

# Communities, Property Rights and Forest Decentralisation in Kenya: Early Lessons from Participatory Forestry Management

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## Abstract

The introduction of participatory forestry management (PFM) in Kenya has led to the formation of community forest associations (CFAs). Data collected from 12 forests over a decade indicate that most associations are confederating to manage shared forests through the Forests Act of 2005. Emerging findings indicate that associations are responsible for diverse management activities in forest protection, monitoring, and management, yet access to decision-making, revenue streams, and overall resource control rights are vested in the Kenya Forestry Service. Still, this is an improvement as CFAs perform most governance functions autonomously, including the crafting of resource harvesting rules, the choice of leadership, and conflict resolution. In order to balance community incentives with the burdens and responsibilities they bear, rights to revenue streams generated from forest resources must be shared with communities to ensure continued commitment to the PFM process. Furthermore, the viability of CFAs is threatened by power struggles, leadership wrangles, and the splintering of groups. Negotiation support to moderate conflicting interests, and strengthen internal conflict resolution and governance is necessary.

**Keywords:** decentralisation, forestry, property rights, governance, community, participatory forestry management, community forest associations, Kenya

## INTRODUCTION

Many countries across the world have decentralised natural resource management in an attempt to increase equity in decision-making and benefit sharing. It is widely believed that decentralising the management of natural resources can increase both efficiency and equity (Ribot 2005). Decentralisation refers to any act by which a central government cedes rights of decision-making over natural

resources to actors and institutions at lower levels in a politico-administrative and territorial hierarchy. The efficiency and equity benefits of decentralisation are derived from democratic processes that encourage local institutions and local authorities to serve and deliver relevant services to local people through their institutions (Larson 2005).

Decentralisation takes different forms: deconcentration, delegation, devolution, and privatisation (Meinzen-Dick and Knox 2001; Blaser et al. 2005). Participatory forest management (PFM), joint forest management, and community forest management are among the variants of decentralisation. Many governments have made efforts at decentralising mainly due to pressure from donors, non-governmental organisations, and local politics (Agrawal and Ribot 1999); but what many governments term as decentralisation is not truly democratic since power, property rights, and access to resources are not fully transferred or shared (Larson 2005; see also Cronkleton This issue). In Uganda for example, the government has been

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hesitant about transferring lucrative sources of revenue to the local levels (Benson 2005). In Tanzania, studies indicate the need for more tangible benefits to attract communities' full commitment to forest management (Luoga et al. 2006).

The practise of PFM as is referred in Kenya has not been fully operationalised and therefore there is still ambiguity about what forest management type it will adopt. However, the emerging practise in most forests seems to have strong elements of joint forest management as practised in India and Tanzania. For instance, the Forests Act of 2005 dictates that the community, through a legally formed entity referred to as the community forest association (CFA) shall enter into an agreement with the Kenya Forest Service (KFS) to assist in the safeguarding of forest resources through protection and conservation activities (GoK 2007). In exchange, they are expected to receive timber and non-timber forest products (NTFPs) as well as revenue from community-based industries, ecotourism and recreation, scientific and educational activities. At the same time, some forests have aspects of community forest management, as evidenced in sacred/cultural forests such as the Kayas, Ramogi, and Loita, where communities have autonomy over management of their forests although the KFS remains the overall manager of all forests. The inclusion of communities is expected to enhance, biodiversity conservation, the equitable distribution of benefits, conflict resolution, poverty reduction, and sustainable use (Kallert et al. 2000). Such results are strongly influenced by the mode of participation adopted by the PFM implementation process, and its progress is uneven across Africa (Yemshaw 2007). In Kenya, the forest decentralisation efforts also seem mixed. In the implementation process, the contribution of communities is limited to protection and monitoring, with minimal decision-making power and limited access to the shared revenue accrued from the forest resources. The communities are therefore burdened with most of the work with little benefits from the forest. The KFS and Kenya Wildlife Service (KWS)—the main government custodians of forests are reluctant to devolve authority to the communities. The revenue currently collected from the forests does not benefit the communities, and large companies still dominate timber harvesting. Local communities have been given options for engaging in bee keeping, butterfly farming, and other projects that require funding and technical skills.

There is broad consensus that property rights provide a powerful set of incentives for sustainable forest management. Where property rights are unambiguous, justly enforced, and secure, rights holders are more likely to invest in forest enhancing behaviours because they are more likely to capture the benefits of their investments. However, where incentives are incompatible with the challenges faced by rights holders (including their livelihoods needs), as when resource users and/or resource managers are denied the right to revenue from forest resources, their motivation to invest time and resources in sustainable management will be reduced. Agrawal and Ostrom (2001; for a conceptual framework, see also Andersson et al. 2008) suggest that to better understand the resource management outcomes of decentralisation programs,

it is important to examine the rights and capabilities that are transferred to actors at lower levels. Different combinations of property rights will allow actors and institutions to gain new decision-making powers. In decentralisation programs, rights acquired or retained by users will determine the range of income-generating and livelihood-sustaining activities in which they can be engaged (Becker 2001; Antonia et al. 2004; Wittman and Geisler 2005). The rights held by local actors, including women and the poor, due to decentralisation reforms will likely influence the burdens and benefits of resource appropriation. Property rights can be disaggregated into use and control rights (Ostrom and Schlager 1996). Use rights include access and/or withdrawal rights, while control rights include management, exclusion, and alienation rights. These different rights, and their security, have varying consequences for resource use and management.

