POLICY BRIEF

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Determinants of Successful Participatory Forest Management in Tanzania

By Razack B Lokina and Elizabeth J Z Robinson

In 2007 and 2008 researchers at Environment for Development Tanzania undertook a Sida-funded research project addressing the determinants of successful participatory forest management in Tanzania. This policy brief summarises the key policy-relevant findings from the research. A number of background documents are being prepared that provide more detail on the issues addressed in the brief below.

Evolution of forest management in Tanzania

During the past five decades, though on paper Tanzania's government forests have been protected through regulations that exclude people from collecting forest resources, insufficient funds and a lack of commitment have rendered these forests *de facto* open access and often highly degraded.

Following the 1998 National Forest Policy and the Forest Act of 2002, and motivated by the declining state of Tanzania's forests and their consequent increasing inability to provide either sufficient ecosystem services or livelihood opportunities, participatory forest management (PFM) is increasingly being introduced in Tanzania. Participatory forest management aims to both protect Tanzania's forests and reduce rural poverty. PFM `advocates private and community based forest management (CBFM) for village forests and provides legal basis for Joint Management (JFM) of government forest reserves with catchments or biodiversity values. Under CBFM villagers can declare and gazette forest areas on village land as "Village Land Forest Reserves." Villagers take full

Key Points

- Household benefits are linked to forest protection, such as beekeeping and butterfly farming. And these benefits from PFM are shared appropriately and transparently among the nearby communities and households
- A key challenge is to realize the value of these forests for those who are affected negatively by the introduction of PFM, thereby improving livelihoods and reducing conflict and making the protection of the forest more sustainable and more equitable
- PFM forests are more likely to be protected over the long term given that Formal written records of illegal activities and fines collected are mandatory. Village patrollers are formally compensated through external enforcement budgets, supplemented with fine revenues. And patrollers are given a formal share of fine revenue.

management responsibility, setting and enforcing rules and regulations over the forest management and use, including the collection NTFPs (non-timber forest products). Under JFM more restrictive extraction rules are typically implemented – often no resource collection is officially permitted – particularly in preservation reserve forests that are particularly important for ecosystem provisioning and biodiversity protection.

Concerns have already been expressed that, particularly in government reserve forests, effective JFM could result in villagers being responsible for taking on the costs of protecting the forests, but losing their current *de facto* rights to collecting NTFPs such as fuelwood and forest vegetables and fruits. Our research supports this view and suggests more pragmatic approaches to forest management are needed.

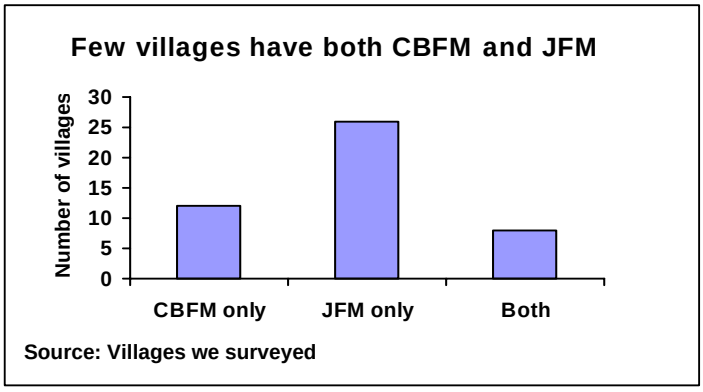
Policy recommendations

In this section we present a number of policy recommendations that have arisen from our research. These policy recommendations reflect the reality of forest management in Tanzania: that local communities have traditionally relied on forest products for home use and income generating activities; that many of Tanzania's forests provide key ecosystem services that are valuable at the local, national, and international level; and that the government has limited funds to protect these forests.

Implement PFM within a landscape approach that takes into account nearby forests

PFM typically has been implemented on a forest-by-forest or village-by-village basis, rather than using a landscape approach. But protecting one forest through PFM may displace villagers' NTFP harvest into other less protected forests, possibly causing greater ecological damage A landscape approach to PFM would take into account even those forests that are not used by villagers before PFM is introduced but that might be once PFM reduces or eliminates access to alternative forests.

