



Case report

Against all policies: Landscape level forest restoration in Tanzania

Eliezeri Sungusia^{a,b,*}, Jens Friis Lund^{b,c}^a Department of Forest Economics, Sokoine University of Agriculture, P.O. Box, 3011, Tanzania^b Department of Food and Resource Economics, University of Copenhagen, Rolighedsvej 25, 1958 Frb. C, Bygning B, 1. sal, Building: 1.206A, Denmark^c School of Natural Resources and Environment, University of Michigan, 440 Church St, Ann Arbor, MI 48109, USA

ARTICLE INFO

Article history:

Received 12 October 2016

Revised 11 November 2016

Accepted 11 November 2016

ABSTRACT

In Tanzania, villagers can declare and benefit from village land forest reserves under the Community-Based Forest Management (CBFM) policy. While research indicates that CBFM results in more sustainable management of reserved forest areas on village land, its impacts across broader village landscapes are unknown. This case illustrates how existing forest and land policies and practices of implementation discourage landscape level forest conservation and how a current rush for 'unused' village land areas for conservation, agribusiness or forest plantations implies an incentive for villages to clear unreserved forests to secure their land rights.

© 2016 Elsevier Ltd. All rights reserved.

1. Introduction

In Tanzania, the government policy on Community-Based Forest Management (CBFM) has been adopted to promote sustainable forest management on village lands. The CBFM policy gives villages rights to create village land forest reserves out of forested areas on their village lands, whereby they gain rights to manage the reserved forest in accordance with rules set out in an approved management plan and the Tanzania's forest act and keep any proceeds (products and revenues) from the management. The policy process has been widely celebrated for bestowing on village communities extensive rights and for its wide implementation across the country (Blomley & Iddi 2009).

Research indicates that CBFM has, indeed, resulted in more sustainable forest management practices and conservation of the reserved forest areas (Lund et al., 2015). However, questions have been raised about the impacts of CBFM on village landscapes more broadly, not least in connection with the recent emphasis on carbon emissions from deforestation and forest degradation.

In this case report, we present a case of CBFM in Tanzania that illustrates how villagers and forest officers alike are presented with multiple dilemmas when it comes to landscape level forest maintenance and restoration. Ironically, these dilemmas – that tend to disfavor landscape level forest conservation – appear to be unintended consequences of the celebrated forest and land policy regime and wider conservation priorities and practices in Tanzania.

2. The case of Namatunu

Namatunu village is located in Nachingwea District in Lindi Region, south-east of Tanzania. The village land comprises 45,136 ha and it has 332 households with a population of 1366. Most people in the village are engaged in smallholder agriculture. The village initiated CBFM activities in 2004 and two years later, following a village land use planning process, declared a 8567 ha village land forest reserve (henceforth *forest reserve*). The focus of the first management plan for the forest reserve was conservation, whereby no harvesting was allowable. Only in 2015 did the first timber harvest from the forest reserve take place, consisting of 809 pieces of Mninga (*Pterocarpus angolensis*) sawn timber; of which 647 were sold for Tanzanian shilling 6,470,000 (~USD 3000)¹, while 162 pieces were used in the construction of a primary school in the village. The village used 60% of the sales proceeds to fund construction of school classrooms, whereas the village forest management committee used the remaining 40% for forest management. The harvesting costs consisting of bringing in pit-sawyers from Iringa region (over 1000 km away), food, allowances, and transport were covered by a Finnish funded project supporting the implementation of CBFM through the government of Tanzania. The Finnish government support to this program started around 2001 and phased out in February 2016. The project also paid for things such as village land use planning, training of local forest managers, inventory and management planning.

* Corresponding author at: Department of Forest Economics, Sokoine University of Agriculture, P.O. Box, 3011, Tanzania.

E-mail addresses: eliezeri.sungusia@gmail.com (E. Sungusia), jens@ifro.ku.dk (J.F. Lund).

¹ January 1, 2016 currency exchange rate.

However, Namatunu has another 16,099 ha of unreserved forest on their village land². This area was not included in the forest reserve despite suggestions from land use planning experts from the district council and National Land Use Planning Commission. Villagers refused to reserve this area out of a fear that they would lose control over the land. Specifically, they feared that the government might assume ownership of the forest reserve curtailing their access to the area.³ The village considers this unreserved forest area (henceforth *open area forest*) an important land reserve – land that can be used for residences and agriculture for the growing village population. However, while unreserved, the trees within the open area forest are considered as standing on general land by the district forest office based on the Tanzania's Land Act of 1999 that defines general land as including 'unused' parts of village land.⁴ Trees on general land fall under the jurisdiction of central government. Thus, the district forest office issues licenses for harvesting the trees in the open area forest and the village can only claim up to 10% of the official royalty rate that is charged by central government for these trees. Thus, the villagers face a dilemma: *either* include more land into the forest reserve to reap the benefits, while risk forfeiting the right to change the land use *or*; let outsiders continue to benefit from harvesting the valuable trees found in the open area forest.