Much has been written on the community governance of collectively-held resources. Ostrom (1990) and Ostrom et al. (1994) identified the elements necessary for successful natural resource management. These elements have been used as indicators in an attempt to make a formalised assessment of institutional performance with respect to the newly construed CFAs. These elements include access to low-cost conflict resolution mechanisms, the ability to define and change rules related to resource use, the ability to determine who can or cannot use/harvest resources, the ability to monitor rule conformance and sanction violations, and local leadership. Taken together, these elements affect the incentives of resource users, and will influence their perceived benefits as well as their commitments to finding joint solutions to shared resource problems.

The focus on within-group governance arrangements has largely been informed by the need to understand factors that influence resource sustainability. Less emphasis has been placed on the role of internal or within-group governance arrangements in maintaining and strengthening collectively-held rights, or otherwise. Yet there is growing evidence that inequitable distribution of benefits among individuals holding joint rights can undermine group rights. Threats to group tenure security may also originate from within the groups themselves. For example, the individualisation of collectively-held group ranches was partly driven by group members' need to secure their and their families' claims against appropriation by influential individuals from within the community (Mwangi and Dohrn 2008; Mwangi 2007). McCarthy et al. (2004) find that sustained intra-group cooperation in natural resource management greatly diminishes the likelihood of individual appropriation, while Bruce and Mearns (2002) suggest that protection for communities against outsider threats does not automatically protect individuals against abuses from within the groups themselves. Thus functional governance of collective property does not only have gains for sustainability and livelihoods, but also for the very security of the collective regime itself.

This paper draws from an empirical study of 11 forests in Kenya to examine the roles, structures, and functions of the

newly formed CFAs in the governance of Kenya's forests. Since Kenya's forest decentralisation program is still in the initial stages, more needs to be understood about the structure and functioning of these associations. In addressing this issue, we consider the associations' past experiences in order to highlight their potential effectiveness in undertaking their expected functions under PFM. This paper therefore aims to establish whether communities have the ability to effectively organise towards forest management in the context of decentralisation. Further, it aims at determining the level of access to decision-making and rights to earn incomes from forest products. It assesses the associations' roles and functioning based on the elements of successful resource management explicated by Ostrom (1990). We also highlight some of the key challenges that they encounter and provide suggestions for improving their effectiveness. Initial findings indicate a high level of inequitable distribution of benefits. Communities have limited property rights but are burdened with the task of monitoring and sanctioning. They have some user rights but limited ability to exclude unauthorised users or regulate the timing of harvesting and the quantity of products harvested. They do not generate revenue from forest products as these rights were vested in the KFS. Due to the limited rights accruing to the communities, most of them appear disillusioned and consequently unwilling to pursue PFM.

### **KENYA'S NEW FORESTS ACT**

Kenya has a total of about 1.64 million ha of gazetted forestland (Wass 2000) and about 100,000 ha of trust lands. The country's closed canopy forests are concentrated in the moist central highlands where the human population and agricultural production are also concentrated (Wass 2000). In the semi-arid region, closed canopy forests are mainly found on isolated hills and along riverbeds.

Forest degradation and destruction in Kenya has been due to a complexity of factors including failures in policy, corruption, politics as well as population pressure and pressure to expand agriculture. These have been widely documented (MENR 1994; Wass 1995, Matiru 1999). Authorised and unauthorised forest clearing are the prime sources of forest loss. Between 1995 and 1999, a total of 44,502.77 ha were officially degazetted and cleared (Matiru 1999). Between 1972 and 1980, natural forests shrank at an average annual rate of 2 per cent (Doute et al. 1981), and later at an average of 3700–5000 ha per year (Wass 1995). Industrial plantations have faced a similar plight.

While the loss of forest cover through clearing for settlement and agriculture as well as uncontrolled exploitation of forest products is thought largely to be the result of a rapid increase in population, there are other more serious underlying issues such as greed, corruption, and policy failures. Moreover, the forest department (the precursor of KFS), the official manager, had little capacity to implement its extensive mandate. The forest department had limited financial and human resources, and the institutional framework at the time severely limited

opportunities for management innovations. Up until this new Forests Act of 2005, forest management objectives have been preservationist, excluding local resource users from decision-making and forest management, with minimal and stringent provisions for subsistence extraction and use of forest products (see Table 1 for the distribution of property rights to forest resources between the forest department and the local communities). Yet there was massive extraction both by the government and large commercial industries. This contributed to increased illegal exploitation for both subsistence and commercial use.

The new Forests Act of 2005, unlike its precursor, provides a framework and incentives for community and private sector involvement in the forestry sector. A key motivator for this has been the very rapid decline of the forest estate (about 8 per cent in the 1990s), and some recognition of the roles of local communities in management.

Its goal is to “enhance the contribution of the forest sector in the provision of economic, social and environmental goods and services” (GoK 2007). Two specific objectives of the new forest policy that touch on activities of forest associations. These include: contribution to poverty reduction, employment creation, and improvement of livelihoods through promotion of participation of the private sector, communities, and other stakeholders in sustainable use, conservation, and management of forests and trees; and contribution to sustainable land use through soil, water, and biodiversity conservation, tree planting, and the sustainable management of forests and trees (GoK 2007).

These objectives will be achieved through the contributions of the CFAs, which will be legally registered, and will enter into contractual agreements with the KFS. PFM processes in some pilot sites are raising questions on the capability of CFAs to manage forests, while more questions are being raised as to whether the communities through the CFAs will actually benefit from the decentralisation. This is occasioned by the fact that the decision-making power still remains largely with the KFS even after the passing of the new Forests Act 2005.