Practical landscape approaches include:

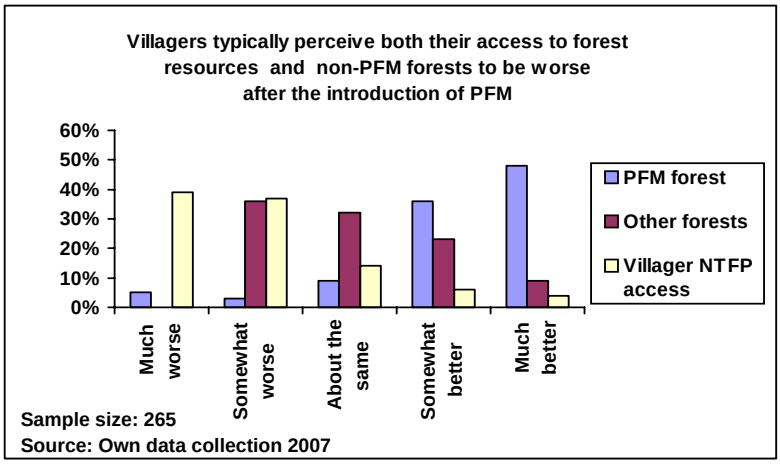


- Making a rapid inventory of key forested areas around the village and understanding how villagers use different forests, especially for NTFP collection.
- Ensuring that where there is a JFM forest (where forest resource collection is prohibited) there is also a CBFM forest (where villagers collect forest resources under managed conditions).
- Introducing buffer zones into JFM forests from which villagers can collect limited resources. Buffer zones reflect the reality that villagers often depend on forest resources; can reduce the likelihood that villagers collect from more distant, possibly more vulnerable, forests; can reduce enforcement costs; and can reduce conflict.

- Where feasible, introducing village woodlots and encouraging tree planting on private and holdings

Provide villagers with incentives and authority to protect forests

Communities living near to forests may understand that they get greater benefits from well-managed forests: directly through collection of timber and non-timber forest products, and indirectly from improved moisture levels. They may also recognise that well managed forests benefit people living further away, through the provision of water to distant cities; and in contributing to global biodiversity. But many villagers feel worse off as a result of the introduction of PFM because of their reduced access to forest resources. This is a particular problem for JFM in preservation forests but even with CBFM initial multiple-year moratoria on NTFP collection are often imposed.



Villagers are more likely to support PFM if:

- Household benefits are linked to forest protection, such as bee keeping and butterfly farming. These have already been introduced into a small number of protected forests
- Households have continued access to forest resources, especially as forests regenerate, even if this means allowing collection of forest resources from protected forests
- As far as possible the benefits to the village and individual households from the introduction of PFM are at least as great as the costs
- The benefits from PFM are shared appropriately and transparently among the nearby communities and households.

Employ more creative mechanisms for realizing revenue from PFM forests

A key problem for managing tropical forests is that benefits may be external to the local community or government, or the benefits may accrue many decades into the future. But local communities typically bear the immediate costs of protected forests, both directly through enforcement activities, and indirectly through reduced access to the forests and sometimes increased damage to their crops from wildlife.

A key challenge is to realise the value of these forests for those who are affected negatively by the introduction of PFM, thereby improving livelihoods and reducing conflict and making the protection of the forest more sustainable and more equitable. Options include:

- Payment for environmental services (PES), part of a conservation paradigm that explicitly recognises the need to bridge the interests of landowners and outside beneficiaries through compensation payments. PES schemes include carbon sink functions, watershed protection, and biodiversity. There are few examples in Africa at the moment, but PES has been discussed in relation to the Uluguru mountains and their role in ensuring water supplies in the cities of Dar es Salaam and Morogoro in Tanzania.
- The clean development mechanism (CDM) and REDD. Afforestation and reforestation projects are eligible for credit under the CDM during the first five-year commitment period of the Kyoto protocol. African countries have the potential to be involved in selling and trading credits with rich countries but so far sub-Saharan Africa has not take advantage of the process and there are very few examples of credits for improved forest protection.

Even if these benefits are realised, just as important is how the benefits are shared among the stakeholders: to what extent should nearby villagers be compensated for reducing their use of the forests (when that forest use has often been *de jure* illegal); how will these benefits be distributed among village households; what proportion of the funds should be used for enforcement activities; what say should local villagers have in the processes and institutions. These issues have proven tricky to address for earlier initiatives and there is no reason why they will be any easier to address with respect to mechanisms such as PES and CDM.