The district forest officers (DFOs) are also in a dilemma. They have neither legal mandate nor financial resources to ensure that the open area forest remains forested. The legal mandate over unreserved forest areas on village land is vested in the village government that can allocate the land for other land uses. DFOs actively contribute to degradation of the value of the open area forest through allowing harvesting of commercially valuable trees to proceed without having any knowledge of the sustainability of the harvest. Likely, the sought after trees will soon be gone and the timber traders will look for other supply areas⁵. And any day the village government can allocate the land to villagers who will clear the forest and start farming. Then the ambiguity of the legal status of the land will be resolved and the district forest officers will no longer have any say in what happens on it.

In the open area forest, harvesting happens in the absence of any knowledge of the status of the forest and the sustainability of the harvesting. However, across the road, in the forest reserve found in the same village, harvesting is a much more serious matter. While an inventory of the entire forest reserve was prepared already in 2009, the harvesting in 2015 could only proceed following the preparation of a harvesting plan, which involved another, more detailed inventory. The plan divided the forest reserve into five blocks that are each to be harvested over five years, achieving a 25-year rotation for the entire forest. It was prepared by consultants – at a cost of more than 27,000 USD – on the basis of an inventory that villagers took part in, providing labor in the measuring of trees and carrying equipment. The plan stated that block 1 should be harvested first and that this block contained 127 Mninga (*Pterocarpus angolensis*) trees in harvestable size (>45 cm diameter at breast height). However, upon having found people to do the harvesting, the villagers could not find the trees in block 1. After

spending days scouring the block – in the end obtaining GPS coordinates of exact location of sample plots supposedly containing the said trees from the consultants, and with the help of the district forest officer – they found a mere five trees, all of which were bent and rotten. Following this, villagers lost faith in the extensive planning. A village forest committee member put it this way: *"We knew right away that the experts know nothing and will not produce a good plan when we saw how they went about measuring trees. We are talking about indigenous tree species. When a tree is of a size that can produce 8 pieces of timber, it is a mature tree and should be harvested. If you leave it standing, respecting harvesting rotation or waiting for the tree to attain the minimum legal diameter for harvesting of 45 cm, the chance is you will lose the tree. It will be attacked by bugs/pests and its timber quality destroyed. (...)"* In spite of the expensive harvesting plan, villagers decided to go ahead and harvest the 809 pieces of Mninga in block 2.

While harvesting could not be allowed to proceed in the forest reserve without a plan, it has taken place in the open area forest for many years in the absence of any inventory and/or plan. Furthermore, harvesting in the forest reserve is a strictly supervised affair in which villagers accompany buyers to the forest and take volume measurements before and after harvesting – selling standing tree volume. In the open area forest, the district forest officers issue licenses in Nachingwea town 3–4 hours' drive away and rarely, if ever, accompany buyers to the forest. Thus, trees are not measured before felling, and buyers are afforded the freedom to exceed the specified harvesting levels. Because trees are not measured before felling, standing tree volumes are derived from logs or sawn timber volumes using conversion rates originating from plantation forests. Volumes obtained thus are systematically lower than those obtained from measuring trees before felling. As a result of these differences, demand for trees tends to focus on the open area forest. While demand for harvesting from the open area forest has been steady, there has been no single application to harvest in the forest reserve. The 647 pieces from the first harvest were sold to the District Council to be used for school desks and not to a timber trader.

Thus, in Namatunu village no one has *both* an incentive *and* the practical means to care for and restore the open area forest. While seen as the property of central government, the trees in the open area forest remain unmanaged, as central government – through its district forest officers – has neither legal mandate nor the ability to manage them. Villagers, on the other hand, are able – by virtue of being constantly present in the area. Yet, they face clear disincentives to manage such forest areas, as they only gain a diminutive share of the values they represent when unreserved, and the benefits of reserving them are questionable given the detailed management requirements and 'unfair competition' from other unreserved areas. And, finally, converting such unreserved forests into farmland is also increasingly seen as an important means for villagers to secure their rights to the land from outside conservation and agribusiness interests. Thus, unreserved forests on village land are effectively doomed and landscape level forest maintenance, not to speak of restoration, thereby falls between the cracks of policy and its implementation.

