to join REDD+ really were. Focus seems to have been on benefits only. Since the program was already endorsed by the district, one may also ask how easy it was to say no, nevertheless, one of 13 villages did. While a majority stated that the decision to join was free, a minority emphasized some coercion. Conflicts appeared mainly as internal, while caused by the changes following the introduction of REDD+. Charcoal makers lost income and about 1.7% of the households were forced to relocate. While the latter were offered new land, we consider this to be a serious legitimacy issue, not only because this land was of lower quality, but because these people seem not to have been involved in the decisions on establishing REDD+. They only faced the consequences. We moreover note that pastoralists were not included in the REDD+ process.

The case reveals a key paradox regarding legitimacy. Despite the above, the NGOs involved seem to be better at ensuring transparency and participation compared to what is

typically the case for public engagement in forest management in Tanzania. On the other hand, it is problematic that the NGOs are not democratically accountable. This may not have been a big issue for a pilot project, but problematic if the model is scaled up to the country level. The Tanzanian REDD+ strategy (Vice President's Office 2013) promotes a government-based REDD+ system for Tanzania. It mentions that the kind of solution that TFCG advocates could be included. Yet, it is not made clear how such a dual system would operate.

Creating new institutions to facilitate carbon trade implies reallocation of economic opportunity resulting, almost by definition, in conflicts. While it seems like communities and pilot organizers have been able to handle most of these reasonably, the way the relocation issue was treated is problematic. Moreover, we observe problems related to lack of emphasis on the uncertainties involved. There were no strategies developed – neither by the Norwegian government nor by pilot organizers – to ensure continuity if the expected international demand for carbon did not emerge. This has put the villages in a difficult situation after the pilot ended. They are formally bound by forest by-laws made quite strict to facilitate the generation of carbon stocks, while the expected benefits of creating them have at least partly vanished – i.e., the carbon payments. The fact that central government must approve of land use plans and by-laws make them demanding to change. Overall, this experience threatens to backfire on REDD+.

Acknowledgements

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