### **Community forest associations in Kenya**

The new Forests Act of 2005 has clear provisions for the recognition and role of CFAs. It requires members of a forest community to enter into partnerships with the KFS through registered CFAs. These partnerships are applicable for both state forests and forests under local authorities. The associations are registered only if their objectives—composition of their management committee, election procedures, and purpose for which their funds may be used—are considered satisfactory by the KFS. Members of a forest community and local residents who form such associations may apply to the KFS for certain rights in relation to management and utilisation of particular forest areas and forest produce rights. The associations are also granted use rights to the forest resources on the condition that these rights do not conflict with the conservation of the forest (GoK 2007). Communities also have exclusion rights subject

**Table 1**  
*The structure of property rights to forests before and after decentralisation*

Type of rights	Who held rights before decentralisation?	Who holds rights after enactment of Forests Act?	On the ground situation
Access rights	Government (i.e., forest department and KWS) for forest reserves and forested national parks.  Local councils in trust for communities.  Local communities (for community forests).  Any citizen or non-citizens with permission from above authorities.	Government, CFAs, and all other stakeholders with vested interests.	All stakeholders have access to the forest but permission is required from KFS for non-locals entering whether they have vested interests or not.
Use rights	Citizens/community members had rights to harvest selected NTFPs such as honey, butterflies, and other products, and fuelwood in form of dead fallen wood.  For some products, they had to purchase licenses from forest department.  No harvesting in forest reserves managed by KWS.	KFS and communities (although communities must write management plans subject to approval by KFS).	Very few management plans have been approved and no contracts have been signed; therefore communities still have use rights limited to NTFPs and dead wood.
Rights to earn income from a resource by using it directly or indirectly	Forest department; local councils.	KFS, local councils, and CFAs through approved management plans.	Very few communities can access meaningful income from the forest.
Management rights	Forest department; KWS.	KFS, CFAs, and other stakeholders with vested interests through approved management plans.	KFS still holds overall power since it is the final decision-making body; community rights limited to protection, conservation, and monitoring, with no economic returns.
Exclusion rights	Forest department; KWS; Minister of Forestry.	KFS and CFAs through approved management plans; Parliament.	KFS still holds these rights waiting for the operationalisation of the Act.
Alienation rights	Courts; Minister of Forestry.	KFS judiciary system; communities may be consulted but do not make final decision; Parliament.	The courts still hold these rights; communities may only act as witnesses.

to management plan submission and contracting with the KFS. This arrangement is bureaucratic and under the whims of the KFS. In addition, forest user rights are not fully implemented according to the Forests Act of 2005 and communities still do not have access to valuable forest products. For instance, the authority to approve management plans rests with the government through an appointed individual, bringing in individual bias in the process. The government also decides on what the CFAs will do and which section of the forest they will manage, and yet the financial benefits accruing from productive units of the forests still belong to the government. Communities are limited to subsistence and NTFPs with low financial value and extraction is restricted to a few forests (Table 1). Current restructuring efforts are concentrated on the KFS while little is being done to prepare communities for the implementation of the policy. Most of the resources are therefore being used for restructuring, leaving the communities to bridge the existing vacuum resulting from the restructuring by providing labour and policing. Additionally, the KFS also retains alienation and transfer rights as well as the right to revoke contracts with the

CFAs. Table 1 illustrates how the sticks in the bundle of rights have changed with decentralisation, and whether these rights are being exercised. The case of PFM in Tanzania provides insights into how communities actually acquire economic benefits from forests under decentralisation reform processes. In Iringa district, for example, villages received annual average incomes of USD 653 per year from community forests and USD 189 from joint forest management areas inside national forest reserves. Much of the early PFM was carried out on degraded forest land that had little merchantable timber left. This means that utilisation opportunities for forest managers are limited and long lean times are required before the forests become commercially viable (Blomley and Ramadhani 2006).

## MATERIALS AND METHODS

Data was collected using instruments developed by the International Forest Resources and Institutions research programme ([www.umich.edu/~ifri/](http://www.umich.edu/~ifri/)). IFRI questionnaires were used to collect data on each forest site, including

information on the households and associations found at the study sites. Focus group discussions and interviews with key informants (including group leaders, group members and other forest stakeholders) provided additional information on the associations. Workshops were also organised to facilitate interactions with community members, forest managers, and other key informants at the study sites, and to glean their perspectives.

Data was collected from 16 groups/associations in 11 forests in Kenya over a period of 10 years between 1997 and 2007. Data collection occurred prior to the promulgation of the new Forests Act of 2005, hence it represents the status and functioning of PFM groups, which will evolve to CFAs once they complete their management plans and contracting with the KFS. Forests were selected to represent different agro-ecological zones in the country as well as the level of use and dependence by adjacent communities. The selected forests were located within densely populated areas (e.g., central and western Kenya), or in areas where they comprise an island of high-productive ecosystem surrounded by semiarid areas of lower productivity and are thus under considerable pressure (e.g., coastal forests and forests around the Lake Victoria). The selected forests were also recognised as being important water catchment areas. The selected forests (Figure 1) include the Upper Imenti forest and the Gathiuru forest in Mt. Kenya

and the Aberdare Ranges forest all located in central Kenya; the Kimothon forest in Mt. Elgon and Kakamega rainforest located in western Kenya; the Arabuko Sokoke forest and the Vanga forest at the Kenyan coast; the West Mau forest and the Tugen Hills forest in the Rift Valley; and the Ramogi forest and the Thimlich Ohinga forest in the Lake Region.

Data collected was analysed, and descriptive statistics used to describe various groups/associations in the Kenyan forests, and to establish whether communities have the ability to effectively organise towards forest management by determining their capacity and roles in the decentralisation process in Kenya. We also considered the level of access to decision-making and rights to earn incomes from forest products, in the order to understand whether the decentralisation process has resulted in equitable distribution of resources and access to decision-making.