3. Wider perspectives

Tanzania recently had its first ever national-level forest inventory, which indicates an annual forest loss of 372,816 ha (URT, 2015). This is not surprising given the country's annual population growth of around 2.7% and limited ability to absorb labor outside of small-scale agriculture. Nor is it alarming given the country's impressive remaining forest cover of 55%. However, it is a process that is furthered by the very policies that were put in place to

² Locally, this area is known as open area or 'msitu wa akiba', literally meaning forest/land reserved for future uses.

³ Villagers stated that they decided not to reserve open area out of fear that the area will be turned into a government-owned protected area like the nearby Selous Game Reserve. Selous Game Reserve is a 50,000 km² area in Tanzania falling in five regions including Lindi in which Namatunu village is found.

⁴ The other piece of land law is Village Land Act of 1999, which provides for the administration of village land. This Act defines general land as neither protected areas (government owned) nor village land. In this sense, no portion of village land can be considered a general land.

⁵ We base this assumption on having seen copies of several licenses to timber traders given within the past 2–3 years in the Namatunu village office – allocating volumes of one species only, Mninga (*Pterocarpus angolensis*).

arrest it. Thus, the forest and land legislation – and its interpretation in practice – strips villagers of rights to trees outside forest reserves while allowing central government forest officers to allocate licenses to harvest trees with minimal benefits accruing to villagers. Furthermore, the enforcement of different harvesting procedures in forest reserves and general land, sometimes within the same village, concentrates demand for timber on unreserved forest areas, which diminishes the value of reserving forests in the eyes of villagers, while increasing pressure on unreserved forests that are harvested blindly without any considerations for sustainability.

These ‘perverse’ incentives are further strengthened by other developments. The share of land in Tanzania that is under some form of conservation has grown dramatically over the past decades through the enlargement of existing protected areas and the introduction of new forms of community-based conservation initiatives (Arlin, 2011). While no one knows exactly how large the share is, there is no doubt that it is higher than 40% and growing (WPAD, 2014). Further, it has become increasingly apparent to people in Tanzania that land which appears ‘unused’ (i.e. fallow land, grazing land, forest) and which serves as wildlife migration corridors or happens to lie adjacent to existing protected areas is at risk of catching the attention of conservationists or be seen as a potential area for large-scale agribusiness or forest plantation investments. While such investments and conservation projects may offer some prospects in terms of financing of local infrastructure and alternative livelihood generating activities, they also pose a threat to villagers’ land rights. Thus, the list of examples of Tanzanian villages that have seen their village land rights severely curtailed – often unknowingly or against their will – by conservation projects is long and ever growing (Bluwstein, Moyo, & Kicheleri,

2016). Observing this, rural residents in Tanzania have become ever keener to protect their authority over village land, which under the current state of affairs, implies that forests disappear.

Acknowledgements

We thank people in Namatunu and other CBFM villages for sharing their experiences with us, and Jasper Makala from Mpingo Conservation and Development Initiative for useful comments. We thank the Consultative Research Committee for Development Research (FFU – No. 13-05KU) and the Danish Council for Independent Research (FSE, Grant No. 6119-00012) for funding.

References

- Arlin, C. (2011). *Becoming wilderness. A topological study of Tarangire, Northern Tanzania, 1890–2000*. Stockholm, Sweden: Stockholm University.
- Blomley, T., & Iddi, S. (2009). *Participatory forest management in Tanzania: 1993–2009 – Lessons learned and experiences to date, unpublished report*. Dar es Salaam, Tanzania: Ministry of Natural Resources and Tourism.
- Bluwstein, J., Moyo, F., & Kicheleri, P. R. (2016). Austere conservation: understanding conflicts over resource governance in Tanzanian wildlife management areas. *Conservation and Society*, 14(3), 1–14.
- Lund, J. F., Burgess, N. D., Chamshama, S., Dons, K., Isango, J., Kajembe, G., ... Treue, T. (2015). Mixed methods approaches to evaluate conservation impact: evidence from decentralized forest management in Tanzania. *Environmental Conservation*, 42(2), 162–170.
- URT 2015. National Forest Resources Monitoring and Assessment (NAFORMA) of Tanzania Mainland: Main Report. The Ministry of Natural Resources and Tourism, United Republic of Tanzania. <<http://www.tfs.go.tz/resources/view/naforma-report-2015>>.
- WPAD 2014. World Protected Area Database excerpt for Tanzania based on the October 2014 WPAD release. Available Online at: <<http://blog.protectedplanet.net/post/102481051829/2014-untied-nations-list-of-protected-areas>>. Dataset downloaded November 5, 2016