Improve enforcement institutions for protecting PFM forests

Village Environmental Committees (VECs) have been empowered to undertake enforcement activities – almost always foot patrols – but the consequences have been mixed, in part a reflection of the different modalities that have been adopted, particularly concerning compensation for patrols. Officially enforcement is voluntary, but some patrollers keep all the fine revenue (30% of our sample); some keep a share of the fine money (50%), and some get no formal share at all (20%). We have some evidence that patrollers are more likely to take bribes when they get no formal compensation, and in 30% of our sample there are no written records of people caught collecting illegally from the PFM forest. Better thought out, transparent, and suitably funded enforcement mechanisms will reduce elite capture; improve monitoring of enforcement effectiveness; increase scope for revenue generation; and improve the credibility and long-term sustainability of the PFM initiative.

Protection of PFM forests cannot rely on voluntary restrictions and community involvement in forest management does not automatically ensure that forests will be protected through voluntary restrictions. Even if villagers understand the benefits of

less-degraded forests for watershed protection, microclimates, or environmental services including biodiversity, local communities have immediate pressures such as the need for fuelwood, medicine, food, and income, which nearby forests provide at low cost, and outsiders have few incentives to voluntarily restrict their use. PFM forests are more likely to be protected over the long term if:

- Formal written records of illegal activities and fines collected are mandatory.
- Village patrollers are formally compensated through external enforcement budgets, supplemented with fine revenues.
- Village patrollers are given a formal share of fine revenue. This will reduce the likelihood of bribes; provides an incentive for the patrollers to put effort into enforcement; and could reduce conflict.
- Enforcement patrols are monitored.

Fees paid for NTFP collection can be used to fund patrols and monitoring and are a more reliable source of funding than fine revenue

Transparent suitably funded enforcement mechanisms can reduce elite capture; improve monitoring; increase scope for revenue generation; and improve the credibility and long-term sustainability of the PFM initiative

Ensure that forest management policies are flexible over the transition period as the PFM forests regenerate

We found that the transition phase of both CBFM and JFM often includes a full embargo on collecting resources from the forests that lasts at least five years. These embargos enable the forest resources to regenerate but they typically have a very negative impact on villagers' livelihoods. Transition strategies are particularly important for villages where there are no alternative forest areas for villagers to collect NTFPs, and where villagers have small land holdings.

This transition phase can be better managed if:

- There is a better understanding of the differential ecological and livelihood impact of allowing or banning different extraction activities as the PFM forest regenerates. Rapid assessments are needed rather than detailed but time consuming and costly assessments.
- Rather than imposing blanket bans, even during the transition periods villagers are permitted to extracted some forest resources. Temporary buffer zones have been introduced into some of the PFM forests that we visited.
- Transition strategies such as tree planting schemes, butterfly farming, or bee keeping are in place before villagers lose their access rights to forests.
- Transition strategies are specific to each particular situation.

PFM institutional arrangements that do not recognise the realities on the ground – the importance of forests for both subsistence needs such as fuelwood, medicinal plants, and home building materials, and income-generating livelihood activities, the difficulty in getting villagers to enforce access restrictions without reward – are likely to evolve over the longer term in response to natural pressures. Although the evolution

might be towards more sustainable practices, institutional arrangements could simply break down resulting once again in *de facto* open access forests.

About this brief

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CONTACT

Elizabeth Robinson" ejzrobinson@hotmail.com
Razack Lokina" <razack_lokina@yahoo.co.uk -+255 784 57369

EfD Center in Ethiopia, www.efdinitiative.org/centers/tanzania
efdt@udsm.ac.tz , Phone +255-22-2410252, Fax +255-22-2410162
Environment for Development in Tanzania (EfDT), Department of Economics, University of Dar Es Salaam, P.O. Box 35045, Dar Es Salaam, Tanzania

EfD, Environment for Development initiative, www.environmentfordevelopment.org
EfD Secretariat: info@efdinitiative.org, Phone: +46-31-786 2595, Fax +46-31-786 10 43, www.efdinitiative.org./efd-initiative/organisation/secretariat, Department of Economics, University of Gothenburg , PO Box 640, SE 405 30 Gothenburg, Sweden