## RESULTS

### PFM pilot associations in selected forests

The Government of Kenya, through KFS and other stakeholders, set up pilot sites in selected forests across Kenya to determine the viability of decentralising forest governance to local communities. Two of these pilot sites were included



**Figure 1**  
*IFRI sites in Kenya*

in the study. The first pilot site is located in Mt. Kenya and is known as the Upper Imenti forest. The forest association found here is the Meru Forest Environmental Conservation and Protection (MEFECAP); it started in 1998 when communities initiated PFM activities in response to forest degradation. Several groups got together with the aim of regulating the use, management, rehabilitation, protection, conservation, and maintenance of the forest. Some of the groups included forest protection groups, fuel wood collectors, grazing groups, electric fence groups, and self-help groups raising tree nurseries. The KFS (forest department at the time) decided to work with these groups in piloting PFM in the forest. These groups later united to form one umbrella body (known as the MEFECAP) and were registered under the Societies' Act by the Attorney General as expected by the new Forests Act of 2005. The association has more than 10,000 members from different affiliate groups involved in the management of the forest. The association has representation of other stakeholders in its steering committee such as the KFS, the KWS, the Ministry of Agriculture, the Provincial Administration and the Municipal Council. The steering committee spearheads implementation, monitoring, and evaluation of the organisation, and acts in an advisory capacity.

The second pilot site is the Arabuko Sokoke forest which is located at the Kenyan coast. The organisation found here is the Arabuko Sokoke Forest Adjacent Dwellers Association (ASFADA) which started as a lobbying group in 1997/1998 when local politicians wanted to degazette part of the forest for resettlement. A few local organisations and individuals lobbied for signatures around the Arabuko Sokoke forest and presented a Memorandum of Understanding to the minister in charge of forests at the time that stopped the degazettement. The ASFADA then transformed from a lobbying group, into a forest management and rural development organisation for communities adjacent to the forest. The ASFADA brings together 52 villages with a population of over 104,000 people and over 300 different user groups around the forest. The ASFADA later reorganised its structure to be in line with requirements of the Forests Act of 2005, and has been working closely with the local administration and government organisations. It has attained a wealth of experience in forest management by working jointly with the Kenya Forestry Research Institute, the KWS and the National Museums of Kenya, in programs such as biodiversity conservation, elephant fencing, ecotourism, supported by various government departments and donors.

As a result of the exposure to PFM and its principles of involving various stakeholders in decision-making, the community members in these pilot forests have a comparative advantage in terms of enhanced capacity in leadership, management, and decision-making. They have acquired knowledge from training and workshops, and have been exposed to other experiences in the process of implementing projects. The communities also have improved resource mobilisation skills, networks, and diversified livelihood options such as butterfly farming, ecotourism, and sale of NTFPs. They

have a greater awareness of policy issues affecting them and are able to effectively engage in policy dialogue.

Thus the original formation of groups was against the backdrop of forest conservation, but the conglomeration of groups as a result of the new Forests Act of 2005 brought in several internal issues related to power relations and group management. Groups were generally reluctant to join the umbrella bodies due to the loss of autonomy and power. The result was the formation of splinter groups with leaders from the original association. This was evidenced in several forests including the Upper Imenti, the Kakamega and the Arabuko Sokoke forests.

### Association structure in pilot and non-pilot sites

About (22 per cent) of the forest associations were formally registered in 1999, and about 17 per cent were registered in 2000/2002 (Table 2). The formation of these associations was, at the time, in anticipation of the new Forests Act of 2005 which specified the need for communities to join registered groups that would work with the KFS and other stakeholders in managing all or portions of forests accorded to them. The majority (82 per cent) were formed either by individual initiative or by a user group, indicating that these associations are self-driven and that the members of the communities realise the need to form associations with the aim of benefitting from sustainable management of the forest. A few (12 per cent) were formed by governmental programmes to address specific problems in the area, while another 6 per cent were formed by a local non-governmental programme.

The pilot associations were in either secondary<sup>1</sup> or tertiary stages and were compliant with the Forests Act of 2005 requirements. This could be attributed to their exposure to information on PFM. Most of the associations in non-pilot sites were still in the primary stage, had low membership, and their coverage and area of jurisdiction was limited and localised, except for the case of the KACOFA (Kakamega Community Forest Association) in the Kakamega forest whose members had previous exposure to PFM as a result of various activities in the forest supported by external donors and non-governmental organisations. Members of the KACOFA were also members of other older local organisations such as the Kakamega Environmental Education Programme (KEEP) and the Isukha Heritage.

### Association rules

Most of the members in all the forest associations (83 per cent) clearly understood the rules of the association (Appendix 1). In about 17 per cent of the associations, half of the members said they understood the rules of the associations. From the researchers' estimation of the associations' rules, 72 per cent of these rules were easily understood by the members. Rules in 22 per cent of the associations were relatively complex, but could be understood through learning and experience, with only 6 per cent having very complex and difficult to understand rules.

