



3.4 Biodiversity and certified community forests in Tanzania

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A major motivation of the founders of the Forest Stewardship Council (FSC) was to develop a market mechanism that would support community forestry in the tropics. Unfortunately, it did not quite work out that way. This was partly because meeting the requirements of certification turned out to be relatively easy for plantation owners and forest managers in developed countries (mostly in temperate and boreal zones), but highly challenging for poorly educated people from rural communities in the tropics. To help address this challenge, FSC developed their Small and Low Intensity Managed Forests (SLIMF) standards, but this has not yet led to a big increase in certified community forests.

Having been through this process – the Mpingo Conservation and Development Initiative (MCDI) holds the first, and so far only, FSC certificate for community-managed natural forest in Africa – we can attest to the considerable challenges of forest certification in the community context. The issue that caused the greatest difficulty was the biodiversity protection and monitoring requirements of FSC certification. This article outlines the approach taken by the project to satisfy FSC’s criteria. It also discusses some of the contradictions encountered en route.



CERTIFICATION IMPOSES THE DEMANDS OF MODERNITY ON COMMUNITIES, PRESCRIBING DEFINED MANAGEMENT

APPROACHES AND ROBUST MONITORING SCHEMES.

Context

The Mpingo Conservation and Development Initiative is an independent NGO based in Kilwa District, southeastern Tanzania. Its aim is to conserve endangered forest habitats in East Africa by promoting sustainable and socially equitable harvesting of valuable timber stocks, and with a particular focus on mpingo (East African blackwood, *Dalbergia melanoxylon*) which is used to make clarinets, oboes and bagpipes.

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The project's work is founded on Participatory Forest Management (PFM), which has been under development in Tanzania for more than 20 years and was enshrined in law by the *Forest Act, 2002*. The act exempts communities with an approved forest management plan from paying government royalty fees on reserved timber species felled in their Village Land Forest Reserves (VLFRs). In theory this means that forest-adjacent communities should be able to charge loggers the government royalty rate. Unfortunately, widespread illegal logging — which in recent years reached an estimated 96 percent of timber extracted from the region (Milledge, Gelvas and Ahrends 2007) — means that communities would have to accept a substantial discount on the government rate in order to supply timber at competitive prices. In addition, loggers would have to be willing to conform to basic forest management principles such as sustainable offtakes.

This leads to two conclusions. First, it would be nearly impossible to run a profitable timber business in such an environment without breaking the law (since most, if not all, one's competitors would be breaking it). Second, a forest product labelling scheme was required to distinguish our communities' products. In other words, forest certification was needed in order to realize the full potential of PFM.

The project's flagship tree species greatly helped in this respect. Woodwind musicians tend to live in developed countries, be well-educated, liberal in outlook and reasonably well off; they are ideal customers for ethically marketed products such as those labelled Fair Trade or FSC (Davies, Titterington and Cochrane 1995). Moreover, the final sale price of most blackwood instruments is very high (more than US\$1,000) compared to the cost of the wood (less than \$50 for the set of billets (wooden blocks) required for a single instrument). Even a small increase in an instrument's sale price would translate into large premiums for community forest managers.

MCDI established a group certificate scheme that is open to any community-managed natural forest in Tanzania. Membership is voluntary, and but members should commit for a minimum for five years. In order to become members community forest managers have to agree to a set of conditions necessary to meet FSC's principles and criteria, such as regular monitoring of the forest, see below. A community can be suspended from the group certificate for serious or persistent failure to abide by its terms and conditions. We expect this will be a pivotal learning experience for all the communities in terms of fully understanding the nature of the group rules and provisions. It would also demonstrate that forests do not have to be lawless places where there is no penalty for misbehaviour.

MCDI was assessed by FSC-accredited inspectors from Soil Association WoodMark in 2008–09 and awarded a group forest management certificate in March 2009. For technical reasons MCDI opted to qualify under the full FSC standard rather than the less stringent SLIMF standard, although this decision is now under review. As of June 2010 two communities had joined the group certificate scheme, and MCDI was working with a further six to support their entry.

The first commercial harvest of mpingo in a certified VLFR was completed in November 2009. It brought revenue of US\$1,800 to Kikole village. Kikole used half of this money to pay for forest patrols and other management activities — these payments all went to local workers, further boosting the village economy — and used the other half to complete a new house for the village midwife. We estimate that communities with substantial areas of forest (more than 7,000 hectares) could eventually earn more than US\$100,000 per year from the scheme, 40 percent of which would come from blackwood and 60 percent from other species.

Managing biodiversity

The forests where the project works are a coastal variant of miombo woodland. They are a temporally-shifting mosaic of closed canopy forest, open canopy woodlands and savannah grasslands; all are shaped by fire (natural and anthropogenic), other human activities and elephants. People have been living in and around the forests for many years; some villages are more than 100 years old, and human occupation in the area clearly dates back a long, long time. The last human migrations in the region date back to the Zulu expansion in the late 19th century; since then, the population in the area has been relatively stable. These communities have been living in the ecosystems around them for a substantial period of time, but commercial logging pressure and government regulation are relatively recent.