**Table 2**  
*Existing forest associations/groups*

Forest Name	Forest group/association	Pilot?	Year formed	Type of association*	Initiator of association
Gathiuru (Mt. Kenya)	Burguret river water user association	No	1999	Secondary	Individual
West Mau, Kedowa	Country vision	No	1999	Primary	Individual
Aberdares Ranges	Geta Region Environmental Conservation Group	No	2002	Primary	User group
Thimlich Ohinga	Got Olasi Youth Tree-farming Nursery project	No	1994	Primary	User group
Ramogi Sacred Grove	Got Ramogi Alternative Health	No	1999	Primary	Local non-governmental organisation
	Ramogi Ecocultural and Education Centre	No	2002	Primary	Governmental program
Kakamega rainforest	Isukha Heritage	No	1995	Primary	Individual
	Kakamega Community Forest Association (KACOFA)	No	2005	Tertiary	User group
	Kakamega Environmental Education Programme (KEEP)	Yes	1995	Secondary	Individual
Kimothon (Mt. Elgon)	Kimothon Non-residential Cultivators	No	2000	Primary	Governmental program
Upper Imenti (Mt. Kenya)	MEFECAP	Yes	1998	Secondary	User group
	Michaka/Kiringo Forest Conservation Project	No	2000	Primary	User group
	Ribui Kirachene Forest Operation Protection Group	No	1998	Primary	User group
Tugen Hills Forest	Sochkei Self-help Group	No	2002	Primary	User group
Vanga Mangrove Forest	Vanga community user group	No	2000	Primary	Individual
Arabuko Sokoke	Arabuko Sokoke Forest Adjacent Dwellers Association (ASFADA)	Yes	1999	Tertiary	User group

\*A primary forest association refers to a user group that prescribes rules, policies, or guidelines for themselves. A secondary forest association is defined as two or more forest associations that work together to accomplish joint activities with rules, policies, or guidelines, some of which have been prescribed by the secondary association. A tertiary forest association is a parent organisation made up of two or more secondary associations that work together to accomplish joint activities with rules, policies, or guidelines, some of which have been prescribed by the tertiary association.

Members also gave their views about the nature of rules of the association; almost all the members of the association perceived the association rules as clear and easy to understand (94 per cent), flexible to members' needs and situations (100 per cent), fair in development and enforcement (100 per cent), and legitimate in that they were developed and respected by all members (100 per cent). Since almost all the members perceive the association rules as fair, flexible, and legitimate, the likelihood of conformance is high.

### **Roles and capacity of CFAs in forest management**

The majority of the associations, whether in pilot or non-pilot sites, were involved in the harvesting of forest products and in forest monitoring and maintenance (Table 3). All 16 associations, both pilot and non-pilot, demonstrate a level of experience in forest management as they crafted the rules related to forest management.

#### **Regarding rehabilitation/enrichment of forests**

Seventy two per cent had been involved in planting of seeds and seedlings, while 56 per cent were involved in other maintenance activities such as pruning and forest floor clearing. Most of them (61 per cent) were also involved in regulating harvesting of forest products. Few were involved in decision-making on harvesting rights such as regulating timing of harvesting and type of technology to be used or in the distribution, sale,

and collection of revenue from forest products. The forest department held these rights. The few that were involved were either pilot sites or the strong associations such as the KACOFA and the KEEP in the Kakamega forest. About 82 per cent of the associations were involved in monitoring the forest condition, 65 per cent in compliance with rules. A few were involved in sanctioning rule breakers due to limited capacity and support from the KFS, while 62 per cent were involved in arbitration of disputes.

About 69 per cent of the associations have experience in networking through interaction with higher authorities. Some had linkages with non-governmental and government institutions in terms of access to funds, information, and capacity building. These findings indicate that while communities had the ability to organise towards forest management, they did not have decision-making rights or rights to earn incomes from forest products, but had the responsibility for monitoring and sanctioning. They had some user rights but limited ability to exclude unauthorised users or regulate timing of harvesting and quantity of products harvested. They could not generate revenue from forest products; these rights were vested in the KFS (earlier the forest department). These results indicate that as much as the communities are involved in forests management, the KFS are still reluctant to relinquish some control, and consequently the communities are relegated to less powerful positions which also demand the highest input in management. This has resulted in disillusionment among many forest associations.

### Leadership in the associations

Results indicated that a majority of the groups (94 per cent) held regular elections at least every 3 to 5 years, while a smaller percent (6 per cent) held meetings irregularly. The studies in the sites also indicated that officials in most of these associations met regularly for group functions—11 per cent met once a week, 50 per cent met once or twice a month, 28 per cent met once every 3 months, and 11 per cent met once a year.

The associations are also aware about gender representation in groups. All the associations had a female member among the officials at one point—17 per cent had a female leader but only currently, 39 per cent in the previous 5 years, and 44 per cent both currently and in the past 5 years. Although the figures on gender look encouraging, many women leaders did not feel they had access to decision-making and were mostly relegated to less powerful/visible positions or those that demanded a lot of work with minimum benefits. For instance, women in all the CFAs held positions of Treasurer and Secretary; these are positions that require constant work in collecting and accounting for funds, the organisation of group activities, and taking minutes in all meetings. However, men mostly held the positions of Chairperson or Vice-Chairperson—positions which had a lot of visibility and power in decision-making. Only one group of all the sampled groups had a female as the Chairperson.

### Regarding office tenure

All the associations held elections for officials with a majority, 94 per cent electing their officials within a fixed period, and about 6 per cent of the groups had variable elections subject to vote. This again shows that the leaders of the associations were elected democratically.

Results also showed that in 76 per cent of the associations, users could remove the officials if dissatisfied with their performance, while in 24 per cent of the associations, users could not remove the officials. Further results indicated that in 41 per cent of the associations, officials could not be removed by an external or higher authority, with 59 per cent being removed but only with complaints and substantiated evidence from harvesters. This highlights one of the challenges faced by associations that have no control over the performance of their leaders.

### Regarding education level of officials

Results indicated that the majority of the officials (65 per cent) in these organisations had an average education level<sup>2</sup>; 24 per cent had high level of education. Very few had very high (6 per cent) or very low level (6 per cent) of education. The level of education is important because these leaders are expected to attend high-level meetings which are often conducted in English and requires basic literacy. They are expected to present issues affecting their communities and bring back the results to the villages. The CFAs are also expected to craft forest management plans to be approved by the KFS, which also requires leadership with higher levels of literacy.

Further results indicate that positions among officials were mainly held by forest users. 82 per cent of the associations always had a forest user among the officials; 12 per cent sometimes had officials who were also forest users, and only 6 per cent did not have a forest user among their officials. These results indicate that the leaders of the associations identify with issues affecting the forest adjacent communities as they are also users and are better placed to make decisions regarding the forest.

**Table 3**  
*Activities carried out by associations in the past year*

Activity category	Activity	% of associations involved	% of associations not involved
<b>Rehabilitation/ Enrichment</b>	Plant seeds/seedlings	72	28
	Other maintenance	56	44
<b>Harvesting</b>	Harvest forest products (firewood, fodder, herbs, grass, butterflies, honey, etc.)	61	39
	Distribute forest products	22	78
	Sell forest products	28	72
	Distribute revenue from sale of forest products	17	83
	Determine timing of harvest of forest products	12	89
	Determine quantity of forest products harvested	17	83
	Determine type of technology used to harvest forest products	30	70
	Determine who is authorised to harvest forest products	36	64
	Determine type of use that can be made of forest products	65	35
	Sell rights to harvest forest products that users can trade with others	8	82
	Rent non-transferable rights to harvest forest products	12	88
<b>Monitoring</b>	Monitor forest condition	82	18
	Monitor conformance of rules	65	35
	Sanction rule breakers	53	47
<b>Conflict resolution</b>	Arbitrate disputes among local users	62	38
<b>Networking</b>	Interact with higher authorities	81	19

## Conflicts and resolution

The majority of the CFAs (71 per cent) experienced conflict within their organisations, with only 29 per cent claiming that there was no conflict within their organisations. The main conflicts experienced were misappropriation of funds, competition for meagre resources, leadership wrangles, conflicting interests, and lack of commitment by members or leaders. Most of these conflicts were occasioned by the fact that the officials were unwilling to vacate the positions upon completion of their terms or when not re-elected; these were also the people who misappropriated group funds. The lack of commitment by members was mainly due to the lack of or little benefits accruing to them leading to disillusionment.

However, according to the results all the associations had mechanisms for resolving conflicts. These included resolution through face to face meetings (65 per cent) and internal committees (24 per cent) set to handle such issues. Only 11 per cent resolved their conflicts through arbitration by external bodies.

## Finances and sourcing

Most groups were not dependent on external agencies for funding. Only a few groups got support from other agencies and these were sporadic and could not be relied on. The majority of the groups/ associations got their funding (Table 4) from memberships subscriptions (56 per cent) and from voluntary contributions (39 per cent). Some groups/ associations got their funds from the sale of seeds and seedlings (6 per cent). Their single most important source of finances was membership fees (47 per cent), followed by voluntary contributions of funds and funds from development agencies both of which together accounted for 18 per cent. Even in the past 5 years, voluntary contributions of funds and membership fees also scored highly as the most important source of finances for the associations. Associations/groups are highly dependent on the goodwill of members; members in turn are committed to supporting their associations. This model of association financing may not be viable over the longer term as it appears that membership fees are declining over time. However financing from the sale of forest products appears to be on the rise, but can only be viable over the longer term if concrete ways of increasing and sustaining incomes are implemented.

About 21 per cent of the associations could not meet their expenses, while 14 per cent could support themselves by sales from forest products. These products were mainly seeds and

seedlings that they collected or raised themselves, or products such as honey and butterflies harvested from the forests. There were no direct sales of wood/timber products from the forests, since for most associations the economic benefits directly derived from timber and allied products are yet to be effected. This is because Kenya has a Presidential decree (1986) that banned the harvesting of timber on all government forests, and until the ban is lifted neither the communities nor the other stakeholders (including the KFS) can benefit from timber sales.

A majority of the groups (43 per cent) spent their income on office maintenance, while 7 per cent spent it on salaries of hired personnel. About 28 per cent of the associations spent most of their income on maintaining and improving their forest resources.

## Other roles

All associations showed high capability of keeping and maintaining records of various items, which is important in management. All associations also had linkages with higher authorities and perceived themselves as cooperating in terms of relating to other forest governing structures. While 44 per cent perceived themselves as cooperating independent of other organisations' rules and regulations, 56 per cent perceived themselves as cooperating jointly with other organisations in determining rules and regulations.

## Challenges in implementing PFM

Challenges facing the associations in the pilot and non-pilot sites were similar. Both pilot and non-pilot sites faced numerous challenges related to organisational complexity and conflicts of interest during implementation. However, the exact nature of the challenges differed. For instance, pilot sites were concerned with the distribution of responsibilities and benefits, identification of group members, as well as with group heterogeneity. This was attributed to the increased awareness of the potential and existing benefits of the PFM practise. Non-pilot sites were concerned about the lack of clarity in the structure of PFM, power wrangles, and the identification of group membership (Table 5). Associations from both pilot and non-pilot sites had problems of equitable distribution of power and resources within the new law and inadequate technical capacity. As discussed earlier, leadership positions were more often than not left to men, and women were involved only because it was a requirement. Despite the high level of awareness, effective management of the forests

**Table 4**  
*Finances: Percentage of the associations' major sources of income*

	Voluntary contribution of funds	Membership fees	Development agency	Sale of forest products	Aid from external agencies	Other
Source of funds	39	56				6
Single most important source of funds	18	47	18	12		6
Single most important source of funds for the past 5 years	17	58		8	8	8