In circumstances such as these, with long-term resident populations, community forestry is made somewhat easier, since communities have an existing affinity for the forest.

The project's basic approach has been to minimise forest management prescriptions, since the forest has survived and even thrived through a century or more of local utilisation. If possible, we would do little more than develop a management plan (to secure legal tenure) and regulate timber harvesting (since commercial demand is not subject to traditional management), and leave it at that.

Unfortunately, FSC does not explicitly give credit for a history of previous benign but informal management, and it would be difficult to craft criteria by which to do so. FSC certification has therefore forced the project to be much more prescriptive about forest management: fire must be controlled and a 10% no-take zone must be established in each VLFR. The first requirement puts a significant additional burden on the communities (to clear fire lines and induce preemptive "early burns") and the second reduces their potential gains.

Monitoring biodiversity

Monitoring requirements are another burden of FSC certification. Under Criterion 8.2c, FSC requires forest managers to monitor "Composition and observed changes in the flora and fauna" (FSC 2004). This makes sense from the perspective of technical managers, who may otherwise lack a thorough understanding of the forest they are overseeing, but

numeracy and literacy levels in the local communities are generally low. Although many people have an intuitive appreciation of the forest and its rhythms, few have progressed beyond primary education. This makes it challenging to manage and understand quantitative assessments.

For monitoring to be useful, its results must inform future management and be part of the feedback loop. Since in this case local communities carry out the management, then they should also collect data and perform the analysis and interpretation. Many approaches to participatory monitoring rely on outside experts for the latter two tasks, but this partially abdicates responsibility for management decisions to technical advisers and undermines the autonomy of community forest managers. If communities can follow the data through to conclusions they are much more likely to support and engage in required management decisions than if these recommendations come from a system they do not understand.

With MCDI's support, the communities have initiated two biological monitoring programmes in the certified VLFRs:

1. Forest integrity is tracked through permanent sample plots that are monitored annually. Basal area is the primary quantitative indicator and is supported by visual records obtained through controlled photographs at specified locations.
2. Biodiversity is monitored by regular forest patrols to combat unauthorized logging (roughly weekly, routes vary) whose members collect data on large mammals and selected bird species (with additional fixed-transect monitoring of bird species in the no-take zone).

For biodiversity monitoring, three bird species (African broadbill, Crested guineafowl and Dark-backed weaver) indicative of non-degraded forest were selected following a technical baseline study carried out by experienced ornithologists from the United Kingdom and Tanzania. The communities have been learning to collect standardized data. We plan to develop participatory analysis protocols that can be followed in the field using only paper, pen and simple calculations. As community members become more experienced, materials will be developed to help them interpret their results.

Ecological trends

One biodiversity-related trend has been noticeable over the six years that MCDI has been operating in Kilwa and has been much remarked on by communities: elephant numbers in the forests have gone up. This development is associated with increasing instances of human-elephant conflict; in some cases people have been killed. The increase has two implications:

1. Some community members associate the increase in elephant numbers with the beginning of PFM (although it is probably best explained by population dynamics across the greater Selous-Niassa ecosystem).



2. The communities feel constrained in what they can do to respond to the increasing number of elephant encounters. In the past they might have lit fires to scare away elephants, but under PFM they are not allowed to do so.

Another biodiversity trend reported by villagers is increased sightings of monkeys in the forest since it was set aside as a VLFR. They are also an agricultural pest.

Protected areas are frequently affected by environmental changes at a large scale; these issues are by no means unique to either FSC certification or community-managed forests. Sometimes the reasons for these effects are obvious to technical specialists, sometimes not, but experienced protected-area managers should be able to calibrate their management responses accordingly. Poorly educated rural communities will need support in interpreting monitoring results and advice on how to react. Conversely, they often do not need monitoring data to tell them what is happening in their forests.



Conclusions

Forest certification is a market tool to reward improvements in forest management. Certification standards make substantial demands on applicants to document their management systems and monitor their impacts. Most private-sector applicants for certification have the resources to manage the forest to these high standards, but unless independent audits hold applicants to their commitments, financial considerations might encourage them to cut corners.

In contrast, indigenous communities are the kind of forest managers that certification is designed to support. Forest certification should be easy for them. However, just as the legal land-tenure system requires the borders between communities to be delineated by lines drawn on a map, certification imposes the demands of modernity on communities, prescribing defined management approaches and robust monitoring schemes.

The communities with whom the project works are still learning what forest certification means and the responsibilities it entails. For now, they remain enthusiastic about PFM and forest certification despite the slow take-off of harvesting revenues and problems of human-wildlife conflict, which MCDI is helping them to combat.

In Tanzania and elsewhere it is by no means certain that community forest management will lead to effective biodiversity conservation, but such approaches underpin many conservation efforts throughout the tropics. The paucity of examples of certified community forests illustrates the challenges — which conservationists still grapple with — to achieving clear successes. Although the project's experiences with forest certification and FSC are positive, certification imposes a steep learning curve for rural communities in developing countries. More could be done to make the process easier and make certification more relevant to the issues they confront.

For further information

The project web site (www.mpingoconservation.org) has all the documents used in establishing the group certificate scheme. These may be useful for anyone else contemplating a similar initiative.

References

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