**Table 5**  
**Challenges in implementing PFM in various sites in Kenya**

Challenges in implementing PFM	Examples in practise	
	Pilot sites	Non pilot sites
Organisation complexity	Complexity of implementation in different forests types (natural, plantations), i.e., who does what, when, how, where leading to wrangles over power and resources. Fair responsibility and benefit sharing challenges, i.e., women, poor, and other marginalised groups often excluded. Unclear criteria for group membership. External interference. Group heterogeneity and mistrust among members.	Lack of defined structure and hierarchy at local, regional, and national levels leading to elite capture and power wrangles. Unclear criteria for group membership. External interference. Inter and intra organisational power wrangles due to elite capture.
Conflicts of interest	Elite capture and self serving leadership. Conservation versus exploitation. Existing capacity versus necessary capacity.	Communal rights versus individual interests. Conservation versus exploitation. Prevailing attitude versus required attitude: Lack of clarity on what is expected Policy makers and professional perception versus community understanding of the groups objectives
Group historical problems		Over reliance on external help. Inadequate funding. Misappropriation of funds.
Capacity	Lack of commitment especially in the long term.	Mediocre.

requires a basic level of technical skills, which is still lacking among local communities (even those in the pilot sites). For instance, these communities are expected to develop forest management plans to be approved by the KFS, even though none of their members has the technical skills required; such skills are often obtained at a higher level of education than most of the members have. There is also an overwhelming interest in group formation by a large population which has increased conflicts within and between groups, as individuals and groups struggle to be recognised as legitimate claimants under the Forests Act of 2005, leading even to the splintering of groups.

### DISCUSSION

This paper had the objective of highlighting the structure and function of CFAs under Kenya's decentralisation reforms. Data were however collected prior to the enactment of the new Forests Act of 2005, but using pilot and non-pilot PFM sites in the country. The structure and functions of PFM groups/associations is similar to that of CFAs formed under the new Forests Act of 2005. Indeed pilot sites were implemented because the Government of Kenya was keen to learn lessons as it prepared for full scale decentralisation to communities. Thus the lessons from the study of the governance structures, functions, and incentives under PFM are useful in informing the implementation of CFAs, which is currently underway. In the past 5 years, more than 100 CFAs have been formed; however most of these are still not fully operational. The KFS has not released forest management guidelines to all

actors and many forest adjacent communities have yet to understand the implications of Forests Act of 2005, due to the lack of public awareness and limited community consultation. Local management by-laws are yet to be developed and forest management agreements between the KFS and the CFAs are yet to be signed.

Most groups are still in the primary stages of formation, but some are already facing challenges such as internal conflicts and the threat of disintegration due to the heterogeneity of interests and objectives among association members. This is exacerbated by the lack of clear mechanisms for benefit sharing and the slow rate of embracing PFM by the KFS officers.

The results presented here show that communities involved in PFM have some fundamental organisational capabilities critical for successful forest management, even under a fully decentralised setting (Ostrom 1990). They have crafted rules for harvesting and maintenance, and they monitor both forest condition and rule compliance. Moreover, the rules are broadly acknowledged as easily understandable and fair, hence increasing their legitimacy and the likelihood of compliance. In addition, associations have devised mechanisms for electing their leaders and have been relatively self-sufficient in resolving their conflicts. They are also not dependent on external financing, seeking instead to raise funds through membership subscriptions and voluntary contributions. Importantly, most associations emerged endogenously in anticipation of opportunities and benefits that the new Forests Act of 2005 would bring. The associations have pioneered community livelihood projects—like butterfly farming, beekeeping, farm forestry initiatives, environmental awareness

programmes, and eco-tourism facilities—which have improved the livelihood of the grassroots communities.

The story of PFM associations however is not one of unmitigated success as the groups face numerous challenges that need to be taken into account as they enter into contractual agreements with the KFS, a requirement under the Forests Act of 2005. Under the PFM, groups are saddled with costly responsibilities in forest management and have few rights to exclude non-claimants or even to transfer rights, however temporarily, like in issuing timber harvesting permits. The range of benefits is thus narrowed down largely to subsistence use, with little option for high value commercial activities. This incentive incompatibility has been demonstrated in other closely related settings to result in a decline in forest condition (Banana et al. 2007) and in the failure of decentralisation programmes to improve the welfare of forest adjacent communities (Jagger 2008).

So far, there exist no clear guidelines on how communities will share the tangible benefits such as the revenue accrued from the forests that the government and other stakeholders currently benefit from. Consequently the terms of contractual agreements must seek to explicitly realise the intent of the Forests Act of 2005. Clarity in the distribution of benefits is necessary in order to avoid power struggles and the possibility of group disintegration. In Uganda and Ethiopia, negotiation facilitation and support by trusted external actors served to level the playing field between differential interests, and to increase the bargaining power of marginalised groups such as women and ethnic minorities; the outcome was a more equitable distribution of benefits (German et al. 2008). In the case of Tanzania, the PFM process succeeded since the community, through the Village Land Act of 1999, enables the forest land within a village to become the property of the village assembly who are also empowered by the Forests Act of 2005 to manage it (Babili and Weirsome 2010). This provides the necessary incentives to the community to sustainably manage their forests. The lesson for Kenya is that there is need for a legislation that clearly defines forest ownership, the authority of the relevant stakeholders in management, and enables communities to have a legal mandate to manage forests within their jurisdiction without having to follow through tedious and bureaucratic processes to be awarded these rights.

That association leaders would refuse to step down from their positions even when voted out by a majority of members or pressed to do so by higher authorities is not a new phenomenon (Mwangi, 2010), yet it substantially endangers group integrity. This problem is closely related to benefits capture within the group. Often, leaders who resist vacating their positions are those that have been accused of misappropriating funds and are thus interested in prolonging their capture of rents. Elite capture of benefits presents a real and enduring dilemma during processes of institutional change (Bardhan 1997; Platteau 2004; Barrett et al. 2007). In Indonesia, a combination of strategies was used to prevent elite capture during forest resource decentralisation (Komarudin et al. 2008). Protests as well as negotiation support (which both lowered the

transactions costs of collective action and built trust among incongruent interests) by a trusted third party proved effective in re-directing influential forest concessionaires towards considering the social impacts of their activities and engaging in remedial measures.

Governance arrangements, especially conflict resolution mechanisms as currently constituted, appear unable to respond adequately to new pressures on groups exerted by the promise of additional rents and benefits during the implementation of the new Forests Act of 2005. Existing conflict resolution mechanisms have been effective in resolving distribution problems geared largely towards subsistence use. As demonstrated in the introduction, failure in distribution of benefits and resources can threaten group viability. If individuals fail to receive benefits in a transparent and equitable fashion there is the possibility that individual group members can choose to exit from the group. For the most part, community members view agricultural production as the more profitable land use.

Although currently very few benefits are accruing to the communities, it is still too early to judge whether the policy is successful or not since most of the work is in the operationalisation stages. In the sites where piloting was taking place (such as the Arabuko Sokoke forest), PFM had been driven largely by externally funded and facilitated projects. Along with funding, come the risks of an artificial environment made up of external advisers, parallel structures, high levels of expectations, and complex field processes that are beyond the reach of local institutions. The challenge ahead is how to 'strip down' these costly processes to low cost models that can be replicated across the country and under the wide range of conditions.

Five years into the enactment of the Forests Act of 2005, the KFS is yet to be fully operational and is still grappling with restructuring issues. This has also affected the operationalisation of PFM at the grassroots level, since most of the KFS staff has not been incorporated into the new system. Apart from the enactment of the Forests Act of 2005, several issues have to be addressed, including the lifting of the Presidential ban on timber harvesting to pave way for communities to enjoy tangible benefits. This still raises a few questions on whether the slow policy implementation is a result of policy failure, government failure to implement, or community failure to fully embrace PFM and develop management plans. Among the early signs of implementation failure in the PFM are the lack of a coordinated effort to create awareness and training on issues related to decentralisation and development of management plans as was done in Tanzania.

## CONCLUSION

In sum, though our paper is an early reporting of ongoing analysis, it is instructive. It demonstrates that though communities are sufficiently organised to run group affairs and have had relative autonomy in designing and implementing their governance arrangements, their current structures are

limited. They require capacity building to be able to respond to new pressures and rent-seeking opportunities that a changing legal regime fosters. External support to strengthen within-group arrangements for benefit distribution and conflict resolution are necessary. Communities also need to comply with association constitutions especially with regard to group leadership and elections to avoid power wrangles and elite capture. External actors, both government and non-governmental, must play this critical role. These stakeholders led by the KFS must provide negotiation support and capacity building in order to improve the communities' understanding of the law.

In terms of further research, the specific content of the different rules, their enforcement, and incentives among CFA members can be better established in greater detail. In particular, contractual agreements between the communities and the KFS, their nature and duration, their accountability structures and processes, their enforcement, and an assessment of the capability of each party to deliver reasonably on their contractual obligations is an aspect that requires better understanding. Furthermore, the gender implications of this transition towards community contracting for forest resource management are also poorly understood, though experiences from other settings are not optimistic. There is thus a need for more studies to shed light on opportunities for increasing gender equity among members of the CFAs.

Overall, experiences of pilot and non-pilot communities under PFM programs in Kenya offer valuable lessons. They demonstrate that communities can capably organise for forest management, but that such organisation can be constrained by elite capture and a rising heterogeneity of interests among actors, challenges that are likely to increase as the decentralisation program is rolled out. External (unbiased) actors can play a critical role in strengthening conflict resolution and improving negotiation among these heterogeneous interests.

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### Notes

1. Primary forest association: one or more user groups with rules, policies, and/or guidelines about the forest, some of which users have prescribed for themselves. Secondary forest association: two or more forest associations that work together to accomplish joint activities and/or objectives with rules, policies, and/or guidelines some of which have

been prescribed by the secondary forest association. Tertiary forest association (or parent organisation): two or more secondary forest associations that work together to accomplish some joint activities and/or objectives with rules, policies, and/or guidelines, some of which have been prescribed by the tertiary forest association.

2. The level of education was determined based on the number of years a person has spent in formal education and is specific to the Kenyan context. For purposes of this study, low level of education refers to 0-4 years; average 5-8 years; high 9-12 years, and very high 13 years and above. In Kenya, the duration of primary education is 8 years, secondary education 12 years, and university/college and other tertiary institutions is around 13 to 16 years depending on the course.

### APPENDIX 1

#### *Example of grazing rules in the Meru Forest Environmental Conservation and Protection (MEFECAP)*

1. All grazers must be registered with a user group and pay membership dues.
2. Grazers may not graze on young plantations.
3. Grazers will participate in forest management activities such as fire break clearing, pruning, tending to young seedlings in the forest, etc.
4. Grazers will pay 10 KES per sheep and 40 KES per cow.
5. Goats are not allowed into the forest.
6. A fine equivalent to 1 ram will be charged to offenders.

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